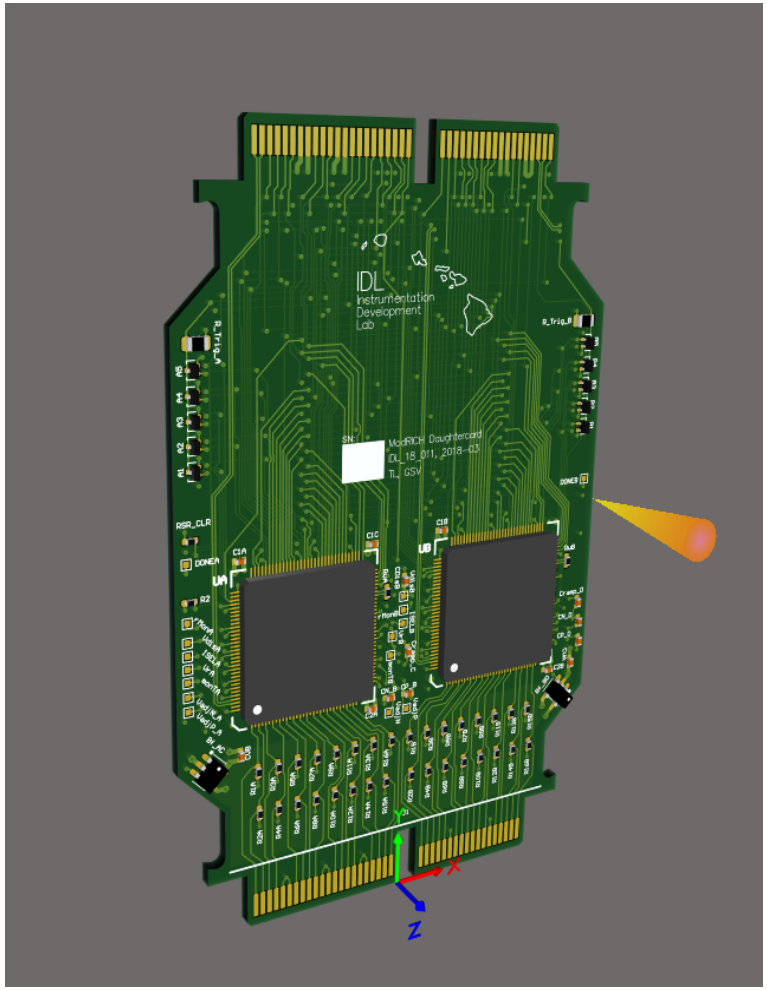
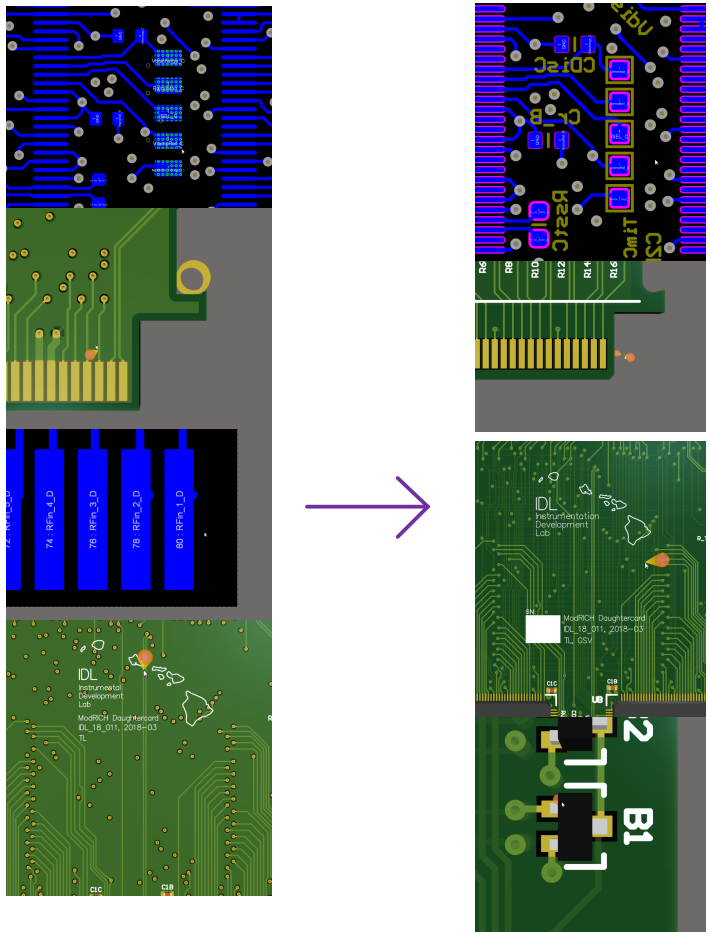


Instrumentation Development Lab IDL_18_011 - mRich Daughter Card V2

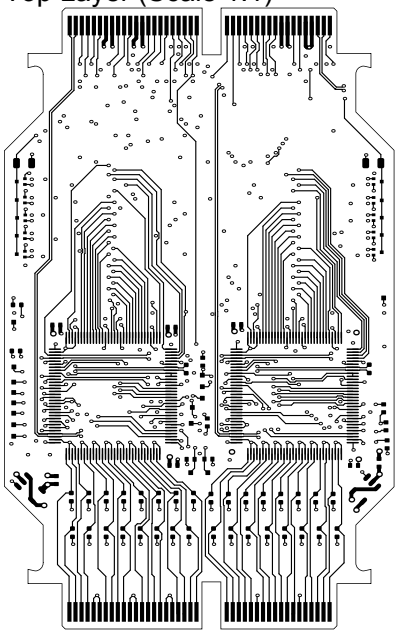
Designer : Tommy Lum,
Gary Varner
Adviser : Gary Varner

Change Log

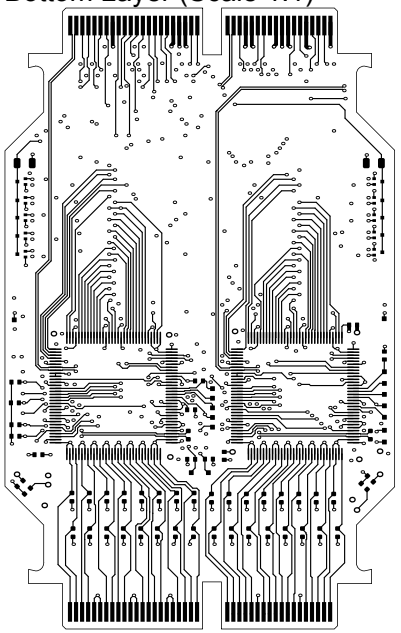
5/10/2018 - Change Done by : JDC, CK
1. Added aditional note/gerber specifying the chamfer location.
2. Removed the pastmask layer fromt the connectors and the test points.
3. Corrected the Boarder outline to the match the datasheet of the 3M connector.
4. Corrected some trace width to match the other size.
5. Corrected the SOT23 package footprint.
6. Corrected the output pdf and gerber file.
7. Changed the size of the test pads to a smaller footprint. (30mil - > 20mil)
8. Clean traced entry to pads
9. Added a Serial Number slikscreen to the top of the boards.
10. Changed the Ref Designators locations to be better seen.
11. Added additional note to the gerber drill drawing (#19, 20, & Figure 1)



Top Layer (Scale 1:1)



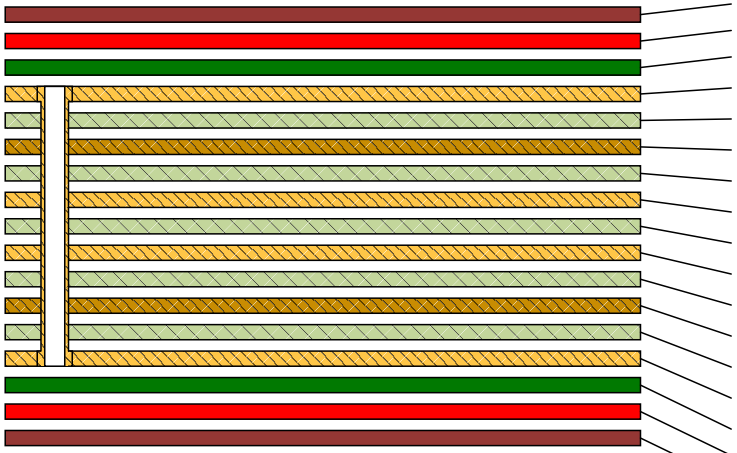
Bottom Layer (Scale 1:1)



Drill Table

Symbol	Count	Hole Size	Plated	Hole Tolerance
□	525	0.20mm	Plated	None
○	15	0.41mm	Plated	None
	540 Total			

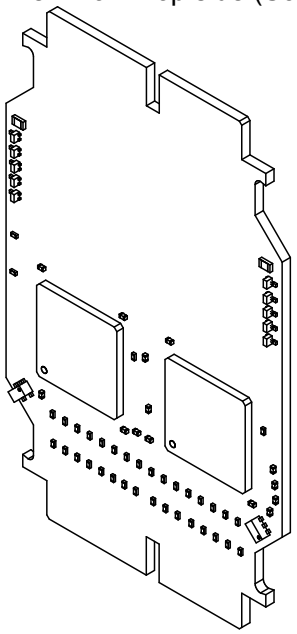
Layer Stack Legend



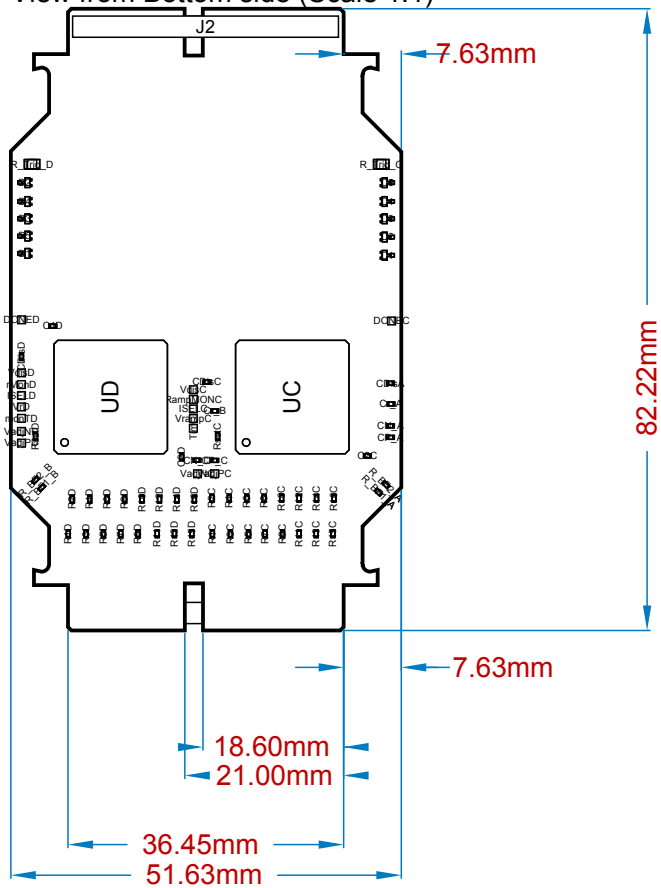
Material	Layer	Thickness	Dielectric Material	Type	Gerber
	Top Paste			Paste Mask	GTP
	Top Overlay			Legend	GTO
Surface Material	Top Solder	0.01mm	Solder Resist	Solder Mask	GTS
Copper	Top Layer	0.04mm		Signal	GTL
		0.15mm	*FR-4*	*Dielectric*	
Copper	GND	0.04mm		Internal Plane	GP1
		0.30mm	*FR-4*	*Dielectric*	
Copper	AUX Route Vert	0.04mm		Signal	G1
		0.41mm	*FR-4*	*Dielectric*	
Copper	AUX Route Horz	0.04mm		Signal	G2
		0.30mm	*FR-4*	*Dielectric*	
Copper	2.5V	0.04mm		Internal Plane	GP2
		0.15mm	*FR-4*	*Dielectric*	
Copper	Bottom Layer	0.04mm		Signal	GBL
Surface Material	Bottom Solder	0.01mm	Solder Resist	Solder Mask	GBS
	Bottom Overlay			Legend	GBO
	Bottom Paste			Paste Mask	GBP

Total thickness: 1.55mm

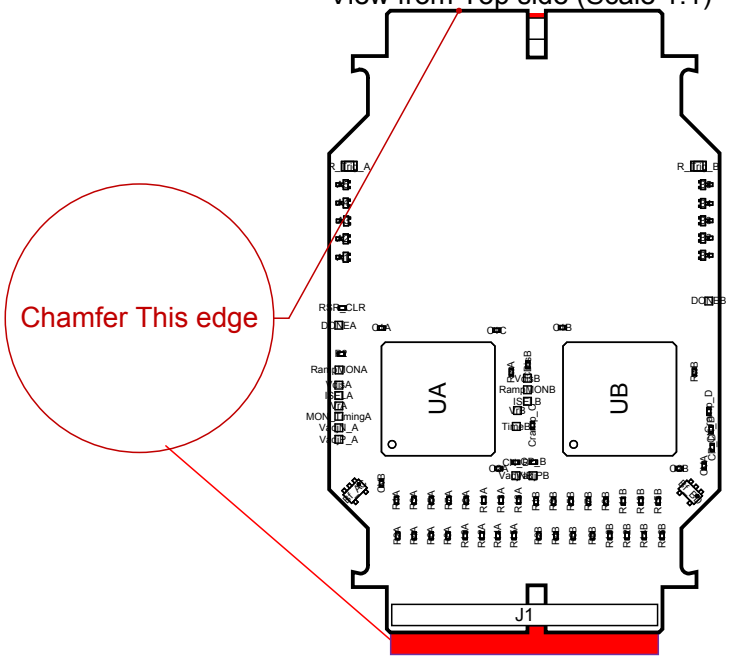
View from Top side (Scale 1:1)



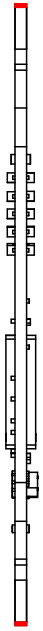
View from Bottom side (Scale 1:1)

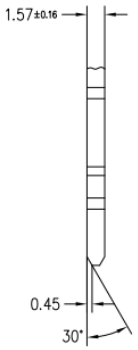


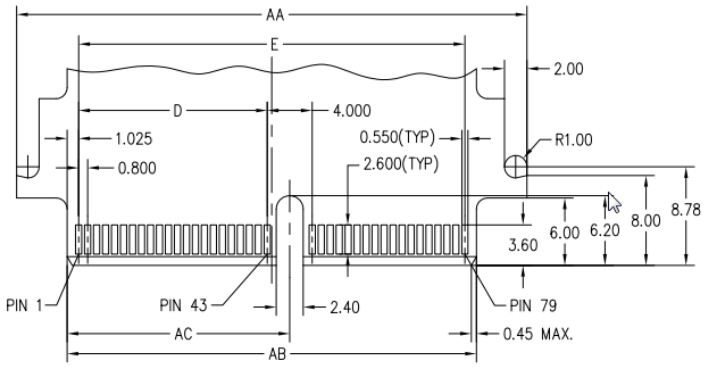
View from Top side (Scale 1:1)



View from Left side (Scale 1:1)







RECOMMENDED MATING CARD LAYOUT

POSITIONS	DIMENSIONS									
	A	B	C	D	E	F	G	AA	AB	AC
80	51.05	36.60	19.90	16.800	34.400	37.40	42.10	45.45	36.45	19.825

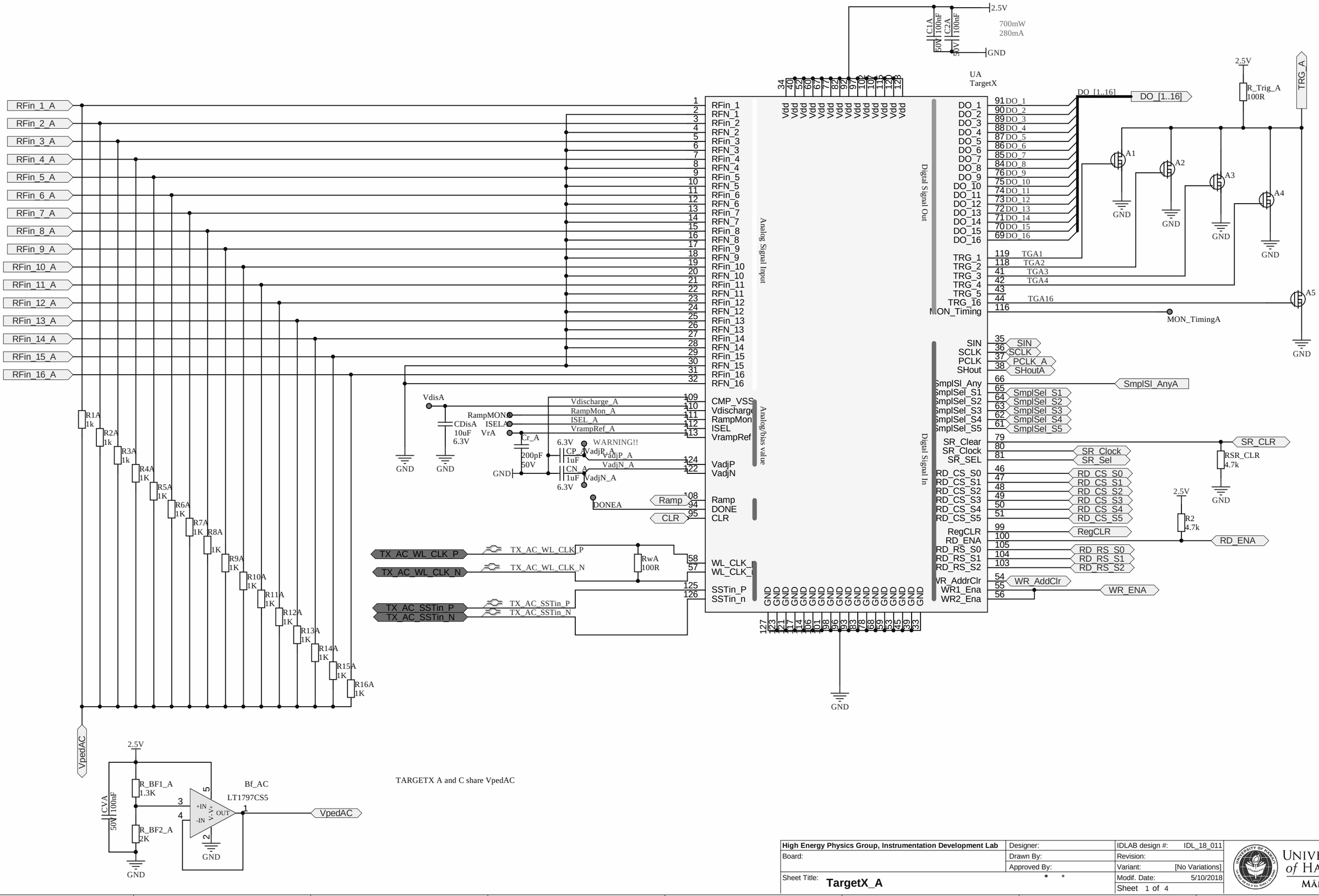
SPD08 HIGH SPEED CARD EDGE CONNECTOR, 0.8MM PITCH SMT

DRAWING NO. 78-5100-2420-7 REV. B

SHT 4 OF 4

Bill Of Materials

Line #	Designator	Comment	Quantity
1	A1, A2, A3, A4, A5, B1, B2, B3, B4, B5, C1, C2, C3, C4, C5, D1, D2, D3, D4, D5	MOSFET	20
2	Bf_AC, Bf_BD	LT1797CS5	2
3	C1A, C1B, C1C, C1D, C2A, C2B, C2C, C2D, CVA, CVB	100nF	10
4	CDisA, CDisB, CDisC, CDisD	10uF	4
5	CN_A, CN_B, CN_C, CN_D, CP_A, CP_B, CP_C, CP_D	1uF	8
6	Cr_A, Cr_B, Cramp_C, Cramp_D	200pF	4
7	J1, J2	SPD08 Card Edge Connector Mating Card Layout	2
8	R_BF1_A, R_BF1_B	1.3K	2
9	R_BF2_A, R_BF2_B	2K	2
10	R_Trig_A, R_Trig_B, R_Trig_C, R_Trig_D	100R	4
11	R1A, R1B, R1C, R1D, R2A, R2B, R2C, R2D, R3A, R3B, R3C, R3D	1k	12
12	R2, RSR_CLR	4.7k	2
13	R4A, R4B, R4C, R4D, R5A, R5B, R5C, R5D, R6A, R6B, R6C, R6D, R7A, R7B, R7C, R7D, R8A, R8B, R8C, R8D, R9A, R9B, R9C, R9D, R10A, R10B, R10C, R10D, R11A, R11B, R11C, R11D, R12A, R12B, R12C, R12D, R13A, R13B, R13C, R13D, R14A, R14B, R14C, R14D, R15A, R15B, R15C, R15D, R16A, R16B, R16C, R16D	1K	52
14	RsstC, RsstD, RwA, RwB	100R	4
15	UA, UB, UC, UD	TargetX	4



High Energy Physics Group, Instrumentation Development Lab	Designer:	IDLAB design #:	IDL_18_011
Board:	Drawn By:	Revision:	
	Approved By:	Variant:	[No Variations]
Sheet Title: **TargetX_A**	* *	Modif. Date:	5/10/2018
		Sheet 1 of 4	

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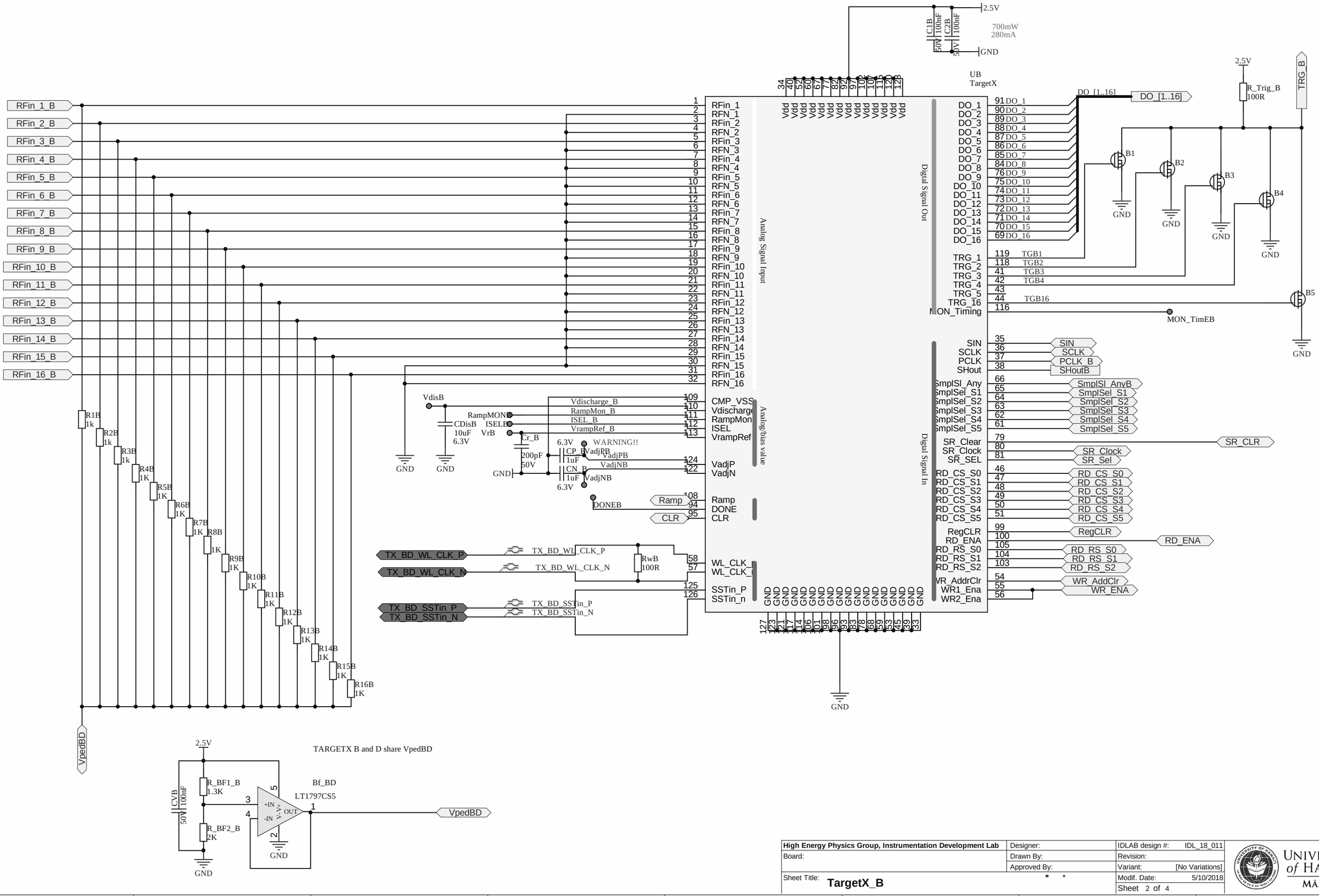

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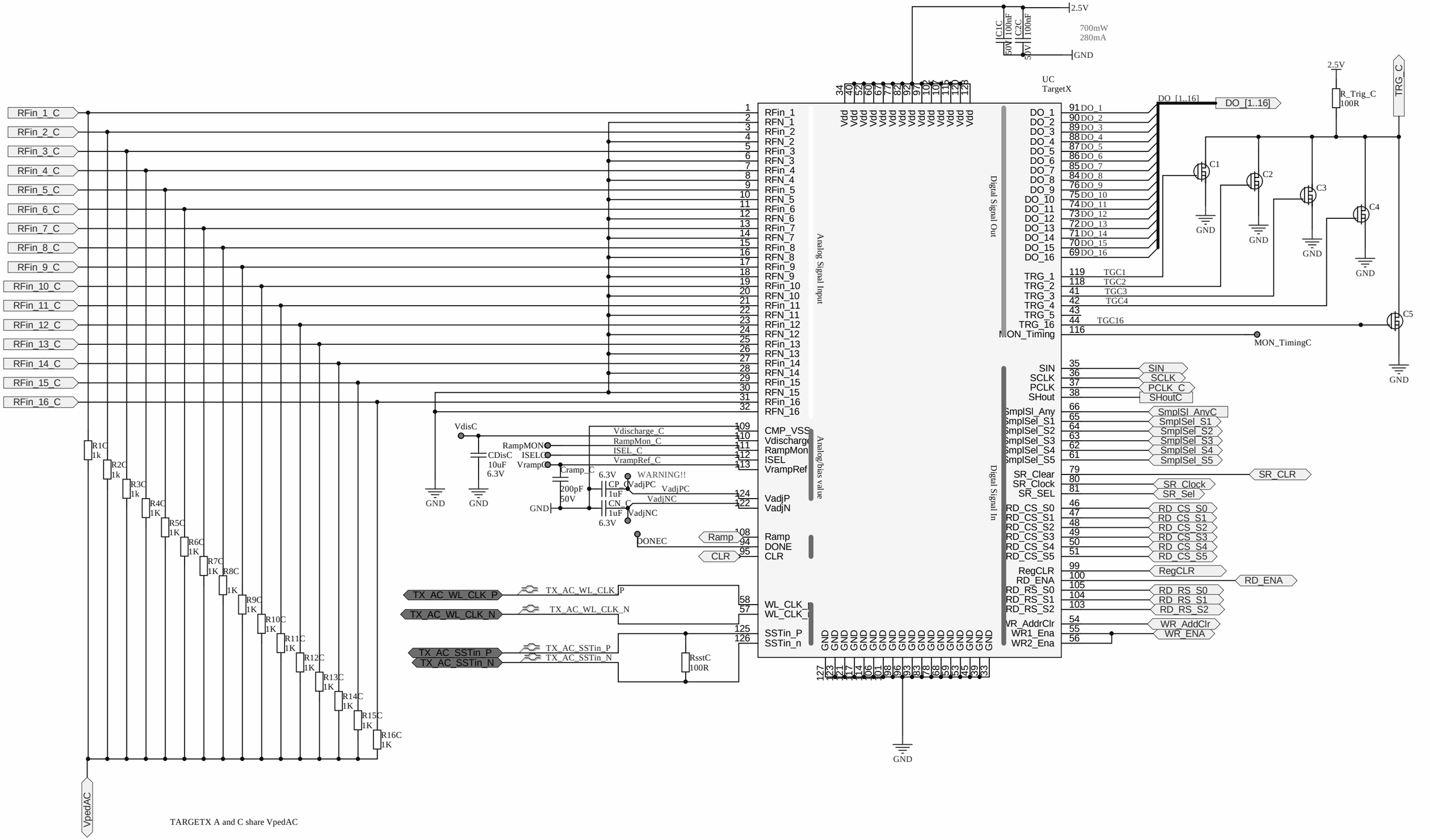
		Sheet 2 of 4	

UNIVERSITY of HAWAI'I MĀNOA



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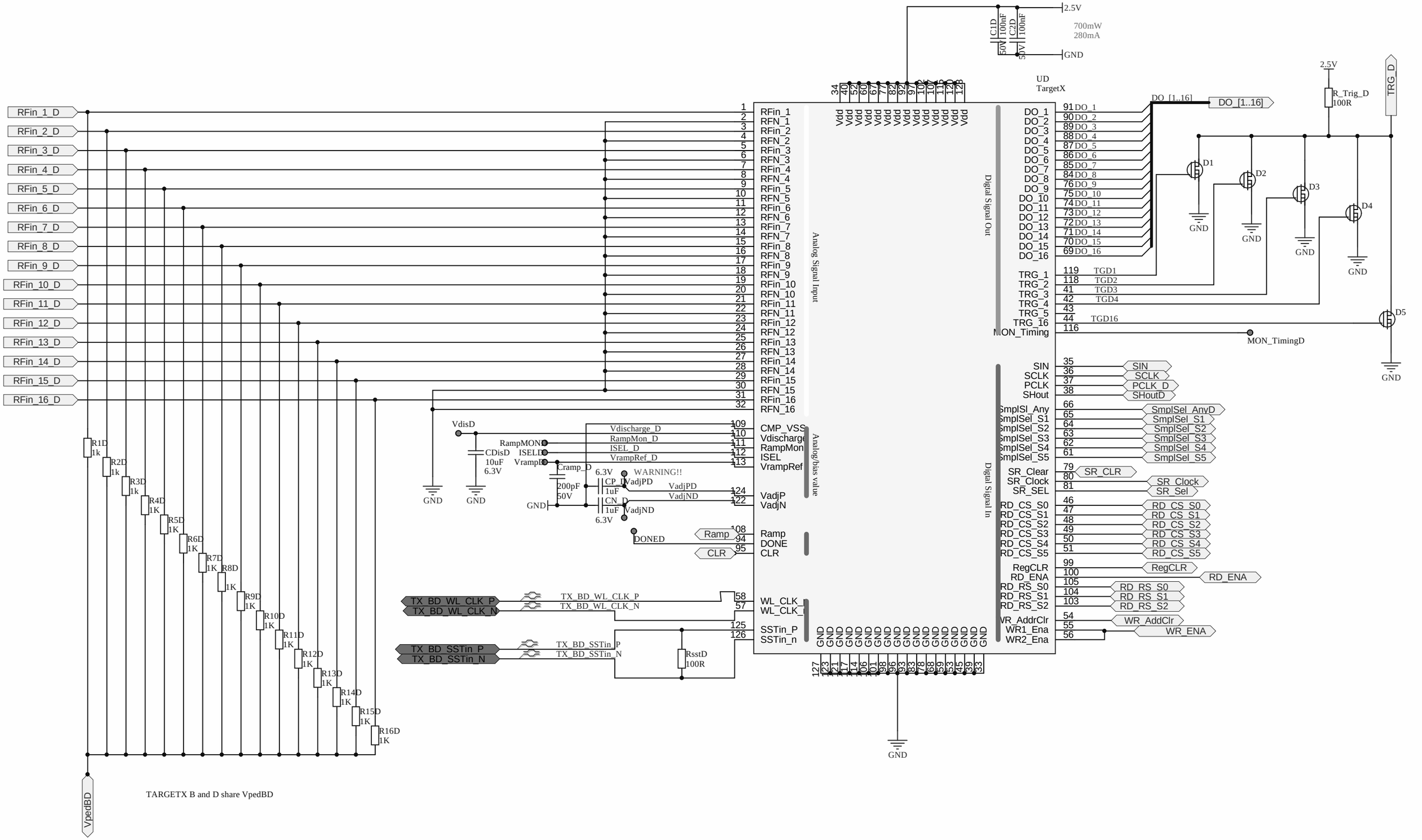

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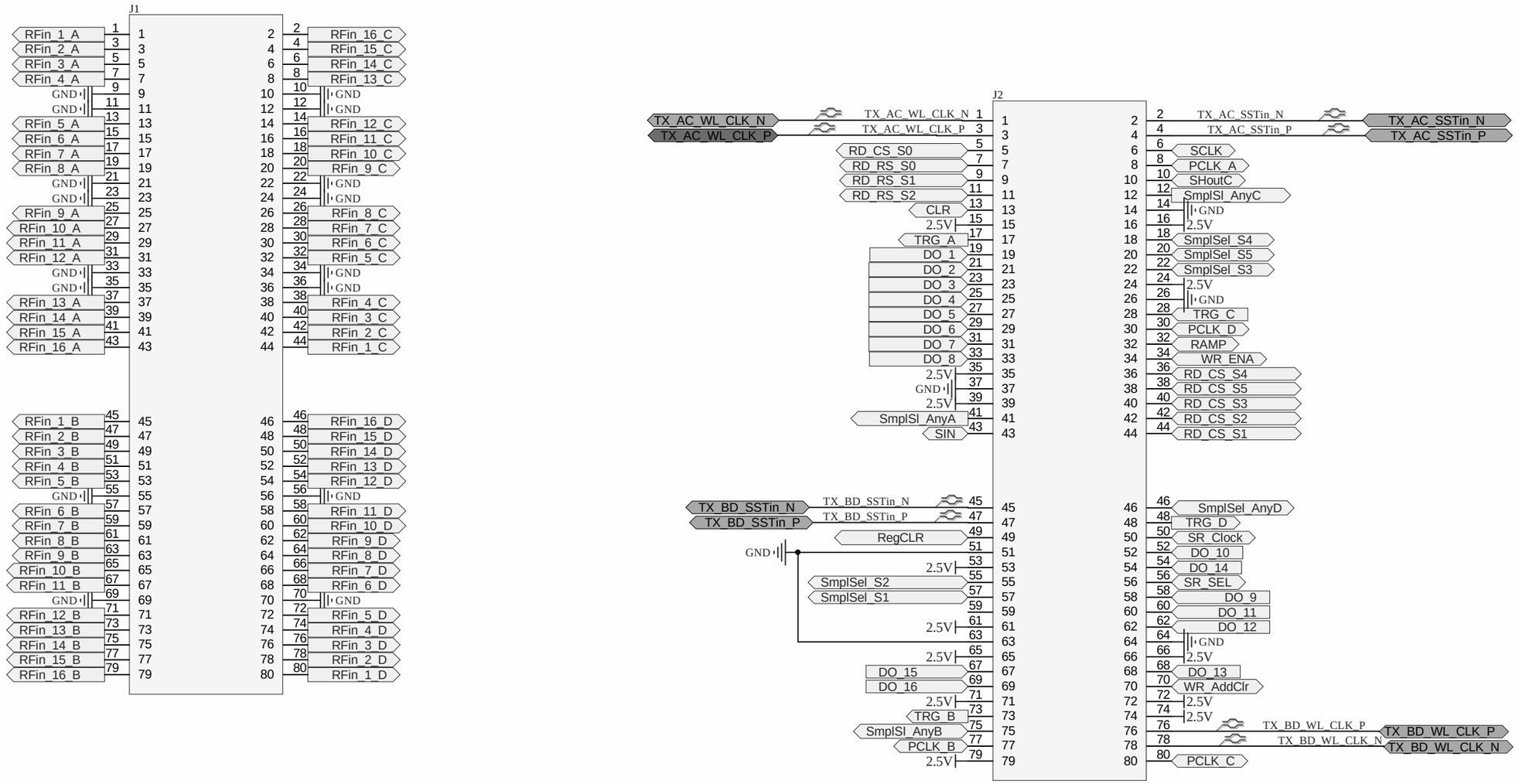

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Sheet Title: *	* *	Modif. Date:	5/10/2018
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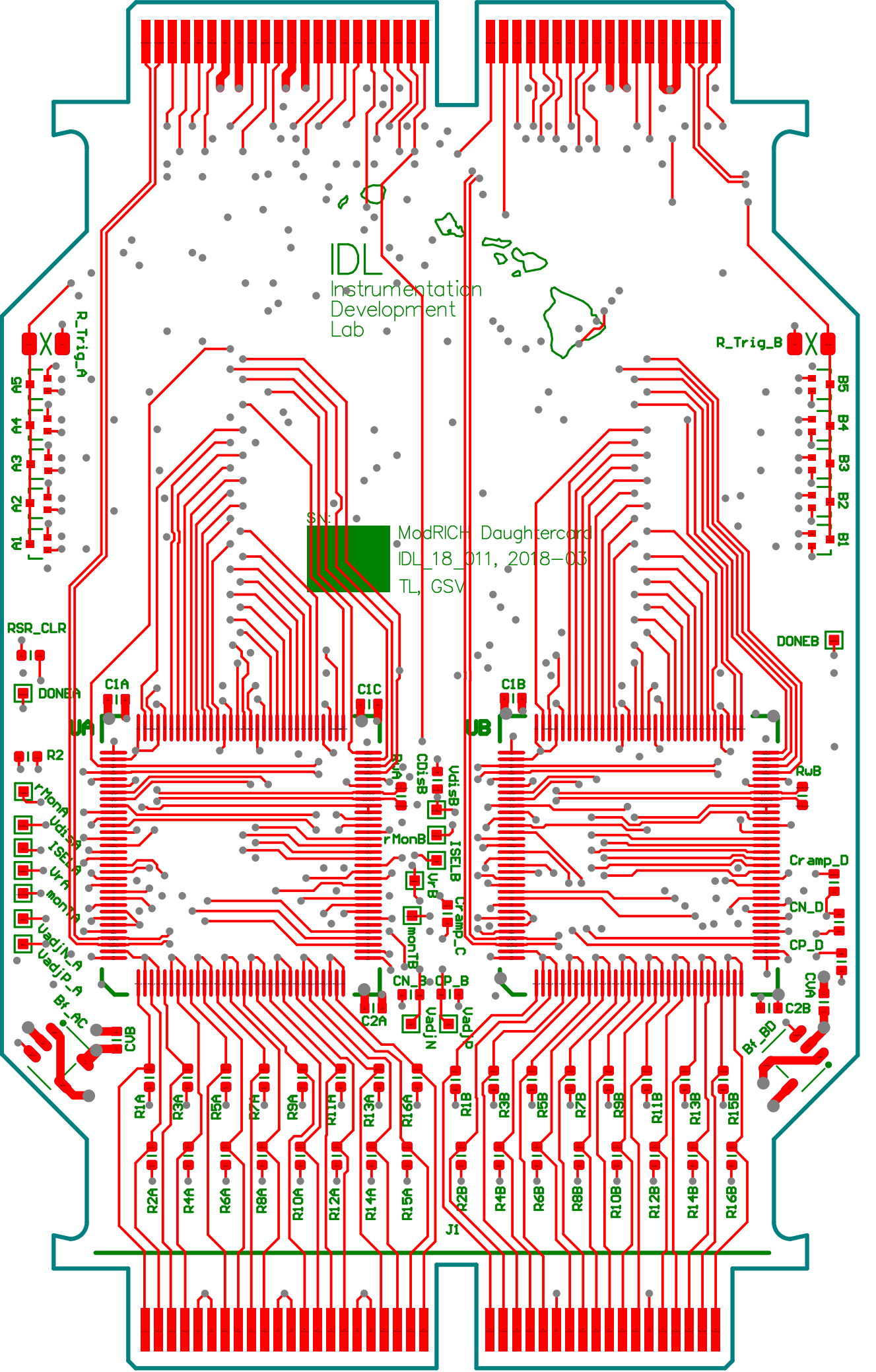
IDL
Instrumentation
Development
Lab
$V:
ModRICH Daughtercard
IDL_18_011, 2018-03
TL, GSV
R_Trig_A
R_Trig_B
A5
A4
A3
A2
A1
B5
B4
B3
B2
B1
RSR_CLR
DONEA
DONEB
C1A
C1C
C1B
UA
UB
R2
rMonA
VdiscA
ISELA
VrA
monTA
VadjN_A
VadjP_A
Bf_AC
CVB
RvA
CDisB
VdisB
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ISELB
VrB
monTB
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CN_B
CP_B
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VadjP
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RvB
Cramp_D
CN_D
CP_D
CVA
C2B
Bf_BD
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R3A
R5A
R7A
R9A
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R2A
R4A
R6A
R8A
R10A
R12A
R14A
R15A
R1B
R3B
R5B
R7B
R9B
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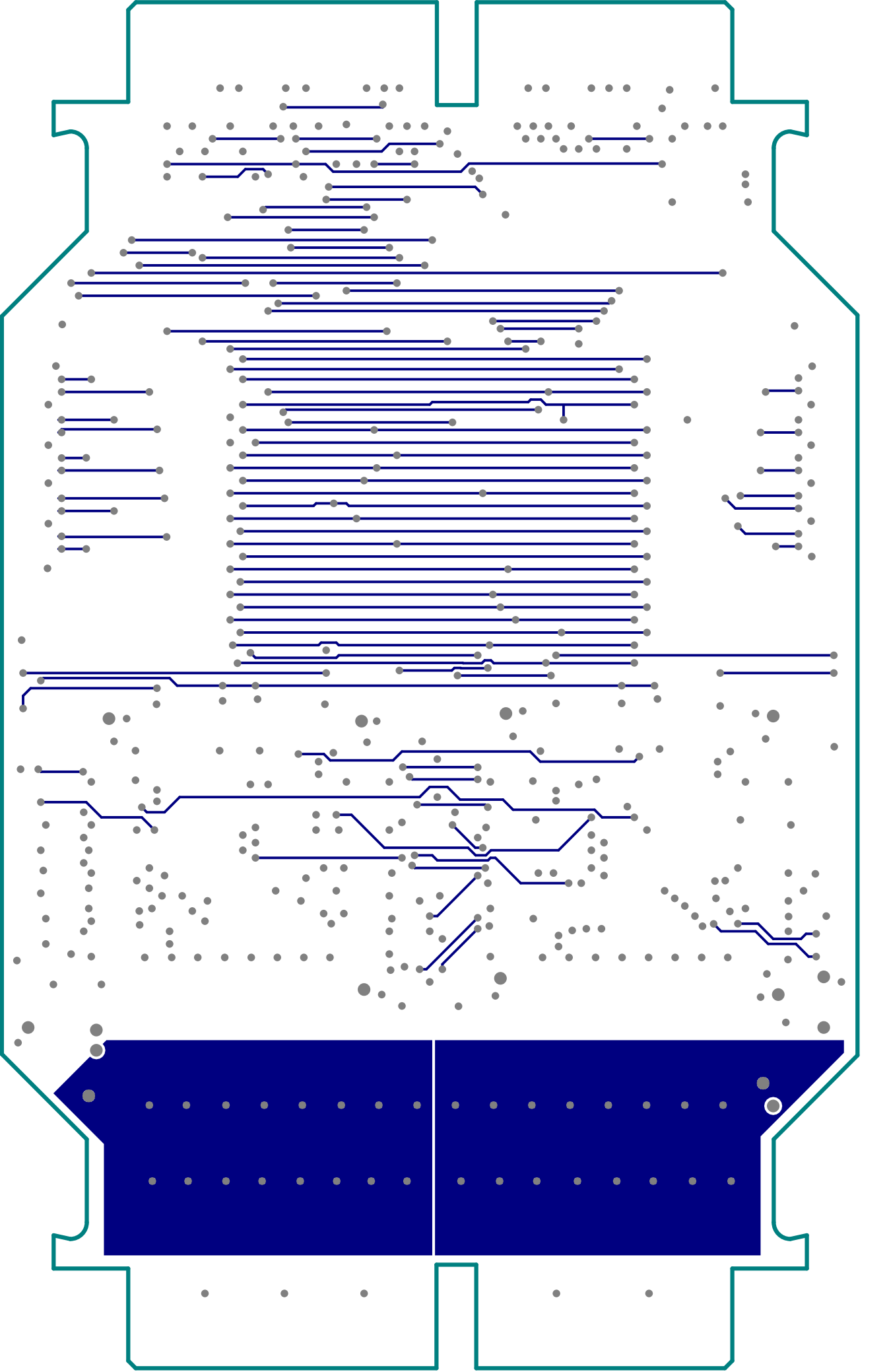
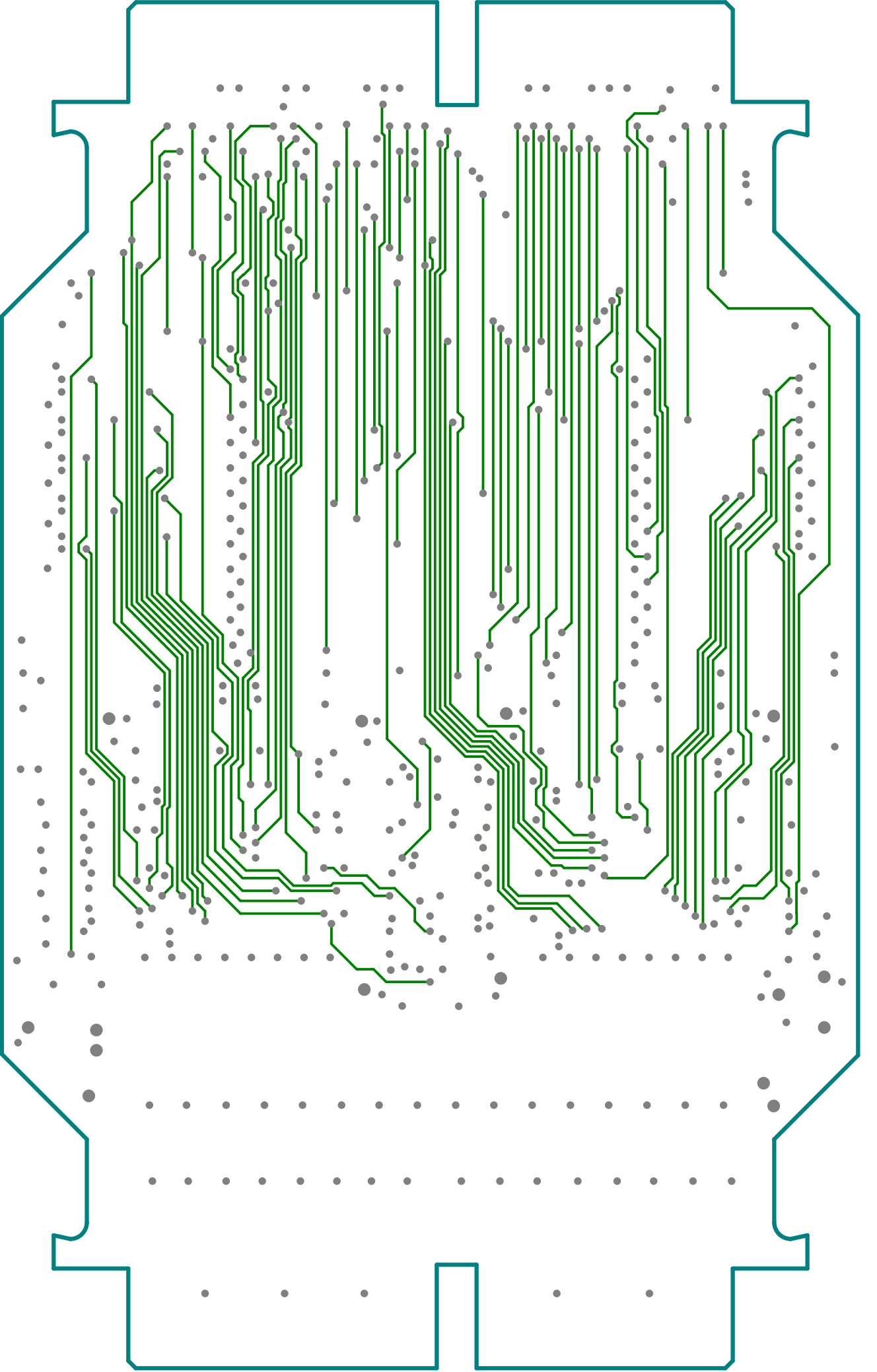
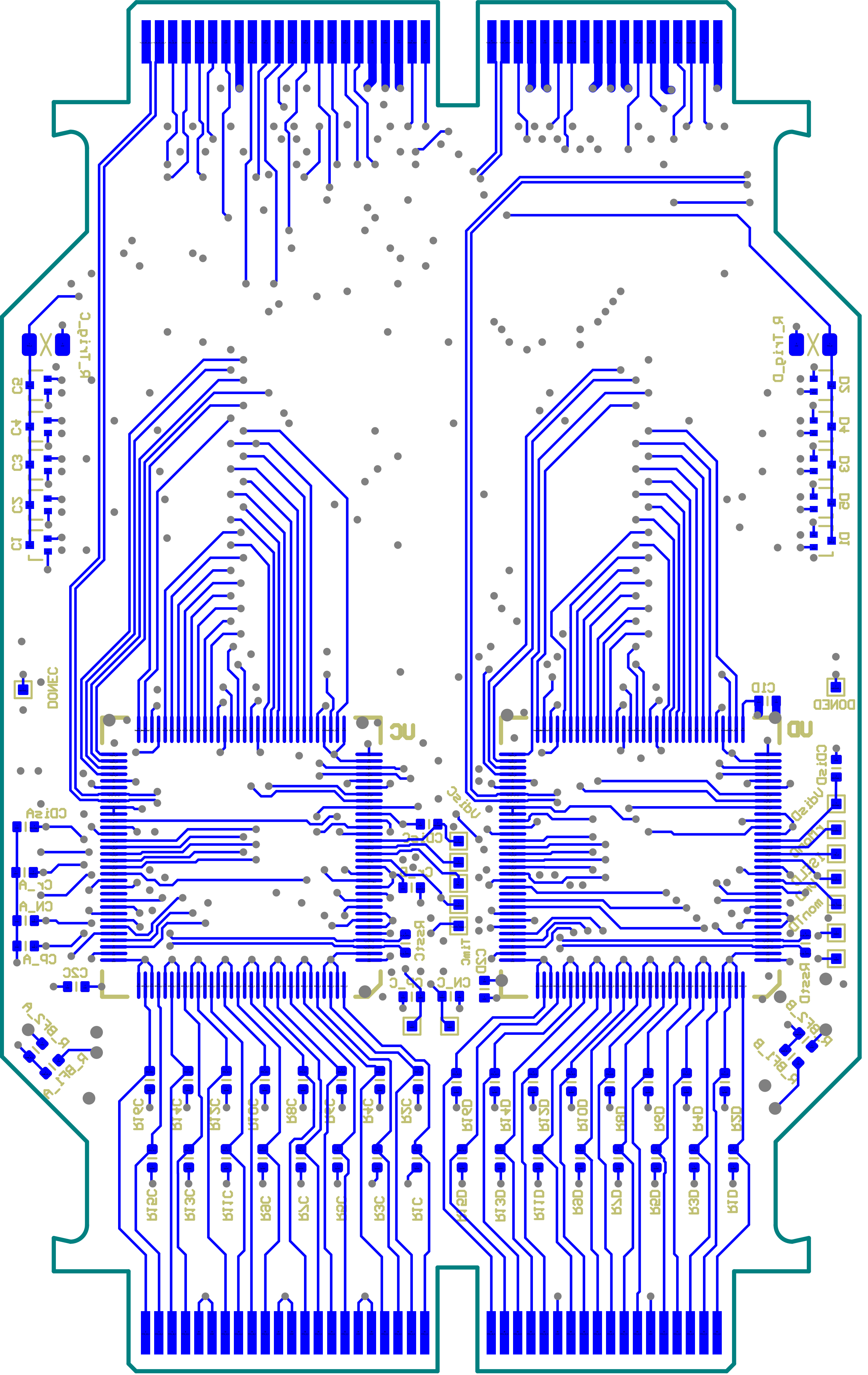
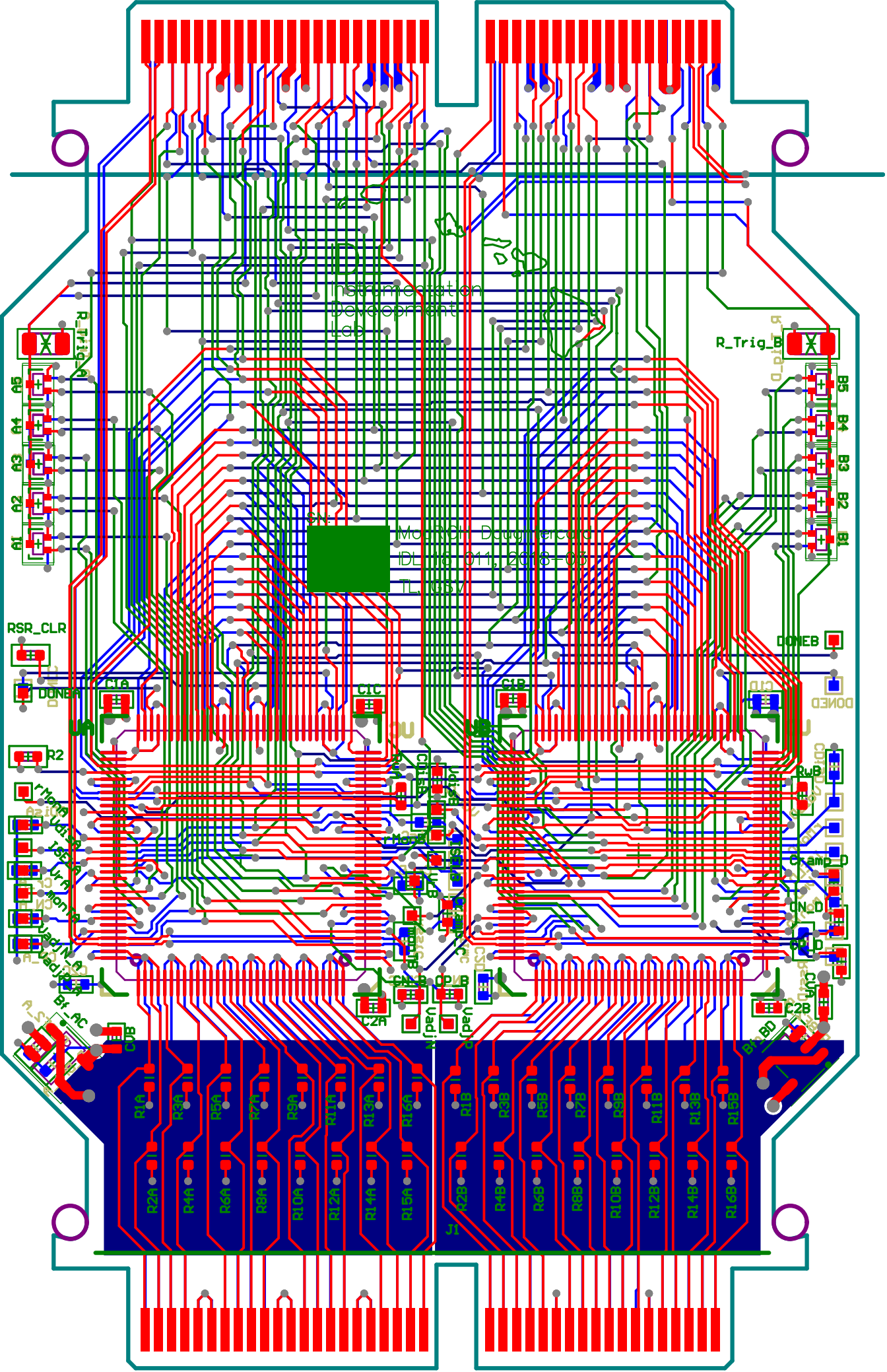
J1





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B3
B4
B5
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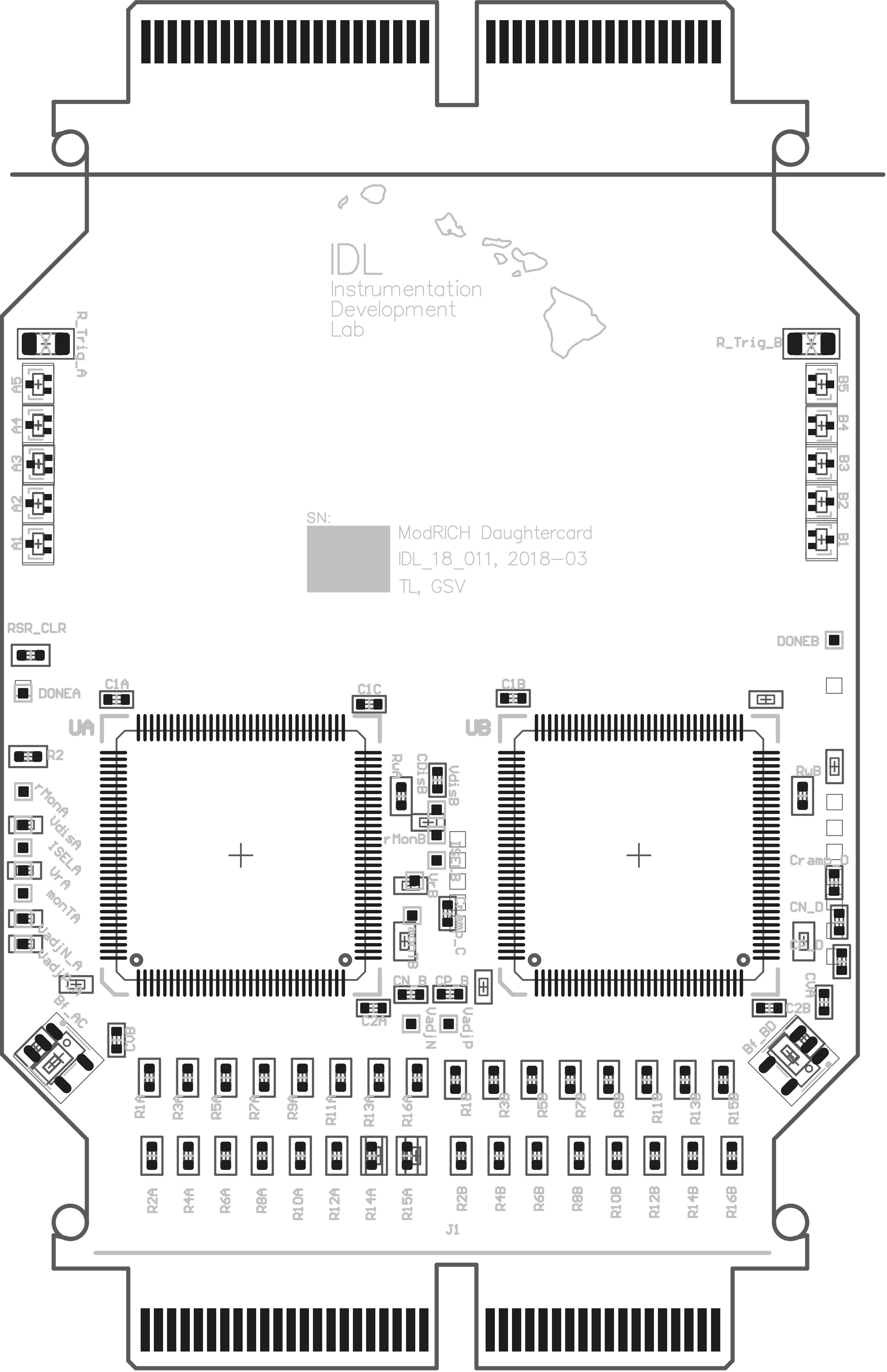
IDL
Instrumentation
Development
Lab
SN:
ModRICH Daughtercard
IDL_18_011, 2018-03
TL, GSV
R_Trig_A
R_Trig_B
A5
A4
A3
A2
A1
B5
B4
B3
B2
B1
RSR_CLR
DONEA
DONEB
C1A
C1C
C1B
UA
UB
R2
C2A
C2B
C0B
RwB
CN_B
CP_B
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VadjP
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R3A
R5A
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R9A
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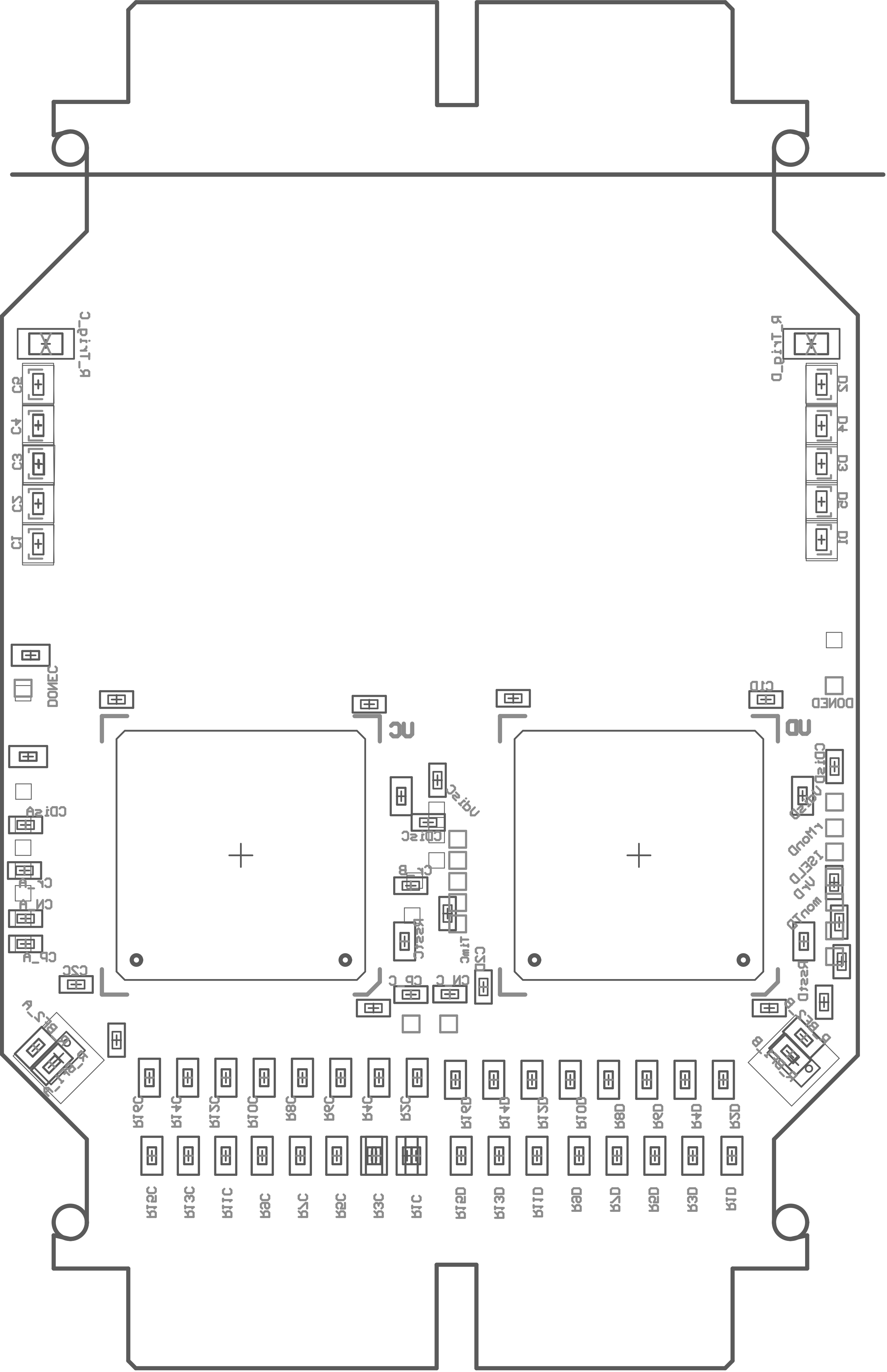

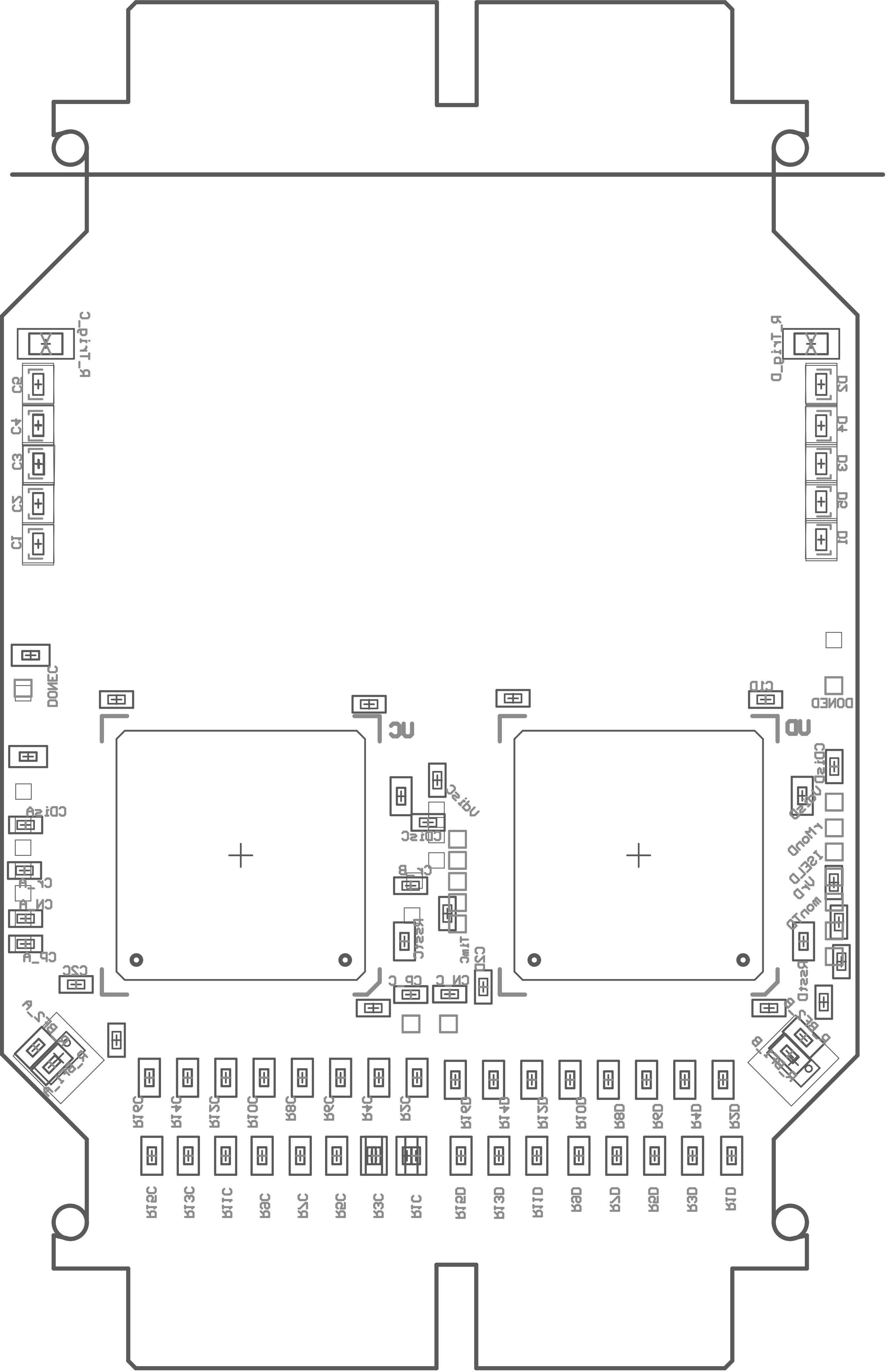

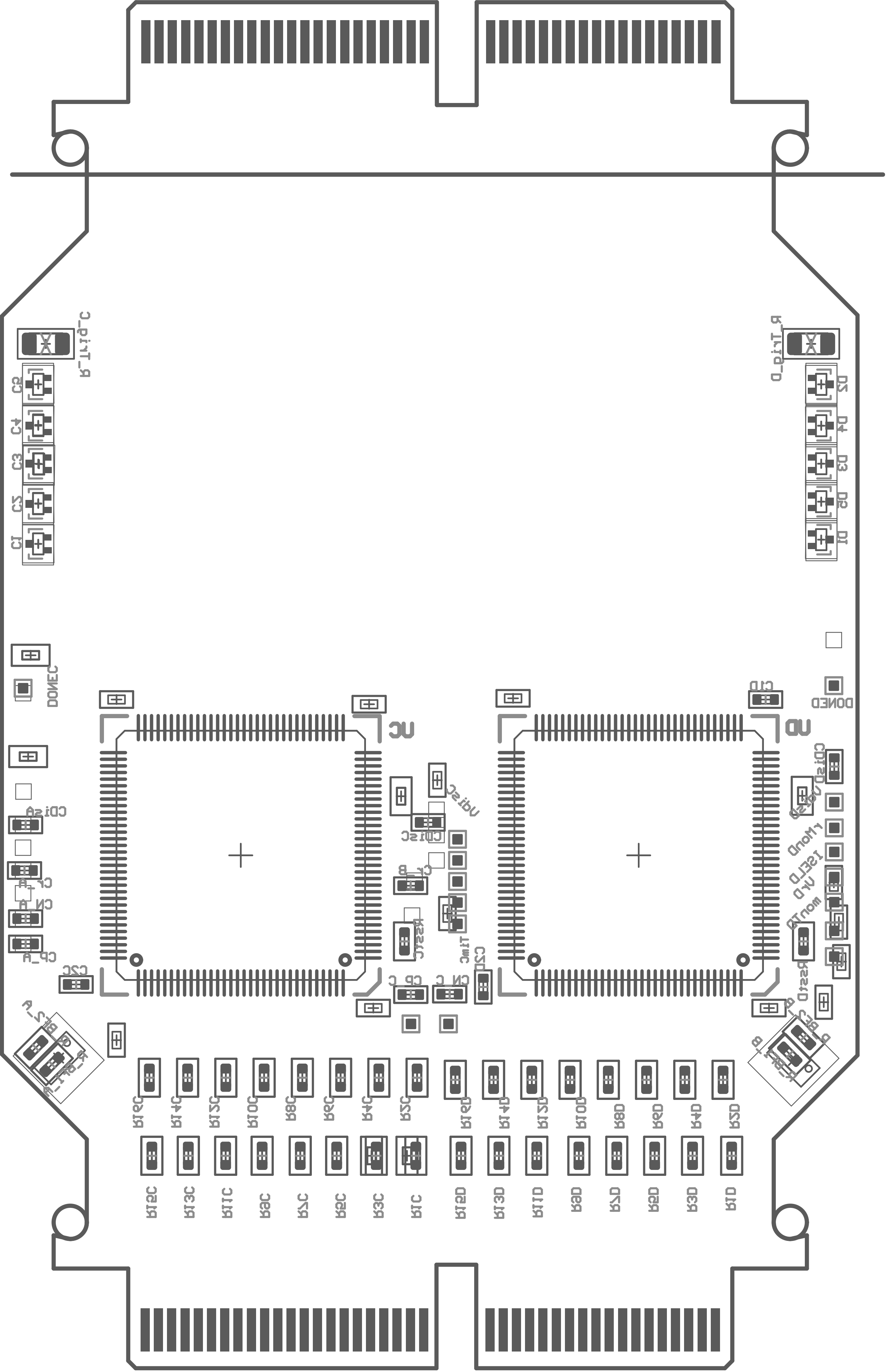
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DONED
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C4
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D1
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D3
D4
D5
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R15C
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