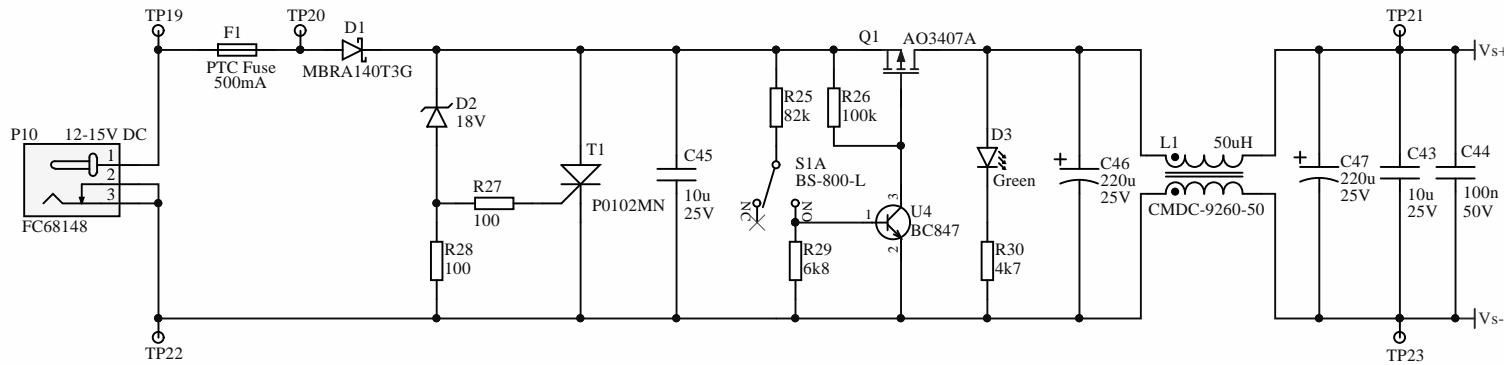
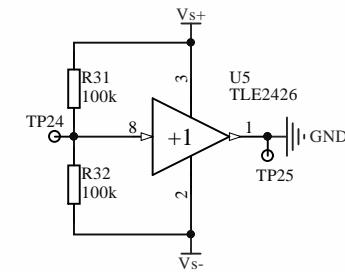


A



B



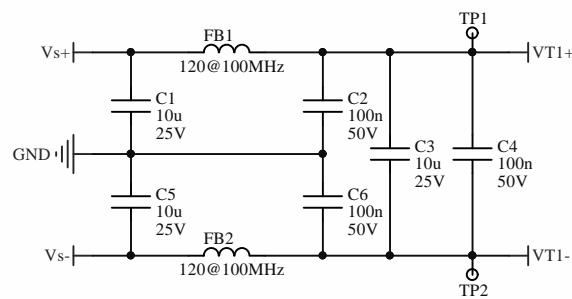
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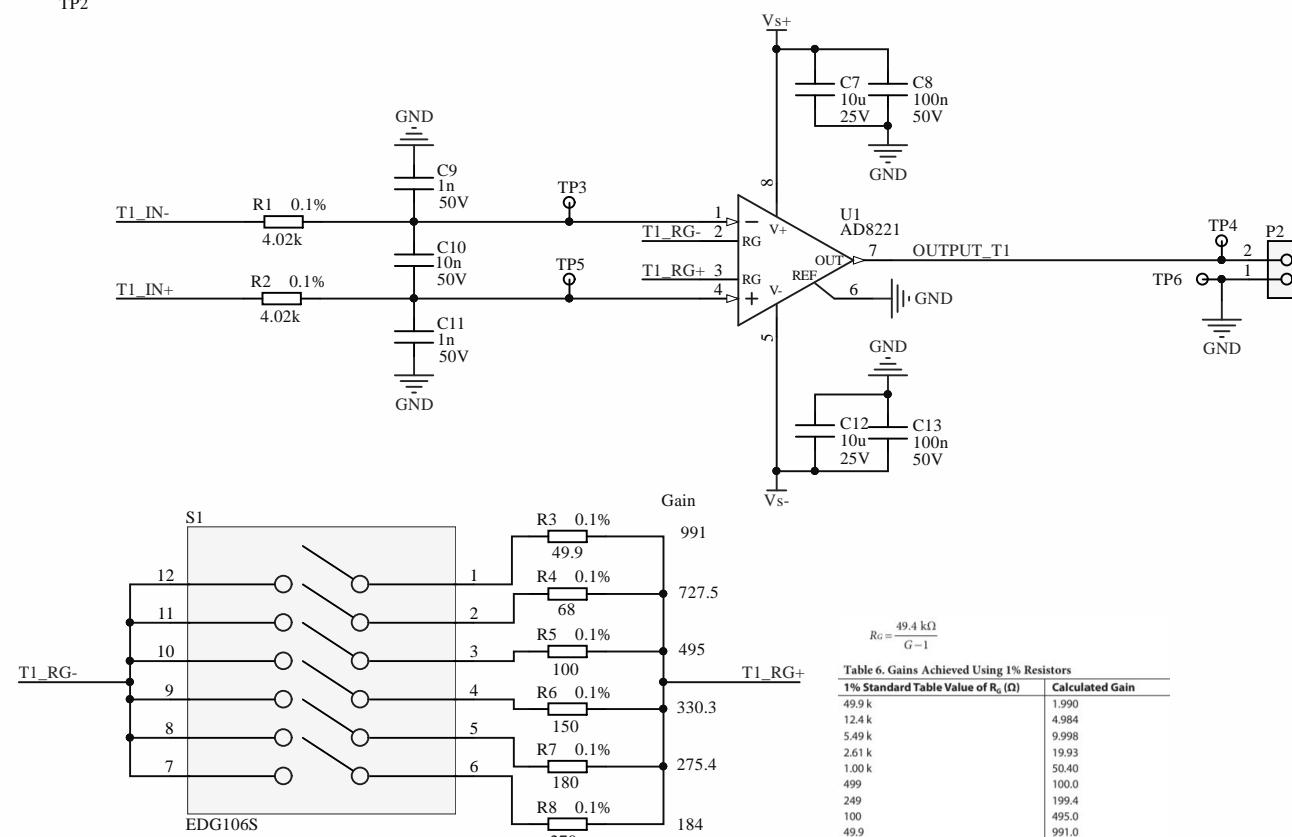
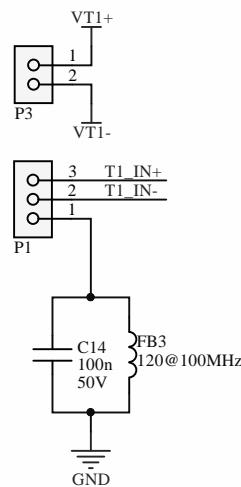
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File:	TTAmp_3T0K_power.SchDoc	Sheet:	1	
Variant:	5.5/2.1mm DC Jack	Total Sheet:	5	
Author:	Krzysztof Belewicz	Modified:	2018-04-23	



A

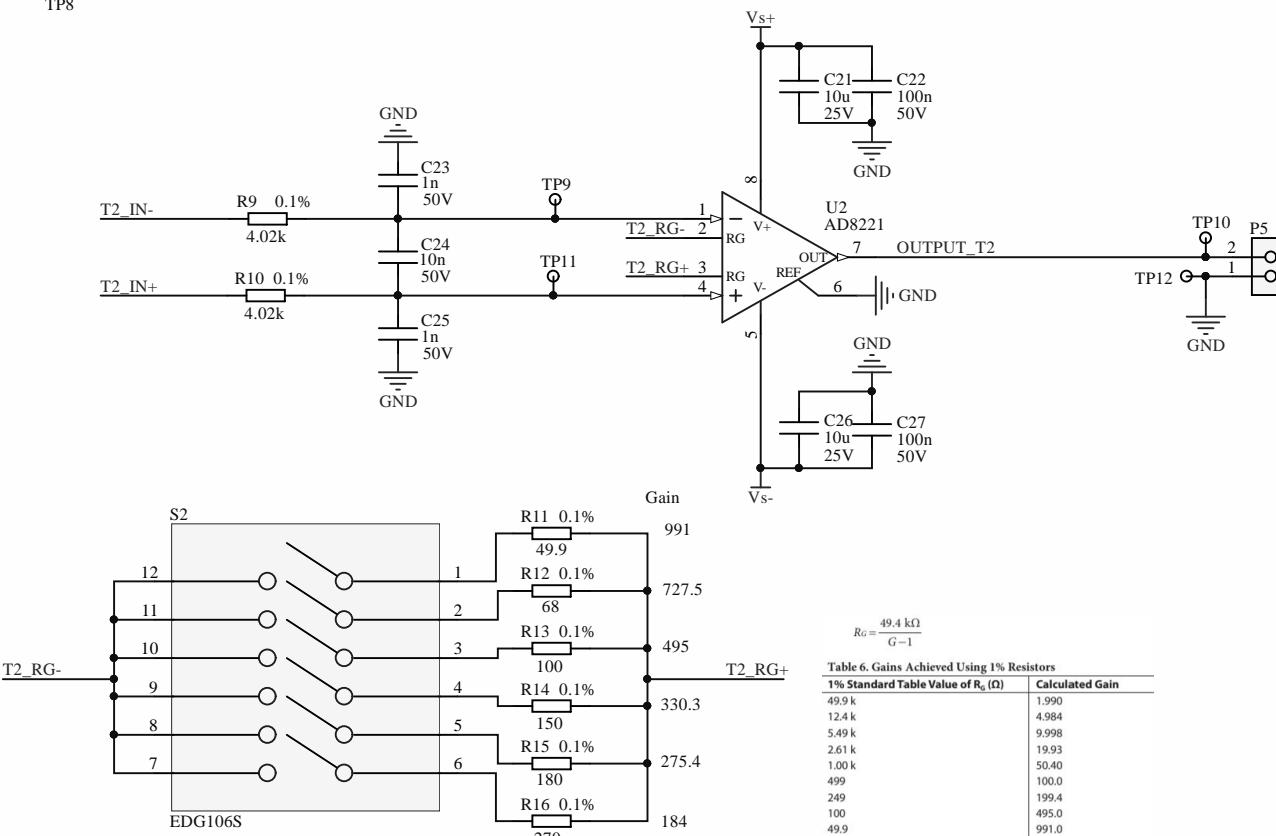
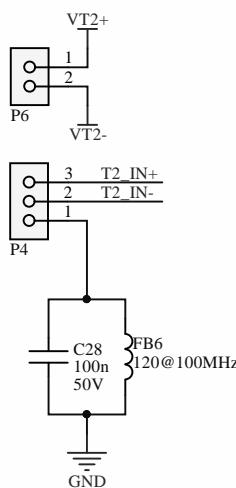
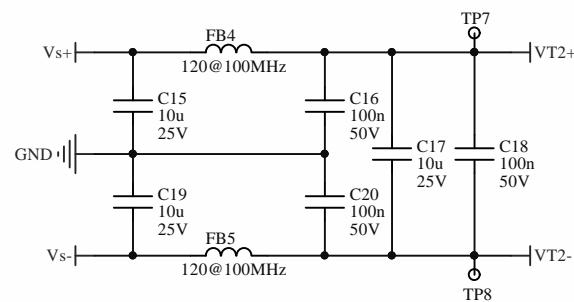


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File:	TTAmp_3T0K_amp_tensiometer_1.SchDoc	Sheet:	2
Variant:	5.5/2.1mm DC Jack	Total Sheet:	5
Author:	Krzysztof Belewicz	Modified:	2018-04-21





Project:	TTAmp_3T0K.PrjPCB	Revision:	0.1
File:	TTAmp_3T0K_amp_tensiometer_2.SchDoc	Sheet:	3
Variant:	5.5/2.1mm DC Jack	Total Sheet:	5
Author:	Krzysztof Belewicz	Modified:	2018-04-21

Kolo Naukowe
Systemów Scalonych
00-665 Warszawa
Nowowiejska 15/19



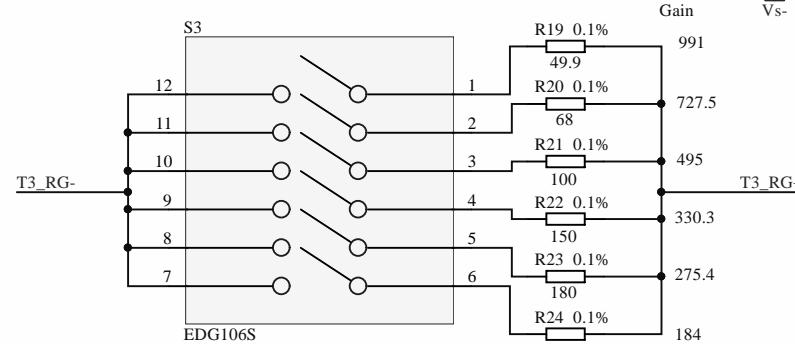
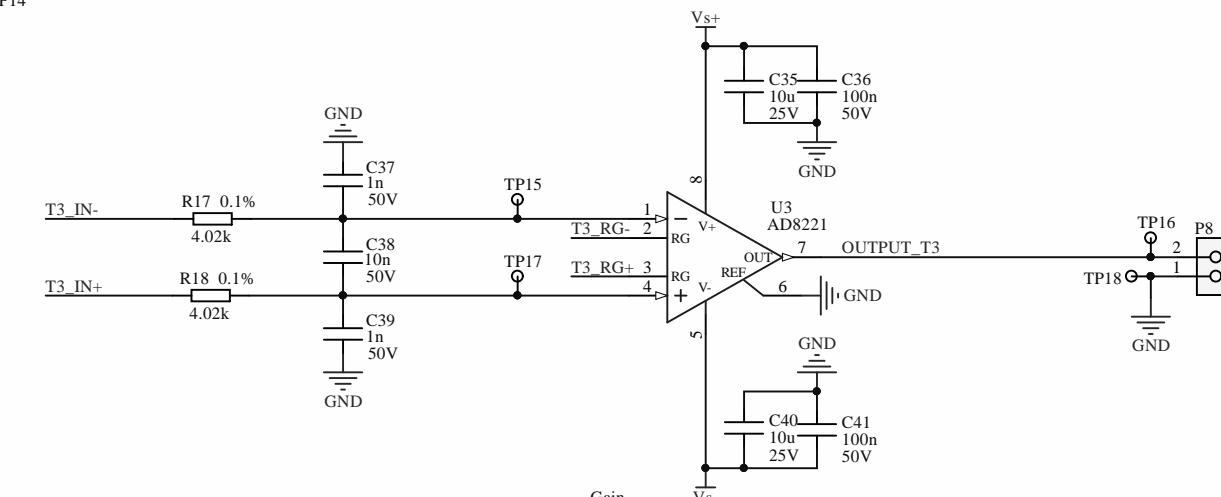
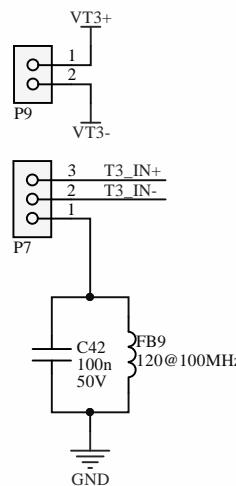
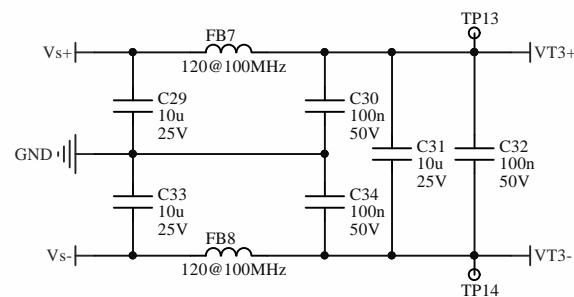


Table 6. Gains Achieved Using 1% Resistors

1% Standard Table Value of R _G (Ω)	Calculated Gain
49.9 k	1.990
12.4 k	4.984
5.49 k	9.998
2.61 k	19.93
1.00 k	50.40
499	100.0
249	199.4
100	495.0
49.9	991.0

Project: TTAmpl_3TOK.PrtPCB **Revision:** 0.1

File: TTAmpl_3TOK_amp_tensiometer_3.SchDoc **Sheet:** 4

Variant: 5.5/2.1mm DC Jack **Total Sheet:** 5

Author: Krzysztof Belewicz **Modified:** 2018-04-21

Kolo Naukowe Systemów Scalonych
00-665 Warszawa
Nowowiejska 15/19

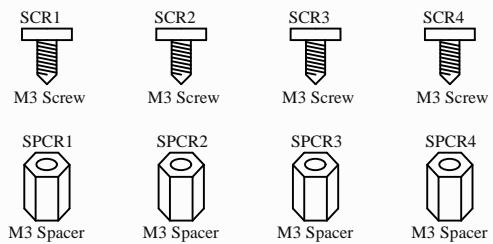
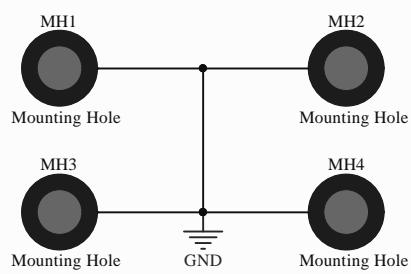
KNSS

A

A

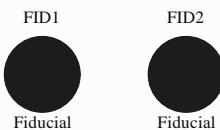
B

B



C

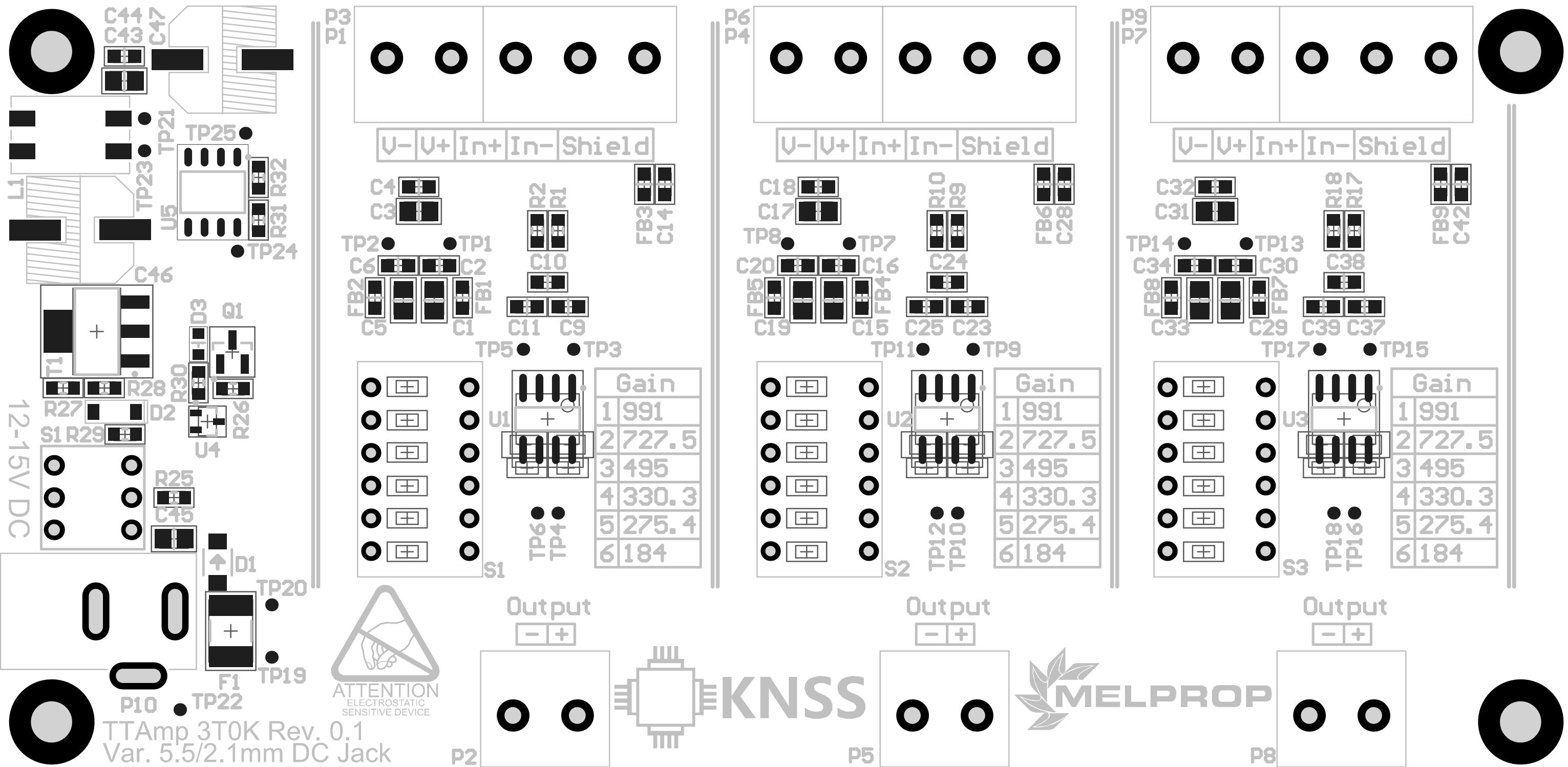
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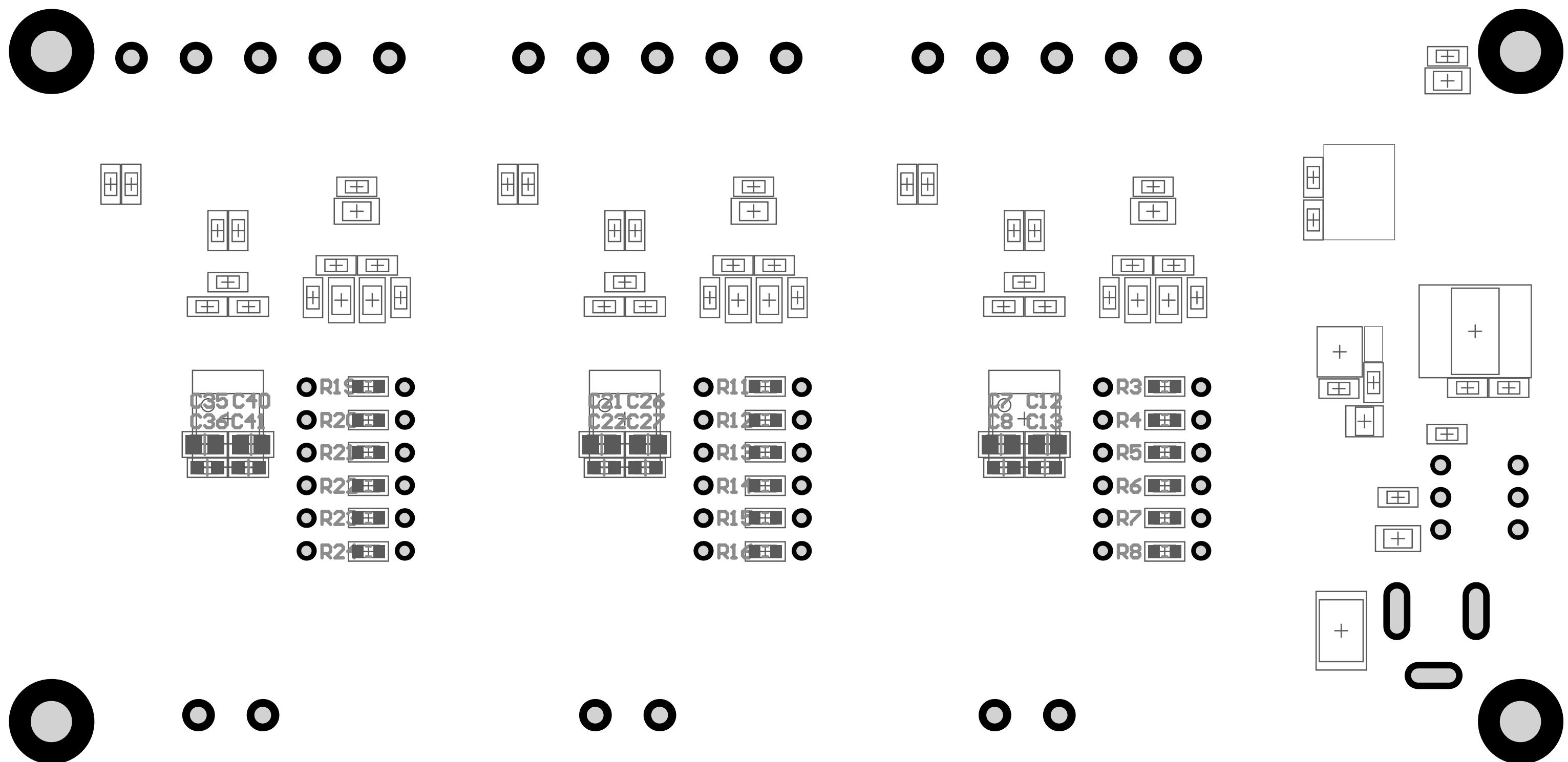


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File:	TTAmp_3T0K_Mechanical.SchDoc	Sheet:	5	
Variant:	5.5/2.1mm DC Jack	Total Sheet:	5	
Author:	Krzysztof Belewicz	Modified:	2018-04-21	



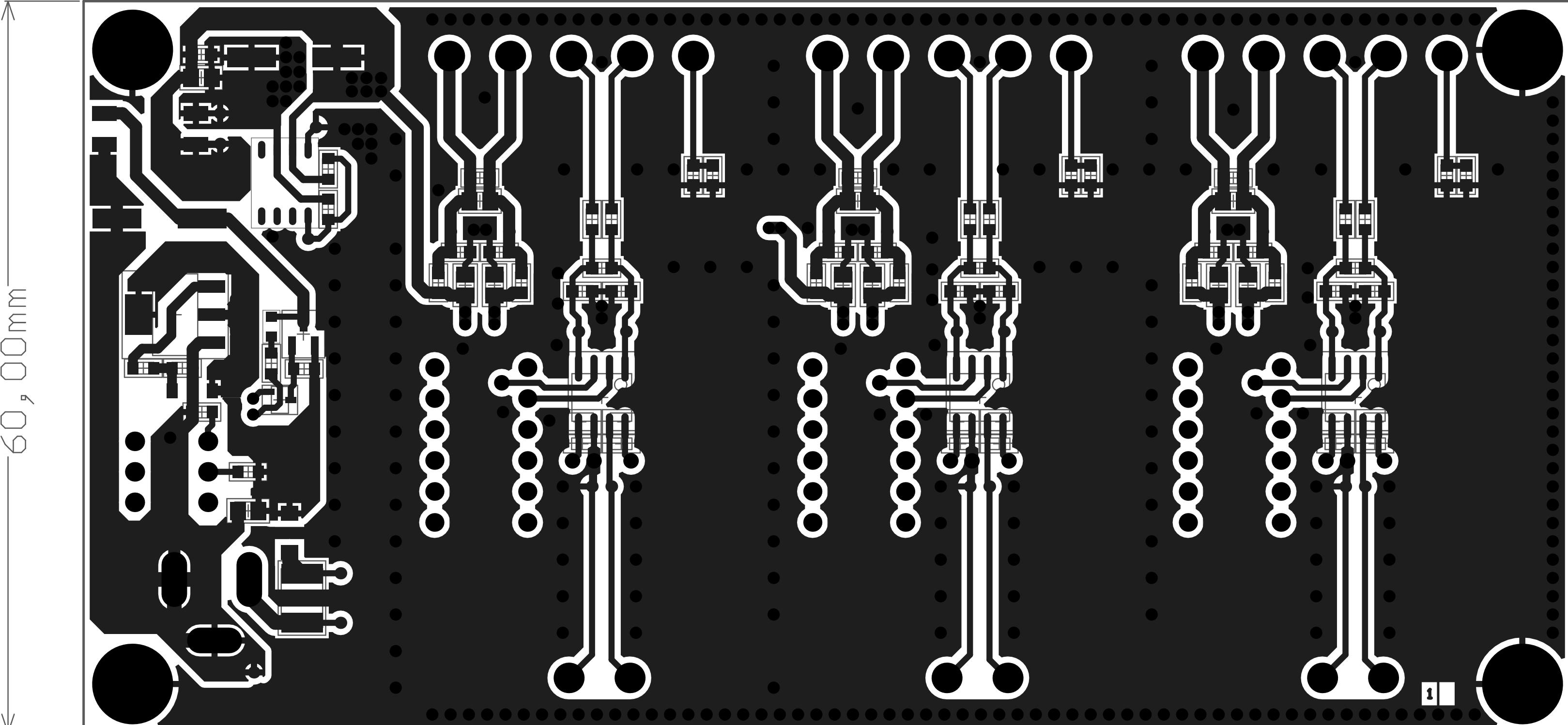
Designator	Comment	Value	Tolerance	Quantity	Supplier 1	Supplier Part Number 1	Manufacturer 1	Manufacturer Part Number 1	Supplier Currency 1	Supplier Order Qty 1	Supplier Unit Price 1	Supplier Subtotal 1
S1	BS-800-L			1	TME	BS800L	CANAL ELECTRONIC	BS-800-L				
SCR1, SCR2, SCR3, SCR4, SPCR1, SPCR2, SPCR3, SPCR4	M3 Screw, M3 Spacer			8								
R26, R31, R32	Resistor	100k	5%	3	TME	HP03-100K5%	Royal Electronic Factory	HP03W5J0104T5E	EUR	50	0,01	0,4
R1, R2, R9, R10, R17, R18	Resistor	4.02k	0.1%	6	TME	AR0603-4K02-0.1%	Viking Tech	AR03BTCX4021	EUR	10	0,09	0,9
R3, R11, R19	Resistor	49.9	0.1%	3	TME	AR0603-49R9-0.1%	Viking Tech	AR03BTCX49R9	EUR	10	0,09	0,9
R4, R12, R20	Resistor	68	0.1%	3	TME	AR0603-68R-0.1%	Viking Tech	AR03BTCX0680	EUR	10	0,09	0,9
R6, R14, R22	Resistor	150	0.1%	3	TME	AR0603-150R-0.1%	Viking Tech	AR03BTCX1500	EUR	10	0,09	0,9
R7, R8, R15, R16, R23, R24	Resistor	180, 270	0.1%	6	TME	AR0603-180R-0.1%	Viking Tech	AR03BTCX1800	EUR	10	0,09	0,9
T1	P0102MN			1	TME	P0102MN-5AA4	STMicroelectronics	P0102MN5AA4	EUR	3	0,11	0,34
D3	Green			1	TME	OSG80603C1E	OptoSupply	OSG80603C1E	EUR	10	0,04	0,39
P10	12-15V DC			1	TME	FC68148	Cliff	DC-10AFC68148	EUR	1	0,44	0,44
U4	BC847			1	TME	BC847AW.115	Nexperia	BC847AW.115	EUR	25	0,02	0,53
Q1	AO3407A			1	TME	AO3407A	Alpha & Omega Semiconductor	AO3407A	EUR	5	0,11	0,54
D2	Zener Diode	18V		1	TME	MMSZ18T1G	ON Semiconductor	MMSZ18T1G	EUR	25	0,02	0,57
R29	Resistor	6k8	5%	1	TME	RC0603JR-076K8	Yageo	RC0603JR-076K8L	EUR	100	0,01	0,57
R25	Resistor	82k	5%	1	TME	WF06P-82K-5%	Walsin Technologies	WF06P823JTL	EUR	100	0,01	0,62
R30	Resistor	4k7	5%	1	TME	WF06P-4K7-5%	Walsin Technologies	WF06P472JTL	EUR	100	0,01	0,62
R5, R13, R21, R27, R28	Resistor	100	0.1%, 5%	5	TME	WF06P-100R-5%	Walsin Technologies	WF06P101JTL	EUR	100	0,01	0,62
P1, P4, P7	AK100/3DS-5.0-V/GRAU			3	TME	TB-5.0-P-3P-12	PTR	AK100/3DS-5.0-V/GRAU	EUR	3	0,29	0,88
F1	PTC Fuse	500mA		1	TME	SD075-16	Excel Cell	SD075-16	EUR	10	0,1	0,96
D1	MBRA140T3G			1	TME	MBRA140T3G	ON Semiconductor	MBRA140T3G	EUR	10	0,1	0,97
FB1, FB2, FB3, FB4, FB5, FB6, FB7, FB8, FB9	Ferrite Bead	120@100MHz		9	TME	BLM18KG121TN1D	Murata	BLM18KG121TN1D	EUR	50	0,02	1,08
C46, C47	SC1E227M08010VR	220u	20%	2	TME	SC1E227M08010VR	Samwha	SC1E227M08010VR	EUR	10	0,12	1,18
C9, C11, C23, C25, C37, C39	Capacitor	1n	10%	6	TME	VJ0603Y102KXACW1BC	Vishay	VJ0603Y102KXACW1BC	EUR	100	0,01	1,33
P2, P3, P5, P6, P8, P9	AK100/2DS-5.0-V/GRAU			6	TME	TB-5.0-P-2P-12	PTR	AK100/2DS-5.0-V/GRAU	EUR	6	0,23	1,38
L1	CMDC-9260-50	50uH		1	TME	CMDC-9260-50	FerroCore	CMDC-9260-50	EUR	1	1,46	1,46
C10, C24, C38	Capacitor	10n	20%	3	TME	VJ0603Y103MXACW1BC	Vishay	VJ0603Y103MXACW1BC	EUR	100	0,02	1,99
U5	TLE2426			1	Farnell	8454833	Texas Instruments	TLE2426ID	EUR	1	2,01	2,01
S1, S2, S3	EDG106S			3	TME	EDG106S	Excel Cell	EDG106S	EUR	3	1,12	3,36
C2, C4, C6, C8, C13, C14, C16, C18, C20, C22, C27, C28, C30, C32, C34, C36, C41, C42, C44	Capacitor	100n	10%	19	TME	CL10B104KB8NNNC	Samsung	CL10B104KB8NNNC	EUR	100	0,04	3,82
C1, C3, C5, C7, C12, C15, C17, C19, C21, C26, C29, C31, C33, C35, C40, C43, C45	Capacitor	10u	10%	17	TME	GRM21BR61E106KA73L	Murata	GRM21BR61E106KA73L	EUR	17	0,38	6,46
U1, U2, U3	AD8221			3	TME	AD8221BRZ	Analog Devices	AD8221BRZ	EUR	3	9,71	29,12



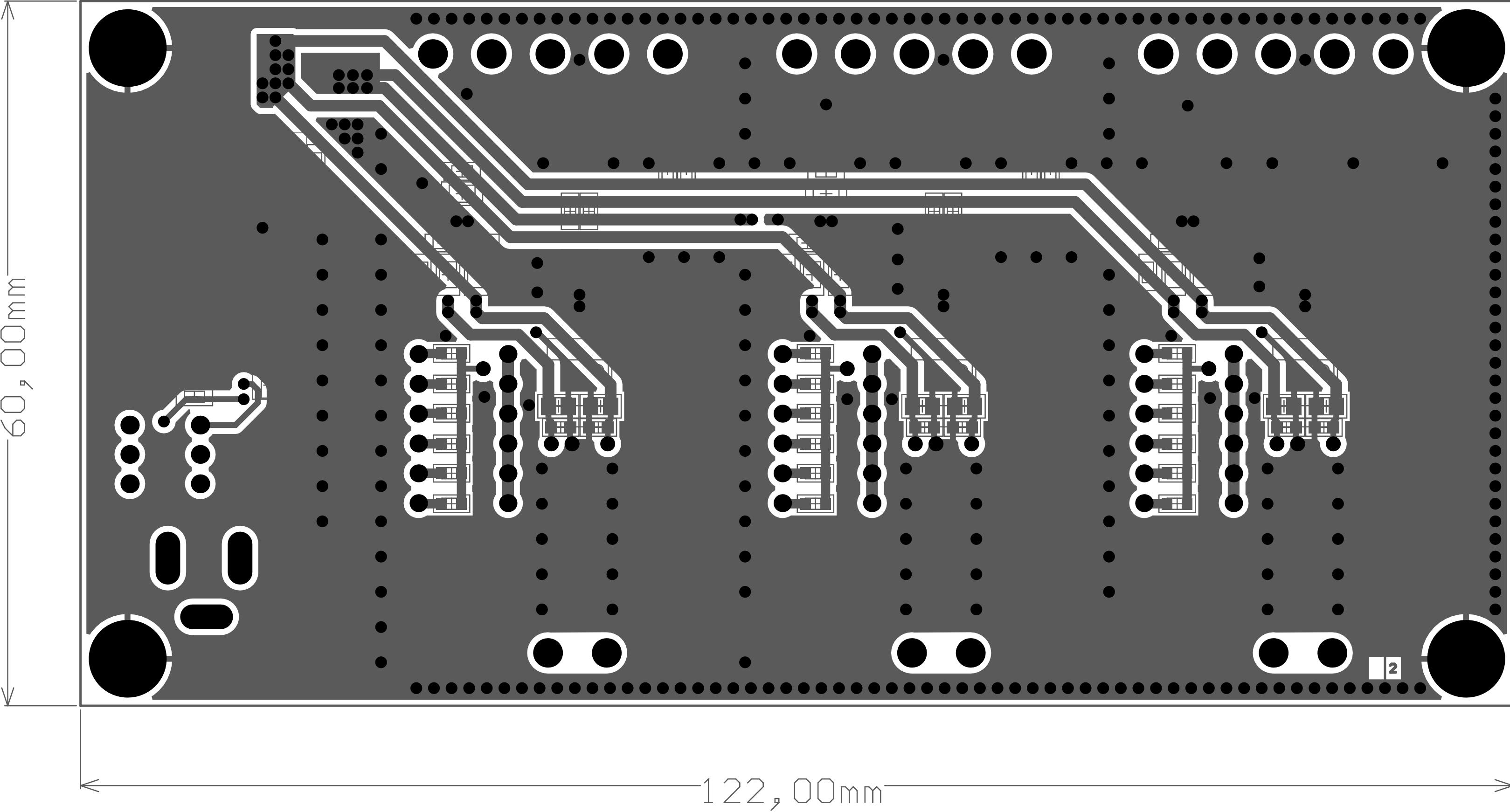


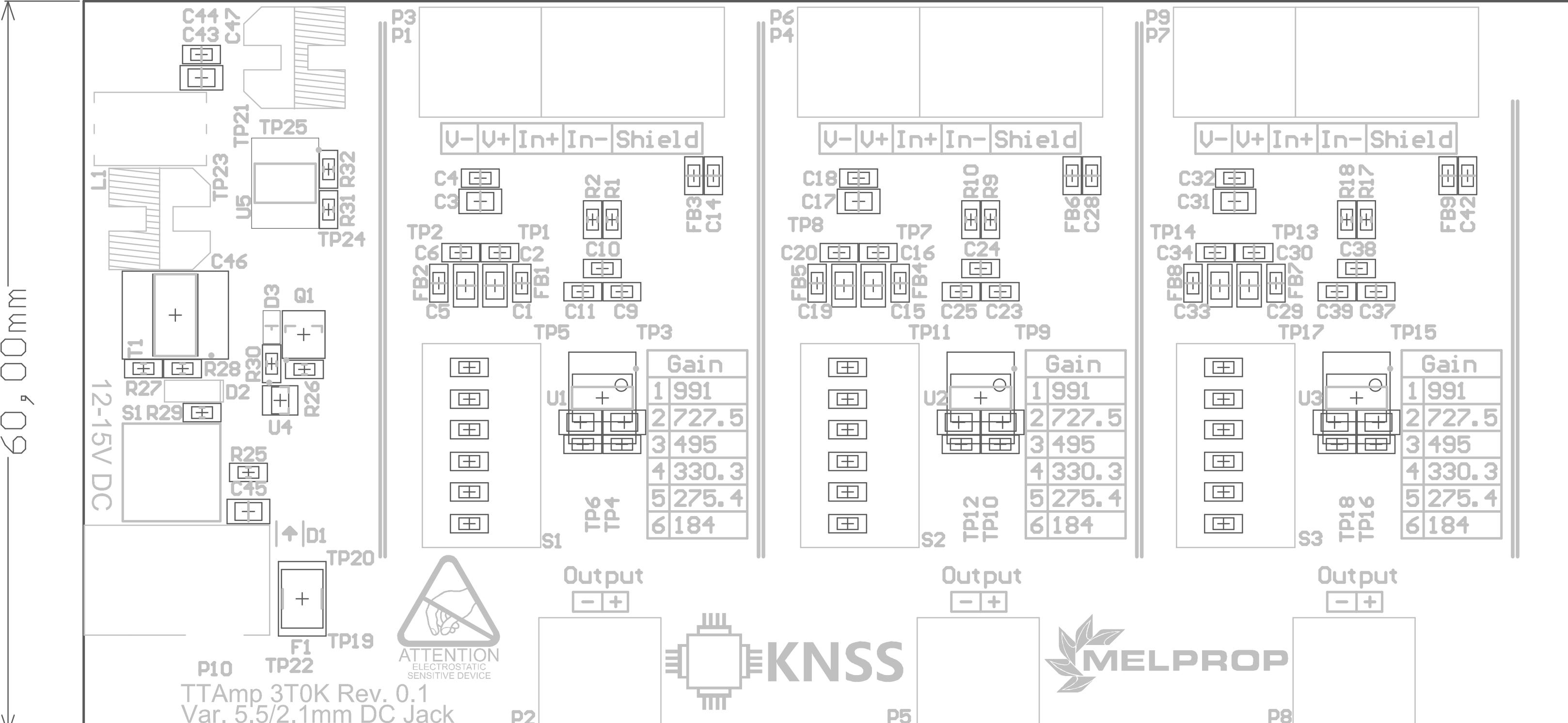
Board Stack Report

Stack Up		Layer Stack			
Layer	Board Layer Stack	Name	Material	Thickness	Constant
1		Top Paste			
2		Top Overlay			
3		Top Solder	Solder Resist	0,40mil	3,5
4		Top Layer	Copper	1,40mil	
5		Dielectric 1	FR-4	39,37mil	4,8
6		Bottom Layer	Copper	1,40mil	
7		Bottom Solder	Solder Resist	0,40mil	3,5
8		Bottom Overlay			
9		Bottom Paste			
	Height : 42,97mil				

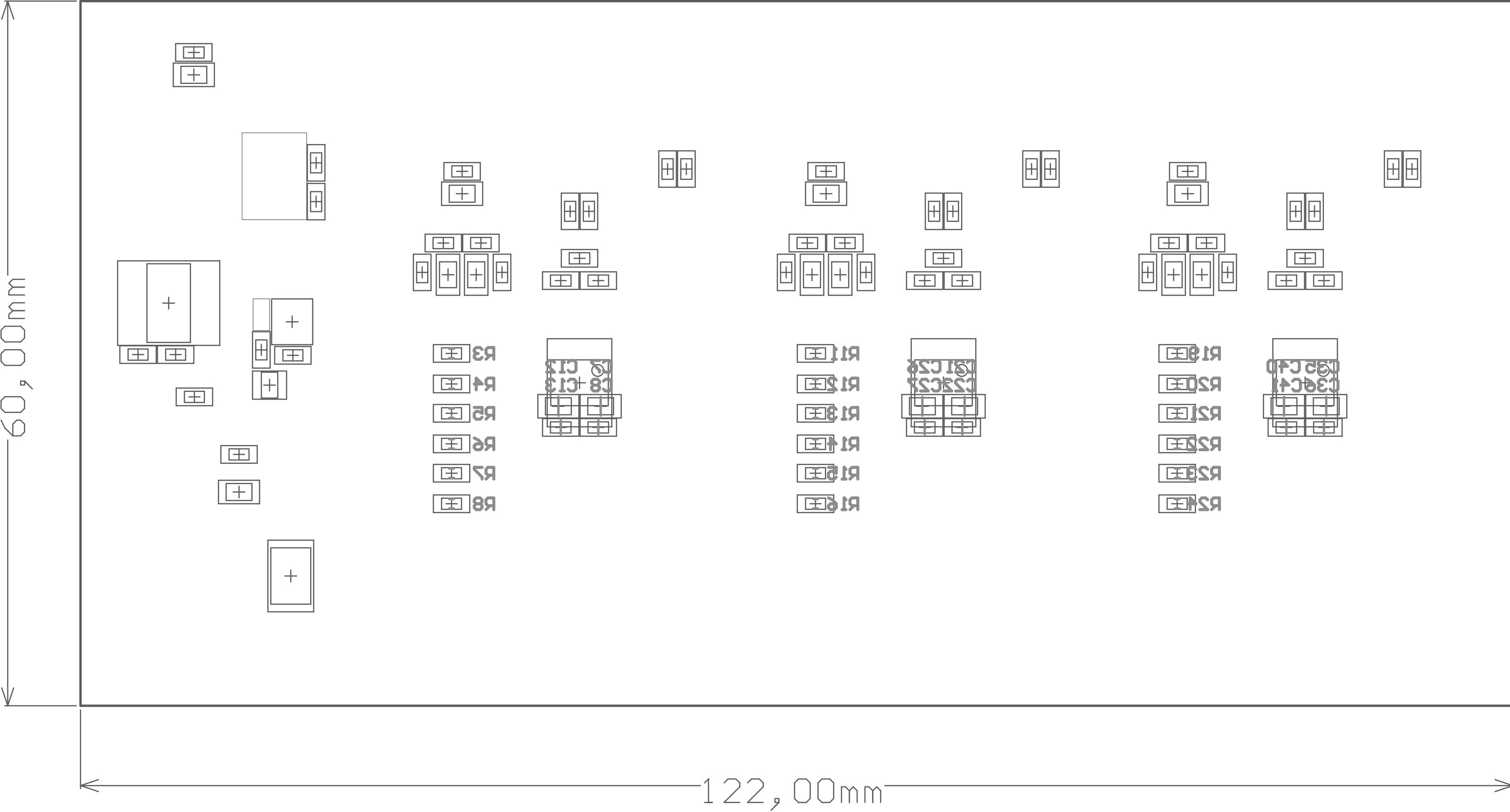


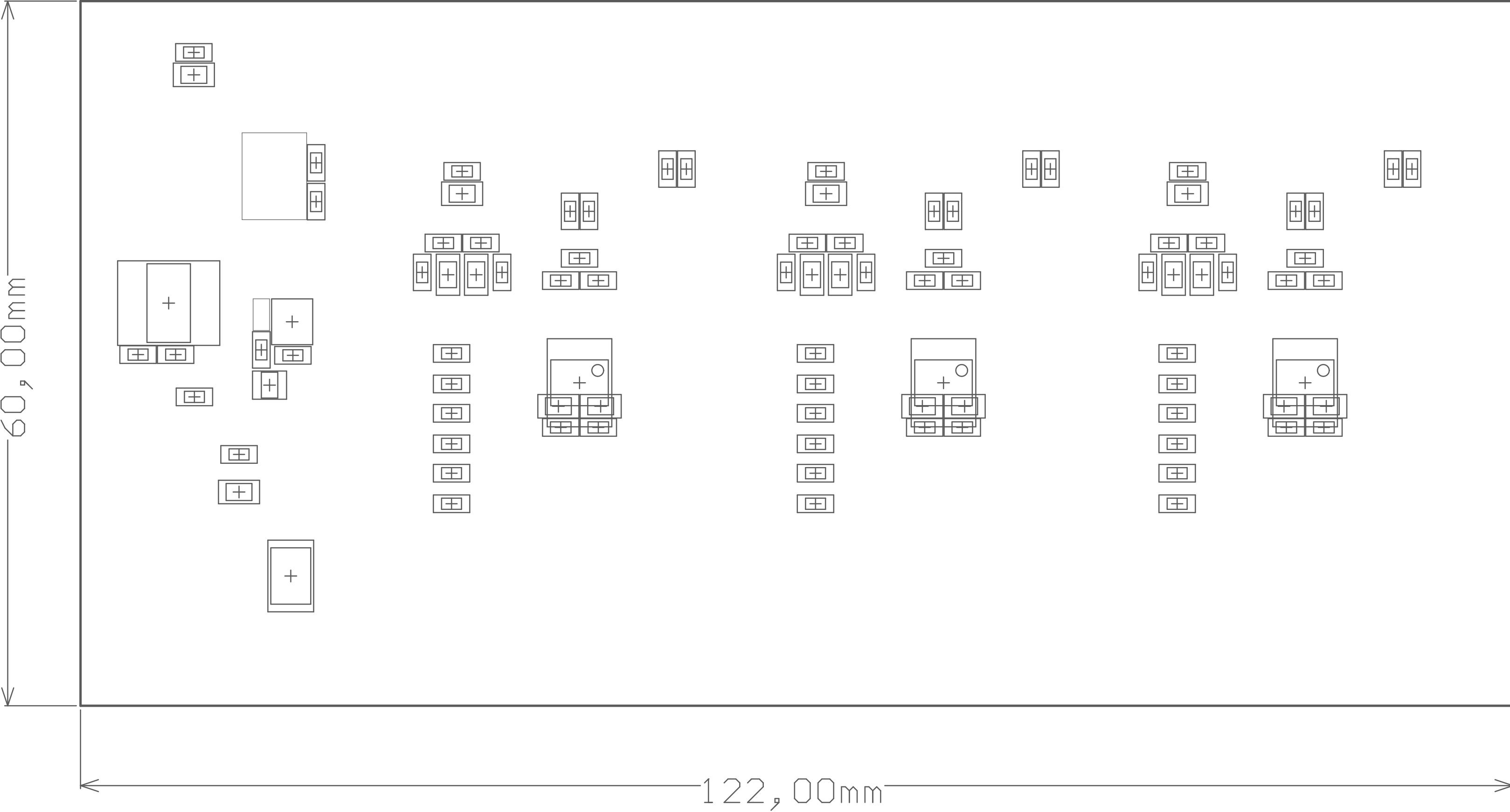
122,00mm

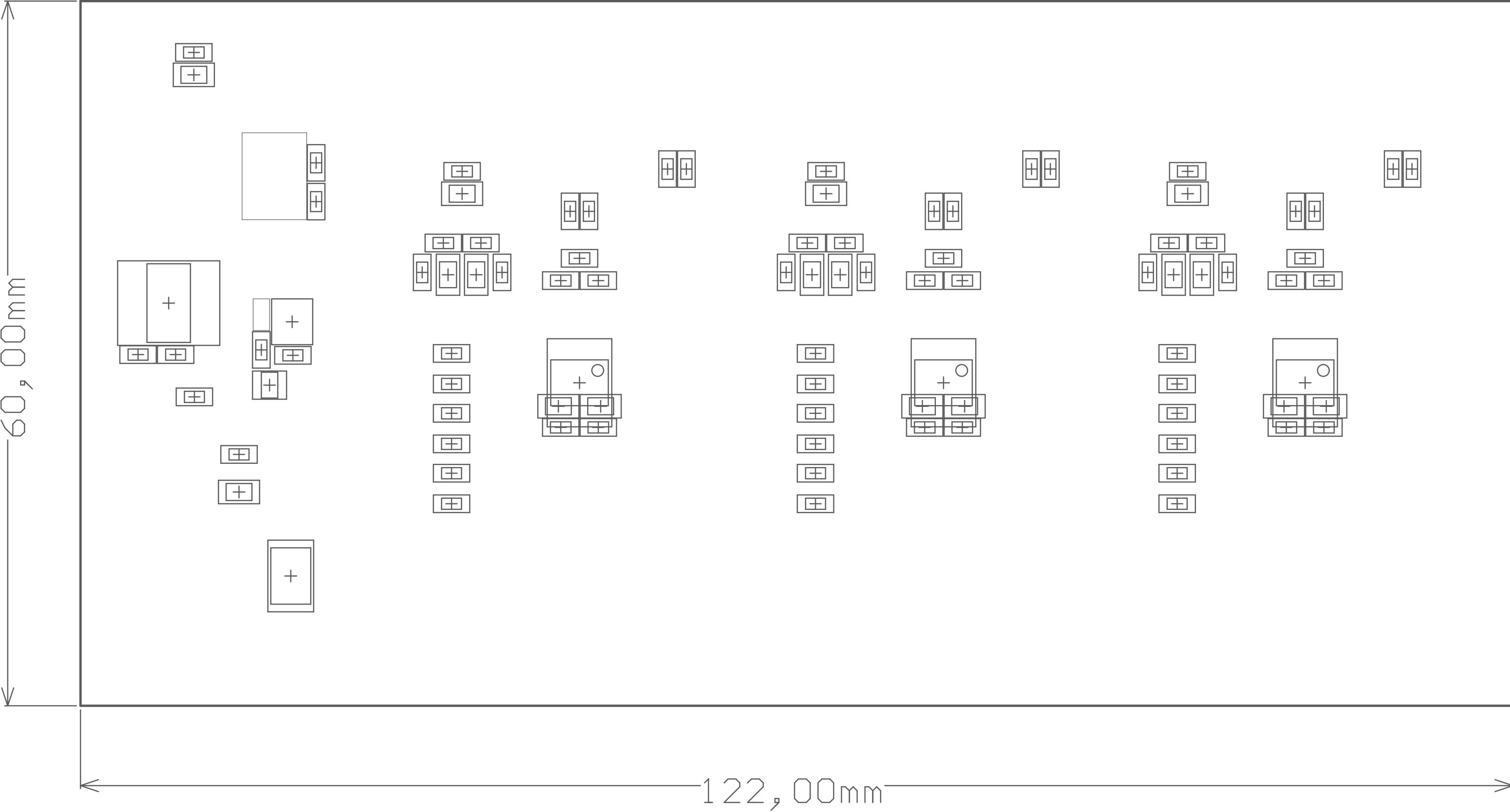


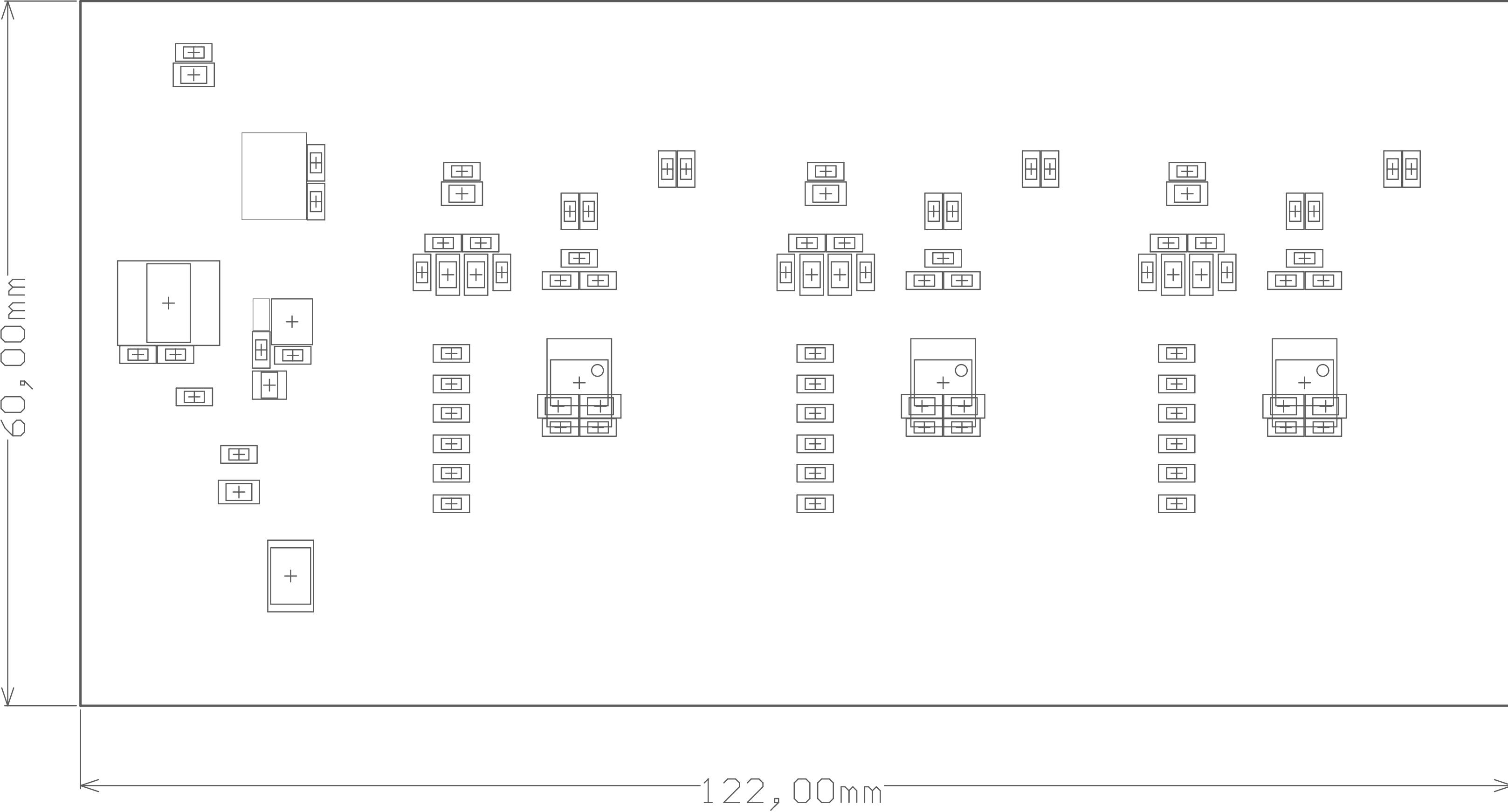


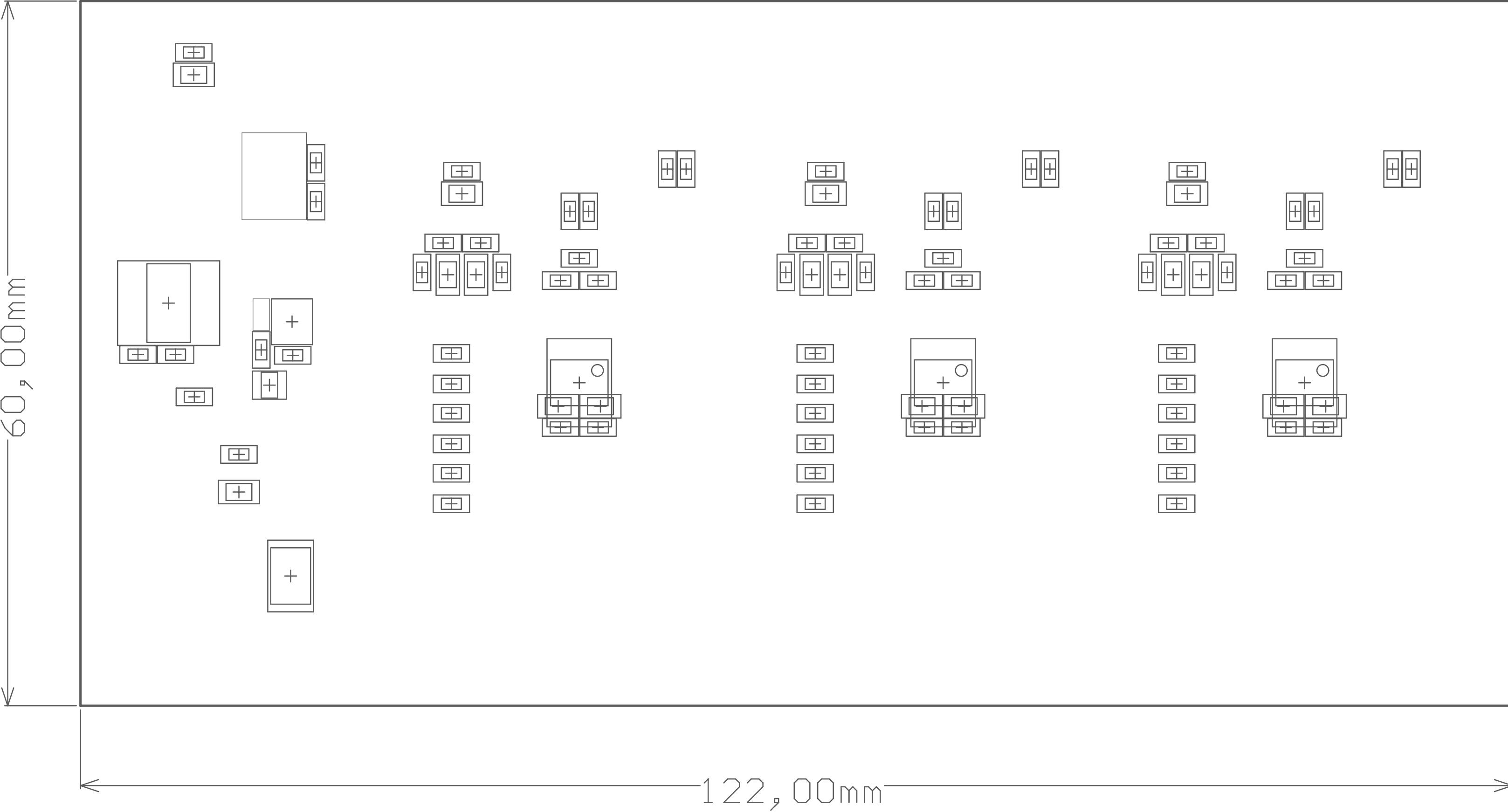
122, 00mm

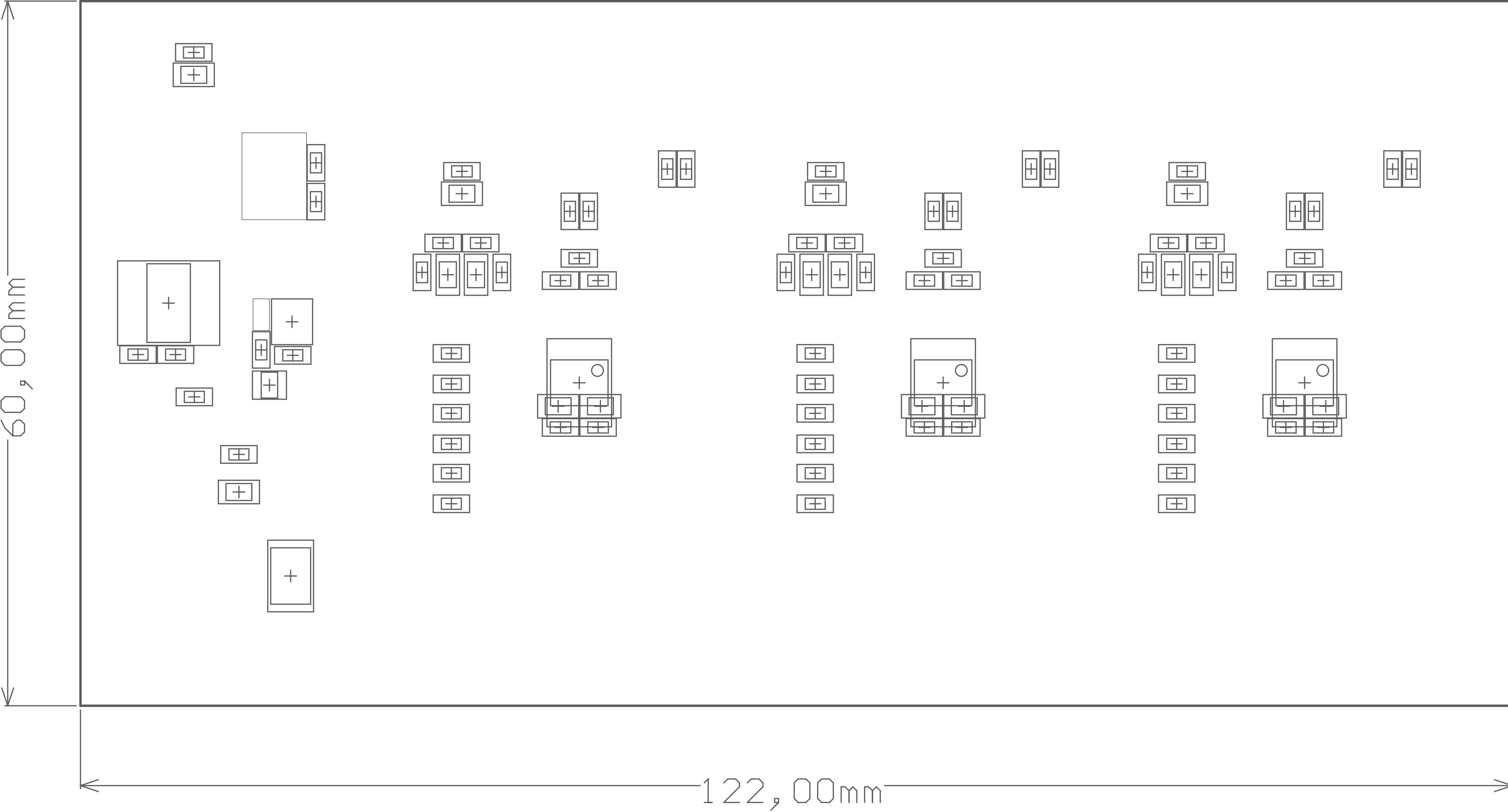


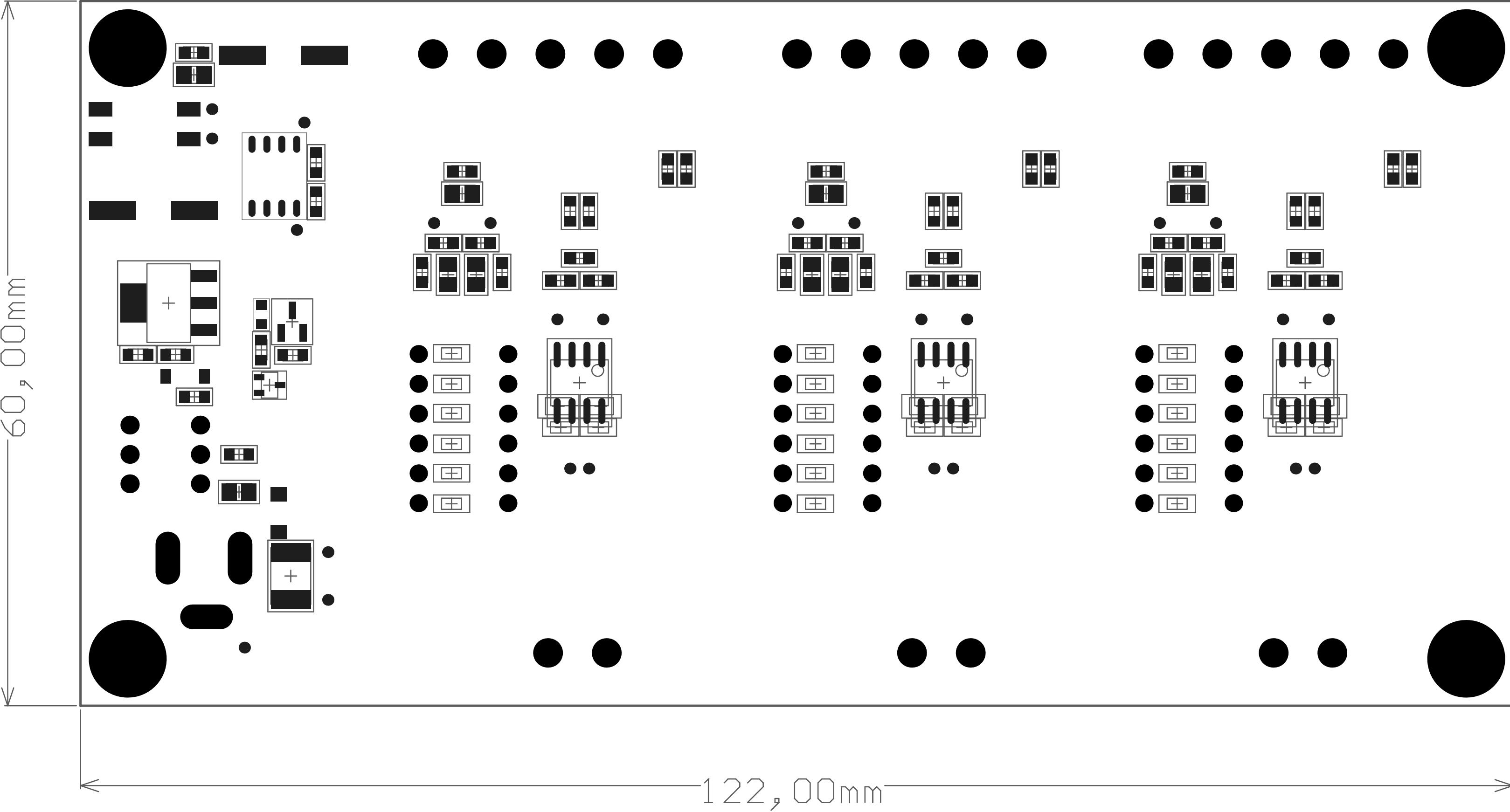


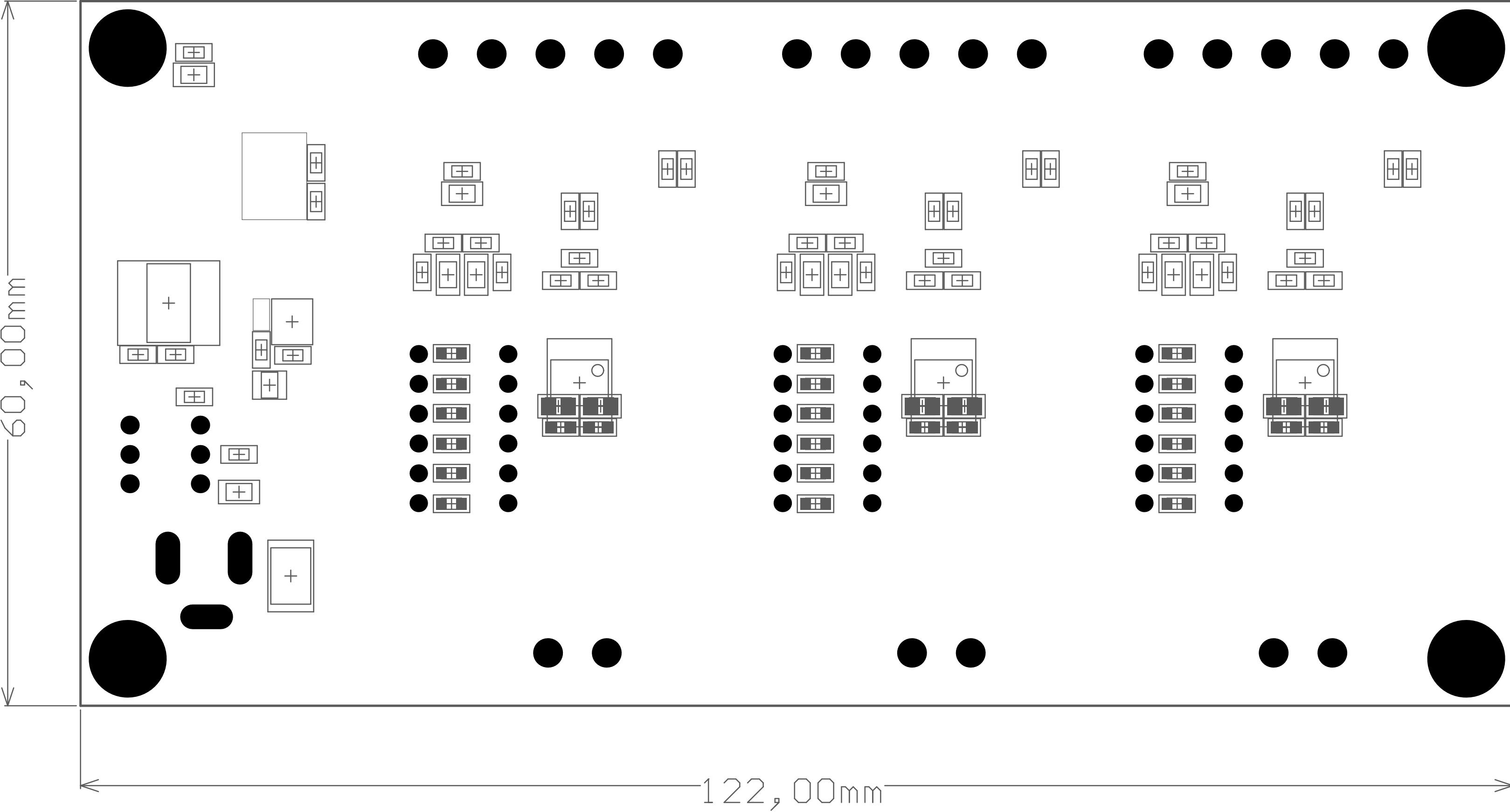


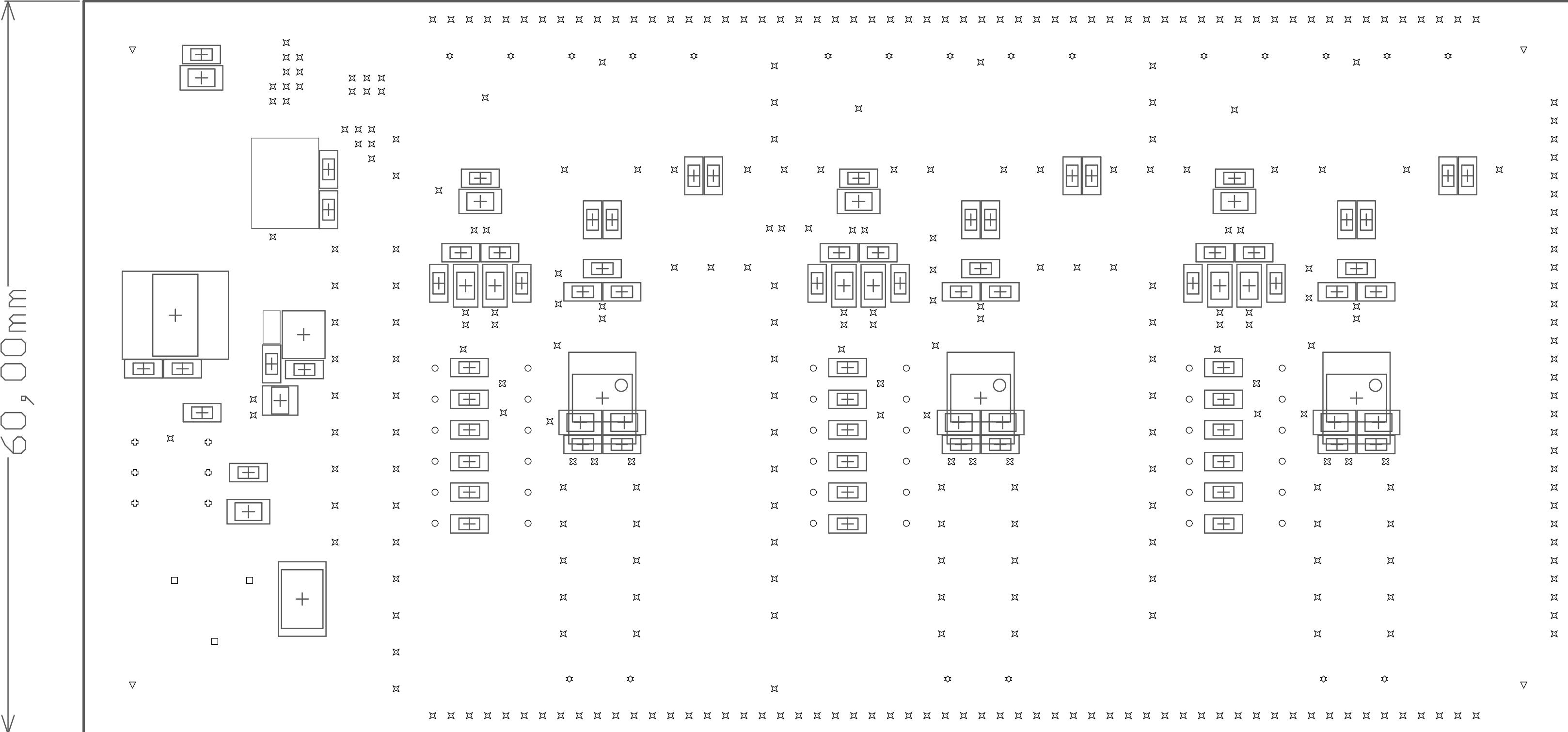












122, 00mm

