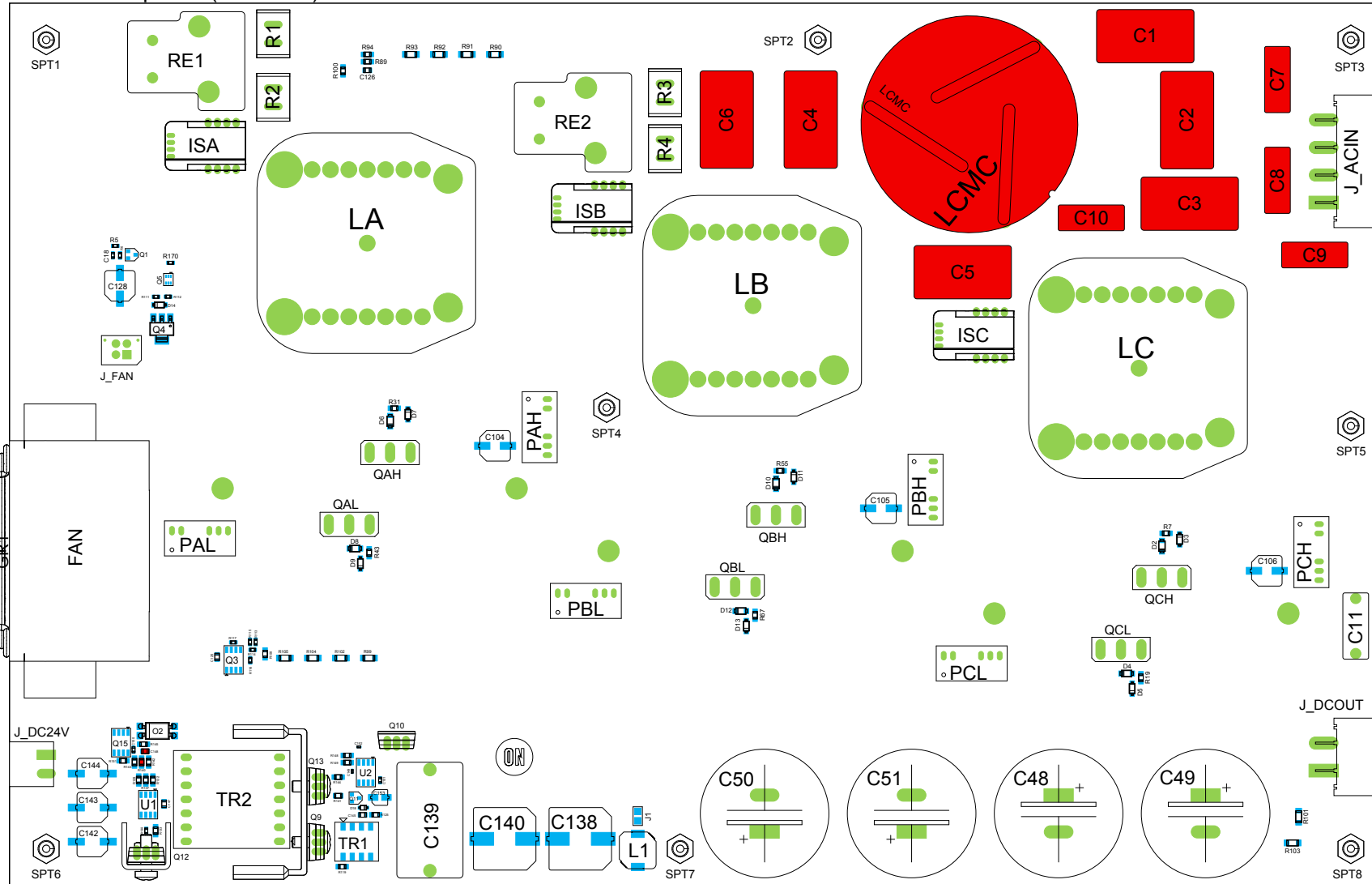


View from Top side (Scale 0.6)



1 Components not present in this assembly variant are shown with red background

## OBC PFC power board

Variant name: standard\_board

Engineer: Stefan Kostrec

Date: 27.Mar 2018 21:58

PCB File: OBC\_PFC\_power\_board.PcbDoc

Repository revision: 891

Revision:  
0.3

State:  
released

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Bill Of Materials - Top side components (1/3)

Designator	Comment	Quantity
BR_LEFT	Comment	1
BR_RIGHT	Comment	1
C11	2n2	1
C125, C126	100 nF	2
C104-C106, C128	100 µF	4
C139	1µ	1
C138, C140	15 µF	2
C142-C144	330 µF	3
C145	68 pF	1
C147	100 nF	1
C149	220 pF	1
C150	6n8	1
C151	33 nF	1
C152	180 pF	1
C153	10 µF	1
C18	10 nF	1
C48-C51	470 µF	4
D3, D5, D7, D9, D11, D13	MBR0540	6
D14	MMSZ5243B	1
D2, D4, D6, D8, D10, D12	US1MFA	6
D18	BAS16H	1
FAN	Comment	1
GR1	Fan finger guard	1
HS_FB	heatsink for flyback transistors	1
HS_SR	heatsink for synchronous rectifier	1
ISC, ISB, ISA	CKSR 15-NP	3
J_ACIN	46007-3104	1
J_DC24V	691 313 510 002	1
J_DCOUT	46007-3102	1
J_FAN	43045-0427	1
L1	100 µH	1
LC, LB, LA	450 / 220 µH	3
LCMC		1
N_SR	hex nut for SR heatsink	1
O2	SFH615A-3	1

Bill Of Materials - Top side components (2/3)

Designator	Comment	Quantity
PCL, PCH, PBL, PBH, PAL, PAH	QA01C	6
Q1, Q11	BSS138L	2
Q12	FDPF2710T	1
Q9, Q10, Q13	FQPF5N90	3
Q15	TL431ACDG	1
Q3	NCS2333	1
Q4	NTF2955	1
Q5	MUN5213DW1	1
QCL, QCH, QBL, QBH, QAL, QAH	NTW080N12SC1	6
R108	15k	1
R101, R103	82k	2
R113	1k	1
R114-R117	2k2	4
R119	0R	1
R125	220R	1
R89, R94, R100, R129	10k	4
R130	220R	1
R132	56k	1
R133	10R	1
R90-R93, R99, R102, R104, R105	820k	8
R6, R111, R112	10k	3
R137	2k2	1
R141	8R2	1
R142	330R	1
R144	22R	1
R145	1k	1
R143	22k	1
R148	6k8	1
R149	47k	1
R151	2k49	1
R170	22k	1
R1-R4	68R	4
R5	100R	1
R7, R19, R31, R43, R55, R67	8k2	6
RE1, RE2	20 A (coil 24 V)	2
S_FB1, S_FB2	M3x8 pan head screw	2

Bill Of Materials - Top side components (3/3)

Designator	Comment	Quantity
S_SR	Screw for SR	1
SPT1-SPT8	Spacer M4 F/F 70	8
TR1	760 301 302	1
TR2	750 315 046	1
U1	NCP4304A	1
U2	NCP1252D	1
W_FB1, W_FB2, W_SR3	spring lock washer for M3	3
W_FB3, W_FB4	plain washer for M3	2

2 Only components present in this assembly variant are listed in BoM tables

**OBC PFC power board**

Variant name: standard\_board

Engineer: Stefan Kostrec

Date: 27.Mar 2018 21:58

PCB File: OBC\_PFC\_power\_board.PcbDoc

Repository revision: 891

Revision:  
0.3

State:  
released

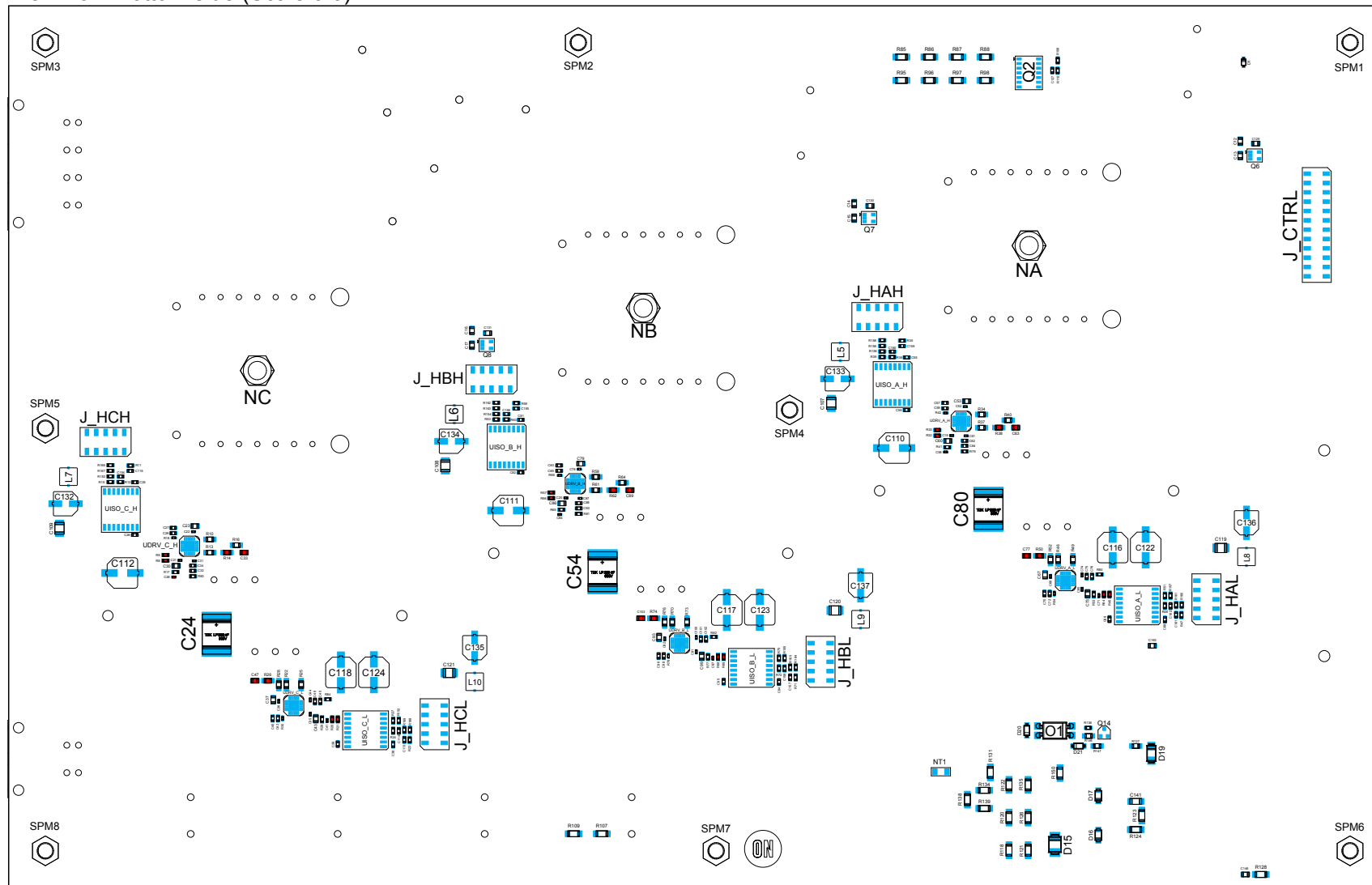
Assembly  
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View from Bottom side (Scale 0.6)



3 Components not present in this assembly variant are shown with red background

<b>OBC PFC power board</b>		<b>Revision:</b> 0.3	<b>State:</b> released
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1 2 3 4 5

Bill Of Materials - Bottom side components (1/2)


Designator	Comment	Quantity
C31, C44, C61, C74, C87, C100	47 nF	6
C32, C34, C45, C46, C62, C64, C75, C76, C88, C90, C101, C102	470 nF	12
C107-C109, C119-C121	4µ7	6
C127	1 µF	1
C110-C112, C116-C118, C122-C124	100 µF	9
C12, C14, C16, C129-C131	100 nF	6
C132-C137	68 µF	6
C141	27 pF	1
C146	100 pF	1
C113-C115, C154-C162	220 pF	12
C163	22 nF	1
C13, C15, C17	1 µF	3
C24, C54, C80	250 nF	3
C19-C21, C35, C65, C91	470 nF	6
C22, C36, C52, C66, C78, C92	100 nF	6
C27, C40, C57, C70, C83, C96	2µ2	6
C25, C26, C29, C38, C39, C42, C55, C56, C59, C68, C69, C72, C81, C82, C85, C94, C95, C98	100 nF	18
C23, C30, C37, C43, C53, C60, C67, C73, C79, C86, C93, C99	2µ2	12
D15	SMBJ15CA	1
D16, D17	US1MFA	2
D1	BAS16H	1
D19	MURA120	1
D20, D21	MMSZ5245B	2
J_CTRL	610 024 218 21	1
J_HAH, J_HAL, J_HBH, J_HBL, J_HCH, J_HCL	610 010 218 21	6
L5-L10	22 µH	6
NC, NB, NA	hexagonal nut M5 DIN934	3
O1	SFH615A-3	1
Q14	MMBT489LT1G	1
Q2	NCS4333	1
Q6-Q8	NCS333	3
R106	3k4	1

Bill Of Materials - Bottom side components (2/2)

Designator	Comment	Quantity
R107, R109	82k	2
R110	1k2	1
R123, R124	47R	2
R127	390R	1
R128	100R	1
R16, R28, R40, R52, R64, R76	10k	6
R85-R88, R95-R98, R118, R120-R122, R126, R135	820k	14
R11, R15, R23, R27, R35, R39, R47, R51, R59, R63, R71, R75, R136	10k	13
R131, R134, R138, R139	6k8	4
R10, R22, R34, R46, R58, R70	22R	6
R146	22k	1
R147	4k7	1
R150	1R	1
R152-R169	33R	18
R12, R24, R36, R48, R60, R72	82k	6
R13, R25, R37, R49, R61, R73	4R7	6
R18, R30, R42, R54, R66, R78	113k	6
R17, R29, R41, R53, R65, R77, R79-R84	0R	12
SPM1-SPM8	spacer 8/25	8
UDRV_C_L, UDRV_C_H, UDRV_B_L, UDRV_B_H, UDRV_A_L, UDRV_A_H	NCP51705MPX	6
UIISO_B_H, UIISO_C_L, UIISO_C_H, UIISO_B_L, UIISO_A_L, UIISO_A_H	ISO7741DW	6

4 Only components present in this assembly variant are listed in BoM tables

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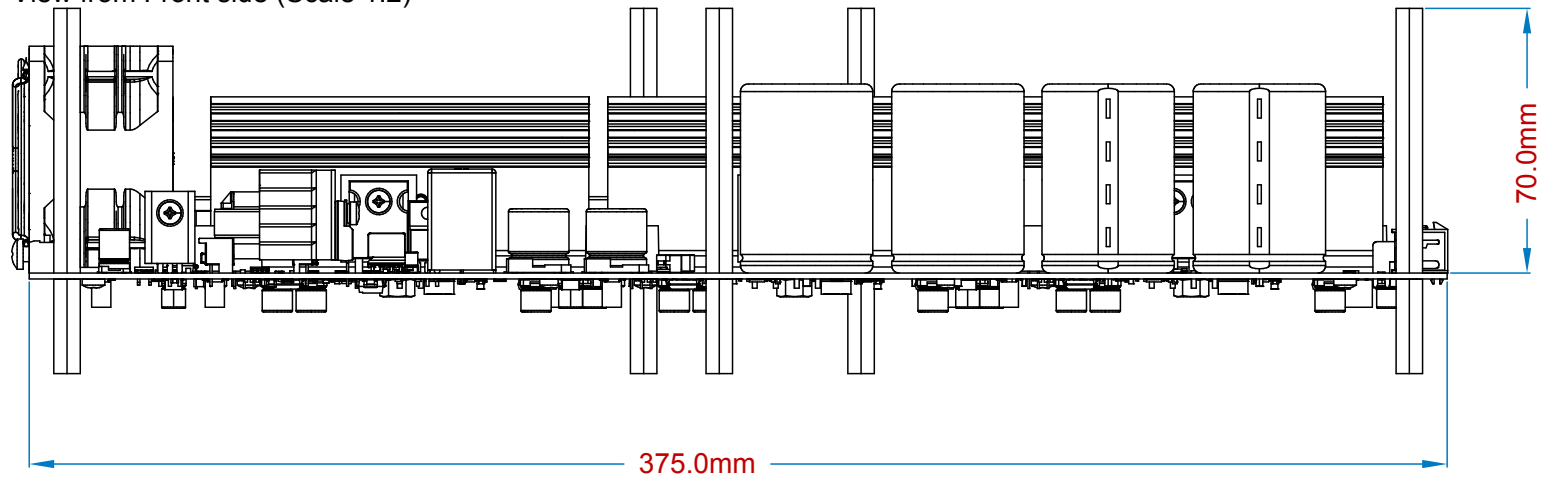
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A

A

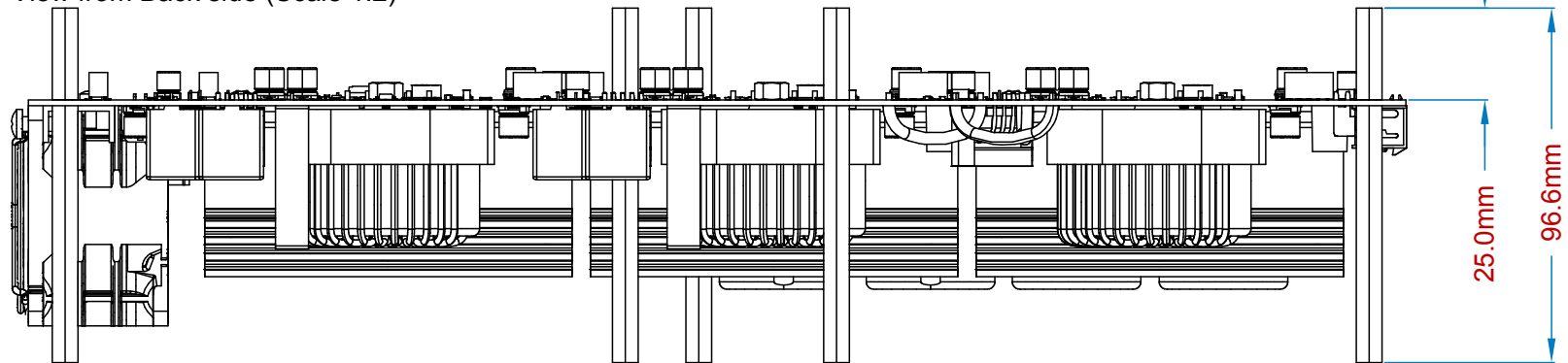
View from Front side (Scale 1:2)



B

B

View from Back side (Scale 1:2)



C

C

D

D

<b>OBC PFC power board</b>		<b>Revision:</b> 0.3	<b>State:</b> released
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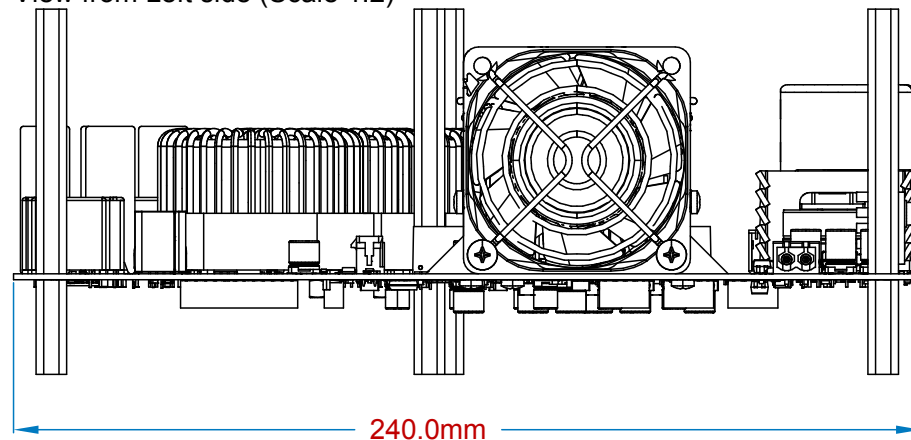
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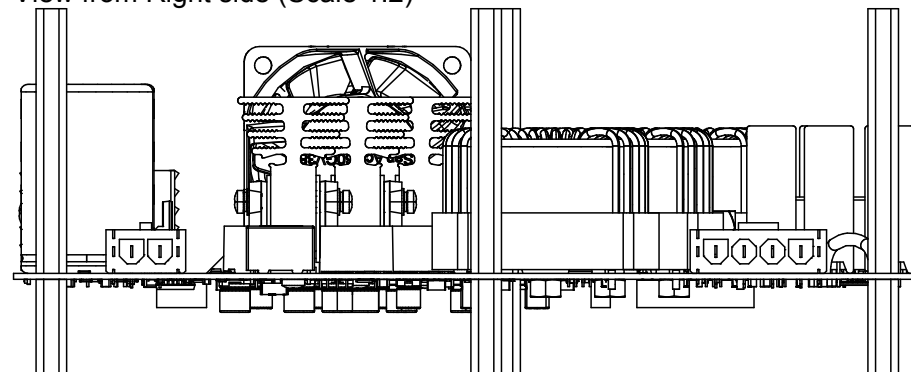
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View from Left side (Scale 1:2)



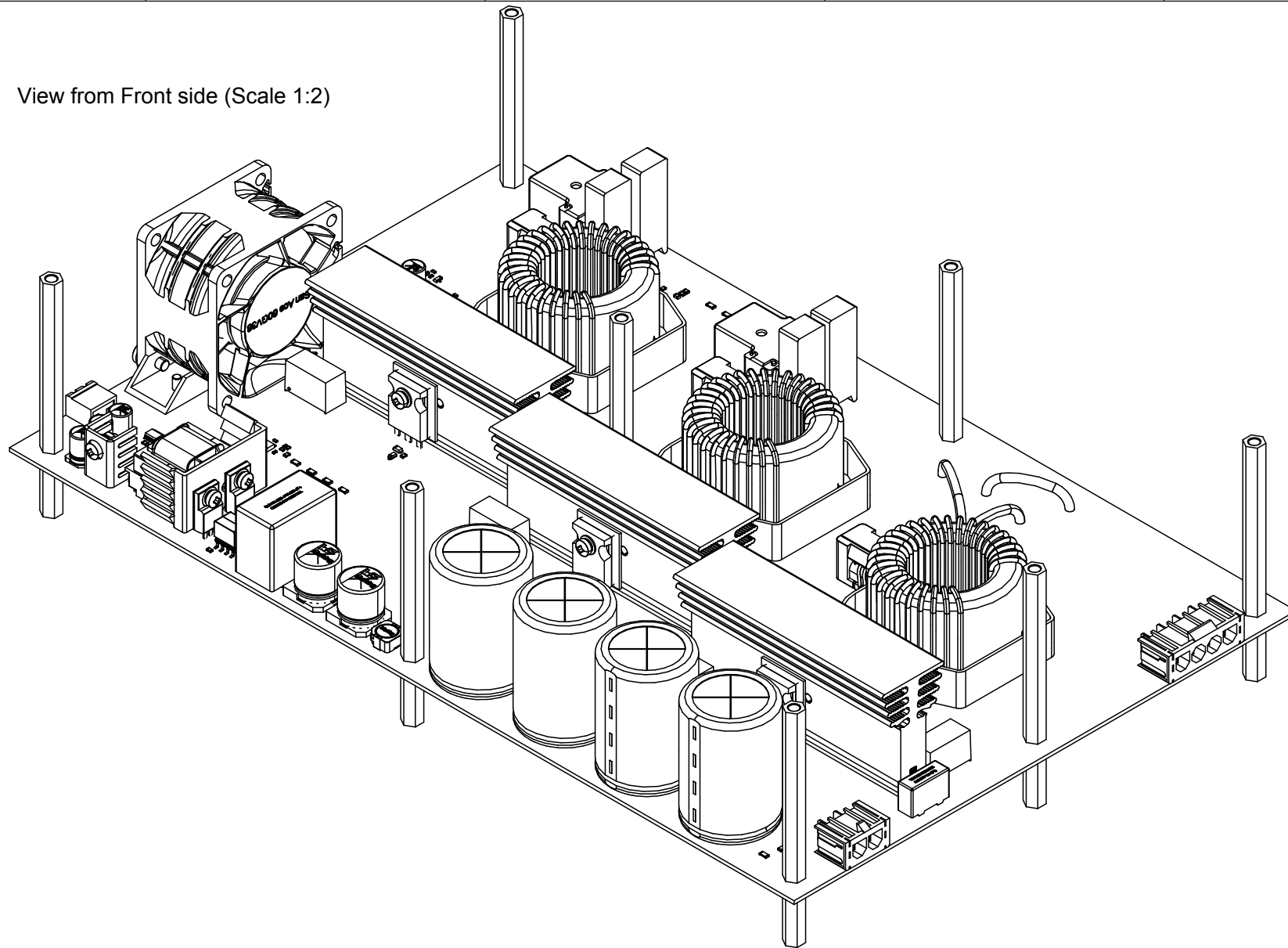
View from Right side (Scale 1:2)



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View from Front side (Scale 1:2)



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