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REVISION	DESCRIPTION	DATE
v1.0	Initial Prototype	09/04/2021
v2.0	Second Prototype	07/06/2021
v3.0	Design Candidate	05/08/2021
v4.3	Final Design	27/11/2021

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Board Assembly Statistics

Item	Value
Board Height	63.50mm
Board Width	50.00mm
Board Area	3171.61sq.mm
Component Count	109
Board Density	35%
Net Count	50
Pad Count	304

THIRD ANGLE

<div>APPROVALS</div> <div>ENGINEER: LD STANTON</div> <div>CHECKER: JC Pead</div> <div>REFERENCE DOCUMENTS</div> <div>BOM DOC: Bill of Materials.csv</div> <div>CPL DOC: Pick and Place.csv</div> <div>FAB DOC: Fabrication.PCBDwf</div> <div>SCH DOC: Main.SchDoc</div> <div>PCB DOC: PCB.PcbDoc</div>	DATE		27/11/2021		--/--/----	
	TITLE:		SIO2MKR			
	VARIANT:		[No Variations]		REVISION	
	SIZE:		A4		v4.3 2021/12/10	
	SCALE:		1:1		DWG:	
	FILE:		Assembly.PCBDwf		ASSEMBLEY	
	SHEET		1 OF		7	

UNIVERSITY OF CAPE TOWN

DEPARTMENT OF ELECTRICAL ENGINEERING

CAPE TOWN

SOUTH AFRICA

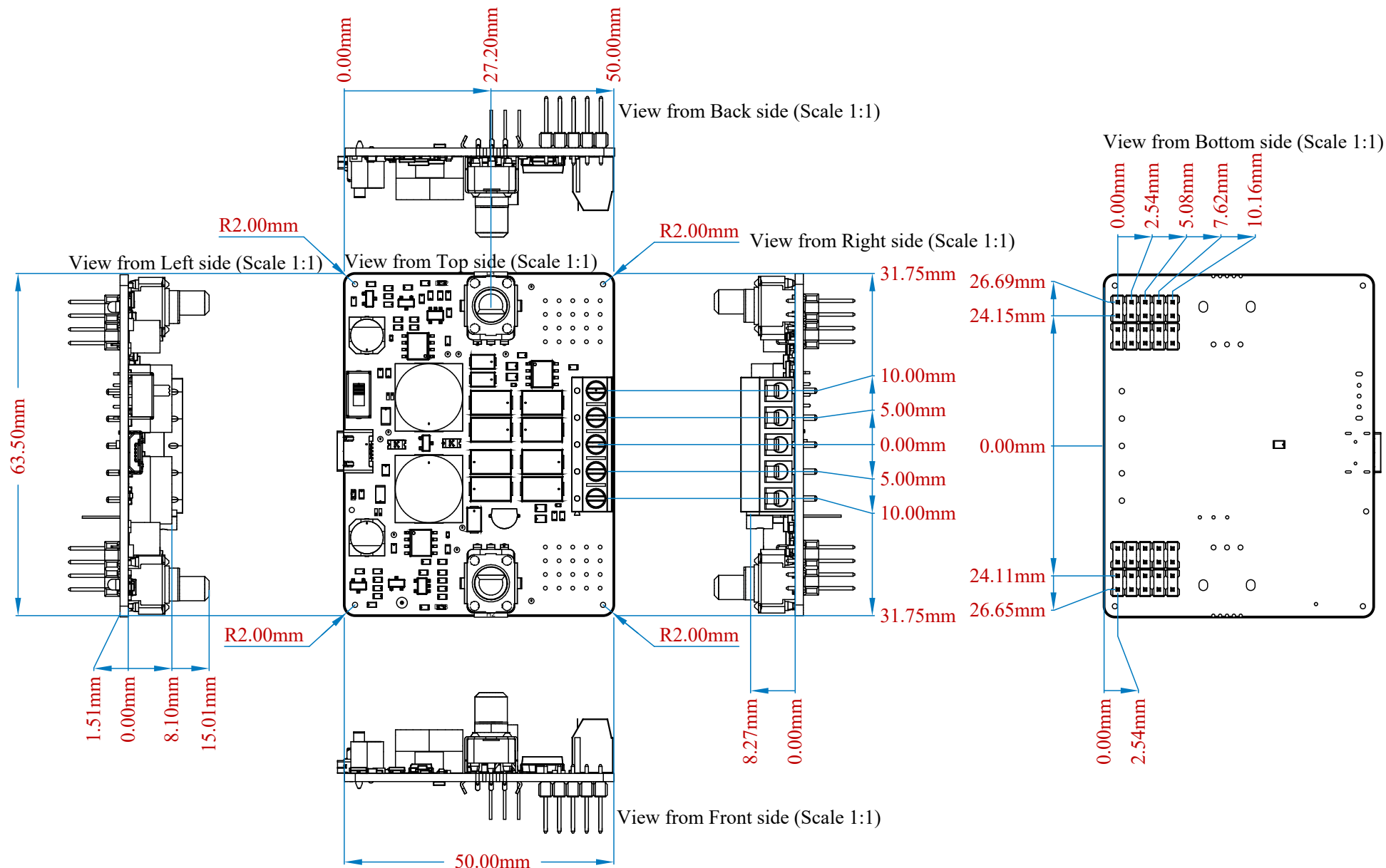
7701

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SIZE:	A4		DWG:	ASSEMBLY	
SCALE:	1:1		FILE:	Assembly.PCBDwf	SHEET 2 OF 7

A

B

C

D

E

View from Front side (Scale 5:2)

POWER ON LED

## TOOLING HOLE

## TOOLING HOLE

PROBE GND

MC34063

VNN LED

VNN ADJUST

LM337 -

## TOOLING HOLE

– TOOLING HOLE

– MC34063

- VPP LED

– VPP ADJUST

- LM317

- TOOLING HOLE

View from Back side (Scale 1:1)

## 0805 5V PTC FUSE BYPASS

**SIZE:**

# A4

DWG:
------

# ASSEMBLY

SCALE:

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**1:1**

<b>FILE:</b>	
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**Assembly.PCBDwf**

SHEET 3 OF 7

A

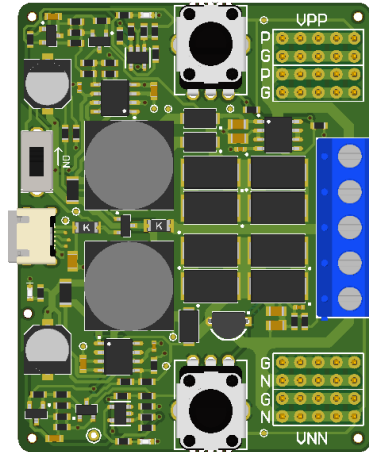
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C

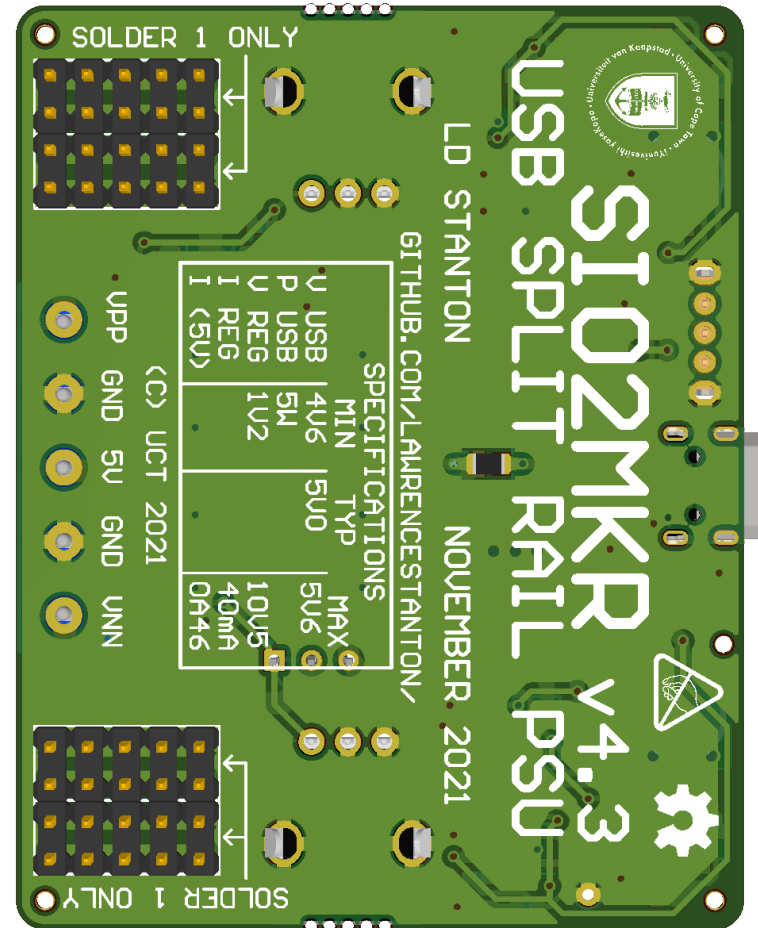
D

E

Realistic View



Realistic View



SIZE:	A4		DWG:	ASSEMBLY		
SCALE:	1:1		FILE:	Assembly.PCBDwf	SHEET 4 OF 7	

A

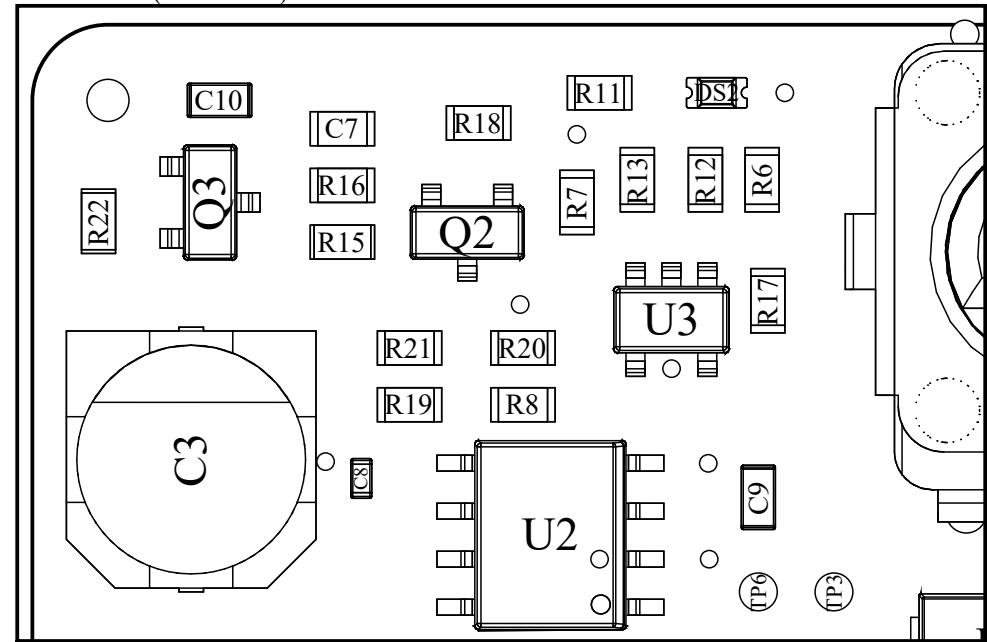
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C

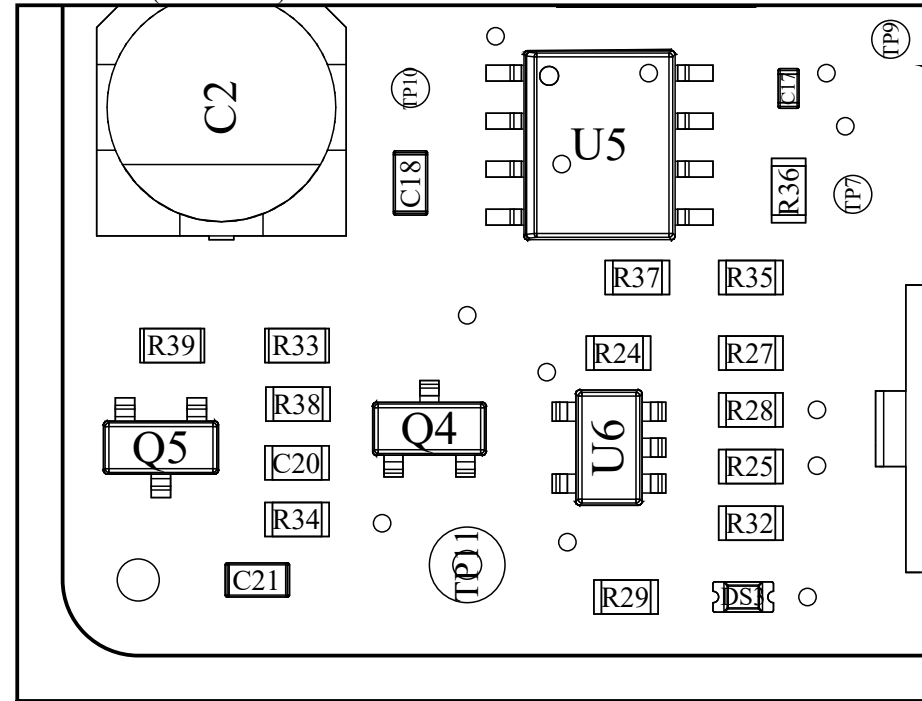
D

E

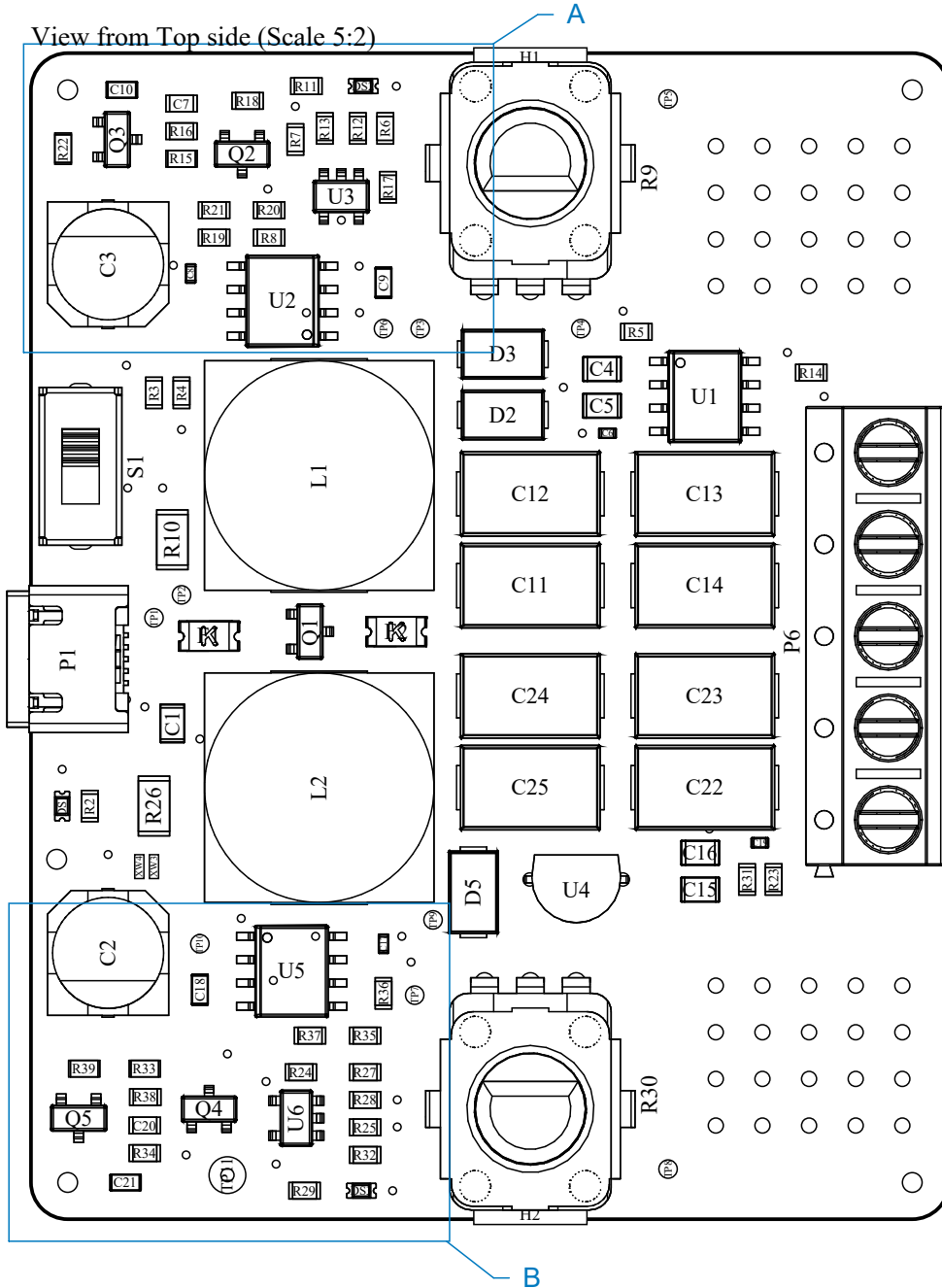
DETAIL A (Scale 10:2)



DETAIL B (Scale 10:2)



View from Top side (Scale 5:2)



SIZE:

A4

DWG:

ASSEMBLY

SCALE:

1:1

FILE:

Assembly.PCBDwf

SHEET 5 OF 7

A

B

C

D

E

A

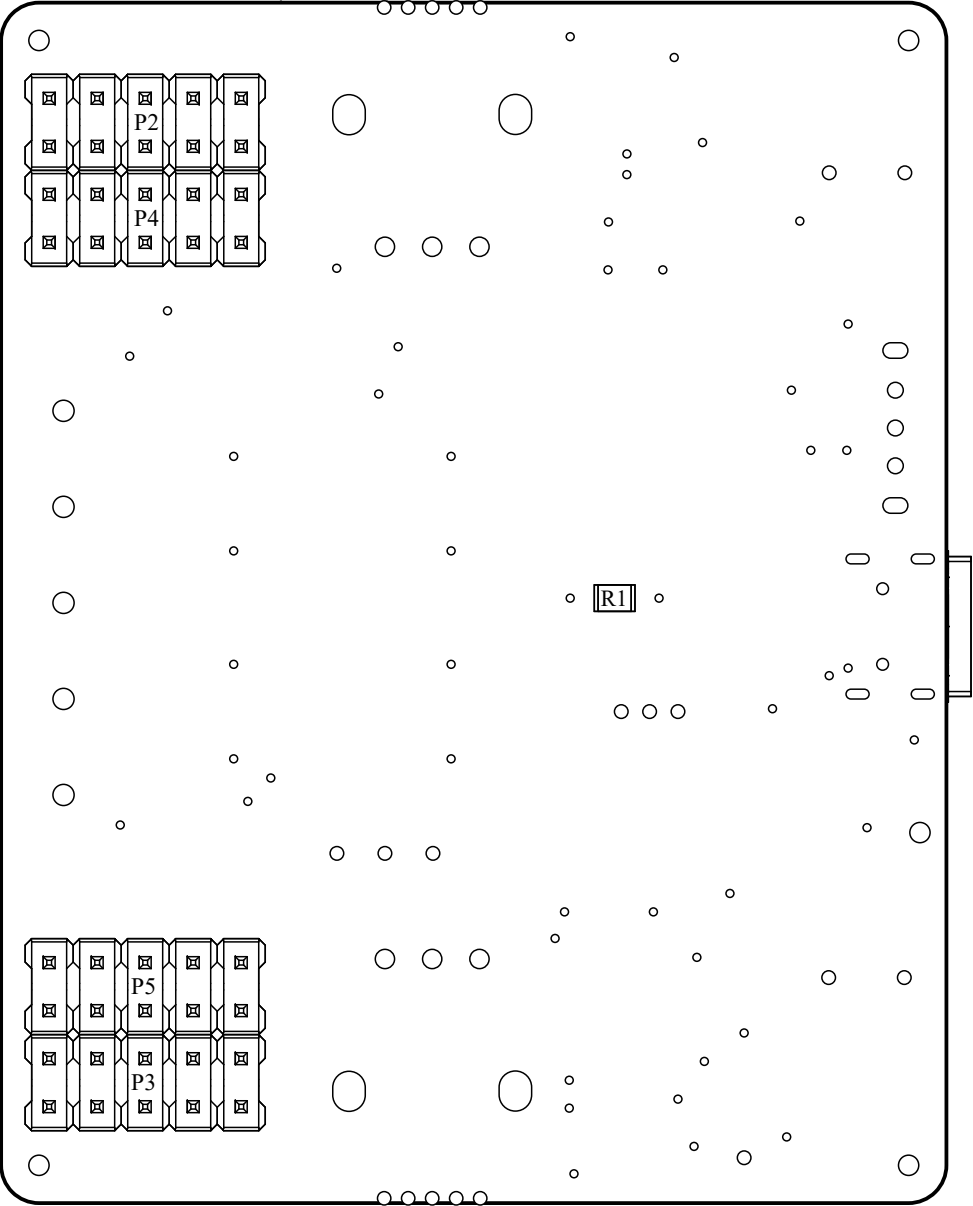
B

C

D

E

View from Bottom side (Scale 5:2)



SIZE:	A4		DWG:	ASSEMBLEY	
SCALE:	1:1		FILE:	Assembly.PCBDwf	SHEET 6 OF 7

A

B

C

D

E

## Bill Of Materials Page 1

Line #	Designator	Comment	Quantity
1	C1	CL21B103KBANNNC	1
2	C2, C3	RVT1A221M0605	2
3	C4, C16	CC0805KRX7R9BB104	2
4	C5, C15	CL21B105KBFNNNE	2
5	C6, C19	0402CG3R3C500NT	2
6	C7, C20	CC0603KRX7R9BB104	2
7	C8, C17	CL05B104KO5NNNC	2
8	C9, C18	CL10B102KB8NNNC	2
9	C10, C21	MLCC 10pF 0603 50V C0G	2
10	C11, C12, C13, C14, C22, C23, C24, C25	293D107X9016D2TE3	8
11	D2, D3, D5	SS34	3
12	DS1, DS2, DS3	19-217/GHC-YR1S2/3T	3
13	F1	0468001.NRHF	1
14	F2	nSMD020-30V	1
15	L1, L2	SWRB1207S-331MT	2
16	P1	MICRO 4P DIP	1
17	P2, P3, P4, P5	A2541WV-2x5P	4
18	P6	CZM5,08-4E	1
19	Q1	AO3401A	1
20	Q2, Q4	LBSS84LT1G	2
21	Q3, Q5	SS8050	2
22	R1	0805W8F0000T5E	1
23	R2, R11, R29	0603WAF3300T5E	3
24	R3, R38	0603WAF1002T5E	2
25	R4, R8	0603WAF1200T5E	2
26	R5, R23	0603WAF2400T5E	2
27	R6	0603WAF6802T5E	1
28	R7, R12, R24, R25	0603WAF3302T5E	4
29	R9	RK09K1130AU2	1
30	R10, R26	1206W4F680LT5E	2
31	R13	0603WAF1202T5E	1
32	R14, R31	0603WAF2701T5E	2
33	R15, R33	0603WAF4702T5E	2
34	R16, R34	0603WAF2702T5E	2
35	R17, R27, R32	0603WAF1003T5E	3
36	R18	0603WAF1002T5E	1
37	R19, R36	0603WAF5602T5E	2
38	R20, R21, R35, R37	0603WAF5601T5E	4
39	R22, R39	0603WAF1002T5E	2
40	R28	0603WAF5602T5E	1
41	R30	RK09K1130AU2	1
42	S1	SS12D07L2B	1
43	U1	LM317LBDR2G	1
44	U2, U5	MC34063ADR2G	2

## Bill Of Materials Page 2

[illegible]

SIZE: <b>A4</b>	DWG: <b>ASSEMBLY</b>		
SCALE: <b>1:1</b>	FILE: <b>Assembly.PCBDwf</b>	SHEET <b>7</b> OF <b>7</b>	