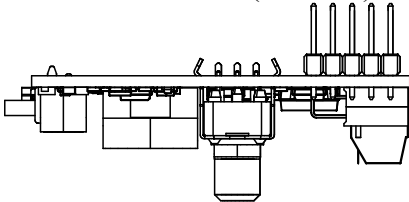
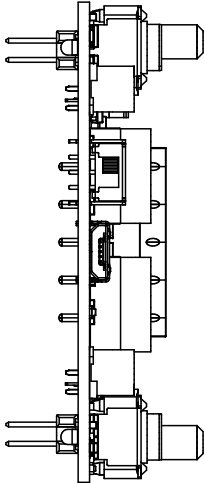


| RELEASE HISTORY |                   |            |
|-----------------|-------------------|------------|
| REVISION        | DESCRIPTION       | DATE       |
| v1.0            | Initial Prototype | 02/04/2021 |
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| -               | -----             | --/--/---- |
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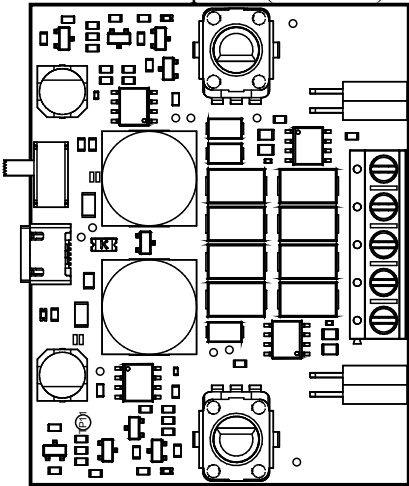
View from Back side (Scale 1:1)



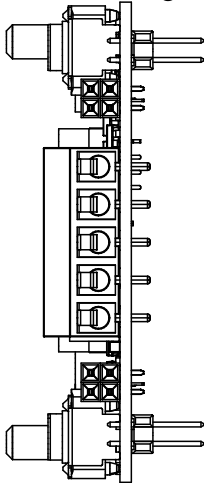
View from Left side (Scale 1:1)



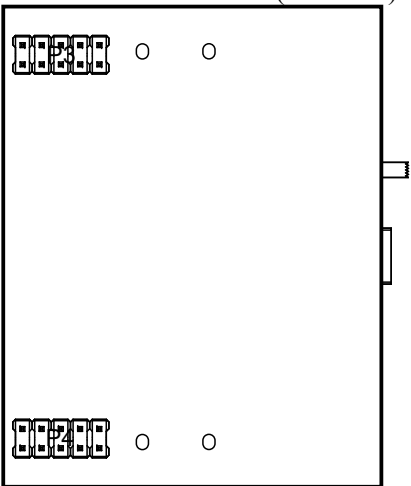
View from Top side (Scale 1:1)



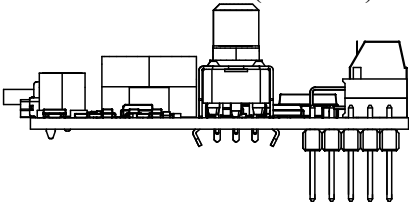
View from Right side (Scale 1:1)


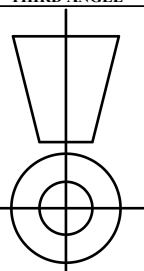


View from Bottom side (Scale 1:1)



View from Front side (Scale 1:1)



|   |                                |            |   |  |   |  |
|---|--------------------------------|------------|---|--|---|--|
| THIRD ANGLE   | APPROVALS                      | DATE       |  | UNIVERSITY OF CAPE TOWN<br>DEPARTMENT OF ELECTRICAL ENGINEERING<br>CAPE TOWN<br>SOUTH AFRICA | CONTACT:<br>LAWRENCE STANTON<br>STNLAW003@myuct.ac.za | ALTERNATIVE:<br>JUSTIN PEAD<br>justin.pead@uct.ac.za |
|  | ENGINEER: LD STANTON           | 02/04/2021 |   | PROJECT: SIO2MKR.PrjPcb  | REVISION: v1.1  |  |
|   | CHECKER: J PEAD                | --/--/---- |   |  |   |  |
|   | REFERENCE DOCUMENTS            |            |   |  |   |  |
|   | BOM DOC: Bill of Materials.csv |            |   |  |   |  |
|   | CPL DOC: Pick and Place.csv    |            | TITLE: SIO2MKR<br><br>USB SPLIT RAIL POWER SUPPLY                                     |  |   |  |
|   | FAB DOC: Fabrication.PCBDwf    |            |   |  |   |  |
|   | SCH DOC: Main.SchDoc           |            |   |  |   |  |
| PCB DOC: PCB.PcbDoc   |                                | SIZE: A4   | DWG: ASSEMBLEY  | SHEET 1 OF 6   |   |  |
|   |                                | SCALE: 1:1 | FILE: Assembly.PCBDwf   |  |   |  |

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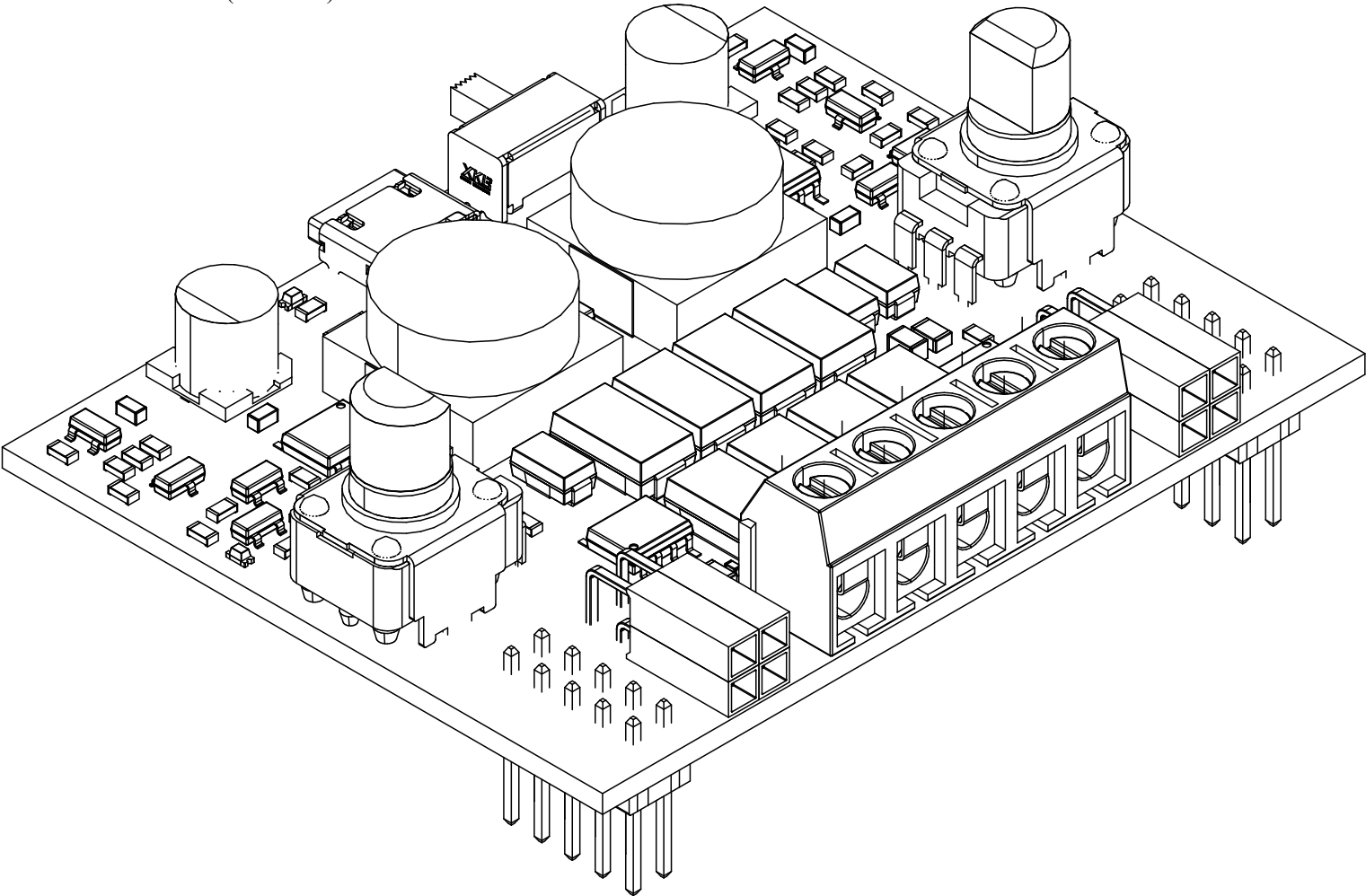
B

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View from Front side (Scale 5:2)



|        |     |  |       |                 |              |
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| SIZE:  | A4  |  | DWG:  | ASSEMBLY        |              |
| SCALE: | 1:1 |  | FILE: | Assembly.PCBDwf | SHEET 2 OF 6 |

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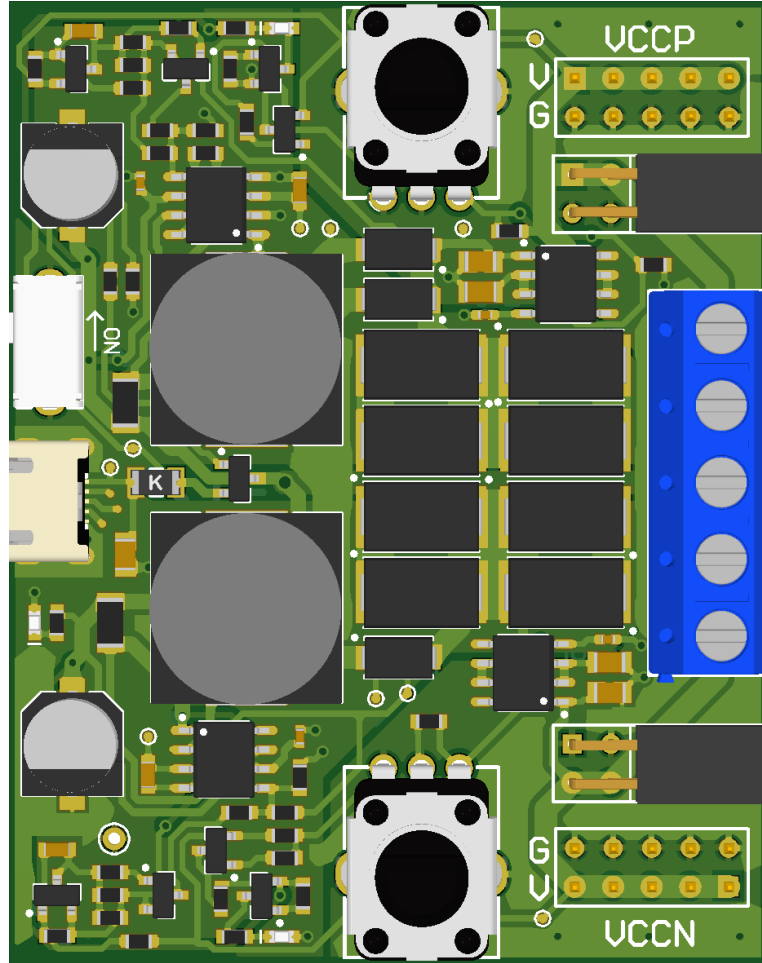
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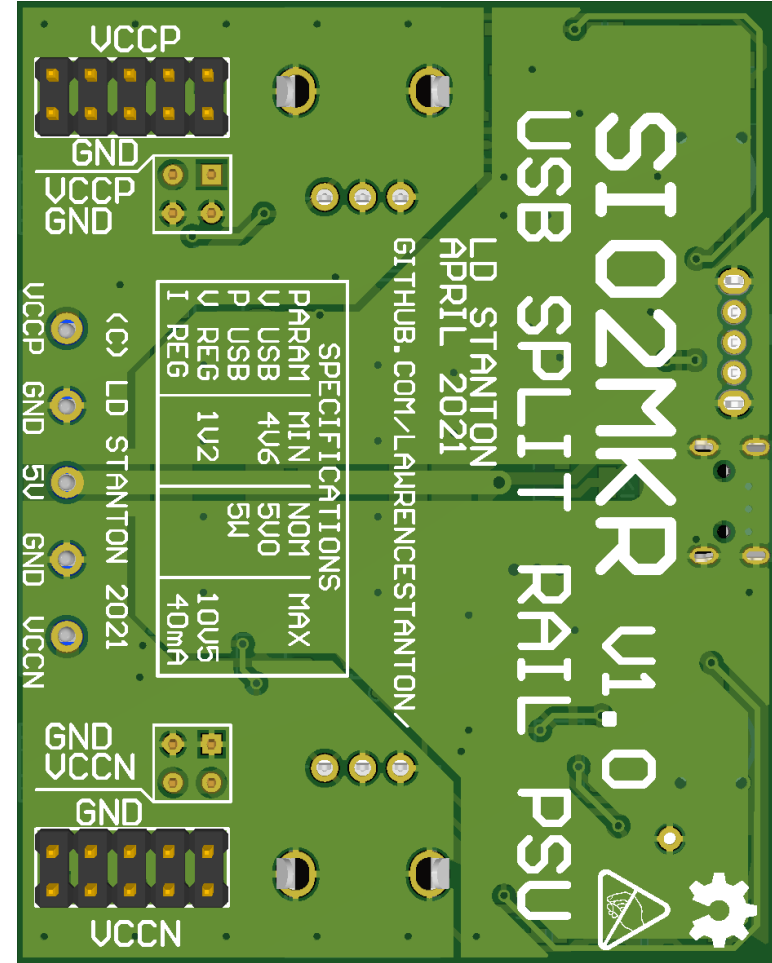
D

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Realistic View



Realistic View



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| SIZE:  | A4  |  | DWG:  | ASSEMBLEY       |              |
| SCALE: | 1:1 |  | FILE: | Assembly.PCBDwf | SHEET 3 OF 6 |

|                      |                                 |              |  |
|----------------------|---------------------------------|--------------|--|
| SIZE:<br><b>A4</b>   | DWG:<br><b>ASSEMBLY</b>         |              |  |
| SCALE:<br><b>1:1</b> | FILE:<br><b>Assembly.PCBDwf</b> | SHEET 4 OF 6 |  |

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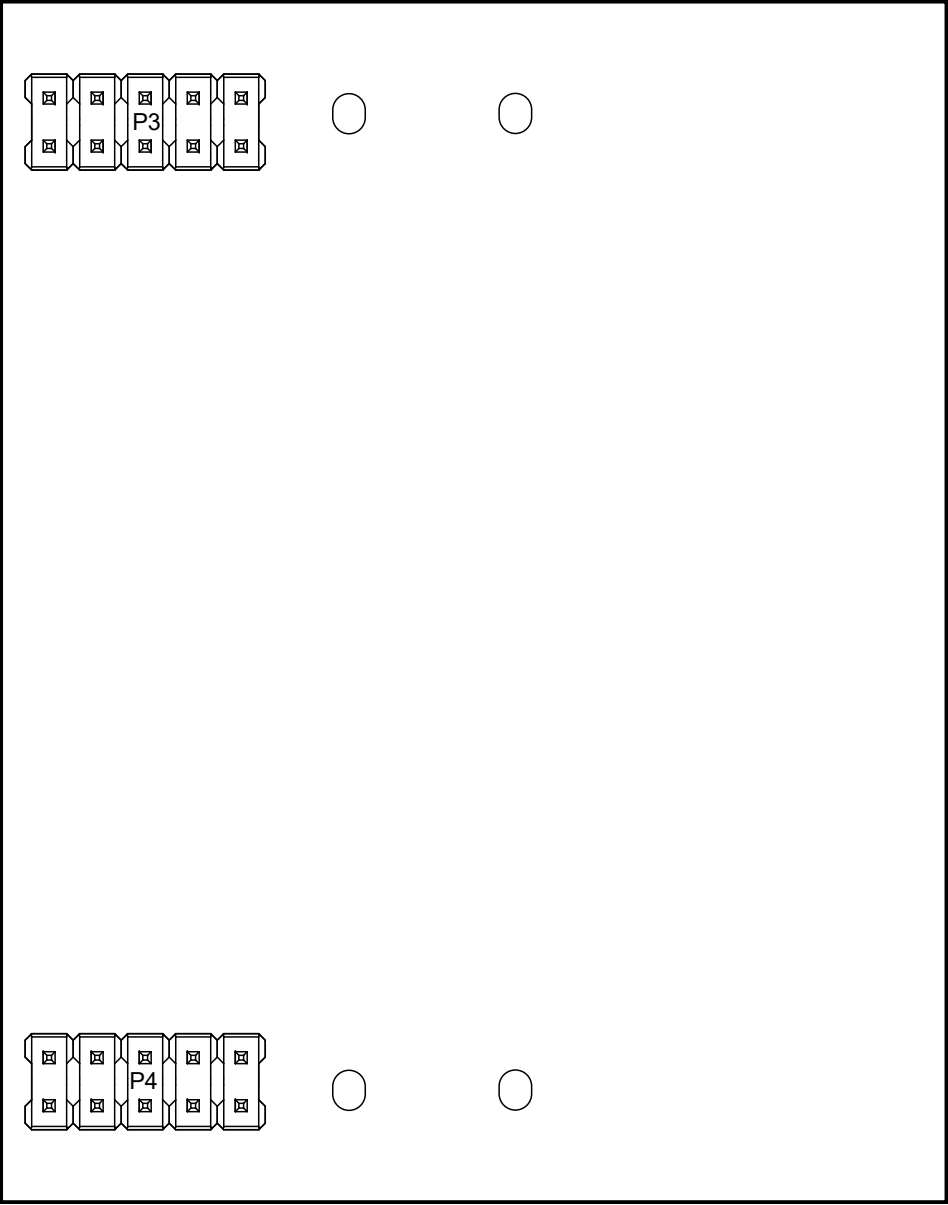
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View from Bottom side (Scale 5:2)



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| SIZE:  | <b>A4</b>  |       | DWG:            | <b>ASSEMBLY</b> |              |
| SCALE: | <b>1:1</b> | FILE: | Assembly.PCBDwf |                 | SHEET 5 OF 6 |

A

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| A                 |  | B                   |  | C        |  | D |  | E |  |
|-------------------|--|---------------------|--|----------|--|---|--|---|--|
| Bill Of Materials |  |                     |  |          |  |   |  |   |  |
| 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, C20                                | CC0603KRX7R9BB104   |  | 2        |  |   |  |   |  |
| 6                 | C7, C19                                | 0402CG3R3C500NT     |  | 2        |  |   |  |   |  |
| 7                 | C8, C17                                | CL05B104KO5NNNC     |  | 2        |  |   |  |   |  |
| 8                 | C9, C18                                | CL10A105KB8NNNC     |  | 2        |  |   |  |   |  |
| 9                 | C10, C21                               | CL10C100JB8NNNC     |  | 2        |  |   |  |   |  |
| 10                | C11, C12, C13, C14, C22, C23, C24, C25 | 293D107X9016D2TE3   |  | 8        |  |   |  |   |  |
| 11                | D1, D4, D6                             | 19-217/GHC-YR1S2/3T |  | 3        |  |   |  |   |  |
| 12                | D2, D3, D5                             | SS34                |  | 3        |  |   |  |   |  |
| 13                | F1                                     | 12H1300C            |  | 1        |  |   |  |   |  |
| 14                | L1, L2                                 | SWRB1207S-331MT     |  | 2        |  |   |  |   |  |
| 15                | P1                                     | MICRO 4P DIP        |  | 1        |  |   |  |   |  |
| 16                | P2                                     | CZM5,08-4E          |  | 1        |  |   |  |   |  |
| 17                | P3, P4                                 | A2541WV-2x5P        |  | 2        |  |   |  |   |  |
| 18                | P5, P6                                 | A2541HWR-2x2P       |  | 2        |  |   |  |   |  |
| 19                | Q1                                     | AO3401A             |  | 1        |  |   |  |   |  |
| 20                | Q2, Q3, Q7                             | LBSS84LT1G          |  | 3        |  |   |  |   |  |
| 21                | Q4, Q6, Q8                             | 2N7002              |  | 3        |  |   |  |   |  |
| 22                | Q5, Q9                                 | SS8050              |  | 2        |  |   |  |   |  |
| 23                | R1, R6, R27                            | 0603WAF3300T5E      |  | 3        |  |   |  |   |  |
| 24                | R2, R12, R21, R30                      | 0603WAF1002T5E      |  | 4        |  |   |  |   |  |
| 25                | R3, R18                                | 0603WAF2400T5E      |  | 2        |  |   |  |   |  |
| 26                | R4, R5, R19, R33                       | 0603WAF1200T5E      |  | 4        |  |   |  |   |  |
| 27                | R7, R20                                | 1206W4F680LT5E      |  | 2        |  |   |  |   |  |
| 28                | R8, R23                                | RK09K1130AU2        |  | 2        |  |   |  |   |  |
| 29                | R9, R10, R25, R26                      | 0603WAF2702T5E      |  | 4        |  |   |  |   |  |
| 30                | R11, R24                               | 0603WAF2701T5E      |  | 2        |  |   |  |   |  |
| 31                | R13, R17, R28, R31                     | 0603WAF5601T5E      |  | 4        |  |   |  |   |  |
| 32                | R14, R22                               | 0603WAF1003T5E      |  | 2        |  |   |  |   |  |
| 33                | R15, R29                               | 0603WAF5602T5E      |  | 2        |  |   |  |   |  |
| 34                | R16, R32                               | 0603WAF8201T5E      |  | 2        |  |   |  |   |  |
| 35                | S1                                     | SK12D07L4B          |  | 1        |  |   |  |   |  |
| 36                | U1                                     | LM317LBDR2G         |  | 1        |  |   |  |   |  |
| 37                | U2, U4                                 | MC34063ADR2G        |  | 2        |  |   |  |   |  |
| 38                | U3                                     | LM337LMX            |  | 1        |  |   |  |   |  |
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