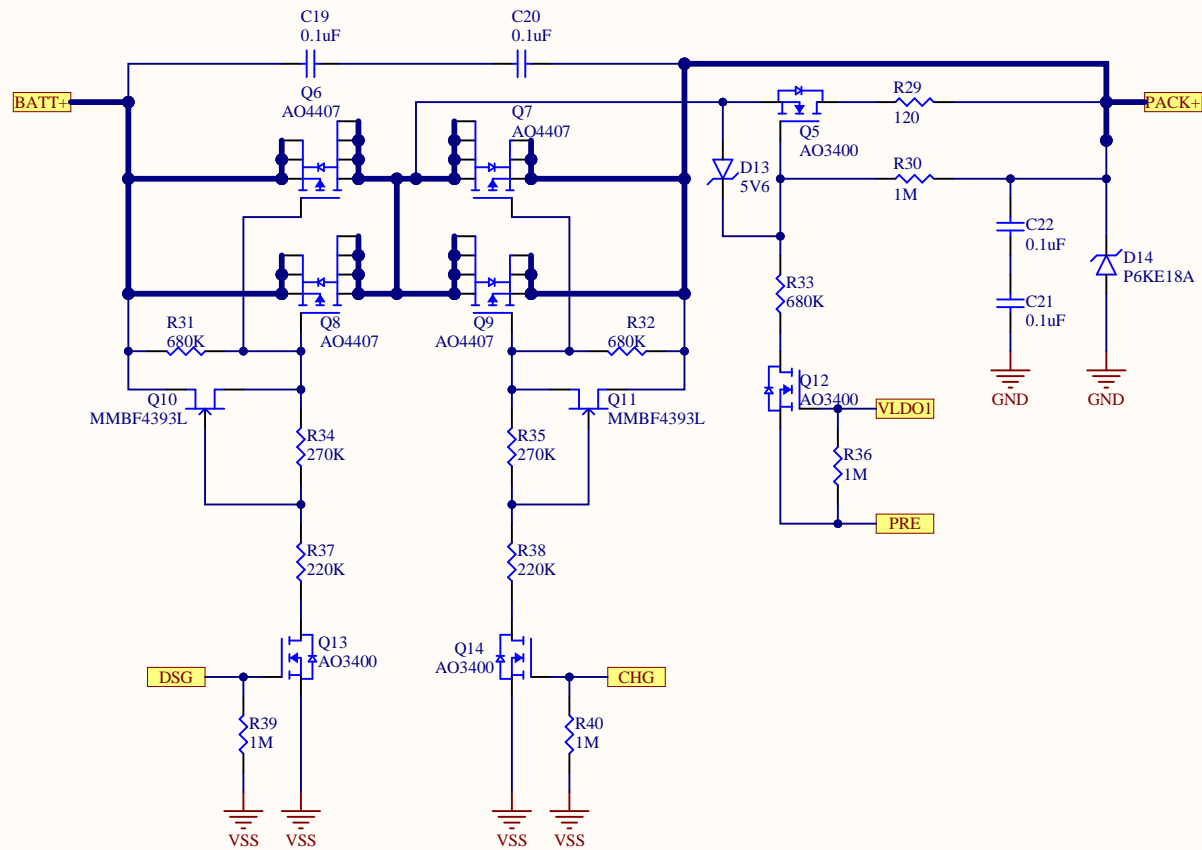
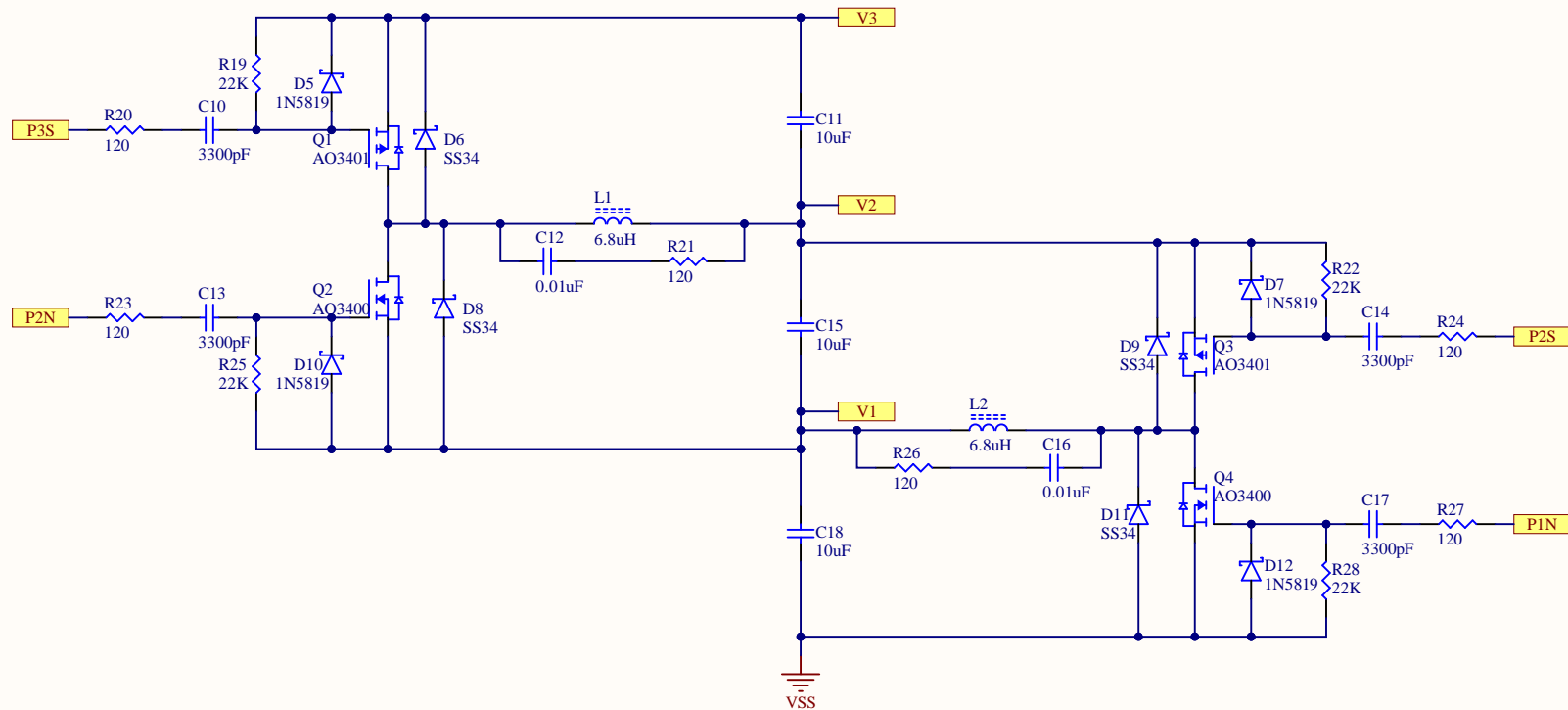


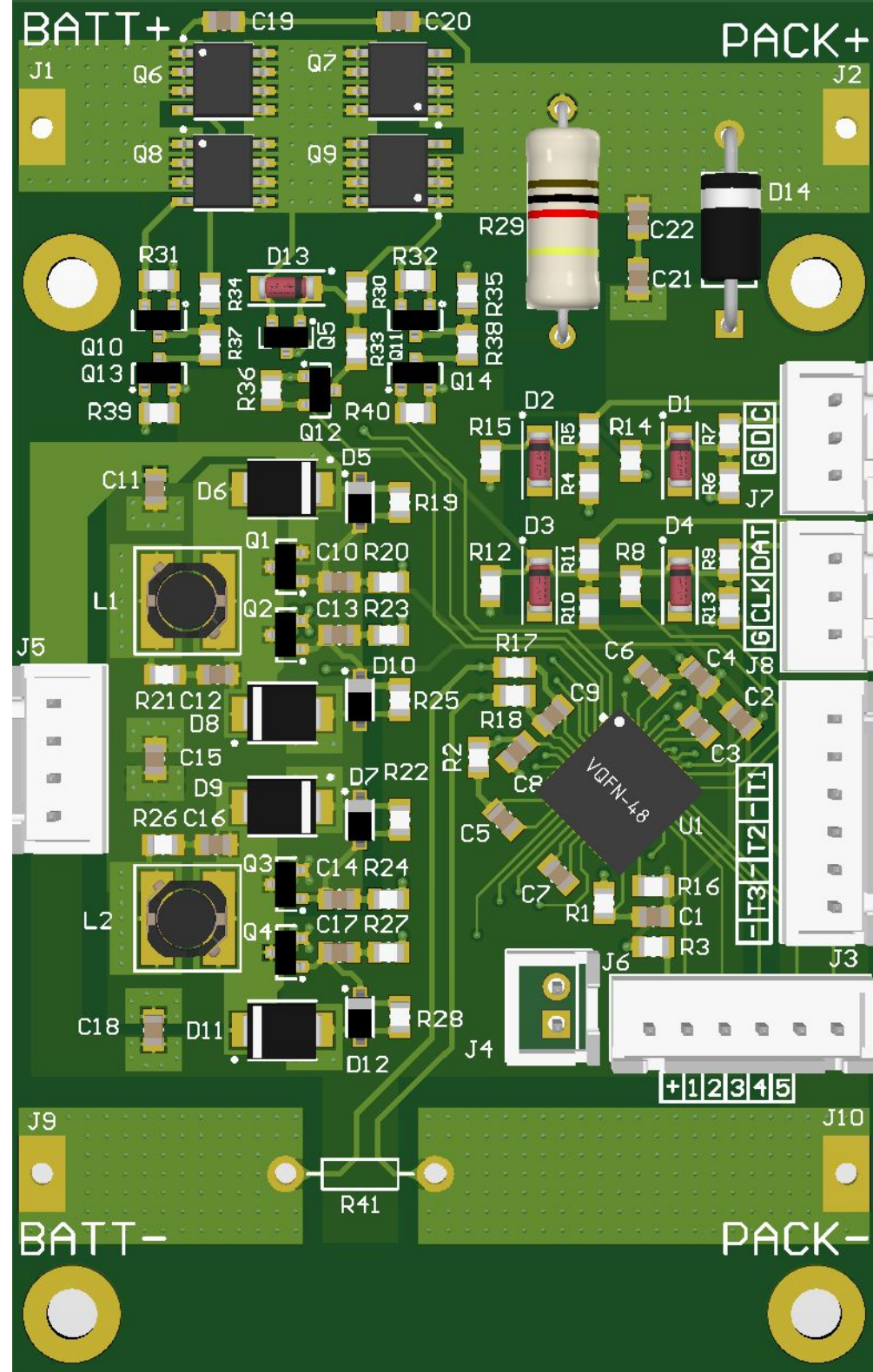
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| Project: | bq78pl116 BMS.PrjPcb | Variant: | [No Variations] |
| Page Contents: | BMS Schematic.SchDoc | Size: | A4 |
| Date: | 26/12/2022 | Sheet | 1 of 4 |

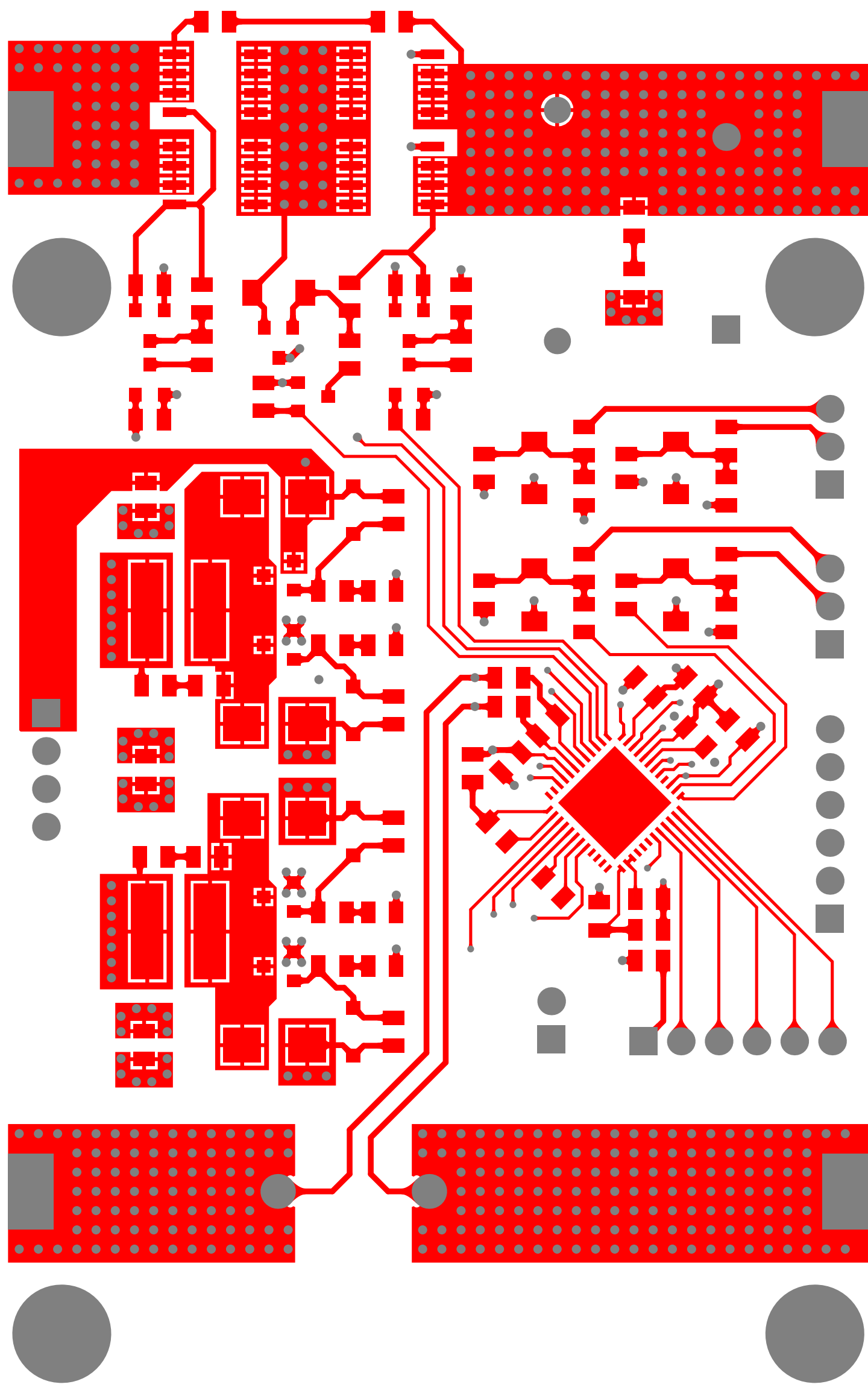


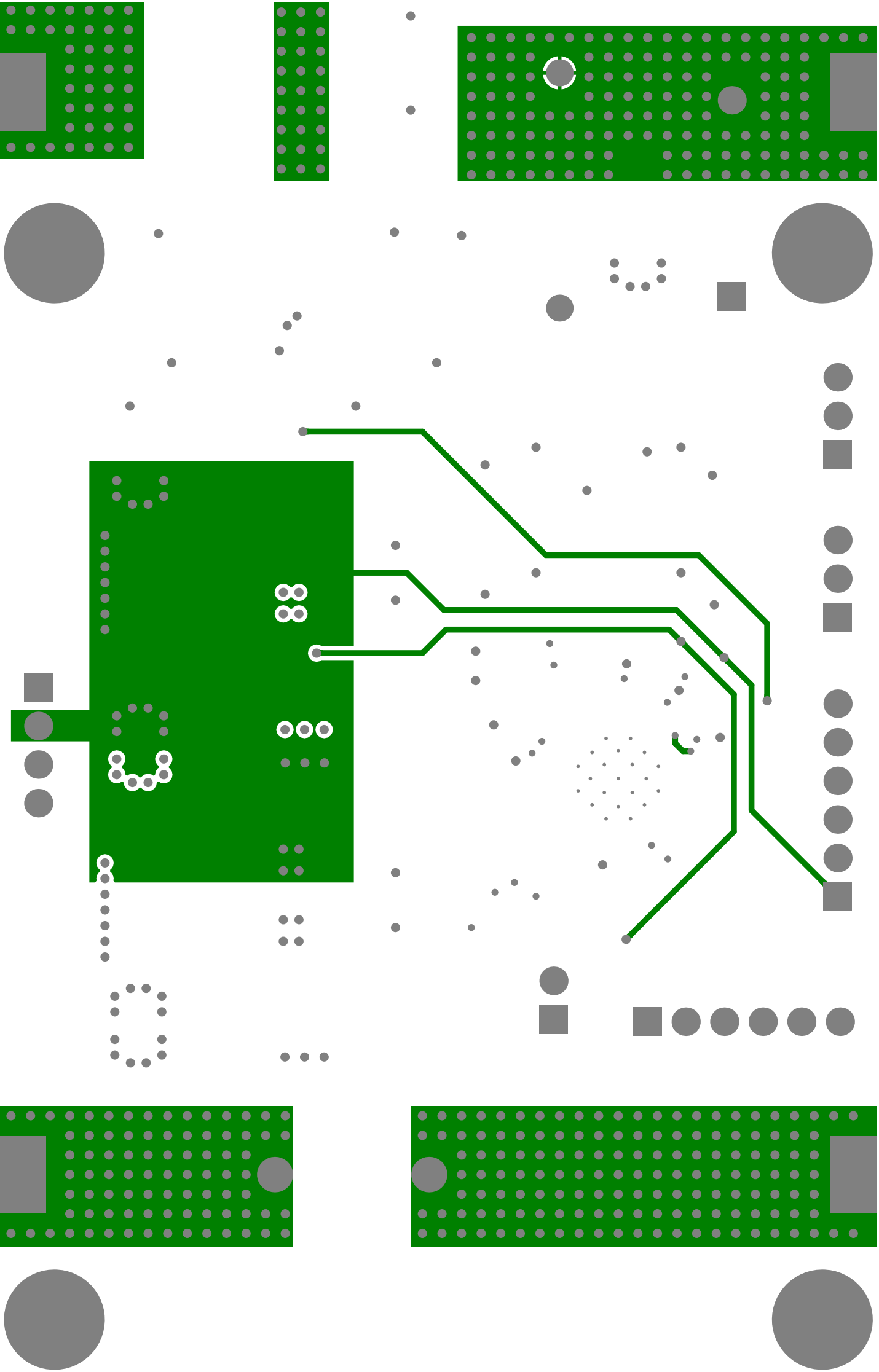
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| Project: | bq78pl116 BMS.PrjPcb | Variant: | [No Variations] |
| Page Contents: | Pack Disconnect MOSFETs.SchDoc | Size: | A4 |
| Date: | 26/12/2022 | Sheet | 3 of 4 |

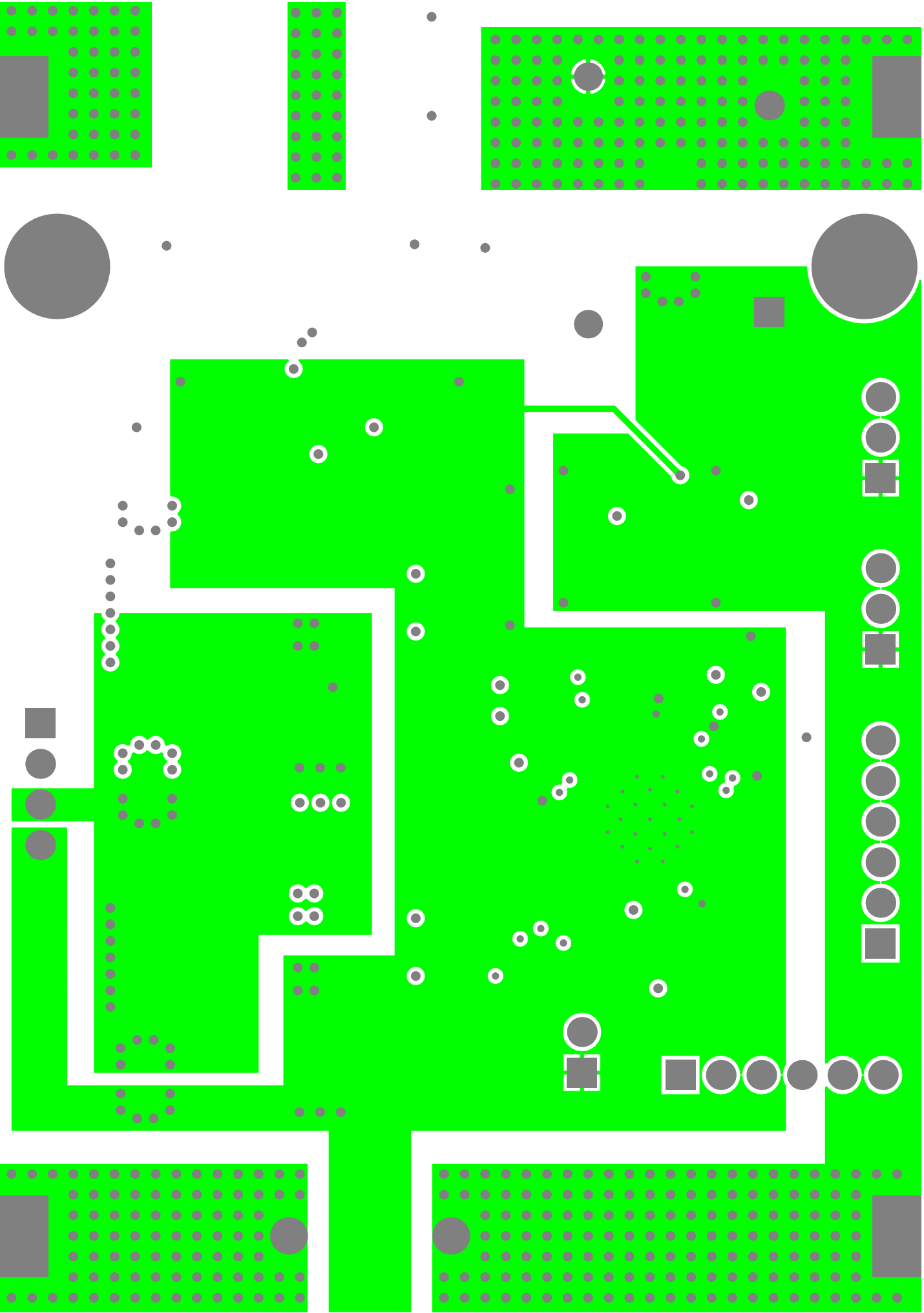


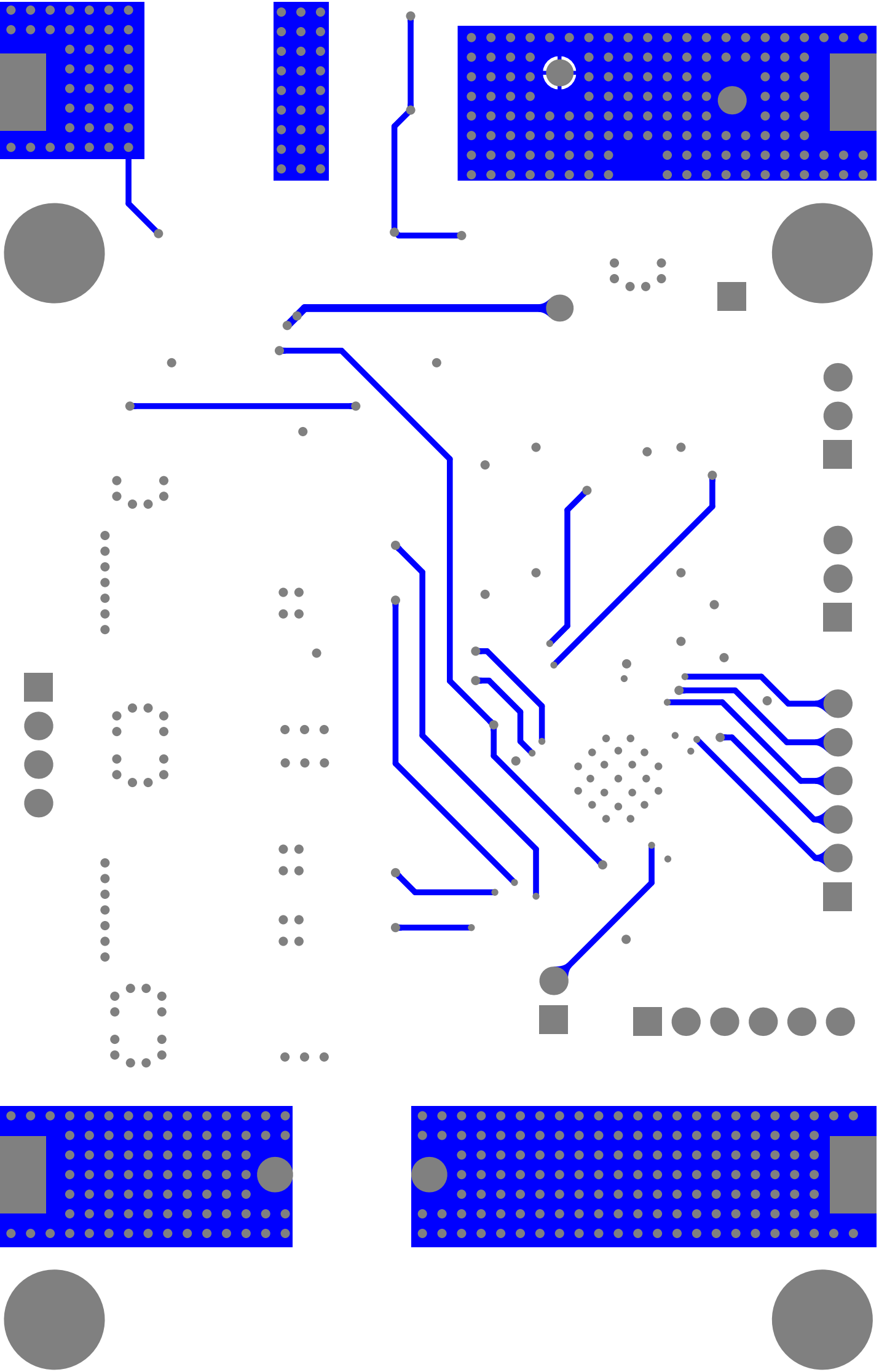
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| Project: | bq78pl116 BMS.PrjPcb | Variant: | [No Variations] |
| Page Contents: | PowerPump Circuitry.SchDoc | Size: | A4 |
| Date: | 26/12/2022 | Sheet | 4 of 4 |

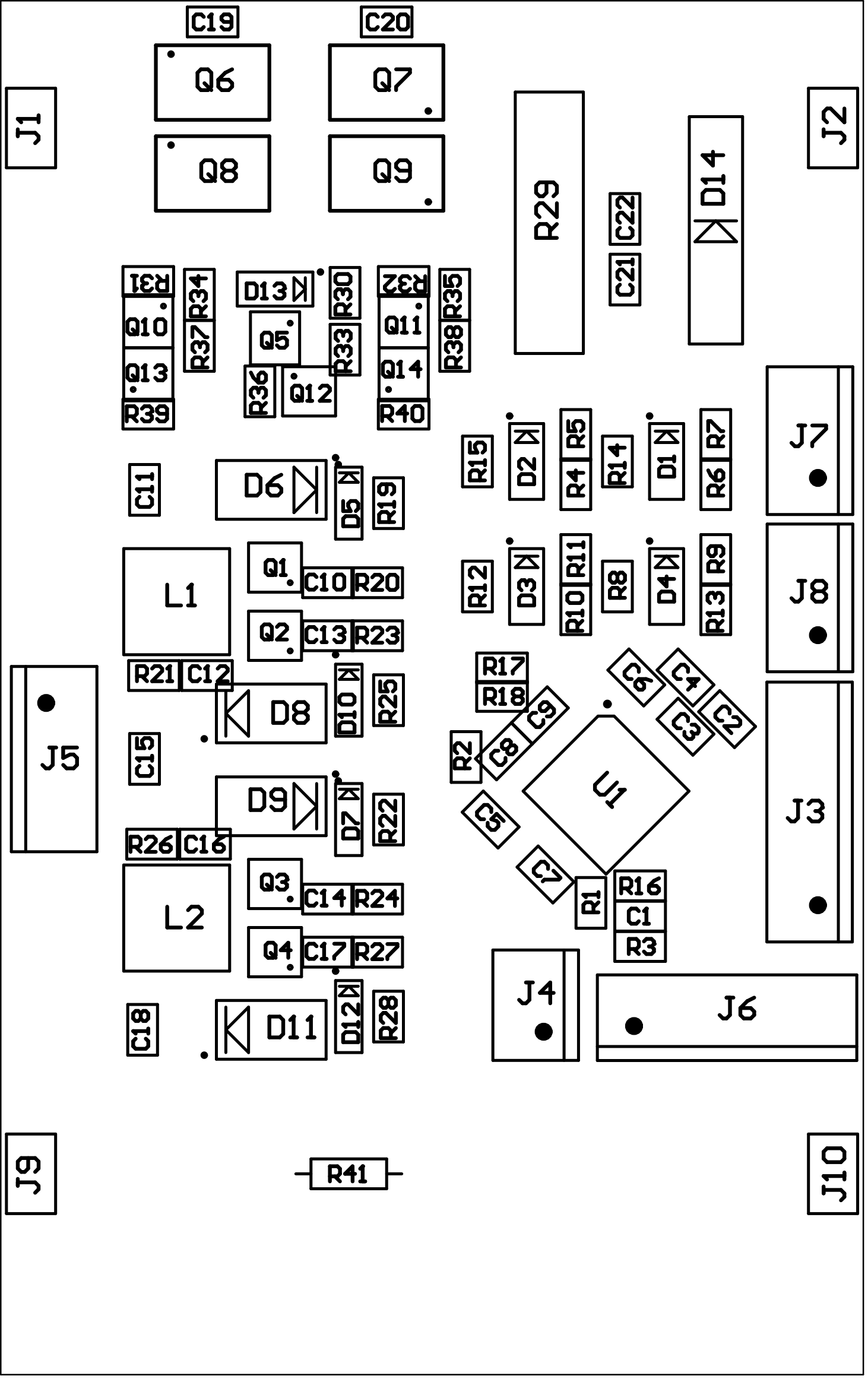












| Quantity | Designator | Comment | Description | Manufacturer Part Number |
|----------|---|-----------|---|--------------------------|
| 1 | C1 | 1uF | 0805 C 1uF Ceramic Multilayer Capacitor, 50 V, +125degC, X7R Dielectric: +/-10% | C0805C105KSR ACTU |
| 8 | C2, C3, C4, C6, C8, C11, C15, C18 | 10uF | Cap Ceramic 10uF 10V XGR 10% SMD 0805 85C Plastic T/R | C0805L106K8PA CTU |
| 2 | C5, C7 | 1000pF | Cap Ceramic 0.001uF 50V X7R 10% SMD 0805 125C Plastic T/R | C0805C102KSR ACTU |
| 3 | C9, C12, C16 | 0.01uF | Cap Ceramic 0.01uF 16V X7R 10% SMD 0805 125°C Paper T/R | C0805C103K4R ACTU |
| 4 | C10, C13, C14, C17 | 3300pF | Cap Ceramic 0.0033uF 50V X7R 10% SMD 0805 125C Paper T/R | C0805C332KSR ACTU |
| 4 | C19, C20, C21, C22 | 0.1uF | Cap Ceramic 0.1uF 50V X7R 10% SMD 0805 125°C Paper T/R | C0805C104KSR AC7411 |
| 5 | D1, D2, D3, D4, D13 | 5V6 | Diode Zener Single 5.6V 7% 500mW Automotive 2-Pin Mini-MELF T/R | Z1M5.6 |
| 4 | D5, D7, D10, D12 | 1N6819 | VR=40V IF=1A 60pF P=450mW | 1N5819HW-7-F |
| 4 | D6, D8, D9, D11 | SS34 | Diode Schottky 3A 40V Smb | SS34B-HF |
| 1 | D14 | P6KE18A | TVS DIODE 15.3VWM 32.5VC DO15 | P6KE18A |
| 4 | J1, J2, J5, J10 | PAD 5X3MM | | |
| 2 | J3, J6 | CON XH 6P | CONN HEADER VERT 6POS 2.54MM | B6BXHA(LF)(SN) |
| 1 | J4 | CON XH 2P | 2 Position Dual Row 2.5 mm Pitch Through Hole Shrouded Header | B2B-XH-A-GU |
| 1 | J5 | CON XH 4P | XH Series 4 Position 2.5 mm Pitch Through Hole Crimp Top Entry Shrouded Header | B4B-XH- A(LF)(SN) |
| 2 | J7, J8 | CON XH 3P | Connector Header, XH Series, 3 Position, 2.50mm Through Hole, Press Fit, Solder, Natural | B3B-XH- A(LF)(SN) |
| 2 | L1, L2 | 6.8uH | Ind Power 6.8uH 25% Ferrite Drum Core T/R | CDRH5D28RH-P NP-6R8NC |
| 2 | Q1, Q3 | AO3401 | Trans Mosfet P-ch 30V 4A 3-PIN SOT- 23 T/R | AO3401A |
| 6 | Q2, Q4, Q5, Q12, Q13, Q14 | AO3400 | Trans MOSFET N- CH 30V 5.7A 3-Pin SOT-23 | AO3400A |
| 4 | Q6, Q7, Q8, Q9 | AO4407 | MOSFET P-CH 30V 12A 8SOIC | AO4407A |
| 2 | Q10, Q11 | MMBF4393L | Trans Jfet N-ch 30V 3-PIN SOT-23 T/r | MMBF4393L T3G |
| 1 | R1 | 10K | Res Thick Film 0805 10K Ohm 5% 1/8W ±200ppm/°C Molded SMD Paper T/R | CRCW080510K JUNEAC |
| 1 | R2 | 100K | RES SMD 100K 01M 5% 1/8W 0805 | CRCW0805100 JUNEAC |
| 9 | R3, R4, R5, R6, R7, R8, R9, R10, R11 | 100 | Res Thick Film 0805 100 Ohm 5% 1/8W ±200ppm/°C Molded SMD Paper T/R | CRCW0805100 JUNEAC |
| 9 | R12, R13, R14, R15, R16, R30, R36, R39, R40 | 1M | Res Thick Film 0805 1M Ohm 5% 0.125W(1/8W) ±200ppm/°C Pad SMD T/R | CRCW08051M0 JUNEAC |
| 2 | R17, R18 | 4K7 | Res Thick Film 0805 4.7K Ohm 5% 1/8W ±200ppm/°C Molded SMD Paper T/R | CRCW08054K7 JUNEAC |
| 4 | R19, R22, R25, R28 | 22K | CRCW Series 0805 0.125 W 22 KOhm ±5 % ±200 ppm/K SMT Thick Film Chip Resistor | CRCW080522K JUNEAC |
| 6 | R20, R21, R23, R24, R26, R27 | 120 | Res 120 Ohm 5% 1/8W 0805 | CRCW0805120 JUNEAC |
| 1 | R29 | 120 | Ultra Miniature Style Metal Film Resistor 120Ohm 1W 5% Axial T/R | FMP100JR-S2- 120R |
| 3 | R31, R32, R33 | 680K | Res Thick Film 0805 680K Ohm 5% 1/8W ±200ppm/°C Molded SMD SMD Paper T/R | CRCW0805680 JUNEAC |
| 2 | R34, R35 | 270K | Res Thick Film 0805 270K Ohm 5% 1/8W ±200ppm/°C Molded SMD SMD Paper T/R | CRCW0805270 JUNEAC |
| 2 | R37, R38 | 220K | Res Thick Film 0805 220K Ohm 5% 1/8W ±200ppm/°C Molded SMD SMD Paper T/R | CRCW0805220 JUNEAC |
| 1 | R41 | 0.01 | | |
| 1 | U1 | BQ78PL116 | PowerLAN Master gateway controller with PowerPump cell Balancing technology 48- VQFN -40 to 85 | BQ78PL116RGZ T |