

**PMP5114\_REVB BOM**

**with rev B PCB**

| COUNT | RefDes  | Value             | DESCRIPTION  | SIZE             | PART NUMBER       | MFR               |
|-------|---|-------------------|--|------------------|-------------------|-------------------|
| 2     | C1, C2  | 10uF/25V          | Capacitor, Ceramic, 25V, X5R, 20%                        | 1206             | STD               | STD               |
| 1     | C10   | 68pF              | Capacitor, Ceramic, 50V, C0G, 10%                        | 0603             | STD               | STD               |
| 1     | C15   | 330uF             | Capacitor, Aluminum, 2V, 20% (SX Series)                 | 7343             | EEF-SX0D331R      | Panasonic         |
| 1     | C18   | 10uF              | Capacitor, Ceramic, 6.3V, X5R, 20%                       | 0603             | STD               | STD               |
| 1     | C19   | 10nF              | Capacitor, Ceramic, 50V, X7R, 10%                        | 0603             | STD               | STD               |
| 2     | C27, C28  | 100pF             | Capacitor, Ceramic, 50V, C0G, 10%                        | 0603             | STD               | STD               |
| 1     | <b>C29</b>  | <b>1000pF</b>     | <b>Capacitor, Ceramic, 50V, X7R, 10%</b>                 | <b>0603</b>      | <b>STD</b>        | <b>STD</b>        |
| 1     | C3  | 1uF               | Capacitor, Ceramic, Low Inductance, 16V, X7R, 20%        | 0603             | STD               | STD               |
| 9     | C37, C38, C66,<br>C47, C49, C50,<br>C58, C67, C68 | 10uF/6V           | Capacitor, Ceramic, 6.3V, X5R, 20%                       | 0805             | STD               | STD               |
| 1     | C5  | 1000pF            | Capacitor, Ceramic, 50V, X7R, 10%                        | 0402             | STD               | STD               |
| 2     | C74, C75  | 1uF               | Capacitor, Ceramic, 25V, X5R, 10%                        | 0603             | STD               | STD               |
| 1     | C82   | 10nF              | Capacitor, Ceramic, 50V, X7R, 10%                        | 0603             | STD               | STD               |
| 3     | C9, C13, C17                                      | 1uF               | Capacitor, Ceramic, 25V, X5R, 10%                        | 0603             | STD               | STD               |
| 3     | D16, D17, D23                                     | GREEN             | Diode, LED, Green Clear, 20mcd                           | 0.079 X 0.049    | LTST-C170CKT      | Lite On           |
| 2     | D21, D24  | AMBER             | Diode, LED, Amber Clear, 6mcd                            | 0.079 X 0.049    | LTST-C170AKT      | Lite On           |
| 2     | D22, D25  | RED               | Diode, LED, Red Clear, 20mcd                             | 0.079 X 0.049    | LTST-C170CKT      | Lite On           |
| 1     | D4  | MBR0530           | Diode, Schottky, 0.5A, 30V                               | SOD-123          | MBR0530T          | On Semi           |
| 3     | J1, J2, J3  | PEC04DAAN         | Header, 2x4-pin, 100mil spacing                          | 0.20 x 0.40 inc  | PEC04DAAN         | Sullins           |
| 1     | J11   | PEC07DAAN         | Header, 2x7 pin, 100mil spacing                          | 0.100 inch x 2X  | PEC07DAAN         | Sullins           |
| 1     | J4  | PEC02SAAN         | Header, Male 2-pin, 100mil spacing                       | 0.100 inch x 2   | PEC02SAAN         | Sullins           |
| 1     | J5  | PEC02DAAN         | Header, 2x2-pin, 100mil spacing                          | 0.20 x 0.20 inc  | PEC02DAAN         | Sullins           |
| 1     | J7  | ED1514            | Terminal Block, 2-pin, 6-A, 3.5mm                        | 0.27 x 0.25 inch | ED1514            | OST               |
| 2     | J8, J10   | ED1609-ND         | Terminal Block, 2-pin, 15-A, 5.1mm                       | 0.40 x 0.35 inch | ED1609            | OST               |
| 1     | JP1   | PEC02SAAN         | Header, 2-pin, 100mil spacing,                           | 0.100 inch x 2   | PEC02SAAN         | Sullins           |
| 1     | L1  | 1uH               | Inductor, SMT, 11.1A, 7.81 milliohm                      | 0.256 x 0.280 in | SPM6530T-1R0M120  | TDK               |
| 1     | Q1  | CSD16301Q2        | Trans, Nch, 25V, [TBD] A, 24milliohm                     | SuperSOT-6       | CSD16301Q2        | TI                |
| 3     | Q13, Q14, Q15                                     | BSS83P            | MOSFET, Pch, -60V, -0.33A, 2 Ohm                         | SOT23            | BSS83P            | Infineon          |
| 3     | Q17, Q18, Q19                                     | BSS123            | MOSFET, Nch, 100V, 0.17A, 6 Ohm                          | SOT23            | BSS123            | Fairchild         |
| 1     | Q2  | <b>CSD16407Q5</b> | MOSFET, Nch, 25V, 3.3mOhms max @ Vgs=4.5V                | TDSON-8          | <b>CSD16407Q5</b> | <b>TI[Ciclon]</b> |
| 1     | Q3  | CSD16406Q3        | MOSFET, NChan, 25V, 19A, 5.9 milliohm                    | QFN3.3X3.3mm     | CSD16406Q3        | TI[Ciclon]        |
| 2     | R1, <b>R71</b>                                    | 10K               | Resistor, Chip, 1/16W, 1%                                | 0603             | STD               | STD               |
| 1     | R10   | <b>12.1</b>       | Resistor, Chip, 1/16W, 5%                                | 0603             | STD               | STD               |
| 1     | R11   | 0                 | Resistor, Chip, 1/16W, 5%                                | 0603             | STD               | STD               |
| 1     | <b>R12</b>  | <b>1</b>          | <b>Resistor, Chip, 1/4W, 5%</b>                          | <b>1206</b>      | <b>STD</b>        | <b>STD</b>        |
| 1     | R18   | 78.7k             | Resistor, Chip, 1/16W, 1%                                | 0603             | STD               | STD               |
| 1     | R2  | 45.3k             | Resistor, Chip, 1/16W, 1%                                | 0603             | STD               | STD               |
| 2     | R21, R22  | 470               | Resistor, Chip, 1/16W, 5%                                | 0402             | STD               | STD               |
| 2     | R23, R31  | 0                 | Resistor, Chip, 1/16W, 5%                                | 0603             | STD               | STD               |
| 1     | R3  | 330               | Resistor, Chip, 1/16W, 5%                                | 0603             | Std               | Std               |
| 1     | R39   | 1                 | Resistor, Chip, 1/10W, 5%                                | 0805             | Std               | Std               |
| 2     | R4, R7  | <b>0.1</b>        | Resistor, <b>100</b> milliohm, 1W, 5%                    | 2512             | STD               | STD               |
| 1     | R40   | 100k              | Resistor, Chip, 1/16W, 1%                                | 0603             | STD               | STD               |
| 1     | R41   | 324k              | Resistor, Chip, 1/16W, 1%                                | 0603             | STD               | STD               |
| 1     | R6  | 5.76k             | Resistor, Chip, 1/16W, 1%                                | 0603             | STD               | STD               |
| 6     | R66, R69, R70,<br>R97, R98, R100                  | 180               | Resistor, Chip, 1/16W, 5%                                | 0603             | STD               | STD               |
| 4     | R67, R68, R102,<br>R108                           | 1.0k              | Resistor, Chip, 1/16W, 1%                                | 0603             | STD               | STD               |
| 5     | R72, R87, R89,<br>R95, R96                        | 10k               | Resistor, Chip, 1/16W, 1%                                | 0603             | STD               | STD               |
| 1     | R8  | 0.003             | Resistor, Metal Film, 1/4 watt, 1%                       | 1206             | STD               | Vishay            |
| 1     | R9  | 0.005             | Resistor, 5 milliohm, 1W, 1%                             | 2512             | STD               | Vishay            |
| 1     | R91   | 1                 | Resistor, Chip, 1/16W, 5%                                | 0603             | STD               | STD               |
| 2     | R92, R93  | 100k              | Resistor, Chip Array, 62.5 mW, 5%                        | 612              | TC164-JR-07100KL  | Yageo             |
| 1     | R94   | 10k               | Resistor, Chip Array, 100 mW, 5%                         | 1210             | EXB-38V103JV      | Panasonic         |
| 1     | RT1   | 150K              | NTC Thermistor, 0603, 5%,                                | 0603             | ERTJ1VV154J       | Panasonic         |
| 1     | S3  | EG1218A           | Switch, SPDT, Slide, PC-mount,                           | 0.457 x 0.157 in | EG1218A           | E_Switch          |
| 1     | TP3   | 131-4244-00       | Adaptor, 3.5-mm probe clip ( or 131-5031-00)             | 0.200 inch       | 131-4244-00       | Tektronix         |
| 1     | U1  | PS51610/51610IRH  | IC, Single Phase, D-Cap+ Synchronous Buck Controller     | QFN-32           | TPS51610RHB       | TI                |
| 1     | U2  | TPS76133DBV       | IC, Low-Power 100 mA LDO Regulator                       | SOT23-5          | TPS76133DBV       | TI                |
| 1     | U3  | TPS71701DCK       | IC, 150mA, Low Iq, Wide Bandwidth, LDO Linear Regulators | SC70             | TPS71701DCK       | TI                |
| 1     | U4  | UCC27324DGN       | IC, Dual 4A High Speed Low-Side MOSFET Driver            | MSOP-8           | UCC27324DGN       | TI                |
| 1     | U8  | TLV3404PW         | IC, Nano Power, Open Output Comparators                  | PW14             | TLV3404PW         | TI                |

- Notes:
1. These assemblies are ESD sensitive, ESD precautions shall be observed.
  2. These assemblies must be clean and free from flux and all contaminants.  
Use of no clean flux is not acceptable.
  3. These assemblies must comply with workmanship standards IPC-A-610 Class 2.
  4. Ref designators marked with an asterisk (\*\*\*) cannot be substituted.  
All other components can be substituted with equivalent MFG's components.
  5. **Items shown in the schematic and / or PCB assembly drawing, but not in this BOM are not to be populated**

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