

PMP20468 REV A Bill of Materials

| Designator | Quantity | Value | PartNumber | Manufacturer | Description | PackageReference |
|--------------------|----------|--------|---------------------|-----------------------------|--|-----------------------------|
| I PCB | 1 | | PMP9648 REVA | Any | PMP9648 REVA | N/A |
| C1 | 1 | 47uF | EEV-FK2A470Q | Panasonic | CAP, AL, 47uF, 100V, +/-20%, 0.32 ohm, SMD | SMT Radial H13 |
| C2 | 1 | 2.2uF | C3225X7R2A225M230AB | TDK | CAP, CERM, 2.2uF, 100V, +/-20%, X7R, 1210 | 1210 |
| C3, C15 | 2 | 0.1uF | GRM188R72A104KA35D | MuRata | CAP, CERM, 0.1uF, 100V, +/-10%, X7R, 0603 | 0603 |
| C4, C5, CX1, CX2 | 4 | 22uF | C3225X7R1C226M250AC | TDK | CAP, CERM, 22uF, 16V, +/-20%, X7R, 1210 | 1210 |
| C6 | 1 | 330pF | GRM2165C2A331JA01D | MuRata | CAP, CERM, 330 pF, 100 V, +/- 5%, COG/NP0, 0805 | 0805 |
| C7 | 1 | 1uF | C3216X7R2A105M160AA | TDK | CAP, CERM, 1uF, 100V, +/-20%, X7R, 1206 | 1206 |
| C8 | 1 | 10uF | C3216X7R1C106M | TDK | CAP, CERM, 10uF, 16V, +/-20%, X7R, 1206 | 1206 |
| C9, C10 | 2 | 100pF | C1608C0G1H101J | TDK | CAP, CERM, 100pF, 50V, +/-5%, COG/NP0, 0603 | 0603 |
| C12 | 1 | 0.01uF | C1608X7R1H103K | TDK | CAP, CERM, 0.01uF, 50V, +/-10%, X7R, 0603 | 0603 |
| C13 | 1 | | | | CAP, CERM, open, 0603 | 0603 |
| C14 | 1 | 4700pF | C1608X7R2A472K | TDK | CAP, CERM, 4700pF, 100V, +/-10%, X7R, 0603 | 0603 |
| C16 | 1 | 1000pF | C1210C102KGRACU | Kemet | CAP, CERM, 1000pF, 2000V, +/-10%, X7R, 1210 | 1210 |
| C17 | 1 | 2.2uF | GRM21BR61E225KA12L | MuRata | CAP, CERM, 2.2 uF, 25 V, +/- 10%, X5R, 0805 | 0805 |
| D2 | 1 | 200V | MURA120T3G | ON Semiconductor | Diode, Ultrafast, 200V, 1A, SMA | SMA |
| D3 | 1 | 60V | B560C-13-F | Diodes Inc. | Diode, Schottky, 60 V, 5 A, SMC | SMC |
| D4 | 1 | 200V | BAV21WS-7-F | Diodes Inc. | Diode, Switching, 200 V, 0.2 A, AEC-Q101, SOD-323 | SOD-323 |
| D5 | 1 | 12V | MMSZ4699T1G | ON Semiconductor | Diode, Zener, 12 V, 500 mW, SOD-123 | SOD-123 |
| D7 | 1 | 30V | BAT54ST-7-F | Diodes Inc. | Diode, Schottky, 30V, 0.2A, SOT-523 | SOT-523 |
| J1, J2 | 2 | | ED555/2DS | On-Shore Technology, Inc. | Terminal Block, 6A, 3.5mm Pitch, 2-Pos, TH | 7.0x8.2x6.5mm |
| J3 | 1 | | PEC02SAAN | Sullins Connector Solutions | Header, 100mil, 2x1, Tin plated, TH | Header, 2 PIN, 100mil, Tin |
| LBL1 | 1 | | THT-14-423-10 | Brady | Thermal Transfer Printable Labels, 0.650" W x 0.200" H - 10,000 per roll | PCB Label 0.650"H x 0.200"W |
| Q1 | 1 | 200V | BSC12DN20NS3 G | Infineon Technologies | MOSFET, N-CH, 200 V, 11.3 A, PG-TDSON-8 | PG-TDSON-8 |
| R1 | 1 | 49.9k | CRCW120649K9FKEA | Vishay-Dale | RES, 49.9k ohm, 1%, 0.25W, 1206 | 1206 |
| R2, R14, R17 | 3 | 100k | CRCW0603100KFKEA | Vishay-Dale | RES, 100k ohm, 1%, 0.1W, 0603 | 0603 |
| R3 | 1 | 3.24 | CRCW06033R24FKEA | Vishay-Dale | RES, 3.24, 1%, 0.1 W, 0603 | 0603 |
| R4 | 1 | 22.1 | CRCW080522R1FKEA | Vishay-Dale | RES, 22.1, 1%, 0.125 W, 0805 | 0805 |
| R5 | 1 | 20 | CRCW120620R0JNEA | Vishay-Dale | RES, 20 ohm, 5%, 0.25W, 1206 | 1206 |
| R6 | 1 | 3.74k | CRCW06033K74FKEA | Vishay-Dale | RES, 3.74k ohm, 1%, 0.1W, 0603 | 0603 |
| R7 | 1 | 0 | MCR03EZPJ000 | Rohm | RES, 0 ohm, 5%, 0.1W, 0603 | 0603 |
| R8 | 1 | 4.64k | CRCW06034K64FKEA | Vishay-Dale | RES, 4.64 k, 1%, 0.1 W, 0603 | 0603 |
| R9 | 1 | 221 | CRCW0603221RFKEA | Vishay-Dale | RES, 221 ohm, 1%, 0.1W, 0603 | 0603 |
| R10 | 1 | 0 | CRCW06030000Z0EA | Vishay-Dale | RES, 0 ohm, 5%, 0.1W, 0603 | 0603 |
| R11 | 1 | 42.2k | CRCW060342K2FKEA | Vishay-Dale | RES, 42.2 k, 1%, 0.1 W, 0603 | 0603 |
| R12 | 1 | 0.16 | RLP73K2BR16FTDF | TE Connectivity | RES, 0.16, 1%, 0.5 W, 1206 | 1206 |
| R16 | 1 | 1.15k | CRCW06031K15FKEA | Vishay-Dale | RES, 1.15 k, 1%, 0.1 W, 0603 | 0603 |
| R18 | 1 | 10.0k | CRCW060310K0FKEA | Vishay-Dale | RES, 10.0k ohm, 1%, 0.1W, 0603 | 0603 |
| R19 | 1 | 11.3k | CRCW060311K3FKEA | Vishay-Dale | RES, 11.3 k, 1%, 0.1 W, 0603 | 0603 |
| RX1 | 1 | 48.7 | CRCW060348R7FKEA | Vishay-Dale | RES, 48.7, 1%, 0.1 W, 0603 | 0603 |
| T1 | 1 | 82uH | 750317123 | Würth Elektronik | Transformer, 82 uH, SMD | 860x790mil |
| TP1, TP3, TP5, TP6 | 4 | Red | 5000 | Keystone | Test Point, TH, Miniature, Red | Keystone5000 |
| TP2, TP4, TP7 | 3 | Black | 5001 | Keystone | Test Point, TH, Miniature, Black | Keystone5001 |
| U1 | 1 | | LM5022MM | Texas Instruments | 60V Low Side Controller for Boost and SEPIC, 10-pin MSOP | MUB10A |
| U2 | 1 | | FOD817AS | Fairchild Semiconductor | Optocoupler, 5kV RMS, 80% - 160%, SMT | DIP-4L Gullwing |
| U3 | 1 | | LMV431AIMFX/NOPB | Texas Instruments | Low-Voltage (1.24V) Adjustable Precision Shunt Regulators, 3-pin SOT-23, Pb-Free | MF03A |

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|------------------|----------|-------|--------------------|--------------|--|------------------|
| C11 | 0 | 0.1uF | GRM188R72A104KA35D | MuRata | CAP, CERM, 0.1uF, 100V, +/-10%, X7R, 0603 | 0603 |
| D6 | 0 | 7.5V | MMSZ5236B-7-F | Diodes Inc. | Diode, Zener, 7.5V, 500mW, SOD-123 | SOD-123 |
| FID1, FID2, FID3 | 0 | | N/A | N/A | Fiducial mark. There is nothing to buy or mount. | Fiducial |

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