

PMP9386 REV E1 Bill of Materials

| Designator | Quantity | Value | PartNumber | Manufacturer | Description | PackageReference |
|--|----------|---------|--------------------|-------------------------|--|------------------------------|
| IPCB | 1 | | PMP9309 REVC | Any | PMP9309 REVC | N/A |
| C6, C34 | 2 | 22uF | TMK325B7226MM | Taiyo Yuden | CAP, CERM, 22uF, 25V, X7R, 20%, 1210 | 1210 |
| C15, C45 | 2 | 0.1uF | GRM188R72A104KA35D | MuRata | CAP, CERM, 0.1uF, 100V, +/-10%, X7R, 0603 | 0603 |
| C16, C46 | 2 | 100pF | C1608C0G2A101J | TDK | CAP, CERM, 100pF, 100V, +/-5%, C0G/NP0, 0603 | 0603 |
| C17, C47 | 2 | 4.7uF | GRM21BR71C475KA73L | MuRata | CAP, CERM, 4.7uF, 16V, +/-10%, X7R, 0805 | 0805 |
| C19, C21, C49 | 3 | 0.47uF | GRM188R71E474KA12D | MuRata | CAP, CERM, 0.47uF, 25V, +/-10%, X7R, 0603 | 0603 |
| C20 | 1 | 100pF | GRM1885C1H101JA01D | MuRata | CAP, CERM, 100pF, 50V, +/-5%, C0G/NP0, 0603 | 0603 |
| C22 | 1 | 1uF | GRM219R71E105KA88D | MuRata | CAP, CERM, 1uF, 25V, +/-10%, X7R, 0805 | 0805 |
| C23 | 1 | 680pF | C0603C681K5RACTU | Kemet | CAP, CERM, 680pF, 50V, +/-10%, X7R, 0603 | 0603 |
| C24 | 1 | 0.027uF | C0805C273K5RACTU | Kemet | CAP, CERM, 0.027uF, 50V, +/-10%, X7R, 0805 | 0805 |
| C30, Cx2 | 2 | 2.2uF | 08053C225MAT | AVX | CAP, CERM, 2.2uF, 25V, X7R, 0805 | 0805 |
| Cx1 | 1 | 1,200uF | 16ME1200AX | Suncon | CAP, Electrolytic, 1,200uF, 25V, TH | 12.5mm X 20mm |
| Cx3 | 1 | 390uF | PCV1E391MCL2GS | Nichicon | CAP, Conductive Polymer Al Electrolytic, 390F, 25V, 4.2Arms, +/-20%, 0.021Ohm ESR, SMT | Used in PnP output |
| D1, D3 | 2 | 0.77V | DFLS1100-7 | Diodes Inc. | Diode, Schottky, 100V, 1A, PowerDI123 | PowerDI123 |
| H1, H2, H3, H4 | 4 | | NY PMS 440 0025 PH | B&F Fastener Supply | Machine Screw, Round, #4-40 x 1/4, Nylon, Philips panhead | Screw |
| H5, H6, H7, H8 | 4 | | 1902C | Keystone | Standoff, Hex, 0.5"L #4-40 Nylon | Standoff |
| J1 | 1 | | 6091 | Keystone | Standard Banana Jack, Insulated, Red | 6091 |
| J2 | 1 | 2x1 | 1715721 | Phoenix Contact | Conn Term Block, 2POS, 5.08mm, TH | 2POS Terminal Block |
| J3 | 1 | | 6092 | Keystone | Standard Banana Jack, Insulated, Black | 6092 |
| L1, L2 | 2 | 15uH | SER1390-153 | Coilcraft | Inductor, 15uH, 7.2A @ 10% drop, 0.015ohm Max., SMT | Used in PnP output |
| 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, Q3, Q10, Q12 | 4 | 60V | CSD18531Q5A | Texas Instruments | MOSFET, N-CH, 60V, 19A, SON 5x6mm | SON 5x6mm |
| Q7, Q13 | 2 | 0.25V | MMBT3906 | Fairchild Semiconductor | Transistor, PNP, 40V, 0.2A, SOT-23 | SOT-23 |
| R2, R26 | 2 | 0.008 | PMR100HZPFU8L00 | Rohm | RES, 0.008 ohm, 1%, 2W, 2512 | 2512 |
| R3, R4, R28, R29 | 4 | 100 | CRCW0603100RFKEA | Vishay-Dale | RES, 100 ohm, 1%, 0.1W, 0603 | 0603 |
| R5, R8, R9, R10, R14, R30, R34, R35, R38 | 9 | 0 | ERJ-3GEY0R00V | Panasonic | RES, 0 ohm, 5%, 0.1W, 0603 | 0603 |
| R11 | 1 | 49.9k | CRCW060349K9FKEA | Vishay-Dale | RES, 49.9k ohm, 1%, 0.1W, 0603 | 0603 |
| R12, R36 | 2 | 2.2 | CRCW08052R20JNEA | Vishay-Dale | RES, 2.2 ohm, 5%, 0.125W, 0805 | 0805 |
| R13, R37 | 2 | 113k | CRCW0603113KFKEA | Vishay-Dale | RES, 113k ohm, 1%, 0.1W, 0603 | 0603 |
| R15 | 1 | 15.0k | CRCW060315K0FKEA | Vishay-Dale | RES, 15.0k ohm, 1%, 0.1W, 0603 | 0603 |
| R16 | 1 | 78.7k | CRCW060378K7FKEA | Vishay-Dale | RES, 78.7k ohm, 1%, 0.1W, 0603 | 0603 |
| R18, R20 | 2 | 10.0k | CRCW060310K0FKEA | Vishay-Dale | RES, 10.0k ohm, 1%, 0.1W, 0603 | 0603 |
| R19 | 1 | 523 | CRCW0603523RFKEA | Vishay-Dale | RES, 523 ohm, 1%, 0.1W, 0603 | 0603 |
| R21 | 1 | 48.7 | CRCW080548R7FKEA | Vishay-Dale | RES, 48.7 ohm, 1%, 0.125W, 0805 | 0805 |
| R23, R27 | 2 | 30V | BAT54WS-7-F | Diodes Inc. | Diode, Schottky, 30V, 0.2A, SOD-323 | SOD-323 |
| R24, R33, R51, R52, R56, R57 | 6 | 0 | CRCW06030000Z0EA | Vishay-Dale | RES, 0 ohm, 5%, 0.1W, 0603 | 0603 |
| TP1, TP3 | 2 | Red | 5010 | Keystone | Test Point, Multipurpose, Red, TH | Red Multipurpose Testpoint |
| TP2, TP7, TP8, TP9 | 4 | White | 5012 | Keystone | Test Point, Multipurpose, White, TH | White Multipurpose Testpoint |
| TP4, TP5 | 2 | Black | 5011 | Keystone | Test Point, Multipurpose, Black, TH | Black Multipurpose Testpoint |

| Designator | Quantity | Value | PartNumber | Manufacturer | Description | PackageReference |
|---|----------|------------|--------------------|-------------------------|--|--------------------------|
| U1, U2 | 2 | | LM5122MH/NOPB | Texas Instruments | Wide Input Synchronous Boost Controller with Multiple Phase Capability, PWP0020A | PWP0020A |
| C1, C28 | 0 | 470pF | GRM2165C2A471JA01D | MuRata | CAP, CERM, 470pF, 100V, +/-5%, C0G/NP0, 0805 | 0805 |
| C2, C13, C14, C40 | 0 | 330uF | EEV-FK2A331M | Panasonic | CAP, AL, 330uF, 100V, +/-20%, 0.153 ohm, SMD | SMT Radial K16 |
| C3, C4, C5, C31, C32, C33 | 0 | 3.3uF | GRM32DR71H335KA88L | MuRata | CAP, CERM, 3.3uF, 50V, +/-10%, X7R, 1210 | 1210 |
| C7, C35 | 0 | 330uF, 35V | 35CE330KX | SUNCON | CAP, Al Electrolytic, 330uF, 35V, SMT | |
| C8, C9, C10, C11, C12, C36, C37, C38, C39 | 0 | 1uF | GRM32CR72A105KA35L | MuRata | CAP, CERM, 1uF, 100V, +/-10%, X7R, 1210 | 1210 |
| C25, C26, C27, C29, C43, C44 | 0 | 1uF | GRM188R71E105KA12D | MuRata | CAP, CERM, 1uF, 25V, +/-10%, X7R, 0603 | 0603 |
| C41, C42 | 0 | 2.2uF | GRM31CR71H225KA88L | MuRata | CAP, CERM, 2.2uF, 50V, +/-10%, X7R, 1206 | 1206 |
| C50 | 0 | 0.1uF | 06035C104KAT2A | AVX | CAP, CERM, 0.1uF, 50V, +/-10%, X7R, 0603 | 0603 |
| C51 | 0 | 2.2uF | GRM188R71A225KE15D | MuRata | CAP, CERM, 2.2uF, 10V, +/-10%, X7R, 0603 | 0603 |
| C52 | 0 | 0.47uF | C0603C474K4RACTU | Kemet | CAP, CERM, 0.47uF, 16V, +/-10%, X7R, 0603 | 0603 |
| D2, D4 | 0 | 0.57V | PMEG6010CEH,115 | NXP Semiconductor | Diode, Schottky, 60V, 1A, SOD-123F | SOD-123F |
| FID1, FID2, FID3 | 0 | | N/A | N/A | Fiducial mark. There is nothing to buy or mount. | Fiducial |
| Q2, Q16 | 0 | 150V | SUM40N15-38 | Vishay-Siliconix | MOSFET, N-CH, 150V, 40A, DDPAK | DDPAK |
| Q4, Q6, Q8, Q11, Q14, Q15 | 0 | 0.2V | MMBT3904 | Fairchild Semiconductor | Transistor, NPN, 40V, 0.2A, SOT-23 | SOT-23 |
| Q5, Q9, Q17, Q18 | 0 | 0.25V | MMBT3906 | Fairchild Semiconductor | Transistor, PNP, 40V, 0.2A, SOT-23 | SOT-23 |
| R1, R25 | 0 | 8.2 | CRCW20108R20JNEF | Vishay Dale | RES 8.2 OHM 3/4W 5% 2010 SMD | 2010 (5025 Metric) |
| R6, R7, R17, R32, R40 | 0 | 0 | ERJ-3GEY0R00V | Panasonic | RES, 0 ohm, 5%, 0.1W, 0603 | 0603 |
| R22, R31 | 0 | 30V | BAT54WS-7-F | Diodes Inc. | Diode, Schottky, 30V, 0.2A, SOD-323 | SOD-323 |
| R39, R55 | 0 | 825 | CRCW0805825RFKEA | Vishay-Dale | RES, 825 ohm, 1%, 0.125W, 0805 | 0805 |
| R41, R48 | 0 | 0 | CRCW06030000Z0EA | Vishay-Dale | RES, 0 ohm, 5%, 0.1W, 0603 | 0603 |
| R42 | 0 | 88.7k | CRCW060388K7FKEA | Vishay-Dale | RES, 88.7k ohm, 1%, 0.1W, 0603 | 0603 |
| R43 | 0 | 10.0k | CRCW060310K0FKEA | Vishay-Dale | RES, 10.0k ohm, 1%, 0.1W, 0603 | 0603 |
| R44, R49 | 0 | 1.00k | CRCW06031K00FKEA | Vishay-Dale | RES, 1.00k ohm, 1%, 0.1W, 0603 | 0603 |
| R45 | 0 | 3.74k | CRCW06033K74FKEA | Vishay-Dale | RES, 3.74k ohm, 1%, 0.1W, 0603 | 0603 |
| R46 | 0 | 40.2 | CRCW060340R2FKEA | Vishay-Dale | RES, 40.2 ohm, 1%, 0.1W, 0603 | 0603 |
| R47 | 0 | 7.50k | CRCW06037K50FKEA | Vishay-Dale | RES, 7.50k ohm, 1%, 0.1W, 0603 | 0603 |
| R50 | 0 | 3.01k | CRCW06033K01FKEA | Vishay-Dale | RES, 3.01k ohm, 1%, 0.1W, 0603 | 0603 |
| R53, R54, R58, R59 | 0 | 0 | CRCW12060000Z0EA | Vishay-Dale | RES, 0 ohm, 5%, 0.25W, 1206 | 1206 |
| TP14 | 0 | Yellow | 5009 | Keystone | Test Point, Compact, Yellow, TH | Yellow Compact Testpoint |
| U3 | 0 | | LP2951CSD | Texas Instruments | Series of Adjustable Micropower Voltage Regulators, 8-pin LLP | SDC08A |
| U4 | 0 | | LM321MF | Texas Instruments | Low Power Single Op Amp, DBV0005A | DBV0005A |

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