

PMP10594 REV A Bill of Materials

| Designator | Quantity | Value | PartNumber | Manufacturer | Description | PackageReference |
|---|----------|--------------------|----------------------|-----------------------|---|----------------------------|
| PCB1 | 1 | | PMP10594 | Any | Printed Circuit Board | |
| C1, C2, C14, C17, C21 | 5 | 0.22uF | C1608X7R1H224K080AB | TDK | CAP, CERM, 0.22uF, 50V, +/-10%, X7R, 0603 | 0603 |
| C3 | 1 | 100pF | CGA3E2NP01H101J080AA | TDK | CAP, CERM, 100pF, 50V, +/-5%, C0G/NP0, 0603 | 0603 |
| C4, C13, C19, C22, C23 | 5 | 0.1uF | 06033C104JAT2A | AVX | CAP, CERM, 0.1 μF, 25 V, +/- 5%, X7R, 0603 | 0603 |
| C5, C26 | 2 | 1uF | GRM188R71C105KA12D | MuRata | CAP, CERM, 1uF, 16V, +/-10%, X7R, 0603 | 0603 |
| C6, C8 | 2 | 100pF | GRM1885C1H101JA01D | MuRata | CAP, CERM, 100pF, 50V, +/-5%, C0G/NP0, 0603 | 0603 |
| C7, R15, R16, R18, R22, RH1, RH2, RL1, RL2 | 9 | 0 | CRCW06030000Z0EA | Vishay-Dale | RES, 0, 5%, 0.1 W, 0603, RES, 0 ohm, 5%, 0.1W, 0603 | 0603 |
| C9, C16, C20 | 3 | 0.047uF | GRM188R71H473KA61D | MuRata | CAP, CERM, 0.047 µF, 50 V, +/- 10%, X7R, 0603 | 0603 |
| C9, C16, C20 | 3 1 | 0.047uF 0.022uF | GRM188R71H223KA01D | MuRata | CAP, CERM, 0.027 μF, 50 V, +/- 10%, X7R, 0603 | 0603 |
| C12 | 1 | 220pF | GRM1885C1H221JA01D | MuRata | CAP, CERM, 0.022 µF, 50 V, +/- 10%, X/R, 0003 | 0603 |
| C24, C25 | 2 | 1000pF | GRM188R71H102KA01D | MuRata | CAP, CERM, 1000 pF, 50 V, +/- 10%, X7R, 0603 | 0603 |
| Cin1, Co1 | 2 | 68uF | EEHZC1H680P | Panasonic | CAP, AL, 68 µF, 50 V, +/- 20%, 30 ohm, SMD | 8x10 |
| Cin2, Cin3, Cin4, Cin5, Cin6, Cin7, Co2, Co3, Co4, Co5, Co6, Co7 | 12 | 10uF | GRM32ER71H106KA12L | MuRata | CAP, CERM, 10uF, 50V, +/-10%, X7R, 1210 | 1210 |
| D1 | 1 | 30V | BAT54HT1G | ON Semiconductor | Diode, Schottky, 30V, 0.2A, SOD-323 | SOD-323 |
| D2, D3 | 2 | 100V | BAS516,115 | NXP Semiconductor | Diode, Switching, 100V, 0.25A, SOD-523 | SOD-523 |
| D4 | 1 | 30V | BAT54AT-7-F | Diodes Inc. | Diode, Schottky, 30 V, 0.2 A, SOT-523 | SOT-523 |
| D101, D103 | 2 | 2.4V | MMSZ5221BS-7-F | Diodes Inc. | Diode, Zener, 2.4 V, 200 mW, SOD-323 | SOD-323 |
| D102, D104 | 2 | 75V | CMOD4448 | Central Semiconductor | Diode, Ultrafast, 75 V, 0.25 A, SOD-523 | SOD-523 |
| 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, J2, J3, J4, J5, J6 | 6 | | 108-0740-001 | Emerson Network Power | Standard Banana Jack, Uninsulated, 15A | Banana Jack |
| J7, J11 | 2 | 2x1 | 1727010 | Phoenix Contact | Conn Term Block, 2POS, 3.81mm PCB | PhoenixConact_1727 010 |
| J8, J9, J10 | 3 | | 5-146278-3 | TE Connectivity | Header, 100mil, 3x1, Tin, TH | Header, 3x1, 100mil, TH |
| L1 | 1 | 1.5uH | IHLW4040CFER1R5M11 | Vishay-Dale | Inductor, Shielded, Powdered Iron, 1.5 µH, 14.5 A, 0.0044 ohm, SMD, Winged Terminal | IHLW-4040CF |
| Q1 | 1 | | CSD87353Q5D | Texas Instruments | | |
| Q2 | 1 | 30V | CSD87330Q3D | Texas Instruments | MOSFET, N/P-CH, 30 V, 20 A, 3.4x1.4x3.4mm | 3.4x1.4x3.4mm |
| Q3 | 1 | -20V | CSD25402Q3A | Texas Instruments | MOSFET, P-CH, -20 V, -15 A, SON 3.3x3.3mm | SON 3.3x3.3mm |
| R1, R2, R4, R5, R19, R26 | 6 | 10 | CRCW060310R0JNEA | Vishay-Dale | RES, 10, 5%, 0.1 W, 0603 | 0603 |
| R3, R31, R34, R35 | 4 | 100k | CRCW0603100KJNEA | Vishay-Dale | RES, 100 k, 5%, 0.1 W, 0603 | 0603 |
| R7 | 1 | 100 | CRCW2010100RJNEF | Vishay-Dale | RES, 100, 5%, 0.75 W, 2010 | 2010 |
| R8 | 1 | 34.8k | CRCW060334K8FKEA | Vishay-Dale | RES, 34.8 k, 1%, 0.1 W, 0603 | 0603 |
| R9 | 1 | 10k | CRCW060310K0JNEA | Vishay-Dale | RES, 10 k, 5%, 0.1 W, 0603 | 0603 |
| R10 | 1 | 20k | CRCW060320K0JNEA | Vishay-Dale | RES, 20 k, 5%, 0.1 W, 0603 | 0603 |
| R11 | 1 | 3.01k | CRCW06033K01FKEA | Vishay-Dale | RES, 3.01 k, 1%, 0.1 W, 0603 | 0603 |
| R12 | 1 | 49.9k | CRCW060349K9FKEA | Vishay-Dale | RES, 49.9 k, 1%, 0.1 W, 0603 | 0603 |
| R13 | 1 | 60.4k | CRCW060360K4FKEA | Vishay-Dale | RES, 60.4 k, 1%, 0.1 W, 0603 | 0603 |

| Designator | Quantity | Value | PartNumber | Manufacturer | Description | PackageReference |
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| R14, R25 | 2 | 24.9k | CRCW060324K9FKEA | Vishay-Dale | RES, 24.9 k, 1%, 0.1 W, 0603 | 0603 |
| R20, R21 | 2 | 3.3k | CRCW06033K30JNEA | Vishay-Dale | RES, 3.3 k, 5%, 0.1 W, 0603 | 0603 |
| R23, R29, R33, | 5 | 10.0k | CRCW060310K0FKEA | Vishay-Dale | RES, 10.0 k, 1%, 0.1 W, 0603 | 0603 |
| R104, R105 | | | | - | | |
| R24 | 1 | 8.06k | CRCW06038K06FKEA | Vishay-Dale | RES, 8.06 k, 1%, 0.1 W, 0603 | 0603 |
| R27 | 1 | 9.53k | CRCW06039K53FKEA | Vishay-Dale | RES, 9.53 k, 1%, 0.1 W, 0603 | 0603 |
| R30, R32 | 2 | 1.00k | CRCW06031K00FKEA | Vishay-Dale | RES, 1.00 k, 1%, 0.1 W, 0603 | 0603 |
| R101, R102, R103 | 3 | 47 | CRCW060347R0JNEA | Vishay-Dale | RES, 47, 5%, 0.1 W, 0603 | 0603 |
| R106 | 1 | 38.3k | CRCW060338K3FKEA | Vishay-Dale | RES, 38.3 k, 1%, 0.1 W, 0603 | 0603 |
| RS1 | 1 | 0.002 | CSNL1206FT2L00 | Stackpole Electronics Inc | RES, 0.002, 1%, 1 W, 1206 | 1206 |
| RS2, RS3 | 2 | 0.005 | CSNL2010FT5L00 | Stackpole Electronics Inc | RES, 0.005, 1%, 1.5 W, 2010 | 2010 |
| RS4 | 1 | 0.004 | CSNL2512FT4L00 | Stackpole Electronics Inc | RES, 0.004, 1%, 2 W, 2512 | 2512 |
| RS5 | 1 | 0.001 | CSNL2010FT1L00 | Stackpole Electronics Inc | RES, 0.001, 1%, 1.5 W, 2010 | 2010 |
| TP1, TP2, TP7, | 4 | Red | 5000 | Keystone | Test Point, TH, Miniature, Red | Keystone5000 |
| TP11 | | | | , | | |
| TP3, TP4, TP9, | 4 | Black | 5001 | Keystone | Test Point, TH, Miniature, Black | Keystone5001 |
| TP12 | | | | | | |
| TP5, TP6, TP8, | 6 | White | 5002 | Keystone | Test Point, Miniature, White, TH | White Miniature |
| TP10, TP13, TP14 | | | | | | Testpoint |
| U1 | 1 | | LM5175PWP | Texas Instruments | 42V Wide VIN 4-Switch Synchronous Buck-Boost Controller, PWP0028F | PWP0028F |
| U2, U5, U6 | 3 | | LM431ACM3 | Texas Instruments | Adjustable Precision Zener Shunt Regulator, 3-pin SOT-23 | MF03A |
| U3, U8 | 2 | | INA199A3RSW | Texas Instruments | Voltage Output, High or Low Side Measurement, Bi-Directional Zerø-Drift | RSW0010A |
| | | | | | Series Current-Shunt Monitor, RSW0010A | |
| U4 | 1 | | TLV272IDGKR | Texas Instruments | 550 uA/Ch, 3 MHz, Rail-to-Rail Output Operational Amplifier, 2.7 to 16 V, - | DGK0008A |
| | | | | | 40 to 125 degC, 8-pin SOP (DGK8), Green (RoHS & no Sb/Br) | |
| U7 | 1 | | SN74LVC1G34DSF | Texas Instruments | SINGLE BUFFER GATE, DSF0006A | DSF0006A |
| U9 | 1 | | TPL0102-100RUCR | Texas Instruments | 256-TAPS DUAL CHANNEL DIGITAL POTENTIOMETER WITH NON- | RUC0014A |
| | | | | | VOLATILE MEMORY, RUC0014A | |
| C10, C15, C18 | 0 | 100pF | GRM1885C1H101JA01D | MuRata | CAP, CERM, 100pF, 50V, +/-5%, C0G/NP0, 0603 | 0603 |
| FID1, FID2, FID3 | 0 | | N/A | N/A | Fiducial mark. There is nothing to buy or mount. | Fiducial |
| R6 | 0 | 0 | CRCW06030000Z0EA | Vishay-Dale | RES, 0, 5%, 0.1 W, 0603 | 0603 |

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