

## PMP22151 REV B Bill of Materials

| Designator         | Quantity | Value   | PartNumber          | Manufacturer               | Description  | PackageReference           |
|--------------------|----------|---------|---------------------|----------------------------|--|----------------------------|
| !PCB1              | 1        |         | PMP22151            | Any                        | Printed Circuit Board  |                            |
| C1                 | 1        | 100uF   | 50ZLJ100MT78X11.5   | Rubycon                    | CAP, AL, 100 uF, 50 V, +/- 20%, 0.12 ohm, TH                                 | CAP, 8x11.5mm              |
| C2                 | 1        | 10uF    | GRM31CR61H106KA12L  | MuRata                     | CAP, CERM, 10 uF, 50 V, +/- 10%, X5R, 1206                                   | 1206                       |
| C3, C4, C5         | 3        | 1uF     | GRM31MR71H105KA88L  | MuRata                     | CAP, CERM, 1 uF, 50 V, +/- 10%, X7R, 1206                                    | 1206                       |
| C6, C7, C11        | 3        | 220uF   | 860080675015        | Würth Elektronik           | CAP, AL, 220 uF, 50 V, +/- 20%, TH   | D10xL16mm                  |
| C8, C9, C10        | 3        | 4.7uF   | GRM31CR71H475KA12L  | MuRata                     | CAP, CERM, 4.7 uF, 50 V, +/- 10%, X7R, 1206                                  | 1206                       |
| C12                | 1        | 330pF   | GRM188R71H331KA01D  | MuRata                     | CAP, CERM, 330 pF, 50 V, +/- 10%, X7R, 0603                                  | 0603                       |
| C13, C17           | 2        | 0.1uF   | GRM188R71E104KA01D  | MuRata                     | CAP, CERM, 0.1 uF, 25 V, +/- 10%, X7R, 0603                                  | 0603                       |
| C14                | 1        | 0.015uF | GRM188R71E153KA01D  | MuRata                     | CAP, CERM, 0.015 uF, 25 V, +/- 10%, X7R, 0603                                | 0603                       |
| C15                | 1        | 33pF    | GRM1555C1E330JA01D  | MuRata                     | CAP, CERM, 33 pF, 25 V, +/- 5%, C0G/NP0, 0402                                | 0402                       |
| C16                | 1        | 1uF     | GRM219R71E105KA88D  | MuRata                     | CAP, CERM, 1 uF, 25 V, +/- 10%, X7R, 0805                                    | 0805                       |
| C19                | 1        | 1000pF  | 1812GC102KA1        | AVX                        | CAP, CERM, 1000 pF, 2000 V, +/- 10%, X7R, 1812                               | 1812                       |
| C20                | 1        | 0.01uF  | GRM188R71E103KA01D  | MuRata                     | CAP, CERM, 0.01 uF, 25 V, +/- 10%, X7R, 0603                                 | 0603                       |
| C21                | 1        | 820pF   | GRM188R71H821KA01D  | MuRata                     | CAP, CERM, 820 pF, 50 V, +/- 10%, X7R, 0603                                  | 0603                       |
| C22                | 1        | 0.47uF  | GCM188R71E474KA64D  | MuRata                     | CAP, CERM, 0.47 uF, 25 V, +/- 10%, X7R, AEC-Q200 Grade 1, 0603               | 0603                       |
| C23                | 1        | 100pF   | 885012205055        | Würth Elektronik           | CAP, CERM, 100 pF, 50 V, +/- 10%, X7R, 0402                                  | 0402                       |
| C24                | 1        | 10uF    | C3216X7R1V106M160AC | TDK                        | CAP, CERM, 10 uF, 35 V, +/- 20%, X7R, 1206 190                               | 1206 190                   |
| D1                 | 1        | 48V     | SMCJ48CA-TR         | STMicroelectronics         | Diode, TVS, Bi, 48 V, 77.4 Vc, 1500 W, 20 A, SMC (No Polarity Mark)          | SMC (No Polarity Mark)     |
| D2                 | 1        | 200V    | MURA120T3G          | ON Semiconductor           | Diode, Ultrafast, 200 V, 1 A, SMA  | SMA                        |
| D3                 | 1        | 100V    | MBRB20100CT-TP      | Micro Commercial Component | Diode, Schottky, 100 V, 20 A, DDPACK   | DDPAK                      |
| D4                 | 1        | 60V     | B560C-13-F          | Diodes Inc.                | Diode, Schottky, 60 V, 5 A, SMC  | SMC                        |
| D5                 | 1        | 100V    | MMSD4148T1G         | ON Semiconductor           | Diode, Switching, 100 V, 0.2 A, SOD-123                                      | SOD-123                    |
| D6                 | 1        | 5.1V    | MMSZ5231BS-7-F      | Diodes Inc.                | Diode, Zener, 5.1 V, 200 mW, SOD-323   | SOD-323                    |
| J1, J2, J3         | 3        |         | 691214110002        | Würth Elektronik           | Terminal Block, 3.5mm, 2x1, Tin, TH  | Receptacle, 3.5mm, 2x1, TH |
| J4                 | 1        |         | 61300211121         | Würth Elektronik           | Header, 2.54 mm, 2x1, Gold, TH   | Header, 2.54mm, 2x1, TH    |
| L1                 | 1        | 100nH   | 744373240010        | Würth Elektronik           | Inductor, Shielded Drum Core, Powdered Iron, 100 nH, 12 A, 0.0032 ohm, SMD   | 4.45x1.8x4.06mm            |
| L2                 | 1        | 39uH    | 7447709390          | Würth Elektronik           | Inductor, Shielded Drum Core, Metal Composite, 39 uH, 4.1 A, 0.0439 ohm, SMD | SMD                        |
| Q1                 | 1        | 200V    | SIR696DP-T1-GE3     | Vishay-Siliconix           | MOSFET, N-CH, 150V, 60 A, PowerPAK SO-8                                      | PowerPAK SO-8              |
| Q2                 | 1        | 60V     | SI7850DP-E3         | Vishay-Siliconix           | MOSFET, N-CH, 60 V, 6.2 A, PowerPAK SO-8                                     | PowerPAK SO-8              |
| Q3, Q4             | 2        | 40 V    | MMBT3906            | Fairchild Semiconductor    | Transistor, PNP, 40 V, 0.2 A, SOT-23   | SOT-23                     |
| R1                 | 1        | 100     | CRCW2512100RJNEG    | Vishay-Dale                | RES, 100, 5%, 1 W, AEC-Q200 Grade 0, 2512                                    | 2512                       |
| R2, R9             | 2        | 10      | CRCW060310R0JNEA    | Vishay-Dale                | RES, 10, 5%, 0.1 W, AEC-Q200 Grade 0, 0603                                   | 0603                       |
| R3, R8             | 2        | 1.00k   | CRCW06031K00FKEA    | Vishay-Dale                | RES, 1.00 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0603                               | 0603                       |
| R4                 | 1        | 0.008   | ERJ-M1WSF8M0U       | Panasonic                  | RES, 0.008, 1%, 1 W, 2512  | 2512                       |
| R5                 | 1        | 22      | CRCW060322R0JNEA    | Vishay-Dale                | RES, 22, 5%, 0.1 W, AEC-Q200 Grade 0, 0603                                   | 0603                       |
| R6, R10            | 2        | 0       | CRCW06030000Z0EA    | Vishay-Dale                | RES, 0, 5%, 0.1 W, AEC-Q200 Grade 0, 0603                                    | 0603                       |
| R7                 | 1        | 0.025   | CSRN2010FK25L0      | Stackpole Electronics Inc  | RES, 0.025, 1%, 1 W, 2010  | 2010                       |
| R11, R13           | 2        | 2.49k   | CRCW06032K49FKEA    | Vishay-Dale                | RES, 2.49 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0603                               | 0603                       |
| R12, R25           | 2        | 105k    | CRCW0603105KFKEA    | Vishay-Dale                | RES, 105 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0603                                | 0603                       |
| R14, R18, R20, R27 | 4        | 10.0k   | CRCW060310K0FKEA    | Vishay-Dale                | RES, 10.0 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0603                               | 0603                       |
| R16                | 1        | 102k    | CRCW0603102KFKEA    | Vishay-Dale                | RES, 102 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0603                                | 0603                       |

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|------------|----------|--------|--------------------|----------------------|--|--|
| R17        | 1        | 100k   | CRCW0603100KFKEA   | Vishay-Dale          | RES, 100 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0603  | 0603   |
| R21        | 1        | 215k   | CRCW0603215KFKEA   | Vishay-Dale          | RES, 215 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0603  | 0603   |
| R22        | 1        | 2.80k  | CRCW06032K80FKEA   | Vishay-Dale          | RES, 2.80 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0603   | 0603   |
| R23        | 1        | 71.5k  | CRCW060371K5FKEA   | Vishay-Dale          | RES, 71.5 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0603   | 0603   |
| R24        | 1        | 20.0k  | CRCW060320K0FKEA   | Vishay-Dale          | RES, 20.0 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0603   | 0603   |
| R26        | 1        | 20.5k  | CRCW060320K5FKEA   | Vishay-Dale          | RES, 20.5 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0603   | 0603   |
| T1         | 1        |        | 750318773          | Würth                | TRANSFORMER  | PTH_32MM0_33MM0                              |
| TP1, TP3   | 2        |        | 5000               | Keystone             | Test Point, Miniature, Red, TH   | Red Miniature Testpoint                      |
| TP2, TP4   | 2        |        | 5004               | Keystone             | Test Point, Miniature, Yellow, TH  | Yellow Miniature Testpoint                   |
| TP5, TP6   | 2        |        | 5011               | Keystone             | Test Point, Multipurpose, Black, TH  | Black Multipurpose Testpoint                 |
| U1, U2     | 2        |        | LM5155DSST         | Texas Instruments    | 2.2-MHz Wide Input Nonsynchronous Boost, Sepic, Flyback Controller, DSS0012B (WSON-12) | DSS0012B                                     |
| U3         | 1        |        | VO618A-3           | Vishay-Semiconductor | Optocoupler, 5.3 kV, 100-200% CTR, SMT   | DIP, 4-Leads, Body 6.86x4.83mm, Pitch 2.54mm |
| U4         | 1        |        | ATL431LIBIDBZR     | Texas Instruments    | High Bandwidth Low-Iq Programmable Shunt Regulator, DBZ0003A (SOT-23-3)                | DBZ0003A                                     |
| C18        | 0        | 0.01uF | GRM188R71E103KA01D | MuRata               | CAP, CERM, 0.01 uF, 25 V, +/- 10%, X7R, 0603   | 0603   |
| R15        | 0        | 10.0k  | CRCW060310K0FKEA   | Vishay-Dale          | RES, 10.0 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0603   | 0603   |
| R19        | 0        | 499    | CRCW0603499RFKEA   | Vishay-Dale          | RES, 499, 1%, 0.1 W, AEC-Q200 Grade 0, 0603  | 0603   |

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