

PMP31007 REV B Bill of Materials

Designator	Quantity	Value	PartNumber	Manufacturer	Description	PackageReference
C1	1	1000pF	C1206C102KGRACAUTO	Kemet	CAP, CERM, 1000 pF, 2000 V,+/- 10%, X7R, AEC-Q200 Grade 1	1206
C2, C5	2	68uF	EEHZA1H680P	Panasonic	CAP, Polymer Hybrid, 68 µF, 50 V,+/- 20%, 0.030 ohm	SMD 8x10
C3, C6, C204	3	10uF	GRM32ER71H106KA12L	MuRata	CAP, CERM, 10 µF, 50 V,+/- 10%, X7R, 1210	1210
C4, C9, C203	3	0.1uF	GCM188R71H104KA57D	MuRata	CAP, CERM, 0.1 µF, 50 V, +/- 10%, X7R, 0603	0603
C10	1	0.01uF	GRM21BR72A103MA01L	MuRata	CAP, CERM, 0.01 µF, 100 V, +/- 20%, X7R, 0805	0805
C12	1	1uF	UMK107AB7105KA-T	Taiyo Yuden	CAP, CERM, 1 µF, 50 V,+/- 10%, X7R, 0603	0603
C13, C18, C21	3	1uF	GRM188R71C105KA12D	MuRata	CAP, CERM, 1 µF, 16 V, +/- 10%, X7R, 0603	0603
C14	1	220pF	GRM188R71H221KA01D	MuRata	CAP, CERM, 220 pF, 50 V,+/- 10%, X7R, 0603	0603
C15	1	470pF	GRM1885C1H471JA01D	MuRata	CAP, CERM, 470 pF, 50 V, +/- 5%, C0G/NP0, 0603	0603
C16	1	100pF	GRM1885C1H101JA01D	MuRata	CAP, CERM, 100 pF, 50 V,+/- 5%, C0G/NP0, 0603	0603
C19	1	1500pF	GRM1885C1H152JA01D	MuRata	CAP, CERM, 1500 pF, 50 V, +/- 5%, C0G/NP0, 0603	0603
C20	1	22pF	GRM1885C1H220JA01D	MuRata	CAP, CERM, 22 pF, 50 V, +/- 5%, C0G/NP0, 0603	0603
C101	1	100pF	GRM2165C2A101JA01D	MuRata	CAP, CERM, 100 pF, 100 V, +/- 5%, C0G/NP0, 0805	0805
C201	1	1uF	GRM21BR71H105KA12L	MuRata	CAP, CERM, 1 µF, 50 V,+/- 10%, X7R, 0805	0805
C202	1	0.01uF	885012206114	Wurth Elektronik	CAP, CERM, 0.01 µF, 100 V,+/- 10%, X7R, 0603	0603
D1	1	100V	B1100-13-F	Diodes Inc.	Diode, Schottky, 100 V, 1 A, SMA	SMA
D3	1	100V	BAT46WH,115	Nexperia	Diode, Schottky, 100 V, 0.25 A, SOD-123F	SOD-123F
D5	1	30V	BAT54LP-7	Diodes Inc.	Diode, Schottky, 30 V, 0.2 A, 1.00x0.50x0.60mm	SMD 1.00x0.50x0.60mm
D6	1	14V	MMSZ4701T1G	ON Semiconductor	Diode, Zener, 14 V, 500 mW, SOD-123	SOD-123
D7	1	6V	MMSZ5233BS-7-F	Diodes Inc.	Diode, Zener, 6 V, 200 mW, SOD-323	SOD-323
D8	1	100V	MMSD914T1G	ON Semiconductor	Diode, Switching, 100 V, 0.2 A, SOD-123	SOD-123
J1, J2	2		1725656	Phoenix Contact	Terminal Block, 100mil, 2x1, 6A, 63V, TH	THT 6.2x8.5x5.54 mm
L1	1	22uH	MSD1278-223ML	Coilcraft	Coupled inductor, 22 uH, 6.8 A, 0.096 ohm	SMD 12.3x12.3mm
L201	1	3.3uH	XEL4030-332MEB	Coilcraft	Inductor, Shielded, 3.3 µH, 5 A, 0.0286 ohm	SMD 4x4mm
Q1	1	100V	BSZ160N10NS3 G	Infineon Technologies	MOSFET, N-CH, 100 V, 28 A, PG-TSDSON-8	PG-TSDSON-8
Q2	1	0.3V	MMBT2222A	Fairchild Semiconductor	Transistor, NPN, 40V, 0.15A, SOT-23	SOT-23
R1	1	10k	CRCW120610K0JNEA	Vishay-Dale	RES, 10 k, 5%, 0.25 W, 1206	1206
R3, R7	2	10.0	CRCW060310R0FKEA	Vishay-Dale	RES, 10.0, 1%, 0.1 W, 0603	0603
R4, R18, R20	3	49.9k	CRCW060349K9FKEA	Vishay-Dale	RES, 49.9 k, 1%, 0.1 W, AEC-Q200 Grade 0	0603
R5, R6, R12, R19	4	20.0k	CRCW060320K0FKEA	Vishay-Dale	RES, 20.0 k, 1%, 0.1 W, 0603	0603
R8, R25	2	1.00k	CRCW06031K00FKEA	Vishay-Dale	RES, 1.00 k, 1%, 0.1 W, 0603	0603
R9	1	301k	CRCW0603301KFKEA	Vishay-Dale	RES, 301 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
R10, R24	2	100k	CRCW0603100KFKEA	Vishay-Dale	RES, 100k ohm, 1%, 0.1W, 0603, RES, 100 k, 1%, 0.1 W	0603
R11	1	0.04	WSL0805R0400FEA	Vishay-Dale	RES, 0.04, 1%, .125 W, AEC-Q200 Grade 1, 0805	0805
R13	1	3.65k	CRCW06033K65FKEA	Vishay-Dale	RES, 3.65 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
R14, R15	2	49.9	CRCW060349R9FKEA	Vishay-Dale	RES, 49.9, 1%, 0.1 W, 0603	0603
R17	1	4.99k	CRCW06034K99FKEA	Vishay-Dale	RES, 4.99 k, 1%, 0.1 W, 0603	0603
R23	1	0	CRCW06030000Z0EA	Vishay-Dale	RES, 0, 5%, 0.1 W, 0603	0603
R26	1	5.76k	CRCW06035K76FKEA	Vishay-Dale	RES, 5.76 k, 1%, 0.1 W, 0603	0603
R101	1	100	CRCW1206100RJNEA	Vishay-Dale	RES, 100, 5%, 0.25 W, AEC-Q200 Grade 0	1206
TP1	1		5002	Keystone	Test Point, Miniature, White, TH	White Miniature Testpoint
TP2, TP3	2	Red	5000	Keystone	Test Point, Miniature, Red, TH	Red Miniature Testpoint
TP4, TP5, TP9	3	Black	5001	Keystone	Test Point, Miniature, Black, TH	Black Miniature Testpoint
TP6, TP8	2		5003	Keystone	Test Point, Miniature, Orange, TH	Orange Miniature Testpoint

Designator	Quantity	Value	PartNumber	Manufacturer	Description	PackageReference
U1	1		TPS40210DGQ	Texas Instruments	4.5-V TO 52-V INPUT CM BOOST CTRL	DGQ0010D
U2	1		TCMT1107	Vishay-Semiconductor	Optocoupler, 3.75 kV, 80-160% CTR	SMD SOP-4
U3	1		TL431AIDBZR	Texas Instruments	Adjustable Precision Shunt Regulator, 100 mA	DBZ0003A (SOT-23)

IMPORTANT NOTICE AND DISCLAIMER

TI PROVIDES TECHNICAL AND RELIABILITY DATA (INCLUDING DATA SHEETS), DESIGN RESOURCES (INCLUDING REFERENCE DESIGNS), APPLICATION OR OTHER DESIGN ADVICE, WEB TOOLS, SAFETY INFORMATION, AND OTHER RESOURCES "AS IS" AND WITH ALL FAULTS, AND DISCLAIMS ALL WARRANTIES, EXPRESS AND IMPLIED, INCLUDING WITHOUT LIMITATION ANY IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OR NON-INFRINGEMENT OF THIRD PARTY INTELLECTUAL PROPERTY RIGHTS.

These resources are intended for skilled developers designing with TI products. You are solely responsible for (1) selecting the appropriate TI products for your application, (2) designing, validating and testing your application, and (3) ensuring your application meets applicable standards, and any other safety, security, regulatory or other requirements.

These resources are subject to change without notice. TI grants you permission to use these resources only for development of an application that uses the TI products described in the resource. Other reproduction and display of these resources is prohibited. No license is granted to any other TI intellectual property right or to any third party intellectual property right. TI disclaims responsibility for, and you will fully indemnify TI and its representatives against, any claims, damages, costs, losses, and liabilities arising out of your use of these resources.

TI's products are provided subject to [TI's Terms of Sale](#) or other applicable terms available either on ti.com or provided in conjunction with such TI products. TI's provision of these resources does not expand or otherwise alter TI's applicable warranties or warranty disclaimers for TI products.

TI objects to and rejects any additional or different terms you may have proposed.

Mailing Address: Texas Instruments, Post Office Box 655303, Dallas, Texas 75265
Copyright © 2022, Texas Instruments Incorporated