

PMP31342 REV B Bill of Materials

Designator	Quantity	Value	PartNumber	Manufacturer	Description	PackageReference
5V, VAUX, VIN, VOUT	4		5010	Keystone Electronics	Test Point, Multipurpose, Red, TH	Red Multipurpose Testpoint
BLK, HG, HV, I_opt, ISNS, LG, LL, OVP_OTP, SW, TSET	10		5012	Keystone Electronics	Test Point, Multipurpose, White, TH	White Multipurpose Testpoint
C1, C12	2	0.033uF	B32641B6333K	TDK	CAP, Film, 0.033 uF, 630 V, +/- 10%, TH	CAP, 14,13.0x6mm, TH
C2, C16	2	1200pF	GRM2165C2A122JA01D	MuRata	CAP, CERM, 1200 pF, 100 V, +/- 5%, C0G/NP0, 0805	805
C3	1	120µF	ALA8AD121BC500	KEMET	120 µF 500 V Aluminum Electrolytic Capacitors Radial, Can - Snap-In 1.73Ohm @ 100Hz 5000 Hrs @ 105°C	RADIAL
C4	1		CNA6P1X7R2A475K250AE	TDK	CAP CER 4.7UF 100V X7R 1210	1210
C5, C6, C8, C9	4	82µF	HHXF630ARA820MJA0G	United Chemi-Con	82 µF 63 V Aluminum - Polymer Capacitors Radial, Can - SMD 22mOhm 3000 Hrs @ 135°C	RADIAL
C7	1	150pF	GRM31A5C2J151JW01D	MuRata	CAP, CERM, 150 pF, 630 V, +/- 5%, C0G/NP0, 1206	1206
C10	1	0.1uF	GCM21BR72A104KA37L	MuRata	CAP, CERM, 0.1 µF, 100 V, +/- 10%, X7R, AEC-Q200 Grade 1, 0805	805
C11	1	100pF	GCM2165C2A101JA16D	MuRata	CAP, CERM, 100 pF, 100 V, +/- 5%, C0G/NP0, AEC-Q200 Grade 1, 0805	805
C13	1	330uF	EEE-FK1E331P	Panasonic	CAP, AL, 330 uF, 25 V, +/- 20%, 0.16 ohm, AEC-Q200 Grade 2, SMD	SMT Radial F
C14	1	100pF	12061A101JAT2A	AVX	CAP, CERM, 100 pF, 100 V, +/- 5%, C0G/NP0, 1206	1206
C15	1	10uF	C1206C106J3RACAUTO	Kemet	CAP, CERM, 10 µF, 25 V, +/- 5%, X7R, AEC-Q200 Grade 1, 1206	1206
C17	0	3.3nF	CS95ZU2GA332MANKA	TDK	Capacitor Ceramic 0.0033uF 440V/300V 20% 7.5mm Radial Bulk	RADIAL
C19	1	2.2uF	C2012X7R1V225K085AC	TDK	CAP, CERM, 2.2 uF, 35 V, +/- 10%, X7R, 0805	805
C20	1	4.7uF	C3216X7R1E475K085AB	TDK	CAP, CERM, 4.7 uF, 25 V, +/- 10%, X7R, 1206	1206
C21	1	0.1uF	GRM31C5C1E104JA01L	MuRata	CAP, CERM, 0.1 uF, 25 V, +/- 5%, C0G/NP0, 1206	1206
C22	0	4700pF	C0603C472J1GAC7867	Kemet	CAP, CERM, 4700 pF, 100 V, +/- 5%, C0G/NP0, 0603	603
C23	1	10nF	CGA3E2X7R1H103K080AA	TDK	Cap Ceramic 10nF 50V X7R 10% Pad SMD 0603 +125°C Automotive T/R	603
C24	1	220pF	GRM188R72E221KW07D	MuRata	CAP, CERM, 220 pF, 250 V, +/- 10%, X7R, 0603	603
C25	1	220pF	C0603X221K5RACTU	Kemet	CAP, CERM, 220 pF, 50 V, +/- 10%, X7R, 0603	603
C26	1	2200pF	C0603X222K5RACTU	Kemet	CAP, CERM, 2200 pF, 50 V, +/- 10%, X7R, 0603	603
C27	1	470pF	CC1206KRX7R9BB471	Yageo America	CAP, CERM, 470 pF, 50 V, +/- 10%, X7R, 1206	1206
C28	0	680pF	GRM188R72A681KA01D	MuRata	CAP, CERM, 680 pF, 100 V, +/- 10%, X7R, 0603	603
C29	1	1000pF	C0603X102K5RACTU	Kemet	CAP, CERM, 1000 pF, 50 V, +/- 10%, X7R, 0603	603
C33	1	33nF	CGA3E2X7R1H333K080AA	TDK	Cap Ceramic 33nF 50V X7R 10% Pad SMD 0603 +125°C Automotive T/R	603
C101	1	2.2uF	CGA6N3X7R2A225K230AB	TDK	CAP, CERM, 2.2 uF, 100 V, +/- 10%, X7R, AEC-Q200 Grade 1,	
D1, D4	2	100V	1N4148W-7-F	Diodes Inc.	Diode, Ultrafast, 100 V, 0.15 A, SOD-123	SOD-123
D2, D5	2		V35PWM153-M3/I	Vishay	Diode 150 V 35A Surface Mount SlimDPAK	TO-252AE
D3	1	100V	PMEG10020ELRX	Nexperia	Diode, Schottky, 100 V, 2 A, AEC-Q101, SOD-123W	SOD-123W
D6	1	15V	MMSZ4702-HE3-08	Vishay-Semiconductor	Diode, Zener, 15 V, 500 mW, AEC-Q101, SOD-123	SOD-123
D7	1	600V	ES1JAF	Fairchild Semiconductor	Diode, Ultrafast, 600 V, 1 A, AEC-Q101, SMAF	SMAF
D8	1	18V	SMAZ18-13-F	Diodes Inc.	Diode, Zener, 18 V, 1 W, AEC-Q101, SMA	SMA

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D9	1	17V	MMSZ4704-HE3-08	Vishay-Semiconductor	Diode, Zener, 17 V, 500 mW, AEC-Q101, SOD-123	SOD-123
D101, D102	2	100V	1N4148TR	Fairchild Semiconductor	Diode, P-N, 100 V, 0.2 A, TH	TH, 2-Leads, Axial, Pin spacing 8.44mm
INJ	1		5013	Keystone Electronics	Test Point, Multipurpose, Orange, TH	Orange Multipurpose Testpoint
J1, J2	2		ED120/2DS	On-Shore Technology	Terminal Block, 5.08 mm, 2x1, Brass, TH	2x1 5.08 mm Terminal Block
PGND, SGND	2		5011	Keystone Electronics	Test Point, Multipurpose, Black, TH	Black Multipurpose Testpoint
Q1, Q2	2		NVB190N65S3F	On Semi	N-Channel 650 V, 20A (Tc), 162W (Tc) Surface Mount TO-263	D2PAK
Q3	1	60 V	FZT651TA	Zetex	Transistor, NPN, 60 V, 3 A, SOT-223	SOT-223
Q4	0	40 V	MMDT3904-7-F	Diodes Inc.	Transistor, Dual NPN, 40 V, 0.2 A, SOT-363	SOT-363
R1, R6	2	4.7	CRCW06034R70JNEA	Vishay-Dale	RES, 4.7, 5%, 0.1 W, AEC-Q200 Grade 0, 0603	603
R2, R7	2	10	RC1206FR-0710RL	Yageo America	RES, 10.0, 1%, 0.25 W, 1206	1206
R3, R8	2	1	RC0603FR-071RL	Yageo	RES, 1.00, 1%, 0.1 W, 0603	603
R4, R9	2	51.0k	RC0603FR-0751KL	Yageo	RES, 51.0 k, 1%, 0.1 W, 0603	603
R5	1	0	ERJ-8GEY0R00V	Panasonic	RES, 0, 5%, 0.25 W, AEC-Q200 Grade 0, 1206	1206
R10	1	174	CRCW1206174RFKEA	Vishay-Dale	RES, 174, 1%, 0.25 W, AEC-Q200 Grade 0, 1206	1206
R11	1	0	CRCW08050000Z0EAHP	Vishay-Dale	RES, 0, 5%, 0.333 W, AEC-Q200 Grade 0, 0805	805
R12	1	10.0k	CRCW060310K0FKEA	Vishay-Dale	RES, 10.0 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	603
R13	1	2.2	ERJ-3RQF2R2V	Panasonic	RES, 2.20, 1%, 0.1 W, 0603	603
R14, R18, R20	3	324k	CRCW1206324KFKEA	Vishay-Dale	RES, 324 k, 1%, 0.25 W, AEC-Q200 Grade 0, 1206	1206
R15, R16, R17	3	1.65k	CRCW12061K65FKEA	Vishay-Dale	RES, 1.65 k, 1%, 0.25 W, AEC-Q200 Grade 0, 1206	1206
R19	0	1.21k	RC0603FR-071K21L	Yageo	RES, 1.21 k, 1%, 0.1 W, 0603	603
R21	1	576k	CRCW0603576KFKEA	Vishay-Dale	RES, 576 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	603
R22	1	681k	CRCW0603681KFKEA	Vishay-Dale	RES, 681 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	603
R23	1	49.9	CRCW060349R9FKEA	Vishay-Dale	RES, 49.9, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	603
R24	1	1.00k	CRCW06031K00FKEA	Vishay-Dale	RES, 1.00 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	603
R25	1	2.61k	CRCW06032K61FKEA	Vishay-Dale	RES, 2.61 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	603
R26, R28	2	4.99k	CRCW06034K99FKEA	Vishay-Dale	RES, 4.99 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	603
R27	1	0	CRCW04020000Z0ED	Vishay-Dale	RES, 0, 5%, 0.063 W, AEC-Q200 Grade 0, 0402	402
R29, R34	2	75.0k	CRCW060375K0FKEA	Vishay-Dale	RES, 75.0 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	603
R30	1	215k	CRCW0603215KFKEA	Vishay-Dale	RES, 215 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	603
R31	1	1.21k	CRCW06031K21FKEA	Vishay-Dale	RES, 1.21 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	603
R33, R39	2	15.0k	RG1608P-153-B-T5	Susumu Co Ltd	RES, 15.0 k, 0.1%, 0.1 W, 0603	603
R35	1	0	CRCW06030000Z0EA	Vishay-Dale	RES, 0, 5%, 0.1 W, AEC-Q200 Grade 0, 0603	603
R37	1	19.1k	CRCW060319K1FKEA	Vishay-Dale	RES, 19.1 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	603
R38	1	470k	B57371V2474J060	TDK	NTC Thermistor 470k 0603 (1608 Metric)	603
R40	1	2.00k	CRCW06032K00FKEA	Vishay-Dale	RES, 2.00 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	603
R101	1	200k	CRCW0402200KJNED	Vishay-Dale	RES, 200 k, 5%, 0.063 W, AEC-Q200 Grade 0, 0402	402
T1/L1	1		Hand-wound xfmr & inductor	EPCOS	PQ32/30 (xfmr) & EE16 (inductor)	
T2, T3	2		CXS70-14-C	Panduit	Terminal 70A Lug	LUG, 32.3x14.5x11.7
TP1, TP2, TP3, TP6, TP7, TP8, TP9, TP10, TP11, TP12, TP13, TP14	12		5125	Keystone Electronics	Test Point, Multipurpose, Brown, TH	Brown Multipurpose Testpoint

Designator	Quantity	Value	PartNumber	Manufacturer	Description	PackageReference
TP4, TP5, TP15, TP16, TP17, TP18, TP19, TP20	8		5003	Keystone Electronics	Test Point, Miniature, Orange, TH	Orange Miniature Testpoint
U1	1		UCC256612DDBR	Texas Instruments	750kHz Wide VIN/VOUT Range LLC Controller Optimized for Light Load Efficiency	SOIC14
U2	1	80V	ISOM8110DFG	Texas Instruments	3.75-kVRMS, Single-Channel Opto-Emulator with Transistor Output	SOIC4
U3	1		TLVH431AQDBVRQ1	Texas Instruments	Automotive Catalog Low-Voltage Adjustable Precision Shunt Regulator, 80 mA, -40 to 125 degC, 5-pin SOT-23 (DBV), Green (RoHS & no Sb/Br)	DBV0005A

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