

PMP31052 REV A Bill of Materials

Designator	Quantity	Value	PartNumber	Manufacturer	Description	PackageReference
C1, C101, C108	3	270uF	EEHZC1V271P	Panasonic	CAP, Polymer Hybrid, 270 µF, 35 V,+/- 20%, 20 ohm, 10x10 SMD	10x10
C2, C3, C4, C5, C102, C103, C104, C105	8	10uF	GRM32ER71H106KA12L	MuRata	CAP, CERM, 10 µF, 50 V, +/- 10%, X7R, 1210	1210
C6, C7, C8, C9, C10, C11, C106, C107	8	22uF	GRM32ER71E226KE15L	MuRata	CAP, CERM, 22 µF, 25 V, +/- 10%, X7R, 1210	1210
C12	1	1uF	GRM219R71E105KA88D	MuRata	CAP, CERM, 1 µF, 25 V, +/- 10%, X7R, 0805	805
C13, C14, C111	3	330uF	EEHZC1E331P	Panasonic	CAP, Polymer Hybrid, 330 µF, 25 V,+/- 20%, 20 ohm, 10x10 SMD	10x10
C15, C23, C26	3	47pF	GRM1885C1H470JA01D	MuRata	CAP, CERM, 47pF, 50V, +/-5%, COG/NP0, 0603	0603L
C16	1	4.7uF	GRM21BR71C475KA73L	MuRata	CAP, CERM, 4.7 µF, 16 V, +/- 10%, X7R, 0805	805
C17, C25	2	1uF	GRM188R61H105KAALD	MuRata	CAP, CERM, 1 µF, 50 V, +/- 10%, X5R, 0603	603
C18, C19	2	0.22uF	GRM188R71E224KA88D	MuRata	CAP, CERM, 0.22 µF, 25 V, +/- 10%, X7R, 0603	603
C20, C30	2	100pF	GRM1885C2A101JA01D	MuRata	CAP, CERM, 100pF, 100V, +/-5%, COG/NP0, 0603	0603L
C21	1	0.47uF	GRM188R71C474KA88D	MuRata	CAP, CERM, 0.47 µF, 16 V, +/- 10%, X7R, 0603	603
C22	1	0.1uF	GRM188R71E104KA01D	MuRata	CAP, CERM, 0.1 µF, 25 V,+/- 10%, X7R, 0603	603
C24	1	0.33uF	GRM188R71C334KA01D	MuRata	CAP, CERM, 0.33 µF, 16 V, +/- 10%, X7R, 0603	603
C27	1	0.022uF	C0603C223K5RACTU	Kemet	CAP, CERM, 0.022uF, 50V, +/-10%, X7R, 0603	603
C28	1	3300pF	GRM188R71E332KA01D	MuRata	CAP, CERM, 3300 pF, 25 V,+/- 10%, X7R, 0603	603
C29	1	330pF	GRM188R71H331KA01D	MuRata	CAP, CERM, 330 pF, 50 V,+/- 10%, X7R, 0603	603
C109, C110, C112	3	0.1uF	GRM188R72A104KA35D	MuRata	CAP, CERM, 0.1uF, 100V, +/-10%, X7R, 0603	603
D1, D2	2	40V	B540C-13-F	Diodes Inc.	Diode, Schottky, 40 V, 5 A, SMC	SMC
D3	1	60V	PMEG6010CEJ,115	NXP Semiconductor	Diode, Schottky, 60 V, 1 A, SOD-323F	SOD-323F
D4, D5	2	100V	BAS316,115	NXP Semiconductor	Diode, Ultrafast, 100V, 0.25A, SOD-323	SOD-323
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	2		PEC03SAAN	Sullins Connector Solutions	Header, 100mil, 3x1, Tin, TH	Header, 3 PIN, 100mil, Tin
J3	1		PEC02SAAN	Sullins Connector Solutions	Header, 100mil, 2x1, Tin, TH	Header, 2 PIN, 100mil, Tin
L1	1	1.3uH	XAL1580-132MEB	Coilcraft	Inductor, Shielded, Composite, 1.3 uH, 46.7 A, 0.00115 ohm, SMD	15.2x8x16.2mm
L101	1	200nH	SLC1480-201MLB	Coilcraft	Inductor, Shielded, Ferrite, 200 nH, 55 A, 0.00015 ohm, SMD	SMD 13.46x8.0x12.95mm
Q1, Q2, Q3, Q4, Q5, Q6, Q7, Q8	8		IAUC100N04S6N015ATMA1	Infineon	Trans Mosfet N-ch 40V 100A 8-PIN Pg-tdson T/R	TDSON8
R1, R101	2	0.002	FCSL64R002GER	Ohmite	RES, 0.002, 2%, 2 W, 2512 WIDE	2512 WIDE
R2, R3, R4, R5, R12, R15, R17, R24, R25, R26, R27	11	0	RC0603JR-070RL	Yageo America	RES, 0 ohm, 5%, 0.1W, 0603	0603L
R6, R8, R16, R21	4	100	RC0603FR-07100RL	Yageo America	RES, 100 ohm, 1%, 0.1W, 0603	0603L
R7, R71	2	0.003	KRL11050-C-R003-F-T1	Susumu Co Ltd	RES, 0.003, 1%, 6 W, 4320 WIDE	4320 WIDE
R9	1	10	RC0603FR-0710RL	Yageo America	RES, 10.0 ohm, 1%, 0.1W, 0603	0603L
R10	1	10.0k	RC0603FR-0710KL	Yageo America	RES, 10.0k ohm, 1%, 0.1W, 0603	0603L
R11	1	49.9	CRCW060349R9FKEA	Vishay-Dale	RES, 49.9, 1%, 0.1 W, 0603	603
R13	1	1.00Meg	CRCW06031M00FKEA	Vishay-Dale	RES, 1.00 M, 1%, 0.1 W, 0603	603

Designator	Quantity	Value	PartNumber	Manufacturer	Description	PackageReference
R14	1	140k	CRCW0603140KFKEA	Vishay-Dale	RES, 140 k, 1%, 0.1 W, 0603	603
R18	1	150k	CRCW0603150KFKEA	Vishay-Dale	RES, 150 k, 1%, 0.1 W, 0603	603
R19	1	93.1k	RC0603FR-0793K1L	Yageo America	RES, 93.1 k, 1%, 0.1 W, 0603	603
R20	1	41.2k	CRCW060341K2FKEA	Vishay-Dale	RES, 41.2 k, 1%, 0.1 W, 0603	603
R22	1	10.0k	CRCW060310K0FKEA	Vishay-Dale	RES, 10.0 k, 1%, 0.1 W, 0603	603
R23	1	2.21k	CRCW06032K21FKEA	Vishay-Dale	RES, 2.21 k, 1%, 0.1 W, 0603	603
T1, T2, T3, T4	4	50A	CB35-36-CY	Panduit	Terminal 50A Lug	CB35-36-CY
TP1, TP3	2	Red	5005	Keystone	Test Point, Compact, Red, TH	Red Compact Testpoint
TP2, TP4	2	Black	5006	Keystone	Test Point, Compact, Black, TH	Black Compact Testpoint
TP5	1	PGOOD	5007	Keystone	Test Point, Compact, White, TH	White Compact Testpoint
TP6, TP105, TP107	3	Red	5000	Keystone	Test Point, Miniature, Red, TH	Red Miniature Testpoint
TP7	1	White	5007	Keystone	Test Point, Compact, White, TH	White Compact Testpoint
TP101, TP102	2	White	5002	Keystone	Test Point, Miniature, White, TH	White Miniature Testpoint
TP103	1	Orange	5003	Keystone	Test Point, Miniature, Orange, TH	Orange Miniature Testpoint
TP104, TP106	2	Black	5001	Keystone	Test Point, Miniature, Black, TH	Black Miniature Testpoint
U1	1		LM5176QPWPTQ1	Texas Instruments	55-V wide VIN synchronous 4-switch buck-boost controller, PWP0028C (HTSSOP-28)	PWP0028C

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