

Variant: 001
 Generated: 4/24/2023 9:37 AM
 TID #: N/A



PMP23193 REV B2 Bill of Materials

Item #	Designator	Quantity	Value	PartNumber	Manufacturer	Description	PackageReference
1	IPCB1	1		PMP23193	Any	Printed Circuit Board	
2	C1, C2, C3	3	3.3uF	CKG57NX7T2E335M500JH	TDK	CAP, CERM, 3.3 uF, 250 V, +/- 20%, X7T, AEC-Q200 Grade 1, 6x5x5mm	6x5x5mm
3	C10	1	0.22uF	GRM21BR71H224KA01L	MuRata	CAP, CERM, 0.22 uF, 50 V, +/- 10%, X7R, 0805	805
4	C11, C13	2	1uF	GCJ21BR71H105MA01L	MuRata	CAP, CERM, 1 uF, 50 V, +/- 20%, X7R, AEC-Q200 Grade 1, 0805	805
5	C15	1	4.7uF	CGA4J1X7R1H475K125AC	TDK Corporation	Cap Ceramic 4.7uF 50V X7R 10% Pad SMD 0805 +125°C Automotive T/R	805
6	C16	1	0.1uF	GCM155R71H104KE02D	MuRata	CAP, CERM, 0.1 uF, 50 V, +/- 10%, X7R, AEC-Q200 Grade 1, 0402	402
7	C17, C27, C33	3	1uF	UMK107AB7105KA-T	Taiyo Yuden	CAP, CERM, 1 uF, 50 V, +/- 10%, X7R, 0603	603
8	C18, C19, C20, C21, C22	5	47uF	T97N476K050HAA	Vishay	Solid Tantalum Chip Capacitors TANTAMOUNT™, Hi-Rel COTS, Ultra-Low ESR, Conformal Coated Case	SMT_CAPACITOR
9	C23	1	0.47uF	CGA3E3X7R1H474K080AB	TDK	CAP, CERM, 0.47 uF, 50 V, +/- 10%, X7R, AEC-Q200 Grade 1, 0603	603
10	C24, C28, C38	3	0.1uF	CGA3E2X7R1H104K080AA	TDK	CAP, CERM, 0.1 uF, 50 V, +/- 10%, X7R, AEC-Q200 Grade 1, 0603	603
11	C25	1	0.056uF	GRM188R71H563KA93D	MuRata	CAP, CERM, 0.056 uF, 50 V, +/- 10%, X7R, 0603	603
12	C29	1	330pF	GRM1885C1H331JA01D	MuRata	CAP, CERM, 330 pF, 50 V, +/- 5%, COG/NP0, 0603	603
13	C30, C35	2		C2012X7R1H475K125AC	TDK	4.7uF ±10% 50V Ceramic Capacitor X7R 0805 (2012 Metric)	805
14	C34	1	470pF	GRM1885C2A471JA01D	MuRata	CAP, CERM, 470 pF, 100 V, +/- 5%, COG/NP0, 0603	603
15	C39	1	1000pF	C0603C102K5RACTU	Kemet	CAP, CERM, 1000 pF, 50 V, +/- 10%, X7R, 0603	603
16	C200	1	100pF	C1608C0G1H101J080AE	TDK	CAP, CERM, 100 pF, 50 V, +/- 5%, COG/NP0, 0603	603
17	C201	1	0.01uF	GCM188R71H103KA37D	MuRata	CAP, CERM, 0.01 uF, 50 V, +/- 10%, X7R, AEC-Q200 Grade 1, 0603	603
18	D1	1	200V	US1D-E3/61T	Vishay-Semiconductor	Diode, Ultrafast, 200 V, 1 A, AEC-Q101, SMA	SMA
19	D2	1	75V	BAS16-7-F	Diodes Inc.	Diode, Ultrafast, 75 V, 0.3 A, SOT-23	SOT-23
20	D4	1	13V	MMSZ4700-E3-08	Vishay-Semiconductor	Diode, Zener, 13 V, 500 mW, SOD-123	SOD-123
21	D6	1	30V	BAT54T1G	ON Semiconductor	Diode, Schottky, 30 V, 0.2 A, SOD-123	SOD-123
22	H1	1		V7700W	Assman WSW	Heatsink SOT-32, TO-220	ASMN_V7700W
23	J1, J3	2		ED120/2DS	On-Shore Technology	Terminal Block, 5.08 mm, 2x1, Brass, TH	2x1 5.08 mm Terminal Block
24	J2, J6, J7	3		575-8	Keystone	Standard Banana Jack, Uninsulated, 8.9mm	Keystone575-8
25	J4	1		61300611121	Würth Elektronik	Header, 2.54 mm, 6x1, Gold, TH	Header, 2.54mm, 6x1, TH
26	L1	1	12.67uH	S69833	Renco Electronics	500kHz DC Inductor for PMP23139	PTH2_D1IN43
27	Q1, Q2, Q3, Q4	4		IRHNJ9A7234	Infineon	Rad hard, 250V, 17A, single, N-channel MOSFET, R9 in a SMD-0.5 package	SMD3
28	Q6	1	450V	BUX85G	On Semiconductor	Bipolar (BJT) Transistor NPN 450 V 2 A 4MHz 50 W Through Hole TO-220	TO-220-3
29	R1	1	1.1	CRCW06031R10FKEA	Vishay-Dale	RES, 1.10, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	603
30	R3	1	5.1	CRCW06035R10JNEA	Vishay-Dale	RES, 5.1, 5%, 0.1 W, AEC-Q200 Grade 0, 0603	603
31	R4	1	0	RMCF0603ZTOR00	Stackpole Electronics Inc	RES, 0, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	603
32	R6, R20	2	100k	RC0603FR-07100KL	Yageo	RES, 100 k, 1%, 0.1 W, 0603	603
33	R8	1	14.7k	CRCW060314K7FKEA	Vishay-Dale	RES, 14.7 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	603
34	R10	1	51k	CRCW251251K0JNEG	Vishay-Dale	RES, 51 k, 5%, 1 W, AEC-Q200 Grade 0, 2512	2512
35	R11, R12	2	2.00k	CRCW25122K00FKEG	Vishay-Dale	RES, 2.00 k, 1%, 1 W, AEC-Q200 Grade 0, 2512	2512
36	R13	1	240	RC0603FR-07240RL	Yageo	RES, 240, 1%, 0.1 W, 0603	603
37	R14, R15, R16	3	75.0k	CRCW060375K0FKEA	Vishay-Dale	RES, 75.0 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	603
38	R17, R201	2	1.10Meg	CRCW06031M10FKEA	Vishay-Dale	RES, 1.10 M, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	603
39	R18, R30, R200	3	1.00k	CRCW06031K00FKEA	Vishay-Dale	RES, 1.00 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	603
40	R21	1	1.65k	CRCW06031K65FKEA	Vishay-Dale	RES, 1.65 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	603
41	R23	1	7.50k	CRCW06037K50FKEA	Vishay-Dale	RES, 7.50 k, 1%, 0.1 W, 0603	603
42	R25	1	332k	CRCW060332K2FKEA	Vishay-Dale	RES, 332 k, 1%, 0.1 W, 0603	603
43	R28	1	20	RC0603FR-0720RL	Yageo	RES, 20.0, 1%, 0.1 W, 0603	603
44	R29	1	20.0k	CRCW060320K0FKEA	Vishay-Dale	RES, 20.0 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	603
45	R31	1	249	CRCW0603249FKEA	Vishay-Dale	RES, 249, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	603
46	R32	1	10m	WSP12512R0100FEA	Vishay	10 mOhms ±1% 3W Chip Resistor 2512 (6432 Metric) Anti-Sulfur, Automotive AEC-Q200, Current Sense, Moisture Resistant, Pulse Withstanding Metal Element	2512
47	R33	1	2.40k	RC0603FR-072K4L	Yageo	RES, 2.40 k, 1%, 0.1 W, 0603	603
48	S1	1		A6SN-2104	Omron Electronic Component	Switch, Slide, 2 SPST, Off-On, 0.025 A, 24 VDC, SMT	7x7.5mm
49	TP1, TP3, TP6	3		5010	Keystone	Test Point, Multipurpose, Red, TH	Red Multipurpose Testpoint
50	TP2, TP4, TP7	3		5011	Keystone	Test Point, Multipurpose, Black, TH	Black Multipurpose Testpoint
51	TP8	1		5128	Keystone	Test Point, Multipurpose, Grey, TH	Grey Multipurpose Testpoint
52	U1	1		RIC7S113E4SCS	Infineon	MOSFET DRVR 2A 2-OUT Hi/Lo Side Non-Inv 18-Pin LCC Space Level Screening	LCC18_CIC
53	U2	1		TPS7H5001HFT/EM	Texas Instruments	Radiation-Hardness-Assured Si and GaN Dual Output Controller	CFP22
54	U3	1		INA901HKX/EM	Texas Instruments	Voltage Output, Unidirectional Measurement Current-Shunt Monitor, HKX0008A (CFP-8)	HKX0008A
55	U4	1		LM117H/NOBP	Texas Instruments	3-Terminal Adjustable Regulator, 3-pin TO-39	NDT0003A
56	C26	0	1uF	UMK107AB7105KA-T	Taiyo Yuden	CAP, CERM, 1 uF, 50 V, +/- 10%, X7R, 0603	603
57	C37	0	0.01uF	GCM188R71H103KA37D	MuRata	CAP, CERM, 0.01 uF, 50 V, +/- 10%, X7R, AEC-Q200 Grade 1, 0603	603
58	R19, R24	0	0	RCS06030000Z0EA	Vishay-Dale	RES, 0, 0%, 0.25 W, AEC-Q200 Grade 0, 0603	603

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](https://www.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 © 2023, Texas Instruments Incorporated