

PMP21943 REV A Bill of Materials

Designator	Quantity	Value	PartNumber	Manufacturer	Description	PackageReference
!PCB1	1		PMP21943	Any	Printed Circuit Board	
C1, C8	2	10uF	CL21B106KOQNNNE	Samsung Electro-Mechanics	CAP, CERM, 10 uF, 16 V, +/- 10%, X7R, 0805	0805
C2, C11	2	0.01uF	GRM188R72A103KA01D	MuRata	CAP, CERM, 0.01 uF, 100 V, +/- 10%, X7R, 0603	0603
C3, C24, C45	3	1uF	C2012X7S2A105K125AB	TDK	CAP, CERM, 1 uF, 100 V, +/- 10%, X7S, 0805	0805
C4	1	0.015uF	C0603C153K1RACTU	Kemet	CAP, CERM, 0.015 uF, 100 V, +/- 10%, X7R, 0603	0603
C5	1	1uF	GRM188R71C105KA12D	MuRata	CAP, CERM, 1 uF, 16 V, +/- 10%, X7R, 0603	0603
C6, C29, C50	3	2.2uF	C2012X7R1C225K125AB	TDK	CAP, CERM, 2.2 uF, 16 V, +/- 10%, X7R, 0805	0805
C7, C13, C18, C19, C21, C40, C42, C61	8	1000pF	GRM188R72A102KA01D	MuRata	CAP, CERM, 1000 pF, 100 V, +/- 10%, X7R, 0603	0603
C9	1	1uF	GRM32CR72A105KA35L	MuRata	CAP, CERM, 1 uF, 100 V, +/- 10%, X7R, 1210	1210
C10, C26, C27, C31, C35, C36, C38, C39, C47, C48, C52, C56, C57, C59, C60	15	100pF	C0603C101J5GACTU	Kemet	CAP, CERM, 100 pF, 50 V, +/- 5%, C0G/NP0, 0603	0603
C12, C16, C22, C37, C43, C58	6	0.1uF	GRM188R72A104KA35D	MuRata	CAP, CERM, 0.1 uF, 100 V, +/- 10%, X7R, 0603	0603
C14, C28, C32, C49, C53	5	0.22uF	C1608X7R1H224K080AB	TDK	CAP, CERM, 0.22 uF, 50 V, +/- 10%, X7R, 0603	0603
C15	1	0.047uF	GRM188R71H473KA61D	MuRata	CAP, CERM, 0.047 uF, 50 V, +/- 10%, X7R, 0603	0603
C17	1	22pF	GRM1885C1H220JA01D	MuRata	CAP, CERM, 22 pF, 50 V, +/- 5%, C0G/NP0, 0603	0603
C20, C23, C41, C44	4	1000pF	C1608C0G2A102J080AA	TDK	CAP, CERM, 1000 pF, 100 V, +/- 5%, C0G/NP0, 0603	0603
C25, C34, C46, C55	4	0.47uF	GRM188R71C474KA88D	MuRata	CAP, CERM, 0.47 uF, 16 V, +/- 10%, X7R, 0603	0603
C30, C51	2	1uF	GRM188R71E105KA12D	MuRata	CAP, CERM, 1 uF, 25 V, +/- 10%, X7R, 0603	0603
C33, C54	2	0.01uF	06031C103KAT2A	AVX	CAP, CERM, 0.01 uF, 100 V, +/- 10%, X7R, 0603	0603
C62, C63, C80, C88, C97, C98, C114, C122	8	100pF	08051A101KAT2A	AVX	CAP, CERM, 100 pF, 100 V, +/- 10%, C0G/NP0, 0805	0805
C64, C89, C99, C123	4	100uF	PCR1J101MCL1GS	Nichicon	CAP, Aluminum Polymer, 100 uF, 63 V, +/- 20%, 0.024 ohm, SMD, 2-Leads, Dia 10.5mm, Pin Spacing 8mm SMD	SMD, 2-Leads, Dia 10.5mm, Pin Spacing 8mm

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C65, C66, C67, C68, C69, C70, C71, C75, C76, C77, C78, C79, C83, C84, C85, C86, C87, C90, C91, C92, C93, C94, C95, C96, C100, C101, C102, C103, C104, C105, C106, C109, C110, C111, C112, C113, C117, C118, C119, C120, C121, C124, C125, C126, C127, C128, C129, C130	48	4.7uF	GCM32DC72A475KE02L	MuRata	CAP, CERM, 4.7 µF, 100 V, +/- 10%, X7S, AEC-Q200 Grade 1, 1210	1210
C72, C73, C81, C82, C107, C108, C115, C116	8	39uF	PCR1K390MCL1GS	Nichicon	CAP, Aluminum Polymer, 39 uF, 80 V, +/- 20%, 0.035 ohm, D8xL12mm SMD	D8xL12mm
C74	1	100uF	EMVH101GDA101MLH0S	Chemi-Con	CAP, AL, 100 uF, 100 V, +/- 20%, 0.24 ohm, SMD	LH0
D1, D5, D6, D9, D10	5	150V	DFLS1150-7	Diodes Inc.	Diode, Schottky, 150 V, 1 A, PowerDI123	PowerDI123
D2, D3, D4, D7, D8, D11	6	75V	1N4148X-TP	Micro Commercial Component	Diode, Switching, 75 V, 0.3 A, SOD-523	SOD-523
FID1, FID2, FID3	3		N/A	N/A	Fiducial mark. There is nothing to buy or mount.	N/A
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		2205	Keystone	Standoff, Hex, 1"L #4-40 Aluminum	1 inch Aluminum Hex Standoff
J1, J2, J3, J4, J5, J6, J7, J8, J9	9		HTSW-102-07-G-S	Samtec	Header, 100mil, 2x1, Gold, TH	Header, 100mil, 2x1, TH
J10, J11, J12, J13	4		108-0740-001	Cinch Connectivity	Standard Banana Jack, Uninsulated, 15A	Banana Jack
L1	1	680uH	DRQ74-681-R	Coiltronics	Coupled inductor, 680 uH, 0.38 A, 5.15 ohm, SMD	7.4x4.55x7.4mm
L2, L5, L7, L9	4	15uH	7443641500	Würth Electronics	Surface Mount Power Inductor, WE-HCF Series, 15 H, 15%, Shielded, 2400 ohm, 30 A	SMT_IND_28MM0_19 MM4
L3, L4, L6, L8, L10	5	330nH	VLBU1007090T-R33L	TDK	Inductor, Shielded, Ferrite, 330 nH, 39 A, 0.000198 ohm, SMD	7x10mm
LBL1	1		THT-13-457-10	Brady	Thermal Transfer Printable Labels, 1.250" W x 0.250" H - 10,000 per roll	PCB Label 1.25 x 0.250 inch
Q1, Q3, Q4	3	80 V	MMBTA56LT1G	ON Semiconductor	Transistor, PNP, 80 V, 0.5 A, SOT-23	SOT-23
Q2, Q5, Q6, Q7, Q8, Q9, Q10	7	60V	2N7002E-T1-E3	Vishay-Siliconix	MOSFET, N-CH, 60 V, 0.24 A, SOT-23	SOT-23
Q11, Q12, Q13, Q14, Q15, Q16, Q17, Q18, Q19, Q20, Q21, Q22, Q23, Q24, Q25, Q26	16	150V	BSC160N15NS5ATMA1	Infineon Technologies	MOSFET, N-CH, 150 V, 56 A, PG-TDSON-8	PG-TDSON-8
R1, R2, R7, R15	4	100k	CRCW0603100KJNEA	Vishay-Dale	RES, 100 k, 5%, 0.1 W, AEC-Q200 Grade 0, 0603	0603

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R3, R13, R27, R29, R31, R49, R51	7	100k	CRCW0603100KFKEA	Vishay-Dale	RES, 100 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
R4	1	560k	CRCW0603560KFKEA	Vishay-Dale	RES, 560 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
R5	1	30k	CRCW060330K0JNEA	Vishay-Dale	RES, 30 k, 5%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
R6	1	143k	CRCW0603143KFKEA	Vishay-Dale	RES, 143 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
R8	1	4.53k	CRCW06034K53FKEA	Vishay-Dale	RES, 4.53 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
R9, R21, R36, R37, R56, R57	6	20.0k	CRCW060320K0FKEA	Vishay-Dale	RES, 20.0 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
R10, R20, R22, R35, R55	5	10.0k	CRCW060310K0FKEA	Vishay-Dale	RES, 10.0 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
R11	1	57.6k	CRCW060357K6FKEA	Vishay-Dale	RES, 57.6 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
R12	1	100	CRCW0603100RFKEA	Vishay-Dale	RES, 100, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
R14	1	6.65k	CRCW06036K65FKEA	Vishay-Dale	RES, 6.65 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
R16	1	4.02k	CRCW06034K02FKEA	Vishay-Dale	RES, 4.02 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
R17	1	24.0k	RC0603FR-0724KL	Yageo	RES, 24.0 k, 1%, 0.1 W, 0603	0603
R18, R72, R81, R89, R98, R102, R111, R119, R128	9	0	CRCW06030000Z0EA	Vishay-Dale	RES, 0, 5%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
R19	1	4.99k	CRCW06034K99FKEA	Vishay-Dale	RES, 4.99 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
R23	1	20.0	CRCW060320R0FKEA	Vishay-Dale	RES, 20.0, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
R25	1	8.66k	CRCW06038K66FKEA	Vishay-Dale	RES, 8.66 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
R26	1	1.0Meg	CRCW06031M00JNEA	Vishay-Dale	RES, 1.0 M, 5%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
R28	1	249k	CRCW0603249KFKEA	Vishay-Dale	RES, 249 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
R30, R48, R50, R68	4	1.50k	CRCW06031K50FKEA	Vishay-Dale	RES, 1.50 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
R32, R45, R52, R65	4	3.01k	CRCW06033K01FKEA	Vishay-Dale	RES, 3.01 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
R33, R34, R40, R53, R54, R60, R71, R73, R74, R80, R88, R92, R93, R97, R101, R103, R104, R110, R118, R122, R123, R127	22	49.9k	CRCW060349K9FKEA	Vishay-Dale	RES, 49.9 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
R38, R43, R58, R63, R76, R77, R90, R91, R106, R107, R120, R121	12	2.0	CRCW06032R00JNEA	Vishay-Dale	RES, 2.0, 5%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
R39, R59	2	15.0k	CRCW060315K0FKEA	Vishay-Dale	RES, 15.0 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
R41, R61	2	26.7k	CRCW060326K7FKEA	Vishay-Dale	RES, 26.7 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
R42, R62	2	24.9	CRCW060324R9FKEA	Vishay-Dale	RES, 24.9, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
R44, R64	2	60.4k	CRCW060360K4FKEA	Vishay-Dale	RES, 60.4 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
R46, R66	2	42.2k	CRCW060342K2FKEA	Vishay-Dale	RES, 42.2 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
R47, R67	2	18.7k	CRCW060318K7FKEA	Vishay-Dale	RES, 18.7 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
R69, R75, R84, R94, R99, R105, R114, R124	8	10	CRCW201010R0JNEF	Vishay-Dale	RES, 10, 5%, 0.75 W, AEC-Q200 Grade 0, 2010	2010
R70, R87, R100, R117	4	0.001	WSL27261L000FEB	Vishay-Dale	RES, 0.001, 1%, 3 W, 6.6x3x6.9mm	6.6x3x6.9mm

Designator	Quantity	Value	PartNumber	Manufacturer	Description	PackageReference
R78, R79, R95, R96, R108, R109, R125, R126	8	10	CRCW060310R0JNEA	Vishay-Dale	RES, 10, 5%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
R82, R83, R85, R86, R112, R113, R115, R116	8	0.5	CSRN2010FKR500	Stackpole Electronics Inc	RES, 0.5, 1%, 1 W, 2010	2010
T1, T2, T3, T4	4		CXS70-14-C	Panduit	Terminal 70A Lug	LUG, 32.3x14.5x11.7
TP1, TP2	2		1598-2	Keystone	Terminal, Turret, TH, Triple	Keystone1598-2
TP3, TP4, TP9, TP10, TP11, TP12, TP13, TP14	8		5015	Keystone	Test Point, Miniature, SMT	Testpoint_Keystone_Miniature
TP5, TP7	2		5011	Keystone	Test Point, Multipurpose, Black, TH	Black Multipurpose Testpoint
TP6	1		5010	Keystone	Test Point, Multipurpose, Red, TH	Red Multipurpose Testpoint
TP8	1		5012	Keystone	Test Point, Multipurpose, White, TH	White Multipurpose Testpoint
U1	1		LM5018MRX/NOPB	Texas Instruments	7.5-100V Wide Vin, 300mA Constant On-Time Synchronous Buck Regulator, DDA0008B (SOIC-8)	DDA0008B
U2	1		TPS70950DBVR	Texas Instruments	150-mA, 30-V, Ultra-Low IQ, Wide Input Low-Dropout Regulator with Reverse Current Protection, DBV0005A (SOT-23-5)	DBV0005A
U3	1		LM8261M5/NOPB	Texas Instruments	RRIO, High Output Current & Unlimited Cap Load Op Amp, DBV0005A (SOT-23-5)	DBV0005A
U4	1		TLV7021DCKR	Texas Instruments	Small-Size Micropower Low-Voltage Comparator, DCK0005A (SOT-SC70-5)	DCK0005A
U5	1		LM4040AIM3-2.0/NOPB	Texas Instruments	Precision Micropower Shunt Voltage Reference, DBZ0003A (SOT-23-3)	DBZ0003A
U6, U8	2		LM5170QPHPRQ1	Texas Instruments	Multiphase Bidirectional Current Controller, PHP0048C (HTQFP-48)	PHP0048D
U7, U9	2		UCC21225ANPL	Texas Instruments	4A/6A Isolated Dual-Channel Gate Driver, NPL0013A (VLGA-13)	NPL0013A
R24	0	0	CRCW06030000Z0EA	Vishay-Dale	RES, 0, 5%, 0.1 W, AEC-Q200 Grade 0, 0603	0603

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