

PMP22405 REV A Bill of Materials



Designator	Quantity	Value	PartNumber	Manufacturer	Description	PackageReference
!PCB1	1		PMP22405	Any	Printed Circuit Board	
C1, C32	2	10uF	TR3E106K063C0600	Vishay-Sprague	CAP, TA, 10 uF, 63 V, +/- 10%, 0.6 ohm, SMD	7343-43
C2, C43, C45	3	0.1uF	CGA3E2X7R1H104K080AA	TDK	CAP, CERM, 0.1 uF, 50 V, +/- 10%, X7R, AEC-Q200 Grade 1, 0603	603
C5, C6, C7, C8, C9, C10, C35, C36, C37, C38, C39, C40	12	4.7uF	C2012X5R2A475K125AC	TDK	4.7 uF ±10% 100V Ceramic Capacitor X5R 0805 (2012 Metric)	805
C11, C21, C41	3	0.01uF	C0603C103J1RACTU	Kemet	CAP, CERM, 0.01 uF, 100 V, +/- 5%, X7R, 0603	603
C12, C42	2	1000pF	GRM155R72A102KA01D	MuRata	CAP, CERM, 1000 pF, 100 V, +/- 10%, X7R, 0402	402
C14, C15, C16, C17, C18, C53, C54, C55, C56	9	10uF	GRM21BR61H106KE43L	muRata	CAP, CERM, 10 uF, 50 V, +/- 10%, JB, 0805	805
C19, C22, C58, C59	4	0.033uF	CGA3E3X7S2A333K080AB	TDK	CAP, CERM, 0.033 uF, 100 V, +/- 10%, X7S, AEC-Q200 Grade 1, 0603	603
C20, C24, C29	3	0.1uF	CGA2B3X7R1E104K050BB	TDK	CAP, CERM, 0.1 uF, 25 V, +/- 10%, X7R, AEC-Q200 Grade 1, 0402	402
C23, C26	2	2.2uF	GRM155R61E225ME15D	MuRata	CAP, CERM, 2.2 uF, 25 V, +/- 20%, X5R, 0402	402
C25, C27, C28	3	100pF	GRM155C1H101JA01D	MuRata	CAP, CERM, 100 pF, 50 V, +/- 5%, C0G/NP0, 0402	402
C30, C31	2	33uF	T521X336M050ATE050	Kemet	CAP, Tantalum Polymer, 33 uF, 50 V, +/- 20%, 0.05 ohm, 7343-43 SMD	7343-43
C44	1	1uF	C1608X5R1H105K080AB	TDK	CAP, CERM, 1 uF, 50 V, +/- 10%, X5R, 0603	603
C46, C48	2	10uF	C3216X7R1V106K160AC	TDK	CAP, CERM, 10 uF, 35 V, +/- 10%, X7R, 1206	1206
C52	1	0.22uF	HMK107C7224MAHTE	Taiyo Yuden	CAP, CERM, 0.22 uF, 100 V, +/- 20%, X7S, AEC-Q200 Grade 1, 0603	603
C61, C72	2	1uF	C2012X7S2A105K125AE	TDK	CAP, CERM, 1 uF, 100 V, +/- 10%, X7S, 0805	805
C71	1	10uF	GRM188R6YA106MA73D	Murata	CAP, CERM, 10 uF, 35 V, +/- 20%, X5R, 0603	603
D1	1	Green	LTST-C190GKT	Lite-On	LED, Green, SMD	1.6x0.8x0.8mm
D7, D8	2	100V	1N4148WQ-7-F	Diodes Inc.	Diode, Switching, 100 V, 0.3 A, AEC-Q101, SOD-123	SOD-123
H3, H4, H5, H6	4		SJ-5303 (CLEAR)	3M	Bumpon, Hemisphere, 0.44 X 0.20, Clear	Transparent Bumpon
J1	1		ED120/2DS	On-Shore Technology	Terminal Block, 5.08 mm, 2x1, Brass, TH	2x1 5.08 mm Terminal Block
J2, J3	2		ED120/4DS	On-Shore Technology	Terminal Block, 5.08 mm, 4x1, Brass, TH	4x1 5.08 mm Terminal Block
J4	1		ED555/2DS	On-Shore Technology	Terminal Block, 3.5mm Pitch, 2x1, TH	7.0x8.2x6.5mm
J5	1		22053041	Molex	Connector Header Through Hole, Right Angle 4 position 0.100" (2.54mm)	HDR4
J6	1		N2510-6002-RB	3M	Header (shrouded), 100mil, 5x2, High-Temperature, Gold, TH	5x2 Shrouded header
JP1, JP2	2		TSW-102-07-G-S	Samtec	Header, 100mil, 2x1, Gold, TH	2x1 Header
JP4	1		TSW-105-07-G-D	Samtec	Header, 100mil, 5x2, Gold, TH	5x2 Header
L1_A, L1_B	2		CMLE104T-3R3MS	Cyntec	FIXED IND 3.3UH 10.7A 11.8 MOHM	SMT_IND_10MM85_1 OMMO
LBL1	1		THT-14-423-10	Brady	Thermal Transfer Printable Labels, 0.650" W x 0.200" H - 10,000 per roll	PCB Label 0.650 x 0.200 inch
Q1 A, Q1 B	2		EPC2204	EPC	100V 32A 6mE	
Q2 A, Q2 B	2	80V	BSZ070N08LS5	Infineon Technologies	MOSFET, N-CH, 80 V, 40 A, 8-PG-TSDSON	8-PG-TSDSON
Q3	1		BSC094N06LS5	Infineon	N-Channel 60 V 100A (Tc) 83W (Tc) Surface Mount PG-TDSON-8-7	TDSON8
Q4, Q4 P, Q5	3		BSC027N06LS5ATMA1	Infineon	N-Channel 60 V 100A (Tc) 83W (Tc) Surface Mount PG-TDSON-8-7	TDSON8
Q7, Q8	2	60V	2N7002ET1G	ON Semiconductor	MOSFET, N-CH, 60 V, 0.26 A, SOT-23	SOT-23
R1, R2, R15, R16	4	4.99	CRCW06034R99FKEA	Vishay-Dale	RES, 4.99, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	603
R3, R6	2	1	CRCW04021R00JNED	Vishay-Dale	RES, 1.0, 5%, 0.063 W, AEC-Q200 Grade 0, 0402	402
R4	1	0	5106	Keystone	RES, 0, 1%, 0.5 W, 0805	805

Designator	Quantity	Value	PartNumber	Manufacturer	Description	PackageReference
R5	1	200k	CRCW0402200KFKED	Vishay-Dale	RES, 200 k, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	402
R7, R26	2	300k	CRCW0402300KFKED	Vishay-Dale	RES, 300 k, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	402
R8	1	3.57k	CRCW04023K57FKED	Vishay-Dale	RES, 3.57 k, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	402
R9	1	15.0k	CRCW040215K0FKED	Vishay-Dale	RES, 15.0 k, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	402
R10	1	82.0k	RC0402FR-0782KL	Yageo America	RES, 82.0 k, 1%, 0.063 W, 0402	402
R11, R12, R13, R14, R24, R27	6	10.0k	CRCW040210K0FKED	Vishay-Dale	RES, 10.0 k, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	402
R17, R18	2	10	CRCW060310R0JNEA	Vishay-Dale	RES, 10, 5%, 0.1 W, AEC-Q200 Grade 0, 0603	603
R19	1	2.00k	CRCW06032K00FKEA	Vishay-Dale	RES, 2.00 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	603
R23	1	150k	CRCW0402150KFKED	Vishay-Dale	RES, 150 k, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	402
R25	1	100k	RC0402FR-07100KL	Yageo America	RES, 100 k, 1%, 0.0625 W, 0402	402
R28	1	33.0k	RC0402FR-0733KL	Yageo America	RES, 33.0 k, 1%, 0.063 W, 0402	402
R29	1	1.00k	CRCW04021K00FKED	Vishay-Dale	RES, 1.00 k, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	402
R33	1	2.0Meg	CRCW04022M00JNED	Vishay-Dale	RES, 2.0 M, 5%, 0.063 W, AEC-Q200 Grade 0, 0402	402
R34, R35	2	3.9	CRCW12063R90JNEA	Vishay-Dale	RES, 3.9, 5%, 0.25 W, AEC-Q200 Grade 0, 1206	1206
R45	1	0	CRCW04020000Z0ED	Vishay-Dale	RES, 0, 5%, 0.063 W, AEC-Q200 Grade 0, 0402	402
R47	1	1	CRCW06031R00JNEA	Vishay-Dale	RES, 1.0, 5%, 0.1 W, AEC-Q200 Grade 0, 0603	603
R50	1	10	ERJ-8ENF10R0V	Panasonic	RES, 10.0, 1%, 0.25 W, AEC-Q200 Grade 0, 1206	1206
RAC A, RAC B	2	0.01	WSLP1206R0100FEA	Vishay-Dale	RES, 0.01, 1%, 1 W, 1206	1206
RSR	1	0.005	CSNL2010FT5L00	Stackpole Electronics Inc	RES, 0.005, 1%, 1.5 W, 2010	2010
SH-JP1, SH-JP4	2	1x2	SNT-100-BK-G	Samtec	Shunt, 100mil, Gold plated, Black	Shunt
TP1, TP22, TP23, TP24, TP29, TP31, TP32	7		5010	Keystone Electronics	Test Point, Multipurpose, Red, TH	Red Multipurpose Testpoint
TP2, TP3, TP4, TP11, TP40	5		RCU-0C	TE Connectivity	PC Test Point, SMT	1.6x0.8mm
TP15, TP16, TP17, TP33	4		5015	Keystone Electronics	Test Point, Miniature, SMT	Testpoint_Keystone_ Miniature
TP18, TP19, TP20, TP21, TP30, TP41	6		5011	Keystone Electronics	Test Point, Multipurpose, Black, TH	Black Multipurpose Testpoint
U1	1		BQ25770GREER	Texas Instruments	40-V, SMBus, 2- to 5-Cell, Narrow VDC Quasi Dual Phase Buck-Boost Battery Charge Controller With System Power Monitor and Processor Hot Monitor	WQFN36
U2	1		TPS7A1633DGNR	Texas Instruments	60V, 5uA IQ Low-Dropout 100mA Linear Regulator with Enable and Power Good, DGN0008C (VSSOP-8)	DGN0008C
C3, C4, C33, C34	0	4.7µF	C2012X5R2A475K125AC	TDK	4.7 µF ±10% 100V Ceramic Capacitor X5R 0805 (2012 Metric)	805
C13, C47, C49, C50, C66, C67, C68	0	33uF	T521X336M050ATE050	Kemet	CAP, Tantalum Polymer, 33 uF, 50 V, +/- 20%, 0.05 ohm, 7343-43 SMD	7343-43
C51, C60, C62	0	330pF	GRM188R71H331KA01D	MuRata	CAP, CERM, 330 pF, 50 V, +/- 10%, X7R, 0603	603
C57	0	10uF	GRM21BR61H106KE43L	muRata	CAP, CERM, 10 µF, 50 V, +/- 10%, JB, 0805	805
C63, C65	0	0.018uF	GRM155R71H183KA12D	MuRata	CAP, CERM, 0.018 uF, 50 V, +/- 10%, X7R, 0402	402
C64	0	0.068uF	CGA2B3X7R1H683K050BB	TDK	CAP, CERM, 0.068 uF, 50 V, +/- 10%, X7R, AEC-Q200 Grade 1, 0402	402
C69	0	100pF	GRM1555C1H101JA01D	MuRata	CAP, CERM, 100 pF, 50 V, +/- 5%, C0G/NP0, 0402	402
C70	0	0.1uF	CGA3E2X7R1H104K080AA	TDK	CAP, CERM, 0.1 uF, 50 V, +/- 10%, X7R, AEC-Q200 Grade 1, 0603	603
D2, D3	0	5.1V	D3Z5V1BF-7	Diodes Inc.	Diode, Zener, 5.1 V, 400 mW, SOD-323F	SOD-323F
D4, D5	0	100V	DFLS2100-7	Diodes Inc.	Diode, Schottky, 100 V, 2 A, PowerDI123	PowerDI123
D6	0	40V	B240A-13-F	Diodes Inc.	Diode, Schottky, 40 V, 2 A, SMA	SMA
Q6	0	60V	2N7002ET1G	ON Semiconductor	MOSFET, N-CH, 60 V, 0.26 A, SOT-23	SOT-23
Q9	0	-80V	SQJ469EP-T1-GE3	Vishay-Siliconix	MOSFET, P-CH, -80 V, -32 A, AEC-Q101, PowerPAK SO-8L	PowerPAK SO-8L
Q10	0	80V	NHUMD12X	Nexperia	Pre-Biased Bipolar Transistor (BJT) 1 NPN, 1 PNP - Pre-Biased (Dual) 80V 100mA 170MHz, 150MHz 350mW Surface Mount 6-TSSOP	TSSOP6

Designator	Quantity	Value	PartNumber	Manufacturer	Description	PackageReference
R21, R30, R32	0	56	CRCW060356R0JNEA	Vishay-Dale	RES, 56, 5%, 0.1 W, AEC-Q200 Grade 0, 0603	603
R44	0	100k	RC0603FR-07100KL	Yageo	RES, 100 k, 1%, 0.1 W, 0603	603
R46	0	10	ERJ-8ENF10R0V	Panasonic	RES, 10.0, 1%, 0.25 W, AEC-Q200 Grade 0, 1206	1206
R48	0	10.0k	CRCW040210K0FKED	Vishay-Dale	RES, 10.0 k, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	402
R49	0	20.0k	CRCW080520K0FKEA	Vishay-Dale	RES, 20.0 k, 1%, 0.125 W, AEC-Q200 Grade 0, 0805	805
R51	0	100	RC0402JR-13100RL	Yageo	100 ±5% 0.063W, 1/16W Chip Resistor 0402 (1005 Metric) Moisture Resistant Thick Film	402
SH-JP2	0	1x2	SNT-100-BK-G	Samtec	Shunt, 100mil, Gold plated, Black	Shunt
Z1	0	10V	SMAJ10A	Littelfuse	Diode, TVS, Uni, 10 V, 17 Vc, 400 W, 23.5 A, SMA	SMA

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