

PMP20967 REV C Bill of Materials

Designator	Quantity	Value	PartNumber	Manufacturer	Description	PackageReference
I PCB1	1		PMP20967	Any	Printed Circuit Board	
C1, C5, C8, C51, C52	5	1uF	GRM219R71E105KA88D	MuRata	CAP, CERM, 1 uF, 25 V, +/- 10%, X7R, 0805	0805
C2, C3, C6, C23	4	4.7uF	C2012X7R1E475K125AB	TDK	CAP, CERM, 4.7 uF, 25 V, +/- 10%, X7R, 0805	0805
C4, C7, C25	3	10uF	CL21B106KOQNNNE	Samsung Electro-Mechanics	CAP, CERM, 10 uF, 16 V, +/- 10%, X7R, 0805	0805
C9	1	0.022uF	GRM188R71H223KA01D	MuRata	CAP, CERM, 0.022 uF, 50 V, +/- 10%, X7R, 0603	0603
C10	1	10pF	GRM1885C1H100JA01D	MuRata	CAP, CERM, 10 pF, 50 V, +/- 5%, C0G/NP0, 0603	0603
C11, C17, C20	3	1000pF	GRM1885C1H102JA01D	MuRata	CAP, CERM, 1000 pF, 50 V, +/- 5%, C0G/NP0, 0603	0603
C12, C13, C14, C15, C18, C21, C22, C27, C28, C34, C36, C37, C38, C42, C44, C47, C53, C54	18	0.1uF	GCM188R71H104KA57D	MuRata	CAP, CERM, 0.1 uF, 50 V, +/- 10%, X7R, 0603	0603
C16	1	0.068uF	GRM188R71H683KA93D	MuRata	CAP, CERM, 0.068 uF, 50 V, +/- 10%, X7R, 0603	0603
C19, C24, C26, C30, C31, C40, C41, C48, C50	9	0.01uF	GRM1885C1H103JA01D	MuRata	CAP, CERM, 0.01 uF, 50 V, +/- 5%, C0G/NP0, 0603	0603
C29, C39	2	220pF	GRM1885C1H221JA01D	MuRata	CAP, CERM, 220 pF, 50 V, +/- 5%, C0G/NP0, 0603	0603
C32, C46	2	1uF	GRM21BR71C105KA01L	MuRata	CAP, CERM, 1 uF, 16 V, +/- 10%, X7R, 0805	0805
C33, C43	2	0.22uF	GRM188R71H224KAC4D	MuRata	CAP, CERM, 0.22 uF, 50 V, +/- 10%, X7R, 0603	0603
C35, C45	2	0.047uF	GRM188R71H473KA61D	MuRata	CAP, CERM, 0.047 uF, 50 V, +/- 10%, X7R, 0603	0603
C49	1	100pF	GRM1885C1H101JA01D	MuRata	CAP, CERM, 100 pF, 50 V, +/- 5%, C0G/NP0, 0603	0603
D1, D2, D4	3	40V	MBR0540T1G	ON Semiconductor	Diode, Schottky, 40 V, 0.5 A, SOD-123	SOD-123
D3	1	12V	SMAJ12A	Littelfuse	Diode, TVS, Uni, 12 V, 19.9 Vc, 400 W, 20.1 A, SMA	SMA
D5, D8	2	Red	LS L29K-G1J2-1-Z	OSRAM	LED, Red, SMD	SMD, 2-Leads, Body 1.3x0.8mm
D6	1	30V	BAT54T1G	ON Semiconductor	Diode, Schottky, 30 V, 0.2 A, SOD-123	SOD-123
D7	1		LG L29K-F2J1-24-Z	Osram	Green 570nm LED Indication - Discrete 1.7V 0603 (1608 Metric)	0603
D9, D10, D11	3	30V	BAT54WS-7-F	Diodes Inc.	Diode, Schottky, 30 V, 0.2 A, 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
J1A	1		594	Keystone Electronics	Battery Contact Snap (Positive) 9V Cell PC Pin	CUSTOM-TH 3 Pins
J1B	1		593	Keystone Electronics	Battery Contact Snap (Negative) 9V Cell PC Pin	CONN_BTT
J2, J3	2		575-4	Keystone	Standard Banana Jack, Uninsulated, 5.5mm	Keystone_575-4
J4, J5, J6, J7, J8, J9, J10, J11, J12, J13	10		HMTSW-102-07-G-S-240	Samtec	Header, 100mil, 2x1, Gold, TH	Header, 2.54mm, 2x1, TH
L1	1	220uH	LPS5030-224MLB	Coilcraft	Inductor, Shielded Drum Core, Ferrite, 220 uH, 0.25 A, 1.35 ohm, SMD	LPS5030
L2	1	470uH	LPD5030-474MRC	Coilcraft	Shielded Coupled Inductor 470uH 20% 7.51Ohm 4.8x4.8x2.9mm SMT Automotive	SMT_IND_4MM8_4M M8
L3, L4	2	100 ohm	MPZ1608D101BTD25	TDK	Ferrite Bead, 100 ohm @ 100 MHz, 1 A, 0603	0603
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
Q2	1		PSMN008-75B,118	Nexperia	N-Channel 75 V 75A (Tc) 230W (Tc) Surface Mount D2PAK	D2PAK
Q3, Q4	2	40 V	MMBT3904-7-F	Diodes Inc.	Transistor, NPN, 40 V, 0.2 A, SOT-23	SOT-23
Q5, Q6	2	40 V	MMBT3906-7-F	Diodes Inc.	Transistor, PNP, 40 V, 0.2 A, SOT-23	SOT-23
Q8	1	30V	BSH103,215	Nexperia	MOSFET, N-CH, 30 V, 0.85 A, SOT-23	SOT-23

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Q9	1	50V	BSS138W-7-F	Diodes Inc.	MOSFET, N-CH, 50 V, 0.2 A, SOT-323	SOT-323
Q10	1	-50V	BSS84W-7-F	Diodes Inc.	MOSFET, P-CH, -50 V, -0.13 A, SOT-323	SOT-323
R1, R2	2	15	CRCW060315R0JNEA	Vishay-Dale	RES, 15, 5%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
R3	1	31.6k	CRCW060331K6FKEA	Vishay-Dale	RES, 31.6 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
R4, R8, R26, R30, R31, R49, R51	7	100k	CRCW0603100KFKEA	Vishay-Dale	RES, 100 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
R5	1	107k	CRCW0603107KFKEA	Vishay-Dale	RES, 107 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
R6	1	12.7k	CRCW060312K7FKEA	Vishay-Dale	RES, 12.7 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
R7	1	3.3k	CRCW06033K30JNEA	Vishay-Dale	RES, 3.3 k, 5%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
R9, R11, R20, R24, R33, R34, R37, R48, R54	9	10k	CRCW060310K0JNEA	Vishay-Dale	RES, 10 k, 5%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
R10	1	6.8k	CRCW06036K80JNEA	Vishay-Dale	RES, 6.8 k, 5%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
R12, R47, R58	3	10kΩ	PV37W103C01B00	Bourns	10 kOhms 0.25W, 1/4W PC Pins Through Hole Trimmer Potentiometer Cermet 12 Turn Top Adjustment	PTH_POT_6MM71_4MM50
R13	1	4.02k	CRCW06034K02FKEA	Vishay-Dale	RES, 4.02 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
R14, R18	2	5.1	CRCW06035R10JNEA	Vishay-Dale	RES, 5.1, 5%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
R15, R23	2	10k Ohm	PV36W103C01B00	Bourns	Potentiometer, 10k Ohm, 0.5W, TH	9.53x4.83mm
R16, R38, R41, R56	4	1.0k	CRCW06031K00JNEA	Vishay-Dale	RES, 1.0 k, 5%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
R17, R22, R29	3	1.0	CRCW06031R00JNEA	Vishay-Dale	RES, 1.0, 5%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
R19, R57	2	499	CRCW0603499RFKEA	Vishay-Dale	RES, 499, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
R21	1	0.01	CSRN2512FK10L0	Stackpole Electronics Inc	RES, 0.01, 1%, 2 W, 2512	2512
R25	1	154k	CRCW0603154KFKEA	Vishay-Dale	RES, 154 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
R27, R28	2	2.4k	CRCW06032K40JNEA	Vishay-Dale	RES, 2.4 k, 5%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
R32	1	374k	CRCW0603374KFKEA	Vishay-Dale	RES, 374 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
R35	1	1.15Meg	CRCW06031M15FKEA	Vishay-Dale	RES, 1.15 M, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
R36	1	200kΩ	PV37W204C01B00	Bourns	Res Cermet Trimmer 200K Ohm 10% 1/4W 12(Elec)Turn 1.8mm (6.4 X 4 X 7.7mm) Pin Thru-Hole Bulk	PTH_TRIMMER_6MM71_4MM50
R39	1	200k	CRCW0603200KFKEA	Vishay-Dale	RES, 200 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
R40	1	143k	CRCW0603143KFKEA	Vishay-Dale	RES, 143 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
R42, R45, R50, R55	4	100	CRCW0603100RJNEA	Vishay-Dale	RES, 100, 5%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
R43	1	1kΩ	PV37W102C01B00	Murata	1 kOhms 0.25W, 1/4W PC Pins Through Hole Trimmer Potentiometer Cermet 12 Turn Top Adjustment	POTENTIOMETER_6MM4_4MM0
R44	1	47	CRCW060347R0JNEA	Vishay-Dale	RES, 47, 5%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
R46	1	100kΩ	PV37W104C01B00	Murata	12-Turn Through Hole Trimmer Resistor with Pin Terminations, 10% 1/4W 150ppm/C	PTH_POT_6MM4_4MM0
R52	1	1.00k	CRCW06031K00FKEA	Vishay-Dale	RES, 1.00 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
R53	1	27k	CRCW060327K0JNEA	Vishay-Dale	RES, 27 k, 5%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
S1	1		CL-SB-12B-01T	Copal Electronics	Switch, Slide, SPDT, 0.2A, GULL, 12V, SMD	SMD, 3-Leads, Body 8.5x3.5mm, Pitch 2.5mm
S2	1		430182070816	Würth Elektronik	Switch, SPST-NO, Off-Mom, 1 Pos, 0.05A, 12 VDC, SMT	6.2x6.2mm
TP1	1		5010	Keystone Electronics	Test Point, Multipurpose, Red, TH	Red Multipurpose Testpoint
TP2, TP4, TP5, TP6, TP11, TP12	6		5012	Keystone Electronics	Test Point, Multipurpose, White, TH	White Multipurpose Testpoint
TP3, TP8	2		5011	Keystone Electronics	Test Point, Multipurpose, Black, TH	Black Multipurpose Testpoint
TP7, TP9, TP10	3		5013	Keystone Electronics	Test Point, Multipurpose, Orange, TH	Orange Multipurpose Testpoint
U1	1		LM5002MA/NOPB	Texas Instruments	High Voltage Switch Mode Regulator, 8-pin Narrow SOIC, Pb-Free	D0008A

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U2	1		LM26LVCISD-075/NOPB	Texas Instruments	1.6V-Capable Temperature Sensor Switch with Factory Programmed Trip Points, NGF0006A (WSON-6)	NGF0006A
U3, U10	2		LM6142AIM/NOPB	Texas Instruments	Dual High Speed/Low Power 17 MHz Rail-to-Rail I/O Operational Amplifier, 8-pin Narrow SOIC, Pb-Free	D0008A
U4	1		THS3120ID	Texas Instruments	Single, Low Noise, High Output Drive, 475 mA Current-Feedback Amplifier with Power-Down, 10 to 30 V, -40 to 85 degC, 8-pin SOIC (D8), Green (RoHS & no Sb/Br)	D0008A
U5	1		TLV431AIDBZR	Texas Instruments	Low Voltage Adjustable Precision Shunt Regulator, 39 ppm / degC, 15 mA, 40 to 85 degC, 3-pin SOT-23 (DBZ), Green (RoHS & no Sb/Br)	DBZ0003A
U6	1		LP2981-50DBVR	Texas Instruments	100-mA Ultra-Low Dropout Regulator With Shutdown, 1.25% Tolerance, DBV0005A (SOT-23-5)	DBV0005A
U7	1		LM393BIDR	Texas Instruments	Comparator General Purpose Open-Collector 8-SOIC	SOIC8
U8, U9, U11, U12	4		TLC555CD	Texas Instruments	2.1-MHz, 250-uA, Low-Power Timer, D0008A (SOIC-8)	D0008A

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