

PMP40182 REV A Bill of Materials

Item #	Designator	Quantity	Value	PartNumber	Manufacturer	Description	PackageReference
1	C1, C9, C10	3	47uF	GRM32ER71A476ME15L	MuRata	CAP, CERM, 47 uF, 10 V, +/- 20%, X7R, 1210	1210
2	C2, C11	2	560uF	10SVPE60M	Panasonic	CAP, Aluminum Polymer, 560 uF, 10 V, +/- 20%, 0.013 ohm, 10x10.3	10x10.3
3	C3, C4, C5	3	22uF	GRM32ER71E226KE15L	MuRata	CAP, CERM, 22 uF, 25 V, +/- 10%, X7R, 1210	1210
4	C6	1	4.7uF	GRM319R61H479KA12	MuRata	CAP, CERM, 4.7 uF, 50 V, +/- 10%, X5R, 1206	1206
5	C7, C8	2	330uF	25SVPF330M	Panasonic	CAP, Aluminum Polymer, 330 uF, 25 V, +/- 20%, 0.014 ohm, F12, SMD, 2-Leads, Body 10.5x10.5mm, Height 12.7mm SMD	F12, SMD, 2-Leads, Body 10.5x10.5mm, Height 12.7mm
6	C12, C13, C16, C20, C23, C39, C43	7	0.01uF	GRM1885C1H103JA01D	MuRata	CAP, CERM, 0.01 uF, 50 V, +/- 5%, COG/NP0, 0603	0603
7	C14, C19, C21, C32, C41	5	0.1uF	C0603C104J3RACTU	Kemet	CAP, CERM, 0.1 uF, 25 V, +/- 5%, X7R, 0603	0603
8	C15, C17, C50, C51	4	1000pF	GRM1885C1H102JA01D	MuRata	CAP, CERM, 1000 pF, 50 V, +/- 5%, COG/NP0, 0603	0603
9	C18, C22, C24, C25, C26, C27, C28, C30, C34, C44, C46, C47, C49	13	1uF	C0603C105K3RACTU	Kemet	CAP, CERM, 1 uF, 25 V, +/- 10%, X7R, 0603	0603
10	C29, C35, C42, C52	4	100pF	GRM1885C1H101JA01D	MuRata	CAP, CERM, 100 pF, 50 V, +/- 5%, COG/NP0, 0603	0603
11	C33	1	2.2uF	GRM188R71A225KE15D	MuRata	CAP, CERM, 2.2 uF, 10 V, +/- 10%, X7R, 0603	0603
12	C37, C45	2	220pF	GRM1885C1H221JA01D	MuRata	CAP, CERM, 220 pF, 50 V, +/- 5%, COG/NP0, 0603	0603
13	C38	1	22pF	C0603C220J5GACTU	Kemet	CAP, CERM, 22 pF, 50 V, +/- 5%, COG/NP0, 0603	0603
14	C40	1	0.33uF	GRM188R71A334KA61D	MuRata	CAP, CERM, 0.33 uF, 10 V, +/- 10%, X7R, 0603	0603
15	C43	1	47uF	GCMS2ER70J476ME19L	MuRata	CAP, CERM, 47 uF, 6.3 V, +/- 20%, X7R, 1210	1210
16	D1, D3	2	40V	MBR140SFT1G	ON Semiconductor	Diode, Schottky, 40 V, 1 A, SOD-123FL	SOD-123FL
17	D2, D4, D5, D6, D7, D8, D11, D12, D13, D14, D17	11	40V	NSR0240V2T1G	ON Semiconductor	Diode, Schottky, 40V, 0.25A, SOD-523	SOD-523
18	D9	1	13V	MMSZ5243BS-7-F	Diodes Inc.	Diode, Zener, 13 V, 200 mW, SOD-323	SOD-323
19	D10, D16	2	18V	SMAJ18A	Littelfuse	Diode, TVS, Uni, 18 V, 29.2 Vc, SMA	SMA
20	D15	1	6V	MMSZ5238BS-7-F	Diodes Inc.	Diode, Zener, 6 V, 200 mW, SOD-323	SOD-323
21	D18, D19, D20, D21	4	15V	MMSZ5245BS-7-F	Diodes Inc.	Diode, Zener, 15 V, 200 mW, SOD-323	SOD-323
22	F1	1	LH-10	CCF1N5	Koanet	Fuse, Fast Acting, 50VDC, 20A	0.98 x 0.236 inch
23	F2	1	LH-10	CCF1N15	Koanet	Fuse, Fast Acting, 50VDC, 20A	0.98 x 0.236 inch
24	J1	1		SSW-110-23-S-D	Samtec	Receptacle, 2mm, 10x2, Gold, TH	10x2 Receptacle
25	J2	1		SSW-115-03-G-D-RA	Samtec	Receptacle, 2mm, 15x2, Gold, R/A, TH	Receptacle, 2.0 mm, 15x2, R/A, TH
26	L1	1	1uH	74437324010	Würth Elektronik	Inductor, Shielded Drum Core, Powdered Iron, 1 uH, 5 A, 0.022 ohm, SMD	4.45x1.8x4.06mm SMD
27	L2	1	15uH	74435571500	Würth Elektronik	Inductor, Shielded Drum Core, Ferrite, 15 uH, 14 A, 0.009 ohm, SMD	18.3x8.9x18.2mm
28	Q1, Q2, Q6, Q7	4	25V	CSD18570Q5B	Texas Instruments	MOSFET, N-CH, 25 V, 100 A, DNK0008A (VSON-CLIP-8)	DNK0008A
29	Q3, Q4	2	40V	CSD18502Q5B	Texas Instruments	MOSFET, N-CH, 40 V, 100 A, SON 5x6mm	SON 5x6mm
30	Q5	1	60V	2N7002-7-F	Diodes Inc.	MOSFET, N-CH, 60 V, 0.17 A, SOT-23	SOT-23
31	Q8, Q9	2	40 V	MMBT2222ALT1G	ON Semiconductor	Transistor, NPN, 40 V, 0.6 A, SOT-23	SOT-23
32	R1	1	0.002	WSL3637L000FEA	Vishay-Dale	RES, 0.002, 1%, 3 W, WSL3637	WSL3637
33	R2, R3, R9, R17, R29, R30, R32, R34, R35, R36, R41, R47, R53, R55, R57, R61, R62, R67, R78, R86, R89, R90	17	10.0	RC0603FR-0710RL	Yageo America	RES, 10.0, 1%, 0.1 W, 0603	0603
34	R4	1	0	CRCW25120000Z0EGHP	Vishay-Dale	RES, 0, 5%, 1.5 W, AEC-Q200 Grade 0, 2512	2512
35	R5, R6, R7, R12, R20, R21, R22, R24, R25, R27, R28, R31, R37, R40, R43, R46, R55, R57, R61, R62, R67, R78, R86, R89, R90	25	10.0k	RC0603FR-0710KL	Yageo America	RES, 10.0 k, 1%, 0.1 W, 0603	0603
36	R8	1	14.0k	RC0603FR-0714KL	Yageo America	RES, 14.0 k, 1%, 0.1 W, 0603	0603
37	R10, R72	2	2.20k	RC0603FR-072K2L	Yageo America	RES, 2.20 k, 1%, 0.1 W, 0603	0603
38	R11, R16, R18, R19, R23, R49, R51, R54, R55, R73, R76	11	0	RC0603JR-070RL	Yageo America	RES, 0, 5%, 0.1 W, 0603	0603
39	R13	1	62.0k	RC0603FR-0762KL	Yageo America	RES, 62.0 k, 1%, 0.1 W, 0603	0603
40	R14	1	54.9k	RC0603FR-0754K9L	Yageo America	RES, 54.9 k, 1%, 0.1 W, 0603	0603
41	R15	1	47	CRCW060347R0JNEA	Vishay-Dale	RES, 47, 5%, 0.1 W, 0603	0603
42	R38, R42, R50, R60, R69, R70, R79, R80, R85	9	1.00k	RC0603FR-071KL	Yageo America	RES, 1.00 k, 1%, 0.1 W, 0603	0603
43	R45	1	10.0	RC1206FR-0710RL	Yageo America	RES, 10.0, 1%, 0.25 W, 1206	1206
44	R54	1	330	RC0603FR-07330RL	Yageo America	RES, 330, 1%, 0.1 W, 0603	0603
45	R56, R63	2	100	CRCW0603100RFKEA	Vishay-Dale	RES, 100, 1%, 0.1 W, 0603	0603
46	R68	1	75.0k	RC0603FR-0775KL	Yageo America	RES, 75.0 k, 1%, 0.1 W, 0603	0603
47	U1, U2	2		LM5060MMNOPB	Texas Instruments	High-Side Protection Controller with Low Quiescent Current, 10-pin MSOP, Pb-Free	MUB10A
48	U3	1		LM5106MM	Texas Instruments	100V Half Bridge Gate Driver with Programmable Dead-Time, 10-pin MSOP	MUB10A
49	U4	1		TL331IDBVR	Texas Instruments	SINGLE DIFFERENTIAL COMPARATOR, DBV0005A (SOT-5)	DBV0005A
50	U5	1		INA225AIDGKR	Texas Instruments	38-V, Programmable Gain, Voltage Output, Bidirectional, Zero-Drift Series, Current-Shunt Monitor, DGK0008A (VSSOP-8)	DGK0008A
51	U6	1		TSSA3159ADCKR	Texas Instruments	1-Chm SPDT ANALOG SWITCH 5-V/3.3-V SINGLE-CHANNEL 2:1 MULTIPLEXER/DEMULTIPLEXER, DCK0006A (SOT-6)	DCK0006A
52	U7, U10	2		OPA2180IDR	Texas Instruments	0.1 uV/degC Drift, Low Noise, Rail-to-Rail Output, Zero-Drift Operational Amplifier, 4 to 36 V, -40 to 105 degC, 8-pin SOIC (D0008A), Green (RoHS & no Sb/Br)	D0008A
53	U8	1		OPA180IDR	Texas Instruments	0.1-uV/degC Drift, Low-Noise, Rail-to-Rail Output, 36-V, Zero-Drift Operational Amplifiers, D0008A (SOIC-8)	D0008A
54	U9	1		TL594CDE4	Texas Instruments	Pulse-Width-Modulation Control Circuit with Voltage Control, 45 % Duty Cycle, 0 to +70 degC, 16-pin SOIC (D), Green (RoHS & no Sb/Br)	D0016A
55	U11	1		REF5020ID	Texas Instruments	Low Noise, Very Low Drift, Precision Voltage Reference, -40 to 125 degC, 8-pin SOIC (D), Green (RoHS & no Sb/Br)	D0008A
56	C31, C36	0	0.1uF	C0603C104J3RACTU	Kemet	CAP, CERM, 0.1 uF, 25 V, +/- 5%, X7R, 0603	0603
57	R26, R33	0	10.0	RC0603FR-0710RL	Yageo America	RES, 10.0, 1%, 0.1 W, 0603	0603
58	R39, R48, R52, R56, R71	0	10.0k	RC0603FR-0710KL	Yageo America	RES, 10.0 k, 1%, 0.1 W, 0603	0603
59	R44, R59	0	1.10k	RC0603FR-071K1L	Yageo America	RES, 1.10 k, 1%, 0.1 W, 0603	0603
60	R77	0	0	RC0603JR-070RL	Yageo America	RES, 0, 5%, 0.1 W, 0603	0603
61	R88, R91	0	17.4k	RC0603FR-0717K4L	Yageo America	RES, 17.4 k, 1%, 0.1 W, 0603	0603

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