

PMP23580 REV C Bill of Materials



Item #	Designator	Quantity	Value	PartNumber	Manufacturer	Description	PackageReference
1	C1	1	68uF	EEH2C1H68JF	Panasonic	CAP. Polymer Hybrid, 68 uF, 50 V, +/- 20%, 30 ohm, 8x10 SMD	8x10
2	C2, C3	2	10uF	GRM32ER7H106KA12L	MuRata	CAP. CERM, 10 uF, 50 V, +/- 10%, X7R, 1210	1210
3	C4, C5, C16, C19, C23, C24, C34, C40, C48, C50, C52, C57	12	0.1uF	8.85012E+11	Wurth Elektronik	CAP. CERM, 0.1 uF, 50 V, +/- 10%, X7R, 0603	0603
4	C6, C7	2	220uF	EEH2C1E221P	Panasonic	CAP. Polymer Hybrid, 220 uF, 25 V, +/- 20%, 27 ohm, 8x10 SMD	8x10
5	C9, C13, C15	3	0.47uF	8.85012E+11	Wurth Elektronik	CAP. CERM, 0.47 uF, 50 V, +/- 10%, X7R, 0605	0605
6	C9, C10, C11, C55, C56	5	10uF	8.85012E+11	Wurth Elektronik	CAP. CERM, 10 uF, 25 V, +/- 10%, X7R, 1206	1206
7	C12, C14, C17, C18	4	2.2uF	GRM188C71E225KE110	MuRata	CAP. CERM, 2.2 uF, 25 V, +/- 10%, X7S, 0603	0603
8	C20	1	270pF	GRM188R71H271KA01D	MuRata	CAP. CERM, 270 pF, 50 V, +/- 10%, X7R, 0603	0603
9	C21	1	680pF	GRM188R71H681KA01D	MuRata	CAP. CERM, 680 pF, 50 V, +/- 10%, X7R, 0603	0603
10	C22, C66, C67	3	3300pF	GHV222N2N0332KXCT	Cap-Chip Electronics, Inc.	CAP. CERM, 3300 pF, 2000 V, +/- 10%, X7R, 2720	2720
11	C25	1	1330pF	8.85012E+11	Wurth Elektronik	CAP. CERM, 3300 pF, 50 V, +/- 10%, X7R, 0603	0603
12	C26	1	1500pF	GRM188R71E152KA01D	MuRata	CAP. CERM, 1500 pF, 25 V, +/- 10%, X7R, 0603	0603
13	C27	1	1500pF	C0603C152KSRACU	Kemet	CAP. CERM, 1500 pF, 50 V, +/- 10%, X7R, 0603	0603
14	C29, C43	2	0.15uF	GRM188R71E154KA01D	MuRata	CAP. CERM, 0.15 uF, 25 V, +/- 10%, X7R, 0603	0603
15	C30	1	2700pF	GRM188R71E272KA01D	MuRata	CAP. CERM, 2700 pF, 25 V, +/- 10%, X7R, 0603	0603
16	C31	1	0.22uF	C0603C2243SRAC7867	Kemet	CAP. CERM, 0.22 uF, 25 V, +/- 5%, X7R, 0603	0603
17	C32, C54, C58	3	1uF	8.85012E+11	Wurth Elektronik	CAP. CERM, 1 uF, 25 V, +/- 10%, X7R, 0603	0603
18	C35	1	1uF	C0603C1054SRACU	Kemet	CAP. CERM, 1 uF, 16 V, +/- 10%, X7R, 0605	0605
19	C36	1	1uF	GRM188R61E105KAADD	Murata	1 uF ±10% 25V Ceramic Capacitor X5R 0603 (1608 Metric)	0603
20	C38	1	470pF	8.85012E+11	Wurth Elektronik	CAP. CERM, 470 pF, 50 V, +/- 10%, X7R, 0603	0603
21	C51	1	2.2uF	C3216X7R1R4225K160AB	TDK	CAP. CERM, 2.2 uF, 50 V, +/- 10%, X7R, 1206	1206
22	C53	1	2.2uF	C0603C2254SRACU	Kemet	CAP. CERM, 2.2 uF, 10 V, +/- 10%, XSR, 0605	0605
23	C59	1	10pF	C0603C100J5GACTU	Kemet	CAP. CERM, 10 pF, 50 V, +/- 5%, COG/NPO, 0603	0603
24	C60, C61, C62, C63	4	1000pF	8.85012E+11	Wurth Elektronik	CAP. CERM, 1000 pF, 50 V, +/- 10%, X7R, 0603	0603
25	C64	1	330pF	C1608COG2A3313080AA	TDK	CAP. CERM, 330 pF, 100 V, +/- 5%, COG/NPO, 0603	0603
26	C65	1	2200pF	C0603C222KSRAC	Kemet	CAP. CERM, 2200 pF, 50 V, +/- 10%, X7R, 0603	0603
27	C100	1	0.47uF	GRM188R71E474KA12D	MuRata	CAP. CERM, 0.47 uF, 25 V, +/- 10%, X7R, 0603	0603
28	D1	1	100V	ES1B-13-F	Diodes Inc.	Diode, Superfast Rectifier, 100 V, 1 A, SMA	SMA
29	D2	1	50V	ES3AB-13-F	Diodes Inc.	Diode, Superfast Rectifier, 50 V, 1 A, SMA	SMA
30	D3	1	45V	SBR1045CTQ-13	Diodes Inc.	Diode, Super Barrier Rectifier, 45 V, 10 A, DPAK	DPAK
31	D4	1	100V	PDSS100HQ-13	Diodes Inc.	Diode, Schottky, 100 V, 5 A, AEC-Q101, PowerDi5	PowerDi5
32	D5, D6, D7	3	100V	MMMA914-TP	Micro Commercial Components	Diode, Switching, 100 V, 0.2 A, SOD-323	SOD-323
33	D8	1	20V	MBR120L-SF11G	ON Semiconductor	Diode, Schottky, 20 V, 1 A, SOD-123FL	SOD-123FL
34	J1, J2	2		ED556ZDS	On-Shore Technology	Terminal Block, 3.5mm Pitch, 2x1, TH	7.0x6.2x6.5mm
35	J3, J5	3		TSW-103-07-G-S	Samtec	Header, 100mil, 3x1, Gold, TH	3x1 Header
36	J4, J5, J6, J7	4		TSW-103-07-G-S	Samtec	Header, 100mil, 2x3, Gold, TH	2x3 Header
37	L1	1	1uH	XGL4030-102MEC	Coilcraft	Power Inductor, shielded, composite, 1uH 20% tol, DCR 7.2mOhms, SRF 65MHz, Isat 4.8A, Irms 13A, AEC-Q200	SMD_IND_4MM0_4M M0
38	L2	1	3.3uH	XGL4018-332MEC	Coilcraft	3.3 uH Shielded Molded Inductor 3.8 A 48.1mOhm Max 1616 (4040 Metric)	SMT7_4MM0_4MM0
39	L3	1	330uH	LPS4012-334MLB	Coilcraft	Inductor, Shielded Drum Core, Ferrite, 330 uH, 0.15 A, 7.2 ohm, SMD	LPS4012
40	Q1, Q3	2	30V	NDS352AP	Fairchild Semiconductor	MOSFET, P-CH, -30 V, 4.9 A, SOT-23	SOT-23
41	Q2	1	40V	CSD18514Q5A	Texas Instruments	MOSFET, N-CH, 40 V, 50 A, DQ00008A (VSONP-8)	DQ00008A
42	Q4	1	100V	CSD19534Q5A	Texas Instruments	MOSFET, N-CH, 100 V, 10 A, DQ00009A (VSONP-8)	DQ00009A
43	Q5, Q6, Q11	3		TLP363(GR-TPL-E)	Toshiba	Optocoupler Transistor Output 5000Vrms 1 Channel 6-SO	SO6-4
44	Q7	1	40 V	MMBT3904LT1G	ON Semiconductor	Transistor, NPN, 40 V, 0.2 A, SOT-23	SOT-23
45	Q8, Q9, Q10, Q12	4	60V	2N7002W-7-F	Diodes Inc.	MOSFET, N-CH, 60 V, 0.115 A, SOT-323	SOT-323
46	R1	1	10k	CRCW120610K0JNEA	Vishay-Dale	RES, 10 k, 5%, 0.25 W, AEC-Q200 Grade 0, 1206	1206
47	R2	1	4.7k	CRCW120647K0JNEA	Vishay-Dale	RES, 4.7 k, 5%, 0.25 W, AEC-Q200 Grade 0, 1206	1206
48	R3	1	0.01	CSN9201F100.0	Stackpole Electronics Inc	RES, 0.01, 0.1%, 1 W, 2010	2010
49	R4, R7, R23, R33, R43	5	10	CRCW060310R0JNEA	Vishay-Dale	RES, 10, 5%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
50	R5, R12	2	40.2k	CRCW060340K2FKEA	Vishay-Dale	RES, 40.2 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
51	R6, R11	2	33.2k	CRCW060333K2FKEA	Vishay-Dale	RES, 33.2 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
52	R8, R17, R19, R22, R44, R45, R60, R61, R63, R64	10	10.0k	CRCW060310K0FKEA	Vishay-Dale	RES, 10.0 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
53	R9, R27	2	2.0k	RC0603JR-072KL	Yageo	RES, 2.0 k, 5%, 0.1 W, 0603	0603
54	R10, R13	2	68.1k	RCW060368K1FKEA	Vishay-Dale	RES, 68.1 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
55	R14	1	490	RT0603BRD0749RFL	Yageo America	RES, 499, 0.1%, 0.1 W, 0603	0603
56	R15	1	0.005	CSN4201F075L00	Stackpole Electronics Inc	RES, 0.005, 1%, 1.5 W, 2010	2010
57	R16, R25, R67	3	4.99k	CRCW060349K9FKEA	Vishay-Dale	RES, 4.99 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
58	R18	1	0.02	CSR1206F720L0	Stackpole Electronics Inc	RES, 0.02, 1%, 0.5 W, 1206	1206
59	R20, R21	2	66.6k	CRCW060366K6FKEA	Vishay-Dale	RES, 66.6 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
60	R24, R48, R53	3	100	CRCW0603100RPFKEA	Vishay-Dale	RES, 100, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
61	R26	1	4.99k	CRCW060349K9FKEA	Vishay-Dale	RES, 4.99 k, 1%, 0.1 W, 0603	0603
62	R28	1	10.2k	CRC0603FR-0710K2L	Yageo	RES, 10.2 k, 1%, 0.1 W, 0603	0603
63	R29	1	4.7k	CRCW060347K0JNEA	Vishay-Dale	RES, 4.7 k, 5%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
64	R30	1	2.49k	RC0603FR-0724RFL	Yageo	RES, 2.49 k, 1%, 0.1 W, 0603	0603
65	R31	1	562	CRCW0603562RPFKEA	Vishay-Dale	RES, 562, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
66	R32	1	150k	CRCW0603150KPFKEA	Vishay-Dale	RES, 150 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
67	R34	1	24.9k	CRCW060324K9PFKEA	Vishay-Dale	RES, 24.9 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
68	R35	1	14.7k	RC0603FR-0714K7L	Yageo	RES, 14.7 k, 1%, 0.1 W, 0603	0603
69	R36, R58	2	49.9k	CRCW060349K9PFKEA	Vishay-Dale	RES, 49.9 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
70	R37	1	2.61k	CRCW060326K1FKEA	Vishay-Dale	RES, 2.61 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
71	R38	1	2.49k	CRCW060324K9PFKEA	Vishay-Dale	RES, 2.49 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
72	R40	1	374	RT0603BRD07374RL	Yageo America	RES, 374, 0.1%, 0.1 W, 0603	0603
73	R46	1		ERJ-PA3F5110V	Panasonic	511 Ohms ±1% 0.25W, 1/4W Chip Resistor 0603 (1608 Metric)	0603
74	R47	1	49.9k	RT0603BRD0749R9L	Yageo America	Automotive AEC-Q200, Pulse Withstanding Thick Film	0603
75	R48, R52	2	1.00k	RT0603BRD0710KL	Yageo America	RES, 49.9 k, 0.1%, 0.1 W, 0603	0603
76	R50, R51	2	10	TNPW060310R0BEEA	Vishay-Dale	RES, 1.00 k, 0.1%, 0.1 W, 0603	0603
77	R56	1	576k	CRCW0603576KPFKEA	Vishay-Dale	RES, 576 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
78	R57	1	100k	CRCW0603100KPFKEA	Vishay-Dale	RES, 100 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
79	R59	1	11.0k	CRCW060311K0FKEA	Vishay-Dale	RES, 11.0 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
80	R62	1	8.25k	CRCW060382K5FKEA	Vishay-Dale	RES, 8.25 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
81	R65	1	24	RC1210JR-0724RL	Yageo	RES, 24, 5%, 0.5 W, 1210	1210
82	R66	1	4.7	RC1210JR-0747RL	Yageo	RES, 4.7, 5%, 0.5 W, 1210	1210
83	R68, R69	2	0	CRCW0603000020EA	Vishay-Dale	RES, 0, 5%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
84	R100	1	634	RC0603FR-07634RL	Yageo	RES, 634, 1%, 0.1 W, 0603	0603
85	R101	1	300	RC0603FR-07300RL	Yageo	RES, 300, 1%, 0.1 W, 0603	0603
86	T1	1		18322-1009	Sumida	Transformer	SMD12
87	U1, U2	2		LM51561DSR	Texas Instruments	2.2-MHz Wide VIN 65-V Non-synchronous Boost/SEPIC/Flyback Controller with Dual Random Spread Spectrum, DSS5012B (WSON-12)	DSS5012B
88	U5, U6, U7	3		TLV9111IDCKR	Texas Instruments	Single 1MHz, 16-V rail-to-rail input/output, low-offset voltage, low-power op amp 5-SC70-40 to 125	SC70-5
89	U4	1		LM4040D250DBZR	Texas Instruments	Precision Micropower Shunt Voltage Reference, 1% accuracy, 2.5 V, 15 ppm / degC, 15 mA, -40 to 85 degC, 5-pin SOT-23 (DBZ), Green (RoHS & no Sb/Br)	DBZ00003A
90	U5	1		TL431LAIDBZR	Texas Instruments	Programmable Shunt Regulator with Optimized Reference Current, DBZ0003A (SOT-23-3)	DBZ00003A
91	U8	1		LMR3650PSPRFR	Texas Instruments	5-V to 65-V, 50-mA Wide VIN Synchronous Buck Converter Optimized for Size and Light Load Efficiency, VQFN-HR9	VQFN-HR9
92	U9	1		TLV1048DBVR	Texas Instruments	15-V Output Voltage Non-Sync Boost Converter, DBV0006A (SOT-23-6)	DBV0006A
93	C28	1	22pF	C0603C220J5GACTU	Kemet	CAP. CERM, 22 pF, 50 V, +/- 5%, COG/NPO, 0603	0603
94	C33, C39, C47	0	0.047uF	GRM188R71E473KA37D	MuRata	CAP. CERM, 0.047 uF, 25 V, +/- 10%, X7R, AEC-Q200 Grade 1, 0603	0603
95	C37	0	0.01uF	8.85012E+11	Wurth Elektronik	CAP. CERM, 0.01 uF, 50 V, +/- 10%, X7R, 0603	0603
96	C42	0	0.100pF	8.85012E+11	Wurth Elektronik	CAP. CERM, 100 pF, 50 V, +/- 5%, COG/NPO, 0603	0603
97	R39	0	10.0k	CRCW060310K0FKEA	Vishay-Dale	RES, 10.0 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
98	R54	0	15.0k	CRCW060315K0FKEA	Vishay-Dale	RES, 15.0 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
99	R55	0	4.42k	CRCW060344K2FKEA	Vishay-Dale	RES, 4.42 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
100	R70, R71	0	0	CRCW0603000020EA	Vishay-Dale	RES, 0, 5%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
101	R72	0	10	CRCW060310R0JNEA	Vishay-Dale	RES, 10, 5%, 0.1 W, AEC-Q200 Grade 0, 0603	0603

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