

PMP40312 REV E1 Bill of Materials

Designator	Quantity	Value	PartNumber	Manufacturer	Description	PackageReference
C1	1	47uF	865080645012	Würth Elektronik	CAP, AL, 47 µF, 50 V, +/- 20%, SMD	D6.3xL7.7mm
C2, C3	2	10uF	GCM31CD71H106K	MuRata	CAP, CERM, 10 µF, 50 V, +/- 10%, X7T, 1206_190	1206_190
C4, C13, C17, C113, C117	5	0.1uF	885012105018	Würth Elektronik	CAP, CERM, 0.1 µF, 25 V, +/- 10%, X5R, 0402	0402
C5	1	4.7uF	885012105008	Würth Elektronik	CAP, CERM, 4.7 µF, 6.3 V, +/- 20%, X5R, 0402	0402
C6	1	1uF	GRM155R6YA105KE11D	MuRata	CAP, CERM, 1 µF, 35 V, +/- 10%, X5R, 0402	0402
C7	1	270pF	GRM1555C1H271JA01D	MuRata	CAP, CERM, 270 pF, 50 V, +/- 5%, C0G/NP0, 0402	0402
C8, C108	2	47pF	885012005044	Würth Elektronik	CAP, CERM, 47 pF, 25 V, +/- 5%, C0G/NP0, 0402	0402
C9, C109	2	0.01uF	885012205067	Würth Elektronik	CAP, CERM, 0.01 µF, 50 V, +/- 10%, X7R, 0402	0402
C10, C110	2	1000pF	885012205061	Würth Elektronik	CAP, CERM, 1000 pF, 50 V, +/- 10%, X7R, 0402	0402
C11, C16, C111, C116	4	10uF	GRM21BR6YA106KE43L	MuRata	CAP, CERM, 10 µF, 35 V, +/- 10%, X5R, 0805	0805
C12, C14, C15, C112, C114, C115	6	47uF	C3216X5R1E476M160AC	TDK	CAP, CERM, 47 µF, 25 V, +/- 20%, X5R, 1206_190	1206_190
C18, C19, C118, C119	4	1uF	GRM155R61E105KA12D	MuRata	CAP, CERM, 1 µF, 25 V, +/- 10%, X5R, 0402	0402
C20, C21, C25, C120, C121, C125	6	22uF	C3216X5R1V226M160AC	TDK	CAP, CERM, 22 µF, 35 V, +/- 20%, X5R, 1206	1206
C22, C26, C122, C126	4	0.033uF	CGA2B3X7R1H333K050BB	TDK	CAP, CERM, 0.033 µF, 50 V, +/- 10%, X7R, AEC-Q200 Grade 1, 0402	0402
C23, C24, C123, C124	4	330pF	885012205058	Würth Elektronik	CAP, CERM, 330 pF, 50 V, +/- 5%, C0G/NP0, 0402	0402
C27, C127	2	100uF		Panasonic	CAP, Polymer Hybrid, 100 µF, 25 V, +/- 20%, 50 ohm, 6.3x5.8 SMD	6.3x5.8
C28, C128	2	1uF	C1005X5R1C105K050BC	TDK	CAP, CERM, 1 µF, 16 V, +/- 10%, X5R, 0402	0402
C29, C48, C129	3	1uF	885012105012	Würth Elektronik	CAP, CERM, 1 µF, 10 V, +/- 10%, X5R, 0402	0402
C30, C31, C37, C130, C131, C137	6	0.047uF	885012205035	Würth Elektronik	CAP, CERM, 0.047 µF, 16 V, +/- 10%, X7R, 0402	0402
C32, C132	2	0.22uF	GRM155R71C224KA12D	MuRata	CAP, CERM, 0.22 µF, 16 V, +/- 10%, X7R, 0402	0402
C33, C133	2	0.1uF	CC0402KRX7R9BB1	MuRata	CAP, CERM, 0.1 µF, 50 V, +/- 10%, X7R, 0402	0402
C34, C134	2	0.1uF	885012205037	Würth Elektronik	CAP, CERM, 0.1 µF, 16 V, +/- 10%, X7R, 0402	0402
C35, C135	2	33pF	885012005058	Würth Elektronik	CAP, CERM, 33 pF, 50 V, +/- 5%, C0G/NP0, 0402	0402
C36, C136	2	15pF	885012005056	Würth Elektronik	CAP, CERM, 15 pF, 50 V, +/- 5%, C0G/NP0, 0402	0402
C38, C138	2	1800pF	GRM155R71H182KA01D	MuRata	CAP, CERM, 1800 pF, 50 V, +/- 10%, X7R, 0402	0402
C39, C139	2	680pF	GRM1555C1H681JA01D	MuRata	CAP, CERM, 680 pF, 50 V, +/- 5%, C0G/NP0, 0402	0402
C40, C140	2	0.22uF	C1005X5R1E224M050BC	TDK	CAP, CERM, 0.22 µF, 25 V, +/- 20%, X5R, 0402	0402
C41, C141	2	1uF	885012207078	Würth Elektronik	CAP, CERM, 1 µF, 25 V, +/- 10%, X7R, 0805	0805
C42, C43, C142, C143	4	390pF	GRM155R71H391KA01D	MuRata	CAP, CERM, 390 pF, 50 V, +/- 10%, X7R, 0402	0402
C44, C46, C47, C144, C146, C147, C160	7	100pF	885012005061	Würth Elektronik	CAP, CERM, 100 pF, 50 V, +/- 5%, C0G/NP0, 0402	0402

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C45, C145	2	2.2uF	C1005X5R1C225K050BC	TDK	CAP, CERM, 2.2 uF, 16 V, +/- 10%, X5R, 0402	0402
C49	1	0.1uF	GRM155R61H104ME14D	MuRata	CAP, CERM, 0.1 uF, 50 V, +/- 20%, X5R, 0402	0402
C50, C52	2	47pF	885012005059	Wurth Elektronik	CAP, CERM, 47 pF, 50 V, +/- 1%, C0G/NP0, 0402	0402
C51	1	0.1uF	885012205018	Wurth Elektronik	CAP, CERM, 0.1 uF, 10 V, +/- 10%, X7R, 0402	0402
C161	1	1000pF	GRM1555C1H102JA01D	MuRata	CAP, CERM, 1000 pF, 50 V, +/- 5%, C0G/NP0, 0402	0402
D1	1	6.8V	BZT52C6V8T-7	Diodes Inc.	Diode, Zener, 6.8 V, 300 mW, SOD-523	SOD-523
D2	1	20V	BZT52C20T-7	Diodes Inc.	Diode, Zener, 20 V, 300 mW, SOD-523	SOD-523
D3, D4	2	28V	SMBJ28A-13-F	Diodes Inc.	Diode, TVS, Uni, 28 V, 45.4 Vc, SMB	SMB
D5, D105	2	5.1V	BZX585-C5V1,115	NXP Semiconductor	Diode, Zener, 5.1 V, 300 mW, SOD-523	SOD-523
D6, D106	2	30V	MSS1P3L-M3/89A	Vishay-Semiconductor	Diode, Schottky, 30 V, 1 A, AEC-Q101, MicroSMP	MicroSMP
J1, J101	2		632 723 300 011	Wurth Elektronik	Connector, Receptacle, USB Type C, R/A	Connector, Receptacle, USB Type C, R/A, THT/SMT
J2	1		61300411121	Wurth Elektronik	Header, 2.54 mm, 4x1, Gold, TH	Header, 2.54mm, 4x1, TH
L1, L101	2	2.2uH	XEL6060-222MEB	Coilcraft	Inductor, Shielded, Composite, 2.2 uH, 16 A, 0.0067 ohm, AEC-Q200 Grade 1, SMD	6.36x6.56mm
Q1	1	-80V	SQJ469EP-T1-GE3	Vishay-Siliconix	MOSFET, P-CH, -80 V, -32 A, AEC-Q101, PowerPAK_SO-8L	PowerPAK_SO-8L
Q2	1	40 V	MMBT3906	Fairchild Semiconductor	Transistor, PNP, 40 V, 0.2 A, SOT-23	SOT-23
Q3	1	40 V	MMBT3904	Fairchild Semiconductor	Transistor, NPN, 40 V, 0.2 A, SOT-23	SOT-23
Q4, Q6, Q7, Q10, Q104, Q106, Q107, Q110	8	30V	NVTFS4C13N	ON Semiconductor	MOSFET, N-CH, 30 V, 40 A, AEC-Q101, 8-PowerWDFN	8-PowerWDFN
Q5, Q11, Q105, Q111	4	30V	NVTFS4C25NTAG	ON Semiconductor	MOSFET, N-CH, 30 V, 22 A, AEC-Q101, 8-PowerWDFN	8-PowerWDFN
Q8, Q108	2	60V	2N7002	Fairchild Semiconductor	MOSFET, N-CH, 60 V, 115 A, SOT-23	SOT-23
Q9, Q109	2	50V	BSS138PW,115	Nexperia	MOSFET N-CH 50V 220MA SOT-23	SOT-323
R1, R3, R4, R26, R126	5	10.0k	CRCW040210K0FKED	Vishay-Dale	RES, 10.0 k, 1%, 0.063 W, 0402	0402
R2, R33, R133	3	100k	CRCW0402100KFKED	Vishay-Dale	RES, 100 k, 1%, 0.063 W, 0402	0402
R5	1	4.99k	CRCW04024K99FKED	Vishay-Dale	RES, 4.99 k, 1%, 0.063 W, 0402	0402
R6	1	1.00k	CRCW04021K00FKED	Vishay-Dale	RES, 1.00 k, 1%, 0.063 W, 0402	0402
R7, R107	2	0.006	WSL08056L000FEA	Vishay-Dale	RES, 0.006, 1%, 0.25 W, 0805	0805
R8, R108	2	0.01	RU3216FR010CS	Samsung	RES, 0.01, 1%, 0.5 W, 1206	1206
R9, R109	2	0.01	WSLP1206R0100FEA	Vishay-Dale	RES, 0.01, 1%, 1 W, 1206	1206
R10, R11, R15, R16, R36, R41, R49, R71, R72, R110, R111, R115, R116, R149	14	0	CRCW04020000Z0ED	Vishay-Dale	RES, 0, 5%, 0.063 W, 0402	0402
R12, R13, R14, R23, R112, R113, R114, R123	8	10	CRCW040210R0JNED	Vishay-Dale	RES, 10, 5%, 0.063 W, 0402	0402
R17, R18, R117, R118	4	56	CRCW060356R0JNEA	Vishay-Dale	RES, 56, 5%, 0.1 W, 0603	0603
R19, R119	2	39k	CRCW040239K0JNED	Vishay-Dale	RES, 39 k, 5%, 0.063 W, 0402	0402
R20, R120	2	510	CRCW0603510RJNEA	Vishay-Dale	RES, 510, 5%, 0.1 W, 0603	0603

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R21, R38, R40, R121	4	2.2k	CRCW04022K20JNED	Vishay-Dale	RES, 2.2 k, 5%, 0.063 W, 0402	0402
R22, R24, R37, R43, R44, R47, R51, R73, R74, R75, R76, R122, R124, R151	14	100k	CRCW0402100KJNED	Vishay-Dale	RES, 100 k, 5%, 0.063 W, 0402	0402
R25, R125	2	40.2k	CRCW040240K2FKED	Vishay-Dale	RES, 40.2 k, 1%, 0.063 W, 0402	0402
R27, R32, R127, R132	4	221k	CRCW0402221KFKED	Vishay-Dale	RES, 221 k, 1%, 0.063 W, 0402	0402
R28, R128	2	120	CRCW0603120RJNEA	Vishay-Dale	RES, 120, 5%, 0.1 W, 0603	0603
R29, R129	2	1.0	CRCW04021R00JNED	Vishay-Dale	RES, 1.0, 5%, 0.063 W, 0402	0402
R30, R130	2	383k	CRCW0402383KFKED	Vishay-Dale	RES, 383 k, 1%, 0.063 W, 0402	0402
R31, R131	2	24k	CRCW040224K0JNED	Vishay-Dale	RES, 24 k, 5%, 0.063 W, 0402	0402
R34, R134	2	137k	CRCW0402137KFKED	Vishay-Dale	RES, 137 k, 1%, 0.063 W, 0402	0402
R35, R135	2	30.1k	CRCW040230K1FKED	Vishay-Dale	RES, 30.1 k, 1%, 0.063 W, 0402	0402
R42, R45	2	0	RC0402JR-070RL	Yageo America	RES, 0, 5%, 0.063 W, 0402	0402
R48	1	47k	CRCW040247K0JNED	Vishay-Dale	RES, 47 k, 5%, 0.063 W, 0402	0402
R52, R53, R152, R153	4	4.99	CRCW04024R99FKED	Vishay-Dale	RES, 4.99, 1%, 0.063 W, 0402	0402
U1	1		TPS70933QDBVRQ1	Texas Instruments	150-mA, 30-V, 1-uA IQ Voltage Regulator with Enable, DBV0005A (SOT-23-5)	DBV0005A
U2	1		BQ25703ARSN	Texas Instruments	BQ25703, RSN0032B (WQFN-32)	RSN0032B
U3, U103	2		TPD6S300RUK	Texas Instruments	USB Type C Interface Protector: Short-to-VBUS Over Voltage and IEC 61000-4-2 ESD Protection, RUK0020B	RUK0020B
U4, U104	2		TPS25740BRGER	Texas Instruments	USB Type-C and USB PD Source Controller, RGE0024H (VQFN-24)	RGE0024H
U5	1		TS3USB221AQRSERQ1	Texas Instruments	Automotive Catalog ESD Protected, High-Speed USB 2.0 (480-Mbps) 1:2 Multiplexer / Demultiplexer Switch, 16 ohm RON, 2.5 to 3.3V, -40 to 125 degC, 10-Pin UQFN (RSE), Green (RoHS & no Sb/Br)	RSE0010A
U6	1		MSP430G2402IRSA16R	Texas Instruments	16 MHz Mixed Signal Microcontroller with 8 KB Flash, 256 B SRAM and 16 GPIOs, 16-pin QFN (RSA), Green (RoHS & no Sb/Br)	RSA0016B
U102	1		BQ25700ARSN	Texas Instruments	BQ25700, RSN0032B (WQFN-32)	RSN0032B
P1	0		M22-5330405	Harwin	Header, 2mm, 4x1, Gold, Black, R/A, SMT	Header, 2mm, 4x1, R/A, SMT
R39, R46	0	0	RC0402JR-070RL	Yageo America	RES, 0, 5%, 0.063 W, 0402	0402
R50, R150	0	0	CRCW04020000Z0ED	Vishay-Dale	RES, 0, 5%, 0.063 W, 0402	0402

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