

PMP41094 REV B Bill of Materials

Designator	Quantity	Value	PartNumber	Manufacturer	Description	PackageReference
C1, C8, C9, C17, C18, C19, C20, C37, C38, C70, C88, C92	12	10uF	GRT31CD71H106KE13	MuRata	CAP, CERM, 10 µF, 50 V,+/- 10%, X7R, AEC-Q200 Grade 1, 1206	1206_190
C2, C39, C40, C47, C48, C50, C51, C71	8		GCE21BR71H104KA01L	Murata	0.1µF ±10% 50V Ceramic Capacitor X7R 0805 (2012 Metric)	0805
C3, C6, C44	3	4.7uF	CGA5L3X7R1H475K160AE	TDK	CAP, CERM, 4.7 µF, 50 V,+/- 10%, X7R, AEC-Q200 Grade 1, 1206	1206
C4, C5	2	4700pF	GCM216R71H472KA37D	MuRata	CAP, CERM, 4700 pF, 50 V,+/- 10%, X7R, AEC-Q200 Grade 1, 0805	0805
C7	1	100uF	EEE-FK1H101P	Panasonic	CAP, AL, 100 uF, 50 V, +/- 20%, 0.34 ohm, AEC-Q200 Grade 2, SMD	SMT Radial F
C10, C24, C45	3	1uF	GCM21BR71H105KA03K	MuRata	CAP, CERM, 1 µF, 50 V,+/- 10%, X7R, AEC-Q200 Grade 1, 0805	0805
C11, C16, C21, C22, C46, C54, C99	7	0.1uF	GCM21BR71H104KA37K	MuRata	CAP, CERM, 0.1 uF, 50 V, +/- 10%, X7R, AEC-Q200 Grade 1, 0805	0805
C12, C13	2	2200pF	GRM2165C1H222FA01D	MuRata	CAP, CERM, 2200 pF, 50 V, +/- 1%, C0G/NP0, 0805	0805
C14, C15, C41, C42, C94	5	0.1uF	CGA3E2X7R1H104K080AA	TDK	CAP, CERM, 0.1 uF, 50 V, +/- 10%, X7R, AEC-Q200 Grade 1, 0603	0603
C23, C43	2	150uF	EEH-ZK1E151XP	Panasonic	CAP, AL, 150 uF, 25 V, AEC-Q200 Grade 2, SMD	D6.3xL7.7mm
C25, C73, C74, C75, C76, C77, C78, C79, C80, C81, C82, C83, C84, C85, C95, C97	16	0.1uF	C0402C104K8RACTU	Kemet	CAP, CERM, 0.1 µF, 10 V,+/- 10%, X7R, 0402	0402
C26, C60, C62, C63	4	4.7uF	GCM21BR71C475KA73K	MuRata	CAP, CERM, 4.7 uF, 16 V, +/- 10%, X7R, AEC-Q200 Grade 1, 0805	0805
C27	1	0.1uF	CGA2B3X7R1H104K050BB	TDK	CAP, CERM, 0.1 uF, 50 V, +/- 10%, X7R, AEC-Q200 Grade 1, 0402	0402
C28, C56, C58	3	0.1uF	GRT155R71H104KE01	MuRata	CAP, CERM, 0.1 uF, 50 V, +/- 10%, X7R, AEC-Q200 Grade 1, 0402	0402
C29, C49	2	0.22uF	CGA2B1X7R1V224K050BC	TDK	CAP, CERM, 0.22 uF, 35 V, +/- 10%, X7R, AEC-Q200 Grade 1, 0402	0402
C30	1	0.01uF	CGA2B3X7R1H103K050BB	TDK	CAP, CERM, 0.01 uF, 50 V, +/- 10%, X7R, AEC-Q200 Grade 1, 0402	0402
C31	1	100pF	CGA2B2C0G1H101J050BA	TDK	CAP, CERM, 100 pF, 50 V, +/- 5%, C0G/NP0, AEC-Q200 Grade 1, 0402	0402
C32	1	4700pF	GCM155R71H472KA37D	MuRata	CAP, CERM, 4700 pF, 50 V, +/- 10%, X7R, AEC-Q200 Grade 1, 0402	0402
C33	1	1000pF	GCM2165C1H102JA16D	MuRata	CAP, CERM, 1000 pF, 50 V, +/- 5%, C0G/NP0, AEC-Q200 Grade 1, 0805	0805
C34	1	3300pF	C0805C332K5RACTU	Kemet	CAP, CERM, 3300 pF, 50 V, +/- 10%, X7R, 0805	0805
C35, C36, C52, C53	4	4.7µF	GRT21BC71H475KE13	MuRata	Cap Ceramic 4.7uF 50V X7R 10% Pad SMD 0805 +125°C Automotive T/R	0805
C55, C96	2	10uF	GCJ21BR71A106KE01L	MuRata	CAP, CERM, 10 µF, 10 V,+/- 10%, X7R, AEC-Q200 Grade 1, 0805	0805
C57	1	0.47uF	CGA3E3X7R1H474K080AE	TDK	CAP, CERM, 0.47 uF, 50 V, +/- 10%, X7R, AEC-Q200 Grade 1, 0603	0603
C59, C61, C64	3	0.1uF	GRT155R71C104KE01	MuRata	CAP, CERM, 0.1 uF, 16 V, +/- 10%, X7R, 0402	0402
C65	1	0.47uF	GCM188R71C474KA55D	MuRata	CAP, CERM, 0.47 uF, 16 V, +/- 10%, X7R, AEC-Q200 Grade 1, 0603	0603
C66, C67, C68, C69	4	330pF	GRT155R71H331KE01	MuRata	CAP, CERM, 330 pF, 50 V, +/- 10%, X7R, 0402	0402
C72	1	1uF	GRM188R71E105KA12D	MuRata	CAP, CERM, 1 uF, 25 V, +/- 10%, X7R, 0603	0603

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C86, C90, C91	3	1uF	LMK107B7105KAHT	Taiyo Yuden	CAP, CERM, 1 uF, 10 V, +/- 10%, X7R, AEC-Q200 Grade 1, 0603	0603
C87, C89	2	18pF	GJM1555C1H180JB01D	MuRata	CAP, CERM, 18 pF, 50 V,+/- 5%, C0G/NP0, 0402	0402
C98	1	2.2uF	CGA4J3X7R1H225K125AE	TDK	CAP, CERM, 2.2 uF, 50 V,+/- 10%, X7R, AEC-Q200 Grade 1, 0805	0805
D1	1	28.2V	P6SMB33CA	Littelfuse	Diode, TVS, Bi, 28.2 V, 45.7 Vc, SMB	SMB
D2	1		APG1608ZGC	Kingbright	Green 630nm LED Indication - Discrete 2V 0603 (1608 Metric)	0603
D4, D5, D6, D7, D8, D9, D10, D11, D12, D13	10		PESD5V0X1BCAL,315	Nexperia USA Inc.	TVS DIODE 5.5VWM 17VC DFN1006-2	SOD882
FB1, FB2	2		BLM21SP700SZ1D	Murata	Chip Ferrite Bead, 0805, 70Ω @ 100MHz, 0.009Ω, 25%, 6A	0805
FB3, FB4, FB5	3		BLM18PG331SH1	Murata	Ferrite Beads 330 Ohm 25%	0603
I2C	1		61300311121	Würth Elektronik	Header, 2.54 mm, 3x1, Gold, TH	Header, 2.54mm, 3x1, TH
J1	1		D4S20D-40MA5-A	Rosenberger	HSD Right Angle Plug for PCB, TH	HSD connector, Waterblue
J2, J3	2				632722200212 WR-COM_USB 3.1_Type C_Horizontal_SMT	
J4	1		6.91314E+11	Würth Electronics	TERM BLK HDR 5.08MM HORZ PCB 2P	TRM_BLK_HDR2
L2	1	2.2uH	XAL7070-222MEB	Coilcraft	Inductor, Shielded, Composite, 2.2 uH, 17.8 A, 0.01 ohm, SMD	7.2x7x7.5mm
L3, L4	2	50 ohm	BLM31SN500SZ1L	MuRata	Ferrite Bead, 50 ohm @ 100 MHz, 12 A, 1206	1206
L7, L8	2	4.7uH	XAL8080-472ME	Coilcraft	Inductor, Shielded, Composite, 4.7 uH, 10.5 A, 0.00889 ohm, SMD	8.1 x 8 x 8.6mm
L10	1				CMC 100MA 2LN 90 OHM SMD	
L11	1	6.8uH	XGL3530-682MEC	Coilcraft	Shielded Power Inductors 6.8uH ±20%, AEC-Q200, SMD	SMD2
Q1	1	40V	IPZ40N04S5L-2R8	Infineon Technologies	MOSFET, N-CH, 40 V, 40 A, AEC-Q101, SON-8	SON-8
R1, R2	2	2.2	ERJ-8RQF2R2V	Panasonic	RES, 2.20, 1%, 0.25 W, AEC-Q200 Grade 0, 1206	1206
R3, R20	2		CRF1206-FZ-R010ELF	Bourns	10 mOhms ±1% 1W Chip Resistor 1206 (3216 Metric) Automotive AEC-Q200, Current Sense, Moisture Resistant Metal Element	1206
R4, R6	2	10	CRCW040210R0FKED	Vishay-Dale	RES, 10.0, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	0402
R7	1	49.9k	CRCW040249K9FKED	Vishay-Dale	RES, 49.9 k, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	0402
R8, R22, R29, R30, R35, R36, R38, R46, R49	9	0	RK73Z1ETTP	KOA Speer	RES, 0, 5%, 0.063 W, AEC-Q200 Grade 0, 0402	0402
R9	1	150k	CRCW0402150KFKED	Vishay-Dale	RES, 150 k, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	0402
R10	1	27.4k	CRCW040227K4FKED	Vishay-Dale	RES, 27.4 k, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	0402
R11	1	1.00k	ERA-2APB102X	Panasonic	RES, 1.00 k, 0.1%, 0.063 W, AEC-Q200 Grade 0, 0402	0402
R12, R13, R14, R44, R45	5	4.70k	RC0402FR-074K7L	Yageo America	RES, 4.70 k, 1%, 0.0625 W, 0402	0402
R15, R17	2	1.1	CRCW12061R10FKEA	Vishay-Dale	RES, 1.10, 1%, 0.25 W, AEC-Q200 Grade 0, 1206	1206
R16	1	47.0k	CRCW060347K0FKEA	Vishay-Dale	RES, 47.0 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
R18, R25	2	3.30k	RK73H1ETTP3301F	KOA Speer	RES, 3.30 k, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	0402
R19	1	0	CRCW04020000Z0EDHP	Vishay-Dale	RES, 0, 0%, 0.2 W, AEC-Q200 Grade 0, 0402	0402
R21	1	10	CRCW040210R0FKED	Vishay-Dale	RES, 10.0, 1%, 0.063 W, 0402	0402
R23	1	10	RC1206FR-0710RL	Yageo America	RES, 10.0, 1%, 0.25 W, 1206	1206
R24	1	10k	ERJ-2GEJ103X	Panasonic	RES, 10 k, 5%, 0.1 W, AEC-Q200 Grade 0, 0402	0402
R27, R48	2	100k	CRCW0402100KFKED	Vishay-Dale	RES, 100 k, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	0402
R28	1	1.00k	CRCW04021K00FKED	Vishay-Dale	RES, 1.00 k, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	0402
R31	1	56.2k	CRCW040256K2FKED	Vishay-Dale	RES, 56.2 k, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	0402
R32	1	1.00Meg	ERJ-2RKF1004X	Panasonic	RES, 1.00 M, 1%, 0.1 W, 0402	0402
R33	1	10.0k	PCF0402-12-10K0BT1	TT Electronics/IRC	RES, 10.0 k, 0.1%, 0.063 W, 0402	0402
R34	1	9.53k	CRCW04029K53FKED	Vishay-Dale	RES, 9.53 k, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	0402
R39	1	30.0k	CRCW040230K0FKED	Vishay-Dale	RES, 30.0 k, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	0402
R40	1	47.5k	CRCW040247K5FKED	Vishay-Dale	RES, 47.5 k, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	0402

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R41	1	51.0k	ERJ-2RKF5102X	Panasonic	RES, 51.0 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0402	0402
R42	1	22.1k	CRCW040222K1FKED	Vishay-Dale	RES, 22.1 k, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	0402
R47	1		ERJ-3GEY0R00V	Panasonic	0 Ohms Jumper 0.1W, 1/10W Chip Resistor 0603 (1608 Metric) Automotive AEC-Q200 Thick Film	0603
RT1	1	100k	B57355V5104F360	TDK	Thermistor NTC, 100k ohm, 1%, 0603	0603
SH1	1					
SWD	1		61300411121	Würth Elektronik	Header, 2.54 mm, 4x1, Gold, TH	Header, 2.54mm, 4x1, TH
U1	1		TPS55289QWRYQRQ1	Texas Instruments	36-V, 8-A Buck-boost Converter with I2C Interface	VQFN21
U2	1		TPS25772CQRQLRQ1	Texas Instruments	Automotive Single/Dual USB Type-C Power Delivery Controller with Buck-Boost Regulator	VQFN-HR29
U3	1		M0L1305QDYYQ1	Texas Instruments	Automotive Mixed-Signal Microcontrollers	SOT23-16THIN
U4	1		LM74700QDBVRQ1	Texas Instruments	Low Iq Always ON Smart Diode Controller, DBV0006A (SOT-23-6)	DBV0006A
U5	1		TUSB4020BIPHRQ1	Texas Instruments	Two-Port High-Speed 480Mbps USB 2.0 Hub, PHP0048E (HTQFP-48)	PHP0048E
U7	1		TPS560430YFQDBVRQ1	Texas Instruments	SIMPLE SWITCHER 36-V, 600-mA Buck Regulator With High-Efficiency Sleep Mode, DBV0006A (SOT-23-6)	DBV0006A
U8	1		TLV73311PQDBVRQ1	Texas Instruments	Capacitor-Free, 300-mA, LDO Regulator w/ Foldback Current Limit, DBV0005A (SOT-23-5)	DBV0005A
Y1	1		ECS-240-20-33-DU-TR	ECS Inc.	Crystal, 24 MHz, 20pF, SMD	3.2x2.5mm
L1, L5	0	50 ohm	BLM31SN500SZ1L	MuRata	Ferrite Bead, 50 ohm @ 100 MHz, 12 A, 1206	1206
R5, R37	0	0	RK73Z1ETTP	KOA Speer	RES, 0, 5%, 0.063 W, AEC-Q200 Grade 0, 0402	0402
R26	0	100k	CRCW0402100KFKED	Vishay-Dale	RES, 100 k, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	0402
R43	0	1.00k	ERA-2APB102X	Panasonic	RES, 1.00 k, 0.1%, 0.063 W, AEC-Q200 Grade 0, 0402	0402

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