

## PMP31245 REV E1 Bill of Materials

Designator	Quantity	Value	PartNumber	Manufacturer	Description	PackageReference
C1	1	4.7uF	GRM31CR71H475KA12L	MuRata	CAP, CERM, 4.7 uF, 50 V, +/- 10%, X7R, 1206	1206
C2	1	0.1uF	GCM155R71H104KE02D	MuRata	CAP, CERM, 0.1 uF, 50 V, +/- 10%, X7R, AEC-Q200 Grade 1, 0402	402
C3	1	0.1uF	C1005X7R1E104M050BB	TDK	CAP, CERM, 0.1 uF, 25 V, +/- 20%, X7R, 0402	402
C4, C5	2	22µF	GRM31CC81E226KE11L	Murata	Chip Multilayer Ceramic Capacitors for General Purpose, 1206, 22uF, X6S, 22%, 10%, 25V	1206
C6	1	10uF	CGA5L1X7R1H106K160AC	TDK	CAP, CERM, 10 µF, 50 V, +/- 10%, X7R, AEC-Q200 Grade 1, 1206	1206
C7, C10, C43	3	2200pF	CGA2B2X7R1H222K050BA	TDK	CAP, CERM, 2200 pF, 50 V, +/- 10%, X7R, AEC-Q200 Grade 1, 0402	402
C8	1	1uF	8.85012E+11	Würth Elektronik	CAP, CERM, 1 uF, 16 V, +/- 10%, X7R, 0603	603
C9, C14, C15, C24, C25	5	22uF	GCM31CR71A226KE02	MuRata	CAP, CERM, 22 uF, 10 V, +/- 10%, X7R, AEC-Q200 Grade 1, 1206	1206
C11	1	2.2uF	GCM188C71A225K	MuRata	CAP, CERM, 2.2 uF, 10 V, +/- 10%, X7S, 0603	603
C12	1	470pF	GCM155R71H471KA37D	MuRata	CAP, CERM, 470 pF, 50 V, +/- 10%, X7R, AEC-Q200 Grade 1, 0402	402
C13	1	22pF	GCM1555C1H220JA16D	MuRata	CAP, CERM, 22 pF, 50 V, +/- 5%, C0G/NP0, AEC-Q200 Grade 1, 0402	402
C16, C17, C18	3	100uF	GRM32ER60J107ME20L	MuRata	CAP, CERM, 100 uF, 6.3 V, +/- 20%, X5R, 1210	1210
C19	1	4700pF	GCM155R71H472KA37D	MuRata	CAP, CERM, 4700 pF, 50 V, +/- 10%, X7R, AEC-Q200 Grade 1, 0402	402
C20	1	10pF	GCM1555C1H100JA16D	MuRata	CAP, CERM, 10 pF, 50 V, +/- 5%, C0G/NP0, AEC-Q200 Grade 1, 0402	402
C21, C33	2	0.1uF	C0402C104K4RACAUTO	Kemet	CAP, CERM, 0.1 uF, 16 V, +/- 10%, X7R, AEC-Q200 Grade 1, 0402	402
C22, C23, C26, C27	4	10uF	GRM188Z71A106MA73D	MuRata	CAP, CERM, 10 uF, 10 V, +/- 20%, X7R, 0603	603
C28	1	0.47uF	GRM188R71C474KA88D	MuRata	CAP, CERM, 0.47 uF, 16 V, +/- 10%, X7R, 0603	603
C29	1	470pF	CGA2B2X7R1H471K050BA	TDK	CAP, CERM, 470 pF, 50 V, +/- 10%, X7R, AEC-Q200 Grade 1, 0402	402
C30, C35, C36, C41, C42, C45	6	0.1uF	GRM188R71H104KA93D	MuRata	CAP, CERM, 0.1 µF, 50 V, +/- 10%, X7R, 0603	603
C31	1	270pF	GRM188R71H271KA01D	MuRata	CAP, CERM, 270 pF, 50 V, +/- 10%, X7R, 0603	603
C32	1	0.01uF	GRM188R72A103KA01D	MuRata	CAP, CERM, 0.01 µF, 100 V, +/- 10%, X7R, 0603	603
C34, C37, C38, C39, C40	5	10uF	GRM32ER71H106KA12L	MuRata	CAP, CERM, 10 µF, 50 V, +/- 10%, X7R, 1210	1210
C44	1	2.2uF	GRM31CR71H225KA88L	MuRata	CAP, CERM, 2.2 µF, 50 V, +/- 10%, X7R, 1206	1206
C46	1	4.7uF	GRM21BR71C475KA73L	MuRata	CAP, CERM, 4.7 µF, 16 V, +/- 10%, X7R, 0805	805
C47	1	0.47uF	GRM188R71E474KA12D	MuRata	CAP, CERM, 0.47 µF, 25 V, +/- 10%, X7R, 0603	603
C48	1	0.068uF	GRM188R71H683KA93D	MuRata	CAP, CERM, 0.068 µF, 50 V, +/- 10%, X7R, 0603	603
D1	1	16V	BZX84C16LT1G	ON Semiconductor	Diode, Zener, 16 V, 225 mW, SOT-23	SOT-23
D2	1	36V	SMBJ36CA	Vishay-Semiconductor	Diode, TVS, Bi, 36 V, SMB	SMB
D3	1	75V	BAV99-7-F	Diodes Inc.	Diode, Switching, 75 V, 0.3 A, SOT-23	SOT-23
D4	1	60V	SS5P6-M3/86A	Vishay-Semiconductor	Diode, Schottky, 60 V, 5 A, TO-277A	TO-277A
J1, J5, J6, J7, J8	5		OSTTA024163	On-Shore Technology	Terminal Block, 2x1, 5.08mm, TH	2x1 Terminal Block
J2, J3, J11, J12, J14, J15, J16	7		HTSW-102-07-G-S	Samtec	Header, 100mil, 2x1, Gold, TH	Header, 100mil, 2x1, TH
J4, J13	2		HTSW-103-07-G-S	Samtec	Header, 100mil, 3x1, Gold, TH	Header, 100mil, 3x1, TH
J9, JP1, JP3, JP4	4		61300311121	Würth Elektronik	Header, 2.54 mm, 3x1, Gold, TH	Header, 2.54mm, 3x1, TH
J10, JP2, JP5	3		61300211121	Würth Elektronik	Header, 2.54 mm, 2x1, Gold, TH	Header, 2.54mm, 2x1, TH

Designator	Quantity	Value	PartNumber	Manufacturer	Description	PackageReference
L1	1	2.2uH	XGL3530-222MEC	Coilcraft	Molded Power Inductor, Shielded, 2.2uH 20%, 7.2A, 23mOhm DCR Max, AEC-Q200, T/R	SMT_IND_3MM2_3M M5
L2	1	3.3uH	XGL3530-332MEC	Coilcraft	Power Inductor, shielded, composite, 20% tol, SMT, RoHS, halogen-free USD 0.580	SMT_IND_3MM2_3M M5
L3	1	470nH	DFE252012PD-R47M	MuRata Toko	Inductor, Shielded, 470 nH, 4.7 A, 0.021 ohm, SMD	1008
L4, L5	2	3.3uH	VCHA054T-3R3MS6	Cyntec	Inductor, 3.3 uH, 8.8 A, 0.028 ohm, AEC-Q200 Grade 0, SMD	5.4x5.2x3.8mm
Q1	1	-60V	SQJ459EP-T1 GE3	Vishay-Siliconix	MOSFET, P-CH, -60 V, -52 A, AEC-Q101, PowerPAK SO-8L	PowerPAK SO-8L
Q2, Q4, Q5	3	50V	PUMD13,115	Nexperia	Trans Digital BJT NPN/PNP 50V 100mA 300mW Automotive 6-Pin TSSOP T/R	TSSOP6
Q3	1	60V	SQJ158EP	Vishay-Siliconix	MOSFET, N-CH, 60 V, 23 A, AEC-Q101, PowerPAK SO-8L	PowerPAK SO-8L
R1, R33	2	100k	CRCW0402100KFKED	Vishay-Dale	RES, 100 k, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	402
R2, R5, R7, R29, R34	5	0	CRCW04020000Z0ED	Vishay-Dale	RES, 0, 5%, 0.063 W, AEC-Q200 Grade 0, 0402	402
R3	1	6.49k	CRCW04026K49FKED	Vishay-Dale	RES, 6.49 k, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	402
R4	1	0	CRCW06030000Z0EA	Vishay-Dale	RES, 0, 5%, 0.1 W, AEC-Q200 Grade 0, 0603	603
R6	1	20.0k	CRCW040220K0FKED	Vishay-Dale	RES, 20.0 k, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	402
R8	1	30.0k	CRCW040230K0FKED	Vishay-Dale	RES, 30.0 k, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	402
R9, R12	2	8.06k	CRCW04028K06FKED	Vishay-Dale	RES, 8.06 k, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	402
R10	1	80.6k	CRCW040280K6FKED	Vishay-Dale	RES, 80.6 k, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	402
R11	1	40.2k	CRCW040240K2FKED	Vishay-Dale	RES, 40.2 k, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	402
R13	1	10	CRCW060310R0FKEA	Vishay-Dale	RES, 10.0, 1%, 0.1 W, 0603	603
R14	1	8.2	CRCW12068R20JNEA	Vishay-Dale	RES, 8.2, 5%, 0.25 W, 1206	1206
R15	1	3.32	CRCW06033R32FKEA	Vishay-Dale	RES, 3.32, 1%, 0.1 W, 0603	603
R16	1	49.9k	CRCW060349K9FKEA	Vishay-Dale	RES, 49.9 k, 1%, 0.1 W, 0603	603
R17	1	4.75	CRCW06034R75FKEA	Vishay-Dale	RES, 4.75, 1%, 0.1 W, 0603	603
R18	1	100	RMCF0402JT100R	Stackpole Electronics Inc	RES, 100, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	402
R19	1	0.008	PRL1632-R008-F-T1	Susumu Co Ltd	RES, 0.008, 1%, 1 W, 0612	612
R20, R21, R22	3	0	ERJ-2GE0R00X	Panasonic	RES, 0, 5%, 0.1 W, AEC-Q200 Grade 0, 0402	402
R23	1	53.6k	CRCW040253K6FKED	Vishay-Dale	RES, 53.6 k, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	402
R24	1	9.53k	CRCW04029K53FKED	Vishay-Dale	RES, 9.53 k, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	402
R25	1	10	CRCW040210R0JNED	Vishay-Dale	RES, 10, 5%, 0.063 W, AEC-Q200 Grade 0, 0402	402
R26	1	200	CRCW0402200RFKED	Vishay-Dale	RES, 200, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	402
R27, R28, R31, R32	4	10.0k	AC0402FR-0710KL	Yageo America	RES, 10.0 k, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	402
R30	1	47	CRCW040247R0JNED	Vishay-Dale	RES, 47, 5%, 0.063 W, AEC-Q200 Grade 0, 0402	402
TP1, TP4, TP6, TP8, TP10	5		5000	Keystone	Test Point, Miniature, Red, TH	Red Miniature Testpoint
TP2, TP5, TP7, TP9, TP11	5		5001	Keystone Electronics, Keystor	Test Point, Miniature, Black, TH	Black Miniature Testpoint
U1	1		LMR43620MSC5RPERQ1	Texas Instruments	36-V, 2-A Buck Converter with 1.5 uA IQ in 2-mm x 2-mm HotRod QFN	VQFN-HR9
U2	1		TPS62810QWRWYRQ1	Texas Instruments	Automotive Low Input Voltage, Adjustable-Frequency Step-down Converter, RWY0009A (VQFN-HR-9)	RWY0009A
U3	1		TPS62850QDRLRQ1	Texas Instruments	2.7-V to 6-V Adjustable-Frequency Step-Down Converter, DRL0008A (SOT-5X3-8)	DRL0008A
U4	1		SN74AUC1G07DBVR	Texas Instruments	Single Buffer/Driver With Open-Drain Output, DBV0005A (SOT-23-5)	DBV0005A
U5	1		LM5150RUMQ1	Texas Instruments	Wide VIN Automotive Low IQ Boost Controller, RUM0016C (WQFN-16)	RUM0016C

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