PMP31252 REV E1 Bill of Materials

Designator	Quantity	Value	PartNumber	Manufacturer	Description	PackageReference
C1, C73	2	330uF	EEE-FT1H331AP	Panasonic	CAP, AL, 330 µF, 50 V, +/- 20%, 0.12 ohm, AEC-Q200 Grade 2, SMD	SMT Radial G
C2, C3, C4, C5, C6, C7, C8, C28, C29, C30, C31, C32, C33, C34, C54, C56, C100, C101	18	10µF	GCM32EC71H106KA03L	Murata	Ceramic Capacitor for Automotive 10uF ±10% 50VDC X7S 1210 Embossed T/R	1210
C9, C51, C52, C53, C99	5	0.01uF	CGA2B3X8R1H103K050BB	TDK	CAP, CERM, 0.01 µF, 50 V,+/- 10%, X8R, AEC-Q200 Grade 0, 0402	0402
C10, C55, C78, C79, C80, C81, C82, C83, C84, C85, C86, C87, C88, C89, C90, C91, C92, C93, C94, C95, C96, C97, C98	23	0.1uF	CGA3E3X8R1H104K080AE	TDK	CAP, CERM, 0.1 µF, 50 V,+/- 10%, X8R, AEC-Q200 Grade 0, 0603	0603
C11	1	4.7uF	CGA6P3X7R1H475K250AB	TDK	CAP, CERM, 4.7 uF, 50 V, +/- 10%, X7R, AEC-Q200 Grade 1, 1210	1210
C12	1	2.2uF	GCM31CR71H225KA55L	MuRata	CAP, CERM, 2.2 uF, 50 V, +/- 10%, X7R, AEC-Q200 Grade 1, 1206	1206
C13	1	1000pF	GCM155R71H102KA37D	MuRata	CAP, CERM, 1000 pF, 50 V, +/- 10%, X7R, AEC-Q200 Grade 1, 0402	0402
C14, C18, C22, C25, C35, C39, C43, C45, C59, C60, C61, C62, C63, C64	14	0.1uF	CGA2B3X7R1E104K050BB	TDK	CAP, CERM, 0.1 µF, 25 V,+/- 10%, X7R, AEC-Q200 Grade 1, 0402	0402
C15, C37	2	0.1uF	GCM155R71H104KE02D	MuRata	CAP, CERM, 0.1 uF, 50 V, +/- 10%, X7R, AEC-Q200 Grade 1, 0402	0402
C16, C17, C36	3	2.2uF	GRM188R71A225KE15J	MuRata	CAP, CERM, 2.2 µF, 10 V,+/- 10%, X7R, AEC-Q200 Grade 1, 0603	0603
C19, C20, C21, C40, C41, C42, C57, C58, C67, C68, C71, C72	12	22uF	GCM31CR71A226KE02L	MuRata	CAP, CERM, 22 uF, 10 V, +/- 10%, X7R, AEC-Q200 Grade 1, 1206	1206
C23, C26, C44, C47	4	0.015uF	CGA2B3X7R1H153K050BB	TDK	CAP, CERM, 0.015 uF, 50 V, +/- 10%, X7R, AEC-Q200 Grade 1, 0402	0402
C24, C46	2	150pF	CGA2B2C0G1H151J050BA	TDK	CAP, CERM, 150 pF, 50 V, +/- 5%, C0G/NP0, AEC-Q200 Grade 1, 0402	0402
C27, C38, C65, C66, C69, C70	6	220uF	T598D227M010ATE025	Kemet	CAP, Tantalum Polymer, 220 uF, 10 V, +/- 20%, 0.025 ohm, AEC-Q200 Grade 1, 7343-31 SMD	7343-31
C48, C49, C50	3	0.1uF	CGA2B3X7R1H104K050BD	TDK	CAP, CERM, 0.1 µF, 50 V,+/- 10%, X7R, AEC-Q200 Grade 1, 0402	0402
C74, C75, C76, C77	4	0.01uF	GRM21BR72A103KA01L	MuRata	CAP, CERM, 0.01 uF, 100 V, +/- 10%, X7R, 0805	0805
C102	1	47uF	EEE-FK1H470XP	Panasonic	CAP, AL, 47 uF, 50 V, +/- 20%, 0.68 ohm, AEC-Q200 Grade 2, SMD	SMT Radial D8
D1, D2	2	40V	FSV340AF	Fairchild Semiconductor	Diode, Schottky, 40 V, 3 A, AEC-Q101, SMAF	SMAF
D3	1	33V	SMBJ33CA-13-F	Diodes Inc.	Diode, TVS, Bi, 33 V, SMB	SMB
J1, J2, J5, J6	4		HMTSW-102-07-G-S-240	Samtec	Header, 100mil, 2x1, Gold, TH	Header, 2.54mm, 2x1, TH
J3	1		800-10-004-10-001000	Mill-Max	Header, 100mil, 4x1, TH	Header, 4x1, 100mil, TH

Designator	Quantity	Value	PartNumber	Manufacturer	Description	PackageReference
J4	1		HTSW-103-07-G-S	Samtec	Header, 100mil, 3x1, Gold, TH	Header, 100mil, 3x1, TH
L1	1	470nH	IHLP3232DZERR47M01	Vishay-Dale	Inductor, Shielded, Powdered Iron, 470 nH, 27 A, 0.00255 ohm, SMD	322x158x322mil
L2, L4	2	4.7uH	XGL6060-472MEC	Coilcraft	Shielded Power Inductors 1.8uH, AEC Qualified SMD	SMT2_6MM51_6MM71
L3, L5, L6	3	3.3uH	XGL1060-332MEC	Coilcraft	Shielded Power Inductors 3.3uH 22A 5.7mOhm	SMT2_10MM0_11MM3
Q1, Q2, Q3, Q4	4		IAUC120N04S6N009ATMA1	Infineon	Trans Mosfet N-ch 40V 120A 8-PIN Pg-tdson T/R	TDSON8
Q5, Q6	2		BUK9J0R9-40H	Nexperia	N-channel 40 V, 0.9 mΩ logic level MOSFET in LFPAK56E	SOT1023
R1	1	10	CRCW060310R0FKEA	Vishay-Dale	RES, 10.0, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
R2	1	1.00k	ERA-2APB102X	Panasonic	RES, 1.00 k, 0.1%, 0.063 W, AEC-Q200 Grade 0, 0402	0402
R3, R19, R48	3	49.9k	ERJ-2RKF4992X	Panasonic	RES, 49.9 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0402	0402
R4, R36	2	2.21	CRCW06032R21FKEA	Vishay-Dale	RES, 2.21, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
R5, R33, R64	3	100k	CRCW0402100KFKED	Vishay-Dale	RES, 100 k, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	0402
R6, R37	2	3m	WSL10203L000FEA	Vishay	3 mOhms ±1% 2W Chip Resistor Wide 2010 (5025 Metric), 1020 Anti-Sulfur, Automotive AEC-Q200, Current Sense, Moisture Resistant, Pulse Withstanding Metal Element	1020
R7	1	3	CRCW04023R00JNED	Vishay-Dale	RES, 3.0, 5%, 0.063 W, AEC-Q200 Grade 0, 0402	0402
R8, R9, R38, R41	4	0	CRCW06030000Z0EA	Vishay-Dale	RES, 0, 5%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
R10, R11, R15, R17, R21, R22, R25, R35, R40, R42, R43, R44, R45, R49, R52, R54, R71	17	0	ERJ-2GE0R00X	Panasonic	RES, 0, 5%, 0.1 W, AEC-Q200 Grade 0, 0402	0402
R12, R23, R46, R51, R58	5	49.9	ERJ-2RKF49R9X	Panasonic	RES, 49.9, 1%, 0.1 W, AEC-Q200 Grade 0, 0402	0402
R13, R50, R53	3	24.9k	CRCW040224K9FKED	Vishay-Dale	RES, 24.9 k, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	0402
R14	1	24k	CRCW040224K0JNED	Vishay-Dale	RES, 24 k, 5%, 0.063 W, AEC-Q200 Grade 0, 0402	0402
R16	1	47.5k	CRCW040247K5FKED	Vishay-Dale	RES, 47.5 k, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	0402
R18, R67	2	11.8k	CRCW040211K8FKED	Vishay-Dale	RES, 11.8 k, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	0402
R20	1	71.5k	CRCW040271K5FKED	Vishay-Dale	RES, 71.5 k, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	0402
R24	1	9.09k	CRCW04029K09FKED	Vishay-Dale	RES, 9.09 k, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	0402
R26, R27, R28, R29	4	0	D55342E07B000ATTR	State of the Art	RES, 0, 1%, 0.25 W, 1206	1206
R30, R31, R32, R34	4	110	RC1206FR-07110RL	Yageo America	RES, 110, 1%, 0.25 W, 1206	1206
R39, R59, R60, R61	4	100k	RMCF0402FT100K	Stackpole Electronics Inc	RES, 100 k, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	0402
R47	1	90.9k	CRCW040290K9FKED	Vishay-Dale	RES, 90.9 k, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	0402
R55	1	2.40k	ERJ-2RKF2401X	Panasonic	RES, 2.40 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0402	0402
R56	1	500µ	CSSH0805FTL500	Stackpole Electronics	500 µOhms ±1% 1W Chip Resistor 0805 (2012 Metric) Automotive AEC-Q200, Current Sense Metal Element	0805
R57	1	100	RMCF0402JT100R	Stackpole Electronics Inc	RES, 100, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	0402
R62	1	1.65k	CRCW04021K65FKED	Vishay-Dale	RES, 1.65 k, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	0402
R63	1	11.5k	CRCW040211K5FKED	Vishay-Dale	RES, 11.5 k, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	0402
R65, R66	2	30.0k	CRCW040230K0FKED	Vishay-Dale	RES, 30.0 k, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	0402
R68	1	1m	HCS2512FT1L00	Stackpole Electronics	1 mOhms ±1% 3W Chip Resistor 2512 (6432 Metric) Automotive AEC-Q200, Current Sense, Moisture Resistant Metal Element	2512
R69	1	0.47	ERJ-3RQFR47V	Panasonic	RES, 0.47, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
R70	1	0.56	ERJ-6RQFR56V	Panasonic	RES, 0.56, 1%, 0.125 W, AEC-Q200 Grade 0, 0805	0805
T1, T2, T3, T4, T5, T6	6		CB35-36-CY	Panduit	Terminal 50A Lug	CB35-36-CY

Designator	Quantity	Value	PartNumber	Manufacturer	Description	PackageReference
TP1, TP5, TP8, TP10	4		5000	Keystone Electronics	Test Point, Miniature, Red, TH	Red Miniature Testpoint
TP2, TP6	2		5004	Keystone Electronics	Test Point, Miniature, Yellow, TH	Yellow Miniature Testpoint
TP3, TP7, TP9, TP11	4		5001	Keystone Electronics	Test Point, Miniature, Black, TH	Black Miniature Testpoint
TP4	1		5003	Keystone Electronics	Test Point, Miniature, Orange, TH	Orange Miniature Testpoint
U1, U2	2		LM25148QRGYRQ1	Texas Instruments	Automotive Synchronous Buck DC/DC Controller with Ultra-Low IQ, Adjustable, 0.8-36V, VQFN24	VQFN24
U3	1		LM74912QRGEQ1	Texas Instruments	Ideal Diode Controller with Integrated Short Circuit Protection with Fault Output	VQFN24

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