

## PMP22270 REV C Bill of Materials

Designator	Quantity	Value	PartNumber	Manufacturer	Description	PackageReference
C1	1	220uF	EEV-FK1J221Q	Panasonic	CAP, AL, 220 uF, 63 V, +/- 20%, 0.16 ohm, AEC-Q200 Grade 2, SMD	SMT Radial H13
C2	1	2.2uF	C3225X7R2A225K230AB	TDK	CAP, CERM, 2.2 uF, 100 V, +/- 10%, X7R	
C3, C4, C6	3	4.7uF	GCM32ER71H475KA55L	MuRata	CAP, CERM, 4.7 uF, 50 V, +/- 10%, X7R, AEC-Q200 Grade 1, 1210	1210
C5, C14	2	1uF	C3216X7R2A105M160AA	TDK	CAP, CERM, 1 uF, 100 V, +/- 20%, X7R, 1206	1206
C7	1	0.047uF	GRM188R71C473KA01D	MuRata	CAP, CERM, 0.047 uF, 16 V, +/- 10%, X7R, 0603	0603
C8	1	10uF	GRM31CR71E106KA12L	MuRata	CAP, CERM, 10 uF, 25 V, +/- 10%, X7R, 1206	1206
C9, C10, C11	3	150uF	EEUED2E151	Panasonic	CAP, AL, 150 uF, 250 V, +/- 20%, TH	18x31.5
C12, C100	2	0.1uF	GRM32DR72E104KW01L	MuRata	CAP, CERM, 0.1 uF, 250 V, +/- 10%, X7R, 1210	1210
C13, C15, C20	3	0.1uF	C0603C104K5RACAUTO	Kemet	CAP, CERM, 0.1 uF, 50 V, +/- 10%, X7R, AEC-Q200 Grade 1, 0603	0603
C16	1	0.47uF	C1608X7R1H474K080AC	TDK	CAP, CERM, 0.47 uF, 50 V, +/- 10%, X7R, 0603	0603
C17, C18	2	1uF	C1608X7R1C105K080AC	TDK	CAP, CERM, 1 uF, 16 V, +/- 10%, X7R, 0603	0603
C19	1	180pF	GRM1885C1H181JA01D	MuRata	CAP, CERM, 180 pF, 50 V, +/- 5%, COG/NPO, 0603	0603
C21	1	100pF	GRM1885C1H101JA01D	MuRata	CAP, CERM, 100 pF, 50 V, +/- 5%, COG/NPO, 0603	0603
C22	1	10uF	GCM21BC71C106KE36L	MuRata	CAP, CERM, 10 uF, 16 V, +/- 10%, X7S, AEC-Q200 Grade 1, 0805	0805
C23, C24	2	0.15uF	CGA3E3X7R1H154K080AB	TDK	CAP, CERM, 0.15 uF, 50 V, +/- 10%, X7R, AEC-Q200 Grade 1, 0603	0603
D1	1		C6D10065A	Cree	Diode Silicon Carbide Schottky 650V 37A (DC) Through Hole TO-220-2	TO220-2
J1, J2	2		691214110002	Würth Elektronik	Terminal Block, 3.5mm, 2x1, Tin, TH	Receptacle, 3.5mm, 2x1, TH
J3	1		PEC02SAAN	Sullins Connector Solutions	Header, 100mil, 2x1, Tin, TH	Header, 2 PIN, 100mil, Tin
L1	1	470uH	LPS6235-474MLB	Coilcraft	Inductor, Shielded Drum Core, Ferrite, 470 uH, 0.26 A, 1.6 ohm, SMD	LPS6235
MP1	1		OMNI-220-18-75-3C	Wakefield-Vette	OmniKlip Heat Sink w/3 clips, 18mm wide, 75mm long, black anodized for TO-220	PTH_HTSNK_75MM0_18MM0
Q1, Q2	2	300V	IPP410N30NAKSA1	Infineon Technologies	MOSFET, N-CH, 300 V, 44 A, TO-220-3	TO-220-3
Q5	1	60V	2N7002P,215	Nexperia	MOSFET, N-CH, 60 V, 0.36 A, SOT-23	SOT-23
R1, R6, R7, R11, R15	5	0	CRCW06030000Z0EA	Vishay-Dale	RES, 0, 5%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
R2	1	499k	CRCW0603499KFKEA	Vishay-Dale	RES, 499 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
R3	1	71.5k	CRCW060371K5FKEA	Vishay-Dale	RES, 71.5 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
R4	1	3.32	CRCW06033R32FKEA	Vishay-Dale	RES, 3.32, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
R5	1	16.9k	CRCW060316K9FKEA	Vishay-Dale	RES, 16.9 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
R8, R13, R21, R23	4	10.0k	CRCW060310K0FKEA	Vishay-Dale	RES, 10.0 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
R9	1	210k	CRCW0603210KFKEA	Vishay-Dale	RES, 210 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
R10	1	49.9	CRCW060349R9FKEA	Vishay-Dale	RES, 49.9, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
R12	1	10.0	CRCW060310R0FKEA	Vishay-Dale	RES, 10.0, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
R14, R16	2	200k	CRCW0805200KFKEA	Vishay-Dale	RES, 200 k, 1%, 0.125 W, AEC-Q200 Grade 0, 0805	0805
R17	1	200k	CRCW0603200KFKEA	Vishay-Dale	RES, 200 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
R18	1	51.1k	CRCW060351K1FKEA	Vishay-Dale	RES, 51.1 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
R19	1	68.1k	CRCW060368K1FKEA	Vishay-Dale	RES, 68.1 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
R20	1	68.1	CRCW060368R1FKEA	Vishay-Dale	RES, 68.1, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
R22, R27, R28, R100	4	1.00k	CRCW06031K00FKEA	Vishay-Dale	RES, 1.00 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
R24	1	4.87k	CRCW06034K87FKEA	Vishay-Dale	RES, 4.87 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
R25	1	0.015	CSRN2512FK15L0	Stackpole Electronics Inc	RES, 0.015, 1%, 2 W, 2512	2512
R26	1	2.00k	CRCW06032K00FKEA	Vishay-Dale	RES, 2.00 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
R29	1	3.09k	CRCW06033K09FKEA	Vishay-Dale	RES, 3.09 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	0603

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R30	1	30.1	CRCW060330R1FKEA	Vishay-Dale	RES, 30.1, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
R31	1	100k	CRCW0603100KFKEA	Vishay-Dale	RES, 100 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
T1	1		750318760	Würth Electronics	TRANSFORMER, 25uH, 1:1 turn ratio	TRANSFORMER_PT H_14
TP1, TP3, TP4, TP5, TP6, TP7, TP10	7		5000	Keystone	Test Point, Miniature, Red, TH	Red Miniature Testpoint
TP2, TP8, TP11, TP12, TP16	5		5001	Keystone	Test Point, Miniature, Black, TH	Black Miniature Testpoint
TP9, TP14	2		5003	Keystone	Test Point, Miniature, Orange, TH	Orange Miniature Testpoint
U1	1		LM5165QDRCTQ1	Texas Instruments	3V-65V, 150mA Synchronous Buck Converter With Ultra-Low IQ, DRC0010J (VSON-10)	DRC0010J
U2	1		LM5022QDGSRQ1	Texas Instruments	2.2MHz 60-V Low Side Controller for Boost, SEPIC and Flyback, DGS0010A (VSSOP-10)	DGS0010A
U3	1		UCC27322QDRQ1	Texas Instruments	Automotive Catalog Single 9-A High Speed Low-Side MOSFET Driver With Enable, D0008A (SOIC-8)	D0008A
U4	1		SN74LV1T04DBVR	Texas Instruments	Single Power Supply INVERTER Gate logic level shifter, DBV0005A (SOT- 23-5)	DBV0005A
U5	1		TL432BQDBZRQ1	Texas Instruments	Automotive Catalog Adjustable Precision Shunt Regulator, 34 ppm / degC, 100 mA, -40 to 125 degC, 3-pin SOT-23 (DBZ), Green (RoHS & no Sb/Br)	DBZ0003A
C25	0	10pF	C1608C0G1H100D080AA	TDK	CAP, CERM, 10 pF, 50 V, +/- 5%, C0G/NP0, 0603	0603
Q3, Q4	0	700V	IPW65R019C7FKSA1	Infineon Technologies	MOSFET, N-CH, 700 V, 0.019 Ohm, TO-247	TO-247

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Mailing Address: Texas Instruments, Post Office Box 655303, Dallas, Texas 75265  
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