



PMP23470 REV D Bill of Materials

Designator	Quantity	Value	PartNumber	Manufacturer	Description	PackageReference
C16	1	47pF	885012005044	Würth Elektronik	CAP, CERM, 47 pF, 50 V, +/- 5%, C0G/NP0, 0402	0402
C17	1	120pF	GRM1555C1H121JA01D	MuRata	CAP, CERM, 120 pF, 50 V, +/- 5%, C0G/NP0, 0402	0402
C24	1	150pF	885012005062	Würth Elektronik	CAP, CERM, 150 pF, 50 V, +/- 5%, C0G/NP0, 0402	0402
C21	1	0.1uF	885012205037	Würth Elektronik	CAP, CERM, 0.1 uF, 16 V, +/- 10%, X7R, 0402	0402
C20	1	0.047uF	C1608X7R1H473K080AA	TDK	CAP, CERM, 0.047 uF, 50 V, +/- 10%, X7R, 0603	0603
C9, C14, C23	3	0.1uF	C0603C104K5RACTU	Kemet	CAP, CERM, 0.1 uF, 50 V, +/- 10%, X7R, 0603	0603
C11, C15, C18	3	1uF	C0603C105K3RACTU	Kemet	CAP, CERM, 1 uF, 25 V, +/- 10%, X7R, 0603	0603
C10, C13	2	100pF	GRM21A5C2E101JW01D	MuRata	CAP, CERM, 100 pF, 250 V, +/- 5%, C0G/NP0, 0805	0805
C3, C5	2	0.1uF	885012207128	Würth Elektronik	CAP, CERM, 0.1 uF, 100 V, +/- 10%, X7R, 0805	0805
C4	1	2.2uF	C1210C225K1RAC7800	Kemet	CAP, CERM, 2.2 uF, 100 V, +/- 10%, X7R, 1210	1210
C7, C8, C26	3	4.7uF	C1210C475K5RACAUTO	Kemet	CAP, CERM, 4.7 uF, 50 V, +/- 10%, X7R, AEC-Q200 Grade 1, 1210	1210
C1, C12	2	4700pF	1812GC472KA1	AVX	CAP, CERM, 4700 pF, 2000 V, +/- 10%, X7R, 1812	1812
C2	1	22uF	EEE-FK2A220P	Panasonic	CAP, AL, 22 uF, 100 V, +/- 20%, 1.3 ohm, AEC-Q200 Grade 2, SMD	SMT Radial F
D1	1	200V	ES2DA-13-F	Diodes Inc.	Diode, Superfast Rectifier, 200 V, 2 A, SMA	SMA
D2	1	200V	PDU620-13	Diodes Inc.	Diode, Ultrafast, 200 V, 6 A, PowerDI5	PowerDI5
D3	1	100V	1N4148W-7-F	Diodes Inc.	Diode, Ultrafast, 100 V, 0.15 A, SOD-123	SOD-123
D4	1	20V	MMSZ5250BS-7-F	Diodes Inc.	Diode, Zener, 20 V, 200 mW, SOD-323	SOD-323
D5, D8, D9	3	100V	BAS516,115	Nexperia	Diode, Switching, 100 V, 0.25 A, SOD-523	SOD-523
D6	1	10V	MMSZ5240BS-7-F	Diodes Inc.	Diode, Zener, 10 V, 200 mW, SOD-323	SOD-323
J1, J2	2		ED555/2DS	On-Shore Technology	Terminal Block, 3.5mm Pitch, 2x1, TH	7.0x8.2x6.5mm
L1	1	3.3uH	EPL2014-332MLB	Coilcraft	Inductor, Shielded, Ferrite, 3.3 uH, 1.1 A, 0.15 ohm, SMD	EPL2014
Q1	1	100V	ZVN3310FTA	Diodes Inc.	MOSFET, N-CH, 100 V, 0.1 A, SOT-23	SOT-23
Q2	1	150V	BSC520N15NS3 G	Infineon Technologies	MOSFET, N-CH, 150 V, 21 A, PG-TDSON-8	PG-TDSON-8
Q3	1	100 V	FCX493TA	Diodes Inc.	Transistor, NPN, 100 V, 1 A, SOT-89	SOT-89
Q4	1	20 V	FMMT718TA	Diodes Inc.	Transistor, PNP, 20 V, 1.5 A, SOT-23	SOT-23
R13	1	0	CRCW04020000Z0ED	Vishay-Dale	RES, 0, 5%, 0.063 W, AEC-Q200 Grade 0, 0402	0402
R4	1	4.7	CRCW04024R70JNED	Vishay-Dale	RES, 4.7, 5%, 0.063 W, 0402	0402
R14	1	10	CRCW040210R0FKED	Vishay-Dale	RES, 10.0, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	0402
R8, R15	2	1.00k	CRCW04021K00FKED	Vishay-Dale	RES, 1.00 k, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	0402
R16	1	2.00k	CRCW04022K00FKED	Vishay-Dale	RES, 2.00 k, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	0402
R19	1	2.49k	CRCW04022K49FKED	Vishay-Dale	RES, 2.49 k, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	0402
R22	1	3.48k	CRCW04023K48FKED	Vishay-Dale	RES, 3.48 k, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	0402
R17	1	4.99k	CRCW04024K99FKED	Vishay-Dale	RES, 4.99 k, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	0402
R11	1	6.19k	CRCW04026K19FKED	Vishay-Dale	RES, 6.19 k, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	0402
R9	1	10.0k	CRCW040210K0FKED	Vishay-Dale	RES, 10.0 k, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	0402
R21	1	28.0k	CRCW040228K0FKED	Vishay-Dale	RES, 28.0 k, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	0402
R18	1	30.1k	CRCW040230K1FKED	Vishay-Dale	RES, 30.1 k, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	0402
R5, R23	2	100k	CRCW0402100KFKED	Vishay-Dale	RES, 100 k, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	0402
R6	1	150k	CRCW0402150KFKED	Vishay-Dale	RES, 150 k, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	0402
R10	1	0.025	WSL0805R0250FEA	Vishay-Dale	RES, 0.025, 1%, 0.25 W, 0805	0805
R2	1	20	ERJ-6GEYJ200V	Panasonic	RES, 20, 5%, 0.125 W, AEC-Q200 Grade 0, 0805	0805
R1	1	39k	CRCW080539K0JNEA	Vishay-Dale	RES, 39 k, 5%, 0.125 W, AEC-Q200 Grade 0, 0805	0805
R3, R7	2	51	CRCW251251R0JNEG	Vishay-Dale	RES, 51, 5%, 1 W, AEC-Q200 Grade 0, 2512	2512
T1	1		ZF2955-AE	Coilcraft	Flyback Transformer, EP7 8pin SMD 40-57Vin, 750kHz, Output 24V/0.7A, 11.6V/0.02A, Turns Ratio 1:1:0.5	SMT_XFRMR_13MM 2 10MM9
U1	1		LM51561DSSR	Texas Instruments	2.2-MHz Wide VIN 65-V Non-synchronous Boost/SEPIC/Flyback Controller with Dual Random Spread Spectrum, DSS0012B (WSON-12)	DSS0012B

Designator	Quantity	Value	PartNumber	Manufacturer	Description	PackageReference
U3	1		TL431LIAIDBZR	Texas Instruments	Programmable Shunt Regulator with Optimized Reference Current, DBZ0003A (SOT-23-3)	DBZ0003A
U4	1		LM4040D50IDBZR	Texas Instruments	Precision Micropower Shunt Voltage Reference, 1% accuracy, 5 V, 15 ppm / degC, 15 mA, -40 to 85 degC, 3-pin SOT-23 (DBZ), Green (RoHS & no Sb/Br)	DBZ0003A
C25	0	0.068uF	885012206070	Würth Elektronik	CAP, CERM, 0.068 µF, 25 V, +/- 10%, X7R, 0603	0603
R12	0	0	CRCW04020000Z0ED	Vishay-Dale	RES, 0, 5%, 0.063 W, AEC-Q200 Grade 0, 0402	0402
R24	0	1.00k	CRCW04021K00FKED	Vishay-Dale	RES, 1.00 k, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	0402
Option						
C19	0	100pF	885012005061	Würth Elektronik	CAP, CERM, 100 pF, 50 V, +/- 5%, C0G/NP0, 0402	0402
C22	1	0.01uF	885012206089	Würth Elektronik	CAP, CERM, 0.01 µF, 50 V, +/- 10%, X7R, 0603	0603
R20	1	30.1k	CRCW040230K1FKED	Vishay-Dale	RES, 30.1 k, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	0402
U2B	1		ISOM8110DFG	Texas Instruments	3.75-kVRMS, Single-Channel Opto-Emulator with Transistor Output	SOIC4
Option						
C19	0	100pF	885012005061	Würth Elektronik	CAP, CERM, 100 pF, 50 V, +/- 5%, C0G/NP0, 0402	0402
C22	0	0.033uF	C1608X7R1H333K080AA	TDK	CAP, CERM, 0.033 uF, 50 V, +/- 10%, X7R, 0603	0603
R20	0	7.50k	CRCW04027K50FKED	Vishay-Dale	RES, 7.50 k, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	0402
U2A	0		TCMT1107	Vishay-Semiconductor	Optocoupler, 3.75 kV, 80-160% CTR, SMT	SOP-4

IMPORTANT NOTICE AND DISCLAIMER

TI PROVIDES TECHNICAL AND RELIABILITY DATA (INCLUDING DATA SHEETS), DESIGN RESOURCES (INCLUDING REFERENCE DESIGNS), APPLICATION OR OTHER DESIGN ADVICE, WEB TOOLS, SAFETY INFORMATION, AND OTHER RESOURCES "AS IS" AND WITH ALL FAULTS, AND DISCLAIMS ALL WARRANTIES, EXPRESS AND IMPLIED, INCLUDING WITHOUT LIMITATION ANY IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OR NON-INFRINGEMENT OF THIRD PARTY INTELLECTUAL PROPERTY RIGHTS.

These resources are intended for skilled developers designing with TI products. You are solely responsible for (1) selecting the appropriate TI products for your application, (2) designing, validating and testing your application, and (3) ensuring your application meets applicable standards, and any other safety, security, regulatory or other requirements.

These resources are subject to change without notice. TI grants you permission to use these resources only for development of an application that uses the TI products described in the resource. Other reproduction and display of these resources is prohibited. No license is granted to any other TI intellectual property right or to any third party intellectual property right. TI disclaims responsibility for, and you will fully indemnify TI and its representatives against, any claims, damages, costs, losses, and liabilities arising out of your use of these resources.

TI's products are provided subject to [TI's Terms of Sale](#) or other applicable terms available either on [ti.com](https://www.ti.com) or provided in conjunction with such TI products. TI's provision of these resources does not expand or otherwise alter TI's applicable warranties or warranty disclaimers for TI products.

TI objects to and rejects any additional or different terms you may have proposed.

Mailing Address: Texas Instruments, Post Office Box 655303, Dallas, Texas 75265
Copyright © 2024, Texas Instruments Incorporated