

PMP9730 REV E Bill of Materials

Designator	Quantity	Value	PartNumber	Manufacturer	Description	PackageReference
!PCB1	1		PMP9730	Any	Printed Circuit Board	
C1	1	1uF	C1005X5R1E105K050BC	TDK	CAP, CERM, 1uF, 25V, +/-10%, X5R, 0402	0402
C2, C8, C21	3	10uF	GRM21BR61C106KE15L	MuRata	CAP, CERM, 10uF, 16V, +/-10%, X5R, 0805	0805
C3	1	0.33uF	B32672Z5334K	EPCOS Inc	CAP, Film, 0.33uF, 520V, +/-10%, TH	18x14.5x8.5mm
C4	1	0.47uF	890334025039CS	EPCOS Inc	CAP FILM 0.47UF 10% 310VAC RAD	13x6x12mm
C5, C6, C7	3	680uF	APSG200ELL681MJB5S	Nippon Chemi-Con	CAP, AL, 680uF, 20V, +/-20%, 0.012 ohm, TH	10x11.5mm
C10	1	0.01uF	GRM155R71E103KA01D	MuRata	CAP, CERM, 0.01uF, 25V, +/-10%, X7R, 0402	0402
C11, C300	2	10uF	GRM31CR61E106KA12L	MuRata	CAP, CERM, 10 uF, 25 V, +/- 10%, X5R, 1206	1206
C13, C14, C18, C303	4	0.1uF	C1005X7R1H104K050BB	TDK	CAP, CERM, 0.1uF, 50V, +/-10%, X7R, 0402	0402
C15	1	1000pF	C1005X7R1H102K	TDK	CAP, CERM, 1000pF, 50V, +/-10%, X7R, 0402	0402
C16, C19	2	10pF	GRM1555C1H100JA01D	MuRata	CAP, CERM, 10pF, 50V, +/-5%, COG/NP0, 0402	0402
C17	1	100pF	GRM1555C1H101JA01D	MuRata	CAP, CERM, 100pF, 50V, +/-5%, COG/NP0, 0402	0402
C20	1	2.2uF	C1005X5R1E225K050BC	TDK	CAP, CERM, 2.2uF, 25V, +/-10%, X5R, 0402	0402
C301	1	1uF	C1005X5R0J105M	TDK	CAP, CERM, 1uF, 6.3V, +/-20%, X5R, 0402	0402
C302	1	47uF	C3216X5R1E476M160AC	TDK	CAP, CERM, 47 uF, 25 V, +/- 20%, X5R, 1206	1206
C304	1	DNP	N/A	N/A	Do Not Populate	0402
C400	1	2200pF	DE2E3KY222MA2BM01	MuRata	CAP, CERM, 2200pF, 250V, +/-20%, KY, Radial D8x5mm	Radial D8x5mm
D1	1	1.1V	DF1506S-T	Diodes Inc.	Diode, Switching-Bridge, 600V, 1.5A, DF-S	DF-S
D2	1	100V	SMCJ100A	Littelfuse	Diode, TVS, Uni, 100V, 1500W, SMC	SMC
D3	1	1.05V	MURA160T3G	ON Semiconductor	Diode, Ultrafast, 600V, 1A, SMA	SMA
D5, D7, D10, D11, D303	5	100V	BAS316,115	NXP Semiconductor	Diode, Ultrafast, 100V, 0.25A, SOD-323	SOD-323
D8, D9, D301	3	600V	CGRM4005-G	Comchip Technology	Diode, P-N, 600V, 1A, 3.9x1.7x1.8mm	3.9x1.7x1.8mm
D12	1	12V	BZX384-C12,115	NXP Semiconductor	Diode, Zener, 12V, 300mW, SOD-323	SOD-323
D300	1	68V	BZX84C68LT1G	ON Semiconductor	Diode, Zener, 68V, 225mW, SOT-23	SOT-23
D302	1	200V	RF071M2S	Rohm	Diode, Ultrafast, 200V, 1A, SOD-123	SOD-123
F1	1		39213150000	Littelfuse	Fuse, 3.15A, 250V, TH	8x8.5x4mm
L1	1	1mH	7447709102	Würth Elektronik eiSos	Inductor, Shielded Drum Core, Ferrite, 1mH, 0.9A, 1.2 ohm, SMD	WE-PD-XXL
L2	1	1.8mH	744861018	Würth Elektronik eiSos	Coupled inductor, 1.8mH, 1A, 0.31 ohm, TH	17x12.32x15.32 mm
L3	1	50 ohm	HI1206T500R-10	Laird-Signal Integrity Products	Ferrite Bead, 50 ohm @ 100MHz, 6A, 1206	1206
Q3	1	100V	BSS123	Fairchild Semiconductor	MOSFET, N-CH, 100V, 0.17A, SOT-23	SOT-23
Q4	1	100V	CSD19531Q5A	Texas Instruments	MOSFET, N-CH, 100V, 16A, SON 5x6mm	SON 5x6mm
Q5	1	600V	AOD7S60	AOS	MOSFET, N-CH, 600V, 7A, DPAK	DPAK
Q6	1	0.2V	MMBT3904-7-F	Diodes Inc.	Transistor, NPN, 40V, 0.2A, SOT-23	SOT-23
Q7	1	0.25V	MMBT3906-7-F	Diodes Inc.	Transistor, PNP, 40V, 0.2A, SOT-23	SOT-23
R4	1	22	CRCW251222R0JNEGHP	Vishay-Dale	RES, 22 ohm, 5%, 1.5W, 2512	2512
R6	1	301k	CRCW0402301KFKED	Vishay-Dale	RES, 301k ohm, 1%, 0.063W, 0402	0402
R7	1	5.1	CRCW04025R10JNED	Vishay-Dale	RES, 5.1 ohm, 5%, 0.063W, 0402	0402
R8	1	30.1k	CRCW040230K1FKED	Vishay-Dale	RES, 30.1k ohm, 1%, 0.063W, 0402	0402
R9, R15	2	590k	CRCW1206590KFKEA	Vishay-Dale	RES, 590k ohm, 1%, 0.25W, 1206	1206
R10, R12	2	0	CRCW04020000Z0ED	Vishay-Dale	RES, 0 ohm, 5%, 0.063W, 0402	0402
R11, R20	2	10.0k	CRCW040210K0FKED	Vishay-Dale	RES, 10.0k ohm, 1%, 0.063W, 0402	0402
R13	1	249k	CRCW0402249KFKED	Vishay-Dale	RES, 249k ohm, 1%, 0.063W, 0402	0402
R14, R303, R304, R305	4	100k	CRCW0402100KFKED	Vishay-Dale	RES, 100k ohm, 1%, 0.063W, 0402, RES, 100k ohm, 1%, 0.063W, 0402, RES, 100 k, 1%, 0.063 W, 0402, RES, 100 k, 1%, 0.063 W, 0402	0402

Designator	Quantity	Value	PartNumber	Manufacturer	Description	PackageReference
R16, R19	2	1.00k	CRCW04021K00FKED	Vishay-Dale	RES, 1.00k ohm, 1%, 0.063W, 0402	0402
R17	1	7.32k	CRCW04027K32FKED	Vishay-Dale	RES, 7.32k ohm, 1%, 0.063W, 0402	0402
R18	1	0.22	ERJ-8RQFR22V	Panasonic	RES, 0.22 ohm, 1%, 0.25W, 1206	1206
R21, R22	2	301	CRCW0603301RFKEA	Vishay-Dale	RES, 301 ohm, 1%, 0.1W, 0603	0603
R23	1	499k	CRCW0402499KFKED	Vishay-Dale	RES, 499k ohm, 1%, 0.063W, 0402	0402
R24	1	20.0k	CRCW040220K0FKED	Vishay-Dale	RES, 20.0k ohm, 1%, 0.063W, 0402	0402
R25	1	4.99k	CRCW04024K99FKED	Vishay-Dale	RES, 4.99k ohm, 1%, 0.063W, 0402	0402
R26	1	2.49k	CRCW04022K49FKED	Vishay-Dale	RES, 2.49k ohm, 1%, 0.063W, 0402	0402
R27	1	130k	CRCW0402130KFKED	Vishay-Dale	RES, 130k ohm, 1%, 0.063W, 0402	0402
R100	1	100	CRCW0805100RJNEA	Vishay-Dale	RES, 100 ohm, 5%, 0.125W, 0805	0805
R300	1	7.50k	CRCW04027K50FKED	Vishay-Dale	RES, 7.50 k, 1%, 0.063 W, 0402	0402
R301	1	100	RG2012P-101-B-T5	Susumu Co Ltd	RES, 100 ohm, 0.1%, 0.125W, 0805	0805
R302	1	39.2k	CRCW040239K2FKED	Vishay-Dale	RES, 39.2k ohm, 1%, 0.063W, 0402	0402
R306	1	21.0k	CRCW040221K0FKED	Vishay-Dale	RES, 21.0 k, 1%, 0.063 W, 0402	0402
R307	1	DNP	N/A	N/A	Do Not Populate	1206
R308	1	1.00	CRCW04021R00FKED	Vishay-Dale	RES, 1.00, 1%, 0.063 W, 0402	0402
T1	1	380uH	7508112341	Würth Elektronik eiSos	Transformer, 380uH, TH	33x14.75x26.3mm
T300	1	4mH	750314940	Würth Elektronik eiSos	Transformer, 4mH, SMT	8-Pin SMD, Body 8.12 x 9.78 mm, Pitch 2.49 mm
TP1, TP3	2	White	5012	Keystone	Test Point, Multipurpose, White, TH	White Multipurpose Testpoint
TP2	1	Red	5010	Keystone	Test Point, Multipurpose, Red, TH	Red Multipurpose Testpoint
TP4	1	Black	5011	Keystone	Test Point, Multipurpose, Black, TH	Black Multipurpose Testpoint
U1	1		TPS71550DCK	Texas Instruments	50 mA, 24 V, 3.2-µA Supply Current Low-Dropout Linear Regulator in SC70 Package, DCK0005A	DCK0005A
U2	1		UCC24610DRB	Texas Instruments	GREEN Rectifier Controller Device, DRB0008A	DRB0008A
U3	1		UCC28051D	Texas Instruments	TRANSITION MODE PFC CONTROLLER	D0008A
U4	1		VOS617A-7X001T	Vishay-Semiconductor	OptoCoupler, Phototransistor, 80-160%, SSOP-4	7x2.12x2.6mm
U5	1		TL431AIDBZ	Texas Instruments	PRECISION PROGRAMMABLE REFERENCE, DBZ0003A	DBZ0003A
U300	1		UCC28910D	Texas Instruments	LOW STAND-BY POWER, CV / CC PWM HV SWITCHER WITH PRIMARY SIDE REGULATION, D0007A	D0007A
U301	1		TPS2592ZADRC	Texas Instruments	5 V / 12 V eFuse with Over Voltage Protection and Blocking FET Control, DRC0010J	DRC0010J

IMPORTANT NOTICE FOR TI REFERENCE DESIGNS

Texas Instruments Incorporated ("TI") reference designs are solely intended to assist designers ("Buyers") who are developing systems that incorporate TI semiconductor products (also referred to herein as "components"). Buyer understands and agrees that Buyer remains responsible for using its independent analysis, evaluation and judgment in designing Buyer's systems and products.

TI reference designs have been created using standard laboratory conditions and engineering practices. **TI has not conducted any testing other than that specifically described in the published documentation for a particular reference design.** TI may make corrections, enhancements, improvements and other changes to its reference designs.

Buyers are authorized to use TI reference designs with the TI component(s) identified in each particular reference design and to modify the reference design in the development of their end products. HOWEVER, NO OTHER LICENSE, EXPRESS OR IMPLIED, BY ESTOPPEL OR OTHERWISE TO ANY OTHER TI INTELLECTUAL PROPERTY RIGHT, AND NO LICENSE TO ANY THIRD PARTY TECHNOLOGY OR INTELLECTUAL PROPERTY RIGHT, IS GRANTED HEREIN, including but not limited to any patent right, copyright, mask work right, or other intellectual property right relating to any combination, machine, or process in which TI components or services are used. Information published by TI regarding third-party products or services does not constitute a license to use such products or services, or a warranty or endorsement thereof. Use of such information may require a license from a third party under the patents or other intellectual property of the third party, or a license from TI under the patents or other intellectual property of TI.

TI REFERENCE DESIGNS ARE PROVIDED "AS IS". TI MAKES NO WARRANTIES OR REPRESENTATIONS WITH REGARD TO THE REFERENCE DESIGNS OR USE OF THE REFERENCE DESIGNS, EXPRESS, IMPLIED OR STATUTORY, INCLUDING ACCURACY OR COMPLETENESS. TI DISCLAIMS ANY WARRANTY OF TITLE AND ANY IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, QUIET ENJOYMENT, QUIET POSSESSION, AND NON-INFRINGEMENT OF ANY THIRD PARTY INTELLECTUAL PROPERTY RIGHTS WITH REGARD TO TI REFERENCE DESIGNS OR USE THEREOF. TI SHALL NOT BE LIABLE FOR AND SHALL NOT DEFEND OR INDEMNIFY BUYERS AGAINST ANY THIRD PARTY INFRINGEMENT CLAIM THAT RELATES TO OR IS BASED ON A COMBINATION OF COMPONENTS PROVIDED IN A TI REFERENCE DESIGN. IN NO EVENT SHALL TI BE LIABLE FOR ANY ACTUAL, SPECIAL, INCIDENTAL, CONSEQUENTIAL OR INDIRECT DAMAGES, HOWEVER CAUSED, ON ANY THEORY OF LIABILITY AND WHETHER OR NOT TI HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES, ARISING IN ANY WAY OUT OF TI REFERENCE DESIGNS OR BUYER'S USE OF TI REFERENCE DESIGNS.

TI reserves the right to make corrections, enhancements, improvements and other changes to its semiconductor products and services per JESD46, latest issue, and to discontinue any product or service per JESD48, latest issue. Buyers should obtain the latest relevant information before placing orders and should verify that such information is current and complete. All semiconductor products are sold subject to TI's terms and conditions of sale supplied at the time of order acknowledgment.

TI warrants performance of its components to the specifications applicable at the time of sale, in accordance with the warranty in TI's terms and conditions of sale of semiconductor products. Testing and other quality control techniques for TI components are used to the extent TI deems necessary to support this warranty. Except where mandated by applicable law, testing of all parameters of each component is not necessarily performed.

TI assumes no liability for applications assistance or the design of Buyers' products. Buyers are responsible for their products and applications using TI components. To minimize the risks associated with Buyers' products and applications, Buyers should provide adequate design and operating safeguards.

Reproduction of significant portions of TI information in TI data books, data sheets or reference designs is permissible only if reproduction is without alteration and is accompanied by all associated warranties, conditions, limitations, and notices. TI is not responsible or liable for such altered documentation. Information of third parties may be subject to additional restrictions.

Buyer acknowledges and agrees that it is solely responsible for compliance with all legal, regulatory and safety-related requirements concerning its products, and any use of TI components in its applications, notwithstanding any applications-related information or support that may be provided by TI. Buyer represents and agrees that it has all the necessary expertise to create and implement safeguards that anticipate dangerous failures, monitor failures and their consequences, lessen the likelihood of dangerous failures and take appropriate remedial actions. Buyer will fully indemnify TI and its representatives against any damages arising out of the use of any TI components in Buyer's safety-critical applications.

In some cases, TI components may be promoted specifically to facilitate safety-related applications. With such components, TI's goal is to help enable customers to design and create their own end-product solutions that meet applicable functional safety standards and requirements. Nonetheless, such components are subject to these terms.

No TI components are authorized for use in FDA Class III (or similar life-critical medical equipment) unless authorized officers of the parties have executed an agreement specifically governing such use.

Only those TI components that TI has specifically designated as military grade or "enhanced plastic" are designed and intended for use in military/aerospace applications or environments. Buyer acknowledges and agrees that any military or aerospace use of TI components that have **not** been so designated is solely at Buyer's risk, and Buyer is solely responsible for compliance with all legal and regulatory requirements in connection with such use.

TI has specifically designated certain components as meeting ISO/TS16949 requirements, mainly for automotive use. In any case of use of non-designated products, TI will not be responsible for any failure to meet ISO/TS16949.