

PMP6020

REFERENCE DESIGNATOR	QTY	VALUE	DESCRIPTION	SIZE	MFGR'S P/N	MFGR
C1	1	0.33µF	CAP, FILM, 0.33uF, 450V, Radial	Radial	ECW-FD2W334KQ	Panasonic
C2	1	0.12µF	CAP, FILM, 0.12uF, 450V, Radial	Radial	ECW-FD2W124J4	Panasonic
C3	1	220pF	CAP, CERM, 220uF, 200V, X7R, 10%, 0805	0805 (2012 Metric)	CC0805KRX7RABB221	Yageo
C4	1	47uF	CAP, AL, 47uF, 200V, +/-20%, 0.380955 ohm, TH	12.5x20	EEUED2D470	Panasonic
C5	1	0.1uF	CAP, CERM, 0.1uF, 100V, +/-10%, X7R, 0805	0805	CL21B104KCF5FNE	Samsung
C6	1	10uF	CAP, CERM, 10uF, 10V, +/-10%, X7R, 0805	0805	GRM21BR71A106KE51L	MuRata
C7	1	100uF	CAP, AL, 100uF, 100V, +/-20%, TH	10x20mm	ECA-2AHG101	Panasonic
C8, C9	2	0.47uF	CAP, CERM, 0.47 µF, 100 V, +/- 10%, X7R, 0805	0805	GRM21BR72A474KA73L	MuRata
C10	1	220µF	CAP, Alum, 220uF, 50V, +/-20%, Radial	Radial, Can	UPW1H221MPD	Nichicon
C11	1	0.01uF	CAP, CERM, 0.01 µF, 25 V, +/- 5%,C0G/NP0, 0805	0805	C2012C0G1E103J	TDK
C12	1	470µF	CAP, Alum, 470uF, 25V, +/-20%, Radial	Radial, Can	UPW1E471MPD	Nichicon
D1, D25, D34, D39	4	200V	Diode, Switching, 200V, 0.2A, SOT-23	SOT-23	BAS21-7-F	Diodes Inc.
D2, D3, D4, D5, D7, D8, D9, D10, D12, D13, D14, D15, D17, D18, D19, D20, D22, D23, D26, D27, D29, D30, D31, D32, D33, D35, D37, D38, D40, D41, D42, D43, D44, D45, D46, D47, D48, D49, D50, D51, D52, D53, D54, D55, D56, D57, D58, D59, D60, D61	50		LED SMD NEUTRAL WHITE 4000K	2-SMD	STW8C2SA-J19K24-EA	Seoul Semi
D6	1		Diode, Switching-Bridge, 600V, 0.8A, MiniDIP	MiniDIP	HD06-T	Diodes Inc.
D11	1	24V	Diode, Zener, 24V, 225mW, SOT-23	SOT-23	BZX84C24LT1G	ON Semiconductor
D16	1	12V	Diode, Zener, 12V, 300mW, SOT-23	SOT-23	AZ23C12-7-F	Diodes Inc.
D21	1	75V	Diode, Switching, 75V, 0.3A, SOT-23	SOT-23	BAV99-7-F	Diodes Inc.
D24	1	3.3V	Diode, Zener, 3.3 V, 225 mW, SOT-23	SOT-23	BZX84C3V3LT1G	ON Semiconductor
D28	1	68V	Diode, Zener, 68V, 225mW, SOT-23	SOT-23	BZX84C68LT1G	ON Semiconductor
D36	1	12V	Diode, Zener, 12V, 225mW, SOT-23	SOT-23	BZX84C12LT1G	ON Semiconductor
D62	1	100V	Diode, P-N, 100 V, 0.2 A, SOT-23	SOT-23	MMBD914	Fairchild Semiconductor
H1, H2, H3, H4	4		MACHINE SCREW PAN PHILLIPS 4-40		PMS 440 0031 PH	B&F Fastener Supply
Q1	1	200V	MOSFET, N-CH, 200V, 0.6A, TSOP-6	TSOP-6	IRF5801TRPBF	International Rectifier
Q2	1	0.25V	Transistor, NPN, 140V, 0.6A, SOT-23	SOT-23	MMBT5550LT1G	ON Semiconductor
Q3	1	600V	MOSFET, N-CH, 600V, 2A, DPAK	DPAK	AOD2N60	AOS
Q4	1	0.2V	Transistor, NPN, 40V, 0.2A, SOT-23	SOT-23	MMBT3904-7-F	Diodes Inc.
R1	1	1.00k	RES, 1.00k ohm, 1%, 0.125W, 0805	0805	CRCW08051K00FKEA	Vishay-Dale
R2, R12, R22, R27	4	1.00	RES, 1.00 ohm, 1%, 0.125W, 0805	0805	RMCF0805FT1R00	Stackpole Electronics Inc
R3, R4	2	820	RES, 820 ohm, 5%, 1.5W, 2512	2512	RPC2512JT820R	Stackpole Electronics Inc
R5	1	1.00Meg	RES, 1.00Meg ohm, 1%, 0.25W, 1206	1206	CRCW12061M00FKEA	Vishay-Dale
R6, R25, R29	3	10.0k	RES, 10.0k ohm, 1%, 0.125W, 0805	0805	CRCW080510K0FKEA	Vishay-Dale
R7	1	0	RES, 0 ohm, 5%, 0.1W, 0603	0603	CRCW06030000Z0EA	Vishay-Dale
R8, R10	2	1.00k	RES, 1.00k ohm, 1%, 0.25W, 1206	1206	CRCW12061K00FKEA	Vishay-Dale
R9	1	1.54Meg	RES, 1.54Meg ohm, 1%, 0.25W, 1206	1206	CRCW12061M54FKEA	Vishay-Dale
R11, R18, R24, R30	4	806k	RES, 806k ohm, 1%, 0.25W, 1206	1206	CRCW1206806KFKEA	Vishay-Dale
R13, R15	2	221k	RES, 221k ohm, 1%, 0.125W, 0805	0805	CRCW0805221KFKEA	Vishay-Dale
R14	1	1.47Meg	RES, 1.47Meg ohm, 1%, 0.125W, 0805	0805	CRCW08051M47FKEA	Vishay-Dale
R16	1	100k	RES, 100k ohm, 1%, 0.125W, 0805	0805	CRCW0805100KFKEA	Vishay-Dale
R17, R20	2	499k	RES, 499k ohm, 1%, 0.25W, 1206	1206	CRCW1206499KFKEA	Vishay-Dale
R19	1	301k	RES, 301 k, 1%, 0.125 W, 0805	0805	ERJ-6ENF3013V	Panasonic
R21	1	49.9k	RES, 49.9 k, 1%, 0.125 W, 0805	0805	CRCW080549K9FKEA	Vishay-Dale
R23	1	1.37Meg	RES, 1.37Meg ohm, 1%, 0.125W, 0805	0805	CRCW08051M37FKEA	Vishay-Dale
R26	1	49.9	RES, 49.9, 1%, 0.25 W, 1206	1206	CRCW120649R9FKEA	Vishay-Dale
R28	1	1.18Meg	RES, 1.18Meg ohm, 1%, 0.125W, 0805	0805	CRCW08051M18FKEA	Vishay-Dale
R31	1	75.0	RES, 75.0, 1%, 0.25 W, 1206	1206	CRCW120675R0FKEA	Vishay-Dale
RF1	1	33	RES 33 OHM 2W 10% AXIAL	Axial	EMC2-33RKL	TT Electronics/Welwyn
RV1	1	430V	Metal Oxide Varistor, TH	9.00 mm Diameter	MOV-07D431K	Bourns
U1, U2, U3, U4	4		Switch Controlled Direct Drive Switch for Offline LED Drivers, DBV0005A	DBV0005A	TPS92411PDBV	Texas Instruments

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.