Bill of Materials

TI DESIGNS Part #:4679

Literat	ture	#:P	MΡ

COUNT	RefDes	Value	Description	Size	Part Number	MFR
COONT						
1	C1	0.1uF	Capacitor, Ceramic, 100-V, X7R, 10%	1206 8v10mm	STD EEVFK1J470P	Vishay
1	C2	47uF	Capacitor, Aluminum, 63V, 20%	8x10mm		Panasonic
1	C3	15pF	Capacitor, Ceramic, 50V, C0G, 5%	0603	Std Std	Std Std
	C4	1800pF 1uF	Capacitor, Ceramic, 50V, X7R, 10%	0603	GRM32ER72A105KA01L	
2	C5		Capacitor, Ceramic, 100V, X7R, 10%	1210	Std	Murata
I	C6	0.22uF	Capacitor, Ceramic, 10V, X7R, 10%	0603		Std
4	C7	1uF	Capacitor, Ceramic, 100V, X7R, 10%	1210	GRM32ER72A105KA01L	Murata
1	C8	0.22uF	Capacitor, Ceramic, 10V, X7R, 10%	0805	Std	Std
1	C9	1uF	Capacitor, Ceramic, 16-V, X7R, 10%	0805	GRM21BR71C105KA01L	Murata
3	C10	10uF	Capacitor, Ceramic, 16V, X5R, 10%	1210	C3225X5R1C106K	TDK
	C11	10uF	Capacitor, Ceramic, 16V, X5R, 10%	1210	C3225X5R1C106K	TDK
4	C12	10uF	Capacitor, Ceramic, 16V, X5R, 10%	1210	C3225X5R1C106K	TDK
1	C13	0.1uF	Capacitor, Ceramic, 25-V, X7R, 10%	0603	Std	Vishay
1	D1	S1B	Diode, Rectifier, 1A, 100V	SMA	S1B	Diodes, Inc.
1	D2	SMAJ58A	Diode, TVS, 58V, 1W	SMA	SMAJ58A	Diodes Inc.
2	D3	HD01-T	Bridge Rectifier, 100V, 0.8A, Glass Passivated, SMD	MINI DIP4	HD01-T	Diodes, Inc
0	D4	HD01-T	Bridge Rectifier, 100V, 0.8A, Glass Passivated, SMD	MINI DIP4	HD01-T	Diodes, Inc
2	D5	LN1271R	Diode, LED, Red, 20-mA, 0.9-mcd	0.068 x 0.049 inch	LN1271R	Panasonic
1	D6	MBRS1100TR	Diode, Schottky, 1-A, 100-V	SMB	STD	STD
0	D7	LN1271R	Diode, LED, Red, 20-mA, 0.9-mcd	0.068 x 0.049 inch	LN1271R	Panasonic
2	J1	ED1514	Terminal Block, 2-pin, 6-A, 3.5mm	0.27 x 0.25	ED1514	OST
1	J2	0813-1X1T-57-F	Xfmr, MagJack, RJ-45, Single Port PoE	0.661 x 1.200 inch	0813-1X1T-57-F	Belfuse
1	J3	520252	Connector, Jack, Modular, 8 POS	0.705 x 0.820	520252	AMP
	J4	ED1514	Terminal Block, 2-pin, 6-A, 3.5mm	0.27 x 0.25	ED1514	OST
1	L1	10uH	Inductor, SMT, 1.1A, 160milliohm	4.45x6.6mm	DO1608C-103	Coilcraft
1	L2	68uH	Inductor, SMT, 1.5A, 120-milliohm	0.472 sq inch	CDRH125NP-680MC	Sumida
1	Q1	Si2328	MOSFET, N-ch, 100-V, 1.5-A, 0.25-Ohms	SOT23	Si2328	Vishay
1	R1	178K	Resistor, Chip, 1/16W, 1%	0603	Std	Std
1	R2	24.9K	Resistor, Chip, 1/16W, 1%	0603	Std	Std
1	R3	357	Resistor, Chip, 1/4W, 1%	1206	Std	Vishay
1	R4	20K	Resistor, Chip, 1/10W, 5%	0805	Std	Std
1	R5	43K	Resistor, Chip, 1/16-W, 1%	0603	STD	Vishay
1	R6	10	Resistor, Chip, 1/16W, 1%	0603	Std	Std
1	R7	0.39	Resistor, Chip, 1/4W, 1%	1206	WSL1206R1800FEA18	Vishay
1	R8	2K	Resistor, Chip, 1/10W, 5%	0805	Std	Std
1	R9	1.5K	Resistor, Chip, 1/16W, 1%	0603	Std	Std
1	R10	10.5K	Resistor, Chip, 1/16W, 1%	0603	Std	Std
1	R11	51.1	Resistor, Chip, 1/16W, 1%	0603	Std	Std
6	TP1	5000	Test Point, Red, Thru Hole Color Keyed	0.100 x 0.100 inch	5000	Keystone

COUNT	RefDes	Value	Description	Size	Part Number	MFR
6	TP2	5001	Test Point, Black, Thru Hole Color Keyed	0.100 x 0.100 inch	5001	Keystone
	TP3	5001	Test Point, Black, Thru Hole Color Keyed	0.100 x 0.100 inch	5001	Keystone
	TP4	5000	Test Point, Red, Thru Hole Color Keyed	0.100 x 0.100 inch	5000	Keystone
	TP5	5000	Test Point, Red, Thru Hole Color Keyed	0.100 x 0.100 inch	5000	Keystone
	TP6	5001	Test Point, Black, Thru Hole Color Keyed	0.100 x 0.100 inch	5001	Keystone
	TP7	5001	Test Point, Black, Thru Hole Color Keyed	0.100 x 0.100 inch	5001	Keystone
	TP8	5000	Test Point, Red, Thru Hole Color Keyed	0.100 x 0.100 inch	5000	Keystone
	TP9	5000	Test Point, Red, Thru Hole Color Keyed	0.100 x 0.100 inch	5000	Keystone
	TP10	5001	Test Point, Black, Thru Hole Color Keyed	0.100 x 0.100 inch	5001	Keystone
	TP11	5001	Test Point, Black, Thru Hole Color Keyed	0.100 x 0.100 inch	5001	Keystone
	TP12	5000	Test Point, Red, Thru Hole Color Keyed	0.100 x 0.100 inch	5000	Keystone
1	U1	TPS23750PWP	IC, IEEE 802.3af Integrated Primary Side Controller	PWP20	TPS23750PWP	TI

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.

Mailing Address: Texas Instruments, Post Office Box 655303, Dallas, Texas 75265 Copyright © 2013, Texas Instruments Incorporated