

Filename: TIDA-00510
 Variant: 001
 Generated: 12/1/2014 10:37:45 AM
 SVN path: \$URL::
 SVN rev: \$Rev:: \$

TIDA-00510

Designator	Quantity	Value	Description	PackageReference	PartNumber	Manufacturer	Alternate PartNumber	Alternate Manufacturer
PCB	1		Printed Circuit Board		PR2210	Any		
C1, C2, C3, C4	4	22uF	CAP, CERM, 22 uF, 16 V, +/- 20%, X5R, 1210	1210	GRM32ER61C226ME20L	MuRata		
C5, C9	2	0.1uF	CAP, CERM, 0.1 uF, 50 V, +/- 10%, X7R, 0603	0603	GRM188R71H104KA93D	MuRata		
C6	1	100uF	CAP, AL, 100 uF, 16 V, +/- 20%, 0.26 ohm, SMD	SMT Radial D	EEEF1C101AP	Panasonic		
C7	1	4.7uF	CAP, CERM, 4.7 uF, 25 V, +/- 20%, X5R, 0805		GRM21BR61E475MA12L	MuRata		
C8	1	1uF	CAP, CERM, 1 uF, 50 V, +/- 10%, X7R, 0603	0603	UMK107AB7105KA-T	Taiyo Yuden		
C10	1	1500pF	CAP, CERM, 2200 pF, 50 V, +/- 10%, X7R, 0603	0603	GRM188R71H222KA01D	MuRata		
C11	1	0.1uF	CAP, CERM, 0.022 uF, 50 V, +/- 10%, X7R, 0603	0603	GRM188R71H223KA01D	MuRata		
C12, C13, C14, C15, C16	5	100uF	CAP, CERM, 100 uF, 6.3 V, +/- 20%, X5R, 1210	1210	GRM32ER60J107ME20L	MuRata		
C19	1	1000pF	CAP, CERM, 1000 pF, 50 V, +/- 10%, X7R, 0603	0603	GRM188R71H102KA01D	MuRata		
H1, H2, H3, H4	4		Bumpon, Hemisphere, 0.44 X 0.20, Clear	Transparent Bumpon	SJ-5303 (CLEAR)	3M		
J1, J3	2		Terminal Block, 4x1, 5.08mm, TH	TERM_BLK, 4pos, 5.08mm	ED120/4DS	On-Shore Technology		
J2	1		Header, 100mil, 2x1, Tin, TH	Header, 2 PIN, 100mil, Tin	PEC02SAAN	Sullins Connector Solutions		
J4	1		Header, 100mil, 4x2, Tin, TH	Header, 4x2, 100mil, Tin	PEC04DAAN	Sullins Connector Solutions		
J5	1	2x8	Header, 100mil, 8x2, Gold, TH	PBC08DAAN	PBC08DAAN	Sullins Connector Solutions		
J6	1		Header, 100mil, 2x2, Tin, TH	Header, 2x2, 2.54mm, TH	PEC02DAAN	Sullins Connector Solutions		
L1	1	(Value)	Inductor, Toroid	TBD	TBD (New P/N)	TBD (Pulse or Coilcraft)		
LBL1	1		Thermal Transfer Printable Labels, 0.650" W x 0.200" H - 10,000 per roll	PCB Label 0.650"H x 0.200"W	THT-14-423-10	Brady		
R1	1	147k	RES, 147 k, 1%, 0.1 W, 0603	0603	CRCW0603147KFKEA	Vishay-Dale		
R2	1	0	RES, 0.5%, 0.1 W, 0603	0603	CRCW0603000Z0EA	Vishay-Dale		
R3, R17	2	200k	RES, 200 k, 1%, 0.1 W, 0603	0603	CRCW0603200KFKEA	Vishay-Dale		
R4	1	1.00k	RES, 1.00 k, 1%, 0.1 W, 0603	0603	CRCW06031K00FKEA	Vishay-Dale		
R5, R9, R15	3	100k	RES, 100 k, 5%, 0.1 W, 0603	0603	CRCW0603100KJNEA	Vishay-Dale		
R6	1	2.05	RES, 2.05, 1%, 0.1 W, 0603	0603	CRCW06032R05FKEA	Vishay-Dale		
R7	1	1.5k	RES, 14.7 k, 1%, 0.1 W, 0603	0603	CRCW060314K7FKEA	Vishay-Dale		
R10	1	43.2k	RES, 14.7 k, 1%, 0.1 W, 0603	0603	CRCW060314K7FKEA	Vishay-Dale		
R8	1	3.01	RES, 3.01, 1%, 0.125 W, 0805	0805	CRCW08053R01FKEA	Vishay-Dale		
R11	1	10.0	RES, 10.0, 1%, 0.1 W, 0603	0603	CRCW060310R0FKEA	Vishay-Dale		
R12	1	10.0k	RES, 10.0 k, 1%, 0.1 W, 0603	0603	CRCW060310K0FKEA	Vishay-Dale		
R13	1	39.2k	RES, 39.2 k, 1%, 0.1 W, 0603	0603	CRCW060339K2FKEA	Vishay-Dale		
R14	1	187k	RES, 187 k, 1%, 0.1 W, 0603	0603	CRCW0603187KFKEA	Vishay-Dale		
R16	1	619k	RES, 619 k, 1%, 0.1 W, 0603	0603	CRCW0603619KFKEA	Vishay-Dale		
R19	1	475k	RES, 475 k, 1%, 0.1 W, 0603	0603	CRCW0603475KFKEA	Vishay-Dale		
R20	1	866k	RES, 866 k, 1%, 0.1 W, 0603	0603	CRCW0603866KFKEA	Vishay-Dale		
R21	1	309k	RES, 309 k, 1%, 0.1 W, 0603	0603	CRCW0603309KFKEA	Vishay-Dale		
R22	1	124k	RES, 124 k, 1%, 0.1 W, 0603	0603	CRCW0603124KFKEA	Vishay-Dale		
SH-J4, SH-J5, SH-J6	3	1x2	Shunt, 100mil, Gold plated, Black	Shunt	969102-0000-DA	3M	SNT-100-BK-G	Samtec
TP1, TP5, TP9	3	Red	Test Point, Miniature, Red, TH	Red Miniature Testpoint	5000	Keystone		
TP2, TP3, TP7, TP12	4	Black	Test Point, Miniature, Black, TH	Black Miniature Testpoint	5001	Keystone		
TP4, TP6, TP8, TP10, TP11	5	White	Test Point, Miniature, White, TH	White Miniature Testpoint	5002	Keystone		
U1	1		High-Efficiency 30 A Synchronous Buck Converter with Eco-mode, DQP0022A	DQP0022A	TPS53355DQPR	Texas Instruments		Texas Instruments
C17, C18	0	330uF	CAP, TA, 330 uF, 6.3 V, +/- 20%, 0.025 ohm, SMD	7.3x2.8x4.3mm	6TPE330MAL	Panasonic		
FID1, FID2, FID3, FID4, FID5, FID6	0		Fiducial mark. There is nothing to buy or mount.	Fiducial	N/A	N/A		
R18	0	100k	RES, 100 k, 5%, 0.1 W, 0603	0603	CRCW0603100KJNEA	Vishay-Dale		

Notes:

Unless otherwise noted in the Alternate PartNumber and/or Alternate Manufacturer columns, all parts may be substituted with equivalents.

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.