

TIDA-050008 REV E1 Bill of Materials

Designator	Quantity	Value	PartNumber	Manufacturer	Description	PackageReference
IPCB1	1		TIDA-050008	Any	Printed Circuit Board	
C1, C2, C3, C8, Cbias1	5	0.1uF	GCM188R71C104KA37J	MuRata	CAP, CERM, 0.1 uF, 16 V, +/- 10%, X7R, AEC-Q200 Grade 1, 0603	0603
C4	1	10uF	C3216X7R1V106M160AC	TDK	CAP, CERM, 10 uF, 35 V, +/- 20%, X7R, 1206_190	1206_190
C6, C13, C29	3	0.01uF	GRM188R71C103KA01D	MuRata	CAP, CERM, 0.01 uF, 16 V, +/- 10%, X7R, 0603	0603
C9, C17, C18, C21	4	10uF	GRM188Z71A106MA73D	MuRata	CAP, CERM, 10 uF, 10 V, +/- 20%, X7R, 0603	0603
C10	1	0.18uF	GRM188R71E184KA88D	MuRata	CAP, CERM, 0.18 uF, 25 V, +/- 10%, X7R, 0603	0603
C11, C23, C28	3	0.1uF	GRM188R71C104KA01D	MuRata	CAP, CERM, 0.1 uF, 16 V, +/- 10%, X7R, 0603	0603
C15, C26	2	2.2uF	GRM188Z71C225KE43	MuRata	CAP, CERM, 2.2 uF, 16 V, +/- 10%, X7R, 0603	0603
C16	1	1uF	GCM188R71C105KA64D	MuRata	CAP, CERM, 1 uF, 16 V, +/- 10%, X7R, AEC-Q200 Grade 1, 0603	0603
C19	1	470pF	GCM155R71H471KA37D	MuRata	CAP, CERM, 470 pF, 50 V, +/- 10%, X7R, AEC-Q200 Grade 1, 0402	0402
C20	1	68pF	C1005C0G1H680J050BA	TDK	CAP, CERM, 68 pF, 50 V, +/- 5%, C0G/NP0, 0402	0402
C24, C25	2	0.22uF	CGA3E3X7R1H224K080AB	TDK	CAP, CERM, 0.22 uF, 50 V, +/- 10%, X7R, AEC-Q200 Grade 1, 0603	0603
CB	1	0.47uF	GRM188R61E474KA12D	MuRata	CAP, CERM, 0.47uF, 25V, +/-10%, X5R, 0603	0603
Cbulk1	1	100uF	HHXB500ARA101MJA0G	Chemi-Con	CAP, Aluminum Polymer, 100 uF, 50 V, +/- 20%, 0.025 ohm, AEC-Q200 Grade 2, D10xL10mm SMD	D10xL10mm
CF1, CF2	2	4.7uF	C3216X7R1H475K160AC	TDK	CAP, CERM, 4.7 uF, 50 V, +/- 10%, X7R, 1206	1206
CFF	1	4.7pF	06035A4R7CAT2A	AVX	CAP, CERM, 4.7 pF, 50 V, +/- 5%, C0G/NP0, 0603	0603
C11, CO	2	0.47uF	GRM21BR71H474KA88L	MuRata	CAP, CERM, 0.47 uF, 50 V, +/- 10%, X7R, 0805	0805
C12	1	10uF	GRM32ER71H106KA12L	MuRata	CAP, CERM, 10 uF, 50 V, +/- 10%, X7R, 1210	1210
C13, C14	2	2.2uF	C2012X5R1H225K125AB	TDK	CAP, CERM, 2.2 uF, 50 V, +/- 10%, X5R, 0805	0805
CO1, CO2, CO3, CO4, CO5	5	22uF	GRM32ER71C226KE18L	MuRata	CAP, CERM, 22 uF, 16 V, +/- 10%, X7R, 1210	1210
CSS	1	0.01uF	06031C103MAT2A	AVX	CAP, CERM, 0.01 uF, 100 V, +/- 20%, X7R, 0603	0603
CVCC	1	2.2uF	GRM188C81A225KE34D	MuRata	CAP, CERM, 2.2uF, 10V, +/-10%, X6S, 0603	0603
D1	1	28V	SMAJ28CA	Littelfuse	Diode, TVS, Bi, 28 V, SMA	SMA
D2, D7, D8, D9, D10	5	Red	SML-P12UTT86	Rohm	LED, Red, SMD	LED, 1x.2x.6mm
D3, D4	2	100V	BAT46W-E3-08	Vishay-Semiconductor	Diode, Schottky, 100 V, 0.15 A, AEC-Q101, SOD-123	SOD-123
D5	1	15V	BZT52C15-7-F	Diodes Inc.	Diode, Zener, 15 V, 370 mW, AEC-Q101, SOD-123	SOD-123
D6	1	30V	DB2430100L	Panasonic	Diode, Schottky, 30 V, 2 A, SOD-128	SOD-128
FB1	1	800 ohm	HR2220V801R-10	Laird-Signal Integrity Products	Ferrite Bead, 800 ohm @ 100 MHz, 8 A, 2220	2220
H1, H2, H3, H4	4		NY PMS 440 0025 PH	B&F Fastener Supply	Machine Screw, Round, #4-40 x 1/4, Nylon, Philips panhead	Screw
H5, H6, H7, H8	4		1902C	Keystone	Standoff, Hex, 0.5"L #4-40 Nylon	Standoff
J1	1		PEC03SAAN	Sullins Connector Solutions	Header, 100mil, 3x1, Tin, TH	Header, 3 PIN, 100mil, Tin
L1	1	2.2uH	XAL5030-222MEB	Coilcraft	Inductor, Shielded, Composite, 2.2 uH, 9.2 A, 0.01 ohm, SMD	5.3x31.x5.5mm
L2	1	1uH	XFL3010-102MEB	Coilcraft	Inductor, Shielded, Composite, 1 uH, 2.3 A, 0.04 ohm, SMD	3x1.0x3mm
L3	1	2.2uH	LQM2MPN2R2NG0	MuRata	Inductor, Multilayer, Ferrite, 2.2 uH, 1.2 A, 0.11 ohm, SMD	2.0x1.6mm
LF1	1	600nH	XAL4020-601MEB	Coilcraft	Inductor, Shielded, Composite, 600 nH, 10.38 A, 0.01 ohm, SMD	4x2.1x4mm
P1, P3	2		6091	Keystone	Standard Banana Jack, Insulated, Red	6091
P2, P4	2		6092	Keystone	Standard Banana Jack, Insulated, Black	6092
Q1	1	-60V	SQJ461EP	Vishay-Siliconix	MOSFET, P-CH, -60 V, -30 A, PowerPAK_SO-8L	PowerPAK_SO-8L
R1	1	10k	ERJ-2GEJ103X	Panasonic	RES, 10 k, 5%, 0.1 W, AEC-Q200 Grade 0, 0402	0402
R2	1	47	CRCW040247R0JNED	Vishay-Dale	RES, 47, 5%, 0.063 W, AEC-Q200 Grade 0, 0402	0402
R3	1	560	RC1206FR-07560RL	Yageo America	RES, 560, 1%, 0.25 W, 1206	1206
R4	1	56k	RC0603JR-0756KL	Yageo	RES, 56 k, 5%, 0.1 W, 0603	0603

Designator	Quantity	Value	PartNumber	Manufacturer	Description	PackageReference
R5, R6, R8, R9, R10, R12, RFBT	7	100k	CRCW0603100KFKEA	Vishay-Dale	RES, 100 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
R7	1	10.0k	CRCW060310K0FKEA	Vishay-Dale	RES, 10.0 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
R11	1	0	CRCW06030000Z0EA	Vishay-Dale	RES, 0, 5%, 0.1 W, 0603	0603
R14	1	2.20k	CRCW04022K20FKED	Vishay-Dale	RES, 2.20 k, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	0402
R15, R16, R17, R18	4	1.00k	CRCW04021K00FKED	Vishay-Dale	RES, 1.00 k, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	0402
R19	1	825k	CRCW0603825KFKEA	Vishay-Dale	RES, 825 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
R20	1	562k	CRCW0603562KFKEA	Vishay-Dale	RES, 562 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
Rbias1	1	3.0	CRCW04023R00JNED	Vishay-Dale	RES, 3.0, 5%, 0.063 W, 0402	0402
RFBB	1	43.2k	CRCW060343K2FKEA	Vishay-Dale	RES, 43.2 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
RPG	1	100k	CRCW0603100KFKEA	Vishay-Dale	RES, 100 k, 1%, 0.1 W, 0603	0603
RT	1	17.4k	CRCW060317K4FKEA	Vishay-Dale	RES, 17.4 k, 1%, 0.1 W, 0603	0603
TP1	1		5127	Keystone	Test Point, Multipurpose, Blue, TH	Blue Multipurpose Testpoint
TP2, TP9, TP11, TP15, TP18	5		5010	Keystone	Test Point, Multipurpose, Red, TH	Red Multipurpose Testpoint
TP3, TP14	2		5126	Keystone	Test Point, Multipurpose, Green, TH	Green Multipurpose Testpoint
TP4, TP5	2		5012	Keystone	Test Point, Multipurpose, White, TH	White Multipurpose Testpoint
TP6, TP13, TP17	3		5014	Keystone	Test Point, Multipurpose, Yellow, TH	Yellow Multipurpose Testpoint
TP7, TP10, TP12, TP16, TP19	5		5011	Keystone	Test Point, Multipurpose, Black, TH	Black Multipurpose Testpoint
TP8	1		5013	Keystone	Test Point, Multipurpose, Orange, TH	Orange Multipurpose Testpoint
U1	1		TLV1805QDBVRQ1	Texas Instruments	Automotive 40-V, microPower, Push-Pull Comparator with Shutdown, DBV0006A (SOT-23-6)	DBV0006A
U2	1		LM73605QRNPRQ1	Texas Instruments	Automotive 3.5V to 36V 5A Synchronous Step-Down Voltage Regulator, RNP0030A (WQFN-30)	RNP0030A
U3	1		TPS3850H33QDRCRQ1	Texas Instruments	Automotive Precision Voltage Supervisor With Programmable Window Watchdog Timer, DRC0010R (VSON-10)	DRC0010R
U4	1		LM4132AQ1MFT2.5	Texas Instruments	Automotive SOT23 Precision Low Dropout Voltage Reference, DBV0005A (SOT-23-5)	DBV0005A
U5	1		TPS62065QDSGRQ1	Texas Instruments	3MHz, 2A Automotive Step-Down Converter in 2x2 SON Package, DSG0008A (WSON-8)	DSG0008A
U6	1		TPS3703A4120DSERQ1	Texas Instruments	Automotive High-Accuracy Window Supervisor With Reset Time Delay and Manual Reset, DSE0006A (WSON-6)	DSE0006A
U7	1		TPS61240TDRVRQ1	Texas Instruments	3.5-MHz High Efficiency Step-Up Converter, DRV0006A (WSON-6)	DRV0006A
U8	1		TPS389050GQDSERQ1	Texas Instruments	Automotive Low-Quiescent-Current 1% Accurate Supervisor With Programmable Delay, DSE0006A (WSON-6)	DSE0006A
C12	0	0.1uF	GRM188R71C104KA01D	MuRata	CAP, CERM, 0.1 uF, 16 V, +/- 10%, X7R, 0603	0603
C22	0	22uF	GRM187R61A226ME15D	MuRata	CAP, CERM, 22 uF, 10 V, +/- 20%, X5R, 0603	0603
FID1, FID2, FID3	0		N/A	N/A	Fiducial mark. There is nothing to buy or mount.	N/A
R7	0	10.0k	CRCW060310K0FKEA	Vishay-Dale	RES, 10.0 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
R13	0	0	CRCW06030000Z0EA	Vishay-Dale	RES, 0, 5%, 0.1 W, 0603	0603

IMPORTANT NOTICE AND DISCLAIMER

TI PROVIDES TECHNICAL AND RELIABILITY DATA (INCLUDING DATASHEETS), 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, 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 (www.ti.com/legal/termsofsale.html) or other applicable terms available either on 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.

Mailing Address: Texas Instruments, Post Office Box 655303, Dallas, Texas 75265
Copyright © 2018, Texas Instruments Incorporated