

TIDA-01008 REV A Bill of Materials

Designator	Quantity	Value	PartNumber	Manufacturer	Description	PackageReference
I PCB1	1		TIDA-01008	Any	Printed Circuit Board	
C1	1	0.1uF	06033C104JAT2A	AVX	CAP, CERM, 0.1 μF, 25 V, +/- 5%, X7R, 0603	0603
C2, C3, C4	3	100pF	CGA3E2NP01H101J080AA	TDK	CAP, CERM, 100 pF, 50 V, +/- 5%, COG/NP0, AEC-Q200 Grade 0, 0603	0603
C5, C11, C14, C16	4	4.7uF	GRM188C71A475KE11D	MuRata	CAP, CERM, 4.7 μF, 10 V, +/- 10%, X7S, 0603	0603
C6	1	10uF	EMVH630ADA100MH63G	Chemi-Con	CAP, AL, 10 μF, 63 V, +/- 20%, 2 ohm, SMD	H63
C7, C10, C13, C34, C35	5	0.1uF	GRM155R71C104JA88D	MuRata	CAP, CERM, 0.1 μF, 16 V, +/- 5%, X7R, 0402	0402
C8	1	10uF	GRM21BC71E106KE11L	MuRata	CAP, CERM, 10 μF, 25 V, +/- 10%, X7S, 0805	0805
C9	1	2.2uF	CGA3E1X7S1C225M080AC	TDK	CAP, CERM, 2.2 μF, 16 V, +/- 20%, X7S, AEC-Q200 Grade 1, 0603	0603
C12	1	0.1uF	GRM188R72A104KA35D	MuRata	CAP, CERM, 0.1 μF, 100 V, +/- 10%, X7R, 0603	0603
C15	1	0.1uF	GRM155R71E104KE14D	MuRata	CAP, CERM, 0.1 μF, 25 V, +/- 10%, X7R, 0402	0402
C17, C19	2	1000pF	08051A102JAT2A	AVX	CAP, CERM, 1000 pF, 100 V, +/- 5%, COG/NP0, 0805	0805
C18	1	1uF	C3216X7R2A105K160AA	TDK	CAP, CERM, 1 μF, 100 V, +/- 10%, X7R, 1206	1206
C20	1	1000pF	GRM155R71C102KA01D	MuRata	CAP, CERM, 1000 pF, 16 V, +/- 10%, X7R, 0402	0402
C21	1	100pF	06035A101FAT2A	AVX	CAP, CERM, 100 pF, 50 V, +/- 1%, COG/NP0, 0603	0603
C22	1	1uF	CL10B105KQ8NNNC	Samsung Electro-Mechanics	CAP, CERM, 1 μF, 6.3 V, +/- 10%, X7R, 0603	0603
C23, C26	2	33uF	EEHZC1H330XP	Panasonic	CAP, Polymer Hybrid, 33 μF, 50 V, +/- 20%, 40 ohm, 6.3x7.7 SMD	6.3x7.7
C24, C25, C27, C28	4	10uF	GRM32ER71H106KA12L	MuRata	CAP, CERM, 10 μF, 50 V, +/- 10%, X7R, 1210	1210
C30	1	220uF	EEE-TK1J221AQ	Panasonic	CAP, AL, 220 μF, 63 V, +/- 20%, 0.26 ohm, AEC-Q200 Grade 1, SMD	SMT Radial H13
C31	1	0.1uF	GRM188R70J104KA01D	MuRata	CAP, CERM, 0.1 μF, 6.3 V, +/- 10%, X7R, 0603	0603
C32	1	1000pF	CGA2B3X7S2A102K050BB	TDK	CAP, CERM, 1000 pF, 100 V, +/- 10%, X7S, AEC-Q200 Grade 1, 0402	0402
C33	1	0.68uF	C3216X7R2A684K160AA	TDK	CAP, CERM, 0.68 μF, 100 V, +/- 10%, X7R, 1206	1206
C36	1	10uF	C2012X7R1A106K125AC	TDK	CAP, CERM, 10 μF, 10 V, +/- 10%, X7R, 0805	0805
C37	1	1uF	C1005X7S1A105K050BC	TDK	CAP, CERM, 1 μF, 10 V, +/- 10%, X7S, 0402	0402
D1	1	28V	SMBJ28A-13-F	Diodes Inc.	Diode, TVS, Uni, 28 V, 600 W, SMB	SMB
D2	1	14V	SMBJ14A-13-F	Diodes Inc.	Diode, TVS, Uni, 14 V, 600 W, SMB	SMB
D3	1	100V	FSV10100V	Fairchild Semiconductor	Diode, Schottky, 100 V, 10 A, AEC-Q101, TO-277A	TO-277A
D4	1	Red	HBR1105W-TR	Stanley Electric Co., LTD	LED, Red, SMD	1.6x1.85x3.2
D5	1	60V	STPS160UY	STMicroelectronics	Diode, Schottky, 60 V, 1 A, AEC-Q101, SMB	SMB

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D6, D7, D8, D9, D10, D11, D12, D13, D14, D15, D16, D17, D18, D19, D20, D21, D22, D23, D24, D25, D26, D27, D28, D29, D30, D31, D32, D33, D34, D35, D36, D37, D38, D39, D40, D41, D42, D43, D44, D45, D46, D47, D48, D49, D50, D51, D52, D53	48	White	KW DPLS32.EC-6H6J-4F8G-1	OSRAM	LED, White, SMD	4x1.4mm
H1, H2, H3, H4, H5	5		NY PMS 440 0025 PH	B&F Fastener Supply	Machine Screw, Round, #4-40 x 1/4, Nylon, Philips panhead	Screw
H6, H7, H8, H9, H10	5		2205	Keystone	Standoff, Hex, 1"L #4-40 Aluminum	1 inch Aluminum Hex Standoff
J1	1		PPPC102LJBN-RC	Sullins Connector Solutions	Receptacle, 2.54mm, 10x2, Gold, R/A, TH	Receptacle, 2.54mm, 10x2, R/A, TH
L1	1	10uH	IHLP5050FDER100M01	Vishay-Dale	Inductor, Shielded Drum Core, Powdered Iron, 10 µH, 10 A, 0.0164 ohm, SMD	IHLP-5050FD
L2	1	1uH	IHLP5050FDER1R0M01	Vishay-Dale	Inductor, Shielded Drum Core, Powdered Iron, 1 µH, 32 A, 0.0017 ohm, SMD	IHLP-5050FD
LBL1	1		THT-14-423-10	Brady	Thermal Transfer Printable Labels, 0.650" W x 0.200" H - 10,000 per roll	PCB Label 0.650"H x 0.200"W
Q1	1	-60V	SQJ461EP	Vishay-Siliconix	MOSFET, P-CH, -60 V, -30 A, PowerPAK_SO-8L	PowerPAK_SO-8L
Q2	1	60V	NVMFS5C682NLT1G	ON Semiconductor	MOSFET, N-CH, 60 V, 25 A, AEC-Q101, SO-8FL	SO-8FL
Q3, Q4, Q5	3	40 V	MMBT3904	Fairchild Semiconductor	Transistor, NPN, 40 V, 0.2 A, SOT-23	SOT-23
Q6	1	40V	SQJ412EP-T1-GE3	Vishay-Siliconix	MOSFET, N-CH, 40 V, 32 A, PowerPAK_SO-8L	PowerPAK_SO-8L
R2	1	47.0k	RG1608P-473-B-T5	Susumu Co Ltd	RES, 47.0 k, 0.1%, 0.1 W, 0603	0603
R3	1	140k	RG1608P-1403-B-T5	Susumu Co Ltd	RES, 140 k, 0.1%, 0.1 W, 0603	0603
R4	1	30.9	CRCW060330R9FKEA	Vishay-Dale	RES, 30.9, 1%, 0.1 W, 0603	0603
R5, R22, R23, R24, R25, R26, R27	7	0	CRCW08050000Z0EAHP	Vishay-Dale	RES, 0, 5%, 0.333 W, 0805	0805
R6, R60	2	10k	ERJ-2GEJ103X	Panasonic	RES, 10 k, 5%, 0.1 W, AEC-Q200 Grade 0, 0402	0402
R7, R15	2	4.99k	ERJ-2RKF4991X	Panasonic	RES, 4.99 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0402	0402
R8	1	0.015	CSRN2512FK15L0	Stackpole Electronics Inc	RES, 0.015, 1%, 2 W, 2512	2512
R9	1	20k	CRCW120620K0JNEA	Vishay-Dale	RES, 20 k, 5%, 0.25 W, 1206	1206
R10	1	681k	RC0603FR-07681KL	Yageo America	RES, 681 k, 1%, 0.1 W, 0603	0603
R11	1	100k	RC0603FR-07100KL	Yageo America	RES, 100 k, 1%, 0.1 W, 0603	0603
R12	1	0.02	CRA2512-FZ-R020ELF	Bourns	RES, 0.02, 1%, 3 W, 2512	2512
R13	1	3.92k	RC0603FR-073K92L	Yageo America	RES, 3.92 k, 1%, 0.1 W, 0603	0603
R14, R16, R17, R21	4	470	ERJ-2RKF4700X	Panasonic	RES, 470, 1%, 0.1 W, AEC-Q200 Grade 0, 0402	0402
R18	1	10.0	CRCW060310R0FKEAHP	Vishay-Dale	RES, 10.0, 1%, 0.25 W, 0603	0603
R19	1	0	CRCW04020000Z0ED	Vishay-Dale	RES, 0, 5%, 0.063 W, 0402	0402
R28, R29, R30, R31, R32, R33	6	0	ERJ-3GEY0R00V	Panasonic	RES, 0, 5%, 0.1 W, 0603	0603
R34	1	510	CRCW0402510RJNED	Vishay-Dale	RES, 510, 5%, 0.063 W, 0402	0402
R35	1	100k	ERJ-2RKF1003X	Panasonic	RES, 100 k, 1%, 0.1 W, 0402	0402

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R40	1	150	CRCW0603150RJNEA	Vishay-Dale	RES, 150, 5%, 0.1 W, 0603	0603
S1	1		TL1015AF160QG	E-Switch	Switch, Tactile, SPST-NO, 0.05A, 12V, SMT	Switch, 4.4x2x2.9 mm
TP1	1		5000	Keystone	Test Point, Miniature, Red, TH	Red Miniature Testpoint
TP5	1		5006	Keystone	Test Point, Compact, Black, TH	Black Compact Testpoint
TP9, TP10	2		5004	Keystone	Test Point, Miniature, Yellow, TH	Yellow Miniature Testpoint
U1	1		TPS7B6933QDBVRQ1	Texas Instruments	High Voltage Ultra Low Iq - Low Drop Out Regulator, DBV0005A	DBV0005A
U2	1		TMP423AQDCNRQ1	Texas Instruments	+/- 1 C Remote and Local TEMPERATURE SENSOR, DCN0008A (SOT-23-8)	DCN0008A
U3	1		LM74700QDBVTQ1	Texas Instruments	Low Iq Always ON Smart Diode Controller, DBV0006A (SOT-23-6)	DBV0006A
U4	1		TPS22918TDBVRQ1	Texas Instruments	5.5-V, 2-A, 54mohm On-Resistance Load Switch, DBV0006A (SOT-6)	DBV0006A
U5	1		OPT3001IDNPRQ1	Texas Instruments	Ambient Light Sensor (ALS), DNP0006A (USON-6)	DNP0006A
U6	1		LP8863ADCPRQ1	Texas Instruments	6-Channel LED Driver with Local Dimming for Automotive Lighting, DCP0038A	DCP0038A
U7	1		MSP430FR2633IDAR	Texas Instruments	Mixed-Signal Microcontroller, DA0032A	DA0032A
Vbatt1	1		691213710002	Würth Elektronik	Terminal Block, 2x1, Brass, TH	Terminal Block, 2-Leads, Body 10x8.3mm, Pitch 5mm
FID1, FID2, FID3, FID4, FID5, FID6	0		N/A	N/A	Fiducial mark. There is nothing to buy or mount.	Fiducial
R1	0	0	CRCW20100000Z0EF	Vishay-Dale	RES, 0, 5%, 0.75 W, AEC-Q200 Grade 0, 2010	2010
R20	0	0	CRCW04020000Z0ED	Vishay-Dale	RES, 0, 5%, 0.063 W, 0402	0402

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