

TIDA-020008 REV E2 Bill of Materials

Item #	Designator	Quantity	Value	PartNumber	Manufacturer	Description	PackageReference
1	IPC81	1		TIDA-020008	Any	Printed Circuit Board	
2	C1, C2, C17	3	1000pF	GRM155R71C102KA01D	MuRata	CAP, CERM, 1000 pF, 16 V, +/- 10%, X7R, 0402	0402
3	C3, C25	2	4.7uF	C2012X7R1A475M125AC	TDK	CAP, CERM, 4.7 uF, 10 V, +/- 20%, X7R, 0805	0805
4	C4	1	10uF	UMK325AB7106KMHT	Taiyo Yuden	CAP, CERM, 10 uF, 50 V, +/- 10%, X7R, AEC-Q200 Grade 1, 1210	1210
5	C5	1	1uF	GRM21BR71H105KA12L	MuRata	CAP, CERM, 1 uF, 50 V, +/- 10%, X7R, 0805	0805
6	C6	1	680uF	EEV-FK1H681M	Panasonic	CAP, AL, 680 uF, 50 V, +/- 20%, 0.073 ohm, AEC-Q200 Grade 2, SMD	SMT Radial J16
7	C7, C8, C27	3	1uF	GRM155R70J105MA12D	MuRata	CAP, CERM, 1 uF, 6.3 V, +/- 20%, X7R, 0402	0402
8	C11	1	10uF	CL31B106KBHNNNE	Samsung	CAP, CERM, 10 uF, 50 V, +/- 10%, X7R, 1206	1206
9	C12, C14	2	0.1uF	C1608X7R1H104K080AA	TDK	CAP, CERM, 0.1 uF, 50 V, +/- 10%, X7R, 0603	0603
10	C13	1	1uF	C1608X7R1C105K080AC	TDK	CAP, CERM, 1 uF, 16 V, +/- 10%, X7R, 0603	0603
11	C18	1	1uF	EMK107B7105KA-T	Taiyo Yuden	CAP, CERM, 1 uF, 16 V, +/- 10%, X7R, 0603	0603
12	C19	1	1uF	GRM188R70J105KA01D	MuRata	CAP, CERM, 1 uF, 6.3 V, +/- 10%, X7R, 0603	0603
13	C20, C21	2	0.1uF	CGA2B3X7R1H104M050BB	TDK	CAP, CERM, 0.1 uF, 50 V, +/- 20%, X7R, AEC-Q200 Grade 1, 0402	0402
14	C22	1	0.047uF	CGA2B3X7R1H473K050BB	TDK	CAP, CERM, 0.047 uF, 50 V, +/- 10%, X7R, AEC-Q200 Grade 1, 0402	0402
15	C23	1	220pF	C0805C221K5RACTU	Kemet	CAP, CERM, 220 pF, 50 V, +/- 10%, X7R, 0805	0805
16	C24	1	1uF	LMK107B7105KAHT	Taiyo Yuden	CAP, CERM, 1 uF, 10 V, +/- 10%, X7R, AEC-Q200 Grade 1, 0603	0603
17	C26	1	22uF	ECA1HM220	Panasonic	CAP, AL, 22 uF, 50 V, +/- 20%, TH	
18	D1	1	90V	CD0603-S0180	Bourns	Diode, Switching, 90 V, 0.1 A, 0603 Diode	0603 Diode
19	D2	1	Orange	LTST-C191FKFT	Lite-On	LED, Orange, SMD	LED_0603
20	D3	1	White	LW_QH8G-Q2S2-3K5L-1	OSRAM	LED, White, SMD	0402, White
21	D5	1	18V	1SMA18AT3G	Littelfuse	Diode, TVS, Uni, 18 V, 29.2 Vc, AEC-Q101, SMA	SMA
22	D6	1	200V	ES2D	Fairchild Semiconductor	Diode, Fast Rectifier, 200 V, 2 A, SMB	SMB
23	J1	1		TSW-110-08-T-S-RA	Samtec	Header, 2.54mm, 10x1, Tin, R/A, TH	Header, 2.54mm, 10x1, R/A, TH
24	J2	1		1725698	Phoenix Contact	Terminal Block, 6x1, 2.54mm, TH	Terminal Block, 6x1, 2.54mm, TH
25	J4, J5	2		TSM-110-01-L-DV-P	Samtec	Header, 2.54mm, 10x2, Gold, SMT	1000x180x290mil
26	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
27	Q1	1	60V	SQJA04EP-T1_GE3	Vishay-Siliconix	MOSFET, N-CH, 60 V, 75 A, AEC-Q101, PowerPAK_SO-8L	PowerPAK_SO-8L
28	Q2	1	60 V	MMBTA05LT1G	ON Semiconductor	Transistor, NPN, 60 V, 0.5 A, AEC-Q101, SOT-23	SOT-23
29	Q3, Q7	2	40V	BUK76R2-40E	Nexperia	MOSFET, 2-CH, N-CH, 40 V, 40 A, AEC-Q101, SOT1205	SOT1205
30	R1	1	10k	CRCW040210K0JNED	Vishay-Dale	RES, 10 k, 5%, 0.063 W, 0402	0402
31	R2	1	43k	CRCW040243K0JNED	Vishay-Dale	RES, 43 k, 5%, 0.063 W, 0402	0402
32	R5	1	3.74k	CRCW04023K74FKED	Vishay-Dale	RES, 3.74 k, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	0402
33	R6	1	100	CRCW0402100RFKED	Vishay-Dale	RES, 100, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	0402
34	R9	1	330	CRCW0603330RJNEA	Vishay-Dale	RES, 330, 5%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
35	R10	1	10.0k	RC0402FR-0710K1	Yageo America	RES, 10.0 k, 1%, 0.063 W, 0402	0402
36	R11, R16, R25, R26	4	10k	CRCW060310K0JNEA	Vishay-Dale	RES, 10 k, 5%, 0.1 W, 0603	0603
37	R12	1	750	RC0603JR-07750RL	Yageo America	RES, 750, 5%, 0.1 W, 0603	0603
38	R13	1	0.003	CSNL1206FT3L00	Stackpole Electronics Inc	RES, 0.003, 1%, 1 W, 1206	1206
39	R14	1	1.00k	CRCW06031K00FKEA	Vishay-Dale	RES, 1.00 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
40	R15	1	10	CRCW060310R0JNEAHP	Vishay-Dale	RES, 10, 5%, 0.25 W, AEC-Q200 Grade 0, 0603	0603
41	R17	1	10.0k	CRCW060310K0FKEA	Vishay-Dale	RES, 10.0 k, 1%, 0.1 W, 0603	0603
42	R18, R20	2	120k	CRCW0402120KJNED	Vishay-Dale	RES, 120 k, 5%, 0.063 W, AEC-Q200 Grade 0, 0402	0402
43	R19, R21, R24	3	10k	CRCW040210K0JNED	Vishay-Dale	RES, 10 k, 5%, 0.063 W, AEC-Q200 Grade 0, 0402	0402
44	R22, R23	2	294	CRCW0402294RFKED	Vishay-Dale	RES, 294, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	0402
45	S1, S2, S3, S4, S5	5		430182080816	Wurth Elektronik	Switch, Tactile, SPST-NO, 0.05A, 12V, SMD	6.2x6.2mm
46	TB1, TB2, TB3	3		1715721	Phoenix Contact	Terminal Block, 5.08 mm, 2x1, TH	2POS Terminal Block
47	TB4	1		OSTTE030161	On-Shore Technology	Terminal Block, 3.5mm, 3x1, Tin, R/A, TH	Terminal Block, 3.5mm, 3x1, TH
48	TP2, TP5	2	Black	5006	Keystone	Test Point, Compact, Black, TH	Black Compact Testpoint
49	TP6	1		D3082-05	Harwin	1mm Uninsulated Shorting Plug, 10.16mm spacing, TH	Shorting Plug, 10.16mm spacing, TH
50	U1	1		TPS7B8233QDGNRQ1	Texas Instruments	300mA High-Voltage Ultra-Low-Iq Low-Dropout (LDO) Regulator, DGN0008D (VSSOP-8)	DGN0008D
51	U2	1		DRV8703QRHBRQ1	Texas Instruments	Full-Bridge Automotive Gate Driver, RHB0032E (VQFN-32)	RHB0032E
52	U3	1		DRV8873SPWPRQ1	Texas Instruments	Automotive H-Bridge Motor Driver, PWP0024J (TSSOP-24)	PWP0024J
53	U4	1		SN74LV4051AQPWRQ1	Texas Instruments	Automotive Catalog 8-Channel Analog Multiplexer/Demultiplexer, PW0016A (TSSOP-16)	PW0016A
54	U5	1		TLIN1029DQ1	Texas Instruments	Local Interconnect Network (LIN) Transceiver with Dominant State Timeout, D0008A (SOIC-8)	D0008A
55	U6	1		TPS22810DBVRQ1	Texas Instruments	2.7-18-V, 2-A, 79-mQ On-Resistance Load Switch with Thermal Protection, DBV0006A (SOT-23-6)	DBV0006A
56	U8	1		TPS2H160BQPWPRQ1	Texas Instruments	40-V/160-mQ Dual Channels Smart High-Side Switch, PWP0016J (TSSOP-16)	PWP0016J
57	C9, C10, C15, C16	0	0.01uF	CGA2B3X8R1H103K050BB	TDK	CAP, CERM, 0.01 uF, 50 V, +/- 10%, X8R, AEC-Q200 Grade 0, 0402	0402
58	FID1, FID2, FID3	0		N/A	N/A	Fiducial mark. There is nothing to buy or mount.	Fiducial
59	R3, R4, R7	0	100	CRCW0402100RFKED	Vishay-Dale	RES, 100, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	0402
60	R8	0	10k	CRCW060310K0JNEA	Vishay-Dale	RES, 10 k, 5%, 0.1 W, 0603	0603
61	U7	0		TLIN1028DRB	Texas Instruments	Automotive Local Interconnect Network Transceiver, DRB0008F (VSON-8)	DRB0008F

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