Table 1: TIDA-01372 Bill of Materials

Item	Designator	Quantity	Value	PartNumber	Manufacturer	Description	Package Reference
1	!PCB1	1		XX####	Any	Printed Circuit Board	
2	C1, C7, C8, C9, C10	5	1 µF	0805YD105KAT2A	AVX	CAP, CERM, 1 µF, 16 V, +/- 10%, X5R, 0805	0805
3	C2	1	4.7uF	0805ZD475KAT2A	AVX	CAP, CERM, 4.7uF, 10V, +/-10%, X5R, 0805	0805
4	C3	1	4.7 µF	GRM21BR61H475KE51L	MuRata	CAP, CERM, 4.7 µF, 50 V, +/- 10%, X5R, 0805	0805
5	C4, C6, C11, C12	4	0.1uF	GRM188R71H104KA93D	MuRata	CAP, CERM, 0.1uF, 50V, +/-10%, X7R, 0603	0603
6	C5	1	0.01 µF	06031C103KAT2A	AVX	CAP, CERM, 0.01 µF, 100 V, +/- 10%, X7R, 0603	0603
7	C13	1	0.47 µF	C0603C474K8PACTU	Kemet	CAP, CERM, 0.47 µF, 10 V, +/- 10%, X5R, 0603	0603
8	C14	1	10 µF	22201C106MAT2A	AVX	CAP, CERM, 10 µF, 100 V, +/- 20%, X7R, 2220	2220
9	C22	1	0.1 µF	06035C104KAT2A	AVX	CAP, CERM, 0.1 µF, 50 V, +/- 10%, X7R, 0603	0603
10	C21, C24	2	4.7 µF	GRM32ER71H475KA88L	MuRata	CAP, CERM, 4.7 µF, 50 V, +/- 10%, X7R, 1210	1210
11	C23	1	0.22 µF	12065C224KAT2A	AVX	CAP, CERM, 0.22 µF, 50 V, +/- 10%, X7R, 1206	1206
12	C26	1	10 µF	C3225X5R1H106K250AB	TDK	CAP, CERM, 10 µF, 50 V, +/- 10%, X5R, 1210	1210

13	C31, C35	2	0.1uF	0603YC104JAT2A	AVX	CAP, CERM, 0.1uF, 16V, +/-5%, X7R, 0603	0603
14	C32	1	10uF	C3216X5R1C106M	TDK	CAP, CERM, 10uF, 16V, +/-20%, X5R, 1206	1206
15	C33	1	220 pF	06035A221JAT2A	AVX	CAP, CERM, 220 pF, 50 V, +/- 5%, C0G/NP0, 0603	0603
16	C34	1	0.22 µF	HMK212B7224KG-T	Taiyo Yuden	CAP, CERM, 0.22 µF, 100 V, +/-10%, X7R, 0805	0805
17	D1	1	LED, Red	LTST-C170KRKT	Lite-On	LED, Red, SMD	SMD
18	D2	1	5.6 V	MMSZ4690T1G	ON Semiconductor	Diode, Zener, 5.6 V, 500 mW, SOD-123	SOD-123
19	D3	1	100 V	PMEG10010ELRX	NXP Semiconductor	Diode, Schottky, 100 V, 1 A, AEC-Q101, SOD-123W	SOD-123
20	D4	1	40 V	MBRA340T3G	ON Semiconductor	Diode, Schottky, 40 V, 3 A, SMA	SMA
21	D5	1	60V	30WQ10FNPBF	Vishay-Semiconductor	Diode, Schottky, 100 V, 3.5 A, DPAK	DPAK
22	D6	1	60V	PMEG6010CEH,115	NXP Semiconductor	Diode, Schottky, 60V, 1A, SOD-123F	SOD-123
23	FID1, FID2, FID3	3		N/A	N/A	Fiducial mark. There is nothing to buy or mount.	N/A
24	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	NY PMS 440 0025 PH
25	H5, H6, H7, H8	4		1902C	Keystone	Standoff, Hex, 0.5"L #4-40 Nylon	

26	H9, H10, H11, H12	4		SJ-5303 (CLEAR)	3M	Bumpon, Hemisphere, 0.44 X 0.20, Clear	
27	J1	1		395021006	Molex	Terminal Block Header, 3.5mm 6x1, Tin, R/A, TH	
28	J2	1		039544-3002	Molex	Terminal Block, 5.08mm, 2x1, TH	
29	J3	1		IPL1-112-01-L-S-RA-K	Samtec	Header(Shrouded), 2.54mm, 12x1, Gold, R/A, TH	
30	L1	1		MSD1514-103MEB	Coilcraft	Coupled inductor, 10 µH, 16.2 A, 0.015 ohm, SMD	SMD
31	L2	1		744771004	Wurth Elektronik	Inductor, Shielded Drum Core, Ferrite, 4.7 µH, 8 A, 0.008 ohm, SMD	SMD
32	L3	1		74437368150	Wurth Elektronik	Inductor, Wirewound, Powdered Iron, 15 µH, 4.1 A, 45 ohm, SMD	SMD
34	LBL1	1		THT-14-423-10	Brady	Thermal Transfer Printable Labels, 0.650" W x 0.200" H - 10,000 per roll	
35	MN_POWER1	1	100V	SUD40N10-25	Vishay-Siliconix	MOSFET, N-CH, 100V, 40A, DPAK	DPAK
36	Q1, Q2, Q3, Q4, Q5, Q6	6	30V	BSR302NL6327HTSA1	Infineon Technologies	MOSFET, N-CH, 30 V, 3.7 A, AEC-Q101, SOT-23	SOT-23
37	Q7, Q10, Q11, Q12, Q13	5	100V	BUK9K134-100EX	NXP Semiconductor	MOSFET, N-CH, 100 V, 8.5 A, AEC-Q101, SOT1205	SOT1205

38	Q9	1	-100V	ZXMP10A16KTC	Diodes Inc.	MOSFET, P-CH, -100 V, -4.6 A, DPAK	DPAK
39	R1, R11, R14, R15, R18, R32, R41, R46, R51, R58, R60, R63, R65, R67, R69, R71	16	0	CRCW08050000Z0EA	Vishay-Dale	RES, 0, 5%, 0.125 W, 0805	0803
40	R2, R7, R17, R19, R30, R35	6	1.0 k	CRCW06031K00JNEA	Vishay-Dale	RES, 1.0 k, 5%, 0.1 W, 0603	0603
41	R3, R4, R5	3	30 k	CRCW060330K0JNEA	Vishay-Dale	RES, 30 k, 5%, 0.1 W, 0603	0603
42	R6, R8, R29, R45	4	10k	CRCW060310K0JNEA	Vishay-Dale	RES, 10k ohm, 5%, 0.1W, 0603	0603
43	R9, R16, R31, R33, R36, R38, R43, R48, R49, R53, R54, R56, R57, R62, R64, R66, R68, R70, R72, R73	20	0	MCR03EZPJ000	Rohm	RES, 0 ohm, 5%, 0.1W, 0603	0603
44	R13, R28	2	9.1 k	CRCW06039K10JNEA	Vishay-Dale	RES, 9.1 k, 5%, 0.1 W, 0603	0603
45	R20, R21, R25, R26, R27	5	33.2 k	CRCW060333K2FKEA	Vishay-Dale	RES, 33.2 k, 1%, 0.1 W, 0603	0603
46	R22	1	91 k	CRCW060391K0JNEA	Vishay-Dale	RES, 91 k, 5%, 0.1 W, 0603	0603
47	R23, R24	2	50	CRCW060350R0FKEA	Vishay-Dale	RES, 50, 1%, 0.1 W, 0603	0603
48	R37	1	9.10 k	RC0603FR-079K1L	Yageo America	RES, 9.10 k, 1%, 0.1 W, 0603	0603
49	R39	1	45.3 k	RC0603FR-0745K3L	Yageo America	RES, 45.3 k, 1%, 0.1 W, 0603	0603
50	R40	1	0.3	CSRN2512FKR300	Stackpole Electronics Inc	RES, 0.3, 1%, 2 W, 2512	2512
51	R42	1	172 k	RT0603BRD07172KL	Yageo America	RES, 172 k, 0.1%, 0.1 W, 0603	0603
52	R47	1	10	CRCW060310R0JNEA	Vishay-Dale	RES, 10 ohm, 5%, 0.1W, 0603	0603

53	R50	1	0.015	CRA2512-FZ-R015ELF	Bourns	RES, 0.015, 1%, 3 W, 2512	2512
54	R52	1	392 k	RT0603DRE07392KL	Yageo America	RES, 392 k, 0.5%, 0.1 W, 0603	0603
55	R55	1	51	CRCW060351R0JNEA	Vishay-Dale	RES, 51, 5%, 0.1 W, 0603	0603
56	R59	1	191 k	RT0603DRE07191KL	Yageo America	RES, 191 k, 0.5%, 0.1 W, 0603	0603
57	R61	1	40.2 k	RC0603FR-0740K2L	Yageo America	RES, 40.2 k, 1%, 0.1 W, 0603	0603
58	U1, U5	2		SN74HC74QPWR	Texas Instruments	DUAL D-TYPE POSITIVE-EDGE-TRIGGERED FLIP-FLOPS WITH CLEAR AND PRESET, PW0014A	PW14
59	U2	1		TPS7A6650QDGNRQ1	Texas Instruments	High-Voltage Ultralow-Iq Low-Dropout Regulator, DGN0008D	DGN8
60	U3	1		CAHCT1G32QDBVRQ1	Texas Instruments	SINGLE 2-INPUT POSITIVE-OR GATE, DBV0005A	DBC5
61	U4	1		CD74HC4017QPWRG4Q1	Texas Instruments	High-Speed CMOS Logic Decade Counter/Divider with 10 Decoded Outputs, PW0016A	PW16
62	U6	1		TLC555QDRQ1	Texas Instruments	LinCMOS Timer, D0008A	D8
63	U7	1		TPS92601AQPWPRQ1	Texas Instruments	Single-Channel Automotive Headlight LED Driver, PWP0020Q	PWP20

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