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TIDA-01599 REV E2.1 Bill of Materials

Item #	Designator	Quantity	Value	PartNumber	Manufacturer	Description	PackageReference
1	C1, C36	2	4.7uF	GRM188Z71C475KE21D	MuRata	CAP. CERM, 4.7 uF, 16 V, +/- 10%, X7R, 0603	603
2	C2, C5, C15, C20, C22, C24, C34, C35, C37	9	0.1uF	C1608X7R1H104K080AA	TDK	CAP. CERM, 0.1 uF, 50 V, +/- 10%, X7R, 0603	603
3	C3, C28	2	0.022uF	C0603C223K4RACTU	Kemet	CAP. CERM, 0.022 uF, 16 V, +/- 10%, X7R, 0603	603
4	C4	1	1uF	CC1206KXK7R0BB105	Yageo America	CAP. CERM, 1 uF, 100 V, +/- 10%, X7R, 1206	1206
5	C6	1	0.01uF	C0603C103K1RACTU	Kemet	CAP. CERM, 0.01 uF, 100 V, +/- 10%, X7R, 0603	603
6	C7	1	10uF	GRM32ER71H106KA12L	MuRata	CAP. CERM, 10 uF, 50 V, +/- 10%, X7R, 1210	1210
7	C8, C11	2	0.01uF	GRM188R72A103KA01D	MuRata	CAP. CERM, 0.01 uF, 100 V, +/- 10%, X7R, 0603	603
8	C9, C12	2	3.3uF	CG44J1X7R1E335K125AC	TDK	CAP. CERM, 3.3 uF, 25 V, +/- 10%, X7R, 0805	805
9	C10	1	220pF	C0603C221K5RACTU	Kemet	CAP. CERM, 220 pF, 50 V, +/- 10%, X7R, 0603	603
10	C13, C17, C33, C43	4	1uF	8.85012E+11	Würth Elektronik	CAP. CERM, 1 uF, 16 V, +/- 10%, X7R, 0603	603
11	C14, C29, C30, C32, C41, C42, C44	7	0.1uF	06033C104KAT2A	AVX	CAP. CERM, 0.1 uF, 25 V, +/- 10%, X7R, 0603	603
12	C16	1	0.47uF	8.85012E+11	Würth Elektronik	CAP. CERM, 0.47 uF, 16 V, +/- 10%, X7R, 0805	805
13	C18	1	220pF	8.85012E+11	Würth Elektronik	CAP. CERM, 220 pF, 50 V, +/- 5%, CoG/NP0, 0402	402
14	C19	1	10uF	CL31B106KBHNNNE	Samsung Electro-Mechanics	CAP. CERM, 10 uF, 50 V, +/- 10%, X7R, 1206	1206
15	C21	1	4.7uF	GCM21BR71C475KA73L	MuRata	CAP. CERM, 4.7 uF, 16 V, +/- 10%, X7R, AEC-Q200 Grade 1, 0805	805
16	C23, C25	2	0.1uF	C3216X7R2A104K160AA	TDK	CAP. CERM, 0.1 uF, 100 V, +/- 10%, X7R, 1206	1206
17	C26, C27	2	22uF	EMK316BB7226ML-T	Taiyo Yuden	CAP. CERM, 22 uF, 16 V, +/- 20%, X7R, 1206	1206
18	C38	1	0.1uF	GRM188R72A104KA35J	MuRata	CAP. CERM, 0.1 uF, 100 V, +/- 10%, X7R, 0603	603
19	C39, C45	2	0.01uF	C1608X7R1H103K080AA	TDK	CAP. CERM, 0.01 uF, 50 V, +/- 10%, X7R, 0603	603
20	D1	1	Blue	LT-ST-C193TKT-5A	Lite-On	LED, Blue, SMD	1.6x0.8mm
21	D2	1	60V	B360A-13-F	Diodes Inc.	Diode, Schottky, 60 V, 3 A, SMA	SMA
22	D3	1	1200V	STTH112A	STMicroelectronics	Diode, Ultrafast, 1200 V, 1 A, SMA	SMA
23	D4	1	12V	MMS25242BS-7-F	Diodes Inc.	Diode, Zener, 12 V, 200 mW, SOD-323	SOD-323
24	D5, D8	2	30V	BAT54WS-7-F	Diodes Inc.	Diode, Schottky, 30 V, 0.2 A, SOD-323	SOD-323
25	D6	1	10V	ZLLS410TA	Diodes Inc.	Diode, Schottky, 10 V, 0.75 A, SOD-323	SOD-323
26	D7	1	Green	150060VS75000	Würth Elektronik	LED, Green, SMD	LED 0603
27	D9	1	5.1V	MMS25231B-7-F	Diodes Inc.	Diode, Zener, 5.1 V, 500 mW, SOD-123	SOD-123
28	J1, J4, J8	3		282834-2	TE Connectivity	Terminal Block, 2x1, 2.54mm, TH	Terminal Block, 2x1, 2.54mm, TH
29	J2	1		1751251	Phoenix Contact		CONN. TERM. BLK3
30	J3	1		282834-5	TE Connectivity	Terminal Block, 2.54mm, 5 Pos, Tin, Green, R/A, TH	Terminal Block, 2.54mm, 5 Pos, R/A, TH
31	J5	1		1725698	Phoenix Contact	Terminal Block, 6x1, 2.54mm, TH	Terminal Block, 6x1, 2.54mm, TH
32	J6, J7	2		TSW-110-07-G-D	Samtec	Header, 100mil, 10x2, Gold, TH	10x2 Header
33	Q2, Q3	2	20 V	ZSAR522EBTL	Rohm	Transistor, PNP, 20 V, 0.2 A, SC-89	SC-89
34	Q4, Q5	2	12V	CS1D1383F4	Texas Instruments	MOSFET, N-CH, 12 V, 2.9 A, YJC0003A (PICOSTAR-3)	YJC0003A
35	R1	1	22.1k	CRCW040222K1FKED	Vishay-Dale	RES, 22.1 k, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	402
36	R2, R3, R35, R36	4	10k	CRCW060310K0JNEA	Vishay-Dale	RES, 10 k, 5%, 0.1 W, 0603	603
37	R4	1	1.65k	CRCW12061K65FKEA	Vishay-Dale	RES, 1.65 k, 1%, 0.25 W, 1206	1206
38	R5, R9, R10, R16, R19, R23, R24, R46	8	1.00k	RG1608P-102-B-T5	Susumu Co Ltd	RES, 1.00 k, 0.1%, 0.1 W, 0603	603
39	R6, R13, R17, R20	4	499	RT0603BRD07499RL	Yageo America	RES, 499, 0.1%, 0.1 W, 0603	603
40	R7	1	2.55k	CRCW12062K55FKEA	Vishay-Dale	RES, 2.55 k, 1%, 0.25 W, 1206	1206
41	R8	1	7.50k	RC0603FR-077K5L	Yageo America	RES, 7.50 k, 1%, 0.1 W, 0603	603
42	R11, R29, R30, R32, R33, R34, R37, R38, R39, R44	10	0	ERJ-3GEY0R00V	Panasonic	RES, 0, 5%, 0.1 W, 0603	603
43	R12, R21	2	560	RC0603FR-07560RL	Yageo America	RES, 560, 0.1%, 0.1 W, 0603	603
44	R14	1	1.00k	ERJ-6ENF1001V	Panasonic	RES, 1.00 k, 1%, 0.125 W, 0805	805
45	R15, R22	2	2.49k	CMA02040X2491GB300	Vishay	High Power Load Carbon Film MINI-MELF Resistors 2490ohm 2% 0204 SMD	MINI-MELF
46	R25	1	100	CRCW0402100RFKED	Vishay-Dale	RES, 100, 1%, 0.063 W, 0402	402
47	R26	1	3.32k	RT0603DRE073K32L	Yageo America	RES, 3.32 k, 0.5%, 0.1 W, 0603	603
48	R27, R28	2	12	RT0603BRD0712RL	Yageo America	RES, 12, 0.1%, 0.1 W, 0603	603
49	R31	1	1.33k	CRCW04021K33FKED	Vishay-Dale	RES, 1.33 k, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	402
50	R40	1	68.1k	CRCW120668K1FKEA	Vishay-Dale	RES, 68.1 k, 1%, 0.25 W, 1206	1206
51	R41	1	61.9k	RC1206FR-0761K9L	Yageo America	RES, 61.9 k, 1%, 0.25 W, 1206	1206
52	R42	1	1.07k	RT0603DRE071K07L	Yageo America	RES, 1.07 k, 0.5%, 0.1 W, 0603	603
53	R43	1	11.8k	CRCW120611K8FKEA	Vishay-Dale	RES, 11.8 k, 1%, 0.25 W, 1206	1206
54	R47, R52	2	2.00k	CRCW06032K00FKEA	Vishay-Dale	RES, 2.00 k, 1%, 0.1 W, 0603	603
55	R48	1	154k	CRCW0603154KFKEA	Vishay-Dale	RES, 154 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	603
56	R49, R53, R55	3	1.00k	CRCW06031K00FKEA	Vishay-Dale	RES, 1.00 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	603
57	R50, R51	2	10.0k	RC060310K0FKEA	Vishay-Dalronic	RES, 10.0 k, 1%, 0.1 W, 0603	603
58	R54	1	1.40k	CRCW06031K40FKEA	Vishay-Dale	RES, 1.40 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	603
59	TP1, TP2, TP3, TP4, TP5, TP6, TP7, TP8, TP9, TP10, TP11	11		5000	Keystone	Test Point, Miniature, Red, TH	Red Miniature Testpoint
60	U1	1		LMZ14201TZ-ADJ/NOPB	Texas Instruments	SIMPLE SWITCHER (R) 6V to 42V, 1A Power Module in Leaded Surface Mount TO Package, NDW0007A (TO-PMOD-7)	NDW0007A
61	U2, U10	2		SN74LVC2G132YZPR	Texas Instruments	Dual 2-Input NAND Gate with Schmitt-Trigger Inputs, YZP0008ADAD, LARGE T&R	YZP0008ADAD
62	U3	1		TPS27S100BPWPR	Texas Instruments	40 V, 80 mOhm Single-Channel High-Side Switch, PWP0014C (TSSOP-14)	PWP0014C
63	U5, U9	2		ISO1211DR	Texas Instruments	ISO1211DR, D0008B (SOIC-8)	D0008B
64	U7	1		TPS22919DCKR	Texas Instruments	5.5-V, 1.5-A, 100-mohm Load Switch with Output Discharge, DCK0006A (SOT-SC70-6)	DCK0006A
65	U8	1		ISO5852SDWR	Texas Instruments	5.7 kVrms Split O/P, Reinforced Isolated IGBT Gate Driver, DW0016B (SOIC-16)	DW0016B
66	U11	1		ISO7710DR	Texas Instruments	High Speed, Robust EMC Dual-Channel Digital Isolator, D0008B (SOIC-8)	D0008B
67	U12	1		TIOS1013DMWR	Texas Instruments	Digital Sensor Output Drivers with Integrated Surge Protection 3.3V LDO 10 Pin VSON T/R	VSON10
68	U13	1		SN74AHC1G32DBVT	Texas Instruments	Single 2-Input Positive-OR Gate, DBV0005A (SOT-23-5)	DBV0005A
69	FID1, FID2, FID3, FID4, FID5, FID6	0		N/A	N/A	Fiducial mark. There is nothing to buy or mount.	Fiducial
70	Q1	0	650 V	AOT10B65M2	AOS	Transistor, IGBT, 650 V, 20 A, TO-220AB	TO-220AB
71	R18	0	0	ERJ-3GEY0R00V	Panasonic	RES, 0, 5%, 0.1 W, 0603	603

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