Variant: 001
Generated: 9/19/2016 1:14:55 PM
TID #: TIDA-00677

TIDA-00677 REV E1 Bill of Materials

Item #	Designator	Quantity	Value	PartNumber	Manufacturer	Description	PackageReference
1	!PCB1	1		TIDA-00677	Any	Printed Circuit Board	
2	BAT_PROT1, BUCK_OUT1, FAULT1, FILTER1, LDO_OUT1	5		5000	Keystone	Test Point, Miniature, Red, TH	Red Miniature Testpoint
3	C1, C2, C10, C13	4	10uF	GRM32ER71H106KA12L	MuRata	CAP, CERM, 10 µF, 50 V, +/- 10%, X7R, 1210	1210
4	C3, C9	2	1000pF	GRM188R72A102KA01D	MuRata	CAP, CERM, 1000 pF, 100 V, +/- 10%, X7R, 0603	0603
5	C4, C11, C12, C19, C20	5	22uF	C2012JB1V226M125AC	TDK	CAP, CERM, 22 µF, 35 V, +/- 20%, JB, 0805	0805
6	C5, C6, C7, C8	4	2.2uF	C2012X5R1H225K125AB	TDK	CAP, CERM, 2.2 µF, 50 V, +/- 10%, X5R, 0805	0805
7	C14	1	0.1uF	C1608X7R1H104K080AA	TDK	CAP, CERM, 0.1 µF, 50 V, +/- 10%, X7R, 0603	0603
8	C15	1	3300pF	06031C332JAT2A	AVX	CAP, CERM, 3300 pF, 100 V, +/- 5%, X7R, 0603	0603
9	C16	1	1800pF	GRM188R71E182KA01D	MuRata	CAP, CERM, 1800 pF, 25 V, +/- 10%, X7R, 0603	0603
10	C17	1	100uF	UUD1E101MCL1GS	Nichicon	CAP, AL, 100 µF, 25 V, +/- 20%, 0.34 ohm, SMD	6.3x7.7
11	C18	1	3pF	C0603C309C5GACTU	Kemet	CAP, CERM, 3 pF, 50 V, +/- 8.3%, C0G/NP0, 0603	0603
12	C21, C25	2	47uF	C3216X5R1E476M160AC	TDK	CAP, CERM, 47 µF, 25 V, +/- 20%, X5R, 1206_190	1206_190
13	C22	1	0.1uF	GRM21BR71H104KA01L	MuRata	CAP, CERM, 0.1 µF, 50 V, +/- 10%, X7R, 0805	0805
14	C23	1	5600pF	06031C562JAT2A	AVX	CAP, CERM, 5600 pF, 100 V, +/- 5%, X7R, 0603	0603
15	C24	1	10uF	C2012X7R1A106K125AC	TDK	CAP, CERM, 10 µF, 10 V, +/- 10%, X7R, 0805	0805
16	C26	1	22uF	C1608X5R1A226M080AC	TDK	CAP, CERM, 22 µF, 10 V, +/- 20%, X5R, 0603	0603
17	C27, C29, C37	3	4.7uF	C0603C475K8PACTU	Kemet	CAP, CERM, 4.7 µF, 10 V, +/- 10%, X5R, 0603	0603
18	C28, C30, C39	3	0.1uF	06035C104KAT2A	AVX	CAP, CERM, 0.1 µF, 50 V, +/- 10%, X7R, 0603	0603
19	C31, C32, C33, C34, C35, C36, C41, C42, C43	9	0.01uF	06031C103JAT2A	AVX	CAP, CERM, 0.01 µF, 100 V, +/- 5%, X7R, 0603	0603
20	C38	1	0.82uF	GRM219R71E824KA88D	MuRata	CAP, CERM, 0.82 µF, 25 V, +/- 10%, X7R, 0805	0805
21	C40	1	0.22uF	0805YC224JAT2A	AVX	CAP, CERM, 0.22 µF, 16 V, +/- 5%, X7R, 0805	0805
22	D1	1	40V	B240A-13-F	Diodes Inc.	Diode, Schottky, 40 V, 2 A, SMA	SMA
23	D2, D4, D5, D9, D10	5	60V	PMEG6010CEJ,115	NXP Semiconductor	Diode, Schottky, 60 V, 1 A, SOD-323F	SOD-323F
24	D3, D6, D7, D11	4	Green	SML-P12PTT86	Rohm	LED, Green, SMD	LED, 1x.2x.6mm
25	D8	1	9.1V	BZT52C9V1S-7-F	Diodes Inc.	Diode, Zener, 9.1 V, 200 mW, SOD-323	SOD-323
26	D12	1	Red	SML-P12UTT86	Rohm	LED, Red, SMD	LED, 1x.2x.6mm
27	FID1, FID2, FID3, FID4, FID5, FID6	6		N/A	N/A	Fiducial mark. There is nothing to buy or mount.	N/A
28	GND_1, GND_2, GND_3	3		5011	Keystone	Test Point, Multipurpose, Black, TH	Black Multipurpose Testpoint
29	H1, H3, H5, H7	4		MPMS 003 0005 PH	B&F Fastener Supply	MACHINE SCREW PAN PHILLIPS M3 5mm	Screw M3 Phillips head
30	H2, H4, H6, H8	4		24434	Keystone	Standoff, Hex, 12mm, M3, Aluminum	Aluminum M3 12mm Hex Standoff
31	J1	1		1725656	Phoenix Contact	Terminal Block, 100mil, 2x1, 6A, 63V, TH	6.2x8.5x5.54 mm
32	J2	1		PEC04DAAN	Sullins Connector Solutions	Header, 100mil, 4x2, Tin, TH	Header, 4x2, 100mil, Tin
33	J3, J4, J8	3		1715747	Phoenix Contact	Terminal Block, 5.08mm, 4x1, TH	Terminal Block, 5.08mm, 4x1, TH
34	J5, J6	2		PEC03SAAN	Sullins Connector Solutions	Header, 100mil, 3x1, Tin, TH	Header, 3 PIN, 100mil, Tin
35	J7	1		SSQ-106-02-G-D-RA	Samtec	Receptacle, 100mil, 6x2, Gold, R/A, TH	SSQ-106-02-G-D-RA
36	L1	1	4.7uH	74408943047	Wurth Elektronik	Inductor, Shielded Drum Core, Ferrite, 4.7 µH, 2.2 A, 0.045 ohm, SMD	4.8x3.8x4.8mm
37	L2	1	10uH	CDRH127/LDNP-100MC	Sumida	Inductor, Shielded Drum Core, Ferrite, 10 µH, 6.7 A, 0.0195 ohm, SMD	CDRH127
38	Q1, Q2	2	60V	SQ9945BEY-T1-GE3	Vishay-Siliconix	MOSFET, N-CH, 60 V, 5.4 A, SOIC-8	SOIC-8
39	Q3, Q4	2	60V	2N7002-7-F	Diodes Inc.	MOSFET, N-CH, 60 V, 0.17 A, SOT-23	SOT-23
40	R1	1	2.00	CRCW06032R00FKEA	Vishay-Dale	RES, 2.00, 1%, 0.1 W, 0603	0603
41	R2	1	52.3k	RT0603DRE0752K3L	Yageo America	RES, 52.3 k, 0.5%, 0.1 W, 0603	0603
42	R3, R27	2	100k	CRCW0603100KJNEA	Vishay-Dale	RES, 100 k, 5%, 0.1 W, 0603	0603
43	R4	1	51.7k	RT0603BRD0751K7L	Yageo America	RES, 51.7 k, 0.1%, 0.1 W, 0603	0603
44	R5	1	39.0	RC0603FR-0739RL	Yageo America	RES, 39.0, 1%, 0.1 W, 0603	0603
45	R6	1	62.0k	RG1608P-623-B-T5	Susumu Co Ltd	RES, 62.0 k, 0.1%, 0.1 W, 0603	0603
46	R7	1	20.0k	ERJ-3EKF2002V	Panasonic	RES, 20.0 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
47	R8	1	5.6	CRCW06035R60JNEA	Vishay-Dale	RES, 5.6, 5%, 0.1 W, 0603	0603
48	R9	1	86.6k	CRCW060386K6FKEA	Vishay-Dale	RES, 86.6 k, 1%, 0.1 W, 0603	0603
49	R10	1	10k	RNCF0603TKY10K0	Stackpole Electronics Inc	RES, 10 k, 0.01%, 0.063 W, 0603	0603
50	R11, R14, R15, R24	4	3.3k	CRCW06033K30JNEA	Vishay-Dale	RES, 3.3 k, 5%, 0.1 W, 0603	0603
51	R12, R16, R25	3	59.7k	RT0603DRE0759K7L	Yageo America	RES, 59.7 k, 0.5%, 0.1 W, 0603	0603
52	R13, R18, R26	3	42.2k	CRCW060342K2FKEA	Vishay-Dale	RES, 42.2 k, 1%, 0.1 W, 0603	0603
53	R17	1	21.5k	CRCW080521K5FKEA	Vishay-Dale	RES, 21.5 k, 1%, 0.125 W, 0805	0805
54	R19	1	20k	CRCW080520K0JNEA	Vishay-Dale	RES, 20 k, 5%, 0.125 W, 0805	0805
55	R20, R21, R31	3	1.21k	CRCW06031K21FKEA	Vishay-Dale	RES, 1.21 k, 1%, 0.1 W, 0603	0603
56	R22, R23	2	680k	CRCW0805680KJNEA	Vishay-Dale	RES, 680 k, 5%, 0.125 W, 0805	0805
57	R28	1	300	CRCW0603300RJNEA	Vishay-Dale	RES, 300, 5%, 0.1 W, 0603	0603
58	R29	1	100k	CRCW0805100KFKEA	Vishay-Dale	RES, 100 k, 1%, 0.125 W, 0805	0805
59	R30	1	169	CRCW0603169RFKEA	Vishay-Dale	RES, 169, 1%, 0.1 W, 0603	0603
60	Rstop1	1	2.46k	RT0603BRD072K46L	Yageo America	RES, 2.46 k, 0.1%, 0.1 W, 0603	0603
61	S1	1		EVQ-21505R	Panasonic	Switch, Tactile, SPST-NO, 0.02A, 15V, TH	6.0x5.0x6mm
62	U1, U2, U3, U4	4		LM74610QDGKRQ1	Texas Instruments	Smart Diode Controller, DGK0008A	DGK0008A
63	U5	1		TPS65321QPWPRQ1	Texas Instruments	36-V Step-Down Converter with Eco-mode™ and LDO Regulator, PWP0014E	PWP0014E
64	U6, U7, U9	3		TPS92630QPWPRQ1	Texas Instruments	Three-Channel Linear LED Driver with Analog and PWM Dimming, PWP0016F	PWP0016F
65	U8	1		TLC555QDRQ1	Texas Instruments	LinCMOS Timer, D0008A	D0008A

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