

Variant: 001
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TIDA-00639 REV E1 Bill of Materials

Item #	Designator	Quantity	Value	PartNumber	Manufacturer	Description	PackageReference
1	IPCB1	1		XX####	Any	Printed Circuit Board	
2	C1, C2, C3, C4, C12, C13, C14, C15	8	0.1uF	GCM155R71H104KE02D	MuRata	CAP, CERM, 0.1 uF, 50 V, +/- 10%, X7R, AEC-Q200 Grade 1, 0402	0402
3	C5, C6	2	0.1uF	06033C104JAT2A	AVX	CAP, CERM, 0.1uF, 25V, +/-5%, X7R, 0603	0603
4	C7, C9	2	1uF	C1632X7R1C105K	TDK	CAP, CERM, 1 uF, 16 V, +/- 10%, X7R, 0612	0612
5	C8	1	4.7uF	293D475X9035C2TE3	Vishay-Sprague	CAP, TA, 4.7uF, 35V, +/-10%, 1.9 ohm, SMD	6032-28
6	C10, C11	2	0.1uF	C0603C104K5RACTU	Kemet	CAP, CERM, 0.1uF, 50V, +/-10%, X7R, 0603	0603
7	C25, C26, C27, C28	4	0.1uF	08055C104MAT2A	AVX	CAP, CERM, 0.1 uF, 50 V, +/- 20%, X7R, 0805	0805
8	D1, D2, D3, D4	4	30V	SMCJ30A	Fairchild Semiconductor	Diode, TVS, Uni, 30 V, 1500 W, SMC	SMC
9	D5	1	Green	42-21SYGC/S530-E2/TR8	Everlight	LED, Green, SMD	3.2x2.4mm
10	D6, D7, D8, D9	4	5.1V	MMSZ4689T1G	ON Semiconductor	Diode, Zener, 5.1 V, 500 mW, SOD-123	SOD-123
11	F1, F2, F5, F6	4		F0603E3R00FSTR	AVX	Fuse, 3 A, 32 VDC, SMD	0603
12	F3, F4, F7, F8	4		0506016.MXEP	Littelfuse	Fuse, 16 A, 500 VAC, 600 VDC, TH	D6.985xL32.72mm
13	FB1	1	1000 OHM	MMZ1608B102C	TDK Corporation	FERRITE CHIP 1000 OHM 300MA 0603	0603
14	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	Screw
15	H5, H6, H7, H8	4		1902C	Keystone	Standoff, Hex, 0.5"L #4-40 Nylon	Standoff
16	H9, H10, H11, H12	4		SJ-5303 (CLEAR)	3M	Bumpon, Hemisphere, 0.44 X 0.20, Clear	Transparent Bumpon
17	J1, J2, J3, J4, J5, J6, J7, J8	8		PEC04DAAN	Sullins Connector Solutions	Header, 100mil, 4x2, Tin, TH	Header, 4x2, 100mil, Tin
18	J9, J13, J14, J15, J16, J22, J23, J24, J25, J26	10		800-10-002-10-001000	Mill-Max	Header, 100mil, 2x1, TH	Header, 2x1, 100mil, TH
19	J10, J11, J12, J17, J18	5		ED555/2DS	On-Shore Technology	Terminal Block, 3.5mm Pitch, 2x1, TH	7.0x8.2x6.5mm
20	J19	1		CRD-081413-B-G (requires 2)	MLE	20 Pin Booster Pack Connection	100mil Headers
21	J21	1		1714968	Phoenix Contact	Terminal Block, 3x1, 6.35 mm, TH	19x21.5x12.5mm
22	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
23	Q1, Q2, Q3, Q4, Q5, Q6, Q7, Q8	8	-400V	IRFU9310PBF	Vishay-Siliconix	MOSFET, P-CH, -400 V, -1.8 A, IPAK	IPAK
24	R1, R2, R3, R4, R5, R6, R7, R8, R9, R10, R23, R24, R25, R26, R27, R28, R29, R30, R31, R32	20	100k	RT0805BRD07100KL	Yageo America	RES, 100 k, 0.1%, 0.125 W, 0805	0805
25	R11, R12	2	4.64k	RT0603DRE074K64L	Yageo America	RES, 4.64 k, 0.5%, 0.1 W, 0603	0603
26	R15, R16, R17, R18, R19, R20, R21, R22, R37, R38, R39, R40, R41, R42, R43, R44	16	12.0k	RG2012P-123-B-T5	Susumu Co Ltd	RES, 12.0 k, 0.1%, 0.125 W, 0805	0805
27	R45	1	0	CRCW06030000Z0EA	Vishay-Dale	RES, 0 ohm, 5%, 0.1W, 0603	0603
28	R46	1	100	ERA-3AEB101V	Panasonic	RES, 100, 0.1%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
29	R47	1	300	ERA-3AEB301V	Panasonic	RES, 300, 0.1%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
30	R48, R50, R88, R92	4	10.0	TNPW060310R0BEEA	Vishay-Dale	RES, 10.0, 0.1%, 0.1 W, 0603	0603

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31	R49, R52, R70, R76, R82, R86, R89, R93, R112, R119, R120, R126	12	0	CRCW06030000Z0EA	Vishay-Dale	RES, 0, 5%, 0.1 W, 0603	0603
32	R51, R53, R90, R94	4	0.001	LRMAP3920B-R001FT	TT Electronics/IRC	RES, 0.001, 1%, 4 W, AEC-Q200 Grade 0, 3920	3920
33	R54, R55, R91, R95	4	10.0k	RT0603DRE0710KL	Yageo America	RES, 10.0 k, 0.5%, 0.1 W, 0603	0603
34	R56, R57, R61, R62, R69, R71, R75, R77, R81, R83, R85, R87, R96, R97, R98, R99, R106, R107, R111, R113, R117, R121, R125, R143	24	680k	RC1206FR-07680KL	Yageo America	RES, 680 k, 1%, 0.25 W, 1206	1206
35	R58, R59, R60, R63, R64, R65, R66, R68, R72, R74, R78, R80, R100, R101, R102, R103, R104, R105, R108, R110, R114, R115, R122, R123	24	200k	RT0805BRD07200KL	Yageo America	RES, 200 k, 0.1%, 0.125 W, 0805	0805
36	R67, R79, R109, R116	4	1.00k	RT0603BRD071KL	Yageo America	RES, 1.00 k, 0.1%, 0.1 W, 0603	0603
37	R73, R84, R118, R124	4	49.9	RT0603BRD0749R9L	Yageo America	RES, 49.9, 0.1%, 0.1 W, 0603	0603
38	TP1, TP3, TP4	3	STD	STD	STD	Test Point, O.040 Hole	
39	U1, U2, U3, U4	4		INA226AIDGSR	Texas Instruments	High-or Low-Side Measurement, Bi-Directional CURRENT/POWER MONITOR with I2C(TM) Interface, DGS0010A	DGS0010A
40	U5	1		LMT84DCKR	Texas Instruments	1.5V, SC70 Analog Temperature Sensor with Class-AB Output, DCK0005A	DCK0005A
41	U6	1	TPS7A6533 QKVURQ1	TPS7A6533QKVURQ1	TI	IC, 300-mA 40-V LOW-DROPOUT REGULATOR WITH 25-uA QUIESCENT CURRENT	PFM
42	U7, U8, U9, U10	4		OPA333AMDBVREP	Texas Instruments	Enhanced Product, Micropower CMOS Operational Amplifier Zero-Drift Series, 1.8 to 5.5 V, -55 to 125 degC, 5-pin SOT23 (DBV0005A), Green (RoHS & no Sb/Br)	DBV0005A
43	FID1, FID2, FID3	0		N/A	N/A	Fiducial mark. There is nothing to buy or mount.	Fiducial

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