

## TIDA-834\_ISO REV E2 Bill of Materials

Designator	Quantity	Value	PartNumber	Manufacturer	Description	PackageReference
C1, C2, C4, C5, C19, C20, C82, C84, C88, C90, C99, C100, C101, C102, C104, C105	16	100pF	06033C101KAT2A	AVX	CAP, CERM, 100pF, 25V, +/-10%, X7R, 0603	0603
C3, C6, C9, C66, C103, C106, C110, C122, C123, C127, C128, C132, C133, C137, C138	15	0.1uF	06033C104JAT2A	AVX	CAP, CERM, 0.1uF, 25V, +/-5%, X7R, 0603	0603
C7, C8, C107, C108	4	1000pF	C1608C0G1H102J080AA	TDK	CAP, CERM, 1000pF, 50V, +/-5%, C0G/NP0, 0603	0603
C10, C11, C109, C111, C120, C121	6	0.01uF	C1608C0G1E103J080AA	TDK	CAP, CERM, 0.01uF, 25V, +/-5%, C0G/NP0, 0603	0603
C12, C18, C43, C75, C81, C85, C92, C98	8	1uF	GRM188R61C105KA93D	Murata	CAP, CERM, 1 µF, 16 V, +/- 10%, X5R, 0603	0603
C13, C17, C44, C76, C80, C83, C86, C87, C89, C91, C93, C97	12	0.1uF	CGA3E2X8R1E104K080AA	TDK	CAP, CERM, 0.1 µF, 25 V, +/- 10%, X8R, AEC-Q200 Grade 0, 0603	0603
C14, C16, C47, C52, C77, C79, C94, C96	8	1000pF	C0603X102K5RACTU	Kemet	CAP, CERM, 1000 pF, 50 V, +/- 10%, X7R, 0603	0603
C15, C48, C54, C70, C74, C78, C95	7	0.01uF	06031C103KAT2A	AVX	10000pF 100V Ceramic Capacitor X7R 0603	0603
C21, C22, C23, C24, C112, C113, C114, C115	8	0.01uF	C0805C103K5RACTU	Kemet	CAP, CERM, 0.01 µF, 50 V, +/- 10%, X7R, 0805	0805
C25	1	4.7uF	293D475X9025C2TE3	Vishay-Sprague	CAP, TA, 4.7 µF, 25 V, +/- 10%, 2 ohm, SMD	6032-28
C26, C27, C28, C29, C36, C38, C39, C40, C41, C156	10	4.7uF	C3216X7R1E475M160AC	TDK	CAP, CERM, 4.7 µF, 25 V, +/- 20%, X7R, 1206	1206
C30, C33, C35, C42, C159, C161, C163	7	0.01uF	GRM188R70J103KA01D	MuRata	CAP, CERM, 0.01 µF, 6.3 V, +/- 10%, X7R, 0603	0603
C31	1	0.22uF	C0603C224K9RACTU	Kemet	CAP, CERM, 0.22 µF, 6.3 V, +/- 10%, X7R, 0603	0603
C32, C34	2	10pF	C0603C100J5GACTU	Kemet	CAP, CERM, 10 pF, 50 V, +/- 5%, C0G/NP0, 0603	0603
C37, C152, C154, C158, C165	5	1uF	GRM188R61E105KA12D	MuRata	CAP, CERM, 1 µF, 25 V, +/- 10%, X5R, 0603	0603
C45, C55, C68	3	4.7uF	C2012X5R1H475M125AB	TDK	CAP, CERM, 4.7uF, 50V, +/-10%, X5R, 0805	0805
C46, C51, C56, C58, C69, C71, C118, C119, C143, C145, C148, C150, C167	13	0.1uF	C0603C104K5RACTU	Kemet	CAP, CERM, 0.1uF, 50V, +/-10%, X7R, 0603	0603
C49, C50	2	1uF	CGA3E3X5R1H105K080AB	TDK	CAP, CERM, 1uF, 50V, +/-10%, X5R, 0603	0603
C53, C116	2	0.1uF	C0603C104J4RACTU	Kemet	CAP, CERM, 0.1uF, 16V, +/-5%, X7R, 0603	0603
C57, C60, C67, C72, C142, C146, C147, C149, C151, C157, C164	11	10uF	GMK325AB7106MM-T	Taiyo Yuden	CAP, CERM, 10uF, 35V, +/-20%, X7R, 1210	1210
C59	1	0.47uF	UMK107ABJ474KA-T	Taiyo Yuden	CAP, CERM, 0.47uF, 50V, 10%, X5R, 0603	0603
C61, C62	2	1uF	C0805C105K8RACTU	Kemet	CAP, CERM, 1uF, 10V, +/-10%, X7R, 0805	0805
C63, C117	2	0.1uF	C0603C104K8RACTU	Kemet	CAP, CERM, 0.1uF, 10V, +/-10%, X7R, 0603	0603
C64	1	10uF	EMK107BBJ106MA-T	Taiyo Yuden	CAP, CERM, 10uF, 16V, +/-20%, X5R, 0603	0603

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C65	1	10uF	885012208069	Würth	CAP, CERM, 10uF, 25V, +/-10%, X7R, 1206	1206
C73, C153, C155, C160, C162	5	2.2uF	C0805C225K8RACTU	Kemet	CAP, CERM, 2.2uF, 10V, +/-10%, X7R, 0805	0805
C124, C125, C129, C130, C134, C135, C139, C140	8	1uF	GRM188R71C105KA12D	MuRata	CAP, CERM, 1 µF, 16 V, +/- 10%, X7R, 0603	0603
C126, C131, C136, C141	4	330pF	08055A331KAT2A	AVX	CAP, CERM, 330 pF, 50 V, +/- 10%, C0G/NP0, 0805	0805
C144	1	4.7uF	GRM21BR61H475KE51L	TDK	4.7µF ±10% 50V X5R Ceramic Capacitor -55°C ~ 85°C	0805
C166	1	3.3uF	C1608X5R1V335K080AC	TDK	CAP, CERM, 3.3 µF, 35 V, +/- 10%, X5R, 0603	0603
D1, D2, D3, D9, D15, D16, D17, D18	8	3.3V	PESD3V3L1BA,115	NXP Semiconductor	DIODE, TVS, BIDIRECTIONAL, 3.3VWM, 26VC, SOD323	SOD323
D4, D7	2	20V	MBRM120ET1G	ON Semiconductor	Diode, Schottky, 20 V, 1 A, POWERMITE	POWERMITE
D5, D6, D11, D13	4	15V	DZ2W15000L	Panasonic	Diode, Zener, 15V, 1W, SOD-123	SOD-123
D8	1	3.6V	MMSZ4685T1G	On semiconductor	Diode, Zener, 3.6V, 500mW, SOD-123	SOD-123
D10, D12, D14, D44	4	Green	LG L29K-G2J1-24-Z	OSRAM	LED, Green, SMD	1.7x0.65x0.8mm
D19, D20, D21, D22	4	100V	BAV19WS-7-F	Diodes Inc.	Diode, Switching, 100 V, 0.2 A, SOD-323	SOD-323
D23, D24, D25, D26, D27, D28, D29, D30, D31, D32, D33, D34, D35, D36, D37, D38	16	DESD1P0RFW-7	DESD1P0RFW-7	Diodes Inc	Diode, P-N, 70V, 0.2A, SOT-323	SOT-323
D39, D43	2	5.6V	MMSZ5232B-7-F	Diodes Inc.	Diode, Zener, 5.6 V, 500 mW, SOD-123	SOD-123
D40	1	Green	LG L29K-G2J1-24-Z	OSRAM	LED SmartLED Green 570NM	0603
D41, D42	2	20V	B0520LW-7-F	Diodes Inc	Diode, Schottky, 20V, 0.5A, SOD-123	SOD-123
D45	1	100V	BAS316,115	NXP Semiconductor	Diode, Ultrafast, 100 V, 0.25 A, SOD-323	SOD-323
FB1, FB2, FB3, L19	4	1000 ohm	MMZ1608B102CTA00	TDK	Ferrite Bead, 1000 ohm @ 100 MHz, 0.3 A, 0603	0603
H1, H2, H3, H4, H13, H15	6		NY PMS 440 0025 PH	B&F Fastener Supply	Machine Screw, Round, #4-40 x 1/4, Nylon, Philips panhead	Screw
H5, H6, H7, H8, H14, H16	6		1902C	Keystone	Standoff, Hex, 0.5"L #4-40 Nylon	Standoff
H9, H11	2		PMSSS 440 0025 PH	B&F Fastener Supply	MACHINE SCREW PAN PHILLIPS 4-40	Machine Screw, 4-40, 1/4"
H10, H12	2		1891	Keystone	Hex Standoff, #4-40, Aluminum, 1/4"	1/4" Aluminum Hex Standoff
J1, J2, J10, J31, J34, J48, J49	7		ED120/2DS	On-Shore Technology	TERMINAL BLOCK 5.08MM VERT 2POS, TH	TERM_BLK, 2pos, 5.08mm
J3, J4, J17, J18, J24, J25, J35, J36	8	PEC02SAAN	PEC02SAAN	Sullins	Header, Male 2-pin, 100mil spacing,	0.100 inch x 2
J5, J6, J7, J8, J9, J13, J14, J28, J30, J39, J40, J45, J46, J47	14		5-146280-3	TE Connectivity	Header, 2.54mm, 3x1, Gold, TH	Header, 2.54mm, 3x1, TH
J11, J12	2		OSTVN02A150	On Shore Technology Inc	Terminal Block, 4x1, 2.54mm, TH	TERM_BLK, 2pos, 2.54mm
J15, J16	2		5-146280-2	TE Connectivity	Header, 100mil, 2x1, Gold, TH	2x1 Header
J20, J21, J22, J23, J37, J38, J41, J42	8		5-146261-1	TE Connectivity	Header, 100mil, 2x1, Gold, TH	Header, 2x1, 100mil
JP5	1		5-534206-8	Samtec	Receptacle, 2.54mm, 16x2, Gold, TH	Receptacle, 2.54mm, 16x2, TH
L1, L2, L5, L6, L7, L8, L9, L10, L11, L12, L13, L14, L15, L16, L17, L18	16	21 ohm@100 Mhz	FBMJ2125HM210NT	Taiyo Yuden	Ferrite Bead, 21 ohm @ 100 MHz, 6 A, 0805	0805
L3, L4	2	4.7uH	VLF504012MT-4R7M	TDK	Inductor, Shielded, Ferrite, 4.7uH, 1.83A, 0.1 ohm, SMD	IND_5x1.2x4mm
R1, R3, R138, R140	4	68.0k	RC0603FR-0768KL	Yageo America	RES, 68.0 k, 1%, 0.1 W, 0603	0603

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R2, R4, R5, R7, R11, R16, R139, R141, R142, R144, R148, R153	12	330k	RC1206FR-07330KL	Yageo America	RES, 330 k, 1%, 0.25 W, 1206	1206
R6, R9, R12, R13, R143, R146, R149, R150	8	16.0k	RC0603FR-0716KL	Yageo America	RES, 16.0 k, 1%, 0.1 W, 0603	0603
R8, R10, R26, R32, R45, R99, R118, R134, R145, R147, R163, R169, R196, R197	14	100	CRCW0603100RFKEA	Vishay-Dale	RES, 100 ohm, 1%, 0.1W, 0603	0603
R15, R18, R152, R155	4	130k	CRCW0603130KFKEA	Vishay-Dale	RES, 130 k, 1%, 0.1 W, 0603	0603
R19, R21, R156, R158, R208, R212, R218, R224	8	649	CRCW0603649RFKEA	Vishay-Dale	RES, 649, 1%, 0.1 W, 0603	0603
R23, R29, R160, R166	4	1.00Meg	CRCW06031M00FKEA	Vishay-Dale	RES, 1.00Meg ohm, 1%, 0.1W, 0603	0603
R25, R31, R88, R162, R168	5	10.0k	CRCW060310K0FKEA	Vishay-Dale	RES, 10.0k ohm, 1%, 0.1W, 0603	0603
R27, R33, R82, R164, R170, R203	6	10k	CRCW060310K0FKEA	Stackpole Electronics Inc	RES, 10.0k ohm, 1%, 0.1W, 0603	0603
R28, R34, R165, R171	4	1.00k	CRCW12061K00FKEA	Vishay-Dale	RES, 1.00k ohm, 1%, 0.25W, 1206	1206
R35, R41, R89, R95, R106, R112, R122, R128	8	249	RT0603BRD07249RL	Yageo America	RES, 249, 0.1%, 0.1 W, 0603	0603
R36, R40, R48, R86, R90, R94, R102, R107, R111, R121, R123, R127, R137	13	100k	RC0603FR-07100KL	Yageo America	RES, 100 k, 1%, 0.1 W, 0603	0603
R37, R91, R108, R124	4	169	RC0603FR-07169RL	Yageo America	RES, 169, 1%, 0.1 W, 0603	0603
R38, R92, R109, R125	4	5.60k	RG1608P-562-B-T5	Susumu Co Ltd	RES, 5.60 k, 0.1%, 0.1 W, 0603	0603
R39, R93, R110, R126	4	15.0	CRCW060315R0FKEA	Vishay-Dale	RES, 15.0, 1%, 0.1 W, 0603	0603
R43, R97, R115, R131	4	82.0k	RG1608P-823-B-T5	Susumu Co Ltd	RES, 82.0 k, 0.1%, 0.1 W, 0603	0603
R44, R46, R98, R100, R117, R119, R133, R135	8	8.20k	RC0603FR-078K2L	Yageo America	RES, 8.20 k, 1%, 0.1 W, 0603	0603
R49, R50, R51, R52, R53, R54, R55, R56, R173, R174, R175, R176, R177, R178, R179, R180	16	1.00k	CRCW08051K00FKEA	Vishay-Dale	RES, 1.00 k, 1%, 0.125 W, 0805	0805
R57, R62, R104, R105, R113, R114, R129, R130, R200, R201, R229, R230	12	0	RC0603JR-070RL	Yageo America	RES, 0, 5%, 0.1 W, 0603	0603
R58	1	0	CRCW12060000Z0EA	Vishay-Dale	RES, 0 ohm, 5%, 0.25W, 1206	1206

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R59, R63, R65, R214, R231, R238, R246, R247	8	0	CRCW06030000Z0EA	Vishay-Dale	RES, 0, 5%, 0.1 W, 0603	0603
R60	1	576k	CRCW0603576KFKEA	Vishay-Dale	RES, 576 k, 1%, 0.1 W, 0603	0603
R61, R66, R67	3	49.9k	RG1608P-4992-B-T5	Susumu Co Ltd	RES, 49.9 k, 0.1%, 0.1 W, 0603	0603
R64	1	620k	CRCW0603620KFKEA	Vishay-Dale	RES SMD 620K OHM 1% 1/10W 0603	0603
R68	1	1.00	CR0603-J/-1R0ELF	Bourns inc	RES SMD 1 OHM 5% 1/10W 0603	0603
R69	1	1.0k	CRCW06031K00JNEA	Vishay-Dale	RES, 1.0 k, 5%, 0.1 W, 0603	0603
R70, R103, R172	3	0	CRCW08050000Z0EA	Vishay-Dale	RES, 0 ohm, 5%, 0.125W, 0805	0805
R71	1	300	CRCW0603300RJNEA	Vishay-Dale	RES, 300 ohm, 5%, 0.1W, 0603	0603
R73, R77, R78, R81, R83, R190, R191, R192, R194, R195, R226, R228, R244	13	0	CRCW06030000Z0EA	Vishay-Dale	RES, 0 ohm, 5%, 0.1W, 0603	0603
R74, R84	2	3.9k	CRCW06033K90JNEA	Vishay-Dale	RES, 3.9k ohm, 5%, 0.1W, 0603	0603
R75, R76	2	2.00k	CRCW12062K00FKEA	Vishay-Dale	RES, 2.00 k, 1%, 0.25 W, 1206	1206
R79	1	8.45k	CRCW06038K45FKEA	Vishay-Dale	RES, 8.45 k, 1%, 0.1 W, 0603	0603
R80	1	100k	CRCW0603100KFKEA	Vishay-Dale	RES, 100 k, 1%, 0.1 W, 0603	0603
R85	1	1.07Meg	CRCW06031M07FKEA	Vishay-Dale	RES, 1.07 M, 1%, 0.1 W, 0603	0603
R87	1	31.6k	CRCW060331K6FKEA	Vishay-Dale	RES, 31.6k ohm, 1%, 0.1W, 0603	0603
R181, R182, R183, R184, R185, R186, R187, R188	8	100k	CRCW0805100KFKEA	Vishay-Dale	RES, 100 k, 1%, 0.125 W, 0805	0805
R199, R205, R215, R221	4	160k	CRCW0603160KFKEA	Vishay-Dale	RES, 160 k, 1%, 0.1 W, 0603	0603
R202, R204, R235, R236	4	249k	CRCW0603249KFKEA	Vishay-Dale	RES, 249 k, 1%, 0.1 W, 0603	0603
R206, R207, R210, R211, R216, R217, R222, R223	8	12.0	RC0603FR-0712RL	Yageo America	RES, 12.0, 1%, 0.1 W, 0603	0603
R220, R232	2	75.0k	CRCW060375K0FKEA	Vishay-Dale	RES, 75.0 k, 1%, 0.1 W, 0603	0603
R227, R241	2	820	RC0603FR-07820RL	Yageo America	RES, 820, 1%, 0.1 W, 0603	0603
R237	1	27.0k	RC0603FR-0727KL	Yageo America	RES, 27.0 k, 1%, 0.1 W, 0603	0603
R239	1	24.0k	RC0603FR-0724KL	Yageo America	RES, 24.0 k, 1%, 0.1 W, 0603	0603
R245	1	0	CRCW12060000Z0EA	Vishay-Dale	RES, 0, 5%, 0.25 W, 1206	1206
SH-J3, SH-J5, SH-J6, SH-J7, SH-J8, SH-J9, SH-J10, SH-J12, SH-J13, SH-J14, SH-J16, SH-J18, SH-J21, SH-J22, SH-J23, SH-J24, SH-J25, SH-J26, SH-J27, SH-J28, SH-J29, SH-J30, SH-J31, SH-J32, SH-J33, SH-J34, SH-J35, SH-J36, SH-J37, SH-J38	30		881545-2	TE Connectivity	Shunt, 100mil, Gold plated, Black	Shunt 2 pos. 100 mil
T1, T2, T3, T4	4		CR8350-2500-N	CR MAGNETICS	CURRENT TRANSFORMER, 20-1 KHz, 57 OHM, VERTICAL, THRU-4P	
T5	1	340uH	750313638	Würth Elektronik	Transformer, 340 uH, TH	8x9.14mm

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TP2, TP5, TP6, TP11, TP12, TP13, TP14, TP18, TP21, TP25, TP31, TP32, TP33, TP34, TP35, TP36, TP37, TP38, TP42, TP43, TP46, TP47, TP48, TP49, TP50, TP51, TP52, TP53, TP54, TP55, TP56, TP59, TP60, TP61	34	Double	1573-2	Keystone	Terminal, Turret, TH, Double	Keystone1573-2
TP7, TP8, TP27, TP39	4	White	5002	Keystone	Test Point, Miniature, White, TH	White Miniature Testpoint
TP9, TP26, TP29, TP40	4	Black	5001	Keystone	Test Point, Miniature, Black, TH	Black Miniature Testpoint
TP15, TP16	2	5001	5001	Keystone	Test Point, Black, Thru Hole Color Keyed	0.100 x 0.100 inch
TP19, TP20, TP22	3	STD	STD	STD	Test Point 40mil pad 20mil drill	
TP23	1	Red	5010	Keystone	Test Point, Multipurpose, Red, TH	Red Multipurpose Testpoint
TP24	1	Green	5126	Keystone	Test Point, Multipurpose, Green, TH	Green Multipurpose Testpoint
U1, U4, U14, U17	4		OPA2188AID	Texas Instruments	0.03 uV/degC, 6 uV Vos, Low Noise, Rail-to-Rail Output, Zero-Drift Operational Amplifier, 4 to 36 V, -40 to 105 degC, 8-pin SOIC (D0008A), Green (RoHS & no Sb/Br)	D0008A
U2, U18	2		LM2903DR	Texas Instruments	Dual Comparator, D0008A	D0008A
U3, U6, U13, U15	4		INA188ID	Texas Instruments	INA188 Precision, Zero-Drift, Rail-to-Rail Out, High Voltage Instrumentation Amplifier, D0008A	D0008A
U5	1		TPS65131RGET	Texas Instruments	Postive and Negative Output DC-DC Converter, 2.7 to 5.5 V, -40 to 85 degC, 24-pin QFN (RGE24), Green (RoHS & no Sb/Br)	RGE0024B
U7	1	TPS7A6533QKVURQ1	TPS7A6533QKVURQ1	TI	IC, 300-mA 40-V LOW-DROPOUT REGULATOR WITH 25-uA QUIESCENT CURRENT	PFM
U8	1	TLV1117I-xxCDCY	TLV1117IDCYR	TI	IC, vvV, 800mA LDO Voltage Regulators	SOT-223
U9, U16	2		OPA322AIDBVR	Texas Instruments	20 MHz, Low Noise, RRIO, CMOS Operational Amplifier with Shutdown, 1.8 to 5.5 V, -40 to 125 degC, 5-pin SOT23 (DBV0005A), Green (RoHS & no Sb/Br)	DBV0005A
U10	1		REF5025AIDGKT	Texas Instruments	Low Noise, Very Low Drift, Precision Voltage Reference, -40 to 125 degC, 8-pin MSOP(DGK), Green (RoHS & no Sb/Br)	DGK0008A
U11	1		LP2951CSD	Texas Instruments	Series of Adjustable Micropower Voltage Regulators, 8-pin LLP	SDC08A
U12	1		TPS7A3001DGNR	Texas Instruments	Single Output High PSRR LDO, 200 mA, Adjustable -1.18 to -33 V Output, -3 to -36 V Input, with Ultra-Low Noise, 8-pin MSOP (DGN), -40 to 125 degC, Green (RoHS & no Sb/Br)	DGN0008D
U19	1		REF3025AIDBZR	Texas Instruments	2.5 V, 50 ppm / degC, 50 uA Series (Bandgap) Voltage Reference, -40 to 125 degC, 3-pin SOT-23 (DBZ), Green (RoHS & no Sb/Br)	DBZ0003A
U20, U21, U22, U23	4		AMC1301DWVR	Texas Instruments	200 kHz, Fully-Differential Isolation Amplifier, DWV0008A	DWV0008A
U24	1		TLV70450DBVR	Texas Instruments	Single Output LDO, 150 mA, Fixed 5 V Output, 2.5 to 24 V Input, with Ultra-Low IQ, 5-pin SOT-23 (DBV), -40 to 125 degC, Green (RoHS & no Sb/Br)	DBV0005A
U25	1		SN6505BDBVR	Texas Instruments	LOW-NOISE 1A TRANSFORMER DRIVERS FOR ISOLATED POWER SUPPLIES, DBV0006A	DBV0006A
U26	1		LM27762DSST	Texas Instruments	Low-Noise Regulated Switched-Capacitor Voltage Inverter and Positive LDO, DSS0012B	DSS0012B
U27	1		TPS7A3901DSC	Texas Instruments	Wide-VIN ( $\pm 33$ V), 150-mA, Spilt-Rail Output, Positive and Negative LDO Voltage Regulator with Startup Tracking, DSC0010J	DSC0010J

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R14, R17, R151, R154	0	68.0k	RC0603FR-0768KL	Yageo America	RES, 68.0 k, 1%, 0.1 W, 0603	0603
R20, R22, R157, R159, R209, R213, R219, R225	0	649	CRCW0603649RFKEA	Vishay-Dale	RES, 649, 1%, 0.1 W, 0603	0603
R24, R30, R47, R101, R120, R136, R161, R167	0	100k	RC0603FR-07100KL	Yageo America	RES, 100 k, 1%, 0.1 W, 0603	0603
R42, R96, R116, R132	0	0	RC0603JR-070RL	Yageo America	RES, 0, 5%, 0.1 W, 0603	0603
R72, R189, R193, R242, R243	0	0	CRCW06030000Z0EA	Vishay-Dale	RES, 0 ohm, 5%, 0.1W, 0603	0603
R198, R233, R234, R240	0	0	CRCW06030000Z0EA	Vishay-Dale	RES, 0, 5%, 0.1 W, 0603	0603