

## TIDA-01214\_ISOW\_ADS8668 REV E1 Bill of Materials

Designator	Quantity	Value	PartNumber	Manufacturer	Description	PackageReference
IPCB	1		TIDA-01214_ISOW_ADS8668	Any	Printed Circuit Board	
C1, C2, C3, C6, C7, C36, C48, C84, C92	9	0.1uF	06033C104JAT2A	AVX	CAP, CERM, 0.1uF, 25V, +/-5%, X7R, 0603	0603
C4	1	220pF	06031C221KAT2A	AVX	CAP, CERM, 220pF, 100V, +/-10%, X7R, 0603	0603
C5	1	10uF	C0603C106M9PACTU	Kemet	CAP, CERM, 10uF, 6.3V, +/-20%, X5R, 0603	0603
C8	1	22uF	GRM32ER71C226MEA8L	Murata	CAP CER 22UF 16V X7R 1210	1210
C9, C63	2	1uF	CC0603KRX7R7BB105	Yageo America	CAP CER 1UF 16V X7R 0603	0603
C10	1	1uF	C0603C105K4PACTU	Kemet	CAP, CERM, 1uF, 16V, +/-10%, X5R, 0603	0603
C11	1	3000pF	GRM1885C1H302JA01D	MuRata	CAP, CERM, 3000pF, 50V, +/-5%, C0G/NP0, 0603	0603
C16	1	0.022uF	C0603C223K3RACTU	Kemet	CAP, CERM, 0.022uF, 25V, +/-10%, X7R, 0603	0603
C17	1	10uF	C1608X5R1A106M080AC	TDK	CAP, CERM, 10uF, 10V, +/-20%, X5R, 0603	0603
C22, C32, C42	3	10uF	T491B106K016AT	Vishay-Sprague	CAP, TA, 10 uF, 16 V, +/- 10%, 2 ohm, SMD	3528-21
C38, C39, C40, C41, C69	5	0.1uF	C0603C104K5RACTU	Kemet	CAP, CERM, 0.1uF, 50V, +/-10%, X7R, 0603	0603
C43, C49, C65	3	0.1uF	06033C104JAT2A	AVX	CAP, CERM, 0.1 uF, 25 V, +/- 5%, X7R, 0603	0603
C44	1	1000pF	GRM1885C1H102JA01D	MuRata	CAP, CERM, 1000 pF, 50 V, +/- 5%, C0G/NP0, 0603	0603
C47, C51	2	10uF	GRM31CR61H106KA12L	MuRata	CAP, CERM, 10 uF, 50 V, +/- 10%, X5R, 1206	1206
C53	1	0.22uF	C0603C224J3RAC7867	Kemet	CAP, CERM, 0.22 uF, 25 V, +/- 5%, X7R, 0603	0603
C56	1	47uF	GRM32ER70J476KE20L	MuRata	CAP, CERM, 47 uF, 6.3 V, +/- 10%, X7R, 1210	1210
C57, C60	2	10uF	CL21B106KOQNNNE	Samsung Electro-Mechanics	CAP, CERM, 10 uF, 16 V, +/- 10%, X7R, 0805	0805
C58, C74, C75, C77, C79, C86, C88	7	1uF	GRM188R71E105KA12D	MuRata	CAP, CERM, 1 uF, 25 V, +/- 10%, X7R, 0603	0603
C59	1	2.2uF	GRM21BR71E225KA73L	MuRata	CAP, CERM, 2.2 uF, 25 V, +/- 10%, X7R, 0805	0805
C62	1	10uF	GRM21BR71A106KE51L	MuRata	CAP, CERM, 10uF, 10V, +/-10%, X7R, 0805	0805
C64	1	0.1uF	06035C104KAT2A	AVX	CAP, CERM, 0.1uF, 50V, +/-10%, X7R, 0603	0603
C66	1	0.1uF	C0603C104J4RACTU	Kemet	CAP, CERM, 0.1uF, 16V, +/-5%, X7R, 0603	0603
C67, C68	2	1uF	C0805C105K8RACTU	Kemet	CAP, CERM, 1uF, 10V, +/-10%, X7R, 0805	0805
C70	1	0.1uF	C0603C104K8RACTU	Kemet	CAP, CERM, 0.1uF, 10V, +/-10%, X7R, 0603	0603
C71	1	10uF	EMK107BBJ106MA-T	Taiyo Yuden	CAP, CERM, 10uF, 16V, +/-20%, X5R, 0603	0603
C72, C73, C82, C83	4	100pF	06035A101JAT2A	AVX	CAP, CERM, 100 pF, 50 V, +/- 5%, C0G/NP0, 0603	0603
C76, C89	2	1000pF	06031C102JAT2A	AVX	CAP, CERM, 1000 pF, 100 V, +/- 5%, X7R, 0603	0603
C78, C85, C87	3	0.01uF	06031C103KAT2A	AVX	CAP, CERM, 0.01 uF, 100 V, +/- 10%, X7R, 0603	0603
C80, C81, C90, C93	4	180pF	06035A181JAT2A	AVX	CAP, CERM, 180pF, 50V, +/-5%, C0G/NP0, 0603	0603
D1, D2	2	3.9V	PTZTE253.9B	Rohm Semiconductor	DIODE ZENER 4.1V 1W PMDS	DO-214AC, SMA
D6, D7, D9	3	Green	SML-D12M8WT86	ROHM Semiconductor	LED GREEN DIFFUSED 0603 SMD	0603
D14, D15	2	5.6V	MMSZ5232B-7-F	Diodes Inc.	Diode, Zener, 5.6 V, 500 mW, SOD-123	SOD-123
FID4, FID5, FID6	3		N/A	N/A	Fiducial mark. There is nothing to buy or mount.	Fiducial
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
H5, H6, H7, H8	4		1902C	Keystone	Standoff, Hex, 0.5"L #4-40 Nylon	Standoff
J1	1		961104-6404-AR	3M	CONN HEADER VERT SGL 4POS GOLD	4x1 Header
J2, J12	2		961102-6404-AR	3M	CONN HEADER VERT SGL 2POS GOLD	2x1 Header
J7, J10, J11, J13	4		OSTVN02A150	On Shore Technology Inc	Terminal Block, 4x1, 2.54mm, TH	TERM_BLK, 2pos, 2.54mm
J8	1		68602-108HLF	Amphenol	8 Positions Header, Unshrouded Connector 0.100" (2.54mm) Through Hole Gold or Gold, GXT™	4x2 Header
J19	1		ERF8-025-01-L-D-RA-L-TR	Samtec, Inc.	Receptacle, Micro High Speed Socket Strip, 0.8mm, 25x2, R/A, SMT	Conn Micro High Speed Socket Strip SKT 50 POS 0.8mm, RA

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J20	1		502570-0893	Molex	SD Memory Card Connector	N/A
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
Q1, Q2	2	30V	CSD17571Q2	Texas Instruments	MOSFET, N-CH, 30 V, 22 A, DQK0006C (WSON-6)	DQK0006C
R1, R86, R109	3	390	CRCW0603390RFKEA	Vishay-Dale	RES, 390, 1%, 0.1 W, 0603	0603
R2, R4	2	100k	CRCW0603100KJNEA	Vishay-Dale	RES, 100k ohm, 5%, 0.1W, 0603	0603
R3, R121, R123, R124, R125	5	0	CRCW06030000Z0EA	Vishay-Dale	RES, 0 ohm, 5%, 0.1W, 0603	0603
R5, R12, R17, R23, R24, R25, R26, R27, R28, R29, R30, R31, R32, R34, R35, R37, R38, R40, R47, R50, R64, R112, R113, R117, R118, R145, R146, R168, R169	29	0	CRCW06030000Z0EA	Vishay-Dale	RES, 0, 5%, 0.1 W, 0603	0603
R6, R8	2	499	CRCW0402499RFKED	Vishay-Dale	RES, 499 ohm, 1%, 0.063W, 0402	0402
R9, R22	2	4.02k	CRCW04024K02FKED	Vishay-Dale	RES, 4.02k ohm, 1%, 0.063W, 0402	0402
R11, R21, R78	3	2.00k	CRCW06032K00FKEA	Vishay-Dale	RES, 2.00k ohm, 1%, 0.1W, 0603	0603
R13, R15	2	47k	CRCW040247K0JNED	Vishay-Dale	RES, 47k ohm, 5%, 0.063W, 0402	0402
R14, R120	2	49.9	CRCW040249R9FKED	Vishay-Dale	RES, 49.9 ohm, 1%, 0.063W, 0402	0402
R16, R51, R55, R58, R60, R61, R62, R110	8	49.9	CRCW060349R9FKEA	Vishay-Dale	RES, 49.9, 1%, 0.1 W, 0603	0603
R19	1	4.12k	RG1608P-4121-B-T5	Susumu Co Ltd	RES, 4.12k ohm, 0.1%, 0.1W, 0603	0603
R33, R39, R52, R53, R54, R56, R140, R142, R147, R148, R163, R166	12	160k	CRCW0603160KJNEA	Vishay-Dale	RES, 160k ohm, 5%, 0.1W, 0603	0603
R36, R42, R44, R46	4	249	RG1608P-2490-B-T5	Susumu Co Ltd	RES, 249 ohm, 0.1%, 0.1W, 0603	0603
R41, R108	2	300	CRCW0603300RJNEA	Vishay-Dale	RES, 300 ohm, 5%, 0.1W, 0603	0603
R43	1	33.0k	RC0603FR-0733KL	Yageo America	RES, 33.0 k, 1%, 0.1 W, 0603	0603
R45	1	10.0k	CRCW060310K0FKEA	Vishay-Dale	RES, 10.0 k, 1%, 0.1 W, 0603	0603
R65	1	47k	RC0603JR-0747KL	Yageo America	RES, 47 k, 5%, 0.1 W, 0603	0603
R66	1	2.20k	RC0603FR-072K2L	Yageo America	RES, 2.20 k, 1%, 0.1 W, 0603	0603
R68, R73, R97, R104	4	0	RC0402JR-070RL	Yageo America	RES, 0 ohm, 5%, 0.063W, 0402	0402
R70, R72	2	162k	RC0603FR-07162KL	Yageo America	RES, 162 k, 1%, 0.1 W, 0603	0603
R74, R75, R79, R80, R81, R82, R83, R84, R85, R116, R119	11	10.0k	CRCW040210K0FKED	Vishay-Dale	RES, 10.0k ohm, 1%, 0.063W, 0402	0402
R87, R88, R89, R90, R91, R92, R93, R101, R105, R106, R128	11	0	CRCW04020000Z0ED	Vishay-Dale	RES, 0 ohm, 5%, 0.063W, 0402	0402
R129, R130, R131, R132, R152, R153, R159, R161	8	22	CRCW060322R0JNEA	Vishay-Dale	RES, 22 ohm, 5%, 0.1W, 0603	0603
R133, R134, R137, R138, R154, R156, R157, R160	8	10k	CRCW060310K0JNEA	Vishay-Dale	RES, 10k ohm, 5%, 0.1W, 0603	0603
R135, R136, R155, R158	4	68.0	RC0603FR-0768RL	Yageo America	RES, 68.0 ohm, 1%, 0.1W, 0603	0603
R151, R170	2	0	RC0603JR-070RL	Yageo America	RES, 0, 5%, 0.1 W, 0603	0603
SD1	1		SDSDQ-002G	SanDisk	SanDisk MicroSD Card, 2GB	N/A
SH-J2, SH-J3, SH-J4	3	1x2	969102-0000-DA	3M	Shunt, 100mil, Gold plated, Black	Shunt
TP2, TP3, TP5, TP6, TP7	5				Pad, SMT 0.23 mm	

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TP4, TP8, TP9, TP10, TP11, TP12, TP13, TP14, TP15, TP16, TP17	11	5001	5001	Keystone	Test Point, Black, Thru Hole Color Keyed	0.100 x 0.100 inch
TP21	1	Double	1573-2	Keystone	Terminal, Turret, TH, Double	Keystone1573-2
U1, U4	2		OPA376AIDBVR	Texas Instruments	Precision, Low Noise, Low Iq Operational Amplifier, 2.2 to 5.5 V, -40 to 125 degC, 5-pin SOT23 (DBV0005A), Green (RoHS & no Sb/Br)	DBV0005A
U2	1		ADS8668IDBT	TI	IC ADC 12BIT 500KSPS 8CH 38TSSOP	TSSOP-38
U3	1	OPA320AIDBVR	OPA320AIDBVR	TI	IC, Precision, 20MHz, 0.9pA, Low-Noise, RRIO, CMOS Op-Amp	SOT23-5
U5	1		INA333AIDGKR	Texas Instruments	Micro-Power (50mA), Zero-Drift, Rail-to-Rail Out Instrumentation Amplifier	DGK0008A
U6	1		TLV3012AIDCKR	Texas Instruments	Nanopower, 1.8V, Comparator with Voltage Reference, DCK0006A	DCK0006A
U8	1		ISOW7841DWER	Texas Instruments	ISOW7841DWE, DW0016B (SOIC-16)	DW0016B
U9	1		TPS3836K33DBVR	Texas Instruments	NanoPower Supervisory Circuits, DBV0005A (SOT-5)	DBV0005A
U10	1		SN74LVC1G17DCKR	Texas Instruments	SINGLE SCHMITT-TRIGGER BUFFER, DCK0005A (SOT-5)	DCK0005A
U11	1	AT24C02B	AT24C02D-SSHMT	Atmel	IC EEPROM 2KBIT 1MHZ 8SOIC	SO-8
U12	1		REG71055DDCR	Texas Instruments	5.5 V, Buck / Boost Charge Pump, 60 mA, 3 to 5.5 V Input with 2-Cell Alkaline / Nixx Input, -40 to 85 degC, 6-pin SOT23 (DDC6), Green (RoHS & no Sb/Br)	DDC0006A
U15	1		TPS22944DCKR	Texas Instruments	LOW-INPUT-VOLTAGE CURRENT-LIMITED LOAD SWITCHES WITH SHUT OFF AND AUTO-RESTART FEATURE, DCK0005A (SOT-5)	DCK0005A
U18	1		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
U19	1		REF5040AIDGKT	Texas Instruments	Low Noise, Very Low Drift, Precision Voltage Reference, -40 to 125 degC, 8-pin MSOP (DGK), Green (RoHS & no Sb/Br)	DGK0008A
U20	1		OPA4180IPW	Texas Instruments	IC OPAMP ZERO-DRIFT 2MHZ 14TSSOP	TSSOP (PW) 14
U21	1		TPS71750DSET	Texas Instruments	Single Output High PSRR LDO, 150 mA, Fixed 5 V Output, 2.5 to 6.5 V Input, with Low IQ, 6-pin WSON (DSE), -40 to 125 degC, Green (RoHS & no Sb/Br)	DSE0006A
U22	1		TPS60403DBVR	Texas Instruments	-1.8 to -5.25 V, Inverting Charge Pump Regulator, 60 mA, 1.8 to 5.25 V Input with 2-Cell Alkaline / Nixx Input, -40 to 85 degC, 5-pin SOT23 (DBV5), Green (RoHS & no Sb/Br)	DBV0005A
U23	1		TPS72301DBVR	Texas Instruments	Single Output LDO, 200 mA, Adjustable -10 to -1.2 V Output, -10 to -2.7 V Input, 5-pin SOT-23 (DBV), -40 to 125 degC, Green (RoHS & no Sb/Br)	DBV0005A
C12, C13, C14, C15, C18, C19, C20, C21	0	0.01uF	C1608C0G1H103J080AA	TDK	CAP, 10000pF, 0603, 5%, 50V, C0G	0603
C37, C50	0	0.1uF	06033C104JAT2A	AVX	CAP, CERM, 0.1uF, 25V, +/-5%, X7R, 0603	0603
D10, D11, D12, D13	0	3.3V	PESD3V3L1BA,115	NXP Semiconductor	DIODE, TVS, BIDIRECTIONAL, 3.3VWM, 26VC, SOD323	SOD323
FID1, FID2, FID3	0		N/A	N/A	Fiducial mark. There is nothing to buy or mount.	Fiducial
J3, J4, J5, J6, J9, J15, J22	0		961102-6404-AR	3M	CONN HEADER VERT SGL 2POS GOLD	2x1 Header
R7, R10	0	49.9	CRCW040249R9FKED	Vishay-Dale	RES, 49.9 ohm, 1%, 0.063W, 0402	0402
R18	0	47k	CRCW040247K0JNED	Vishay-Dale	RES, 47k ohm, 5%, 0.063W, 0402	0402
R20	0	0	CRCW06030000Z0EA	Vishay-Dale	RES, 0, 5%, 0.1 W, 0603	0603
R48, R71	0	0	RC0402JR-070RL	Yageo America	RES, 0 ohm, 5%, 0.063W, 0402	0402
R49	0	4.7k	RC0603JR-074K7L	Yageo America	RES, 4.7 k, 5%, 0.1 W, 0603	0603
R67	0	47k	RC0603JR-0747KL	Yageo America	RES, 47 k, 5%, 0.1 W, 0603	0603
R76, R122, R126	0	0	CRCW06030000Z0EA	Vishay-Dale	RES, 0 ohm, 5%, 0.1W, 0603	0603
R77, R98, R99, R100, R103, R107	0	0	CRCW04020000Z0ED	Vishay-Dale	RES, 0 ohm, 5%, 0.063W, 0402	0402
R94, R95, R96, R102	0	10.0k	CRCW040210K0FKED	Vishay-Dale	RES, 10.0k ohm, 1%, 0.063W, 0402	0402
U17	0		TPS3836K33DBVR	Texas Instruments	NanoPower Supervisory Circuits, DBV0005A (SOT-5)	DBV0005A

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