

## TIDA-01576\_ADS8686S\_ISO\_Interface REV E1 Bill of Materials

Designator	Quantity	Value	PartNumber	Manufacturer	Description	PackageReference
C1, C2, C3, C4, C5	5	10uF	GRM21BR71A106KE51L	MuRata	CAP, CERM, 10 $\mu$ F, 10 V, +/- 10%, X7R, 0805	0805
C6, C18, C19, C30	4	0.1uF	GRM155R71C104KA88D	MuRata	CAP, CERM, 0.1 $\mu$ F, 16 V, +/- 10%, X7R, 0402	0402
C7, C9, C11	3	0.1uF	06033C104JAT2A	AVX	CAP, CERM, 0.1uF, 25V, +/-5%, X7R, 0603	0603
C8, C17	2	0.01uF	C1608C0G1E103J080AA	TDK	CAP, CERM, 0.01uF, 25V, +/-5%, C0G/NP0, 0603	0603
C10, C13, C46, C47, C52, C54, C55, C58, C65, C66, C72, C77	12	0.1uF	C0603C104K5RACTU	Kemet	CAP, CERM, 0.1uF, 50V, +/-10%, X7R, 0603	0603
C12, C14, C56, C59	4	10uF	T491B106K016AT	Vishay-Sprague	CAP, TA, 10 $\mu$ F, 16 V, +/- 10%, 2 ohm, SMD	3528-21
C15, C16, C57, C60	4	10uF	GRM31CR61H106KA12L	MuRata	CAP, CERM, 10 $\mu$ F, 50 V, +/- 10%, X5R, 1206	1206
C33	1	1uF	GRM188R71E105KA12D	MuRata	CAP, CERM, 1 $\mu$ F, 25 V, +/- 10%, X7R, 0603	0603
C37, C44	2	10uF	GRM32ER71H106KA12L	MuRata	CAP, CERM, 10 uF, 50 V, +/- 10%, X7R, 1210	1210
C38, C41, C48	3	47uF	C3216X5R1E476M160AC	TDK	CAP, CERM, 47 uF, 25 V, +/- 20%, X5R, 1206_190	1206_190
C39, C42, C49	3	1uF	C1608X7R1C105K080AC	TDK	CAP, CERM, 1 uF, 16 V, +/- 10%, X7R, 0603	0603
C40, C43, C50	3	47uF	C2012X5R1A476M125AC	TDK	CAP, CERM, 47 uF, 10 V, +/- 20%, X5R, 0805	0805
C45, C51, C53, C64, C71, C76	6	10uF	GMK325AB7106MM-T	Taiyo Yuden	CAP, CERM, 10uF, 35V, +/-20%, X7R, 1210	1210
C61	1	100pF	06035A101FAT2A	AVX	CAP, CERM, 100 pF, 50 V, +/- 1%, C0G/NP0, 0603	0603
C62, C63, C81	3	0.1uF	C0603C104K5RACTU	Kemet	CAP, CERM, 0.1 uF, 50 V, +/- 10%, X7R, 0603	0603
C67, C78	2	10uF	C1210C106M5RACTU	Kemet	CAP, CERM, 10uF $\pm$ 20% 50V Ceramic Capacitor X7R 1210	1206
C68, C79	2	1uF	C1608X7R1E105K080AB	TDK	CAP, CERM, 1uF $\pm$ 10% 25V Ceramic Capacitor X7R 0603	0603
C69, C73	2	0.1uF	GMK107BJ104KAHT	Taiyo Yuden	0.1uF $\pm$ 10% 35V Ceramic Capacitor X5R 0603	0603
C70, C74	2	2.2uF	C0805C225K8RACTU	Kemet	CAP, CERM, 2.2uF, 10V, +/-10%, X7R, 0805	0805
C75	1	0.01uF	GRM188R70J103KA01D	MuRata	CAP, CERM, 0.01 $\mu$ F, 6.3 V, +/- 10%, X7R, 0603	0603
C80	1	0.1uF	06033D104KAT2A	AVX	CAP, CERM, 0.1 $\mu$ F, 25 V, +/- 10%, X5R, 0603	0603
D1, D2	2	3.9V	PTZTE253.9B	Rohm Semiconductor	DIODE ZENER 4.1V 1W PMDS	DO-214AC, SMA
D3, D4	2	200V	MBRS4201T3G	ON Semiconductor	Diode, Schottky, 200 V, 4 A, SMC	SMC
D5, D6	2	100V	BAV19WS-7-F	Diodes Inc.	Diode, Switching, 100 V, 0.2 A, SOD-323	SOD-323
D7, D9	2	20V	MBR0520L	Fairchild Semiconductor	Diode, Schottky, 20V, 0.5A, SOD-123	SOD-123
D8, D10	2	5.6V	MMSZ5232B-7-F	Diodes Inc.	Diode, Zener, 5.6 V, 500 mW, SOD-123	SOD-123
D11, D14	2	Green	LG M67K-G1J2-24-Z	OSRAM	LED, Green, SMD	2x1.4mm
D12, D13	2	20V	B0520LW-7-F	Diodes Inc	Diode, Schottky, 20V, 0.5A, SOD-123	SOD-123
H1, H2, H3, H4, H5, H6, H7, H8	8		PMSSS 440 0025 PH	B&F Fastener Supply	MACHINE SCREW PAN PHILLIPS 4-40	Machine Screw, 4-40, 1/4"
H9, H10, H11, H12	4		1891	Keystone	3/16 Hex Female Standoff	3/16 Hex Female Standoff
H13, H14, H15, H16	4		1893	Keystone	HEX STANDOFF 4-40 ALUMINUM 1/2"	4-40 HEX Aluminum standoff 0.500 inches
H17, H18, H19, H20	4		RM3X4MM 2701	APM HEXSEAL	Machine Screw Pan PHILLIPS M3	

Designator	Quantity	Value	PartNumber	Manufacturer	Description	PackageReference
H23, H24	2		9774050360R	Würth Elektronik	ROUND STANDOFF M3 STEEL 5MM	ROUND STANDOFF M3 STEEL 5MM
J1	1		QTH-030-03-L-D-A	Samtec	Header(Shrouded), 19.7mil, 30x2, Gold, SMT	Header (Shrouded), 19.7mil, 30x2, SMT
J2	1		QSH-030-01-L-D-A	Samtec	Receptacle, 0.5 mm, 30x2, Gold, TH	Receptacle, 0.5 mm, 30x2, TH
J3, J8, J9	3		PEC02SAAN	Sullins Connector Solutions	Header, 100mil, 2x1, Tin, TH	Header, 2 PIN, 100mil, Tin
J4, J5, J6, J7	4		39357-0002	Molex	Terminal Block, 3.5 mm, 2x1, Tin, TH	Terminal Block, 3.5 mm, 2x1, TH
LED1	1	Green	LTST-C193TGKT-5A	Lite-On	LED, Green, SMD	Body1.6x0.8mm
R2, R35, R56	3	10.0k	ERJ-2RKF1002X	Panasonic	RES, 10.0 k, 1%, 0.1 W, 0402	0402
R3, R4, R5, R6, R7, R9, R11, R12, R14, R15, R16, R17, R18, R19, R20, R21, R22, R28, R29, R30, R31, R32, R33, R34, R67, R97, R132, R133, R135	29	0	ERJ-2GE0R00X	Panasonic	RES, 0, 5%, 0.063 W, 0402	0402
R8, R84	2	1.00Meg	CRCW06031M00FKEA	Vishay-Dale	RES, 1.00Meg ohm, 1%, 0.1W, 0603	0603
R13, R85, R107, R111	4	100k	RC0603FR-07100KL	Yageo America	RES, 100 k, 1%, 0.1 W, 0603	0603
R23	1	10.0k	CRCW060310K0FKEA	Vishay-Dale	RES, 10.0 k, 1%, 0.1 W, 0603	0603
R24, R25, R39, R42, R66, R68, R70, R75, R77, R78, R89, R90, R91, R96, R99, R101, R102, R104, R113, R114, R117, R118, R123, R124, R126, R129, R131, R134	28	0	CRCW06030000Z0EA	Vishay-Dale	RES, 0, 5%, 0.1 W, 0603	0603
R26, R86, R108, R112	4	10.0k	CRCW060310K0FKEA	Vishay-Dale	RES, 10.0k ohm, 1%, 0.1W, 0603	0603
R27, R87	2	10k	CRCW060310K0FKEA	Stackpole Electronics Inc	RES, 10.0k ohm, 1%, 0.1W, 0603	0603
R36	1	1.00k	ERJ-2RKF1001X	Panasonic	RES, 1.00 k, 1%, 0.1 W, 0402	0402
R37, R38	2	0	ERJ-2GE0R00X	Panasonic	RES, 0, 5%, 0.1 W, AEC-Q200 Grade 0, 0402	0402
R55	1	100k	CRCW0402100KFKEA	Vishay-Dale	RES, 100 k, 1%, 0.063 W, 0402	0402
R73, R79, R92	3	0.1	ERJ-3RSFR10V	Panasonic	RES, 0.1, 1%, 0.1 W, 0603	0603
R80, R93, R94	3	0.005	ERJ6LWFR005V	Panasonic	RES, 0.005, 1%, 0.5 W, AEC-Q200 Grade 1, 0805	0805
R81, R110, R115, R136	4	1.0k	RC0603JR-071KL	Yageo America	RES, 1.0 k, 5%, 0.1 W, 0603	0603
R82, R88	2	100	CRCW0603100RFKEA	Vishay-Dale	RES, 100 ohm, 1%, 0.1W, 0603	0603
R83, R95	2	470	RC1206FR-07470RL	Yageo America	RES, 470, 1%, 0.25 W, 1206	1206
R100, R116, R119	3	0	CRCW06030000Z0EA	Vishay-Dale	RES, 0 ohm, 5%, 0.1W, 0603	0603
R103, R109	2	47k	RC0603JR-0747KL	Yageo America	RES, 47 k, 5%, 0.1 W, 0603	0603

Designator	Quantity	Value	PartNumber	Manufacturer	Description	PackageReference
R106	1	82k	CRCW060382K0JNEA	Vishay-Dale	RES, 82 k, 5%, 0.1 W, 0603	0603
R120, R121	2	274k	CRCW0603274KFKEA	Vishay-Dale	RES, 274 k, 1%, 0.1 W, 0603	0603
R122	1	31.6k	CRCW060331K6FKEA	Vishay-Dale	RES, 31.6 k, 1%, 0.1 W, 0603	0603
R125	1	27.4k	CRCW060327K4FKEA	Vishay-Dale	RES, 27.4 k, 1%, 0.1 W, 0603	0603
S1	1		EVQPNF04M	Panasonic	Switch, Tactile, SPST-NO, 0.05A, 12V, SMD	SMD, 2-Leads, Body 6x4mm
T1	1	469uH	750342271	Würth Electronics Midcom	Transformer 469uH SMD	10.05mm L x 6.73mm W
T2	1	475uH	760390014	Würth Elektronik	Transformer, 475uH, SMT	10.05x4.19x6.73 mm
TP1, TP2, TP3, TP4, TP5, TP6, TP7, TP8, TP19, TP20, TP21, TP22, TP23, TP24, TP49, TP50, TP51, TP52, TP53, TP54, TP55, TP56	22		5015	Keystone	Test Point, Miniature, SMT	Testpoint_Keystone_Miniature
TP9, TP10, TP11, TP12, TP13, TP14, TP15, TP16, TP35, TP36, TP37, TP38, TP39, TP40, TP41, TP42, TP43, TP44, TP45, TP46	20		TP_H0.45P0.75	Texas Instruments	Testpoint	Test Point, 0.45mm hole size
TP17, TP18, TP25	3		5002	Keystone	Test Point, Miniature, White, TH	White Miniature Testpoint
TP26, TP27, TP30, TP31, TP32, TP33, TP34, TP47, TP48	9		5000	Keystone	Test Point, Miniature, Red, TH	Red Miniature Testpoint
TP28, TP29	2		5001	Keystone	Test Point, Miniature, Black, TH	Black Miniature Testpoint
U1	1		BR24G32FVT-3AGE2	Rohm	I2C BUS EEPROM (2-Wire), TSSOP-B8	TSSOP-8
U2	1		OPA2171AID	Texas Instruments	Low Power, RRO, General Purpose Operational Amplifier in MicroPackage, 2.7 to 36 V, -40 to 125 degC, 8-pin SOIC (D8), Green (RoHS & no Sb/Br)	D0008A
U3, U5	2		ISO7763DWR	Texas Instruments	High Speed, Robust EMC, Reinforced Six-Channel Digital Isolator, DW0016B (SOIC-16)	DW0016B
U4	1		LM2903DR	Texas Instruments	Dual Comparator, D0008A	D0008A
U11	1		SN74LVC1G17DCKR	Texas Instruments	SINGLE SCHMITT-TRIGGER BUFFER, DCK0005A	DCK0005A
U13, U14, U16	3		TPS7A4700RGWR	Texas Instruments	36-V, 1-A, 4.17-uVRMS, RF LDO Voltage Regulator, RGW0020A (VQFN-20)	RGW0020A
U15, U21	2		SN6505BDBVR	Texas Instruments	LOW-NOISE 1A TRANSFORMER DRIVERS FOR ISOLATED POWER SUPPLIES, DBV0006A	DBV0006A
U17	1		UCC12050DVER	Texas Instruments	500 mW, High-Efficiency, Low-Emissions, 5 kVRMS Isolated DC-DC Converter, DVE0016A (SO-MOD-16)	DVE0016A
U18	1		TPS3897ADRYR	Texas Instruments	Single-Channel Ultra-Small Adjustable Supervisory Circuit With Active-High Open-Drain Output, DRY0006A (USON-6)	DRY0006A
U19	1		SN74LVC1G125DCKR	Texas Instruments	Single Bus Buffer Gate With 3-State Outputs, DCK0005A, LARGE T&R	DCK0005A

Designator	Quantity	Value	PartNumber	Manufacturer	Description	PackageReference
U20	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
U22	1		SN74LVC1G32DBVR	Texas Instruments	Single 2-Input Positive-OR Gate, DBV0005A, LARGE T&R	DBV0005A
U23	1			Texas Instruments	Single Schmitt-Trigger Buffer, DCK0005A, LARGE T&R	DCK0005A
C20, C22, C26, C27, C28, C29, C31, C32, C34, C35	0	0.1uF	GRM155R71C104KA88D	MuRata	CAP, CERM, 0.1 $\mu$ F, 16 V, +/- 10%, X7R, 0402	0402
C21	0	1uF	GRM188R71E105KA12D	MuRata	CAP, CERM, 1 $\mu$ F, 25 V, +/- 10%, X7R, 0603	0603
C23	0	15pF	GRM1885C1H150JA01D	MuRata	CAP, CERM, 15 pF, 50 V, +/- 5%, C0G/NP0, 0603	0603
C24	0	10uF	CL21B106KOQNNNE	Samsung Electro-Mechanics	CAP, CERM, 10 $\mu$ F, 16 V, +/- 10%, X7R, 0805	0805
C25	0	0.01uF	GRM188R71E103KA01D	MuRata	CAP, CERM, 0.01 $\mu$ F, 25 V, +/- 10%, X7R, 0603	0603
C36	0	1000pF	S102K29Y5PN63J5R	Vishay BC Components	CAP CER 1000PF 1KV 10% RADIAL	
H21, H22	0		9774050360R	Wurth Elektronik	ROUND STANDOFF M3 STEEL 5MM	ROUND STANDOFF M3 STEEL 5MM
R1, R43, R44, R46, R47, R51, R52, R53, R54, R59, R60, R61, R62, R63, R64	0	10.0k	ERJ-2RKF1002X	Panasonic	RES, 10.0 k, 1%, 0.1 W, 0402	0402
R10, R49, R57, R98	0	0	ERJ-2GE0R00X	Panasonic	RES, 0, 5%, 0.063 W, 0402	0402
R40, R65, R69, R71, R72, R74, R76, R127, R128, R130	0	0	CRCW06030000Z0EA	Vishay-Dale	RES, 0, 5%, 0.1 W, 0603	0603
R41	0	10.0	CRT0603-BY-10R0ELF	Bourns	RES, 10.0, 0.1%, 0.1 W, 0603	0603
R45	0	51.1k	CRCW060351K1FKEA	Vishay-Dale	RES, 51.1 k, 1%, 0.1 W, 0603	0603
R48	0	30.1k	CRCW060330K1FKEA	Vishay-Dale	RES, 30.1 k, 1%, 0.1 W, 0603	0603
R50, R58	0	0	ERJ-2GE0R00X	Panasonic	RES, 0, 5%, 0.1 W, AEC-Q200 Grade 0, 0402	0402
R105	0	47k	RC0603JR-0747KL	Yageo America	RES, 47 k, 5%, 0.1 W, 0603	0603
U6, U9, U12	0		SN74AVC4T245DGVVR	Texas Instruments	4-Bit Dual-supply Bus Transceiver with Configurable Voltage Translation and 3-State Outputs, DGV0016A	DGV0016A
U7	0		TPS79101DBVR	Texas Instruments	Single Output High PSRR LDO, 100 mA, Adjustable 1.2 to 5.5 V Output, 2.7 to 5.5 V Input, 6-pin SOT-23 (DBV), -40 to 125 degC, Green (RoHS & no Sb/Br)	DBV0006A
U8	0		ISO7330CDWR	Texas Instruments	Robust EMC, Low Power, Triple-Channel 3/0 Digital Isolator, Fail-Safe High, DW0016B (SOIC-16)	DW0016B
U10	0		ISO7841DWR	Texas Instruments	High-Immunity, 5.7kVRMS Reinforced Quad-Channel 3/1 Digital Isolator, 100Mbps, DW0016B (SOIC-16)	DW0016B