

## TIDA-010005 REV E2 Bill of Materials

Designator	Quantity	Value	PartNumber	Manufacturer	Description	PackageReference
!PCB	1		TIDA-010005	Any	Printed Circuit Board	
C1, C2, C6, C8, C9, C10, C11, C16, C17, C20, C22, C23, C25, C26, C27, C29, C30, C33, C34, C35, C39, C40, C41, C42, C45, C46, C47, C48, C49, C50	30	1uF	GCM155C71A105KE38D	MuRata	CAP, CERM, 1 µF, 10 V,+/- 10%, X7S, AEC-Q200 Grade 1, 0402	0402
C3, C4	2	470pF	885012206081	Wurth Elektronik	CAP, CERM, 470 pF, 50 V, +/- 10%, X7R, 0603	0603
C5, C38	2	220pF	885012005063	Wurth Elektronik	CAP, CERM, 220 pF, 50 V,+/- 5%, C0G/NP0, 0402	0402
C7	1	10uF	CL10A106KP8NNNC	Samsung Electro-Mechanics	CAP, CERM, 10 µF, 10 V,+/- 20%, X5R, 0603	0603
C12, C51, C52, C54	4	0.1uF	GRM188R71C104KA01D	MuRata	CAP, CERM, 0.1 uF, 16 V, +/- 10%, X7R, 0603	0603
C13, C28	2	22uF	CL10A226MP8NUNE	Samsung Electro-Mechanics	CAP, CERM, 22 µF, 10 V,+/- 20%, X5R, 0603	0603
C14	1	270pF	CL05C271JB5NNNC	Samsung Electro-Mechanics	CAP, CERM, 270 pF, 50 V,+/- 1%, C0G/NP0, 0402	0402
C15	1	10uF	CL05A106MP5NUNC	Samsung Electro-Mechanics	CAP, CERM, 10 uF, 10 V, +/- 20%, X5R, 0402	0402
C18, C19	2	680pF	06033A681JAT2A	AVX Corporation	CAP, CERM, 680 pF, 25 V,+/- 5%, C0G/NP0, 0603	0603
C24, C31	2	100pF	GRM1885C1H101JA01D	MuRata	CAP, CERM, 100 pF, 50 V,+/- 5%, C0G/NP0, 0603	0603
C32	1	0.01uF	C0603C103J5RACTU	Kemet	CAP, CERM, 0.01 µF, 50 V,+/- 5%, X7R, 0603	0603
C36, C43, C44	3	330pF	GRM1555C1H331JA01D	MuRata	CAP, CERM, 330 pF, 50 V,+/- 5%, C0G/NP0, 0402	0402
C37	1	750pF	C0603C751J5GACTU	Kemet	CAP, CERM, 750 pF, 50 V,+/- 5%, C0G/NP0, 0603	0603
C53	1	51pF	CL05C510JB5NNNC	Samsung Electro-Mechanics	CAP, CERM, 51 pF, 50 V,+/- 2%, C0G/NP0, 0402	0402
C55, C56	2	2200pF	CL05B222KB5VPNC	Samsung Electro-Mechanics	CAP, CERM, 2200 pF, 50 V,+/- 10%, X5R, 0402	0402
D1, D2, D3	3	75V	1N4148X-TP	Micro Commercial Component	Diode, Switching, 75 V, 0.3 A, SOD-523	SOD-523
D4, D6, D8	3	75V	BAS16W-7-F	Diodes Inc.	Diode, Switching, 75 V, 0.15 A, SOT-323	SOT-323
D5	1	Green	LTST-C190GKT	Lite-On	LED, Green, SMD	1.6x0.8x0.8mm
D7	1	40V	BAT54AFILM	STMicroelectronics	Diode, Schottky, 40 V, 0.3 A, SOT-23	SOT-23
J1	1		PEC05DAAN	Sullins Connector Solutions	Header, 100mil, 5x2, Tin, TH	Header, 5x2, 100mil, Tin
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 x 0.200 inch
Q1, Q2, Q3	3	60 V	DNBT8105-7	Diodes Inc.	Transistor, NPN, 60 V, 1 A, AEC-Q101, SOT-23	SOT-23
Q4	1	20 V	2SAR522EBTL	Rohm	Transistor, PNP, 20 V, 0.2 A, SC-89	SC-89
R1, R10, R23, R25, R26, R28, R34, R35, R92, R96	10	0	ERJ-2GE0R00X	Panasonic	RES, 0, 5%, 0.063 W, 0402	0402
R2, R3, R4, R19, R27	5	10.0k	RC1005F103CS	Samsung Electro-Mechanics	RES SMD 10K OHM 1% 1/16W 0402	0402
R5, R17, R18, R20, R21, R22	6	470	ERJ-2RKF4700X	Panasonic	RES, 470, 1%, 0.1 W, AEC-Q200 Grade 0, 0402	0402
R6, R8	2	100	ERJ-3EKF1000V	Panasonic	RES, 100, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
R7, R13	2	49.9k	ERJ-2RKF4992X	Panasonic	RES, 49.9 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0402	0402
R9, R14, R95	3	33.0	ERJ-2RKF33R0X	Panasonic	RES, 33.0, 1%, 0.1 W, 0402	0402

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R11, R12, R36	3	100k	ERJ-2RKF1003X	Panasonic	RES, 100 k, 1%, 0.1 W, 0402	0402
R15	1	0	5106	Keystone	RES, 0, 1%, 0.5 W, 0805	0805
R24, R67	2	4.70k	RC0402FR-074K7L	Yageo America	RES, 4.70 k, 1%, 0.0625 W, 0402	0402
R29, R68	2	1.00Meg	ERJ-3GEYJ105V	Panasonic Electronic Compon	RES SMD 1M OHM 5% 1/10W 0603	0603
R30	1	31.6k	RC1005F3162CS	Samsung Electro-Mechanics	RES SMD 31.6K OHM 1% 1/16W 0402	0402
R32	1	316	ERJ-2RKF3160X	Panasonic Electronic Compon	RES, 316, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	0402
R33, R37	2	20k	CRCW040220K0JNED	Vishay-Dale	RES, 20 k, 5%, 0.063 W, 0402	0402
R38, R39, R46, R51, R65, R66, R70, R74, R78	9	10.0k	ERJ-3EKF1002V	Panasonic	RES, 10.0 k, 1%, 0.1 W, 0603	0603
R40, R41, R43	3	22k	RC1005F223CS	Samsung Electro-Mechanics	RES SMD 22K OHM 1% 1/16W 0402	0402
R44, R45, R69	3	221k	ERJ-2RKF2213X	Panasonic Electronic Compon	RES, 221 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0402	0402
R47, R73	2	4.53Meg	RMCF0402FT4M53	Stackpole Electronics Inc.	RES, 4.53 M, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	0402
R48, R75	2	2.26Meg	RC1005F2264CS	Samsung Electro-Mechanics	RES SMD 2.26M OHM 1% 1/16W 0402	0402
R49, R76	2	1.13Meg	RMCF0402FT1M13	Stackpole Electronics Inc.	RES 1.13M OHM 1% 1/16W 0402	0402
R50, R77	2	562k	ERJ-2RKF5623X	Panasonic Electronic Compon	RES, 562 k, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	0402
R52, R79	2	280k	ERJ-2RKF2803X	Panasonic Electronic Compon	RES SMD 280K OHM 1% 1/10W 0402	0402
R53, R81	2	140k	ERJ-2RKF1403X	Panasonic Electronic Compon	RES SMD 140K OHM 1% 1/10W 0402	0402
R54, R82	2	69.8k	ERJ-2RKF6982X	Panasonic Electronic Compon	RES, 69.8 k, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	0402
R55, R83	2	35.7k	ERJ-2RKF3572X	Panasonic Electronic Compon	RES SMD 35.7K OHM 1% 1/10W 0402	0402
R56, R84	2	17.8k	ERJ-2RKF1782X	Panasonic Electronic Compon	RES SMD 17.8K OHM 1% 1/10W 0402	0402
R57, R85	2	8.87k	ERJ-2RKF8871X	Panasonic Electronic Compon	RES SMD 8.87K OHM 1% 1/10W 0402	0402
R58, R86	2	33	ERJ-2RKF33R0X	Panasonic Electronic Compon	RES SMD 33 OHM 1% 1/10W 0402	0402
R59, R87	2	4.42k	ERJ-2RKF4421X	Panasonic Electronic Compon	RES SMD 4.42K OHM 1% 1/10W 0402	0402
R60, R88	2	2.20k	RC0402FR-072K2L	Yageo America	RES, 2.20 k, 1%, 0.063 W, 0402	0402
R61, R89, R91	3	1.00k	RT0402BRD071KL	Yageo	RES, 1.00 k, 0.1%, 0.063 W, AEC-Q200 Grade 0, 0402	0402
R62, R90	2	3.00k	ERA-3YEB302V	Panasonic	RES, 3.00 k, 0.1%, 0.1 W, 0603	0603
R63	1	100k	ERA-3AEB104V	Panasonic	RES, 100 k, 0.1%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
R64	1	1.00k	ERJ-3EKF1001V	Panasonic	RES, 1.00 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
R71	1	8.87k	CRCW06038K87FKEA	Vishay-Dale	RES, 8.87 k, 1%, 0.1 W, 0603	0603
R72	1	174k	ERJ-2RKF1743X	Panasonic Electronic Compon	RES SMD 174K OHM 1% 1/10W 0402	0402
R80	1	49.9	ERJ-3EKF49R9V	Panasonic	RES, 49.9, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
U1	1		ADS7142IRUGR	Texas Instruments	Ultra-Low Power, Ultra-Small Size, 12-Bit, SAR ADC with Intelligent Digital Features, RUG0010A (X2QFN-10)	RUG0010A
U2, U6, U7, U8, U19	5		TLV9062IDSGR	Texas Instruments	10-MHz, RRIO, CMOS Operational Amplifier for Cost-Sensitive Systems, DSG0008A (WSON-8)	DSG0008A
U3	1		REF2930AIDBZT	Texas Instruments	3.0 V 100 ppm / degC, 50 uA in Series (Bandgap) Voltage Reference, -40 to 125 degC, 3-pin SOT-23 (DBZ), Green (RoHS & no Sb/Br)	DBZ0003A
U4	1		DAC5578SPWR	Texas Instruments	8-bit, Octal Channel, Ultra-Low Glitch, Voltage Output, 2-Wire Interface DAC, PW0016A (TSSOP-16)	PW0016A
U5	1		INA317IDGKR	Texas Instruments	Micro-Power (50 uA), Zero-Drift, Rail-to-Rail-Out Instrumentation Amplifier, DKG0008A (VSSOP-8)	DKG0008A
U9, U15	2		SN74LV4040ARGYR	Texas Instruments	12-Bit Asynchronous Binary Counter, RGY0016A, LARGE T&R	RGY0016A
U10, U13, U16	3		TLV1702AIRUGR	Texas Instruments	Dual, 2.2-V to 36-V, microPower Comparator, RUG0008A (X2QFN-8)	RUG0008A
U11, U14, U17	3		SN74AUP3G14DQER	Texas Instruments	Low-Power Triple Schmitt-Trigger Inverter, DQE0008A, LARGE T&R	DQE0008A
U12	1		SN74AUP2G08DQER	Texas Instruments	Low-Power Dual 2-Input Positive-AND Gate, DQE0008A, LARGE T&R	DQE0008A
U18, U20	2		SN74LVC1G3157DSFR	Texas Instruments	Single-Pole, Double-Throw Analog Switch, DSF0006A, LARGE T&R	DSF0006A
C21	0	270pF	CL05C271JB5NNNC	Samsung Electro-Mechanics	CAP, CERM, 270 pF, 50 V, +/- 1%, C0G/NP0, 0402	0402
R16, R31, R97, R99	0	0	ERJ-2GE0R00X	Panasonic	RES, 0, 5%, 0.063 W, 0402	0402

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