

TIDA-010982 REV E3 Bill of Materials

Designator	Quantity	Value	PartNumber	Manufacturer	Description	PackageReference
IPCB1	1		TIDA-010982	Any	Printed Circuit Board	
C1	1	2.2nF	885012006015	Würth Elektronik	WCAP-CSGP Multilayer Ceramic Chip Capacitor, General Purpose, size 0603, NP0, 2.2nF, 10VDC	
C2, C4, C12, C19, C20	5	1uF	885012206052	Würth Elektronik	CAP, CERM, 1 uF, 16 V, +/- 10%, X7R, 0603	0603
C3, C6, C9, C10, C11, C13, C24, C25	8	0.1uF	885012206020	Würth Elektronik	CAP, CERM, 0.1 uF, 10 V, +/- 10%, X7R, 0603	0603
C5	1	2.2µF	885012207052	Würth Elektronik	WCAP-CSGP Multilayer Ceramic Chip Capacitor, General Purpose, size 0805, X7R, 2.2µF, 16VDC	
C7	1	220pF	885012006010	Würth Elektronik	WCAP-CSGP Multilayer Ceramic Chip Capacitor, General Purpose, size 0603, NP0, 220pF, 10VDC	
C8, C14	2	1nF	885012207086	Würth Elektronik	WCAP-CSGP Multilayer Ceramic Chip Capacitor, General Purpose, size 0805, X7R, 1nF, 50VDC	
C15	1	1000pF	885012206083	Würth Elektronik	CAP, CERM, 1000 pF, 50 V, +/- 10%, X7R, 0603	0603
C16	1	680pF	885012006013	Würth Elektronik	WCAP-CSGP Multilayer Ceramic Chip Capacitor, General Purpose, size 0603, NP0, 680pF, 10VDC	
C17, C18	2	1000pF	885012205061	Würth Elektronik	CAP, CERM, 1000 pF, 50 V, +/- 10%, X7R, 0402	0402
C21	1	100µF	865230143004	Würth Elektronik	WCAP-AS5H Aluminum Electrolytic Capacitor, V-Chip, D6.3 x H5.5mm, 100µF, 6.3V	
C22	1	4.7µF	885012106005	Würth Electronics	4.7 µF ±20% 6.3V Ceramic Capacitor X5R 0603 (1608 Metric)	0603
D1	1	100V	1N4148W-TP	Micro Commercial Component	Diode, Switching, 100 V, 0.15 A, SOD-123	SOD-123
D2	1	4.7V	MMSZ4688-HE3-08	Vishay-Semiconductor	Diode, Zener, 4.7 V, 500 mW, AEC-Q101, SOD-123	SOD-123
D4	1	600V	CD-MBL206SL	Bourns	Diode, P-N-Bridge, 600 V, 2 A, 5.8x5.3mm	5.8x5.3mm
D8	1	2.4V	CMHZ4681		Diode, Zener, 3 V, 500 mW, AEC-Q101, SOD-123	SOD-123
FB1, FB2	2	600 ohm	742792041	Würth Elektronik	Ferrite Bead, 600 ohm @ 100 MHz, 0.2 A, 0805	0805
J1	1		61301621021	Würth Elektronik	Header, 2.54mm, 8x2, Gold, R/A, TH	Header, 2.54mm, 8x2, R/A, TH
J2	1		691214310002	Würth Elektronik	Terminal Block, 2x1, 3.81mm, 24-16 AWG, 10A, 300VAC, TH	2x1 Terminal Block
J3	1		61300311121	Würth Elektronik	Header, 2.54 mm, 3x1, Gold, TH	Header, 2.54mm, 3x1, TH
J4, J5, J7, J8	4		61300211121	Würth Elektronik	Header, 2.54 mm, 2x1, Gold, TH	Header, 2.54mm, 2x1, TH
J6	1		61300621121	Würth Elektronik	Header, 2.54mm, 3x2, Gold, TH	Header, 2.54mm, 3x2, TH
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	1	60 V	PZT2907A	Fairchild Semiconductor	Transistor, PNP, 60 V, 0.8 A, SOT-223	SOT-223
Q2	1	40V	SMMBT3904LT3G	On Semiconductor	Bipolar (BJT) Transistor NPN 40 V 200 mA 300MHz 300 mW Surface Mount SOT-23-3 (TO-236)	SOT23
Q3, Q6	2	-20V	CSD25404Q3	Texas Instruments	MOSFET, P-CH, -20 V, -60 A, DQG0008A (VSON-CLIP-8)	DQG0008A
Q4	1	30 V	BC858CLT1G	ON Semiconductor	Transistor, PNP, 30 V, 0.1 A, SOT-23	SOT-23
Q5	1	45 V	BC847CLT1G	ON Semiconductor	Transistor, NPN, 45 V, 0.1 A, SOT-23	SOT-23
R1	1	1.0k	RC0603JR-071KL	Yageo	RES, 1.0 k, 5%, 0.1 W, 0603	0603
R2	1	12.0k	RG2012P-123-B-T5	Susumu Co Ltd	RES, 12.0 k, 0.1%, 0.125 W, 0805	0805
R3	1	2.21Meg	RC0603FR-072M21L	Yageo	RES, 2.21 M, 1%, 0.1 W, 0603	0603
R4	1	40.2k	RC0603FR-0740K2L	Yageo	RES, 40.2 k, 1%, 0.1 W, 0603	0603

Designator	Quantity	Value	PartNumber	Manufacturer	Description	PackageReference
R6	1	11.3k	RG1608P-1132-B-T5	Susumu Co Ltd	RES, 11.3 k, 0.1%, 0.1 W, 0603	0603
R7	1	88.7k	RT0603BRD0788K7L	Yageo America	RES, 88.7 k, 0.1%, 0.1 W, 0603	0603
R9	1	1.00k	RT0603DRE071KL	Yageo America	RES, 1.00 k, 0.5%, 0.1 W, 0603	0603
R11	1	499k	RT0603DRE07499KL	Yageo America	RES, 499 k, 0.5%, 0.1 W, 0603	0603
R13, R23	2	40.2	RT0805BRD0740R2L	Yageo America	RES, 40.2, 0.1%, 0.125 W, 0805	0805
R14	1	40.2k	RG1608P-4022-B-T5	Susumu Co Ltd	RES, 40.2 k, 0.1%, 0.1 W, 0603	0603
R16, R17	2	1.0Meg	CRCW06031M00JNEA	Vishay-Dale	RES, 1.0 M, 5%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
R18, R19, R20, R21	4	10k	CRCW060310K0FKEAC	Vishay Semiconductor	10 kOhms \pm 1% 0.1W, 1/10W Chip Resistor 0603 (1608 Metric) Thick Film	0603
R22	1	0	RCS060300000Z0EA	Vishay-Dale	RES, 0, 0%, 0.25 W, AEC-Q200 Grade 0, 0603	0603
SH-J1, SH-J2, SH-J3, SH-J4, SH-J5, SH-J6	6		60900213421	Würth Elektronik	Shunt, 2.54mm, Gold, Black	Shunt, 2.54mm, Black
TP2, TP3, TP4	3		5002	Keystone Electronics	Test Point, Miniature, White, TH	White Miniature Testpoint
U1	1		TPS7A0333DBVR	Texas Instruments	Nanopower-IQ 200nA 200mA low-dropout (LDO) voltage regulator with fast transient response	SOT-23-5
U2	1		REF35125QDBVR	Texas Instruments	Ultra Low-Power, High-Precision Voltage Reference	SOT23-6
U3	1		TPS7A0318DBVR	Texas Instruments	Nanopower-IQ 200nA 200mA low-dropout (LDO) voltage regulator with fast transient response 5-SOT-23 -40 to 125	SOT23-5
U4	1		AFE881H1RRUT	Texas Instruments	16-Bit, Low-Power DACs With Internal HART Modem, Voltage Reference, and Diagnostic ADC for 4-20mA Loop-Powered Applications, UQFN24	UQFN24
U5	1		OPA391DCKT	Texas Instruments	General Purpose Amplifier 1 Circuit Rail-to-Rail SC-70-5	SC70-5
U6	1		TVS3301DRBR	Texas Instruments	33 V Bidirectional Flat-Clamp Surge Protection Device, DRB0008A (VSON-8)	DRB0008A
U7	1		SN74LV8T165BQBR	Texas Instruments	1.65-V to 5.5-V 8-bit parallel-load shift register with voltage translation	WQFN16
D3, D5, D6, D7	0	100V	1N4148W-TP	Micro Commercial Components	Diode, Switching, 100 V, 0.15 A, SOD-123	SOD-123
FID1, FID2, FID3	0		N/A	N/A	Fiducial mark. There is nothing to buy or mount.	N/A
R5	0	412k	RT0603BRD07412KL	Yageo America	RES, 412 k, 0.1%, 0.1 W, 0603	0603
R8, R10, R12, R15	0	1.0Meg	CRCW06031M00JNEA	Vishay-Dale	RES, 1.0 M, 5%, 0.1 W, AEC-Q200 Grade 0, 0603	0603