

# Bill of Materials

**TI DESIGNS**

TIPD209: Single-Supply Thermocouple Amplifier with RTD Based Cold Junction Compensation Reference Design

Item #	Designator	Quantity	Value	PartNumber	Manufacturer	Description
1	C3	1	0.1uF	C1608X7R1H104K080AA	TDK	CAP, CERM, 0.1 $\mu$ F, 50 V, +/- 10%, X7R, 0603
2	C4, C9	2	10uF	C1608X5R1E106M080AC	TDK	CAP, CERM, 10 $\mu$ F, 25 V, +/- 20%, X5R, 0603
3	C5, C7	2	0.47uF	C0603C474K4RACTU	Kemet	CAP, CERM, 0.47 $\mu$ F, 16 V, +/- 10%, X7R, 0603
4	C6	1	4.7uF	GRM188R61E475KE11D	MuRata	CAP, CERM, 4.7 $\mu$ F, 25 V, +/- 10%, X5R, 0603
5	C8, C11	2	0.1uF	06033C104KAT2A	AVX	CAP, CERM, 0.1 $\mu$ F, 25 V, +/- 10%, X7R, 0603
6	C10, C12	2	1uF	885012206052	Würth Elektronik	CAP, CERM, 1 $\mu$ F, 16 V, +/- 10%, X7R, 0603
7	J1	1		ED555/3DS	On-Shore Technology	Terminal Block, 3.5mm Pitch, 3x1, TH
8	J2, J3	2		39357-0002	Molex	Terminal Block, 3.5 mm, 2x1, Tin, TH
9	R1, R2	2	18.7k	RG1608P-1872-B-T5	Susumu Co Ltd	RES, 18.7 k, 0.1%, 0.1 W, 0603
10	R3, R4, R5	3	100	RG1608P-101-B-T5	Susumu Co Ltd	RES, 100, 0.1%, 0.1 W, 0603
11	R6	1	162	CRCW0603162RFKEA	Vishay-Dale	RES, 162, 1%, 0.1 W, 0603
12	R7	1	15.0k	RG1608P-153-B-T5	Susumu Co Ltd	RES, 15.0 k, 0.1%, 0.1 W, 0603
13	R8	1	16.2k	RT0603BRD0716K2L	Yageo America	RES, 16.2 k, 0.1%, 0.1 W, 0603
14	R9	1	1.15k	RG1608P-1151-B-T5	Susumu Co Ltd	RES, 1.15 k, 0.1%, 0.1 W, 0603
15	R10	1	13.7k	RG1608P-1372-B-T5	Susumu Co Ltd	RES, 13.7 k, 0.1%, 0.1 W, 0603
16	Rg	1	316	RT0603BRD07316RL	Yageo America	RES, 316, 0.1%, 0.1 W, 0603
17	TP1	1	Red	5005	Keystone	Test Point, Compact, Red, TH
18	TP2, TP3, TP4, TP5	4	Black	5011	Keystone	Test Point, Multipurpose, Black, TH
19	U1	1		REF02BU	Texas Instruments	+5 V Precision Voltage Reference, -40 to 85 degC, 8-pin SOIC(D), Green (RoHS & no Sb/Br)
20	U2	1		OPA2317IDGKR	Texas Instruments	Low-Offset, Rail-to-Rail I/O Operational Amplifier Precision Catalog, DGK0008A
21	U3	1		INA188IDR	Texas Instruments	Precision, Zero-Drift, Rail-to-Rail Out, High
22	C1	0	10uF	TPSB106K016R0800	AVX	CAP, TA, 10 $\mu$ F, 16 V, +/- 10%, 0.8 ohm, SMD
23	C2	0	1uF	885012206052	Würth Elektronik	CAP, CERM, 1 $\mu$ F, 16 V, +/- 10%, X7R, 0603

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