



Bill of Materials

TI DESIGNS

TIPD161: Single-Chip Analog Linearized 3-Wire RTD 2-Wire 4-20mA Transmitter Reference Design

Item #	Quantity	Designator	Value	Description	Manufacturer	Part Number
1	2	C1, C4	0.01uF	CAP, CERM, 0.01uF, 50V, +/-5%, C0G/NP0, 0805	TDK	C2012C0G1H103J
2	1	C2	0.22uF	CAP, CERM, 0.22uF, 50V, +/-10%, X7R, 0805	MuRata	GRM21BR71H224KA01L
3	1	C3	0.1uF	CAP, CERM, 0.1uF, 50V, +/-10%, X7R, 0805	AVX	08055C104KAT2A
4	2	C5, C6	0.01uF	CAP, CERM, 0.01uF, 50V, +/-10%, X7R, 0805	MuRata	GRM216R71H103KA01D
5	1	D4		DIODE TVS ARRAY 15V SOD323	Bourns	CDSOD323-T15SC
6	2	FB1, FB2		300mA Ferrite Bead, 600 ohm @ 100MHz	Bourns	HZ0603C601R-10
7	1	J8		Terminal Block, 6A, 3.5mm Pitch, 3-Pos, TH	On-Shore Technology	ED555/3DS
8	1	J9		Terminal Block, 6A, 3.5mm Pitch, 2-Pos, TH	On-Shore Technology	ED555/2DS
9	1	Q1		Transistor, NPN, 45V, 0.1A, SOT-23	ON Semiconductor	BC847CLT1G
10	1	Q2		Transistor, NPN, 45V, 1A, SOT-89	Diodes Inc.	FCX690BTA
11	2	R1, R7	10.0k	RES, 10.0k ohm, 1%, 0.125W, 0805	Vishay-Dale	CRCW080510K0FKEA
12	1	R2	18.7	RES SMD 18.7 OHM 0.1% 1/4W 0805	TE Connectivity	5-1625868-3
13	1	R3	0	DNI - Short		
14	1	R4	0	DNI - Short		
15	1	R5	845	RES SMD 845 OHM 0.1% 1/10W 0805	TE Connectivity	1676446-2
16	1	R6	1.00k	RES, 1.00k ohm, 1%, 0.125W, 0805	Vishay-Dale	CRCW08051K00FKEA
17	1	Rlin1	2.74k	RES SMD 2.74K OHM 0.1% 1/10W	TE Connectivity	1676294-2
18	1	Rlin2	4.99k	RES SMD 4.99K OHM 0.1% 1/10W	TE Connectivity	RN73C2A4K99BTD
19	1	U1		IC, 4-20mA Current Transmitter with Sensor Excitation and Linearization	Texas Instruments	XTR105U