

**TI DESIGNS**

TIPD202: Analog Linearized 3-Wire PT1000 RTD to 4-20mA Current Loop Transmitter Reference Design

Item #	Quantity	Designator	Value	Description	Manufacturer	Part Number
1	2	C1, C3	0.01uF	CAP, CERM, 0.01uF, 50V, +/-5%, COG/NP0, 0805	TDK	C2012COG1H103J
2	1	C2	0.22uF	CAP, CERM, 0.22uF, 50V, +/-10%, X7R, 0805	MuRata	GRM21BR71H224KA01L
3	1	C4	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	D1		Diode, Schottky, 70V, 0.07A, SOT-23	Diodes Inc.	BAS70-7-F
6	1	D2		Diode, TVS, Bi, 40V, 600W, SMB	Diodes Inc.	SMBJ40CA-13-F
7	2	FB1, FB2		300mA Ferrite Bead, 600 ohm @ 100MHz	Used in BOM report	Used in BOM report
8	1	J1		Terminal Block, 6A, 3.5mm Pitch, 2-Pos, TH	On-Shore Technology	ED555/2DS
9	1	J2		Terminal Block, 6A, 3.5mm Pitch, 3-Pos, TH	On-Shore Technology	ED555/3DS
10	1	Q1		Transistor, NPN, 45V, 0.1A, SOT-23	ON Semiconductor	BC847CLT1G
11	1	Q2		Transistor, NPN, 45V, 1A, SOT-89	Diodes Inc.	FCX690BTA
12	1	R1	120	RES SMD 120 OHM 0.1% 1/8W 0805	Panasonic Electronics	ERA-6AEB121V
13	1	R2	34.0k	RES SMD 34K OHM 0.1% 1/8W 0805	Vishay-Dale	TNPW080534K0BEEA
14	1	R3	536	RES, 536, 0.1%, 0.125 W, 0805	Panasonic Electronics	RT0805BRD07536RL
15	1	R4	59.0k	RES SMD 59K OHM 0.1% 1/8W 0805	Panasonic Electronics	ERA-6AEB5902V
16	2	R5, R6	10.0k	RES, 10.0k ohm, 1%, 0.125W, 0805	Vishay-Dale	CRCW080510K0FKEA
17	1	R7	16	RES SMD 16 OHM 0.1% 1/10W 0805	TE Connectivity	2-1614884-2
18	1	R8	787	RES SMD 787 OHM 0.1% 1/8W 0805	Panasonic Electronics	ERA-6AEB7870V
19	2	R9, R12	50	TRIMMER, 10K, 0.75W, TH	Bourns	3006P-1-500LF
20	1	R10	715	RES SMD 715 OHM 0.1% 1/8W 0805	Panasonic Electronics	ERA-6AEB7150V
21	1	R11	29.4	RES SMD 29.4 OHM 1% 1/8W 0805	Panasonic Electronics	ERJ-6ENF29R4V
22	1	R13	3.30k	RES, 3.3 k, 5%, 0.125 W, 0805	Vishay-Dale	CRCW08053K30JNEA
23	1	U1		IC 4-20MA TRANSMITTER 14-SOIC	Texas Instruments	XTR112U

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