

# Bill of Materials

TI DESIGNS

**TIPD151: 16-bit, 400KSPS, 4-Channel Multiplexed Data Acquisition System for High Voltage Inputs with Lowest Distortion**

Item	QTY	Value	Ref Des	Description	Manufacturer	Part Number
1	1	1500p	C3	CAP CER 1500PF 100V 5% NP0 0603	Murata	GRM1885C2A152JA01D
2	12	100p	C4, C5, C6, C7, C14, C21, C22, C23, C53, C54, C57, C58	CAP CER 100PF 100V 5% NP0 0603	Murata	GRM1885C2A101JA01D
3	12	1000p	C8, C12, C17, C20, C34, C35, C36, C37, C38, C39, C40, C41	CAP CER 1000PF 100V 5% NP0 0603	Murata	GRM1885C2A102JA01D
4	1	10u	C9	CAP CER 10UF 10V 10% X7R 0805	Murata	GRM21BR71A106KE51L
5	4	10u	C11, C13, C16, C18	CAP CER 10UF 25V 10% X7R 1206	Murata	GRM31CR71E106KA12L
6	5	1u	C15, C19, C52, C63, C64	CAP CER 1UF 25V 10% X7R 0603	Murata	GRM188R71E105KA12D
7	18	0.1u	C24, C25, C26, C27, C28, C29, C30, C31, C32, C33, C42, C43, C47, C48, C55, C56, C65, C67	CAP CER 0.1UF 100V 10% X7R 0603	Murata	GRM188R72A104KA35D
8	2		J1 J4	CONN SMA JACK STRAIGHT PCB	Amphenol	132134
9	1		J2 (Top)	Header 20 Pin SMT Plug, .100" Gold (2x10)	Samtec	TSM-110-01-L-DV-P
10	1		J2 (Bottom)	Header 20 Pin SMT Socket, .100" Gold (2x10)	Samtec	SSW-110-22-F-D-VS-K
11	1		J3 (Top)	Header 10 Pin SMT Plug, .100" Gold (2x5)	Samtec	TSM-105-01-L-DV-P
12	1		J3 (Bottom)	Header 10 Pin SMT Socket, .100" Gold (2x5)	Samtec	SSW-105-22-F-D-VS-K
13	10		JP1, JP2, JP4, JP5, JP6, JP7, JP8, JP9, JP10, JP12	Header Strip, 3 pin .100" Gold (1x3)	Samtec	TSW-103-07-L-S
14	2		JP3, JP11	Header Strip, 2 pin .100" Gold (1x2)	Samtec	TSW-102-07-L-S
15	7	0	R1,R2, R21, R26, R28, R58, R61	RES 0.0 OHM 1/10W JUMP 0603 SMD	Panasonic	ERJ-3GEY0R00V
16	8	402	R3, R4, R7, R8, R9, R11, R12, R13	RES 402 OHM 1/10W 1% 0603 SMD	Panasonic	ERJ-3EKF4020V
17	2	22	R5, R6	RES 22 OHM 1/10W 1% 0603 SMD	Panasonic	ERJ-3EKF22R0V
18	1	0.22	R10	RES 0.22 OHM 1/10W 1% 0603 SMD	Panasonic	ERJ-3RQFR22V
19	11	1k	R14, R15, R16, R17, R19, R25, R27, R29, R40, R42, R48,	RES 1K OHM 1/10W 1% 0603 SMD	Panasonic	ERJ-3EKF1001V
20	4	10	R18, R41, R44, R45	RES 10 OHM 1/10W 1% 0603 SMD	Panasonic	ERJ-3EKF10R0V
21	2	47	R20, R23	RES 47 OHM 1/10W 1% 0603 SMD	Panasonic	ERJ-3EKF47R0V
22	2	1k	R33, R37	RES 1K OHM 1/10W .1% 0603 SMD	Panasonic	ERA-3YEB102V
23	4	10k	R36, R38, R49, R60	RES 10K OHM 1/10W .1% 0603 SMD	Panasonic	ERA-3YEB103V
24	2	10k	R43, R56	RES 10K OHM 1/10W 1% 0603 SMD	Panasonic	ERJ-3EKF1002V
25	1		R59	RES (DO NOT INSTALL)		
26	1		U1	IC ADC 16BIT 400KSPS 10VSSOP	Texas Instruments	ADS8864IDGS
27	1		U2	IC MUX DUAL 4CHAN PREC 16-TSSOP	Texas Instruments	MUX36D04IPW/MUX36S08/ MUX508/MUX509
28	5		U3, U4, U5, U6, U7	IC DUAL OP AMP RRIO 36V 8SOIC	Texas Instruments	OPA2192ID
29	1		U8	IC VREF SRS PREC 4.096V SOT23-6	Texas Instruments	REF3240AIDBV
31	1		U9	IC OPAMP JFET 11MHZ RRO 8SOIC	Texas Instruments	OPA140AID
32	2		U10, U11	IC OPAMP GP 38MHZ RRO 8SOIC	Texas Instruments	OPA350UA
33	1		U12	IC SGL SCHMT-TRIG INVERT SC70-5	Texas Instruments	SN74LVC1G14DCK
34	1		U13	IC DUAL 4-BIT BINARY CTR 14TSSOP	Texas Instruments	SN74LV393APWR
Alternative						
1	0	10uF	C1	CAP, CERM, 10 µF, 25 V, +/- 10%, X5R, 0805	Texas Instruments	GRM21BR61E106KA73L
2	0	1uF	C22	CAP, CERM, 1 µF, 25 V, +/- 10%, X7R, 0603	Texas Instruments	GRM188R71E105KA12D
3	0	47uF	C3	CAP, CERM, 47 µF, 10 V, +/- 20%, X5R, 0805	Texas Instruments	GRM21BR61A476ME15
4	0	0.22	R1	RES, 0.22, 1%, 0.1 W, 0603	Texas Instruments	ERJ-3RQFR22V
5	0	0.005	Resr2	RES, 0.005, 1%, 0.25 W, AEC-Q200 Grade 1, 0603	Texas Instruments	ERJ3LWFR005V
6	0		U8-Alt	High-Precision Voltage Reference with Integrated Hi	Texas Instruments	REF6041IDGKR

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