

Bill of Materials

TI DESIGNS

TIPD168: Three 12-Bit Data Acquisition Reference Designs Optimized for Low Power and Ultra-Small Form Factor

Item #	Quantity	Designator	Value	Description	Manufacturer	Part Number
1	6	C1, C22, C23, C40, C41, C46	0.1uF	Capacitor, 0402, Ceramic, 0.1uF, 10V, 10%, X5R	MURATA	GRM155R61A104KA01
2	1	C2	2.2uF	Capacitor, 0402, Ceramic, 2.2uF, 4V, 20%, X5R	MURATA	GRM155R60G225ME15D
3	6	C3, C38, C39, C54, C55, C58	1uF	Capacitor, 0402, Ceramic, 1uF, 10V, 10%, X7S	TDK	C1005X7S1A105K050BC
4	1	C4	0.22uF	Capacitor, 0402, Ceramic, 0.22uF, 16V, 10%	MURATA	GRM155R71C224KA12
5	5	C5, C7, C9, C11, C52	10uF	Capacitor, 0603, Ceramic, 10uF, 6.3V, 20%, X5R	MURATA	GRM188R60J106ME47D
6	2	C17, C27	1500pF	Capacitor, 0402, Ceramic, 1500pF, 50V, 5%, COG/NPO	KEMET	C0402C152J5GACTU
7	2	C33, C34	15pF	Capacitor, 0402, Ceramic, 15pF, 50V, 1%, COG/NPO	MURATA	GRM1555C1H150FZ01D
8	2	C36, C37	10000pF	Capacitor, 0402, Ceramic, 10000pF, 50V, 10%, X7R	MURATA	GRM155R71H103KA88D
9	3	C56, C57, C59	47uF	Capacitor, 0805, Ceramic, 47uF, 6.3V, 20%, X5R	MURATA	GRM21BR60J476ME15L
10	1	J1		Connector, Female, 50P, .8mmLS	SAMTEC	ERF8-025-01-L-D-RA-L-TR
11	1	J2		Connector, Micro SD Card, SMD, 8P	TYCO ELECTRONIC	5025700893
12	1	J3		SMA Jack, Edge Mount, Gold, Straight, 50Ω	SAMTEC	SMA-J-P-X-ST-EM1
13	1	L1	1uH	Inductor, 2P, Power Choke 1uH, 30%	WURTH	744029001
14	2	P2, P4		UNINSTALLED	UNINSTALLED	HEADER, MALE, 2PIN, 100CC
15	1	P3		Header W/Shunt, 2P, 100LS TL=.125	TYCO ELECTRONICS	103321-2
16	9	R1, R2, R3, R4, R5, R6, R7, R83, R85	10k	Resistor, 0402, 10.0K, 1%, 1/16W	PANASONIC	ERJ-2RKF1002X
17	6	R12, R22, R62, R79, R80, R81	0k	Resistor, 0402, 0Ω, 1/16W, Zero Jumper	VENKEL	CR0402-16W-000T
18	2	R13, R14	1.5k	Resistor, 0402, Thick Film, 5%, 1/16W, 1.5K	PANASONIC	ERJ-2GEJ152
19	3	R20, R21, R25	25.5	Resistor, 0402, 25.5Ω, 1%, 1/16W	PANASONIC	ERJ-2RKF25R5X
20	5	R36, R38, R43, R64, R65	49.9	Resistor, 0402, 49.9Ω, 1/16W, 1%, 100ppm	VISHAY	CRCW040249R9F100
21	1	R41	1M	Resistor, 0402, Thick Film, 5%, 1/16W, 1.0M	PANASONIC	ERJ-2GEJ105
22	3	R44, R45, R71	1k	Resistor, 0402, Thick Film, 30.1KΩ, 1%, 1/10W	PANASONIC	ERJ-2RKF3012X
23	1	R46	51.1k	Resistor, 0402, 51.1K, 1%, 1/16W	PANASONIC	ERJ-2RKF5112X
24	3	R47, R75, R76	10	Resistor, 0402, 10Ω, 1/16W, 1%, 100ppm	VISHAY	CRCW040210R0F100
25	1	R48	99.7	Resistor, 0402, 88.7KΩ, 1/16W, 1%	VISHAY	CRCW040288K7FKED
26	5	R50, R54, R55, R78, R82		UNINSTALLED	UNINSTALLED	CRCW04020000Z0ED
27	1	R66	5.6k	Resistor, 0402, Thick Film, 5%, 1/16W, 5.6K	PANASONIC	ERJ-2GEJ562
28	1	R74	16.2k	Resistor, 0402, 16.2KΩ, 1/16W, 1%	VISHAY	CRCW040216K2FKED
29	1	R77	3.3k	Resistor, 0402, 3.3K, 1/16W, 1%, 100ppm	VISHAY	CRCW04023301F100
30	1	R84		UNINSTALLED	UNINSTALLED	CRCW04021002F100
31	5	TP1, TP2, TP3, TP4, TP5		Test point, Thru-hole, Miniature, 0.1LS, 120TL, Black	KEystone ELECTRONICS	5001
32	1	U1		IC, I2C Compatible, Serial EEPROM, TSSOP-8	ATMEL	AT24C02C-XHM
33	1	U2		IC, 60mA, 5.0V, Buck/Boost Charge Pump, TSOT23-6	TEXAS INSTRUMENTS	REG71055DDC
34	2	U4, U5		1.2-5.5V, Ultralow Noise High PSRR Fast RF 100mA LDO Linear Regulator	TEXAS INSTRUMENTS	TPS79101DBVREP
35	1	U8		IC, Low-power SAR ADC, RUG-8, 1.5x1.5x0.4mm	TEXAS INSTRUMENTS	ADS7042RUG
36	1	U10		Ultralow Power Regulator	TEXAS INSTRUMENTS	OPA835IDBV
37	1	U12		Single-Bit Dual-supply Bus Transceiver	TEXAS INSTRUMENTS	SN74AVCH1T45DBVR
38	1	U13		IC, 1.2A, High Efficient Step Down Converter with Snooze Mode, SON-8	TEXAS INSTRUMENTS	TPS62080DSG
39	1	U15		IC, Nanopower Supervisory Circuits, SOT23-5	TEXAS INSTRUMENTS	TPS3836K33DBVR
40	1	for J2		SanDisk microSDHC™ Card - 4GB	SANDISK	SDSDQ-004G-A11M

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