Bill of Materials

TI DESIGNS

TIDM-ULTRASONIC-FLOW-TDC

Description	Designator	Footprint	Quantity	Value	Part Number	Manufacturer
Capacitor	C1,C2,C7,C8,C9,C11,C12	402	7	0.1uF		
Capacitor	C3,C4	402	2	22pF		
Capacitor	C5,C6	402	2	DNP		
Capacitor	C13	402	1	2.2nF		
Resistor	R1,R2,R3,R4,R5,R6,R7,R8, R9,R10,R11,R12,R13,R14	402	14	0R		
Resistor	R16	402	1	10R		
Resistor	R17	402	1	100k		
Resistor	R18, R67	402	2	12k		
Resistor	R21,R22,R23,R24,R25,R26	402	6	DNP		
Resistor	R27	402	1	47k		
Resistor	R28,R29	402	2	470R		
Capacitor	C10	0805	1	4u7		
CAP, CERM, 22 µF, 6.3 V, +/- 20%, X5R, 0805	C14	0805_HV	1	22uF	GRM21BR60J226ME39L	MuRata
CAP, Electric Double Layer, 3000000 µF, 2.7 V, +20/-10%, 0.061 ohm, TH	C15	ESHSR_800x2000	1	3000000uF	ESHSR-0003C0-002R7	NESSCAP
CAP, CERM, 10 µF, 10 V, +/- 10%, X5R, 0805	C16	0805_HV	1	10uF	GRM219R61A106KE44D	MuRata
CAP, CERM, 0.1 µF, 6.3 V, +/- 10%, X5R, 0402	C17	0402	1	0.1uF	C1005X5R0J104K	TDK
CAP, CERM, 10 µF, 10 V, +/- 10%, X7R, 0805	C18, C19, C20, C27	0805_HV	2	10uF	GRM21BR71A106KE51L	MuRata
CAP, CERM, 51pF, 100V, +/-5%, C0G/NP0, 0603	C23, C25	0603	2	51pF	GRM1885C2A510JA01D	MuRata
CAP, CERM, 0.01uF, 25V, +/-5%, C0G/NP0, 0603	C24	0603	1	0.01uF	C1608C0G1E103J	TDK
CAP, CERM, 1000 pF, 50 V, +/- 5%, C0G/NP0, 0603	C26	0603	1	1000pF	C1608C0G1H102J	TDK

CAP, CERM, 0.01uF, 10V, +/-10%, X5R, 0402	C28, C30	0402	2	0.01uF	GRM155R61A103KA01D	MuRata
CAP, CERM, 0.1uF, 10V, +/-10%, X5R, 0402	C29, C31, C35, C37	0402	4	0.1uF	C1005X5R1A104K	TDK
CAP, CERM, 300pF, 50V, +/-1%, NP0, 0805	C32, C33	0805	2	300pF	08055A301FAT2A	AVX
CAP, CERM, 0.01uF, 25V, +/-10%, X7R, 0603	C34, C36	0603	2	0.01uF	GRM188R71E103KA01D	MuRata
CAP, CERM, 1uF, 25V, +/-10%, X7R, 0603	C38	0603	1	1uF	GRM188R71A105KA61D	MuRata
0.8A Ferrite Bead, 60 ohm @ 100MHz, SMD	FB1, FB2, FB3, FB4, FB5	0603	5	60 ohm	BK1608HS600-T	Taiyo Yuden
Machine Screw, Round, #4-40 x 1/4, Nylon, Philips panhead	H1, H2, H3, H4	NY PMS 440 0025 PH	4		NY PMS 440 0025 PH	B&F Fastener Supply
Standoff, Hex, 0.5"L #4-40 Nylon	H5, H6, H7, H8	Keystone_1902C	4		1902C	Keystone
Receptacle, 50mil, 6x1, Gold, TH	J1	Mill-Max_851-XX-006-10-001000	1		851-43-006-10-001000	Mill-Max
Header (friction lock), 100mil, 2x1, Tin, TH	J3	MOLEX_22-27-2021	1		Battery	Molex
Header, 100mil, 3x1, Gold, TH	J4	TSW-103-07-G-S	1		TSW-103-07-G-S	Samtec
Receptacle, 50 mil, 8x1, Gold, R/A, TH	J5	Mill-Max_851-43-008-20-001000	1		851-43-008-20-001000	Mill-Max
Receptacle, 50mil, 10x1, Gold, R/A, TH	J6	CONN_851-43-010-20-001000	1		851-43-010-20-001000	Mill-Max
Header, 100mil, 6x1, TH	J7	Mill-Max_800-10-006-10-001000	1		800-10-006-10-001000	Mill-Max
Receptacle, 7x2, 2.54mm, R/A, TH	J8	SSW-107-02-G-D-RA	1		SSW-107-02-G-D-RA	Samtec
Connector, Receptacle, 100mil, 5x2, Gold plated, R/A, TH	J9	CONN_PPPC052LJBN-RC	1		PPPC052LJBN-RC	Sullins Connector Solutions
Header, TH, 100mil, 2x1, Gold plated, 230 mil above insulator	JP1, JP2, JP3, JP4, JP5, JP6, JP7	TSW-102-07-G-S	7			Samtec
Header, 7-Pin, Dual row	JTAG1	2X7BOXHEADER	1		MHDR2X7	
Inductor, Shielded Drum Core, Ferrite, 3.3uH, 1.3A, 0.14 ohm, SMD	L1	LPS3314	1	3.3uH	LPS3314-332MLB	Coilcraft
Inductor, Shielded, Ferrite, 2.2uH, 0.97A, 0.056 ohm, SMD	L2	IND_VLF252015	1	2.2uH	VLF252015MT-2R2M	TDK
	LCD1	FH-1152P	1		FH-1152P	
Typical RED, GREEN, YELLOW, AMBER GaAs LED	LED1, LED2	LED_LTST-C190	2			

Switch	MCU_RST, S1, S2, S3	B3U-1000P	4		B3U-1000P	
Transistor, PNP, 40V, 0.2A, SOT-23	Q1, Q3	SOT-23	2	0.25V	MMBT3906	Fairchild Semiconductor
Transistor, NPN, 40V, 0.2A, SOT-23	Q2, Q4, Q5, Q6	SOT-23	4	0.2V	MMBT3904	Fairchild Semiconductor
RES, 10 M, 5%, 0.063 W, 0402	R15, R59	0402	2	10Meg	CRCW040210M0JNED	Vishay-Dale
Resistor	R19, R20	0402	2	DNP	DNP	
RES, 100, 5%, 0.1 W, 0603	R30	0603	1	100	CRCW0603100RJNEA	Vishay-Dale
RES, 10.0 M, 1%, 0.1 W, 0603	R31, R33, R34, R37, R39, R41, R42, R46, R48, R49, R50, R51	0603	12	10.0Meg	CRCW060310M0FKEA	Vishay-Dale
RES, 360 k, 5%, 0.1 W, 0603	R32, R38	0603	2	360k	CRCW0603360KJNEA	Vishay-Dale
RES, 2.4 k, 5%, 0.1 W, 0603	R35	0603	1	2.4k	CRCW06032K40JNEA	Vishay-Dale
RES, 10 k, 5%, 0.063 W, 0402	R36	0402	1	10k	CRCW040210K0JNED	Vishay-Dale
RES, 510, 0.1%, 0.1 W, 0603	R40, R57	0603	2	510	RG1608P-511-B-T5	Susumu Co Ltd
RES, 200 ohm, 0.1%, 0.1W, 0603	R43, R45	0603	2	200	RG1608P-201-B-T5	Susumu Co Ltd
RES, 5.36k ohm, 1%, 0.1W, 0603	R44	0603	1	5.36k	CRCW06035K36FKEA	Vishay-Dale
RES, 1.00k ohm, 0.01%, 0.1W, 0603	R52	0603	1	1.00k	RNCF0603TKY1K00CT-ND	DigiKey PN
RES, 1.00k ohm, 1%, 0.1W, 0603	R47	0603	1	1.00k	CRCW06031K00FKEA	Vishay-Dale
RES, 10.0k ohm, 1%, 0.1W, 0603	R53, R54	0603	2	10.0k	RC0603FR-0710KL	Yageo America
RES, 0 ohm, 5%, 0.1W, 0603	R55, R56, R62	0603	3	0R	CRCW06030000Z0EA	Vishay-Dale
Resistor	R60, R63	0603	2	DNP	DNP	
RES, 33 ohm, 5%, 0.063W, 0402	R58, R61, R64, R66	0402	4	33	CRCW040233R0JNED	Vishay-Dale
Header, 10-Pin, Dual row	RF1, RF2	TFM-110-02-SM-D-A-K	2		MHDR2X10	
Shunt, 100mil, Gold plated, Black	SH-JP1, SH-JP2, SH-JP3, SH-JP4, SH-JP5, SH-JP6	SNT-100-BK-G	6	1x2	969102-0000-DA	3M
	U1	MSP430FR6989	1		MSP430FR6989	
LOW Iq BOOST CONVERTER WITH BYPASS OPERATION, DRV0006A	U2	DRV0006A	1		TPS61291DRV	Texas Instruments
360nA IQ Step Down Converter for Low Power Applications, DSS0012A	U3	DSS0012A	1		TPS62740DSS	Texas Instruments
TDC1000 Precision AFE for Time of Flight, PW0028A	U5	PW0028A_N	1		TDC1000PW	Texas Instruments

ESD Array For Portable Space-Saving Applications, 8 Channels, -40 to +85 degC, 8-pin WSON (DQD), Green (RoHS & no Sb/Br)	U6	DQD0008A	1		TPD8E003DQDR	Texas Instruments
STOPWATCH IC FOR TIME MEASUREMENT BETWEEN TWO EVENTS, PW0014A	U7	PW0014A_N	1		TDC7200PW	Texas Instruments
	X1		1	DNP		
	X2	01-CR3-1B	1	32.768KHz		
OSC, 8 MHz, 1.8 - 3.3V, SMD	Y1	3.2 x 2.5 x 1.05mm	1	8Mhz	RS Alt: 667-6353	Epson PG-310 8MHz

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Mailing Address: Texas Instruments, Post Office Box 655303, Dallas, Texas 75265