

Bill of Materials

TI DESIGNS

TIDM-ULTRASONIC-Water-Flow-Measurement

Item Number	Qty	Part Reference	Value	Description	MFG	MFG P/N	Package	Distributor Part Number	Distributor
1	17	R20, R21, R22, R23, R24, R25,R26, R34, R35, R36, R37, R38, R39, R40, R41, R42, R43	0R	RES SMD 0.0 OHM JUMPER 1/10W	Panasonic	ERJ-3GEY0R00V	R0603	P0.0GCT-ND	Digikey
2	7	R02, R03, R04, R06,R19,R27, R44	0R	RESISTOR, 1/10W	Panasonic	ERJ-2GE0R00X	R0402	P0.0JCT-ND	Digikey
3	2	R01, R31	DNP				R0403		
4	2	R09, R13	100	RESISTOR, 1/10W 1%	Panasonic	ERJ-3EKF1000V	R0603	P100HCT-ND	Digikey
5	1	R14	10K	RESISTOR, 1/10W 1%	Panasonic	ERJ-2RKF1002X	R0402	P10.0KLCT-ND	Digikey
6	1	R106	1M	RES 1.00M OHM 1/16W 1% 0402 SMD,	Yageo	RC0402FR-071ML	R0402	311-1.00MLRCT-ND	Digikey
7	1	R105	1k4	RES 1.33K OHM 1/16W 1% 0402 SMD,	Yageo	RC0402FR-071K33L	R0402	311-1.33KLRCT-ND	Digikey
8	2	R07, R50	200	RESISTOR, 1/10W 0.1%	TE	1676247-2	R0805	A103664CT-ND	Digikey
9	2	R103, R104	27	RES 27 OHM 1/16W 5% 0402 SMD,	Yageo	RC0402JR-0727RL	R0402	311-27JRCT-ND	Digikey
10	1	R48	330	RES 330 OHM 1/10W 5% 0603 SMD	Stackpole	RMCF0603JT330R	R0603	RMCF0603JT330RCT-ND	Digikey
11	1	R123	33k	RES 33.0K OHM 1/16W 1% 0402 SMD,	Yageo	RC0402FR-0733KL	R0402	311-33.0KLRCT-ND	Digikey
12	1	R18	390	RES 390 OHM 1/16W 1% 0402 SMD,	Yageo	RC0402FR-07390RL	R0402	311-390LRCT-ND	Digikey
13	2	R08, R16	40.2K	RESISTOR, 1/8W 1%	Panasonic	ERJ-6ENF4022V	R0805	P40.2KCCT-ND	Digikey
14	2	R17, R32	470	RES 470 OHM 1/16W 1% 0402 SMD,	Yageo	RC0402FR-07470RL	R0402	311-470LRCT-ND	Digikey
15	1	R51	47K	RES 47K OHM 1/10W 5% 0603 SMD	Stackpole	RMCF0603JT47K0	R0603	RMCF0603JT47K0CT-ND	Digikey
16	2	R10, R15	6.49K	RESISTOR, 1/10W 1%	Panasonic	ERJ-3EKF6491V	R0603	P6.49KHCT-ND	Digikey
17	1	R11	DNP				R0603		
18	1	R05	DNP				R0402		
19	4	R28, R29, R30, R33	DNP				R0603		
20	5	C1, C2, C5, C15, C21	2.2uF	CAPACITOR, CERAMIC, 25V X5R 10%	Taiyo Yuden	TMK107ABJ225KA-T	C0603	587-2909-1-ND	Digikey
21	4	C3, C4, C6, C7	0.1uF	CAPACITOR, CERAMIC, 25V X7R 10%	TDK	C1005X7R1E104K050BB	C0402	445-7348-1-ND	Digikey
22	4	C8, C16, C26, C53	0.1uF	CAPACITOR, CERAMIC, 25V X7R 10%	TDK	C1608X7R1E104K080AA	C0603	445-1316-1-ND	Digikey
23	2	C9, C14	560pF	CAPACITOR, 50V CERAMIC NPO 5%	Murata	GRM1555C1H561JA01D	C0402	490-3238-1-ND	Digikey
24	1	C10	DNP	CAPACITOR			C0805		
25	4	C11, C13, C31, C32	DNP	CAPACITOR, CERAMIC, 25V X5R 10%			C0603		
26	1	C12	0.22uF	CAPACITOR, CERAMIC, 16V X7R 10%	TDK	C1005X7R1C224K050BC	C0402	445-5936-1-ND	Digikey

27	3	C17, C18, C110	10p	CAP CER 10PF 50V NPO 0402	TDK	C1005COG1H100D05 0BA	C0402	445-1235-1-ND	Digikey
28	4	C19, C20, C22, C24	100n	CAP CER 0.1UF 16V 10% X7R	Murata	GRM155R71C104KA8 8D	C0402	490-3261-1-ND	Digikey
29	2	C23, C28	10u	CAP TANT 10UF 6.3V 20% 1206	Kemet	T491A106M006AT	C01206	399-3685-1-ND	Digikey
30	1	C25	4.7uF	CAP CER 4.7UF 4V 20% X5R	Taiyo Yuden	AMK105BJ475MV-F	C0402	587-1966-1-ND	Digikey
31	1	C27	0.1uF	CAP CER 0.1UF 50V Y5V 0805	Samsung	CAP CER 0.1UF 50V Y5V 0805	C0805	1276-1007-1-ND	Digikey
32	2	C29, C30	27p	CAP CER 27PF 50V 5% NPO 0402,	TDK	C1005COG1H270J050 BA	C0402	445-1240-1-ND	Digikey
33	1	C108	2.2u	CAP CER 2.2UF 6.3V 20% X5R	TDK	C1608X5R0J225M080 AB	C0603	445-1323-1-ND	Digikey
34	1	CLCD	4u7	CAP CER 4.7UF 10V 10% X5R 0603			C0603	311-1455-1-ND	Digikey
35	1	L1	2.2uH	FIXED IND 2.2UH 600MA 340 MOHM	Murata	LQM21PN2R2MCO0D	0805 (2012)	490-4994-1-ND	Digikey
36	1	Q2	32.768K HZ	MICRO CRYSTAL - MS3V-T1R 32.768KHZ 7.0PF +/-20PPM			MS3V-T1R	MS3V-T1R 7pF	Microcrystal
37	1	U\$11	16MHZ	CRYSTAL 16MHZ 20PF THRU	TXC	9B-16.000MBBK-B		887-2015-ND	Digikey
38	1	LED1	Red	LED RED CLEAR	Lite-On-Inc	LTST-C190CKT		160-1181-1-ND	Digikey
39	2	LED2, LED3	Green	LED GREEN CLEAR	Lite-On-Inc	LTST-C190GKT		160-1183-1-ND	Digikey
40	11	BATT, J1, J2, J3, J4, J7, J8, JP1, JP3, J5, J6	Jumper	CONN HEADER .100 SINGL STR 2POS	Sullins	PEC02SAAN		S1012E-02-ND	Digikey
41	7	JP4, JP5, JP6, JP7, JP8, JP9, JP10	Jumper	CONN HEADER VERT SGL 3POS GOLD	3M	961103-6404-AR		3M9448-ND	Digikey
42	1	B1	Holder	HOLDER BATTERY 2CELL AAA PC MNT	Keystone	2468		2468K-ND	Digikey
43	2	DGND, DVCC	Jumper	CONN HEADER VERT SGL 4POS GOLD	3M	961104-6404-AR		3M9449-ND	Digikey
44	1	JTAG	Conn	CONN HEADER 14 POS STRGHT GOLD	3M	N2514-6002-RB		MHC14K-ND	Digikey
45	2	RESET, S1	Switch	SWITCH TACTILE SPST-NO 0.02A 15V	Panasonic	EVQ-11L05R		P8079SCT-ND	Digikey
46	2	RF1, RF2	Conn	CONN HEADER 20POS 1.27MM GLD SMD				TFM-110-02-SM-D-A- K	
47	1	J102	Micro- USB	CONN RCPT MICRO USB B SMD R/A	Hirose	ZX62R-B-5P		H11574CT-ND	Digikey
48	1	FB1		FERRITE CHIP 220 OHM 2A 0603	TDK	MPZ1608S221ATA00	L-603	445-1565-1-ND	Digikey
49	1	U\$5	IC	MSP430FR687X	TI		S-PQFP-G64		
50	1	U\$3	IC	IC BUS TRANSCVR 2B N-INV SM8	TI	SN74LVC2T45DCTR	DCT	296-16845-1-ND	Digikey
51	1	U\$4	IC	IC OPAMP DIFF 95MHZ RRO 8SOIC	TI	THS4521ID	SOIC08	296-24076-5-ND	Digikey
52	1	IC102	IC	TVS DIODE 6SON	TI	TPD4E004DRYR	SON(DRY)6	296-23618-1-ND	Digikey
53	1	U\$13	IC	IC REG BUCK SYNC 3.3V 0.5A 6SON	TI	TPS62237DRYT	DRY	296-25630-1-ND	Digikey
54	2	U\$1, U\$2	IC	IC SWITCH SPDT SC70-6	TI	TS5A63157DCKR	DCK	296-21195-1-ND	Digikey
55	8	TP1, TP2, TP3, TP4, TP5, TP6, TP7, TP8	Test Point	TEST POINT PC MINI .040"D WHITE	Keystone	5002		5002K-ND	Digikey
56	4	U\$6, U\$7, U\$8, U\$9	MOUNT HOLE_1 25				MOUNTHOLE _125MIL		

57	1	U\$10	SILK_3V 3_TAG				SILK_3V3_TA G		
58	1	LCD1	TI_160S EG_LCD				TI_160SEG_L CD		
59	1	U11		Crystal 14.0000MHz 30ppm	CTS	406C35B14M00000		CTX664CT-ND	Digikey

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