



Bill of Materials

TI DESIGNS

TIDM-FRAM-THERMOSTAT

Item	Designator	Qty	Value	Part Description	Manufacturer	Manufacturer Part Number	Digikey Part Number	PCB Footprint	Note
1	BAT1, BAT2	2	AAA	Battery Holder, 1 AAA Cells, PC-mount	Keystone	2466	2466K-ND	BC1AAAPC	
2	C1	1	47uF	CAP, TA, 47uF, 6.3V, +/-10%, 0.8 ohm, SMD	AVX	TPSA476K006R0800	478-3079-1-ND	3216-18	
3	C2	1	10uF	CAP, TA, 10uF, 16V, +/-10%, 3 ohm, SMD	Vishay-Sprague	293D106X9016A2TE3	718-1123-1-ND	3216-18	
4	C3, C8, C17	3	10uF	CAP, CERM, 10uF, 6.3V, +/-20%, X5R, 0603	Kemet	C0603C106M9PACTU	399-5504-1-ND	0603	
5	C4, C7	2	1uF	CAP, CERM, 1uF, 16V, +/-10%, X5R, 0603	Kemet	C0603C105K4PACTU	399-5090-1-ND	0603	
6	C5, C6, C9, C10, C11, C13, C15	7	0.1uF	CAP, CERM, 0.1uF, 16V, +/-5%, X7R, 0603	Kemet	C0603C104J4RACTU	399-1097-1-ND	0603	
7	C12, C14	2	25pF	CAP, CERM, 25pF, 50V, +/-11%, C0G/NP0, 0603	AVX	06035A2R2CAT2A	478-1155-1-ND	0603	
8	C16	1	1000pF	CAP, CERM, 1000pF, 100V, +/-5%, X7R, 0603	AVX	06031C102JAT2A	478-3698-1-ND	0603	
9	D1	1	Red	LED, Red, SMD	Lite-On	LTST-C170KRKT	160-1415-1-ND	LED_LTST-C170	
10	D2	1	Diode	Diode, Schottky, 40V, 0.03A, SOD-323	Diodes Inc.	SDMK0340L-7-F	SDMK0340LDICT-ND	sod-323	
11	D3, D4	2	Green	LED, Green, SMD	Lite-On	LTST-C171GKT	160-1423-1-ND	LED_LTST-C171	
12	J1, J6	2	10x1	Receptacle 100mil 10x1, Tin, TH	Sullins Connector Solutions	PPTC101LFBN-RC	57008-ND	CONN_PPTC101LFBN-RC	
13	J2, J3	2	4x1	Header, TH, 100mil, 4x1, Gold plated, 230 mil above insulator	Samtec	TSW-104-07-G-S	SAM1029-04-ND	TSW-104-07-G-S	
14	J4, J5	2	2x1	Header, TH, 100mil, 2x1, Gold plated, 230 mil above insulator	Samtec	TSW-102-07-G-S	SAM1029-02-ND	TSW-102-07-G-S	
15	J8	1	3x1	Header, TH, 100mil, 3x1, Gold plated, 230 mil above insulator	Samtec	TSW-103-07-G-S	SAM1029-03-ND	TSW-102-07-G-S	
16	LCD1	1	LCD	Custom THERMOSTAT LCD	Provided by TI	N/A	N/A	TH_LCD	
17	Q2	1	PNP	Transistor, PNP, 40V, 0.2A, SOT-23	Diodes Inc.	MMBT3906-7-F	MMBT3906-FDICT-ND	SOT-23	
18	R1	1	50 ohm	RES, 50 ohm, 0.5%, 0.1W, 0603	Yageo America	RT0603DRE07150RL	RT0603DRE07150RL-ND	0603	
19	R2, R3, R5	3	390 ohm	RES, 390 ohm, 0.1%, 0.1W, 0603	Susumu Co Ltd	RG1608P-391-B-T5	RG16P390BCT-ND	0603	
20	R4, R6	2	0 ohm	RES, 0 ohm, 5%, 0.25W, 1206	Panasonic	ERJ-8GEY0R00V	P0.0ECT-ND	1206	
21	R10, R15	2	10k ohm	RES, 10k ohm, 5%, 0.1W, 0603	Vishay-Dale	CRCW060310K0JNEA	541-10KGCT-ND	0603	
22	R11	1	47k ohm	RES, 47k ohm, 5%, 0.1W, 0603	Vishay-Dale	CRCW060347K0JNEA	541-47KGCT-ND	0603	
23	R12	1	2.0k ohm	RES, 2.0k ohm, 5%, 0.1W, 0603	Vishay-Dale	CRCW06032K00JNEA	541-2.0KGCT-ND	0603	
24	R13	1	120 ohm	RES, 120 ohm, 5%, 0.1W, 0603	Vishay-Dale	CRCW0603120RJNEA	541-120GCT-ND	0603	
25	R16	1	100k ohm	RES, 100k ohm, 1%, 0.25W, 1206	Vishay-Dale	CRCW1206100KFKEA	541-100KFCT-ND	1206	
26	RT1	1	100k ohm	THERMISTOR 100K OHM 40MM L NTC	Murata	NXRT15WF104FA1B040	490-7169-ND	THROUGH HOLE	
27	S1, S2, S3, S4	4	key	SWITCH TACTILE SPST-NO 0.02A 15V, TH	Panasonic	EVQ-PAD04M	P8007S-ND	SW_EVQ-PAD04M	
28	U1	1	TPS78228	IC, 150mA, Ultra-Low Quiescent Current, IQ 500nA LDO Linear Regulator	Texas Instruments	TPS78228DDCR	296-23826-1-ND	TSOT-23-5[DDC]	
29	U2, U4	2	TPD2E2U06	DUAL CHANNEL HIGH SPEED ESD PROTECTION DEVICE, DRL0005A	Texas Instruments	TPD2E2U06DRL	296-38361-1-ND	DRL0005A	
30	U3	1	MSP430FR4133	16-bit Ultra-Low-Power MCU	Texas Instruments	MSP430FR4133IPM	N/A	PM0064A_M	
31	U7	1	SN65HVD75	High Temperature 3.3 V RS-485 Transceiver	Texas Instruments	SN65HVD75DGKR	296-35070-1-ND	D0008A_N	
32	Y1	1	32.768k	Crystal, 32.768kHz, 12.5pF, SMD	Abracon Corporation	AB26TRQ-32.768KHZ-T	535-12051-1-ND	XTAL_MS3V-T1R	

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