

TIDM-1005 REV E1 Bill of Materials

Designator	Quantity	Value	PartNumber	Manufacturer	Description	PackageReference
I PCB1	1		TIDM-1005	Any	Printed Circuit Board	
C1, C2, C4, C5	4	22pF	C1005C0G1H220J050BA	TDK	CAP, CERM, 22 pF, 50 V, +/- 5%, C0G/NP0, 0402	0402
C3	1	0.1uF	06033C104KAT2A	AVX	CAP, CERM, 0.1 uF, 25 V, +/- 10%, X7R, 0603	0603
C6	1	0.47uF	GRM188R71E474KA12D	MuRata	CAP, CERM, 0.47 uF, 25 V, +/- 10%, X7R, 0603	0603
C7, C9, C11, C13	4	4.7uF	GRM188R6YA475KE15D	MuRata	CAP, CERM, 4.7 uF, 35 V, +/- 10%, X5R, 0603	0603
C8, C10, C12, C14	4	0.1uF	GCM188R71H104KA57D	MuRata	CAP, CERM, 0.1 uF, 50 V, +/- 10%, X7R, 0603	0603
C15, C17, C32	3	0.1uF	C0603C104J4RACTU	Kemet	CAP, CERM, 0.1uF, 16V, +/-5%, X7R, 0603	0603
C16, C18	2	10uF	C0603C106M9PACTU	Kemet	CAP, CERM, 10 uF, 6.3 V, +/- 20%, X5R, 0603	0603
C22	1	470pF	C3216C0G2J471J085AA	TDK	CAP, CERM, 470 pF, 630 V, +/- 5%, C0G/NP0, 1206	1206
C23, C24	2	10uF	UCS2G100MPD1TD	Nichicon	CAP, AL, 10 uF, 400 V, +/- 20%, TH	RCAP, TH, 10 x 20mm
C25	1	220pF	GRM188R72E221KW07D	MuRata	CAP, CERM, 220 pF, 250 V, +/- 10%, X7R, 0603	0603
C26, C27	2	220uF	UHE1V221MPD1TD	Nichicon	CAP, AL, 220 uF, 35 V, +/- 20%, TH	D8xL15mm
C28	1	0.1uF	0603YC104JAT2A	AVX	CAP, CERM, 0.1 uF, 16 V, +/- 5%, X7R, 0603	0603
C29	1	47uF	CKG57NX5R1E476M500JH	TDK	CAP, CERM, 47 uF, 25 V, +/- 20%, X5R, 6x5x5mm	6x5x5mm
C30	1	470pF	VY2471K29Y5SS63V7	Vishay-Bccomponents	CAP, CERM, 470 pF, 300 V, +/- 10%, VY2, 5x7.5 mm	5x7.5 mm
C31	1	0.1uF	06033C104JAT2A	AVX	CAP, CERM, 0.1 uF, 25 V, +/- 5%, X7R, 0603	0603
C33	1	0.1uF	06033C104JAT2A	AVX	CAP, CERM, 0.1uF, 25V, +/-5%, X7R, 0603	0603
C34	1	150pF	06035A151JAT2A	AVX	CAP, CERM, 150 pF, 50 V, +/- 5%, C0G/NP0, 0603	0603
C35	1	22uF	GRM21BR60J226ME39L	MuRata	CAP, CERM, 22 uF, 6.3 V, +/- 20%, X5R, 0805	0805
C36	1	22uF	GRM31CR61A226KE19L	MuRata	CAP, CERM, 22 uF, 10 V, +/- 10%, X5R, 1206	1206
C37, C38	2	2.2uF	GRM21BR61E225KA12L	MuRata	CAP, CERM, 2.2 uF, 25 V, +/- 10%, X5R, 0805	0805
C39, C40	2	22uF	ECA1HM220	Panasonic	CAP, AL, 22 uF, 50 V, +/- 20%, TH	
D1	1	7V	CDSOT23-SM712	Bourns	Diode, TVS, Bi, 7 V, SOT-23	SOT-23
D3, D4, D5, D6, D7	5	600V	DFLR1600-7	Diodes Inc.	Diode, Standard Recovery Rectifier, 600 V, 1 A, PowerDI123	PowerDI123
D8	1	200V	BAS20HT1G	ON Semiconductor	Diode, Switching, 200 V, 0.2 A, AEC-Q101, SOD-323	SOD-323
D9	1	200V	MBRS3201T3G	ON Semiconductor	Diode, Schottky, 200 V, 3 A, SMC	SMC
D10, D11	2	5.6V	1SMB5919BT3G	ON Semiconductor	Diode, Zener, 5.6 V, 550 mW, SMB	SMB
DGND, DVCC, SPI, UART2	4		61300411121	Würth Elektronik	Header, 2.54 mm, 4x1, Gold, TH	Header, 2.54mm, 4x1, TH
F1	1		0263002.MAT1L	Littelfuse	Fuse, 2 A, 250 VAC, TH	Fuse, 7.11x3.94mm
FID1, FID2, FID3, FID4, FID5, FID6	6		N/A	N/A	Fiducial mark. There is nothing to buy or mount.	Fiducial
GPIO1, GPIO2, J2, RS485_GND	4		TSW-102-07-T-S	Samtec	Header, 2.54 mm, 2x1, Tin, TH	Header, 2.54 mm, 2x1, TH
H1, H2, H3, H4	4		NY PMS 440 0025 PH	B&F Fastener Supply	Machine Screw, Round, #4-40 x 1/4, Nylon, Philips panhead	Screw
H5, H6, H7, H8	4		1902C	Keystone	Standoff, Hex, 0.5"L #4-40 Nylon	Standoff
J1	1		1725669	Phoenix Contact	Terminal Block, 3x1, 2.54 mm, TH	Terminal Block, 3x1, 2.54 mm, TH
J3	1		PJ-037AH	CUI Inc.	Power Jack, 2mm, R/A, TH	Power Jack, R/A, TH
JTAG	1		GRPB052VWVN-RC	Sullins Connector Solutions	Header, 50mil, 5x2, Gold, TH	Header, 5x2, 50mil
L1	1	4.7uH	LQM21PN4R7NGR	MuRata	Inductor, Multilayer, Ferrite, 4.7 uH, 2 A, 0.08 ohm, SMD	2.0x1.0x1.2mm
L3	1	220uH	7447462221	Würth Elektronik	Inductor, Unshielded Drum Core, Ferrite, 220 uH, 0.5 A, 0.96 ohm, TH	D6 x 8.5mm
L4, L5	2	10uH	LPS4018-103MRB	Coilcraft	Inductor, Shielded Drum Core, Ferrite, 10 uH, 1.25 A, 0.18 ohm, SMD	LPS4018

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LBL1	1		THT-14-423-10	Brady	Thermal Transfer Printable Labels, 0.650" W x 0.200" H - 10,000 per roll	PCB Label 0.650"H x 0.200"W
LED1	1	Red	LTST-C170KRKT	Lite-On	LED, Red, SMD	Red 0805 LED
LED2	1	Yellow	LTST-C170KSMT	Lite-On	LED, Yellow, SMD	0805 LED
LED3	1	Blue	LTST-C170TBKT	Lite-On	LED, Blue, SMD	LED_0805
MBUS, UART1	2		61300311121	Würth Elektronik	Header, 2.54 mm, 3x1, Gold, TH	Header, 2.54mm, 3x1, TH
P1	1		770W-X2/10	Qualtek Electronics Corporation	AC Receptacle, 2.5A, R/A, TH	AC, Reception 14.5x15x22 mm
Q1	1	650V	STD5NM60-1	STMicroelectronics	MOSFET, N-CH, 650 V, 5 A, IPAK	IPAK
R1	1	100k	ERA-3AEB104V	Panasonic	RES, 100 k, 0.1%, 0.1 W, 0603	0603
R2	1	91.0k	RG2012P-913-B-T5	Susumu Co Ltd	RES, 91.0 k, 0.1%, 0.125 W, 0805	0805
R3	1	1.00k	ERJ-3EKF1001V	Panasonic	RES, 1.00 k, 1%, 0.1 W, 0603	0603
R4, R32	2	0	CRCW06030000Z0EA	Vishay-Dale	RES, 0 ohm, 5%, 0.1W, 0603	0603
R5, R6, R25	3	100	ERA-3AEB101V	Panasonic	RES, 100, 0.1%, 0.1 W, 0603	0603
R7	1	120	CRCW0603120RJNEA	Vishay-Dale	RES, 120 ohm, 5%, 0.1W, 0603	0603
R8, R9	2	10.0	CRCW251210R0FKEG	Vishay-Dale	RES, 10.0, 1%, 1 W, AEC-Q200 Grade 0, 2512	2512
R12	1	10.0k	MCU08050C1002FP500	Vishay/Beyschlag	RES, 10.0 k, 1%, 0.2 W, 0805	0805
R13	1	330k	RC1206FR-07330KL	Yageo America	RES, 330 k, 1%, 0.25 W, 1206	1206
R14	1	100k	MCU08050C1003FP500	Vishay/Beyschlag	RES, 100 k, 1%, 0.2 W, 0805	0805
R15	1	120	RC1206FR-07120RL	Yageo America	RES, 120, 1%, 0.25 W, 1206	1206
R16	1	47.0	ERJ-P6WF47R0V	Panasonic	RES, 47.0, 1%, 0.5 W, AEC-Q200 Grade 0, 0805	0805
R17	1	39.0k	ERJ-8ENF3902V	Panasonic	RES, 39.0 k, 1%, 0.25 W, AEC-Q200 Grade 0, 1206	1206
R18, R23	2	2.00	RC0805FR-072RL	Yageo America	RES, 2.00, 1%, 0.125 W, 0805	0805
R19	1	110k	RC1206FR-07110KL	Yageo America	RES, 110 k, 1%, 0.25 W, 1206	1206
R20	1	220	MCT06030C2200FP500	Vishay/Beyschlag	RES, 220, 1%, 0.125 W, 0603	0603
R21	1	33.0k	MCT06030C3302FP500	Vishay/Beyschlag	RES, 33.0 k, 1%, 0.125 W, 0603	0603
R22	1	560k	CRCW0603560KFKEA	Vishay-Dale	RES, 560 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
R24	1	2.20	RL1220S-2R2-F	Susumu Co Ltd	RES, 2.20, 1%, 0.333 W, 0805	0805
R29, R30	2	10.0k	CRCW040210K0FKED	Vishay-Dale	RES, 10.0k ohm, 1%, 0.063W, 0402	0402
R33, R36	2	100k	CRCW0402100KFKED	Vishay-Dale	RES, 100 k, 1%, 0.063 W, 0402	0402
R34	1	2.00Meg	CRCW04022M00FKED	Vishay-Dale	RES, 2.00 M, 1%, 0.063 W, 0402	0402
R35	1	383k	CRCW0402383KFKED	Vishay-Dale	RES, 383 k, 1%, 0.063 W, 0402	0402
R90, R92, R93	3	0	RC0603JR-070RL	Yageo America	RES, 0, 5%, 0.1 W, 0603	0603
R91	1	10k	CRCW060310K0JNEA	Vishay-Dale	RES, 10 k, 5%, 0.1 W, 0603	0603
R94, R95, R98	3	4.70k	RC0603FR-074K7L	Yageo America	RES, 4.70 k, 1%, 0.1 W, 0603	0603
R96, R97	2	10.0	CRCW060310R0FKEA	Vishay-Dale	RES, 10.0, 1%, 0.1 W, 0603	0603
RESET	1		430182080816	Würth Elektronik	Switch, Tactile, SPST-NO, 0.05A, 12V, SMD	6.2x6.2mm
RT1	1	100k ohm	NCP18WF104F12RB	MuRata	Thermistor NTC, 100k ohm, 1%, 0603	0603
SW1	1		100SP3T1B1M1QEHL	E-Switch	Switch, Toggle SPDT 5A, 120V, TH	12.7x6.86mm
T1	1		RLTI-1223	Renco Electronics	Transformer, 720 uH, TH	730x675mil
U1	1		MSP432P401RIPZR	Texas Instruments	Mixed-Signal Microcontroller, PZ0100A (LQFP-100)	PZ0100A
U2	1		ISOW7841DWR	Texas Instruments	ISOW7841DW, DW0016B (SOIC-16)	DW0016B
U3	1		THVD1500DR	Texas Instruments	250 kbps RS-485 Transceivers With ±12-kV IEC ESD Protection, D0008A (SOIC-8)	D0008A
U5	1		UCC28711DR	Texas Instruments	Constant-Voltage, Constant-Current Controller With Primary-Side Regulation, D0007A (SOIC-7)	D0007A
U6	1		TPS3808G01DBVR	Texas Instruments	Low Quiescent Current, Programmable-Delay Supervisory Circuit, DBV0006A (SOT-6)	DBV0006A
U7	1		TMP102AIDRL	Texas Instruments	Low Power Digital Temperature Sensor With SMBus/Two-Wire Serial Interface in SOT563, DRL0006A	DRL0006A
U8	1		TPS62177DQCR	Texas Instruments	28V, 0.5A Step-Down Converter with SNOOZE Mode, DQC0010A (WSON-10)	DQC0010A
U9	1		TPS62175DQCR	Texas Instruments	28V, 0.5A Step-Down Converter with SNOOZE Mode, DQC0010A (WSON-10)	DQC0010A

Designator	Quantity	Value	PartNumber	Manufacturer	Description	PackageReference
U10, U11, U12	3		SN74LV1T34DBVR	Texas Instruments	Single Power Supply BUFFER Logic Level Shifter (no enable), DBV0005A (SOT-5)	DBV0005A
Y1	1		FC-135R 32.7680KA-A3	Epson	Crystal, 32.768 KHz, 12.5 pF, SMD	SMD, 2-Leads, Body 3.2x1.5mm
Y2	1		CX2016DB48000H0FLJC1	Kyocera	Crystal, 48MHz, 12pF, SMD	2x1.6mm
R31	0	0	CRCW06030000Z0EA	Vishay-Dale	RES, 0 ohm, 5%, 0.1W, 0603	0603

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