

TIDM-1018 REV A0 Bill of Materials

Designator	Quantity	Value	PartNumber	Manufacturer	Description	PackageReference
I PCB	1		TIDM-1018	Any	Printed Circuit Board	
C1, C3, C4, C5, C6, C7, C8, C9, C10, C11, C12, C13, C14, C19	14	0.1uF	GRM155R71C104KA88D	MuRata	CAP, CERM, 0.1 µF, 16 V, +/- 10%, X7R, 0402	0402
C2, C18	2	1uF	C1005X5R1C105K050BC	TDK	CAP, CERM, 1 µF, 16 V, +/- 10%, X5R, 0402	0402
C15, C16	2	0.01uF	GRM155R71C103KA01D	MuRata	CAP, CERM, 0.01 µF, 16 V, +/- 10%, X7R, 0402	0402
C17	1	2.2uF	GRM155R61C225KE11D	MuRata	CAP, CERM, 2.2 µF, 16 V, +/- 10%, X5R, 0402	0402
C20, C21	2	22pF	C1005C0G1H220J050BA	TDK	CAP, CERM, 22 pF, 50 V, +/- 5%, C0G/NP0, 0402	0402
C22, C23, C24	3	0.1uF	C0603C104J3RAC	Kemet	CAP, CERM, 0.1 µF, 25 V, +/- 5%, X7R, 0603	0603
C25	1	3300pF	C0603X332K5RACTU	Kemet	CAP, CERM, 3300 pF, 50 V, +/- 10%, X7R, 0603	0603
C26, C27, C28, C29	4	0.1uF	GCM155R71C104KA55D	MuRata	CAP, CERM, 0.1 µF, 16 V, +/- 10%, X7R, 0402	0402
C30, C43	2	2200pF	C4532X7R3D222K	TDK	CAP, CERM, 2200 pF, 2000 V, +/- 10%, X7R, 1812	1812
C31	1	4700pF	1812GC472KA1	AVX	CAP, CERM, 4700 pF, 2000 V, +/- 10%, X7R, 1812	1812
C32	1	1000pF	08051C102KAT2A	AVX	CAP, CERM, 1000 pF, 100 V, +/- 10%, X7R, 0805	0805
C33	1	0.1uF	C0805C104K1RACTU	Kemet	CAP, CERM, 0.1 µF, 100 V, +/- 10%, X7R, 0805	0805
C34	1	0.1uF	C1608X7R1H104K	TDK	CAP, CERM, 0.1 µF, 50 V, +/- 10%, X7R, 0603	0603
C35	1	0.022uF	C1608X7R1H223K	TDK	CAP, CERM, 0.022 µF, 50 V, +/- 10%, X7R, 0603	0603
C36	1	330pF	GRM31A5C2J331JW01D	MuRata	CAP, CERM, 330 pF, 630 V, +/- 5%, C0G/NP0, 1206	1206
C37	1	10uF	EMVE160ADA100MD55G	Chemi-Con	CAP, AL, 10 µF, 16 V, +/- 20%, SMD	D55
C38	1	0.22uF	08053C224KAT2A	AVX	CAP, CERM, 0.22 µF, 25 V, +/- 10%, X7R, 0805	0805
C39	1	680pF	C0603C681K5RACTU	Kemet	CAP, CERM, 680 pF, 50 V, +/- 10%, X7R, 0603	0603
C40, C41	2	1uF	C3225X7R2A105K200AA	TDK	CAP, CERM, 1 µF, 100 V, +/- 10%, X7R, 1210	1210
C42	1	22uF	EMVH630ADA220MHA0G	Chemi-Con	CAP, AL, 22 µF, 63 V, +/- 20%, 0.7 ohm, SMD	HA0
C44	1	47uF	EEE-FK0J470R	Panasonic	CAP, AL, 47 µF, 6.3 V, +/- 20%, 0.7 ohm, SMD	SMT Radial C
C45, C46	2	47uF	GRM32ER61A476KE20L	MuRata	CAP, CERM, 47 µF, 10 V, +/- 10%, X5R, 1210	1210
C47	1	1uF	C2012X7R1C105K	TDK	CAP, CERM, 1 µF, 16 V, +/- 10%, X7R, 0805	0805
C48	1	100pF	06035A101JAT2A	AVX	CAP, CERM, 100 pF, 50 V, +/- 5%, C0G/NP0, 0603	0603
C49	1	8200pF	GRM188R71H822KA01D	MuRata	CAP, CERM, 8200 pF, 50 V, +/- 10%, X7R, 0603	0603
C50, C51	2	0.1uF	EMK107B7104KA-T	Taiyo Yuden	CAP, CERM, 0.1 µF, 16 V, +/- 10%, X7R, 0603	0603
C52	1	2.2uF	GRM188R61C225KE15D	MuRata	CAP, CERM, 2.2 µF, 16 V, +/- 10%, X5R, 0603	0603
C53	1	0.01uF	GRM21BR72A103KA01L	MuRata	CAP, CERM, 0.01 µF, 100 V, +/- 10%, X7R, 0805	0805
D1, D2	2	Red	150080SS75000	Würth Elektronik	LED, Red, SMD	LED_0805
D3	1	Green	150060GS75000	Würth Elektronik	LED, Green, SMD	LED_0603
D4	1		SLVU2.8-4.TBT	Semtech	Diode, TVS, Uni, 2.8 V, 400 W, SO-8	SO-8
D5	1	58V	SMAJ58A	Diodes Inc.	Diode, TVS, Uni, 58 V, 400 W, SMA	SMA
D6, D10	2	200V	MURA120T3G	ON Semiconductor	Diode, Ultrafast, 200 V, 1 A, SMA	SMA
D7	1	75V	BAS16-7-F	Diodes Inc.	Diode, Ultrafast, 75 V, 0.3 A, SOT-23	SOT-23
D8	1	40V	MBRS540T3G	ON Semiconductor	Diode, Schottky, 40 V, 5 A, SMC	SMC
D9	1	100V	BAV99,215	NXP Semiconductor	Diode, Switching, 100 V, 0.215 A, SOT-23	SOT-23
FB1, FB2	2	30 ohm	MMZ2012R300A	TDK	Ferrite Bead, 30 ohm @ 100 MHz, 1.5 A, 0805	0805
FID1, FID2, FID3	3		N/A	N/A	Fiducial mark. There is nothing to buy or mount.	N/A
J1A, J1B, J2A, J2B	4		TSW-110-07-G-D	Samtec	Header, 100mil, 10x2, Gold, TH	10x2 Header
J3	1		1981568-1	TE Connectivity	Connector, Receptacle, Micro-USB Type B, R/A, Bottom Mount SMT	MICRO USB CONN, R/A
J4	1		FTSH-105-01-F-DV	Samtec	Header, 1.27mm, 5x2, Gold, Black, SMT	Header, 1.27mm, 5x2, SMT

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J5	1		TSW-103-07-G-S	Samtec	Header, 100mil, 3x1, Gold, TH	3x1 Header
J6	1		ARJP11A-MASA-B-A-EMU2	Abracon Corporation	Connector, RJ-45 with integrated magnetics, Gold, R/A, TH	RJ-45 with integrated magnetics, 14-Leads, TH
J7	1		39357-0002	Molex	Terminal Block, 3.5 mm, 2x1, Tin, TH	Terminal Block, 3.5 mm, 2x1, TH
J8, J9, J10, J11	4		TSW-102-07-G-S	Samtec	Header, 100mil, 2x1, Gold, TH	2x1 Header
L1	1	4.7uH	DO1608C-472MLB	Coilcraft	Inductor, Drum Core, Ferrite, 4.7 uH, 1.5 A, 0.09 ohm, SMD	DO1608C
Q1	1	150V	FDN86246	Fairchild Semiconductor	MOSFET, N-CH, 150 V, 1.6 A, SSOT-3	SSOT-3
R1	1	51	CRCW060351R0JNEA	Vishay-Dale	RES, 51, 5%, 0.1 W, 0603	0603
R2	1	0	ERJ-2GE0R00X	Panasonic	RES, 0, 5%, 0.063 W, 0402	0402
R3	1	4.87k	CRCW06034K87FKEA	Vishay-Dale	RES, 4.87 k, 1%, 0.1 W, 0603	0603
R4, R8, R10	3	100	CRCW0402100RJNED	Vishay-Dale	RES, 100, 5%, 0.063 W, 0402	0402
R5, R9, R11	3	10k	CRCW040210K0JNED	Vishay-Dale	RES, 10 k, 5%, 0.063 W, 0402	0402
R6, R7, R25, R27, R28	5	330	RC0603JR-07330RL	Yageo America	RES, 330, 5%, 0.1 W, 0603	0603
R12	1	100	CRCW0603100RJNEA	Vishay-Dale	RES, 100, 5%, 0.1 W, 0603	0603
R13, R14, R15, R16	4	33	CRCW060333R0JNEA	Vishay-Dale	RES, 33, 5%, 0.1 W, 0603	0603
R17, R18, R19	3	10k	CRCW060310K0JNEA	Vishay-Dale	RES, 10 k, 5%, 0.1 W, 0603	0603
R20	1	1.0Meg	CRCW06031M00JNEA	Vishay-Dale	RES, 1.0 M, 5%, 0.1 W, 0603	0603
R21, R22, R23, R24	4	49.9	CRCW040249R9FKED	Vishay-Dale	RES, 49.9, 1%, 0.063 W, 0402	0402
R26	1	100k	ERJ-2RKF1003X	Panasonic	RES, 100 k, 1%, 0.1 W, 0402	0402
R29	1	1.0Meg	CRCW12061M00JNEA	Vishay-Dale	RES, 1.0 M, 5%, 0.25 W, 1206	1206
R30	1	39.2k	CRCW060339K2FKEA	Vishay-Dale	RES, 39.2 k, 1%, 0.1 W, 0603	0603
R31	1	392k	CRCW0603392KFKEA	Vishay-Dale	RES, 392 k, 1%, 0.1 W, 0603	0603
R32	1	59.0k	CRCW060359K0FKEA	Vishay-Dale	RES, 59.0 k, 1%, 0.1 W, 0603	0603
R33	1	80.6k	CRCW060380K6FKEA	Vishay-Dale	RES, 80.6 k, 1%, 0.1 W, 0603	0603
R34	1	1.27k	CRCW06031K27FKEA	Vishay-Dale	RES, 1.27 k, 1%, 0.1 W, 0603	0603
R35	1	24.9k	CRCW060324K9FKEA	Vishay-Dale	RES, 24.9 k, 1%, 0.1 W, 0603	0603
R36	1	499	CRCW0603499RFKEA	Vishay-Dale	RES, 499, 1%, 0.1 W, 0603	0603
R37	1	2.0k	CRCW06032K00JNEA	Vishay-Dale	RES, 2.0 k, 5%, 0.1 W, 0603	0603
R38, R42	2	49.9	CRCW060349R9FKEA	Vishay-Dale	RES, 49.9, 1%, 0.1 W, 0603	0603
R39, R44	2	0	CRCW06030000Z0EA	Vishay-Dale	RES, 0, 5%, 0.1 W, 0603	0603
R40	1	0.56	ERJ-8RQFR56V	Panasonic	RES, 0.56, 1%, 0.25 W, 1206	1206
R41	1	82	CRCW201082R0JNEF	Vishay-Dale	RES, 82, 5%, 0.75 W, 2010	2010
R43	1	20.0	CRCW120620R0FKEA	Vishay-Dale	RES, 20.0, 1%, 0.25 W, 1206	1206
R45	1	10k	RC0603JR-0710KL	Yageo America	RES, 10 k, 5%, 0.1 W, 0603	0603
R46	1	665	CRCW0603665RFKEA	Vishay-Dale	RES, 665, 1%, 0.1 W, 0603	0603
R47	1	13.3k	CRCW060313K3FKEA	Vishay-Dale	RES, 13.3 k, 1%, 0.1 W, 0603	0603
R48	1	41.2k	CRCW060341K2FKEA	Vishay-Dale	RES, 41.2 k, 1%, 0.1 W, 0603	0603
R49	1	19.1k	CRCW060319K1FKEA	Vishay-Dale	RES, 19.1 k, 1%, 0.1 W, 0603	0603
R50, R51	2	1.0k	CRCW04021K00JNED	Vishay-Dale	RES, 1.0 k, 5%, 0.063 W, 0402	0402
R52	1	49.9k	ERJ-6ENF4992V	Panasonic	RES, 49.9 k, 1%, 0.125 W, 0805	0805
S1, S2, S3	3		SKRKAEE010	Alps	Switch, Push Button, SMD	2.9x2x3.9mm SMD
T1	1	127uH	POE13P-50L	Coilcraft	Flyback Transformer, 13W, SMD	POE13P
TP1, TP2, TP3, TP4, TP5, TP6, TP7, TP8, TP9, TP10, TP11	11		TMS-101-02-T-S	Samtec	Header, 1x1, Tin, TH	Header, 1x1, 50mil, TH
U1	1		MSP432E401YTPDTR	Texas Instruments	MSP432E401YTPDT, PDT0128A (TQFP-128)	PDT0128A
U2	1		TPD2E2U06DRLR	Texas Instruments	DUAL CHANNEL HIGH SPEED ESD PROTECTION DEVICE, DRL0005A	DRL0005A

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U3	1		TPS23753APW	Texas Instruments	IEEE 802.3-2005 PoE Interface and Isolated Converter Controller with Enhanced ESD Ride-Through, -40 to 125 degC, 14-pin SOP (PW14), Green (RoHS & no Sb/Br)	PW0014A
U4	1		FOD817AS	Fairchild Semiconductor	Optocoupler, 5 kV, 80-160% CTR, SMT	DIP-4L Gullwing
U5	1		TLV431ACDBZR	Texas Instruments	Low Voltage Adjustable Precision Shunt Regulator, 39 ppm / degC, 15 mA, 0 to 70 degC, 3-pin SOT-23 (DBZ), Green (RoHS & no Sb/Br)	DBZ0003A
U6	1		TPS73733DCQR	Texas Instruments	Single Output LDO, 1 A, Fixed 3.3 V Output, 2.2 to 5.5 V Input, with Reverse Current Protection, 6-pin SOT-223 (DCQ), -40 to 125 degC, Green (RoHS & no Sb/Br)	DCQ0006A
Y1	1		NX5032GA-25.000M-STD-CSK-4	NDK	Crystal, 25MHz, SMD	5x3.2mm

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