

TIDM-1019 (EVM430-FR6047) BILL OF MATERIALS (BOM)

Designator	Quantity	Value	Description	PackageReference	PartNumber	Manufacturer	Alternate PartNumber	Alternate Manufacturer
!PCB	1		Printed Circuit Board		EVM430-FR6047	Any	-	-
BUT_DOW N, BUT_LEFT, BUT_RIGH T, BUT_SELE CT, BUT_UP	5		Switch, Tactile, SPST-NO, 0.05A, 12V, SMT	Switch, 4.4x2x2.9 mm	TL1015AF160QG	E-Switch		
C1, C2, C5, C6, C13, C20, C28, C102, C104, C108, C113, C118, C119, C121, C202, C203, C204, C400, C402, C408, C409, C411	22	0.1uF	CAP, CERM, 0.1 µF, 16 V, +/- 10%, X7R, 0402	0402	GRM155R71C104KA88 D	MuRata		
C3, C4, C14, C111, C210	5	1000pF	CAP, CERM, 1000 pF, 50 V, +/- 5%, C0G/NP0, 0402	0402	GRM1555C1H102JA01 D	MuRata		
C7, C8, C17, C18	4	12pF	CAP, CERM, 12 pF, 50 V, +/- 5%, C0G/NP0, 0402	0402	GRM1555C1H120JA01 D	MuRata		
C9	1	4.7uF	CAP, CERM, 4.7 µF, 16 V, +/- 10%, X7R, 0805	0805	GRM21BR71C475KA73 L	MuRata		
C10, C19, C410, C413	4	10uF	CAP, CERM, 10 µF, 10 V, +/- 20%, X5R, 0603	0603	GRM188R61A106ME69 D	MuRata		
C11, C12	2	1000pF	CAP, CERM, 1000 pF, 50 V, +/- 1%, C0G/NP0, 0603	0603	GRM1885C1H102FA01J	MuRata		
C21, C23, C24	3	47uF	CAP, CERM, 47 µF, 6.3 V, +/- 20%, X5R, 0805	0805	GRM21BR60J476ME15 L	MuRata		
C22, C25, C26, C27	4	1uF	CAP, CERM, 1 µF, 10 V, +/- 10%, X7R, 0603	0603	GRM188R71A105KA61 D	MuRata		
C100, C101, C200, C201, C403, C404	6	22pF	CAP, CERM, 22 pF, 50 V, +/- 5%, C0G/NP0, 0402	0402	GRM1555C1H220JA01 D	MuRata		
C103, C112, C116, C117, C120, C205	6	4.7uF	CAP, CERM, 4.7 µF, 10 V, +/- 20%, X5R, 0603	0603	GRM188R61A475MAAJ	MuRata		
C105, C106, C206, C207	4	0.22uF	CAP, CERM, 0.22 µF, 16 V, +/- 10%, X7R, 0402	0402	GRM155R71C224KA12 D	MuRata		
C107, C208	2	0.47uF	CAP, CERM, 0.47 µF, 16 V, +/- 10%, X5R, 0402	0402	GRM155R61C474KE01	MuRata		
C109, C110, C114, C115	4	33pF	CAP, CERM, 33 pF, 50 V, +/-5%, C0G/NP0, 0402	0402	GRM1555C1H330JA01 D	MuRata		

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C401, C405, C406, C407	4	10pF	CAP, CERM, 10 pF, 50 V, +/- 5%, C0G/NPO, 0402	0402	GRM1555C1H100JA01D	MuRata		
C412	1	0.01uF	CAP, CERM, 0.01 uF, 16 V, +/- 10%, X7R, 0402	0402	GRM155R71C103KA01D	MuRata		
D100, D203, LED3	3	Red	LED, Red, SMD	Red LED, 1.6x0.8x0.8mm	LTST-C190CKT	Lite-On		
D101, D201, D202, LED1, LED2	5	Green	LED, Green, SMD	LED_0603	LTST-C191TGKT	Lite-On		
D102, D103	2	40V	Diode, Schottky, 40V, 0.2A, SOT-23	SOT-23	BAS40-05-7-F	Diodes Inc.		
H1, H2, H3, H4	4		Bumpon, Cylindrical, 0.312 X 0.200, Black	Black Bumpon	SJ61A1	3M		
J1	1		Header, 100mil, 3x1, Gold, TH	3x1 Header	TSW-103-07-G-S	Samtec		
J2, J8	2		Header, 100mil, 4x2, Gold, TH	4x2 Header	TSW-104-07-G-D	Samtec		
J3, J30	2		Header, 100mil, 2x2, Gold, TH	2x2 Header	TSW-102-07-G-D	Samtec		
J4, J7	2		Header, 100mil, 2x1, Gold, TH	Header, 2.54mm, 2x1, TH	HMTSW-102-07-G-S-240	Samtec		
J5	1		Header, 100mil, 5x2, Gold, TH	5x2 Header	TSW-105-07-G-D	Samtec		
J5, J6	2		Header, 100mil, 10x2, Gold, TH	10x2 Header	TSW-110-07-G-D	Samtec		
J31, J32, J33	3		Header, 100mil, 2x1, Gold, TH	2x1 Header	TSW-102-07-G-S	Samtec		
J34	1		Header (shrouded), 100 mil, 7x2, Gold, TH	7x2 Shrouded Header	SBH11-PBPC-D07-ST-BK	Sullins Connector Solutions		
L1, L2	2	600 ohm	Ferrite Bead, 600 ohm @ 100 MHz, 2 A, 0805	0805	MPZ2012S601A	TDK		
L101	1	2.2uH	Inductor, Shielded, Composite, 2.2uH, 0.95A, 0.16 ohm, SMD	0805	CIG21L2R2MNE	Samsung		
LCD	1		108 Segment LCD Display, TH	56x25.1mm	FH-1138P	Adkom Elektronik		
MCU_RESE T, S201, S202	3		SWITCH TACTILE SPST-NO 0.05A 12V	3x1.6x2.5mm	B3U-1000P	Omron Electronic Components		
POW_SEL	1		Switch, Slide, SP3T, On-On-On, 3 Pos, 0.3A, 30 VDC, TH	12.6x4.3mm	SS-13D16-VG 4 PA	C&K Components		
Q100, Q200	2		Resonator, 4MHz, 39pF SMD	4.5x1.2x2 mm	CSTCR4M00G15L99-R0	MuRata		
Q101	1	-50V	MOSFET, P-CH, -50V, -0.13A, SOT-323	SOT-323	BSS84W-7-F	Diodes Inc.		None
Q102	1	0.7V	Transistor, NPN, 45V, 0.1A, SOT-23	SOT-23	BC850CLT1G	ON Semiconductor		
Q400	1		Resonator, 6MHz, 15pF SMD	4.5x1.2x2 mm	CSTCR6M00G53Z-R0	MuRata		
R1, R2, R3, R4, R6, R7, R8, R39, R40, R211	10	100	RES, 100, 5%, 0.063 W, 0402	0402	CRCW0402100RJNED	Vishay-Dale		
R5	1	33	RES, 33 ohm, 5%, 0.063W, 0402	0402	CRCW040233R0JNED	Vishay-Dale		
R9, R10	2	100k	RES, 100 k, 5%, 0.063 W, 0402	0402	CRCW0402100KJNED	Vishay-Dale		
R11	1	200k	Trimmer, 200 K, 0.25 W, SMD	3.5x5.3x4.8mm	3224W-1-204E	Bourns		
R12, R13, R14	3	330k	RES, 330 k, 5%, 0.063 W, 0402	0402	CRCW0402330KJNED	Vishay-Dale		
R15, R100, R101, R201, R203	5	22	RES, 22, 5%, 0.063 W, 0402	0402	CRCW040222R0JNED	Vishay-Dale		
R16, R17	2	200	RES, 200, 1%, 0.063 W, 0402	0402	CRCW0402200RFKED	Vishay-Dale		
R18, R106, R121, R123, R209, R404	6	47k	RES, 47 k, 5%, 0.063 W, 0402	0402	CRCW040247K0JNED	Vishay-Dale		
R19	1	0	RES, 0, 5%, 0.125 W, 0805	0805	CRCW08050000Z0EA	Vishay-Dale		
R23, R24	2	390	RES, 390, 5%, 0.063 W, 0402	0402	CRCW0402390RJNED	Vishay-Dale		
R25, R104, R120, R205	4	470	RES, 470, 5%, 0.063 W, 0402	0402	CRCW0402470RJNED	Vishay-Dale		

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R27, R28, R29, R30, R31, R32, R33, R34, R35, R36, R37, R38, R50, R51, R124	15	0	RES, 0, 5%, 0.063 W, 0402	0402	CRCW04020000Z0ED	Vishay-Dale		
R103, R206, R408	3	1.5k	RES, 1.5 k, 5%, 0.063 W, 0402	0402	CRCW04021K50JNED	Vishay-Dale		
R105, R202, R204	3	390	RES, 390 ohm, 5%, 0.063W, 0402	0402	CRCW0402390RJNED	Vishay-Dale		
R107, R108, R116, R117, R118, R119	6	221k	RES, 221 k, 1%, 0.063 W, 0402	0402	CRCW0402221KFKED	Vishay-Dale		
R109	1	150k	RES, 150 k, 1%, 0.063 W, 0402	0402	CRCW0402150KFKED	Vishay-Dale		
R110	1	240k	RES, 240 k, 1%, 0.063 W, 0402	0402	CRCW0402240KFKED	Vishay-Dale		
R111, R112	2	4.7k	RES, 4.7 k, 5%, 0.063 W, 0402	0402	CRCW04024K70JNED	Vishay-Dale		
R113	1	2.20k	RES, 2.20 k, 1%, 0.063 W, 0402	0402	CRCW04022K20FKED	Vishay-Dale		
R114	1	6.81k	RES, 6.81 k, 1%, 0.063 W, 0402	0402	CRCW04026K81FKED	Vishay-Dale		
R115	1	3.32k	RES, 3.32 k, 1%, 0.063 W, 0402	0402	CRCW04023K32FKED	Vishay-Dale		
R122	1	820	RES, 820, 5%, 0.063 W, 0402	0402	CRCW0402820RJNED	Vishay-Dale		
R200, R208	2	2.2k	RES, 2.2 k, 5%, 0.063 W, 0402	0402	CRCW04022K20JNED	Vishay-Dale		
R207, R418	2	10k	RES, 10 k, 5%, 0.063 W, 0402	0402	CRCW040210K0JNED	Vishay-Dale		
R210	1	1.0Meg	RES, 1.0 M, 5%, 0.063 W, 0402	0402	CRCW04021M00JNED	Vishay-Dale		
R400, R401, R402, R403, R405, R410, R411, R412	8	15k	RES, 15 k, 5%, 0.063 W, 0402	0402	CRCW040215K0JNED	Vishay-Dale		
R406	1	27	RES, 27 ohm, 5%, 0.063W, 0402	0402	CRCW040227R0JNED	Vishay-Dale		
R407, R409, R413, R414, R415, R416	6	22	RES, 22 ohm, 5%, 0.063W, 0402	0402	CRCW040222R0JNED	Vishay-Dale		
SH-J1, SH-J2, SH-J3, SH-J4, SH-J5, SH-J6, SH-J7, SH-J8, SH-J9, SH-J10, SH-J11, SH-J12, SH-J13, SH-J14	14		Shunt, 2.54mm, Gold, Black	Shunt, 2.54mm, Black	60900213421	Würth Elektronik		
U1	1		Mixed-Signal Microcontroller, PZ0100A (LQFP-100)	PZ0100A	MSP430FR6047IPZR	Texas Instruments	MSP430FR6047IPZ	Texas Instruments
U100, U200	2		Mixed Signal MicroController, RGC0064B	RGC0064B	MSP430F5528IRGCR	Texas Instruments	MSP430F5528IRGCT	Texas Instruments
U101	1	TS5A21366RSER	IC, Single-Channel 10 Ohms SPDT Analog Switch with enable	uQFN	TS5A21366RSER	TI		None
U102	1	MSP430G2x52RSA	IC, Mixed Signal Microcontroller	QFN	MSP430G2x52RSA	TI		None
U103, U201, U202	3		Low-Capacitance Array with +/- 15 kV ESD Protection, 4 Channels, -40 to +85 degC, 5-pin SOT (DRL), Green (RoHS & no Sb/Br)	DRL0005A	TPD4E002DRL2	Texas Instruments	Equivalent	Texas Instruments
U400	1		Low-Capacitance +/- 15 kV ESD-Protection Array for High-Speed Data Interfaces, 2 Channels, -40 to +85 degC, 5-pin SOT (DRL), Green (RoHS & no Sb/Br)	DRL0005A	TPD2E001DRLR	Texas Instruments	Equivalent	None
U401	1		4-Port Full-Speed USB Hub, 3.3V, -40 to 85 degC, 32-Pin QFN (RHB), Green (RoHS & no Sb/Br)	RHB0032E	TUSB2046BIRHBR	Texas Instruments	Equivalent	None

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U402	1		Single Output High PSRR LDO, 500 mA, Fixed 3.3 V Output, 2.7 to 6.5 V Input, with Low IQ, 8-pin SON (DRB), -40 to 125 degC, Green (RoHS & no Sb/Br)	DRB0008A	TPS73533DRBR	Texas Instruments	Equivalent	Texas Instruments
USB	1		Connector, Receptacle, Micro-USB Type B, SMT	Connector USB Mini B	ZX62R-B-5P	Hirose Electric Co. Ltd.		
Y1	1		Crystal, 8MHz, SMD	SMD, 2-Leads, Body 3.2x1.3x5 mm	ABM3-8.000MHZ-D2Y-T	Abracon Corporation		
Y2	1		CRYSTAL, 32.768KHZ, 9PF, SMD	3.2x0.9x1.5mm	ABS07-32.768KHZ-9-T	Abracon Corporation		
Y3	1		Ceramic Resonator, 8MHz, 22pF, SMD	3.7x3.1mm	AWSCR-8.00CV-T	Abracon Corporation		
C15, C16	0	12pF	CAP. CERM, 12 pF, 50 V, +/- 5%, C0G/NP0, 0402	0402	GRM1555C1H120JA01D	MuRata		
J100	0		Header, TH, 100mil, 7x1, Gold plated, (modified silk pin #1)	7x1 Header	TSW-107-07-G-S	Samtec		
J200	0		Header, 100mil, 7x1, Gold, TH	7x1 Header	TSW-107-07-G-S	Samtec		
L3	0	2.2uH	Inductor, Shielded, Ferrite, 2.2 uH, 1.57 A, 0.042 ohm, SMD	IND_3x1.5x3mm	VLF302515MT-2R2M	TDK		
R20, R21, R22, R41, R42, R43, R44, R45, R46, R47, R48, R49	0		RES, xxx ohm, x%, xW, [PackageReference]	Used in PnP output and some BOM reports	Used in BOM report	Used in BOM report	-	-
R26	0	22	RES, 22, 5%, 0.063 W, 0402	0402	CRCW040222R0JNED	Vishay-Dale		
U2	0		Single Output LDO, 150 mA, Adjustable 1.22 to 5.25 V Output, 2.2 to 5.5 V Input, with 500 nA Quiescent Current, 5-pin SOT (DDC), -40 to 125 degC, Green (RoHS & no Sb/Br)	DDC0005A	TPS78001DDCR	Texas Instruments	Equivalent	Texas Instruments
U3	0		360nA IQ Step Down Converter for Low Power Applications, DSS0012A	DSS0012A	TPS62740DSSR	Texas Instruments	TPS62740DSST	Texas Instruments
F1	1	241	Clamp-on Ferrite	Hinged (Snap On), Key R	74271132	Würth Elektronik		
USB1	1		micro USB cable(REACH & RoHS compliant, 12" - 16")		AK67421-0.3	Assman WSW		

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