

TIDA-01373 REV E1 Bill of Materials

Designator	Quantity	Value	PartNumber	Manufacturer	Description	PackageReference
3v3, 3v3-ISO, 5v,	60		5016	Keystone	Test Point, Compact, SMT	Testpoint_Keystone_
5v-ISO, 5v-Other-						Compact
Reg, 5v-USB-Reg,						· .
5v_pre, Back,						
Contrast, D0.1,						
D0.2, D1.1, D1.2,						
D2.1, D2.2, D3.1,						
D3.2, D4.1, D4.2,						
D5.1, D5.2, D6.1,						
D6.2, D7.1, D7.2,						
Done, E.1, E.2,						
GND1, Next,						
Program, R/W.1,						
R/W.2, Read,						
Reset, RS.1,						
RS.2, SCL, SCL0-						
ISO, SCL1-ISO,						
SCL2-ISO, SCL3-						
ISO, SCL4-ISO,						
SCL5-ISO, SCL6-						
ISO, SCL7-ISO,						
SCL-ISO, SDA,						
SDA0-ISO, SDA1-						
ISO, SDA2-ISO,						
SDA3-ISO, SDA4-						
ISO, SDA5-ISO,						
SDA6-ISO, SDA7-						
ISO, SDA-ISO,						
Test, USB_Vin,						
Vin						
Back_button,	6		430182070816	Wurth Elektronik	Switch, SPST-NO, Off-Mom, 1 Pos, 0.05A, 12 VDC, SMT	6.2x6.2mm
Done_button,	U		430102070010	Waitii Liektioliik	Switch, or on-worth, 11 os, 0.00A, 12 vbo, own	0.230.211111
Next_button,						
Program_button,						
Read_button,						
Reset_button		0.4.5	OCCORDA ALKODA OTI I		DAR OFFIN A 4 F 40 V / 400/ VZD 0000	2000
C0, C5, C6, C8,	7	0.1uF	C0603C104K8RACTU	Kemet	CAP, CERM, 0.1 μF, 10 V, +/- 10%, X7R, 0603	0603
C9, C10, C27		00.5	ODMOSEDO4EGGGUE (E)	lu B	LOAD OFFIN OO F OF V / 400/ V/FD 1010	1010
C1	1	22uF	GRM32ER61E226KE15L	MuRata	CAP, CERM, 22 µF, 25 V, +/- 10%, X5R, 1210	1210
C2	1	0.1uF	GRM155R61C104KA88D	MuRata	CAP, CERM, 0.1 µF, 16 V, +/- 10%, X5R, 0402	0402
C3	1	10uF	GRM188R61C106MAALD	MuRata	CAP, CERM, 10 µF, 16 V, +/- 20%, X5R, 0603	0603
C4	1	47uF	GRM31CR61A476KE15L	MuRata	CAP, CERM, 47 µF, 10 V, +/- 10%, X5R, 1206	1206
C11, C14, C16, C18, C21	5	4.7uF	GRM219R60J475KE19D	MuRata	CAP, CERM, 4.7 μF, 6.3 V, +/- 10%, X5R, 0805	0805
C12, C13, C15, C17, C20	5	0.1uF	GRM155R71A104KA01D	MuRata	CAP, CERM, 0.1 μF, 10 V, +/- 10%, X7R, 0402	0402
C22, C23	2	12pF	C0402C120J3GACAUTO	Kemet	CAP, CERM, 12 pF, 25 V, +/- 5%, C0G/NP0, AEC-Q200 Grade 1, 0402	0402
C24	1	4.7uF	GRM219C80J475KE19D	MuRata	CAD CEDM 4.7 (F. 6.2 V.) / 100/ V69 0905	0805
C24	1	4.7 UF	GKWZ 190003473KE 190	Page 1 of	CAP, CERM, 4.7 μF, 6.3 V, +/- 10%, X6S, 0805	บอบอ

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Designator C25 C26 F1, F2, F3 FID1, FID2, FID3 H1, H2, H3, H4 H5, H6, H7, H8 IC1 J3 J4, JTAG J5 J6	Quantity	Value 0.1uF 22uF	PartNumber C0805C104K4RACTU C5750X7R1E226M250KA 0263001.WRT1L N/A NY PMS 440 0025 PH 1902C MSP430G2553IRHB32R 30320-6002HB SBH11-PBPC-D07-ST-BK 1734035-2 1715721	Manufacturer Kemet TDK Littelfuse N/A B&F Fastener Supply Keystone Texas Instruments 3M Sullins Connector Solutions	Description CAP, CERM, 0.1 μF, 16 V, +/- 10%, X7R, 0805 CAP, CERM, 22 μF, 25 V, +/- 20%, X7R, 2220 Fuse, 1 A, 250VAC/VDC, TH Fiducial mark. There is nothing to buy or mount. Machine Screw, Round, #4-40 x 1/4, Nylon, Philips panhead Standoff, Hex, 0.5"L #4-40 Nylon 16 MHz Mixed Signal Microcontroller with 16 KB Flash, 512 B SRAM and 24 GPIOs, -40 to 85 degC, 32-pin QFN (RHB), Green (RoHS & no Sb/Br) Straight Low Profile Header, 10x2 Position, 2.54 mm Pitch, TH	PackageReference 0805 2220 Fuse, 7.11x3.94mm Fiducial Screw Standoff RHB0032E Male Header, 10x2 Position, 2.54 mm Pitch, Straight, TH
F1, F2, F3 FID1, FID2, FID3 H1, H2, H3, H4 H5, H6, H7, H8 IC1 J3	3 4 4 1 1	22uF	C5750X7R1E226M250KA 0263001.WRT1L N/A NY PMS 440 0025 PH 1902C MSP430G2553IRHB32R 30320-6002HB SBH11-PBPC-D07-ST-BK	Littelfuse N/A B&F Fastener Supply Keystone Texas Instruments 3M Sullins Connector Solutions	CAP, CERM, 22 µF, 25 V, +/- 20%, X7R, 2220 Fuse, 1 A, 250VAC/VDC, TH Fiducial mark. There is nothing to buy or mount. Machine Screw, Round, #4-40 x 1/4, Nylon, Philips panhead Standoff, Hex, 0.5"L #4-40 Nylon 16 MHz Mixed Signal Microcontroller with 16 KB Flash, 512 B SRAM and 24 GPIOs, -40 to 85 degC, 32-pin QFN (RHB), Green (RoHS & no Sb/Br) Straight Low Profile Header, 10x2 Position, 2.54 mm Pitch, TH	Fuse, 7.11x3.94mm Fiducial Screw Standoff RHB0032E Male Header, 10x2 Position, 2.54 mm Pitch, Straight, TH
FID1, FID2, FID3 H1, H2, H3, H4 H5, H6, H7, H8 IC1 J3 J4, JTAG	3 4 4 1 1		0263001.WRT1L N/A NY PMS 440 0025 PH 1902C MSP430G2553IRHB32R 30320-6002HB SBH11-PBPC-D07-ST-BK 1734035-2	N/A B&F Fastener Supply Keystone Texas Instruments 3M Sullins Connector Solutions	Fuse, 1 A, 250VAC/VDC, TH Fiducial mark. There is nothing to buy or mount. Machine Screw, Round, #4-40 x 1/4, Nylon, Philips panhead Standoff, Hex, 0.5"L #4-40 Nylon 16 MHz Mixed Signal Microcontroller with 16 KB Flash, 512 B SRAM and 24 GPIOs, -40 to 85 degC, 32-pin QFN (RHB), Green (RoHS & no Sb/Br) Straight Low Profile Header, 10x2 Position, 2.54 mm Pitch, TH	Fiducial Screw Standoff RHB0032E Male Header, 10x2 Position, 2.54 mm Pitch, Straight, TH
H1, H2, H3, H4 H5, H6, H7, H8 IC1 J3 J4, JTAG J5	4 4 1 1 2 1		NY PMS 440 0025 PH 1902C MSP430G2553IRHB32R 30320-6002HB SBH11-PBPC-D07-ST-BK	N/A B&F Fastener Supply Keystone Texas Instruments 3M Sullins Connector Solutions	Fiducial mark. There is nothing to buy or mount. Machine Screw, Round, #4-40 x 1/4, Nylon, Philips panhead Standoff, Hex, 0.5"L #4-40 Nylon 16 MHz Mixed Signal Microcontroller with 16 KB Flash, 512 B SRAM and 24 GPIOs, -40 to 85 degC, 32-pin QFN (RHB), Green (RoHS & no Sb/Br) Straight Low Profile Header, 10x2 Position, 2.54 mm Pitch, TH	Screw Standoff RHB0032E Male Header, 10x2 Position, 2.54 mm Pitch, Straight, TH
H1, H2, H3, H4 H5, H6, H7, H8 IC1 J3 J4, JTAG J5	1 2 1 1		1902C MSP430G2553IRHB32R 30320-6002HB SBH11-PBPC-D07-ST-BK 1734035-2	B&F Fastener Supply Keystone Texas Instruments 3M Sullins Connector Solutions	Machine Screw, Round, #4-40 x 1/4, Nylon, Philips panhead Standoff, Hex, 0.5"L #4-40 Nylon 16 MHz Mixed Signal Microcontroller with 16 KB Flash, 512 B SRAM and 24 GPIOs, -40 to 85 degC, 32-pin QFN (RHB), Green (RoHS & no Sb/Br) Straight Low Profile Header, 10x2 Position, 2.54 mm Pitch, TH	Screw Standoff RHB0032E Male Header, 10x2 Position, 2.54 mm Pitch, Straight, TH
H5, H6, H7, H8 IC1 J3 J4, JTAG J5	1 2 1 1		1902C MSP430G2553IRHB32R 30320-6002HB SBH11-PBPC-D07-ST-BK 1734035-2	Keystone Texas Instruments 3M Sullins Connector Solutions	Standoff, Hex, 0.5"L #4-40 Nylon 16 MHz Mixed Signal Microcontroller with 16 KB Flash, 512 B SRAM and 24 GPIOs, -40 to 85 degC, 32-pin QFN (RHB), Green (RoHS & no Sb/Br) Straight Low Profile Header, 10x2 Position, 2.54 mm Pitch, TH	Standoff RHB0032E Male Header, 10x2 Position, 2.54 mm Pitch, Straight, TH
J3 J4, JTAG J5	1 2 1 1		30320-6002HB SBH11-PBPC-D07-ST-BK 1734035-2	Texas Instruments 3M Sullins Connector Solutions	16 MHz Mixed Signal Microcontroller with 16 KB Flash, 512 B SRAM and 24 GPIOs, -40 to 85 degC, 32-pin QFN (RHB), Green (RoHS & no Sb/Br) Straight Low Profile Header, 10x2 Position, 2.54 mm Pitch, TH	Male Header, 10x2 Position, 2.54 mm Pitch, Straight, TH
J4, JTAG J5	2		SBH11-PBPC-D07-ST-BK 1734035-2	Sullins Connector Solutions		Position, 2.54 mm Pitch, Straight, TH
J5	1 1		1734035-2		Header (shrouded), 100 mil, 7x2, Gold, TH	
J5 J6	1			TE 0 0 0	, , , , , , , , , , , , , , , , , , , ,	7x2 Shrouded Header
J6	1			TE Connectivity	Connector, Receptacle, Mini-USB Type B, R/A, Top Mount SMT	USB Mini Type B
	·		11 10121	Phoenix Contact	Terminal Block, 5.08 mm, 2x1, TH	2POS Terminal Block
	1			Thomas Contact	Tommar Block, 6.66 mm, Ext, 111	21 00 Tollillia Blook
J7			PJ-002BH-SMT-TR	CUI Inc.	Power Jack, 2.5x5.5mm, R/A, SMT	Power Jack, 4-Leads, Body 14.8x9mm, R/A, SMT
J8, J9, J10, J11	4		D3082-05	Harwin	1mm Uninsulated Shorting Plug, 10.16mm spacing, TH	Shorting Plug, 10.16mm spacing, TH
L1	1	1.5uH	XFL4020-152MEB	Coilcraft	Inductor, Shielded, Composite, 1.5 µH, 4.6 A, 0.01 ohm, SMD	4x2x4mm
L2	1	1000 ohm	BK2125HS102-T	Taiyo Yuden	Ferrite Bead, 1000 ohm @ 100MHz, 0.3A, 0805	0805
PWRLED	1	Green	QTLP630C4TR	Everlight	LED, Green, SMD	2x1.25mm
R1	1	10.0k	CRCW040210K0FKED	Vishay-Dale	RES, 10.0 k, 1%, 0.063 W, 0402	0402
R3	1	47.5k	ERJ-3EKF4752V	Panasonic	RES, 47.5 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
R4, R5, R7, R8, R9	5	47.0k	RT0603BRD0747KL	Yageo America	RES, 47.0 k, 0.1%, 0.1 W, 0603	0603
R10, R11	2	4.70k	RG1608P-472-B-T5	Susumu Co Ltd	RES, 4.70 k, 0.1%, 0.1 W, 0603	0603
R12, R13, R14, R15, R16, R17, R18, R19, R20, R21, R22, R23, R24, R25, R26, R27, R28, R29, R32		4.70k	RC1206FR-074K7L	Yageo America	RES, 4.70 k, 1%, 0.25 W, 1206	1206
R30, R31	2	10.0	ERJ-8ENF10R0V	Panasonic	RES, 10.0, 1%, 0.25 W, 1206	1206
R33	1	270	RG1608P-271-B-T5	Susumu Co Ltd	RES, 270, 0.1%, 0.1 W, 0603	0603
R35	1	100k	CRCW0603100KFKEA	Vishay-Dale	RES, 100 k, 1%, 0.1 W, 0603	0603
R36	1	25k ohm	296XD253B1N	CTS Electrocomponents	Trimmer, 25k ohm, 0.15W, TH	6.3x12.5mm
S1on/off	1		B12AP	NKK Switches	SWITCH TOGGLE SPDT 0.4VA 28V	6.8x23.1x8.8mm
S2_usb/other	1		25139NAH	APEM	Switch, SPDT, On-Off-On, 1 A, 30 VDC, TH	14.1x7.5mm
TVS1	1	10V	SMAJ10A	Littelfuse	Diode, TVS, Uni, 10 V, SMA	SMA
U1	1		TPS630701RNMR	Texas Instruments	2-V to 16-V Buck-Boost Converter With 3.6-A Switch Current, RNM0015A (VQFN-HR-15)	RNM0015A
U2, U5	2		LP5907MFX-3.3/NOPB	Texas Instruments	ULTRA LOW-NOISE, 250-mA LINEAR REGULATOR FOR RF AND ANALOG CIRCUITS REQUIRES NO BYPASS CAPACITOR, DBV0005A	DBV0005A
U3, U7, U8	3		TPD8E003DQDR	Texas Instruments	ESD Array For Portable Space-Saving Applications, 8 Channels, -40 to +85 degC, 8-pin WSON (DQD), Green (RoHS & no Sb/Br)	
U4	1		DCP010505BP-U	Texas Instruments	Miniature, 1 W Isolated Unregulated DC-DC Converter, -40 to 100 degC, 7-pin SOP (DUA7), Pb-Free (RoHS)	DUA0007A

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Designator	Quantity	Value	PartNumber	Manufacturer	Description	PackageReference
U6	1		ISO1541DR	Texas Instruments	Low-Power Bidirectional I2C Isolators, D0008A	D0008A
U9	1		TCA9548APW	Texas Instruments	LOW VOLTAGE 8-CHANNEL I2C SWITCH WITH RESET, PW0024A	PW0024A
U10	1		TPD3S014DBVR	Texas Instruments	Integrated USB Protection with VBUS Current Limit, DBV0006A	DBV0006A
U11	1		EA DIPS082-HNLED	Electronic Assembly	LCD-Modul with Led Backlight Yellow/Green, 2X8, TH	LCD Module,
						40x20mm
U12, U13, U14	3		SN74LV4T125PWR	Texas Instruments	Single Power Supply Quadruple Buffer Translator GATE With 3-State	PW0014A
					Output CMOS Logic Level Shifter, PW0014A	
Y1	1		FC-135 32.7680KA-A3	Epson	Crystal, 32.768 KHz, 12.5 pF, SMD	SMD, 2-Leads, Body
						3.2x1.5mm

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