

Pcs/board	Part	Value/Name	Name/Description	Package	Digikey Part#	Mouser Part#
2	C1, C2	1u	C X7R 25V 10%	C0805	399-8004-1-ND	963-TMK212B7105KG-T
4	C3-C6	100n	C X7R 25V 10%	C0805	478-10836-1-ND	581-08055C104K
2	C7, C8	30pF	C C0G/NP0 50V 5%	C0805	478-12776-1-ND	603-CC805JRNPO9BN300
2	R1, R2	22R	R 1% 0.125W	R0805	541-22.0CCT-ND	71-CRCW0805-22-E3
2	R3, R4	10k	R 1% 0.125W	R0805	541-10.0KCCT-ND	71-CRCW0805-10K-E3
4	R5-R8	1k	R 1% 0.125W	R0805	541-1.00KCCT-ND	71-CRCW0805-1.0K-E3
1	D1	Osram LG R971-KN-1	LED Green diffuse 26mcd	CHIPLED_0805	475-1410-1-ND	720-LGR971-KN-1
1	IC1	Atmega**U4	USB MCU (one of these): Read notes below! ATmega32U4-AU ATmega16U4-AU ATmega32U4-MU (*) ATmega16U4-MU (*)	TQFP44 VQFN44 (*)	ATMEGA32U4-AUR-ND ATMEGA32U4-AU-ND ATMEGA16U4-AUR-ND ATMEGA16U4-AU-ND ATMEGA32U4-MUR-ND ATMEGA32U4-MU-ND ATMEGA16U4-MUR-ND ATMEGA16U4-MU-ND	556-ATMEGA32U4-AUR 556-ATMEGA32U4-AU 556-ATMEGA16U4-AUR 556-ATMEGA16U4-AU 556-ATMEGA32U4-MUR 556-ATMEGA32U4-MU 556-ATMEGA16U4-MUR 556-ATMEGA16U4-MU
1	Y1	16MHz, CL=18pF	Crystal (one of these): Abracon ABM3-B2-T Abracon ABM3-B4Y-T Abracon ABM3-D2Y-T ECS-160-18-30-JEM-TR ECS-160-18-30-JGN-TR	5.0x3.2mm-2PAD	535-9103-1-ND - 535-10638-1-ND XC3121CT-ND XC3123CT-ND	815-ABM3-16-B2-T 815-ABM316000B4YT 815-ABM3-16-D2Y-T 520-160-18-30-JEMT 520-160-18-30-JGNT

Write Protect - options:						
1	S1	WR_PROT switch	Würth slide switch 3pin THT	WS_SLTU	450302014072-ND	710-450302014072
1	JP1	WR_PROT jumper connector	Regular PCB Pinheader 1x2	1x2, 2.54mm	732-5315-ND	710-61300211121
-	SJ1	Solder bridge	-- nothing to purchase --			

Initiate Flash Programming - options:						
1	S2	PTS647 PROG	Tactile switch, H=3.8mm F=1.8N	SMD 4.5x4.5mm	PTS647SM38SMTR2LFSCT-ND	611-PTS647SM38SMTR2L
1	JP2	PROG jumper connector	Regular PCB Pinheader 1x2	1x2, 2.54mm	732-5315-ND	710-61300211121

USB connection options:						
1	J1	502237-0517	Molex Mini-USB female THT vertical	502237-0517	WM16296-ND	538-502237-0517
1	J2	USB Mainboard connector	Regular PCB Pinheader 1x5	1x5, 2.54mm	732-5318-ND	710-61300511121

Boot choice options:						
1	SR1	SEE BELOW	Rotary switch 1x12, PCB pins			
1	S3	SEE BELOW	DPDT toggle, PCB pins w/ 4.7mm pitch			
-	-	Any wiring to SEL, 1..11	-- nothing to purchase --			
<i>Activate Binary mode (8/4/2/1)</i>						
-	SJ2	Solder bridge	-- nothing to purchase --			

SR1 - compatible 1x12 rotary switches:

C&K A112.**.*.NC.** various contact materials, actuator shapes and lengths, metric/imperial mounting holes/threads
 E-Switch KC52.*.***.**.NP.* various contact materials, actuator shapes and lengths, metric/imperial mounting holes/threads
 LORLIN CK1049/CK1059 (metric), CK1044/CK1054 (imperial)

Compatible DPDT Toggle Switches:

E-Switch Series 100
 NKK Series M
 APEM Series 5000
 TE-Connectivity Gemini A

Notes on ATmega MCUs:

- Do **NOT** use the ATmega**U4**RC**-AU version with internal RC oscillator as it has different default fuse settings - USB programming won't work!
- Note that ATmega32U4 and ATmega16U4 use different HEX images!
- CAUTION: The -MU versions (VQFN44 case) come without a pre-installed bootloader and can only be programmed with an AVR debugger!**

Order codes are only for orientation and do not constitute an endorsement of specific distributors