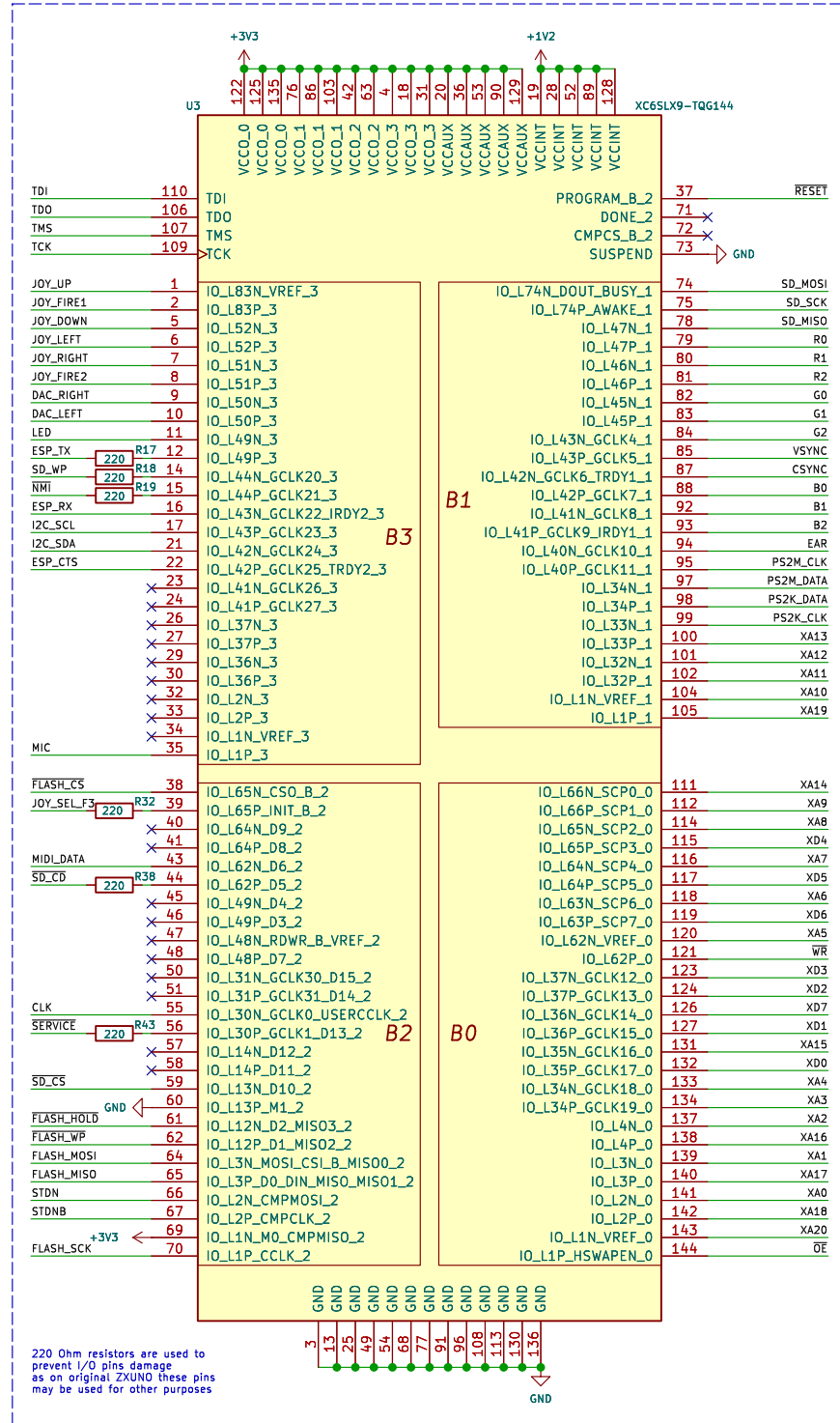
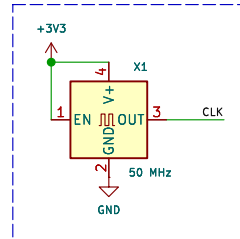


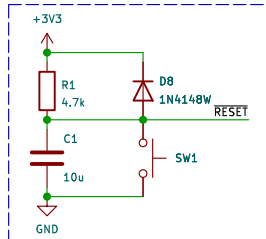
FPGA



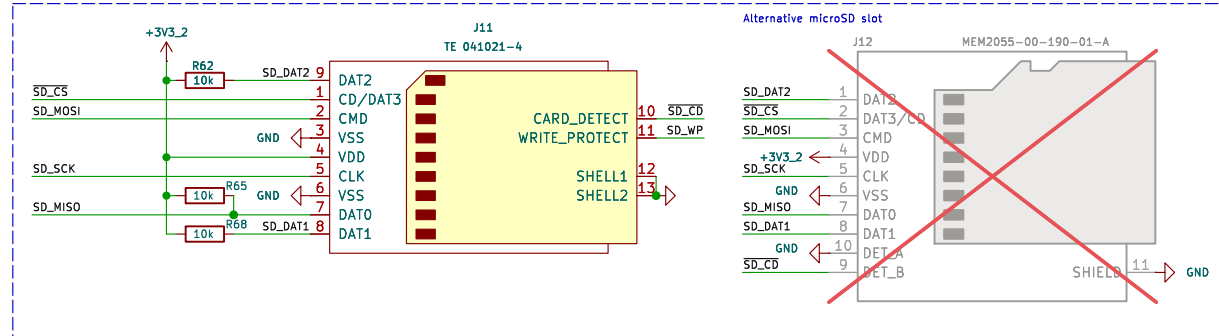
Clock



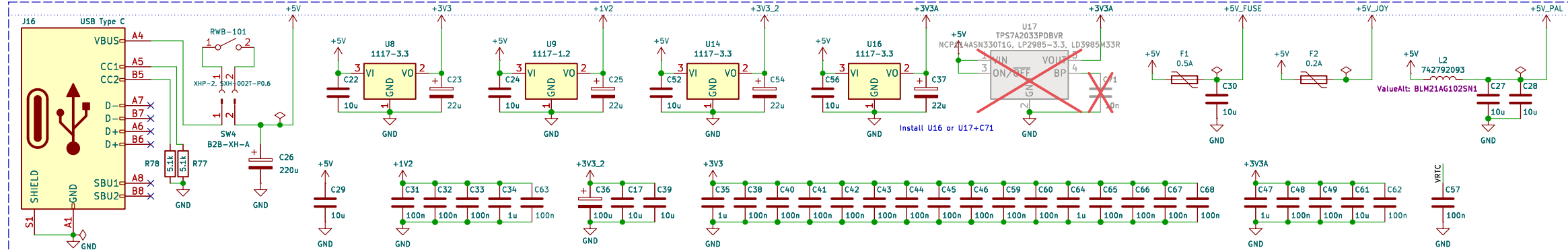
Reset



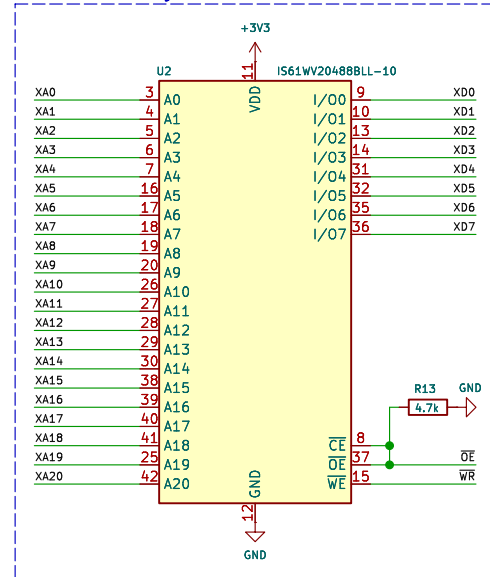
SD card



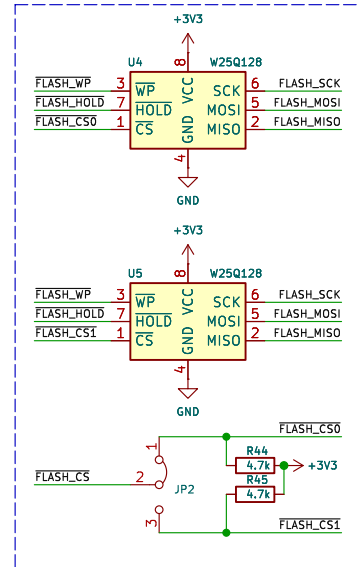
Power



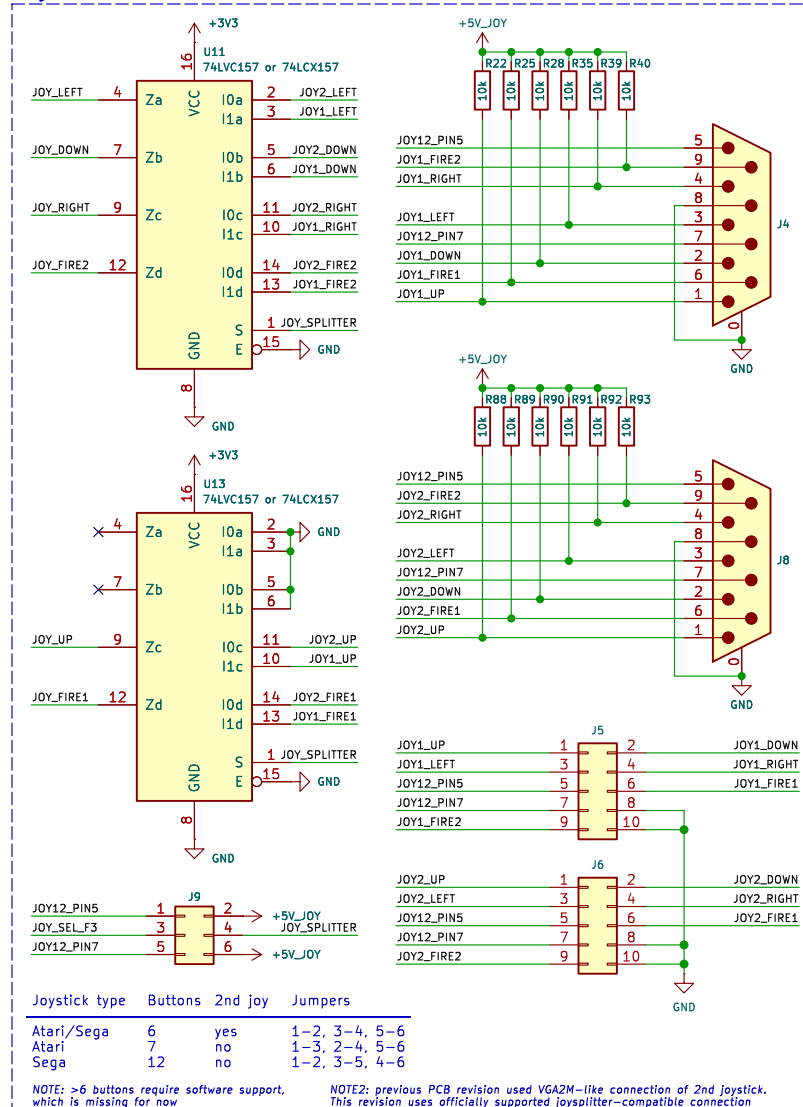
SRAM memory



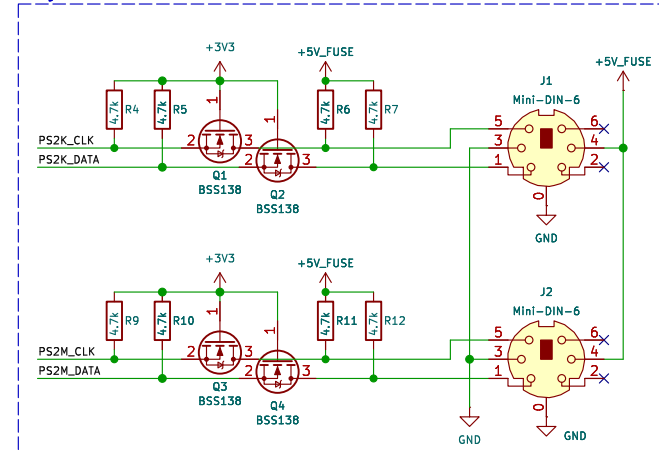
SPI flash



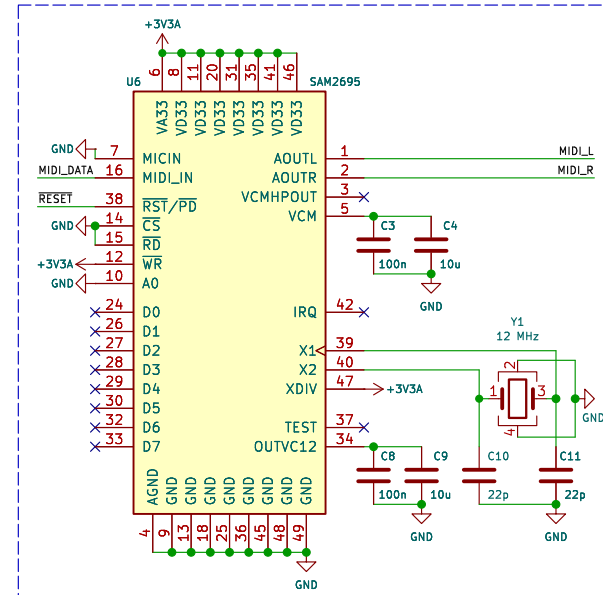
Joysticks



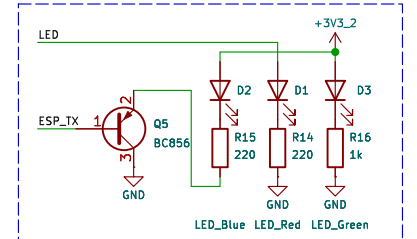
Keyboard and mouse



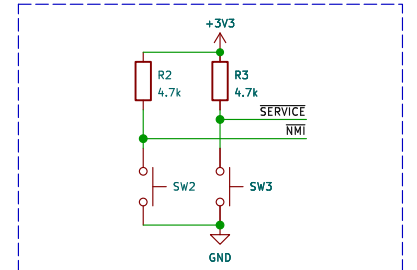
MIDI



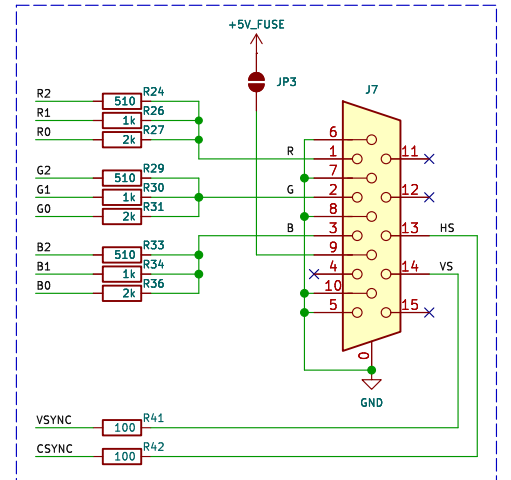
LEDs



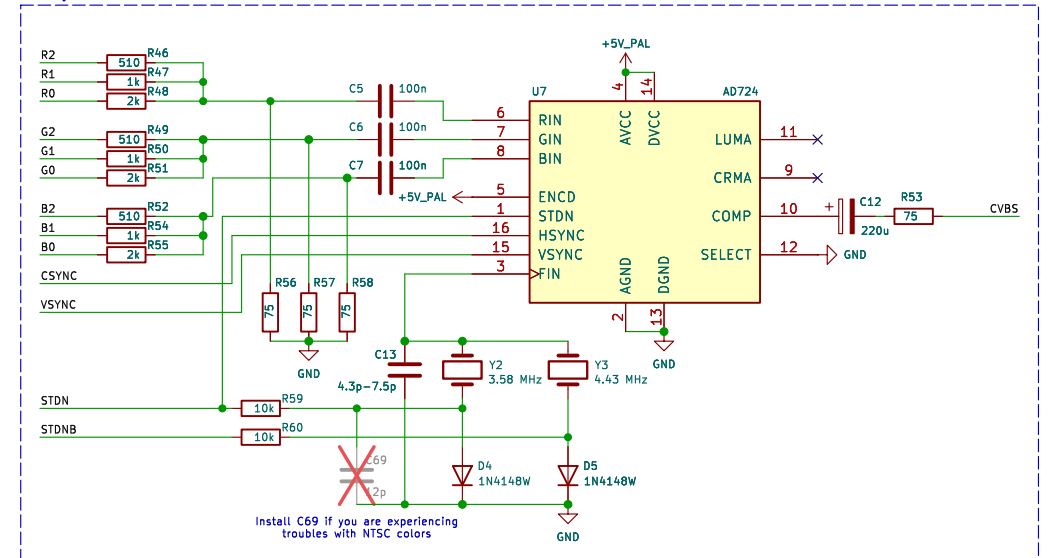
Buttons



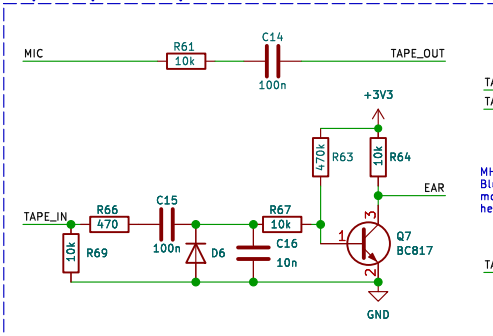
VGA



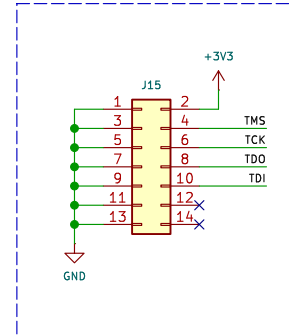
PAL/NTSC encoder



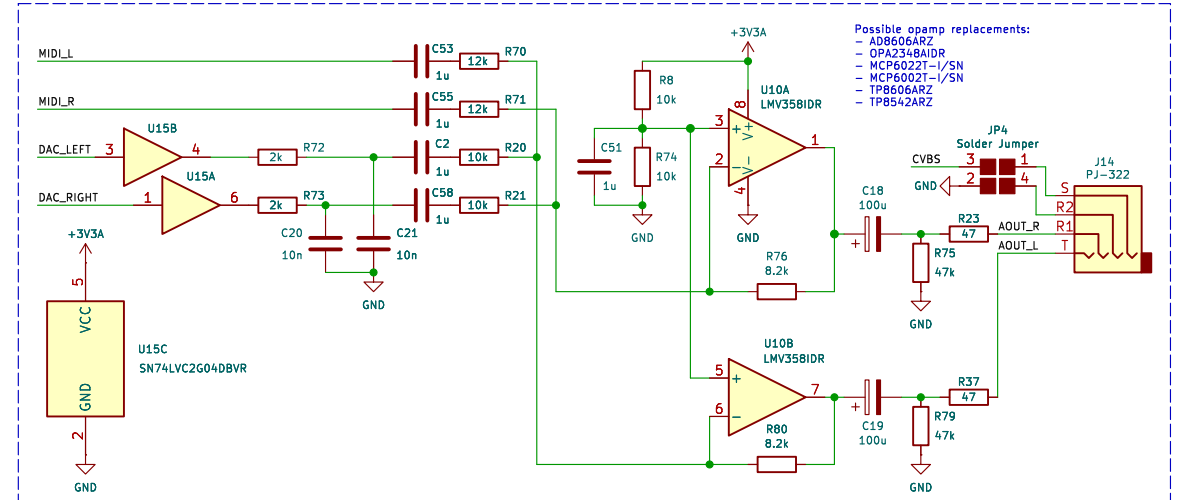
Tape input/output



JTAG



AV out



- H1 Screw M3 dk=5mm L=4mm
- H2 Screw M3 dk=5mm L=4mm
- H3 Screw M3 dk=5mm L=4mm
- H4 Screw M3 dk=5mm L=4mm



G738 or G706

10x10 PCB variant of ZX-UNO project

Eugene Lozovoy

Sheet: /

File: zxuno1010.kicad_sch

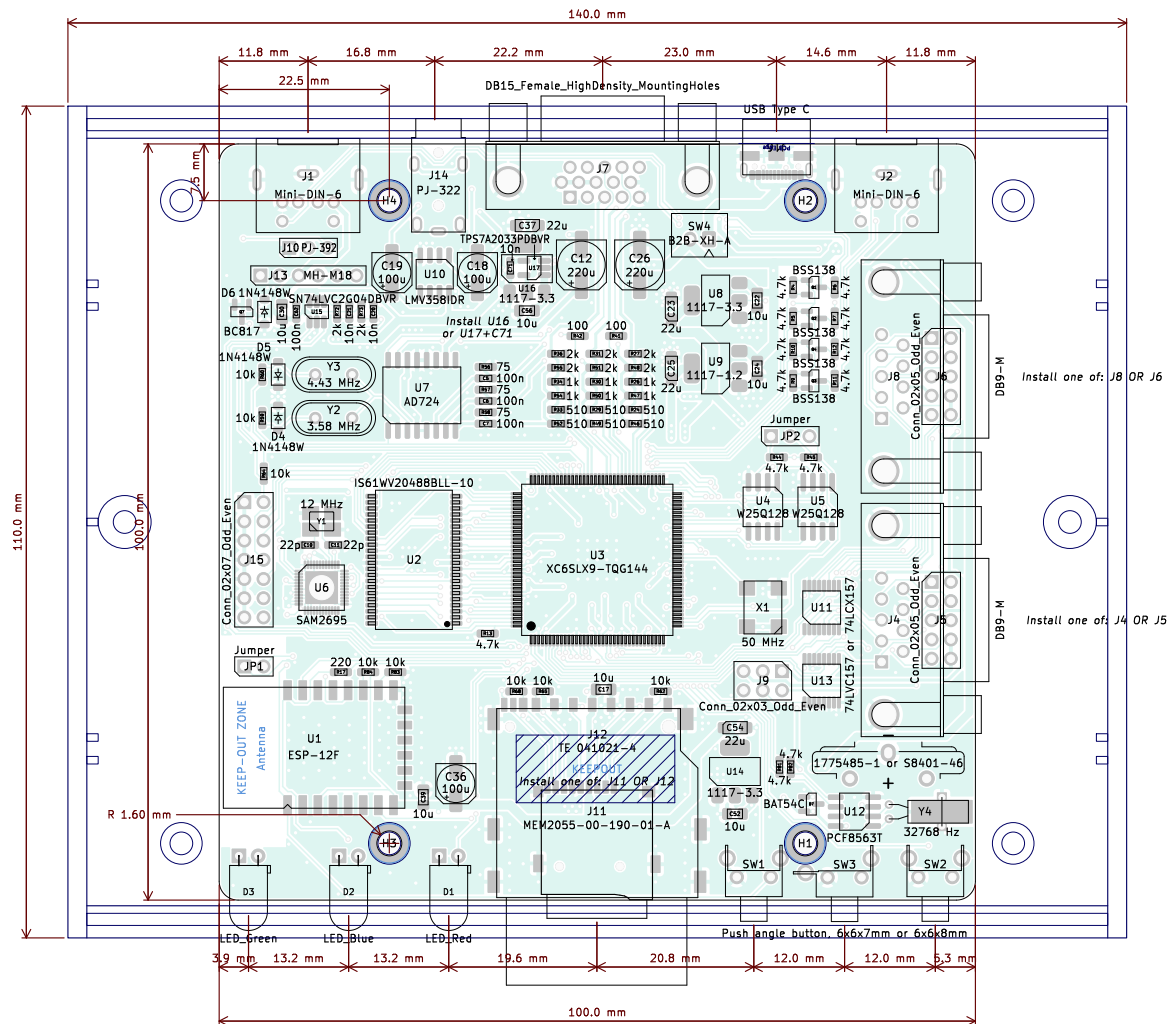
Title: ZXUNO.1010

Size: User Date: 2025-03-30

KiCad E.D.A. 8.0.9

Rev: D1

Id: 1/1



Dimensions: 100x100mm
Layers: 2
Thickness: 1.6mm

Min clearance: 0.2mm
Min track: 0.2mm
Min hole: 0.3mm
Min annular ring: 0.15mm



Eugene Lozovoy

Sheet:
File: zxuno1010.kicad_pcb

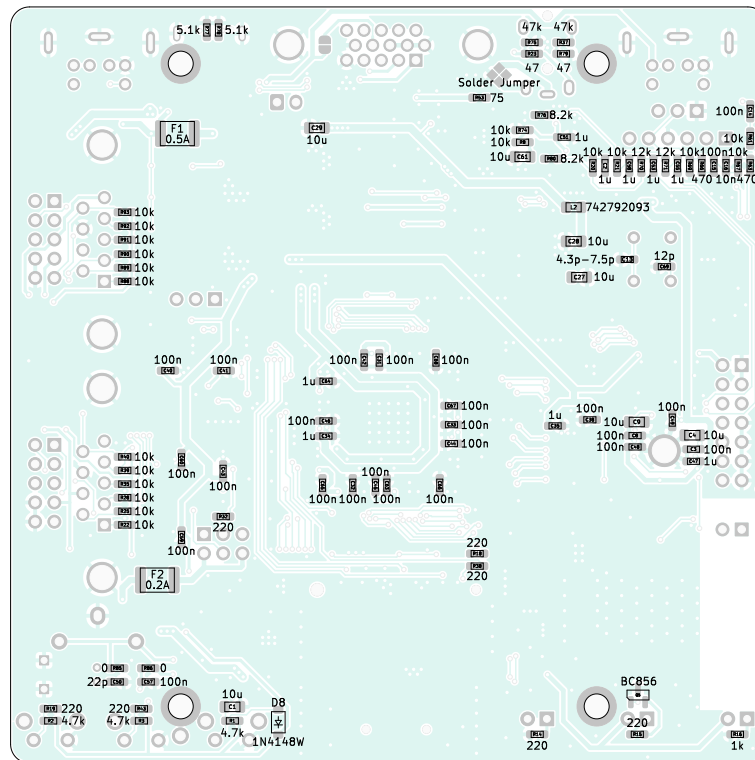
Title: ZXUNO.1010

Size: A4 Date: 2025-03-30

KiCad E.D.A. 8.0.9

Rev: D1

Id: 1/1



Dimensions: 100x100mm		Min clearance: 0.2mm	
Layers: 2		Min track: 0.2mm	
Thickness: 1.6mm		Min hole: 0.3mm	
		Min annular ring: 0.15mm	
Eugene Lozovoy			
Sheet:			
File: zxuno1010.kicad_pcb			
Title: ZXUNO.1010			
Size: A4		Date: 2025-03-30	Rev: D1
KiCad E.D.A. 8.0.9			Id: 1/1

Bill Of Materials

References	Value	Footprint	Qty
BT1	1775485-1 or S8401-46	my:CR2032V	1
C1 C4 C9 C17 C22 C24 C27 C28 C29 C30 C39 C52 C56 C61	10u	Capacitor_SMD:C_0805_2012Metric_Pad1.1 8x1.45mm_HandSolder	14
C2 C34 C35 C47 C51 C53 C55 C58 C64	1u	Capacitor_SMD:C_0603_1608Metric_Pad1.0 8x0.95mm_HandSolder	9
C3 C5 C6 C7 C8 C14 C15 C31 C32 C33 C38 C40 C41 C42 C43 C44 C45 C46 C48 C49 C57 C59 C60 C62 C63 C65 C66 C67 C68	100n	Capacitor_SMD:C_0603_1608Metric_Pad1.0 8x0.95mm_HandSolder	29
C10 C11 C50	22p	Capacitor_SMD:C_0603_1608Metric_Pad1.0 8x0.95mm_HandSolder	3
C12 C26	220u	Capacitor_SMD:CP_Elec_6.3x7.7	2
C13	4.3p-7.5p	Capacitor_SMD:C_0603_1608Metric_Pad1.0 8x0.95mm_HandSolder	1
C16 C20 C21	10n	Capacitor_SMD:C_0603_1608Metric_Pad1.0 8x0.95mm_HandSolder	3
C18 C19 C36	100u	Capacitor_SMD:CP_Elec_5x5.9	3
C23 C25 C37 C54	22u	Capacitor_Tantalum_SMD:CP_EIA-3216-18_ Kemet-A_Pad1.58x1.35mm_HandSolder	4
D1	LED_Red	LED_THT:LED_D5.0mm_Horizontal_O1.27m m_Z3.0mm	1
D2	LED_Blue	LED_THT:LED_D5.0mm_Horizontal_O1.27m m_Z3.0mm	1
D3	LED_Green	LED_THT:LED_D5.0mm_Horizontal_O1.27m m_Z3.0mm	1
D4 D5 D6 D8	1N4148W	Diode_SMD:D_SOD-123	4
D7	BAT54C	Package_TO_SOT_SMD:SOT-23	1
F1	0.5A	Fuse:Fuse_1812_4532Metric_Pad1.30x3.40 mm_HandSolder	1
F2	0.2A	Fuse:Fuse_1812_4532Metric_Pad1.30x3.40 mm_HandSolder	1
H1 H2 H3 H4	Screw M3 dk=5mm L=4mm	my:MountingHole_3.2mm_M3_dk5.2mm_Ma sk	4
J1 J2	Mini-DIN-6	my:minidin-6	2
J3	XHP-2, SXH-002T-P0.6		1
J5 J6	Conn_02x05_Odd_Even	Connector_PinHeader_2.54mm:PinHeader_2 x05_P2.54mm_Vertical	2
J7	DB15_Female_HighDensity_Mounti ngHoles	Connector_Dsub:DSUB-15-HD_Female_Hori zontal_P2.29x1.98mm_EdgePinOffset3.03m m_Housed_MountingHolesOffset4.94mm	1
J9	Conn_02x03_Odd_Even	Connector_PinHeader_2.54mm:PinHeader_2 x03_P2.54mm_Vertical	1
J10	PJ-392	Connector_PinHeader_2.54mm:PinHeader_1 x03_P2.54mm_Vertical	1
J11	TE 041021-4	my:SD_TE_2041021-mod	1
J12	MEM2055-00-190-01-A	my:GCT-MEM2055-00-190-01-A	1

J13	MH-M18	Connector_PinHeader_2.54mm:PinHeader_1x06_P2.54mm_Vertical	1
J14	PJ-322	my:PJ-322	1
J15	Conn_02x07_Odd_Even	Connector_PinHeader_2.54mm:PinHeader_2x07_P2.54mm_Vertical	1
J16	USB Type C	my:USB_C_Receptacle_HRO_TYPE-C-31-M-12_dangling	1
JP2	Jumper	Connector_PinHeader_2.54mm:PinHeader_1x03_P2.54mm_Vertical	1
L2	742792093 (Alternatives: BLM21AG102SN1)	Inductor_SMD:L_0805_2012Metric_Pad1.15x1.40mm_HandSolder	1
N1	G738 or G706	my:g738-g706	1
Q1 Q2 Q3 Q4	BSS138	Package_TO_SOT_SMD:SOT-23	4
Q5	BC856	Package_TO_SOT_SMD:SOT-23	1
Q7	BC817	Package_TO_SOT_SMD:SOT-23	1
R1 R2 R3 R4 R5 R6 R7 R9 R10 R11 R12 R13 R44 R45 R81 R82	4.7k	Resistor_SMD:R_0603_1608Metric_Pad0.98x0.95mm_HandSolder	16
R8 R20 R21 R22 R25 R28 R35 R39 R40 R59 R60 R61 R62 R64 R65 R67 R68 R69 R74 R83 R84 R88 R89 R90 R91 R92 R93	10k	Resistor_SMD:R_0603_1608Metric_Pad0.98x0.95mm_HandSolder	27
R14 R15 R17 R18 R19 R32 R38 R43	220	Resistor_SMD:R_0603_1608Metric_Pad0.98x0.95mm_HandSolder	8
R16 R26 R30 R34 R47 R50 R54	1k	Resistor_SMD:R_0603_1608Metric_Pad0.98x0.95mm_HandSolder	7
R23 R37	47	Resistor_SMD:R_0603_1608Metric_Pad0.98x0.95mm_HandSolder	2
R24 R29 R33 R46 R49 R52	510	Resistor_SMD:R_0603_1608Metric_Pad0.98x0.95mm_HandSolder	6
R27 R31 R36 R48 R51 R55 R72 R73	2k	Resistor_SMD:R_0603_1608Metric_Pad0.98x0.95mm_HandSolder	8
R41 R42	100	Resistor_SMD:R_0603_1608Metric_Pad0.98x0.95mm_HandSolder	2
R53 R56 R57 R58	75	Resistor_SMD:R_0603_1608Metric_Pad0.98x0.95mm_HandSolder	4
R63	470k	Resistor_SMD:R_0603_1608Metric_Pad0.98x0.95mm_HandSolder	1
R66	470	Resistor_SMD:R_0603_1608Metric_Pad0.98x0.95mm_HandSolder	1
R70 R71	12k	Resistor_SMD:R_0603_1608Metric_Pad0.98x0.95mm_HandSolder	2
R75 R79	47k	Resistor_SMD:R_0603_1608Metric_Pad0.98x0.95mm_HandSolder	2
R76 R80	8.2k	Resistor_SMD:R_0603_1608Metric_Pad0.98x0.95mm_HandSolder	2
R77 R78	5.1k	Resistor_SMD:R_0603_1608Metric_Pad0.98x0.95mm_HandSolder	2
SW1 SW2 SW3	Push angle button, 6x6x7mm or 6x6x8mm	Button_Switch_THT:SW_Tactile_SPST_Angled_PTS645Vx58-2LFS	3
SW4	B2B-XH-A	Connector_JST:JST_XH_B2B-XH-A_1x02_P2.50mm_Vertical	1

SW5	RWB-101		1
U1	ESP-12F (Alternatives: ESP-12E)	RF_Module:ESP-12E	1
U2	IS61WV20488BLL-10	PCM_Package_SO_AKL:TSOP-II-44_10.16x18.41mm_P0.8mm	1
U3	XC6SLX9-TQG144	PCM_Package_QFP_AKL:LQFP-144_20x20mm_P0.5mm	1
U4 U5	W25Q128	my:SOIC-8_5.23x5.23mm_P1.27mm-LONG	2
U6	SAM2695	my:QFN-48-1EP_6x6mm_P0.4mm_EP4.2x4.2mm	1
U7	AD724	Package_SO:SOIC-16W_7.5x10.3mm_P1.27mm	1
U8 U14 U16	1117-3.3	Package_TO_SOT_SMD:SOT-223-3_TabPin2	3
U9	1117-1.2	Package_TO_SOT_SMD:SOT-223-3_TabPin2	1
U10	LMV358IDR	Package_SO:SOIC-8_3.9x4.9mm_P1.27mm	1
U11 U13	74LVC157 or 74LCX157	Package_SO:TSSOP-16_4.4x5mm_P0.65mm	2
U12	PCF8563T	Package_SO:SOIC-8_3.9x4.9mm_P1.27mm	1
U15	SN74LVC2G04DBVR (Alternatives: 74LVC2G17DB, 74LVC2G04DB)	Package_TO_SOT_SMD:SOT-23-6_Handsoldering	1
X1	50 MHz	my:Oscillator_SMD_7050_7.0x5.0mm	1
Y1	12 MHz	Crystal:Crystal_SMD_SeikoEpson_TSX3225-4Pin_3.2x2.5mm_HandSoldering	1
Y2	3.58 MHz	Crystal:Crystal_HC49-4H_Vertical	1
Y3	4.43 MHz	Crystal:Crystal_HC49-4H_Vertical	1
Y4	32768 Hz	Crystal:Crystal_C38-LF_D3.0mm_L8.0mm_Horizontal_1EP_style2	1

