/Users/mike/Documents/Electronics/ColecoVision Clone/ColecoVision Clone.sch

Thursday, March 26, 2020 at 02:50:29 pm

Eeschema (5.1.4-0-10_14)

Component Count: 133

Ref	Qnty	Value	Part	Footprint
C1, C2, C5, C6, C7, C8, C9, C10, C11, C13, C14, C15, C16, C17, C18, C19, C20, C22, C24, C29, C33, C34	22	0.1μF	Device:C	Capacitors_SMD:C_0805_HandSoldering
C3, C32	2	47nF	Device:C	Capacitors_SMD:C_0805_HandSoldering
C4	1	0.1μF	Device:CP1_Small	Capacitors_SMD:C_0805_HandSoldering
C12	1	22μF	Device:CP	Capacitors_ThroughHole:CP_Radial_D5.0mm_P2.50mm
C21, C39, C40, C41	4	1μF	Device:C	Capacitors_SMD:C_0805_HandSoldering
C25	1	68pF	Device:C	Capacitors_SMD:C_0805_HandSoldering
C26, C30, C31	3	100pF	Device:C	Capacitors_SMD:C_0805_HandSoldering
C27	1	82pF	Device:C	Capacitors_SMD:C_0805_HandSoldering
C35, C36, C37, C38	4	10nF	Device:C	Capacitors_SMD:C_0805_HandSoldering
D1	1	LED	Device:LED	LEDs:LED_D3.0mm
D2	1	50V 2A	Device:D_Schottky	Diodes_ThroughHole:D_DO-15_P10.16mm_Horizontal
D3, D4	2	1N4001	Diode:1N4001	Diodes_ThroughHole:D_DO-41_SOD81_P2.54mm_Vertical_AnodeUp
F2	1	2A	Device:Fuse_Small	0251002.MRT1L:0251002.MRT1L
FB1	1	Bead	Device:Ferrite_Bead_Small	Choke_SMD:Choke_SMD_1206_Handsoldering
J1	1	Cartridge Slot	Connector_Generic:Conn_02x15_Odd_Even	LeakyChips:Sullins_Cart_Slot
J2	1	Composite video	RCJ-017:RCJ-017	Jacks:CUI_RCJ-017
J3	1	PJ-102A	PJ-102A:PJ-102A	Jacks:CUI_PJ-102A
J4	1	RCJ-017	RCJ-017:RCJ-017	Jacks:CUI_RCJ-017
J5	1	Controller Port 1	Connector:DB9_Male	Connector_Dsub:DSUB-9_Male_Horizontal_P2.77x2.84mm_EdgePinOffset4.94mm_Housed_MountingHolesOffset7.48
J6	1	Controller Port 2	Connector:DB9_Male	Connector_Dsub:DSUB-9_Male_Horizontal_P2.77x2.84mm_EdgePinOffset4.94mm_Housed_MountingHolesOffset7.48
L1	1	2.7uH	Device:L_Small	tdk-inductor:MLF2012A2R7KT000
Q1	1	2n4401	Device:Q_NPN_Darlington_BCE	TO_SOT_Packages_THT:TO-92_Molded_Narrow
Q2	1	Q_NJFET_DGS	Device:Q_NJFET_DGS	TO_SOT_Packages_SMD:SOT-23_Handsoldering
Q3	1	2N3906	Transistor_BJT:2N3906	TO_SOT_Packages_THT:TO-92_Inline_Narrow_Oval

Q4, Q5	2	2N3904	Transistor_BJT:2N3904	TO_SOT_Packages_THT:TO-92_Inline_Wide
R1, R11, R18, R21, R28, R29, R30	7	1kΩ	Device:R_Small_US	Resistors_SMD:R_0805_HandSoldering
R2, R3, R9, R10, R14, R19, R44	7	3.3kΩ	Device:R_Small_US	Resistors_SMD:R_0805_HandSoldering
R4	1	0Ω	Device:R_Small_US	Resistors_SMD:R_0805_HandSoldering
R5	1	470Ω	Device:R_Small_US	Resistors_SMD:R_0805_HandSoldering
R6	1	75Ω	Device:R_Small_US	Resistors_SMD:R_0805_HandSoldering
R7	1	150Ω	Device:R_Small_US	Resistors_SMD:R_0805_HandSoldering
R8	1	2kΩ	Device:R_Small_US	Resistors_SMD:R_0805_HandSoldering
R12	1	330Ω	Device:R_Small_US	Resistors_SMD:R_0805_HandSoldering
R13, R23, R24	3	10kΩ	Device:R_Small_US	Resistors_SMD:R_0805_HandSoldering
R15	1	4.7kΩ	Device:R_Small_US	Resistors_SMD:R_0805_HandSoldering
R16	1	91kΩ	Device:R_Small_US	Resistors_SMD:R_0805_HandSoldering
R17	1	1MΩ	Device:R_Small_US	Resistors_SMD:R_0805_HandSoldering
R20, R31, R32	3	22kΩ	Device:R_Small_US	Resistors_SMD:R_0805_HandSoldering
R22	1	180Ω	Device:R_Small_US	Resistors_SMD:R_0805_HandSoldering
R25	1	1.1kΩ	Device:R_Small_US	Resistors_SMD:R_0805_HandSoldering
R26, R38, R39	3	270Ω	Device:R_Small_US	Resistors_SMD:R_0805_HandSoldering
R27	1	47Ω	Device:R_Small_US	Resistors_SMD:R_0805_HandSoldering
R33, R34	2	1.8kΩ	Device:R_Small_US	Resistors_SMD:R_0805_HandSoldering
R35, R40, R41	3	1.5kΩ	Device:R_Small_US	Resistors_SMD:R_0805_HandSoldering
R36, R37	2	100kΩ	Device:R_Small_US	Resistors_SMD:R_0805_HandSoldering
R42, R43	2	120Ω	Device:R_Small_US	Resistors_SMD:R_0805_HandSoldering
RN1, RN2	2	22kΩ	Device:R_Network07_US	Resistors_ThroughHole:R_Array_SIP8
SW1	1	Power Toggle	Switch:SW_Push	LeakyChips:PVA1_Switch
SW2	1	Reset	Switch:SW_Push	Buttons_Switches_ThroughHole:SW_PUSH_6mm
U1	1	Z80CPU	CPU:Z80CPU	Sockets:PLCC44
U2	1	Work RAM	LeakoChips:LC331632M-12	LeakyChips:SOIC-40-JLead
U3	1	BIOS ROM 27C256	Memory_EPROM:27C256	Housings_DIP:DIP-28_W15.24mm_Socket_LongPads
U4	1	74HCT04	74xx:74HCT04	Housings_SOIC:SOIC-14_3.9x8.7mm_Pitch1.27mm
U5	1	TMS9918A	LeakoChips:TMS9918A	Housings_DIP:DIP-40_W15.24mm_Socket_LongPads
U6, U7, U8	3	74LS574	74xx:74LS574	Housings_SOIC:SOIC-20W_7.5x12.8mm_Pitch1.27mm
U9	1	VRAM	LeakoChips:LC331632M-12	LeakyChips:SOIC-40-JLead
U10	1	SN76489AN	LeakoChips:SN76489AN	Housings_DIP:DIP-16_W7.62mm_Socket_LongPads
U11	1	74LS04	74xx:74LS04	Housings_SOIC:SOIC-14_3.9x8.7mm_Pitch1.27mm
U12	1	74LS138 (Mem. Mapped)	74xx:74LS138	Housings_SOIC:SOIC-16_3.9x9.9mm_Pitch1.27mm
U13	1	74LS138 (I/O)	74xx:74LS138	Housings_SOIC:SOIC-16_3.9x9.9mm_Pitch1.27mm
U14	1	74LS02	74xx:74LS02	Housings_SOIC:SOIC-14_3.9x8.7mm_Pitch1.27mm
U15	1	Controller 1	74xx_IEEE:74LS541	Housings_SOIC:SOIC-20W_7.5x12.8mm_Pitch1.27mm

U16	1	Controller 2	74xx_IEEE:74LS541	Housings_SOIC:SOIC-20W_7.5x12.8mm_Pitch1.27mm
U17, U18	2	74LS05	74xx:74LS05	Housings_SOIC:SOIC-14_3.9x8.7mm_Pitch1.27mm
U20, U22	2	74LS74	74xx:74LS74	Housings_SOIC:SOIC-14_3.9x8.7mm_Pitch1.27mm
U23	1	74HCT00	74xx:74HCT00	Housings_SOIC:SOIC-14_3.9x8.7mm_Pitch1.27mm
U24	1	TPS60403DBVR	TPS60403DBVR:TPS60403DBVR	TO_SOT_Packages_SMD:SOT-23-5_HandSoldering
WJ4, WJ5	2	(normally open)	Device:Jumper	Jumper:SolderJumper-2_P1.3mm_Open_RoundedPad1.0x1.5mm
X1	1	14.31818MHz	Oscillator:CXO_DIP8	Oscillators:Oscillator_DIP-8_LargePads