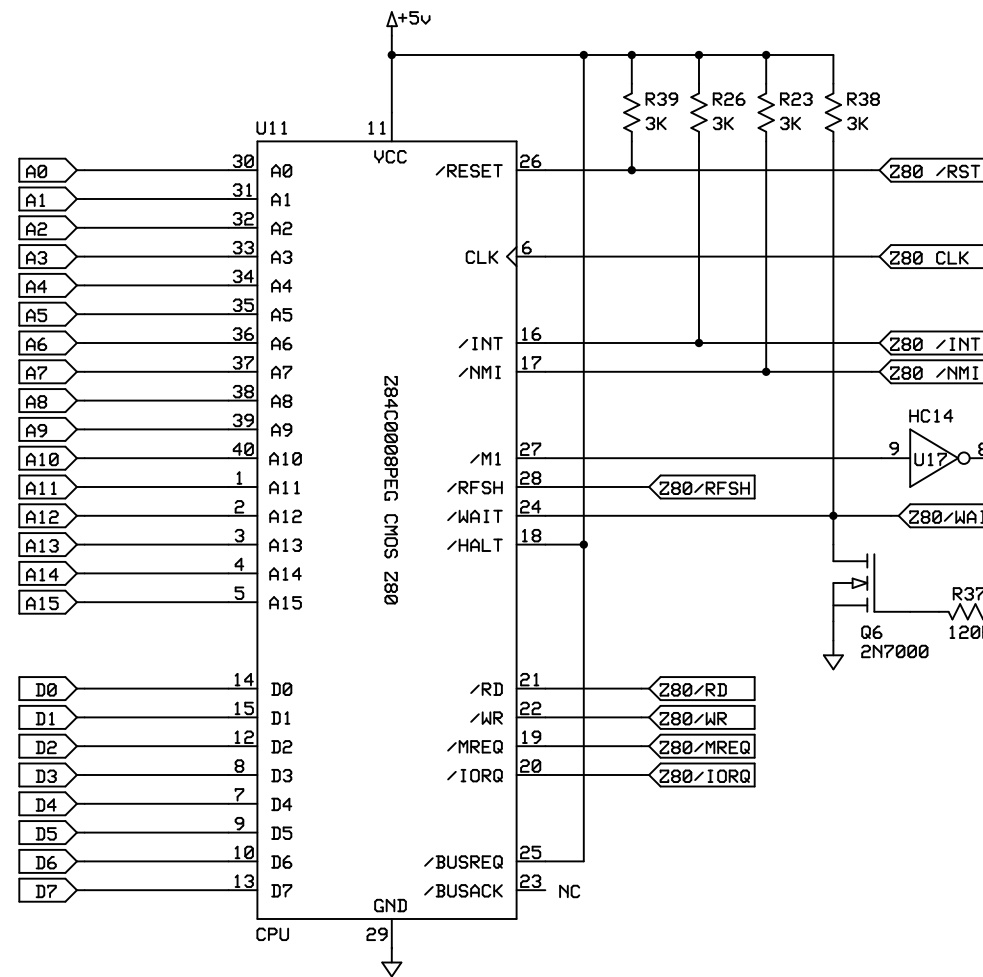
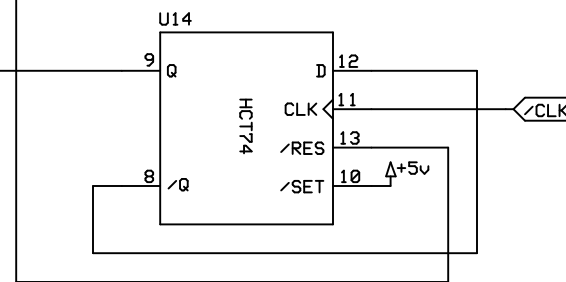


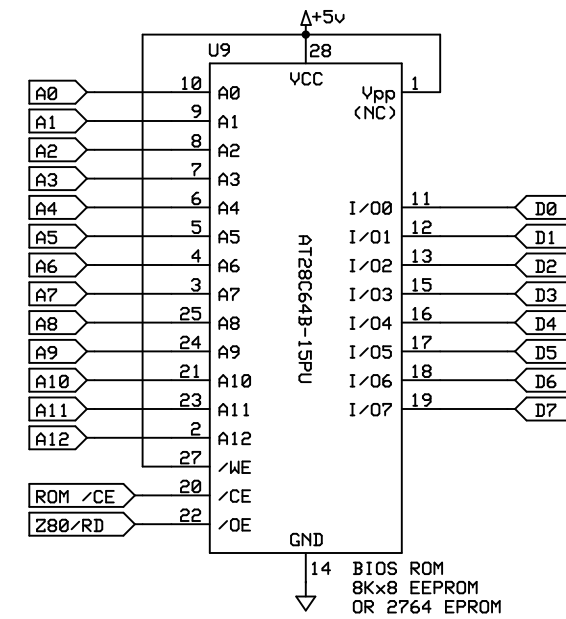
SYSTEM MAIN PROCESSOR



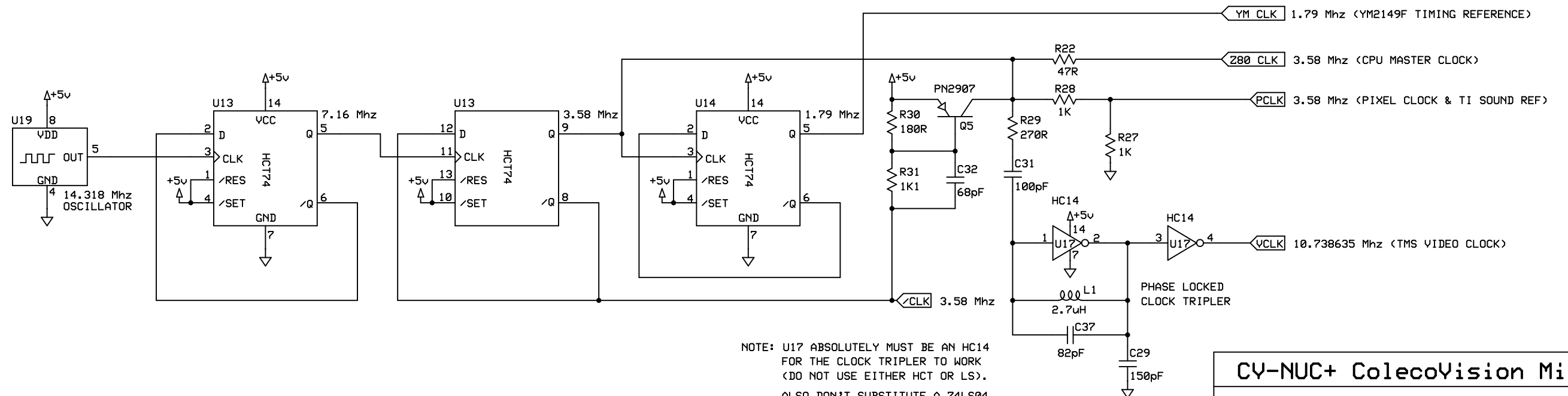
M1 WAIT STATE GEN



SYSTEM BIOS ROM



SYSTEM CLOCKS

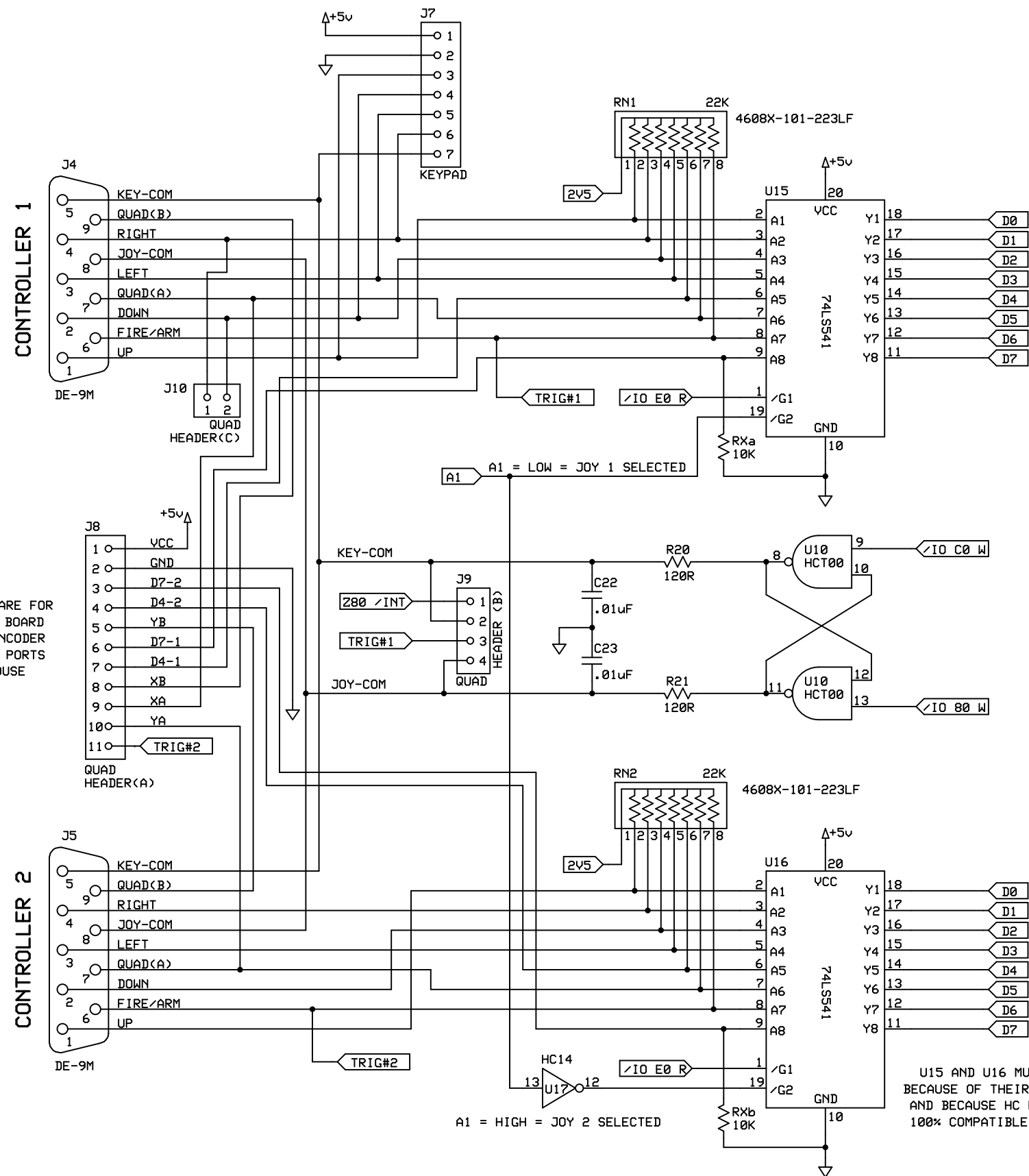


NOTE: U17 ABSOLUTELY MUST BE AN HC14 FOR THE CLOCK TRIPLER TO WORK (DO NOT USE EITHER HCT OR LS). ALSO DON'T SUBSTITUTE A 74LS04 BECAUSE THE HC14'S SCHMITT TRIGGER CHARACTERISTIC IS NEEDED ELSEWHERE.

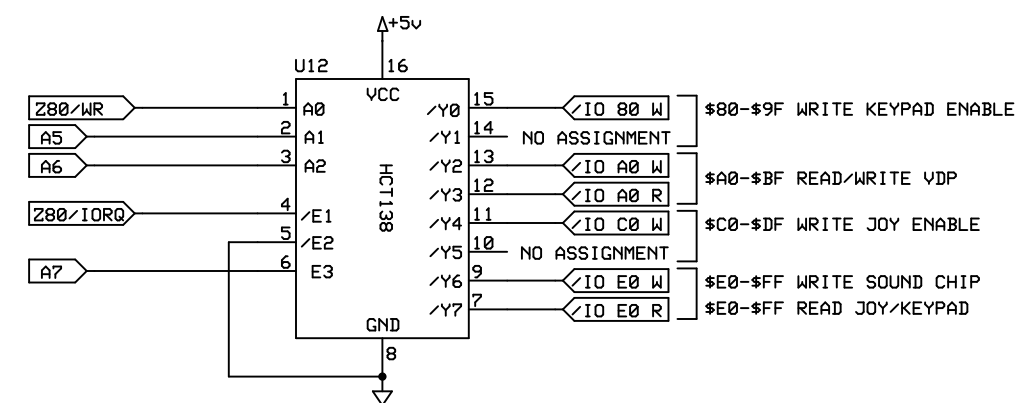
COMPONENTS U2,C5,C6,R18,R19 DO NOT EXIST ON THIS SCHEMATIC. THEY WERE UTILIZED IN A PREVIOUS VERSION AND ARE NO LONGER REQUIRED.

CY-NUC+ ColecoVision Mini		
An AtariBits Production		
MYTEK	VERSION 1.5 03/28/2023	CPU/ROM/CLK

HEADERS J8, J9, & J10 ARE FOR A QUADRATURE DAUGHTER BOARD TO FACILITATE ROTARY ENCODER INPUT VIA THE JOYSTICK PORTS OR A USB WIRELESS MOUSE



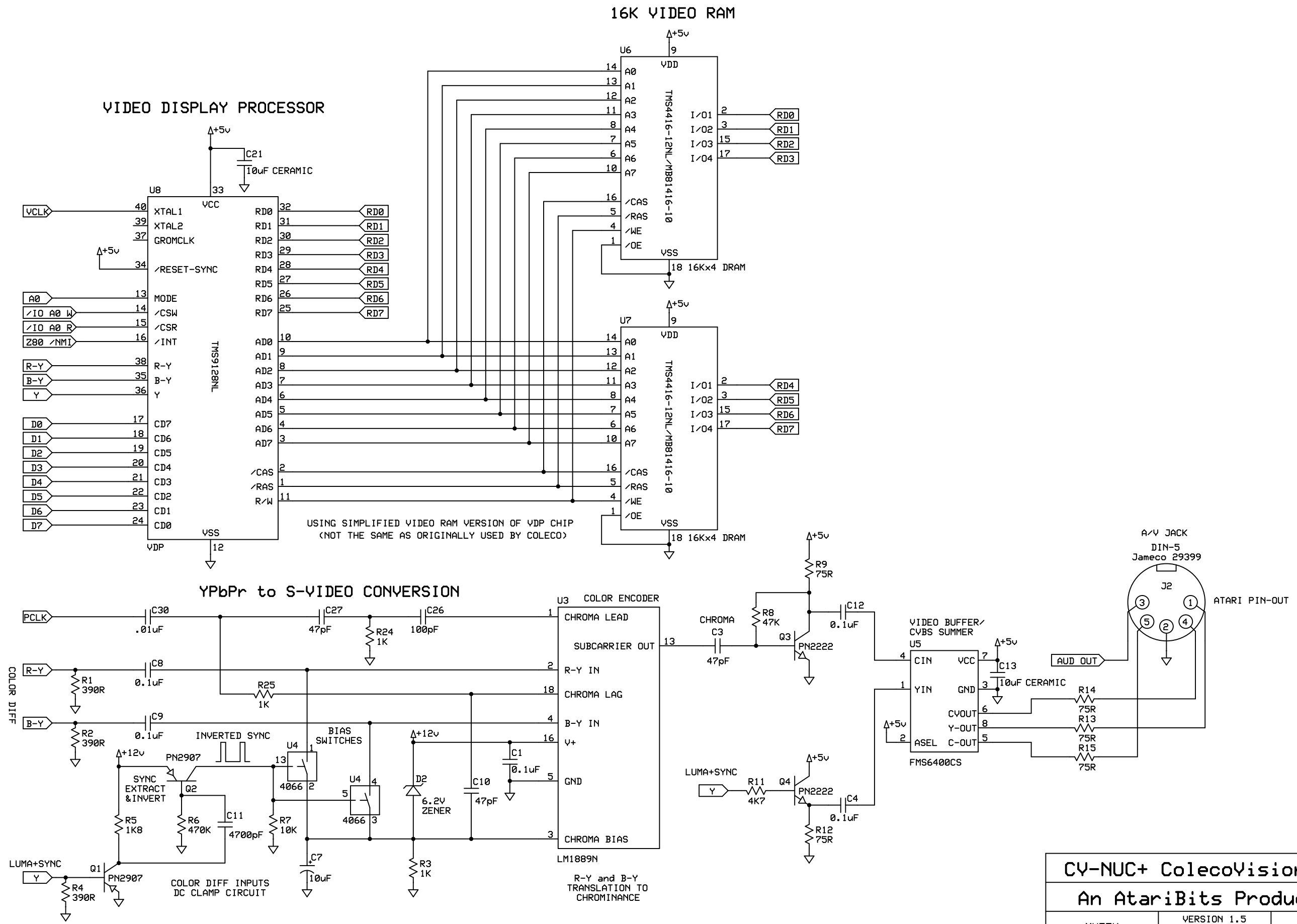
IO DECODE



U15 AND U16 MUST BE 74LS541 CHIPS BECAUSE OF THEIR BETTER ESD TOLERANCE AND BECAUSE HC REPLACEMENTS ARE NOT 100% COMPATIBLE IN THIS APPLICATION.

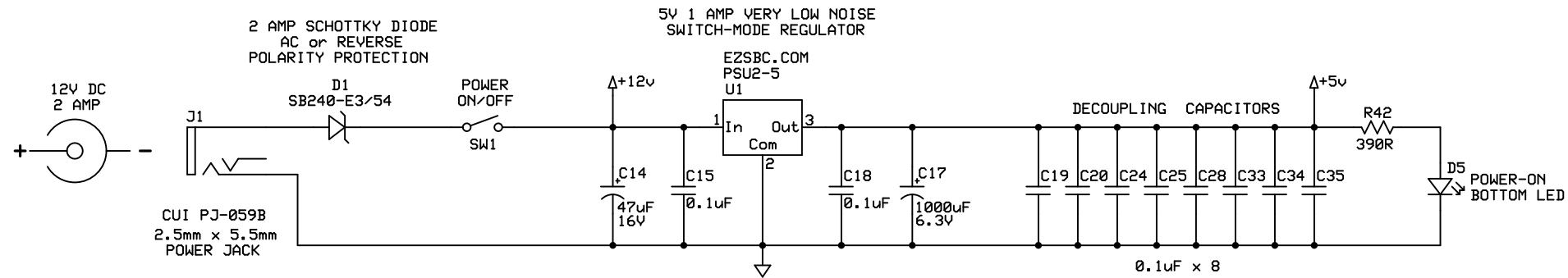
THE RX 10K RESISTORS ARE TACKED ONTO THE BOTTOM OF THE PCB

CY-NUC+ ColecoVision Mini		
An AtariBits Production		
MYTEK	VERSION 1.5	JOY/IO DECODE
	03/28/2023	

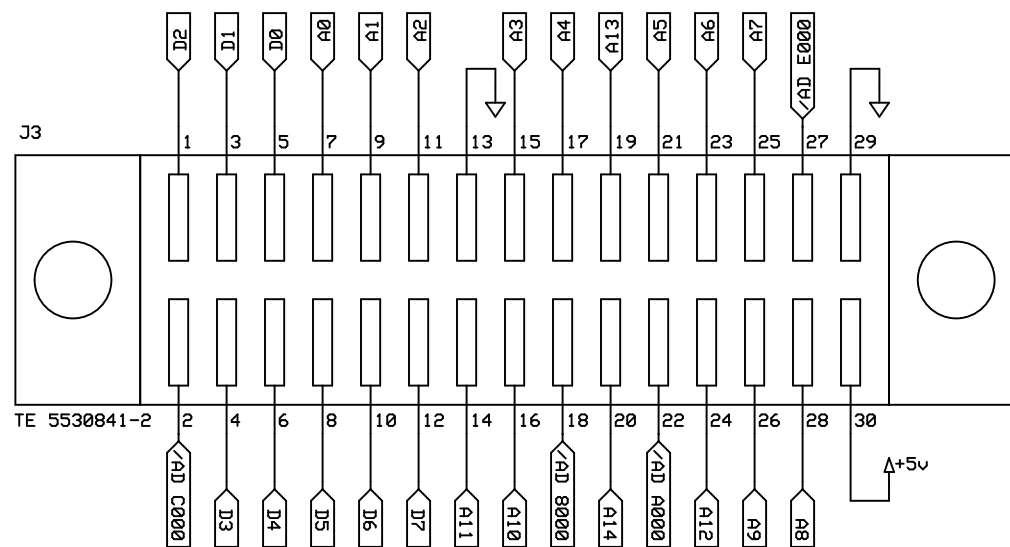


CY-NUC+ ColecoVision Mini
An AtariBits Production

MYTEK	VERSION 1.5	VIDEO
	03/28/2023	

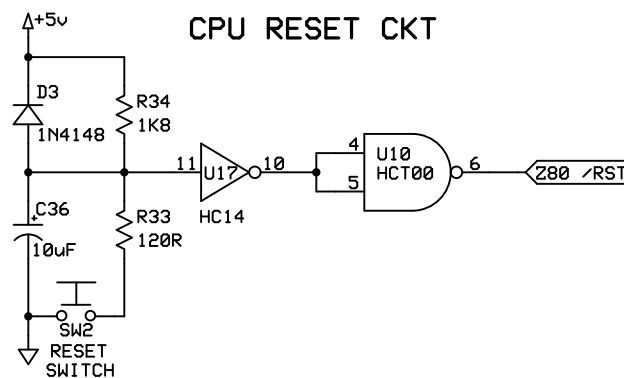


CARTRIDGE PORT -- BACK OF UNIT

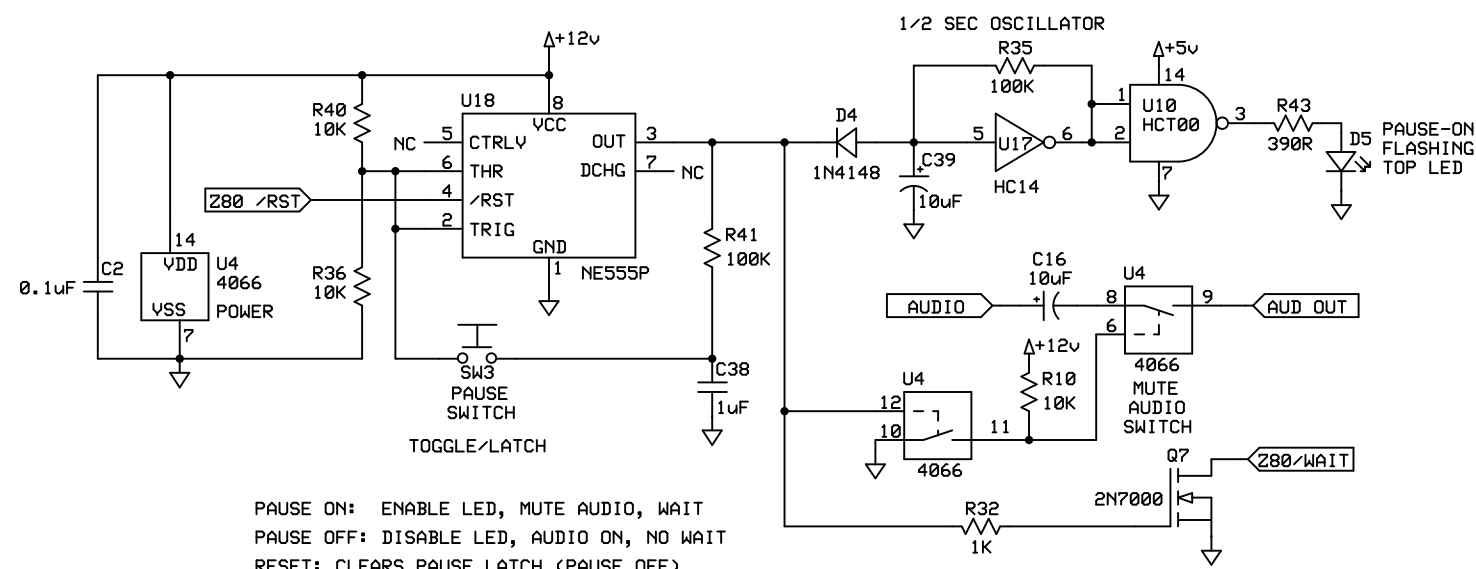


CARTRIDGE PORT -- FRONT OF UNIT

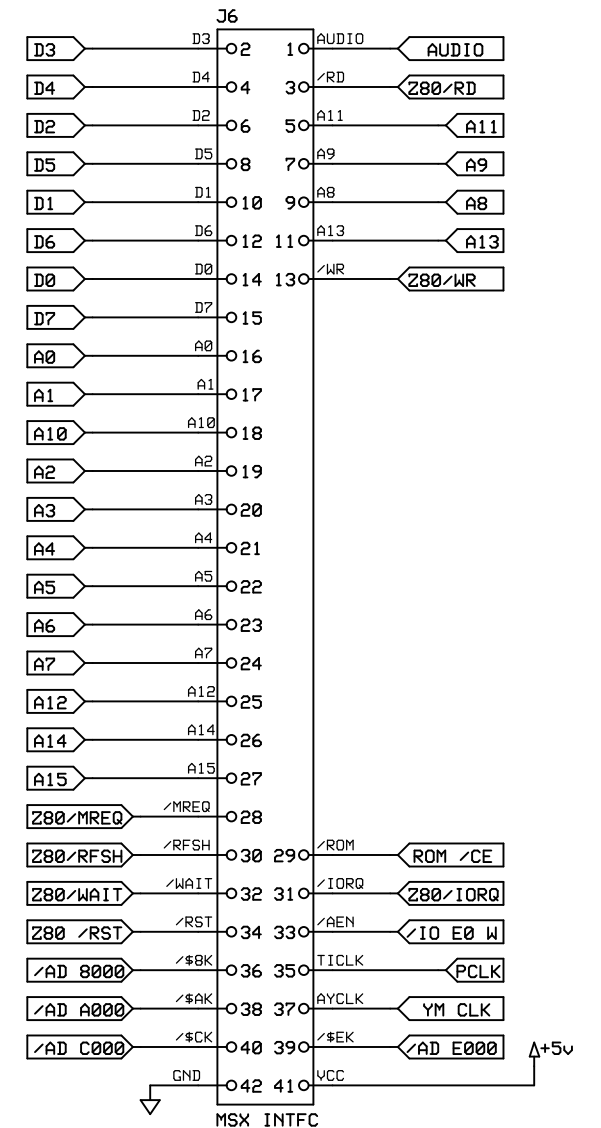
CPU RESET CKT



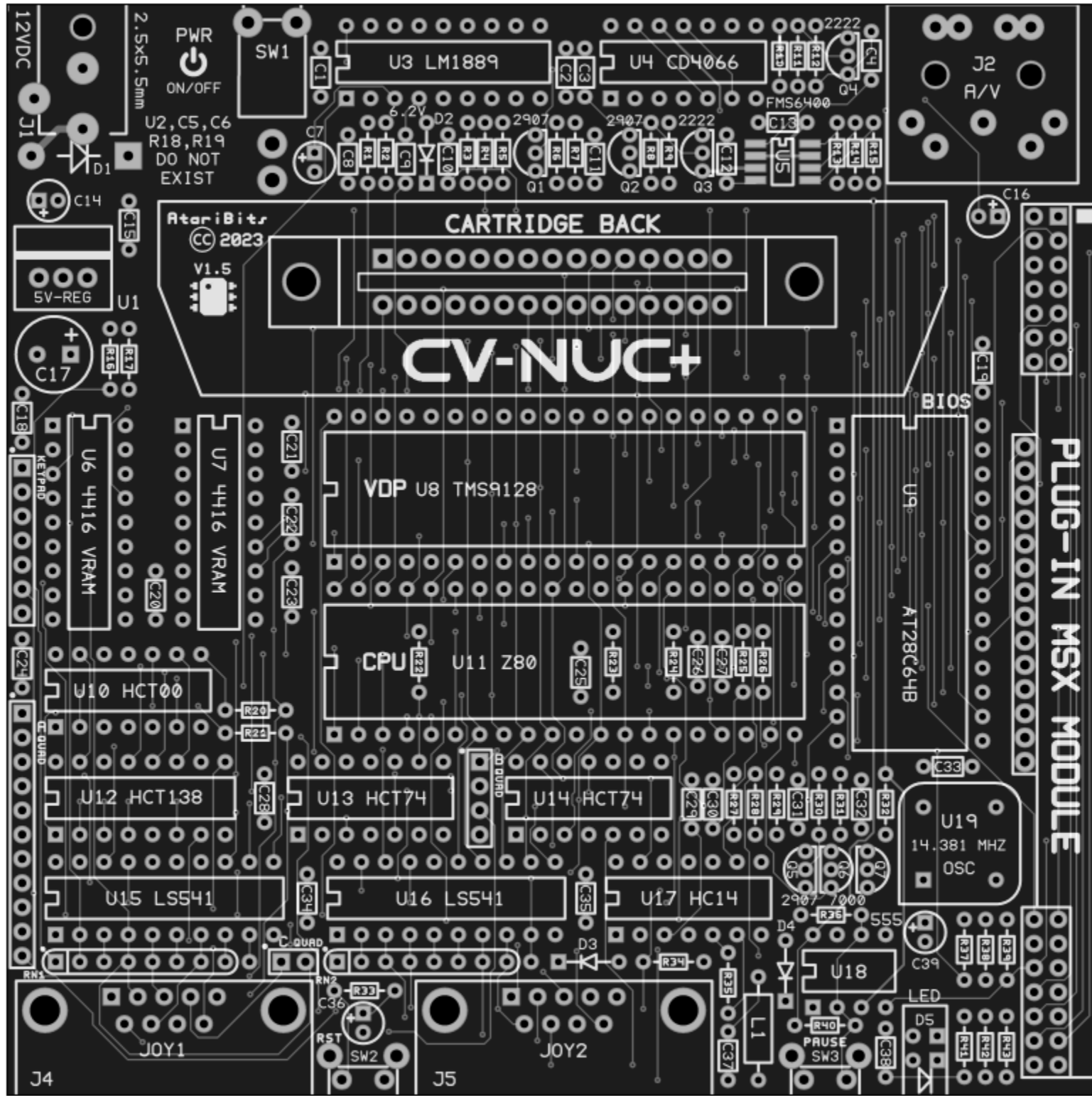
HARDWARE PAUSE SWITCH CKT



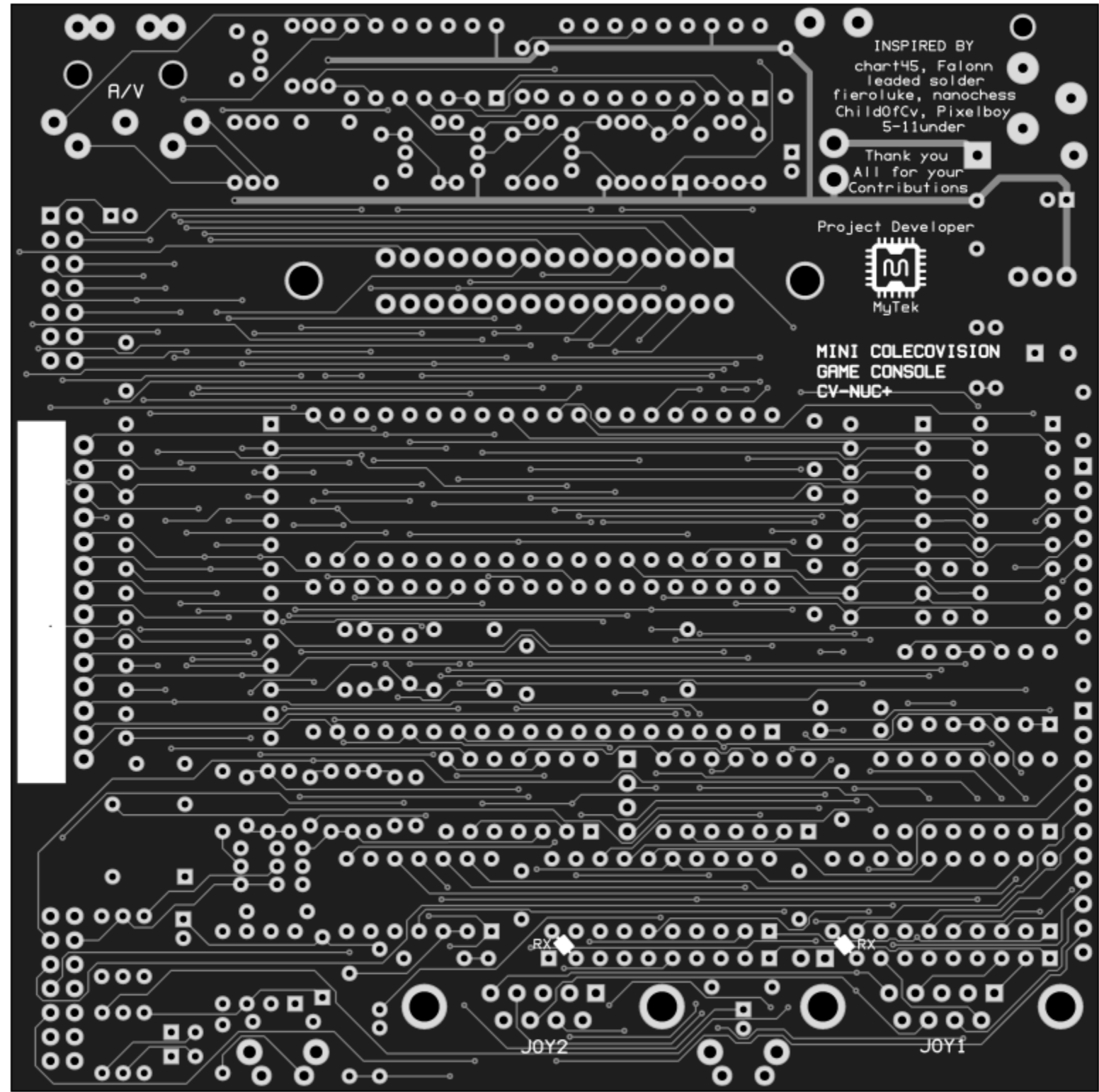
CY-NUC+MSX MODULE INTERFACE



CY-NUC+ ColecoVision Mini		
An AtariBits Production		
MYTEK	VERSION 1.5 03/28/2023	POWER/CART/MISC

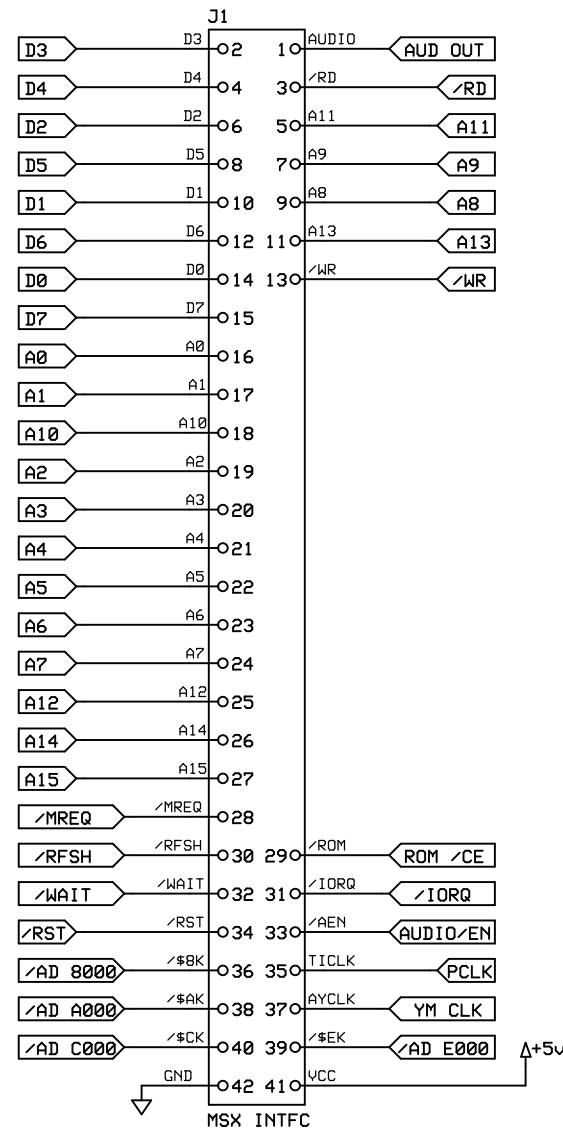


CV-NUC+ MAIN BOARD TOP

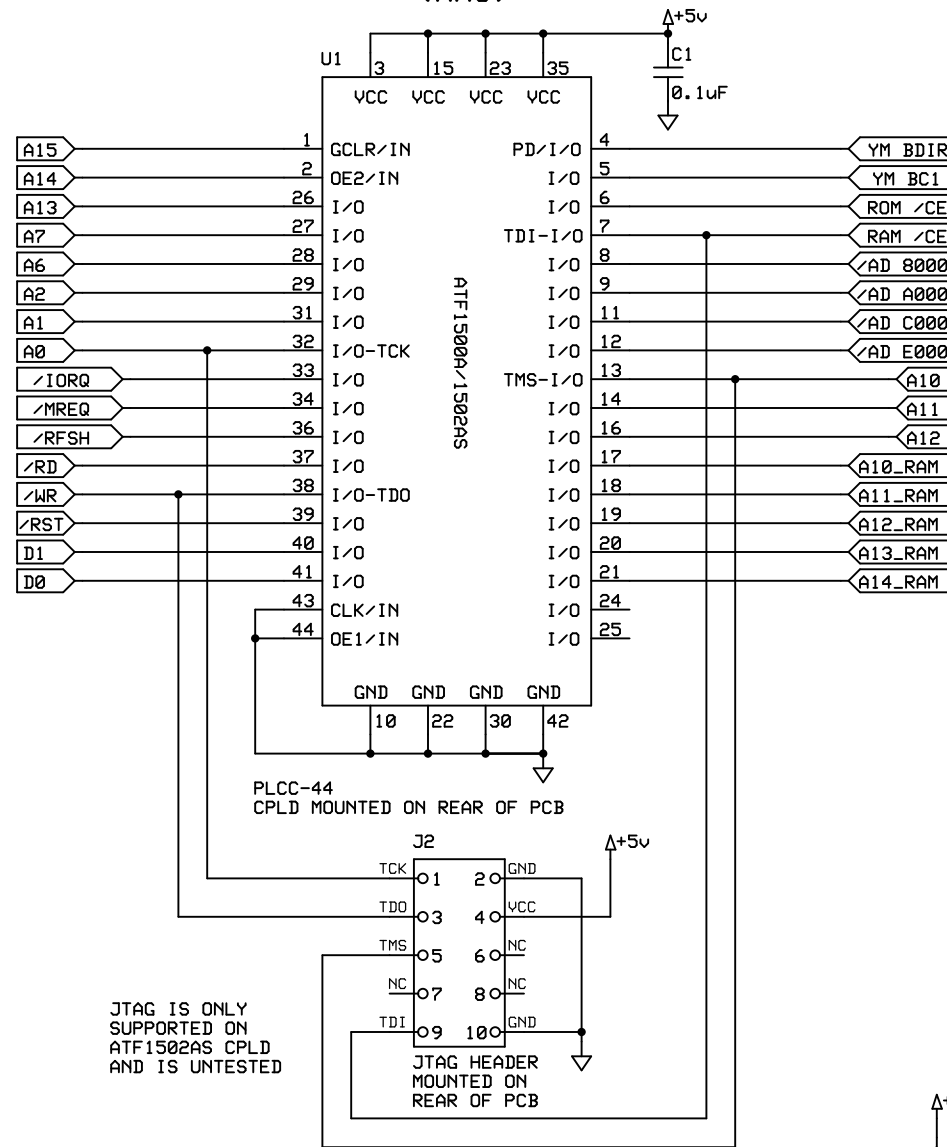


CV-NUC+ MAIN BOARD BOTTOM

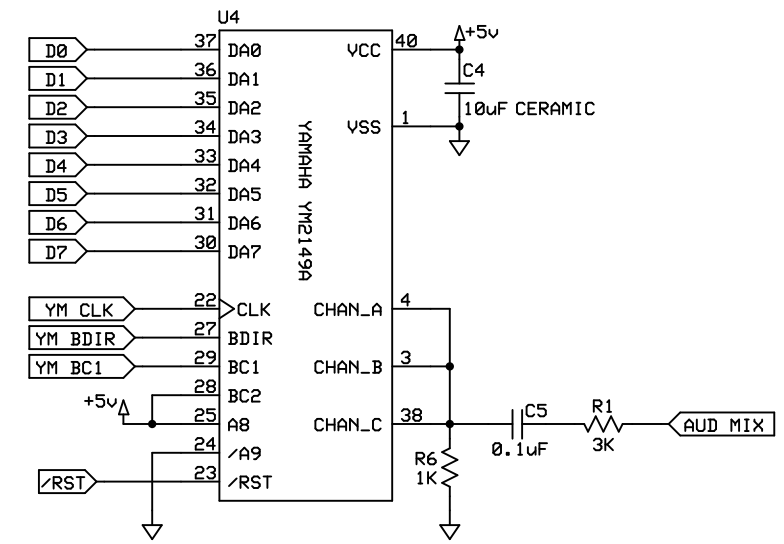
CV-NUC+MSX MODULE INTERFACE



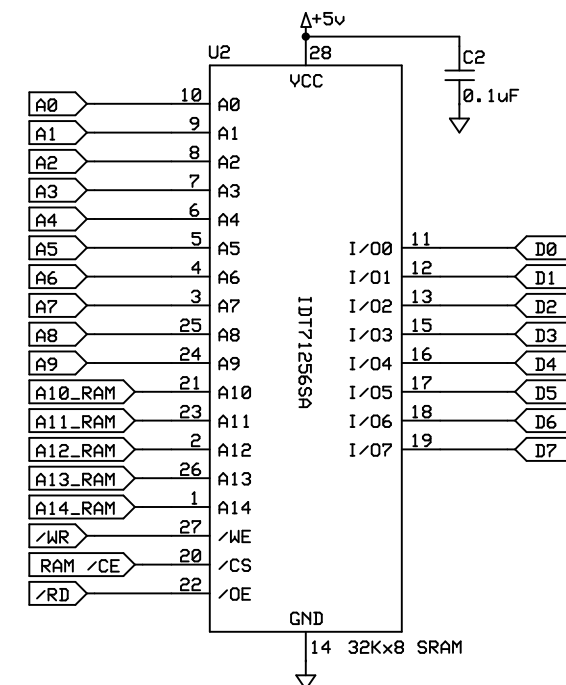
MSX MEMORY/SOUND MANAGEMENT UNIT (MMU)



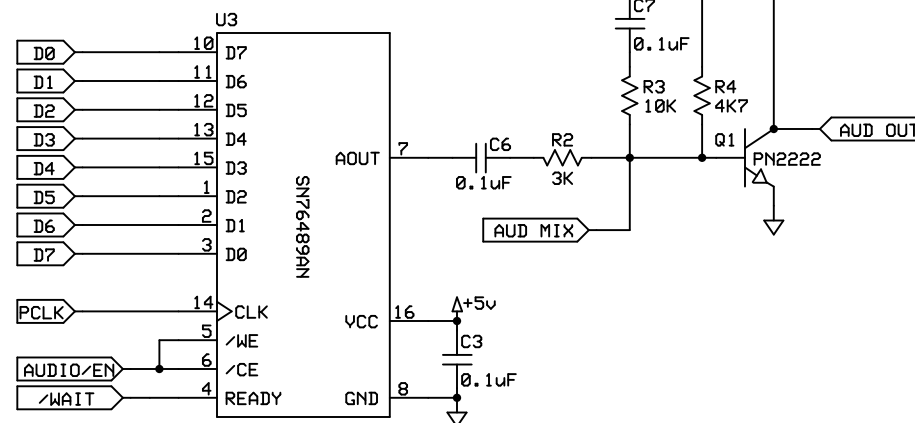
MSX AY SOUND GENERATOR



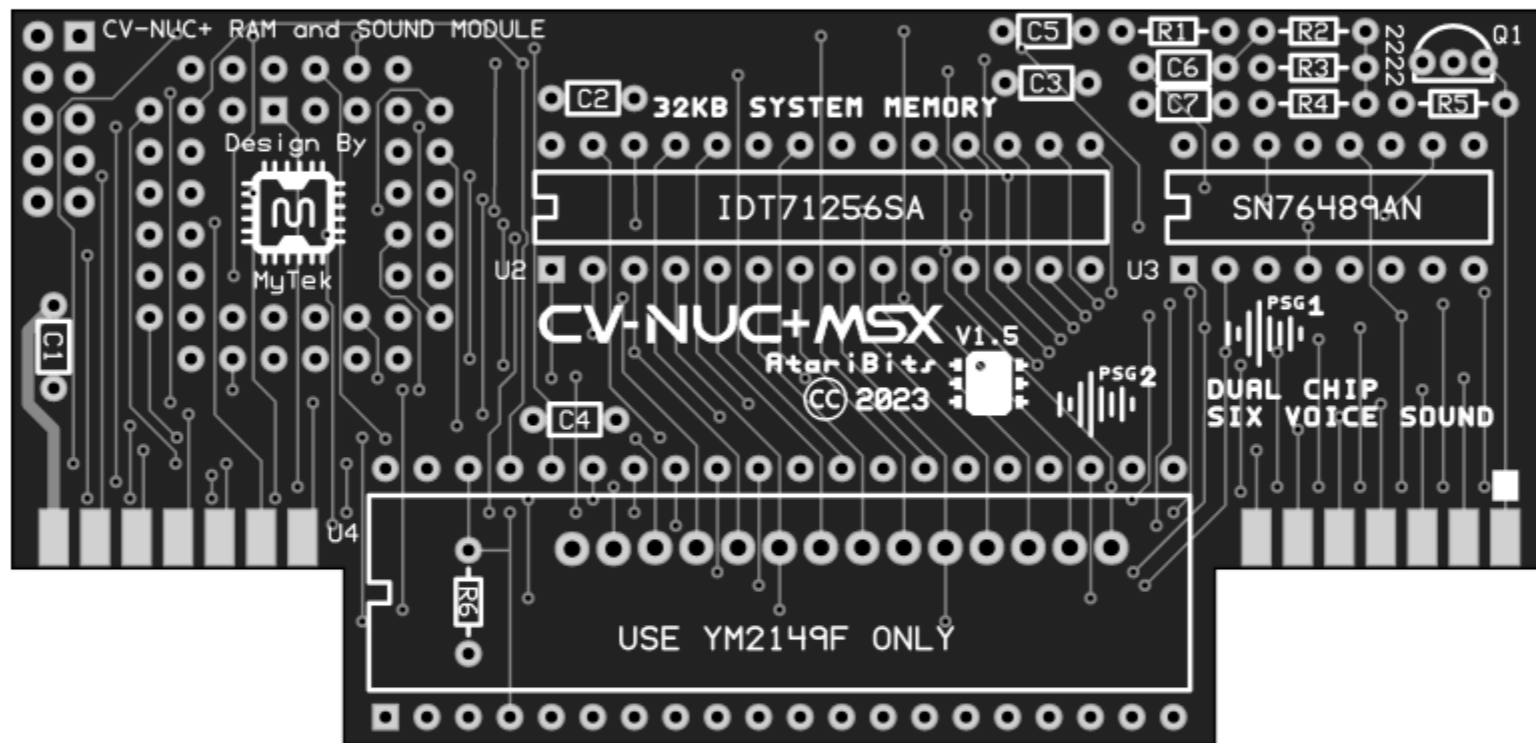
MSX EXPANDED MEMORY 1K/24K/32K SYSTEM RAM



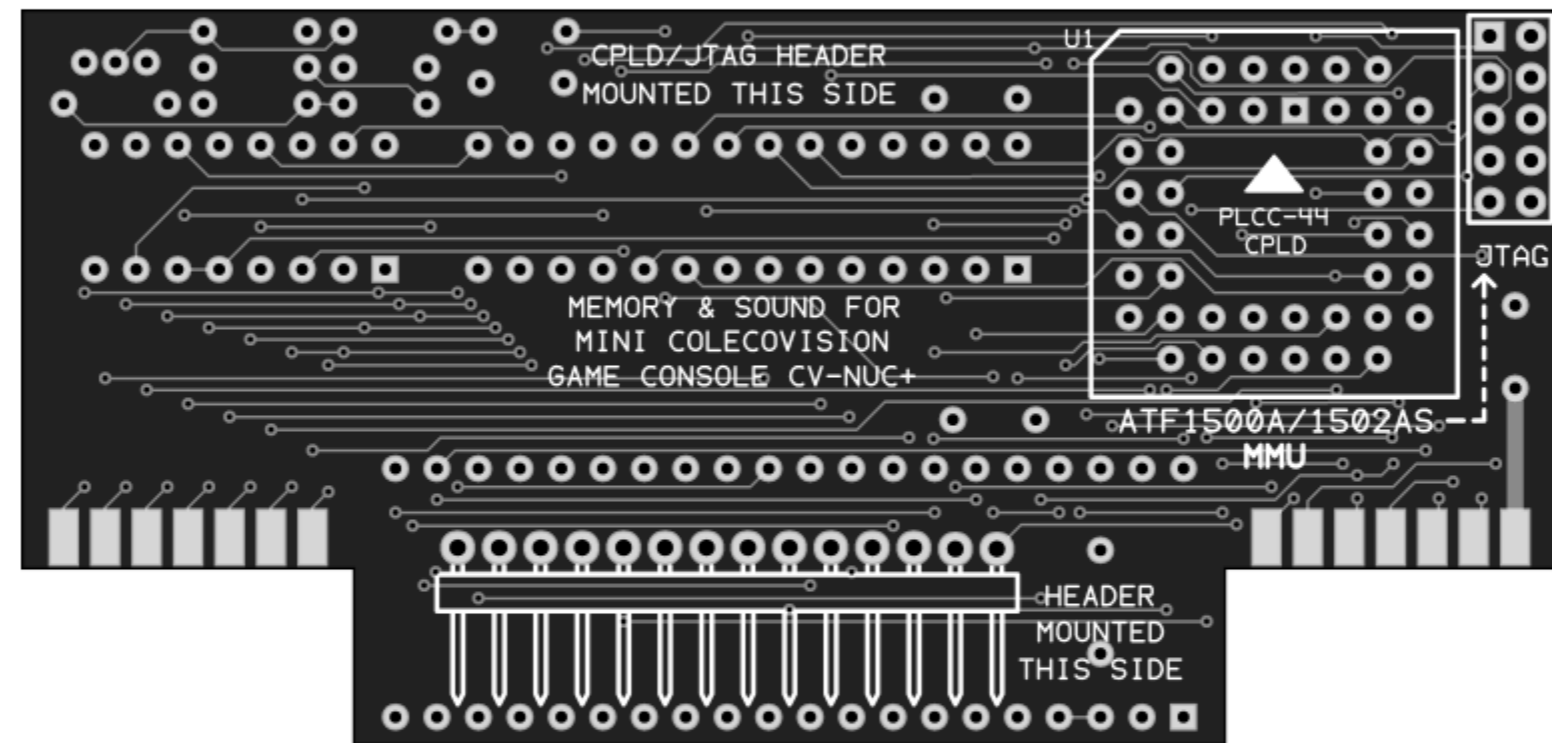
TI SOUND GENERATOR



NOTE: THE JTAG PROGRAMMING HEADER IS ONLY APPLICABLE TO ATF1502AS CPLDs AND IS CURRENTLY UNTESTED FOR THIS APPLICATION.



CV-NUC+MSX MODULE TOP



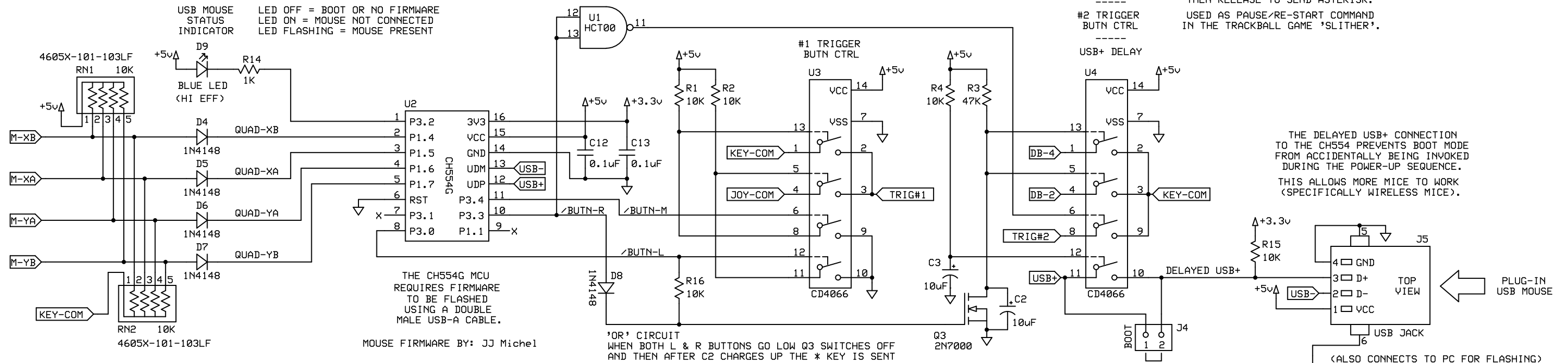
CV-NUC+MSX MODULE BOTTOM

USB MOUSE -to- QUADRATURE CIRCUIT

(*)ASTERISK - - - - PRESS & HOLD LEFT & RIGHT MOUSE BUTTONS FOR 1 SECOND, SEND KEY

 #2 TRIGGER BUTN CTRL USED AS PAUSE/RE-START COMMAND IN THE TRACKBALL GAME 'SLITHER'.

USB+ DELAY



THE CH554G MCU REQUIRES FIRMWARE TO BE FLASHED USING A DOUBLE MALE USB-A CABLE.
 MOUSE FIRMWARE BY: JJ Michel

'OR' CIRCUIT WHEN BOTH L & R BUTTONS GO LOW Q3 SWITCHES OFF AND THEN AFTER C2 CHARGES UP THE * KEY IS SENT

THE DELAYED USB+ CONNECTION TO THE CH554 PREVENTS BOOT MODE FROM ACCIDENTALLY BEING INVOKED DURING THE POWER-UP SEQUENCE. THIS ALLOWS MORE MICE TO WORK (SPECIFICALLY WIRELESS MICE).

JUMPER BEFORE CONNECTING TO COMPUTER'S USB PORT IN ORDER TO ACTIVATE BOOT LOADER MODE FOR FLASHING CH554 FIRMWARE.
 DISCONNECT AFTER FLASHING IS COMPLETE.

Jameco P/N: 2096181
 *Stewart Connector P/N: SS-52100-001
 *NOTE: AVAILABLE FROM DIG-KEY & MOUSER

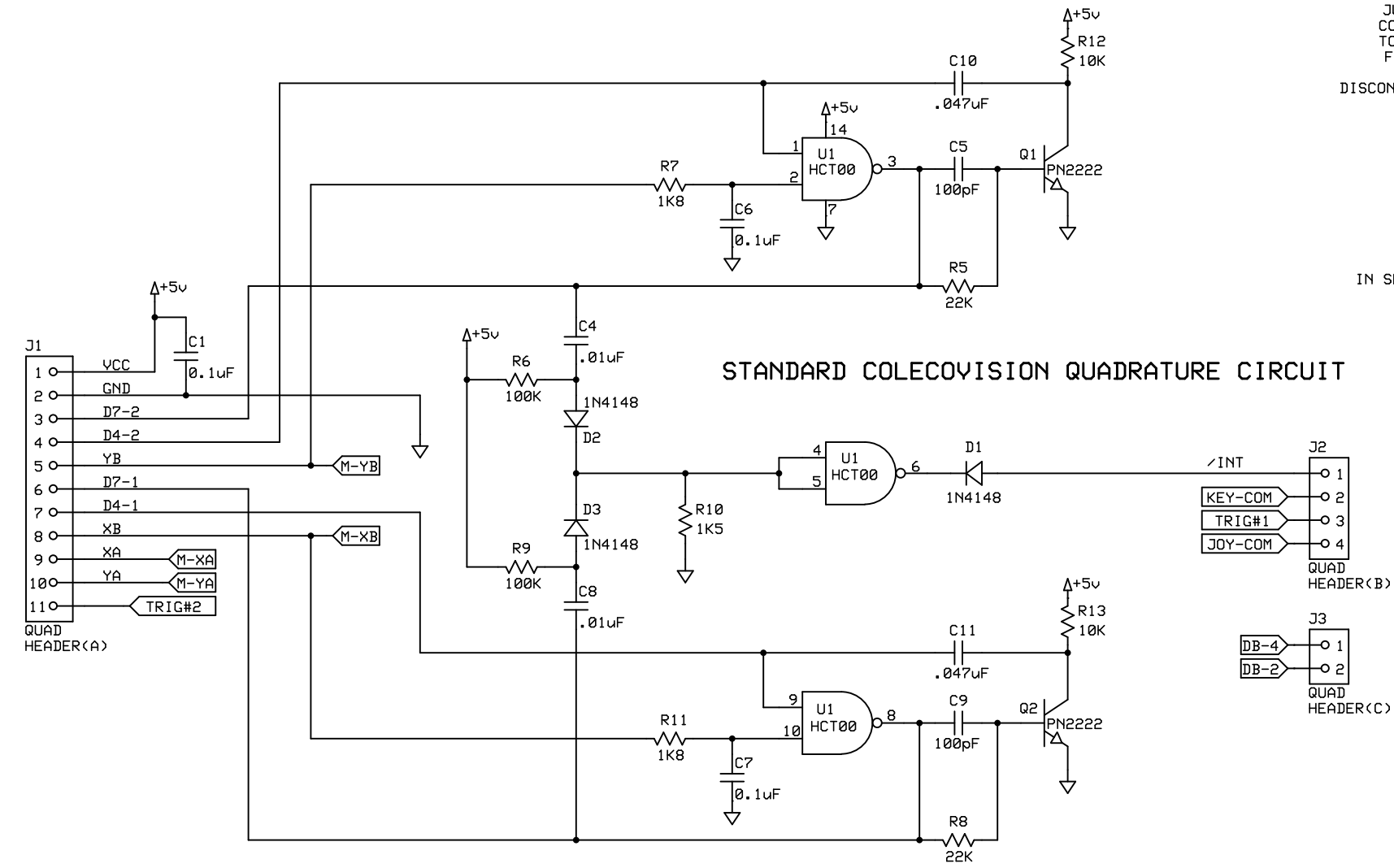
LEFT MOUSE BUTTON = LEFT #1 TRIGGER
 MIDDLE MOUSE BUTTON = RIGHT #1 TRIGGER
 RIGHT MOUSE BUTTON = RIGHT #2 TRIGGER

IN ARMAGEDDON GAME THIS EQUATES TO LEFT, MIDDLE, RIGHT MISSILE SILOS
 IN SLITHER LEFT AND RIGHT BUTTONS SHOOT UPWARDS, AND THE MIDDLE BUTTON SHOOTS DOWN

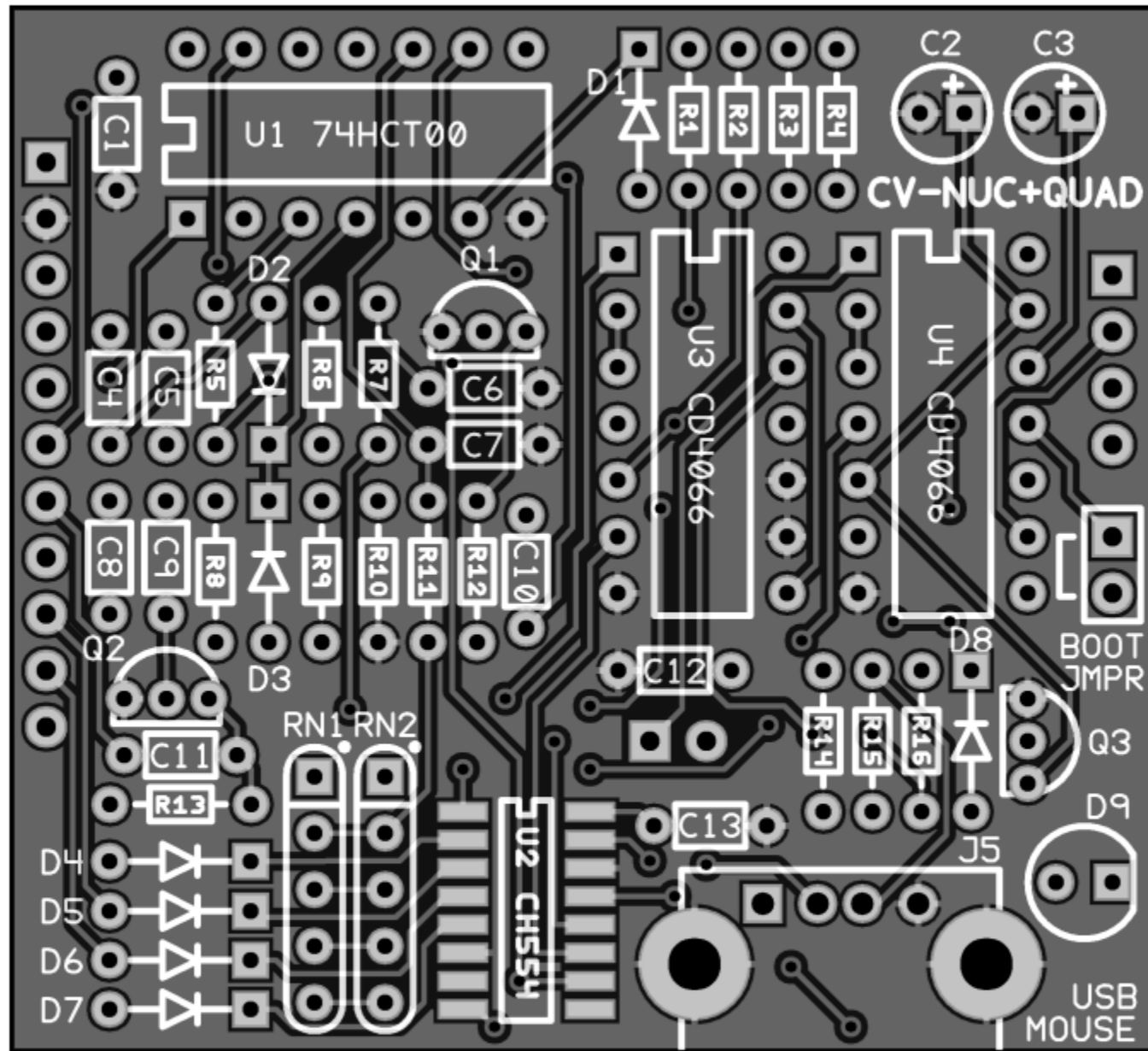
CHOICE OF CONNECTING KEY-COM OR JOY-COM TO TRIGGER, SELECTS EITHER THE LEFT OR RIGHT TRIGGER BUTTON.

IF YOU PLAN ON USING AN EXTERNAL ROLLER-CONTROLLER, JUST UNPLUG THE MOUSE.

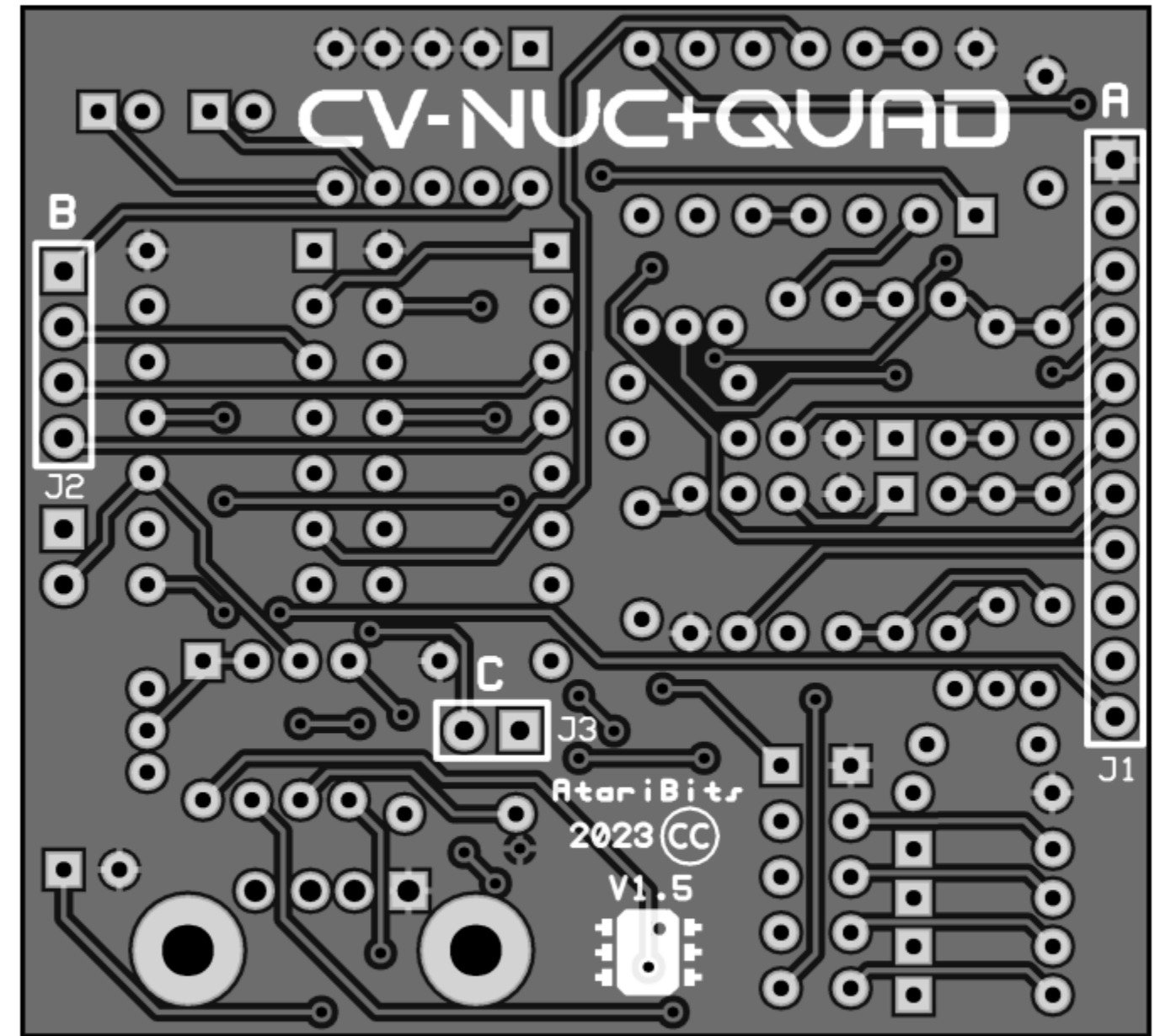
STANDARD COLECOVISION QUADRATURE CIRCUIT



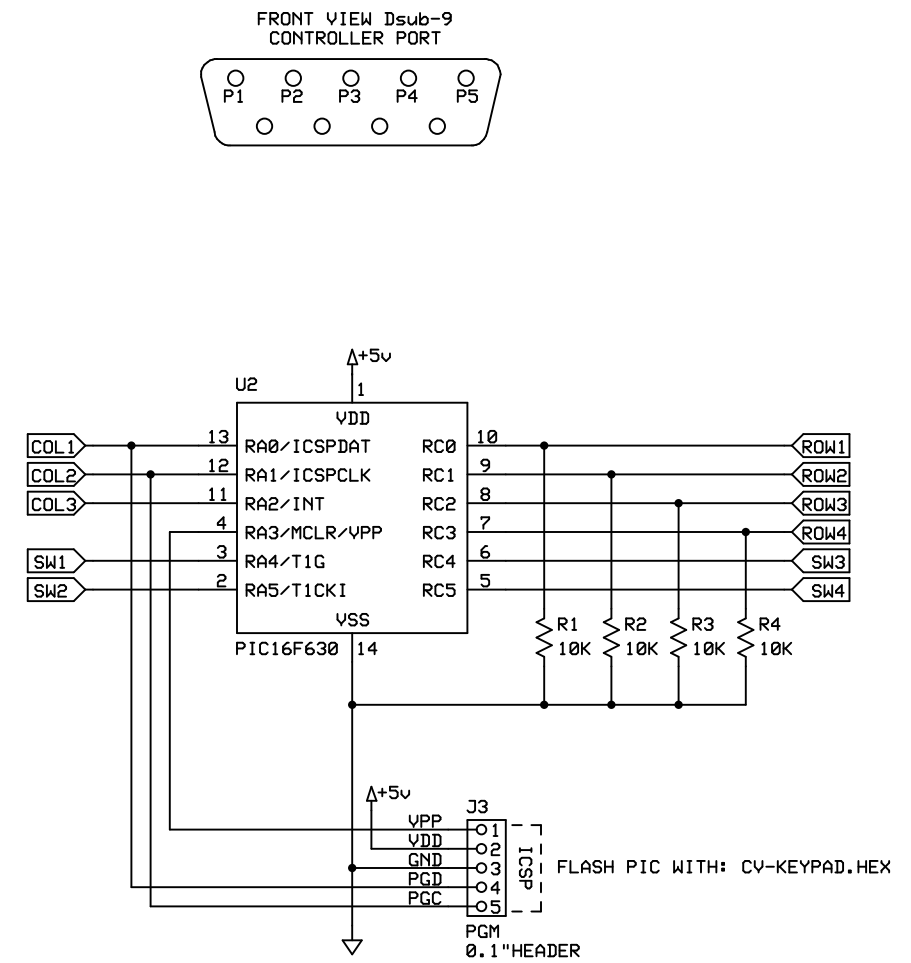
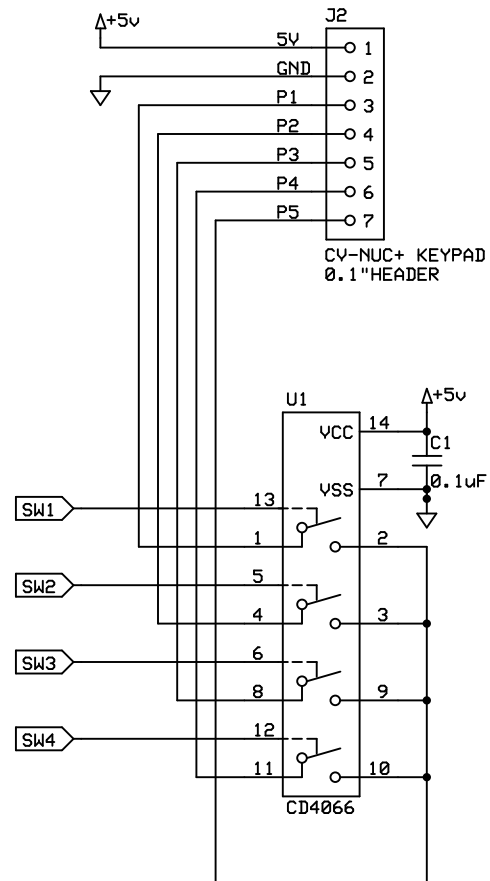
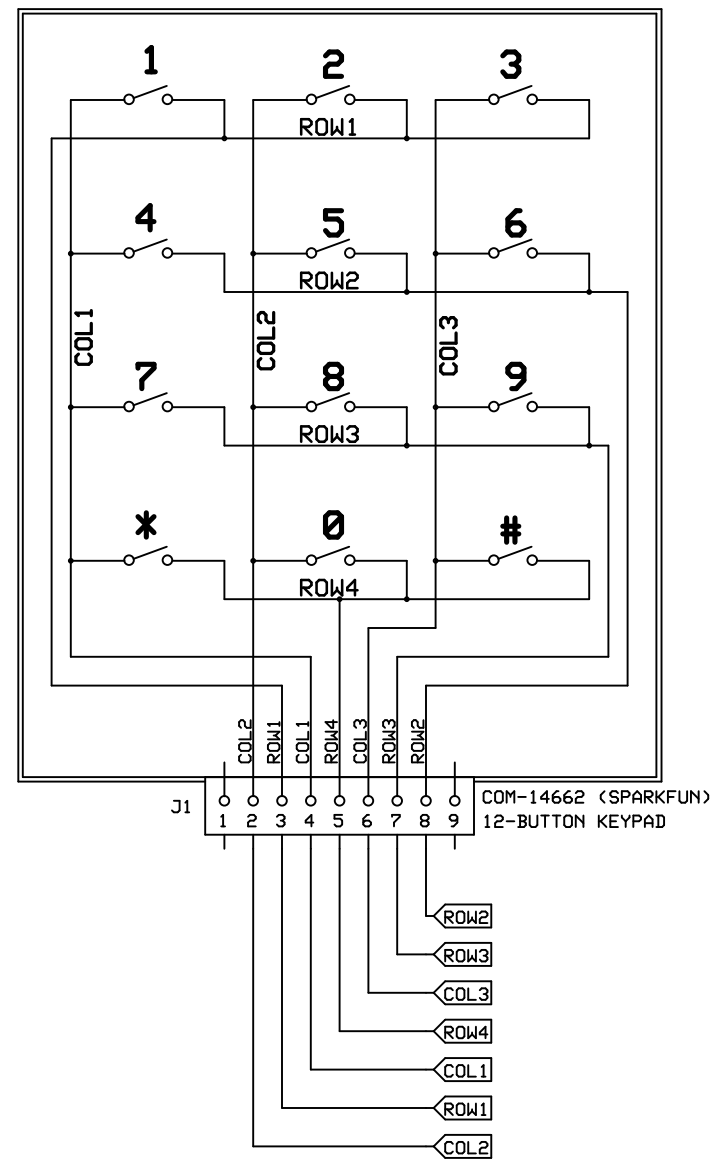
CY-NUC+ ColecoVision Mini		
An AtariBits Production		
MYTEK	VERSION 1.5 06/10/2023	QUAD/USB MODULE

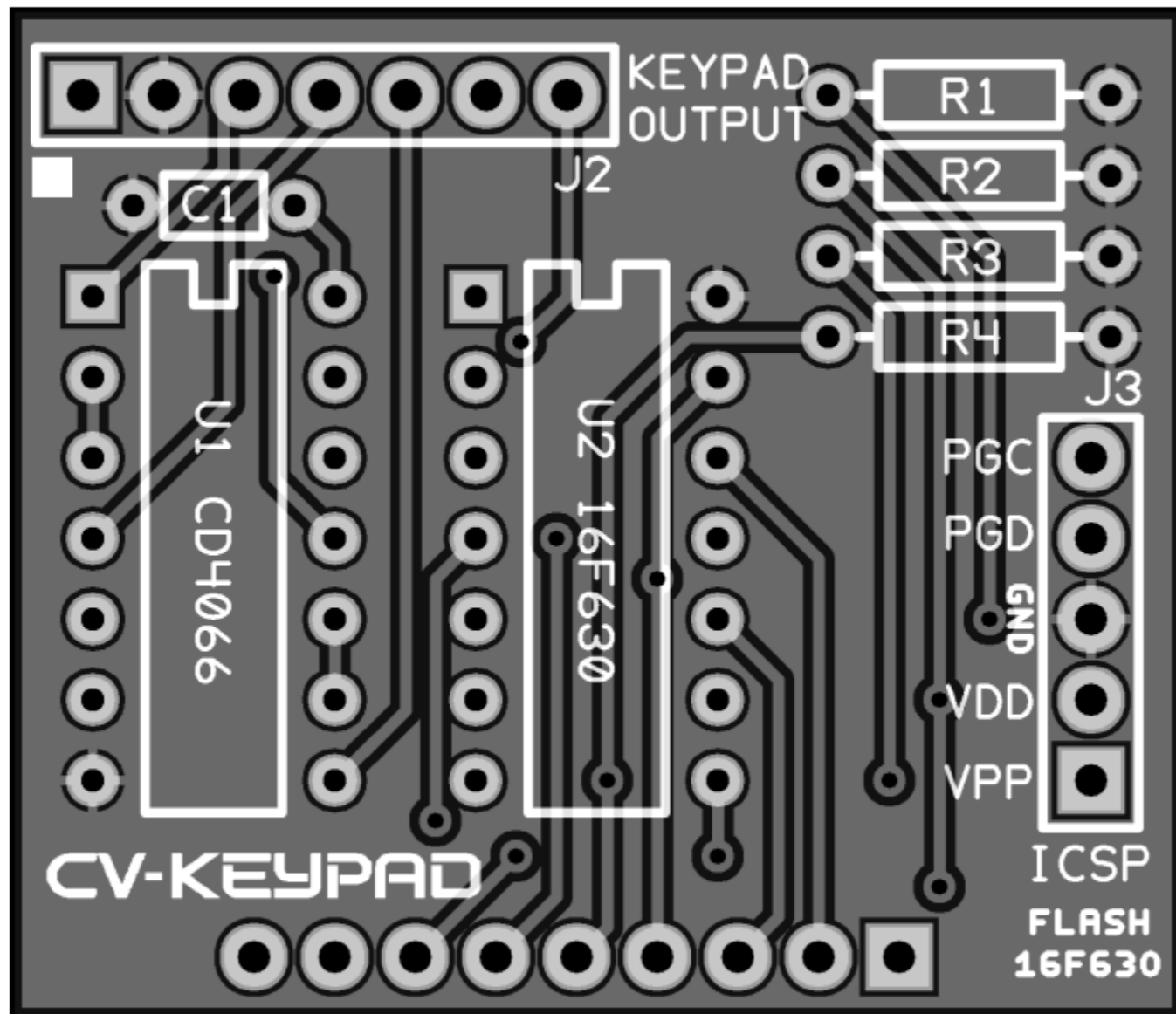


CV-NUC+QUAD MODULE TOP

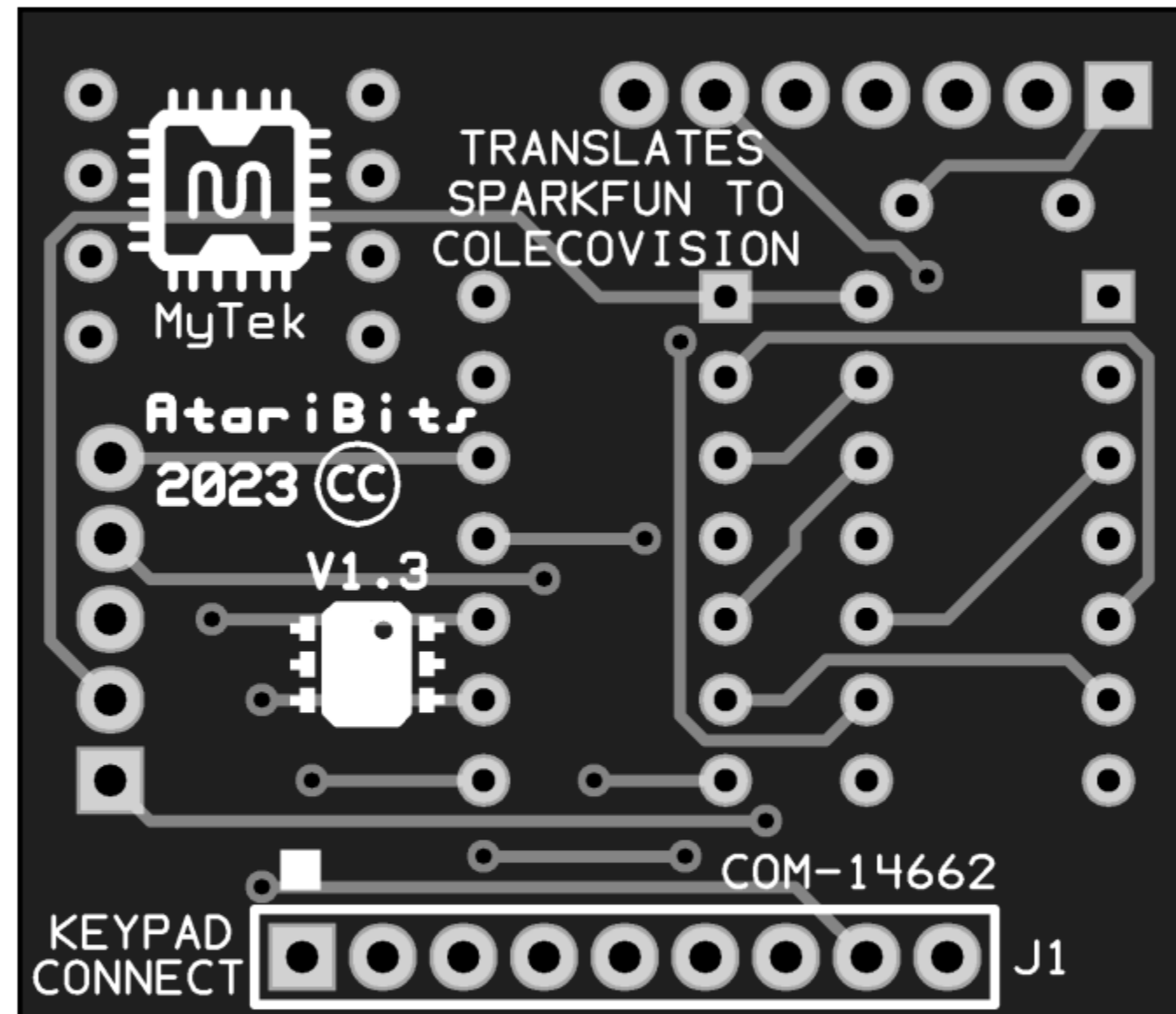


CV-NUC+QUAD MODULE BOTTOM

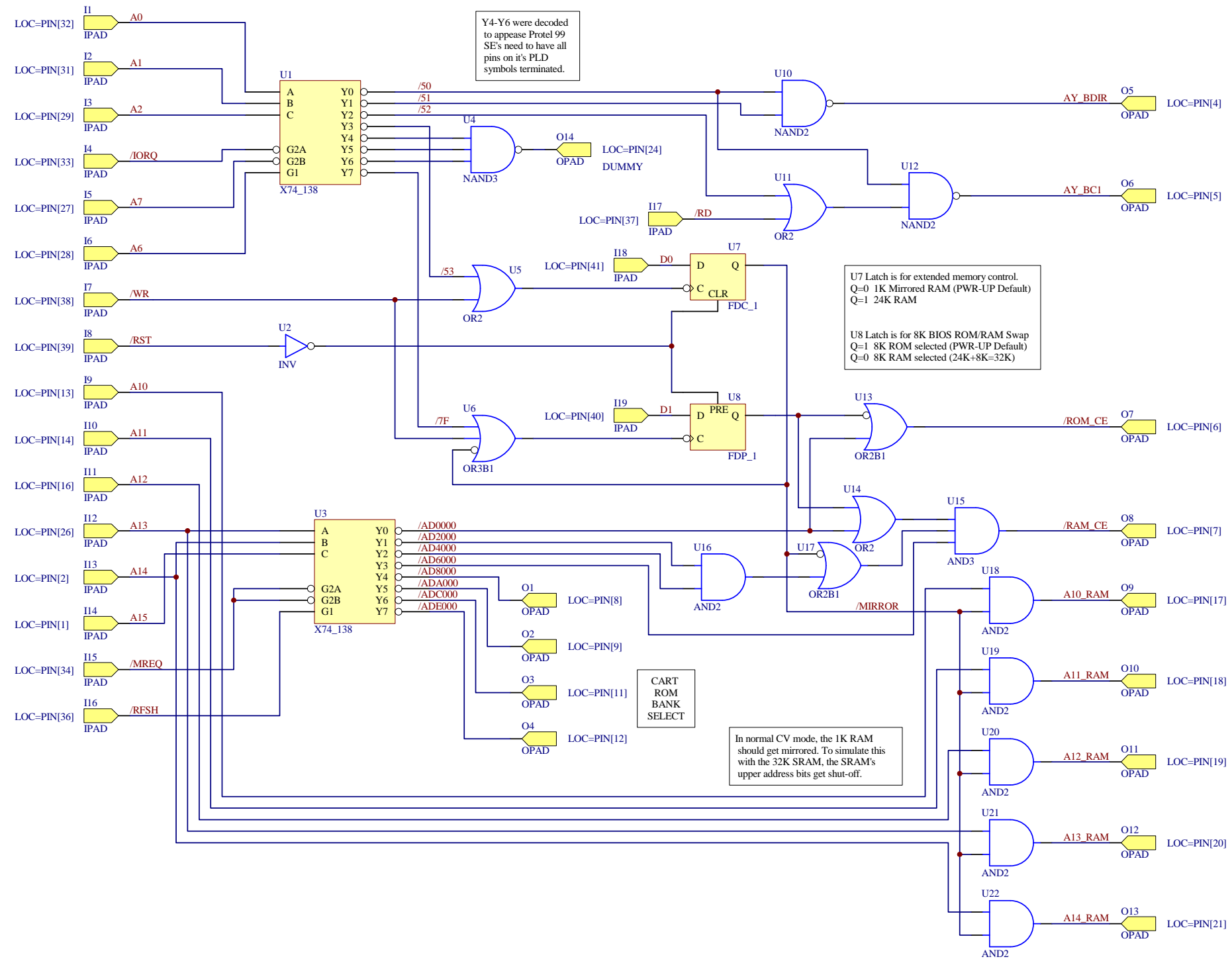




CV-KEYPAD MODULE TOP



CV-KEYPAD MODULE BOTTOM



CPLD Device: microchip/atmel ATF1500a		An AtariBits Production	
Design By: MYTEK		CV-NUC+MSX MODULE CPLD	
Size Tabletoid	FCSM No.	DWG No. CV-NUC+MSX MMU	Rev 1.5
Scale	Sheet 1 of 1		