Propeller, Video, Audio, Power

File: Propeller.kicad_sch

65C02 and SRAM

File: CPU.kicad_sch

65C22 and IO

File: IO.kicad_sch

65C02 and 65C22 schematic symbols are part of the 6502—kicad—library developed by Nicholas Parks Young (https://github.com/Alarm—Siren/6502—kicad—library).

+3.3V

R2
10K

U3
P8X32A-D40

Y1
5MHz

D0 D1 D2 D3 D4 D5 D6 D7

U1
74HC541

11 RES
10 BOE

12 32
VDD VDD

30 XI
31 XO

+3.3V

20 VCC

A0 2 A0   Y0 18
A1 3 A1   Y1 17
A2 4 A2   Y2 16
A3 5 A3   Y3 15
A4 6 A4   Y4 14
A5 7 A5   Y5 13
A6 8 A6   Y6 12
A7 9 A7   Y7 11

1 G1
19 G2

GND

10

GND

1 P0   P16 21
2 P1   P17 22   PHI2
3 P2   P18 23   RESET
4 P3   P19 24   RWB
5 P4   P20 25   IOSEL
6 P5   P21 26   RAMSEL
7 P6   P22 27   UARTTX
8 P7   P23 28   UARTRX
A8 13 P8   P24 33
A9 14 P9   P25 34
A10 15 P10   P26 35
A11 16 P11   P27 36
A12 17 P12 SCL P28 37
A13 18 P13 SDA P29 38
A14 19 P14 TX P30 39
A15 20 P15 RX P31 40

9 29
VSS VSS

GND

R4   R5   R6
270 560 1.1K

1 J4
Video Out
2
GND

C7
10uF

220
R7

C6
0.1uF

1 J5
Audio Out
2
GND

JP1
Developer Mode Enable

J1
Barrel Jack

PWR_FLAG

U2
LM2937ET-3.3

+3.3V

1 VIN
2

VI   VO 3
1   3

GND
2

C5
1000uF

R1
1K

1 J2
2 Power LED

PWR_FLAG

R3
10K

+3.3V

U4
24LC256

5 SDA VCC 8
6 SCL   A0 1
7 WP   A1 2
           A2 3
4 GND

J3
PropPlug

GND   GND

GND

GND

Decoupling capacitors (4) on supply lines: 74HC541 (1), P8X32 (2), 24LC256 (1)

+3.3V   +3.3V   +3.3V   +3.3V

C1   C2   C3   C4
0.1uF   0.1uF   0.1uF   0.1uF
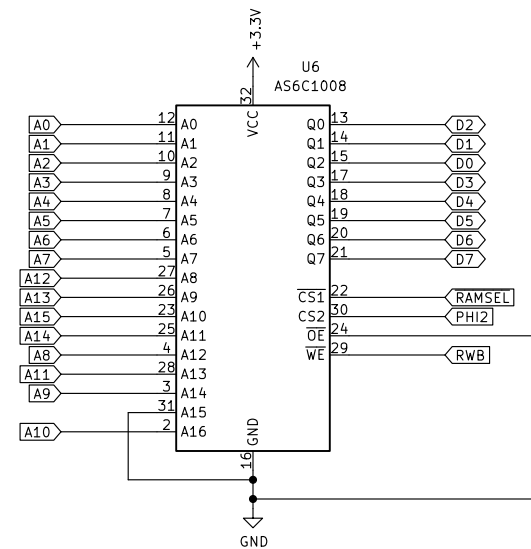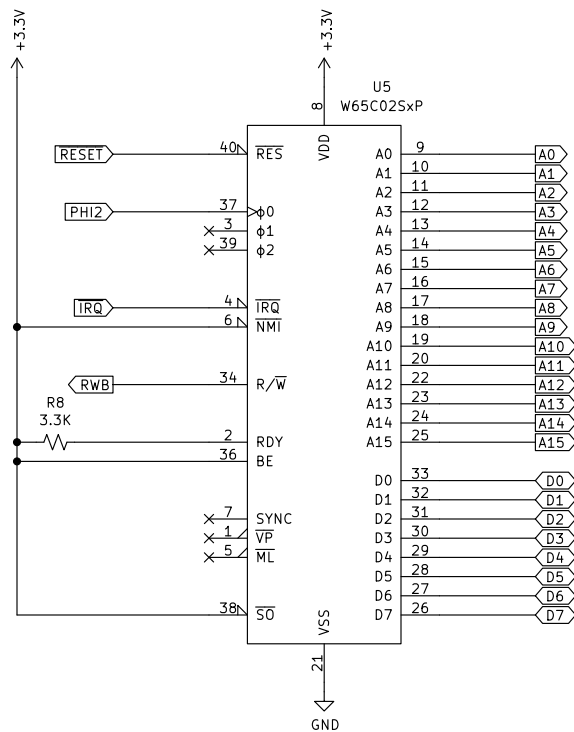
GND   GND   GND   GND
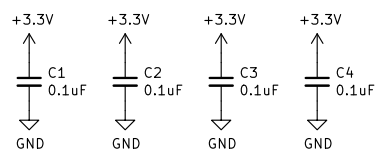
CODY COMPUTER
In memory of Cody Biliter-Milens (2006?-2020)

Sheet: /Propeller, Video, Audio, Power/
File: Propeller.kicad_sch

Title: Propeller, Bus Multiplexing, Video/Audio, Power

Size: USLetter   Date: 2023-04-18   Rev: A
KiCad E.D.A. kicad (6.0.4-0)   Id: 2/4

U5
W65C02SxP

+3.3V
VDD 8

RESET   40   RES
         A0   9   A0
         A1   10   A1
PHI2   37   φ0   A2   11   A2
   3   φ1   A3   12   A3
   39   φ2   A4   13   A4
         A5   14   A5
         A6   15   A6
         A7   16   A7
IRQ   4   IRQ   A8   17   A8
   6   NMI   A9   18   A9
         A10   19   A10
RWB   34   R/W   A11   20   A11
         A12   22   A12
R8   A13   23   A13
3.3K   2   RDY   A14   24   A14
   36   BE   A15   25   A15

         D0   33   D0
         D1   32   D1
   7   SYNC   D2   31   D2
   1   VP   D3   30   D3
   5   ML   D4   29   D4
         D5   28   D5
         D6   27   D6
   38   SO   D7   26   D7

VSS 21

GND

U6
AS6C1008

+3.3V
VCC 32

A0   12   A0   Q0   13   D2
A1   11   A1   Q1   14   D1
A2   10   A2   Q2   15   D0
A3   9   A3   Q3   17   D3
A4   8   A4   Q4   18   D4
A5   7   A5   Q5   19   D5
A6   6   A6   Q6   20   D6
A7   5   A7   Q7   21   D7
A12   27   A8
A13   26   A9   CS1   22   RAMSEL
A15   23   A10   CS2   30   PHI2
A14   25   A11   OE   24
A8   4   A12   WE   29   RWB
A11   28   A13
A9   3   A14
   31   A15
A10   2   A16

GND 16

GND

(SRAM data and address lines have been renumbered to simplify PCB layout.)

Decoupling capacitors (2) on supply lines: W65C02 (1), AS6C1008 (1)

+3.3V   +3.3V

C8   C9
0.1uF   0.1uF

GND   GND
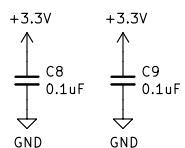
CODY COMPUTER
In memory of Cody Biliter-Milens (2006?-2020)

Sheet: /65C02 and SRAM/
File: CPU.kicad_sch

Title: 65C02 Microprocessor and Static RAM

Size: USLetter	Date: 2023-04-18	Rev: A
KiCad E.D.A. kicad (6.0.4-0)		Id: 3/4

Decoupling capacitors (2) on supply lines: 65C22(1), 4051 (1)

CODY COMPUTER
In memory of Cody Biliter-Milens (2006?-2020)

Sheet: /65C22 and IO/
File: IO.kicad_sch

Title: 65C22 VIA, Keyboard/Joystick, Cartridge, SPI

Size: USLetter | Date: 2023-04-18 | Rev: A
KiCad E.D.A. kicad (6.0.4-0) | Id: 4/4