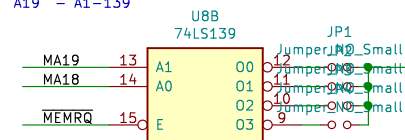


AddressEnable = 1
MEMRQ = 0
WR = 0

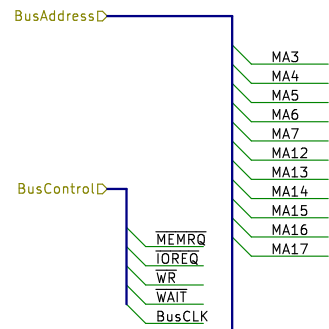
VRAM Memory Address Window is in the upper region of the 1MB address space.
The last two address bits make up a selection option using the 74x139.
3F000-3FFFF
7F000-7FFFF
BF000-BFFFF
FF000-FFFFF

A12 = 1
A13 = 1
A14 = 1
A15 = 1
A16 = 1
A17 = 1
A18 - A0-139
A19 - A1-139



IOREQ = 0
WR = 0
The IO address for the Control Register is hardwired.
E0-E3

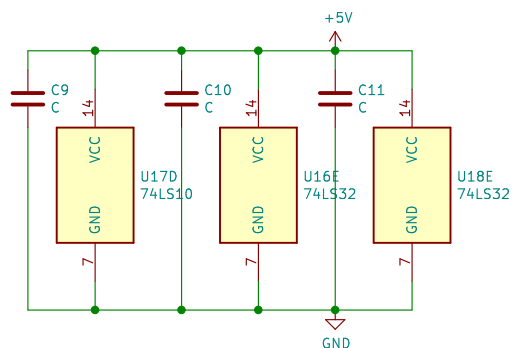
A0 = X
A1 = X
A2 = 0
A3 = 0
A4 = 0
A5 = 1
A6 = 1
A7 = 1



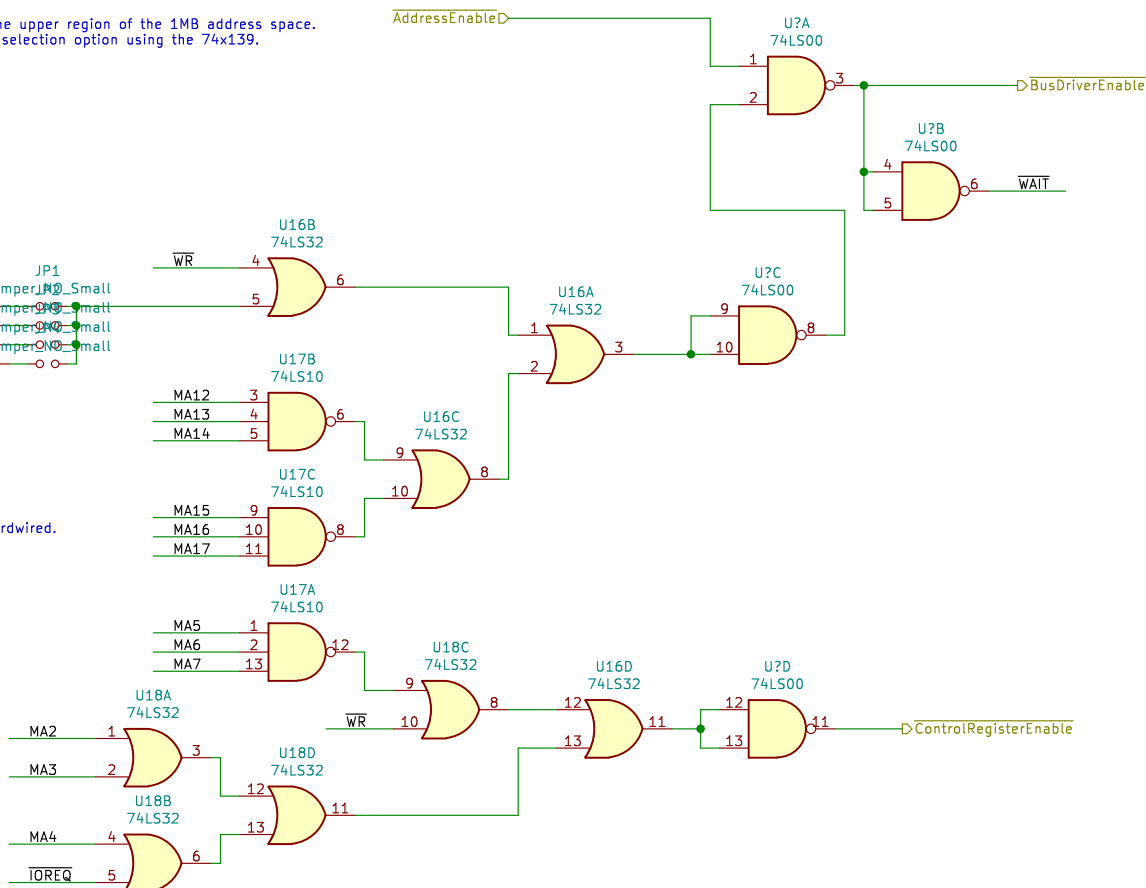
Z80 Bus Interface

MEMRQ & WR & MA19..MA12 & !AddressEnable
=> Write to VRAM
IOREQ & WR & MA7..MA0
=> Write to Control Register

Control Register:
A17..A12 (6 bits)
Options (2 bits)



TODO: Temporary solution is to stall the CPU when it wants to write to VRAM while the GA is using it...



Video Memory
512x384 + border
640x480 @60Hz

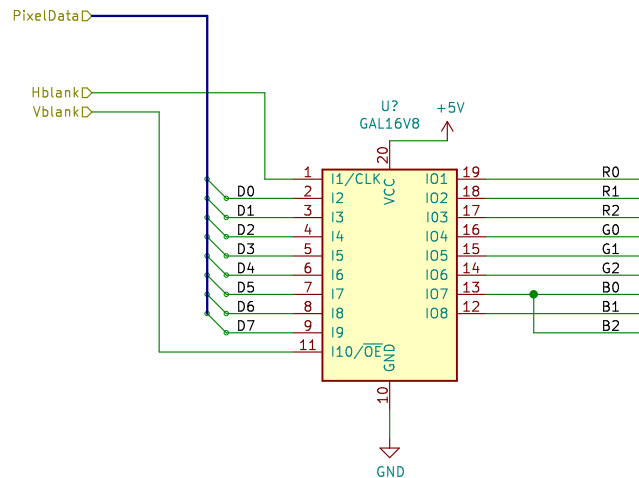
Canned Bytes

Sheet: /Video Memory/Bus Decoder/
File: BusDecoder.sch

Title: Zalt TTL VGA

Size: A4
Date: 2020-02-09
KiCad E.D.A. kicad (5.1.0)-1

Rev: 0.1
Id: 4/5



Pixel Output
512x384 + border
640x480 @60Hz

Canned Bytes

Sheet: /Pixel Output/
File: PixelOutput.sch

Title: Zalt TTL VGA

Size: A4 Date: 2020-02-09
KiCad E.D.A. kicad (5.1.0)-1

Rev: 0.1
Id: 5/5