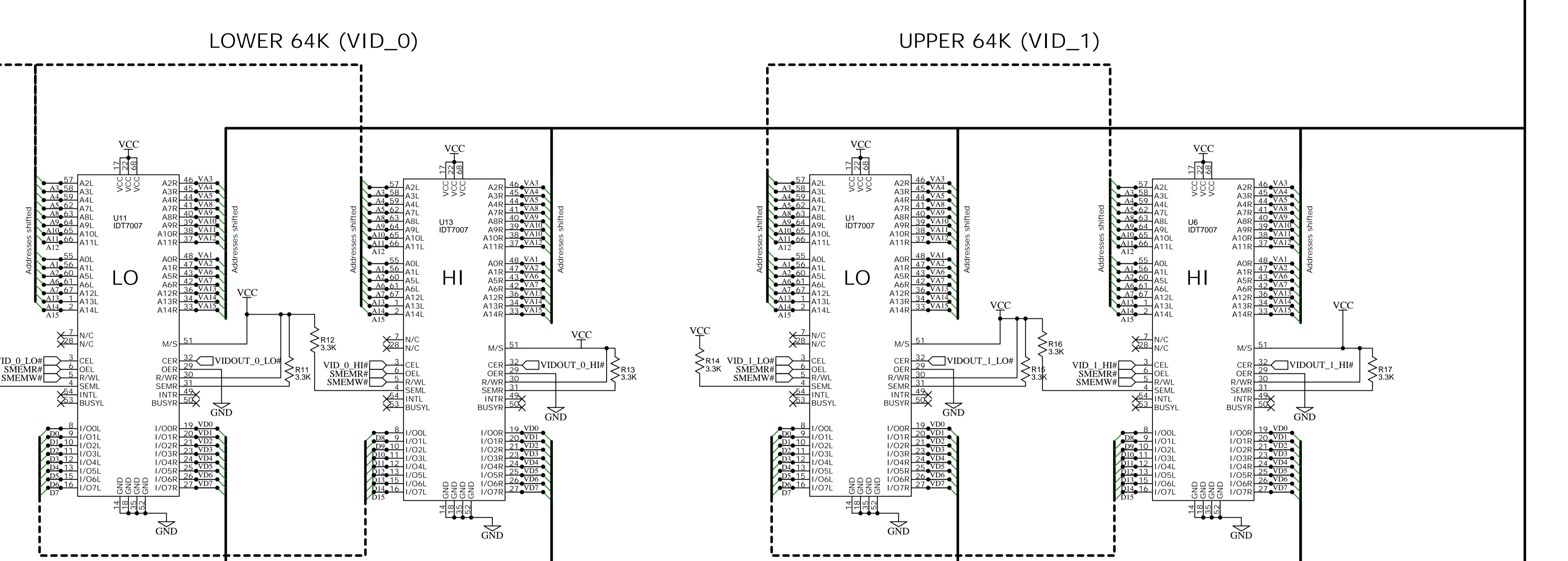
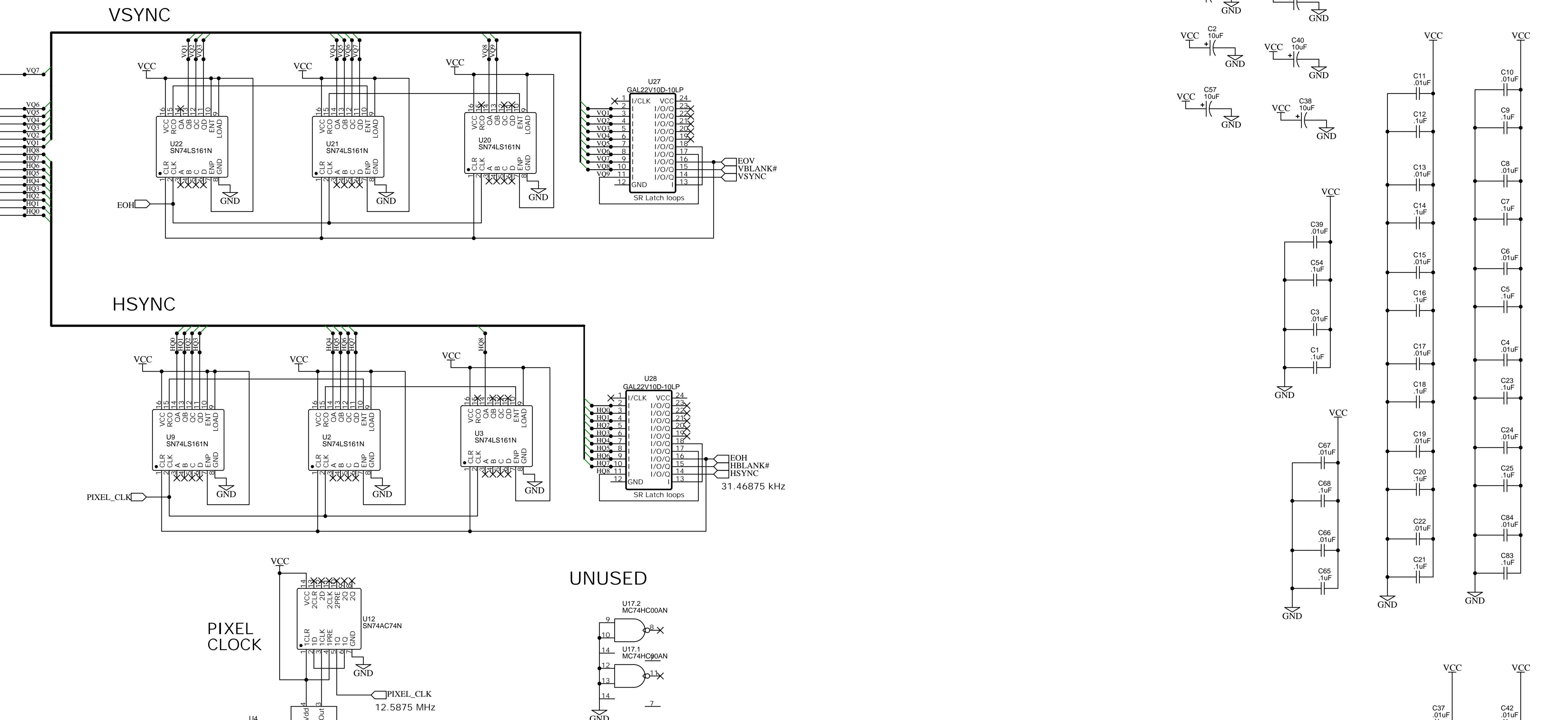
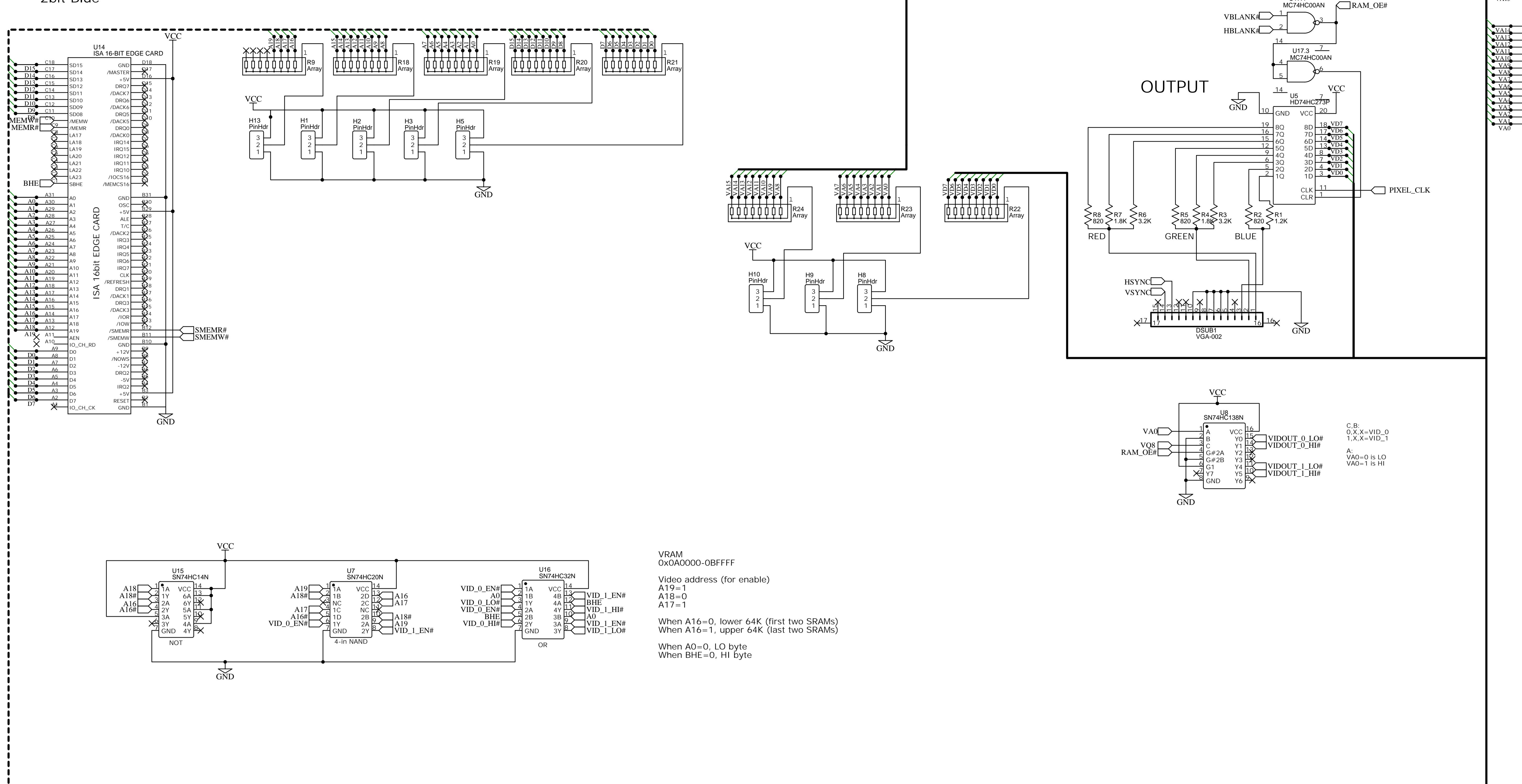


VGA Card

320x240 x1Byte

-3bit Red
-3bit G

-3bit Green
-2bit Blue



o do:
Update ISA pinout

VGA Signal 640 x 480 @ 60 Hz Industry standard timing

General timing

Screen refresh rate 60 Hz

Vertical refresh 31.46875 kHz

Pixel freq. 25.175 MHz

Horizontal timing (line)

Polarity of horizontal sync pulse is negative.

Scanline partPixelsTime [μ s]

Visible area 640x25.422

Front porch 160.636

Sync pulse 963.813

Back porch 481.907

Whole line 800x31.778

Vertical timing (frame)

Polarity of vertical sync pulse is negative.

Frame partLinesTime [ms]

Visible area 480x15.253

Front porch 100.318

Sync pulse 20.064

Back porch 331.049

Whole frame 525x16.683

VGA Signal 320 x 240 @ 60 Hz

General timing

Screen refresh rate 60 Hz
 Vertical refresh 31.46875 kHz
 Pixel freq. 12.5875 MHz

Horizontal timing (line)

Polarity of horizontal sync pulse is negative

Scanline part	Pixels	Time [μs]
Visible area	320	12.711
Front porch	8	0.318
Sync pulse	48	1.907
Back porch	24	0.953
Whole line	400	15.889

320	1010
328	1010
376	1011
400	11

Vertical timing (frame)

Polarity of vertical sync pulse is negative

Frame part	Lines	Time [ms]
Visible area	480	15.253
Front porch	10	0.318
Sync pulse	2	0.064
Back porch	33	1.049
Whole frame	525	16.683

480	0111
490	01111
492	0111
525	10