

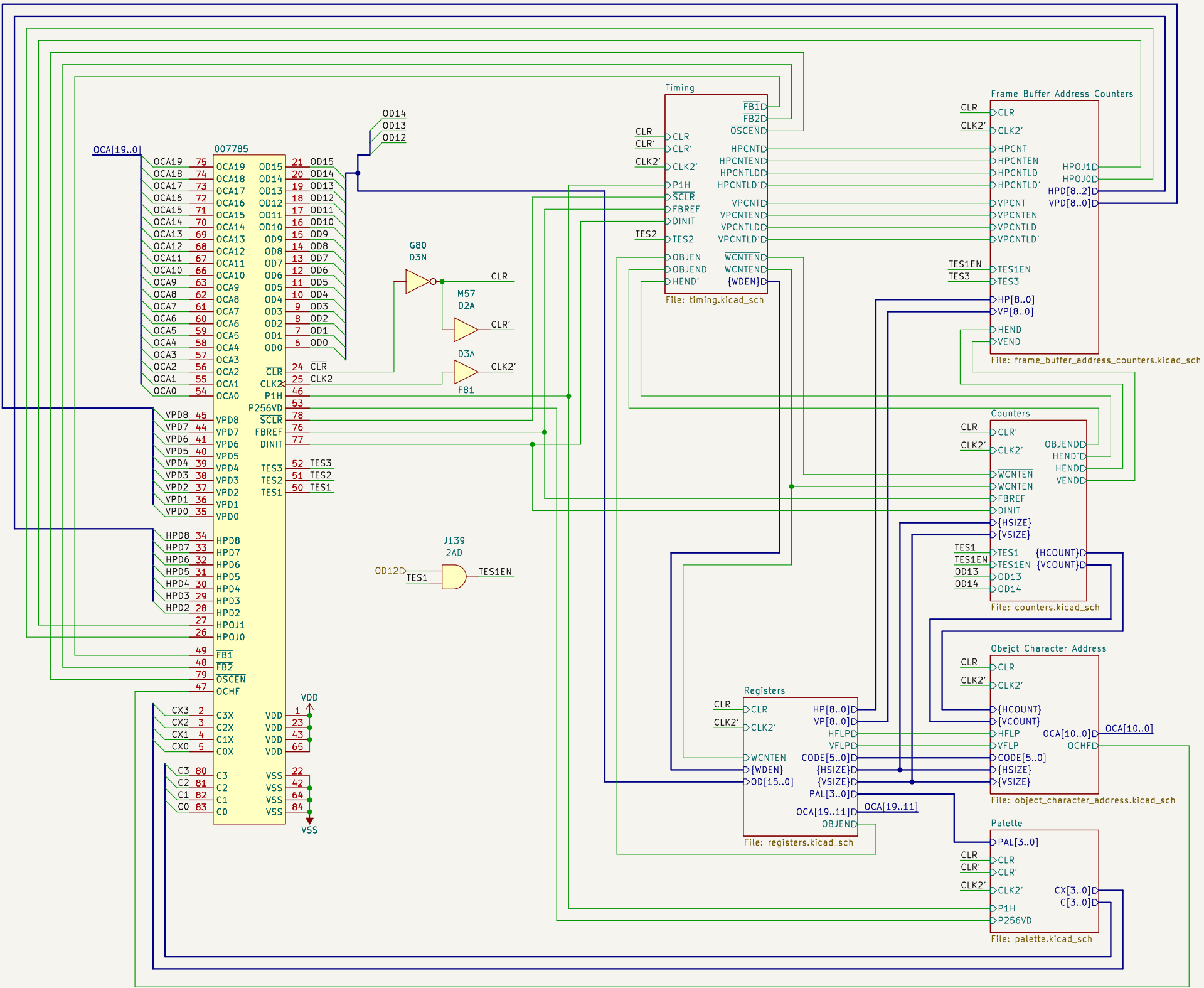
The 007786 scans for valid object data:
- Object (sprite) code,
- palette,
- position and
- attributes

It translates it into:
- Individual object character (tiles) color code,
- Palette values
- object character address

This is copied into the frame buffers with the 007786.

1. SCLR (OSCANCCLR) starts the obejct scanning process.
2. OSCEN is activated when each of the four words to be scanned are to be read. The 007783 increments the address.

The 007786 uses an OKI 79V000 gate cell array with 3289 unit cells.



Ulf Skutnabba, twitter: @skutis77

Sheet: /
File: 007785.kicad_sch

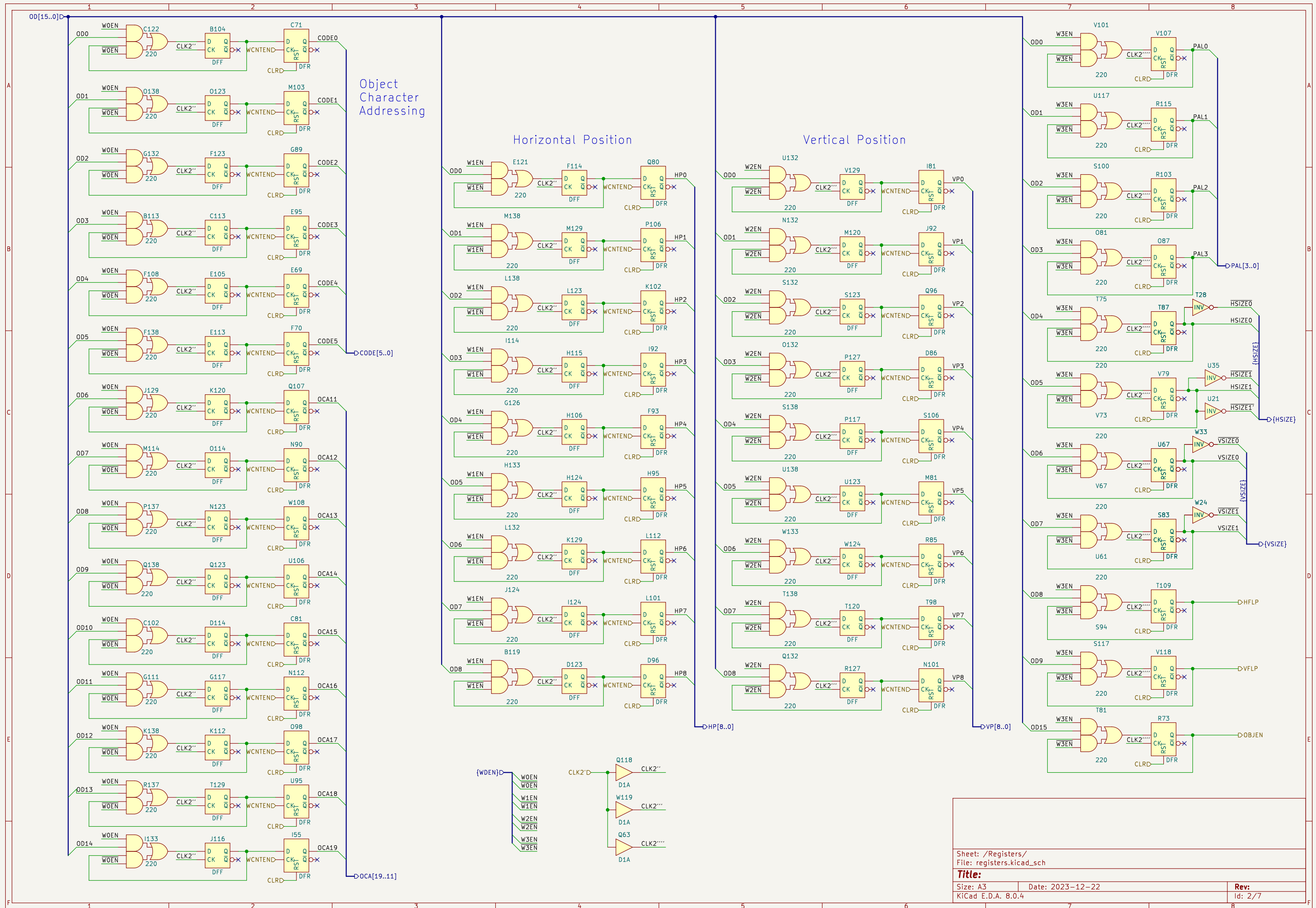
Title: Konami 007785

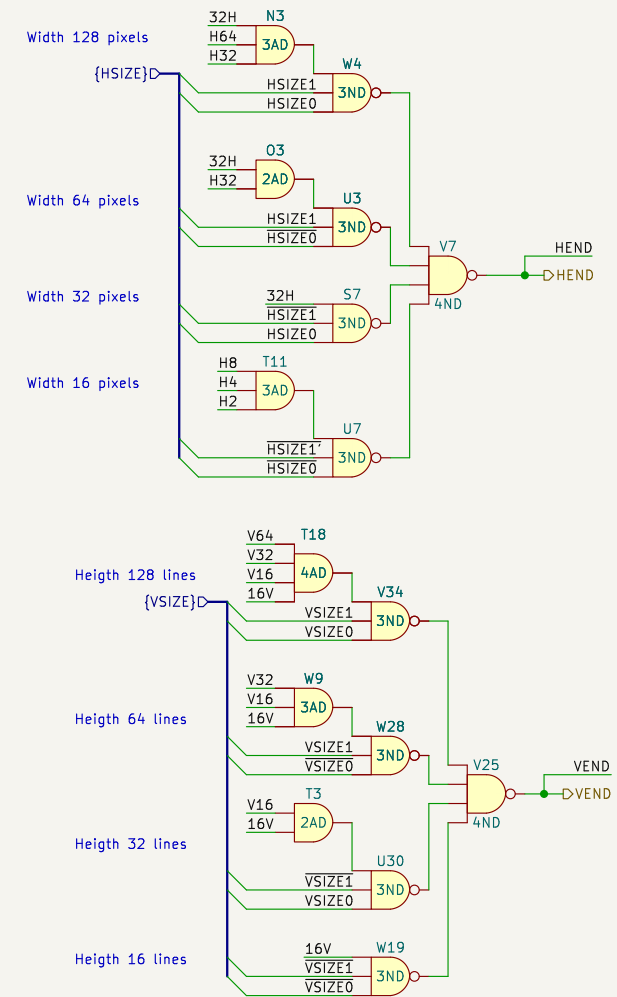
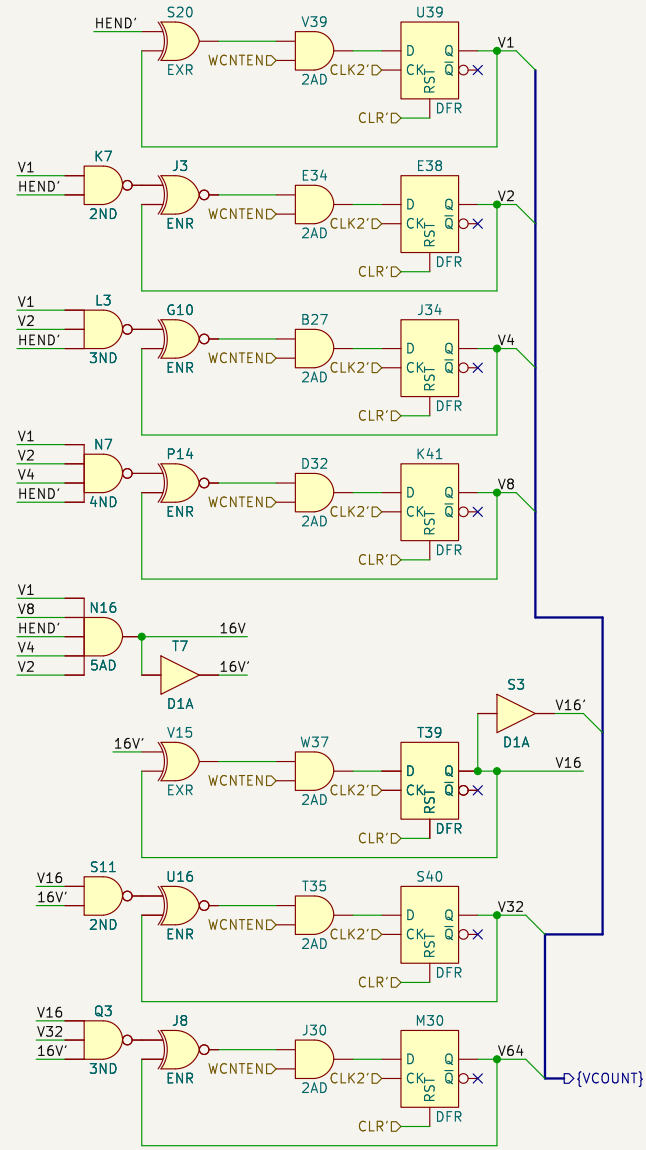
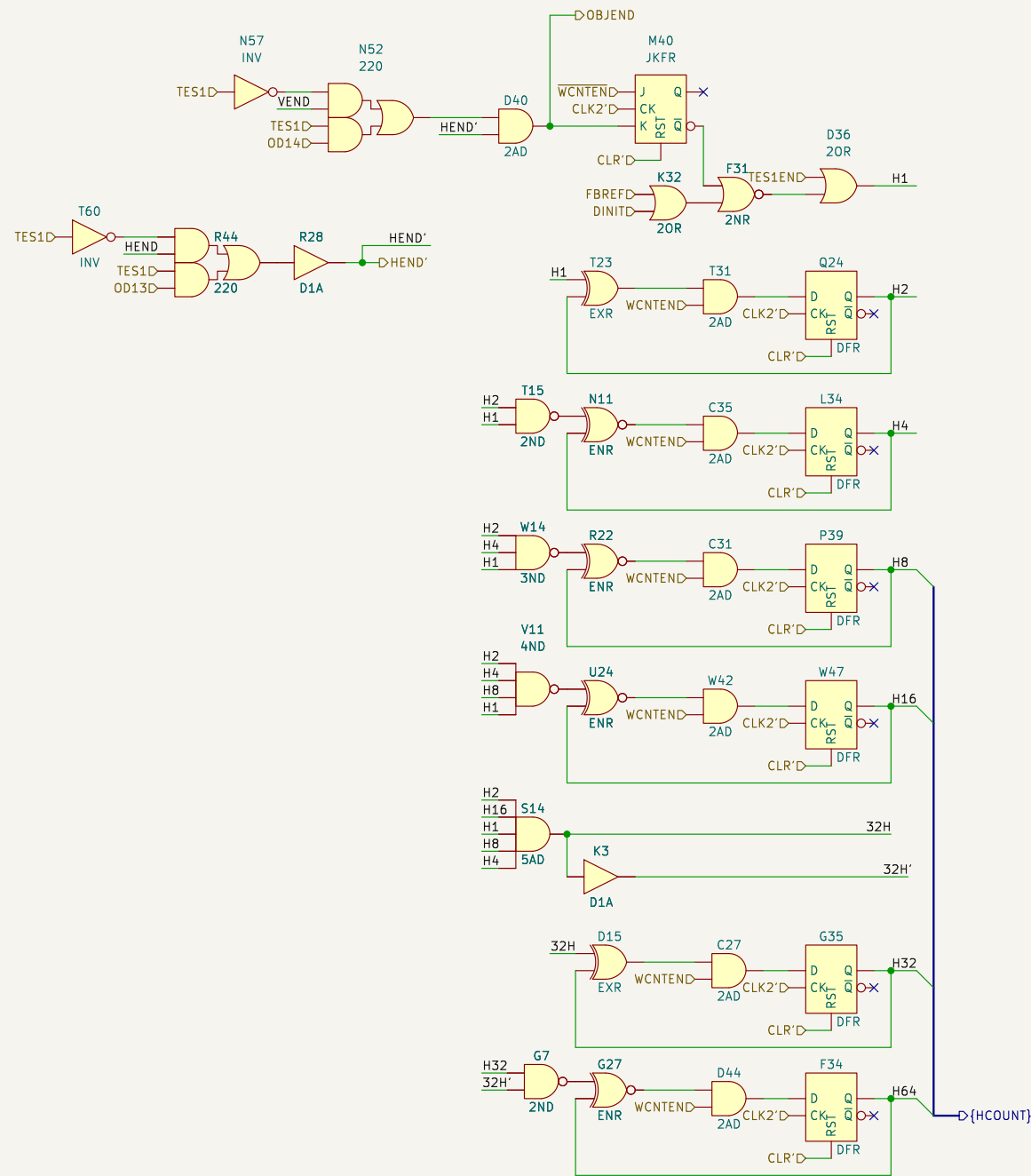
Size: A3 Date: 2023-12-22

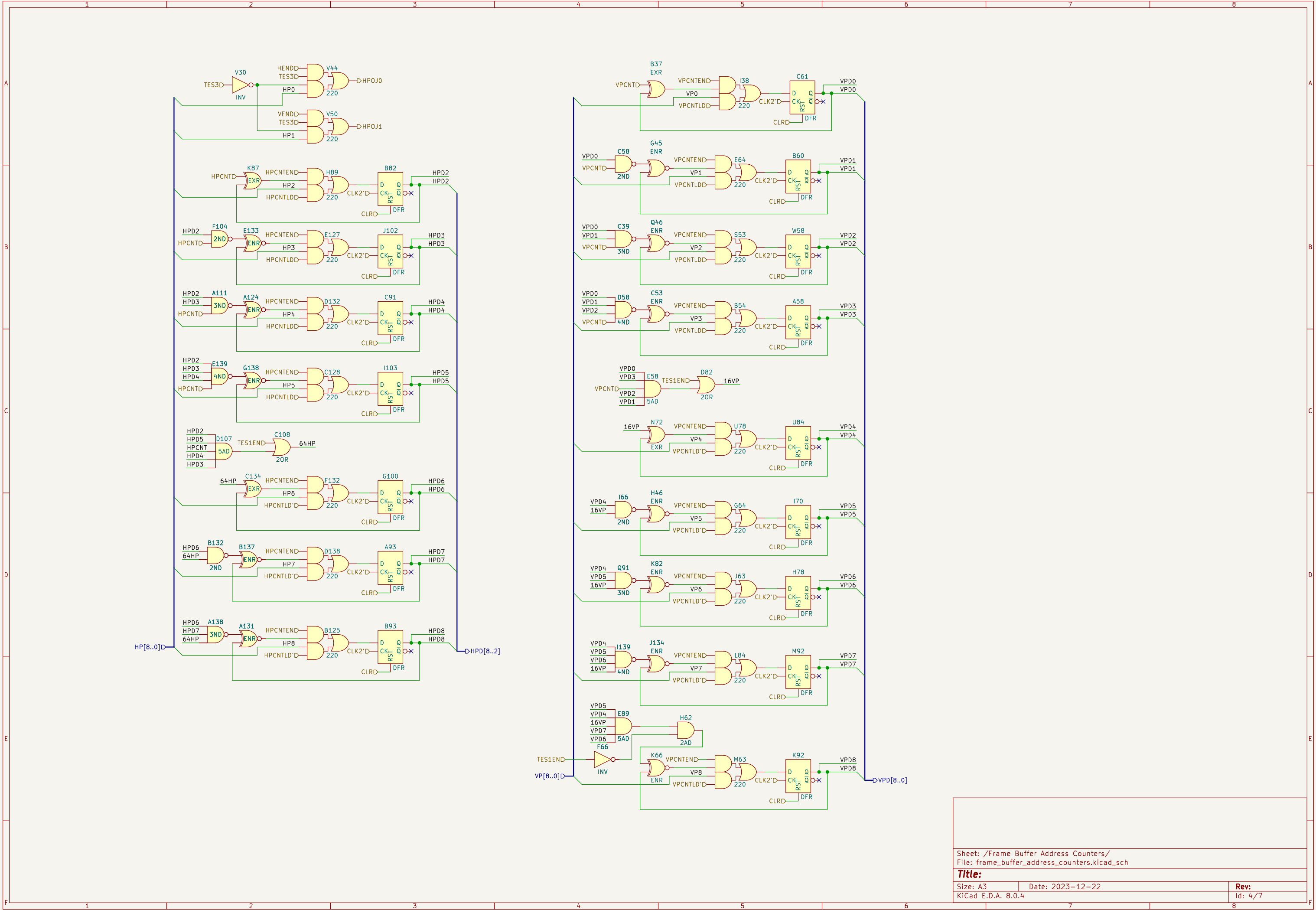
KiCad E.D.A. 8.0.4

Rev:

Id: 1/7





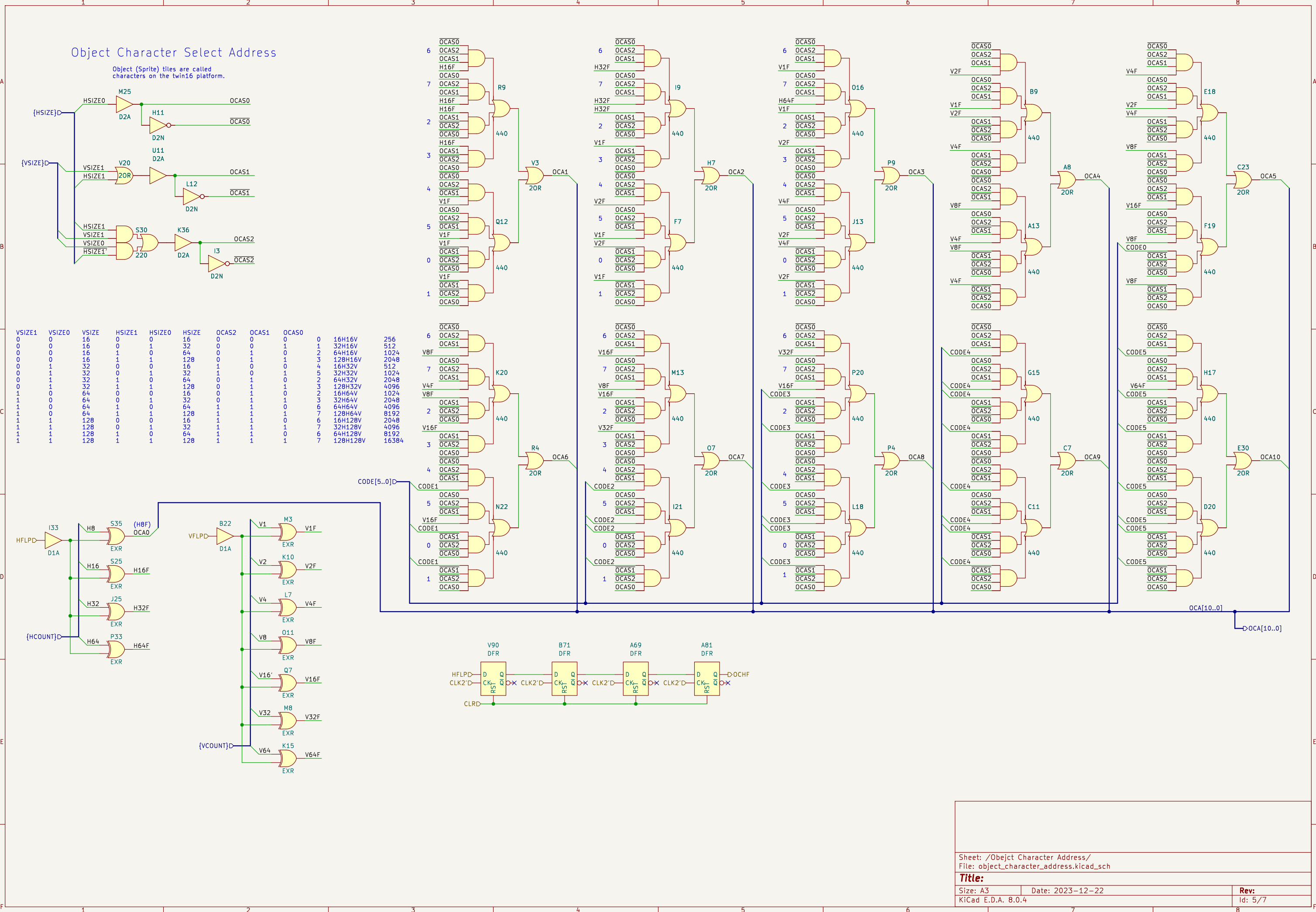


Sheet: /Frame Buffer Address Counters/
File: frame_buffer_address_counters.kicad_sch

Title:

Size: A3 Date: 2023-12-22

KiCad E.D.A. 8.0.4 Id: 4/7

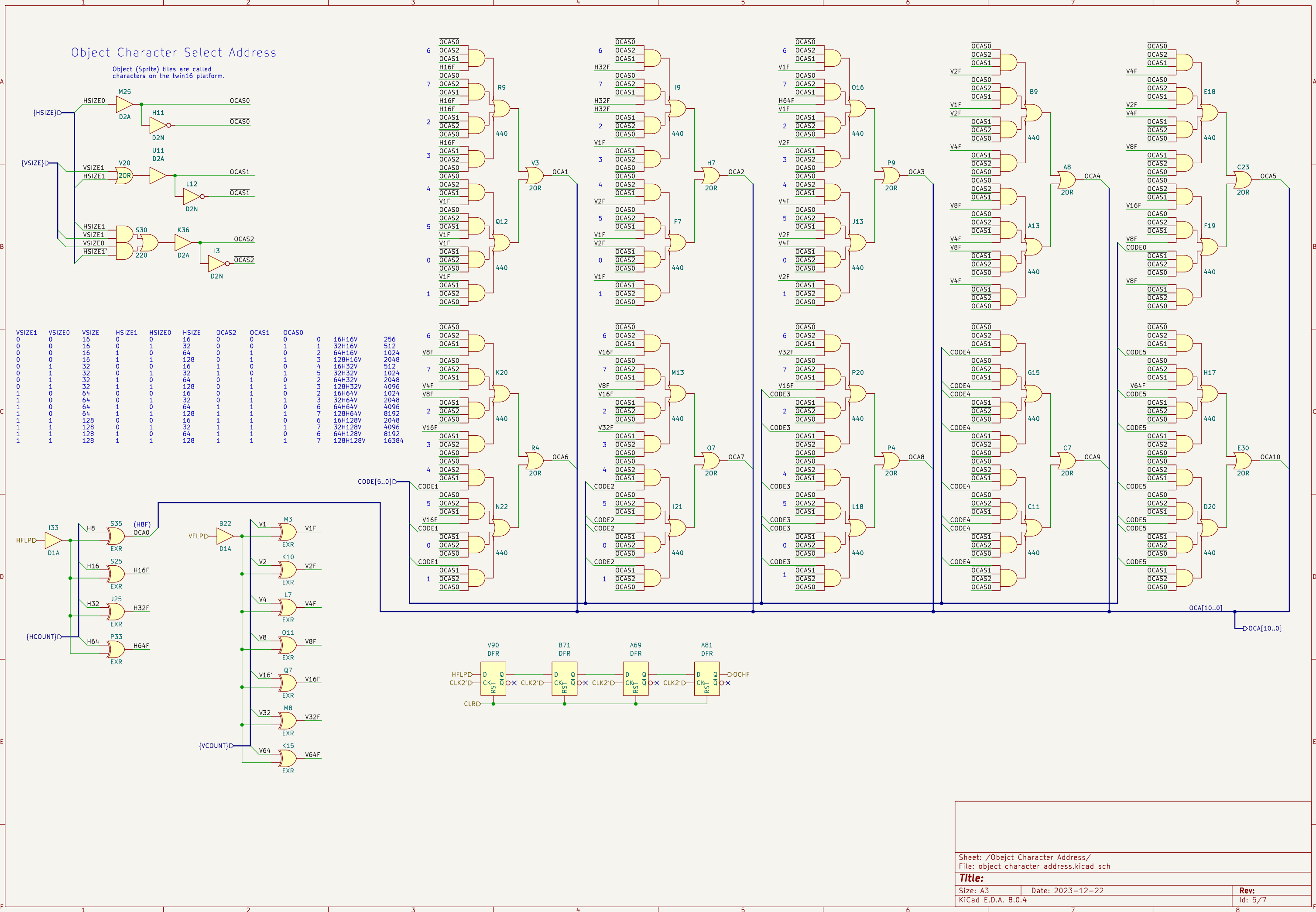
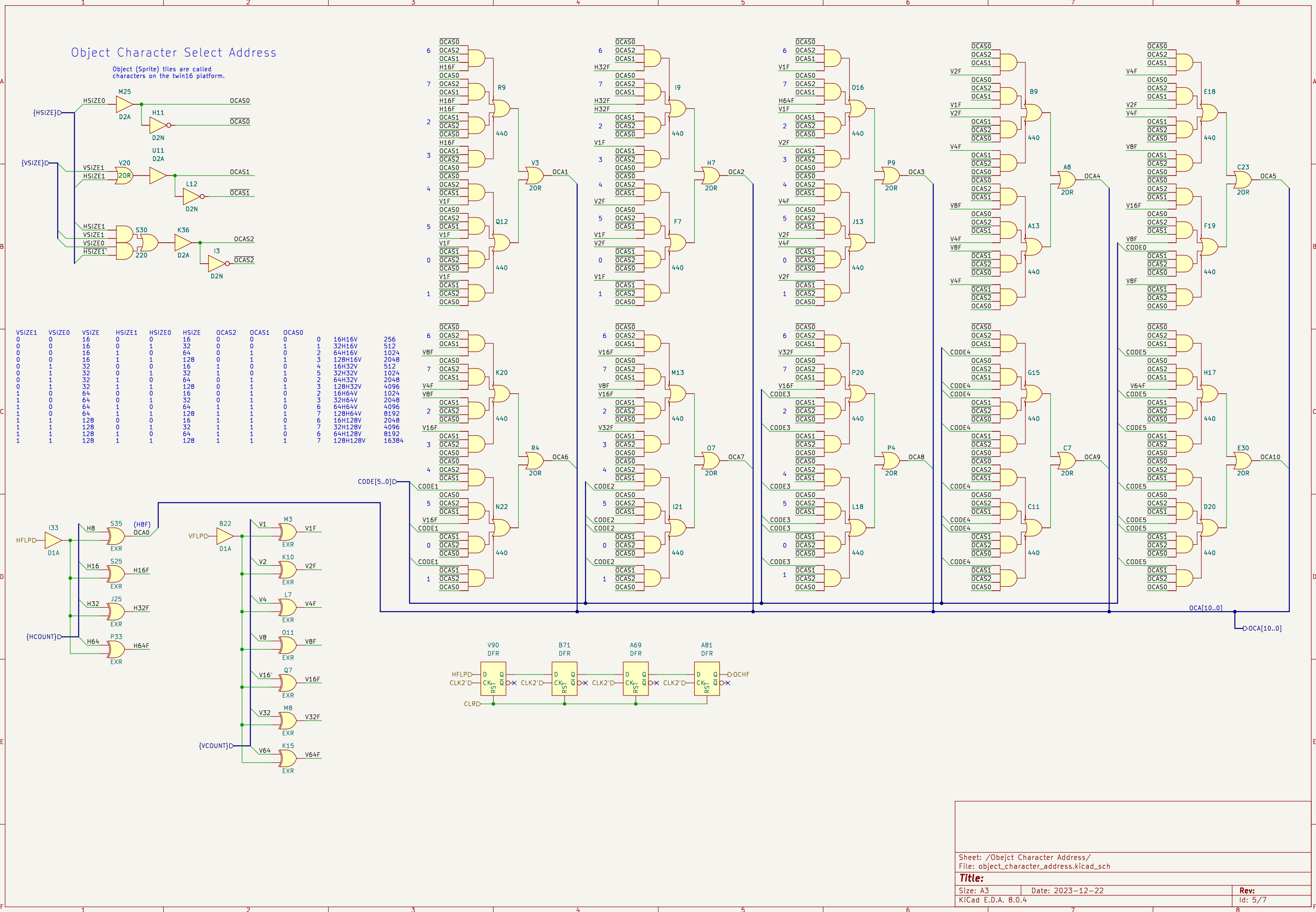
[illegible][illegible]

Object Character Select Address

Object (Sprite) tiles are called characters on the twin16 platform.

Truth Table for CODE inputs:

VSIZE1	VSIZE0	VSIZE	HSIZE1	HSIZE0	HSIZE	OCA52	OCA51	OCA50	0	16H16V	256
0	0	0	0	0	16	0	0	0	0	16H16V	512
0	0	0	0	0	16	0	0	1	1	32H16V	1024
0	0	0	0	0	16	0	0	1	2	64H16V	2048
0	0	0	0	0	16	0	1	0	3	128H16V	4096
0	0	0	0	0	16	0	1	1	4	256H16V	8192
0	0	0	0	0	16	0	1	2	5	512H16V	16384
0	0	0	0	0	16	0	1	3	6	1024H16V	32768
0	0	0	0	0	16	0	1	4	7	2048H16V	65536
0	0	0	0	0	16	0	1	5	8	4096H16V	131072
0	0	0	0	0	16	0	1	6	9	8192H16V	262144
0	0	0	0	0	16	0	1	7	10	16384H16V	524288
0	0	0	0	0	16	0	1	8	11	32768H16V	1048576
0	0	0	0	0	16	0	1	9	12	65536H16V	2097152
0	0	0	0	0	16	0	1	10	13	131072H16V	4194304
0	0	0	0	0	16	0	1	11	14	262144H16V	8388608
0	0	0	0	0	16	0	1	12	15	524288H16V	16777216
0	0	0	0	0	16	0	1	13	16	1048576H16V	33554432
0	0	0	0	0	16	0	1	14	17	2097152H16V	67108864
0	0	0	0	0	16	0	1	15	18	4194304H16V	134217728
0	0	0	0	0	16	0	1	16	19	8388608H16V	268435456
0	0	0	0	0	16	0	1	17	20	16777216H16V	536870912
0	0	0	0	0	16	0	1	18	21	33554432H16V	1073741824
0	0	0	0	0	16	0	1	19	22	67108864H16V	2147483648
0	0	0	0	0	16	0	1	20	23	134217728H16V	4294967296
0	0	0	0	0	16	0	1	21	24	268435456H16V	8589934592
0	0	0	0	0	16	0	1	22	25	536870912H16V	17179869184
0	0	0	0	0	16	0	1	23	26	1073741824H16V	34359738368
0	0	0	0	0	16	0	1	24	27	2147483648H16V	68719476736
0	0	0	0	0	16	0	1	25	28	4294967296H16V	137438953472
0	0	0	0	0	16	0	1	26	29	8589934592H16V	274877906944
0	0	0	0	0	16	0	1	27	30	17179869184H16V	549755813888
0	0	0	0	0	16	0	1	28	31	34359738368H16V	1099511627776
0	0	0	0	0	16	0	1	29	32	68719476736H16V	2199023255552
0	0	0	0	0	16	0	1	30	33	137438953472H16V	4398046511104
0	0	0	0	0	16	0	1	31	34	274877906944H16V	8796093022208
0	0	0	0	0	16	0	1	32	35	549755813888H16V	17592186044416
0	0	0	0	0	16	0	1	33	36	1099511627776H16V	35184372088832
0	0	0	0	0	16	0	1	34	37	2199023255552H16V	70368744177664
0	0	0	0	0	16	0	1	35	38	4398046511104H16V	140737488355328
0	0	0	0	0	16	0	1	36	39	8796093022208H16V	281474976710656
0	0	0	0	0	16	0	1	37	40	17592186044416H16V	562949953421312
0	0	0	0	0	16	0	1	38	41	35184372088832H16V	1125899906842624
0	0	0	0	0	16	0	1	39	42	70368744177664H16V	2251799813685248
0	0	0	0	0	16	0	1	40	43	140737488355328H16V	4503599627370496
0	0	0	0	0	16	0	1	41	44	281474976710656H16V	9007199254740992
0	0	0	0	0	16	0	1	42	45	562949953421312H16V	18014398509481984
0	0	0	0	0	16	0	1	43	46	1125899906842624H16V	36028797018963968
0	0	0	0	0	16	0	1	44	47	2251799813685248H16V	72057594037927936
0	0	0	0	0	16	0	1	45	48	4503599627370496H16V	144115188075855872
0	0	0	0	0	16	0	1	46	49	9007199254740992H16V	288230376151711744
0	0	0	0	0	16	0	1	47	50	18014398509481984H16V	576460752303423488
0	0	0	0	0	16	0	1	48	51	36028797018963968H16V	1152921504606846976
0	0	0	0	0	16	0	1	49	52	72057594037927936H16V	2305843009213693952
0	0	0	0	0	16	0	1	50	53	144115188075855872H16V	4611686018427387904
0	0	0	0	0	16	0	1	51	54	288230376151711744H16V	9223372036854775808
0	0	0	0	0	16	0	1	52	55	576460752303423488H16V	18446744073709551616
0	0	0	0	0	16	0	1	53	56	1152921504606846976H16V	36893488147419103232
0	0	0	0	0	16	0	1	54	57	2305843009213693952H16V	73786976294838206464
0	0	0	0	0	16	0	1	55	58	4611686018427387904H16V	147573952589676412928
0	0	0	0	0	16	0	1	56	59	9223372036854775808H16V	295147905179352825856
0	0	0	0	0	16	0	1	57	60	18446744073709551616H16V	590295810358705651712
0	0	0	0	0	16	0	1	58	61	36893488147419103232H16V	1180591620717411303424
0	0	0	0	0	16	0	1	59	62	73786976294838206464H16V	2361183241434822606848
0	0	0	0	0	16	0	1	60	63	147573952589676412928H16V	4722366482869645213696
0	0	0	0	0	16	0	1	61	64	295147905179352825856H16V	9444732965739290427392
0	0	0	0	0	16	0	1	62	65	590295810358705651712H16V	18889465931478580854784
0	0	0	0	0	16	0	1	63	66	1180591620717411303424H16V	37778931862957161709568
0	0	0	0	0	16	0	1	64	67	2361183241434822606848H16V	75557863725914323419136
0	0	0	0	0	16	0	1	65	68	4722366482869645213696H16V	151115727451828646838272
0	0	0	0	0	16	0	1	66	69	9444732965739290427392H16V	302231454903657293676544
0	0	0	0	0	16	0	1	67	70	18889465931478580854784H16V	604462909807314587353088
0	0	0	0	0	16	0	1	68	71	37778931862957161709568H16V	1208925819614629174706176
0	0	0	0	0	16	0	1	69	72	75557863725914323419136H16V	2417851639229258349412352
0	0	0	0	0	16	0	1	70	73	151115727451828646838272H16V	4835703278458516698824704
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0	0	0	0	0	16	0	1	72	75	614461309387314687353088H16V	19342813113834066795298816
0	0	0	0	0	16	0	1	73	76	1228522622776829375056H16V	38685626227668133590597632
0	0	0	0	0	16	0	1	74	77	2457045245553658750112H16V	77371252455336267181195264
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0	0	0	0	0	16	0	1	76	79	9828180982214635000448H16V	309485009822145068724781056
0	0	0	0	0	16	0	1	77	80	19656361964429270000896H16V	618970019644290137449562112
0	0	0	0	0	16	0	1	78	81	39312723928858540001792H16V	1237940039288580274899124224
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0	0	0	0	0	16	0	1	80	83	157250895715434160007168H16V	4951760157154321099596496896
0	0	0	0	0	16	0	1	81	84	314501791430868320014336H16V	9903520314308642199192993792
0	0	0	0	0	16	0	1	82	85	629003582861736640028672H16V	19807040628617284398385987584
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0	0	0	0	0	16	0	1	88	91	40256229303151144961835008H16V	1267650600231506201496701205376
0	0	0	0	0	16	0	1	89	92	80512458606302289923670016H16V	2535301200463012402993402410752
0	0	0	0	0	16	0	1	90	93	161024917212604579847340032H16V	5070602400926024805986804821504
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Title:		
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