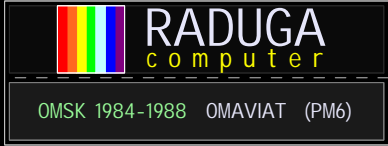
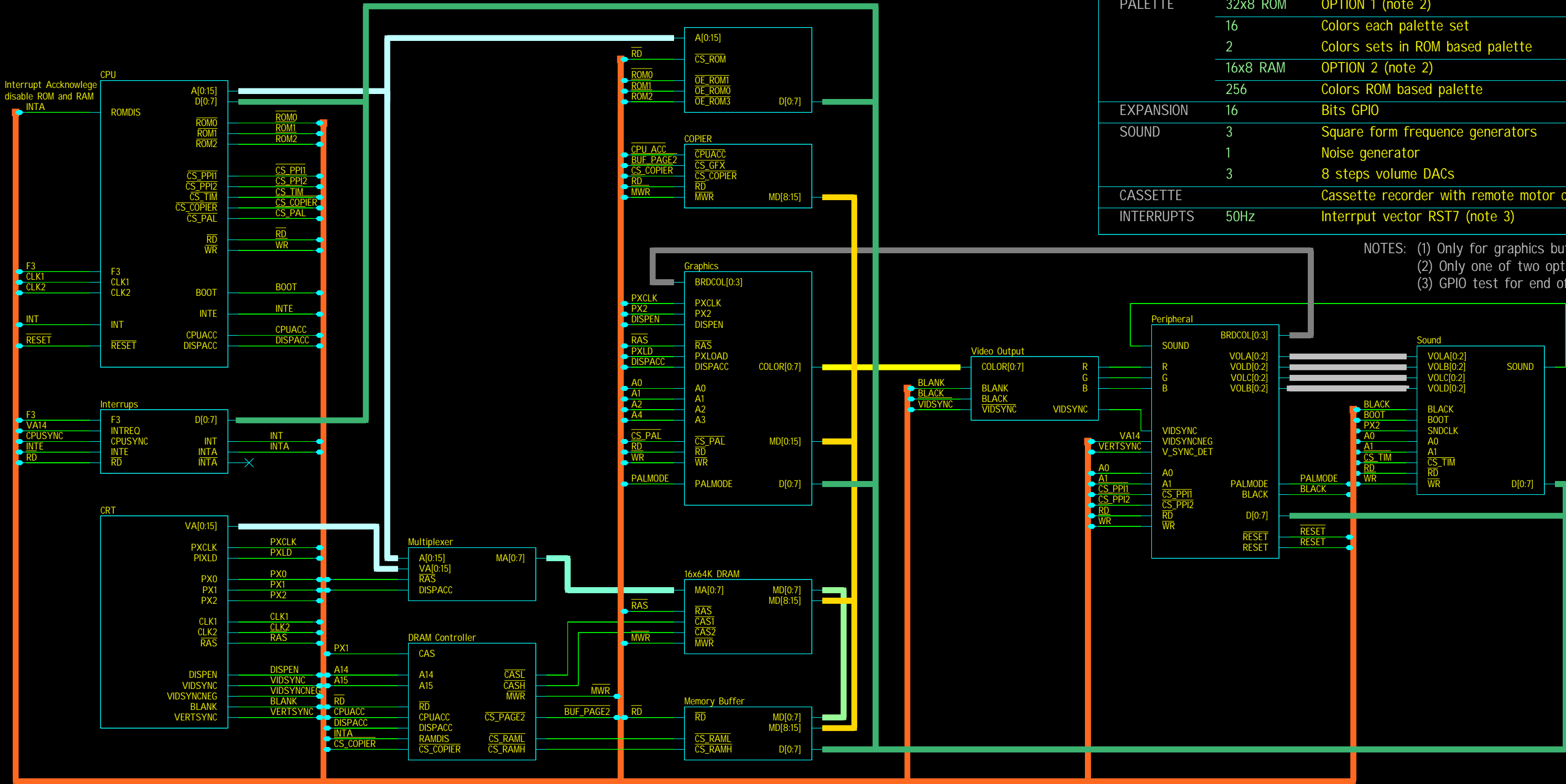
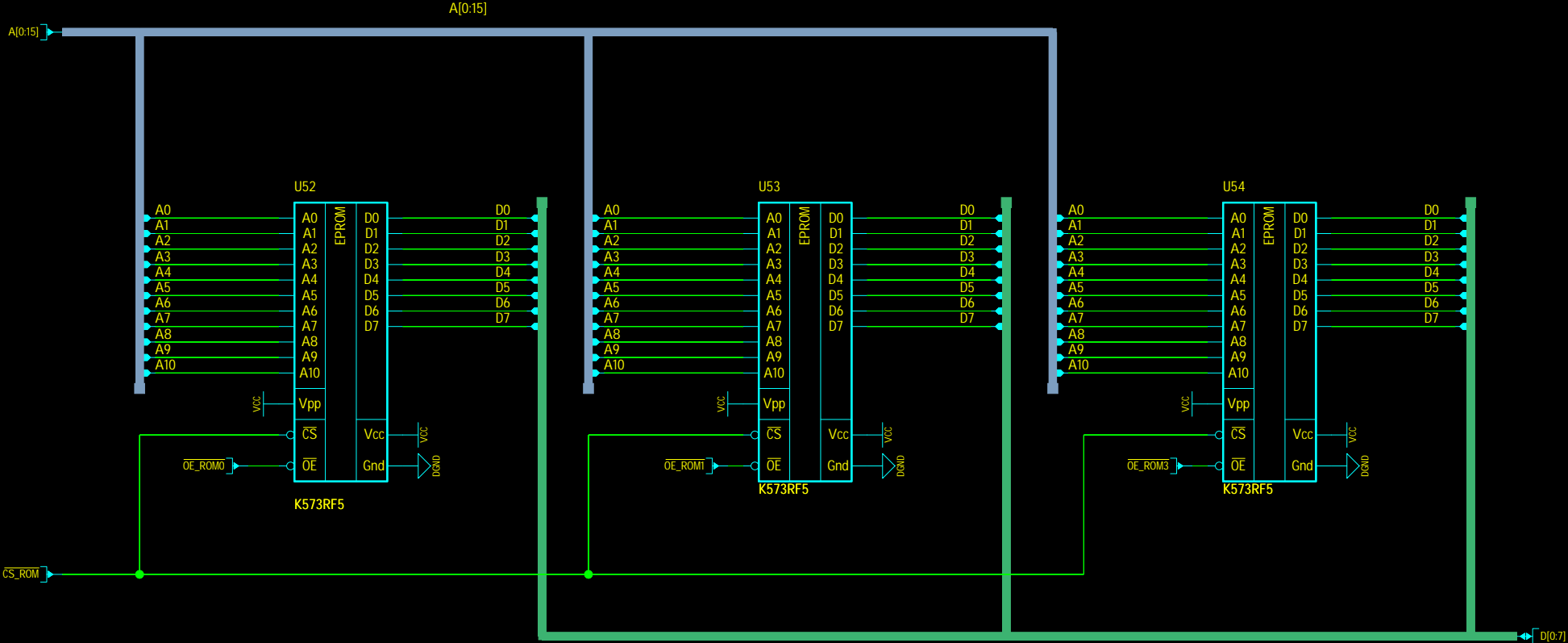
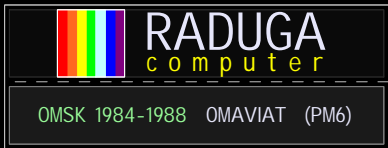
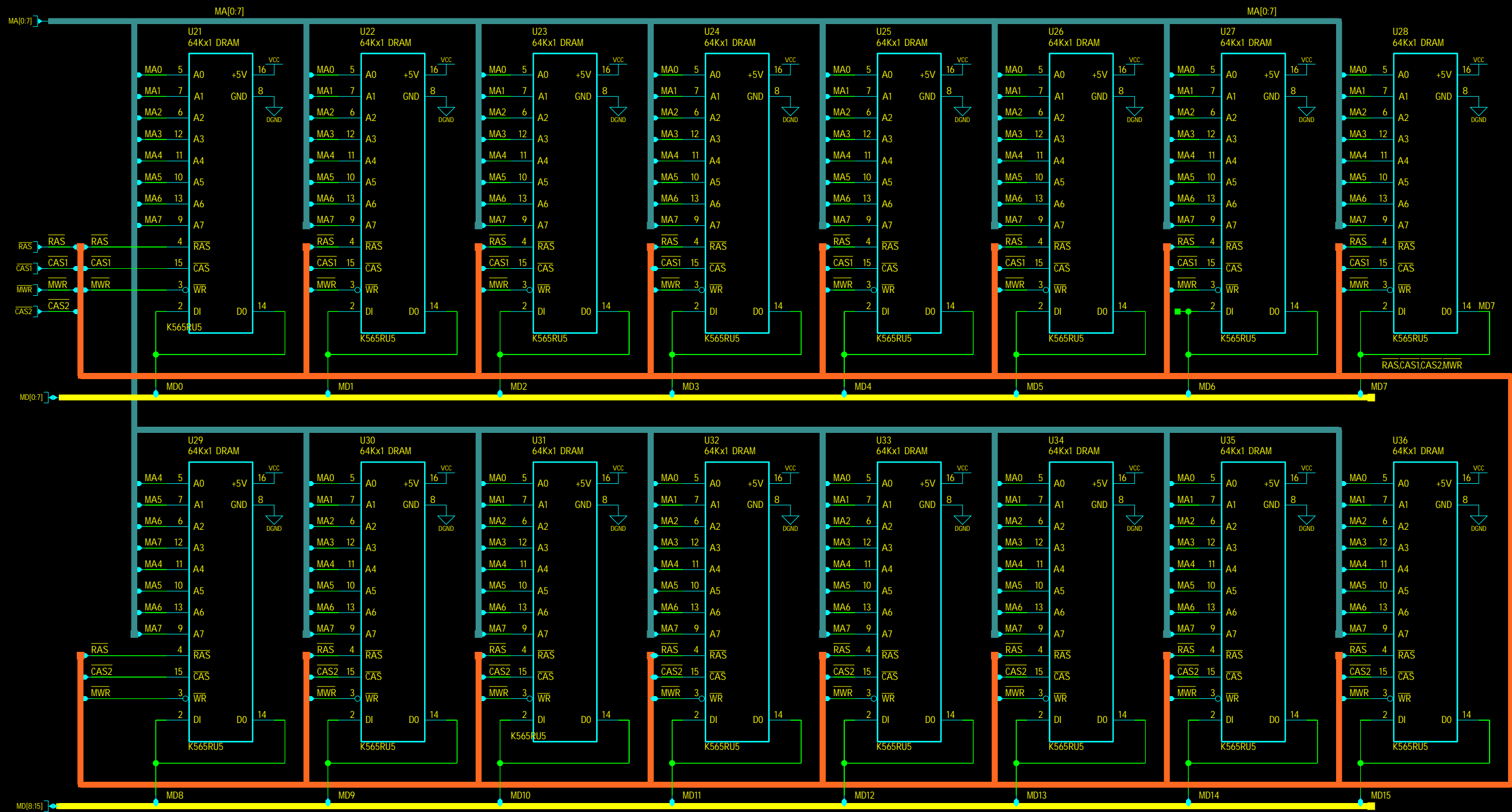


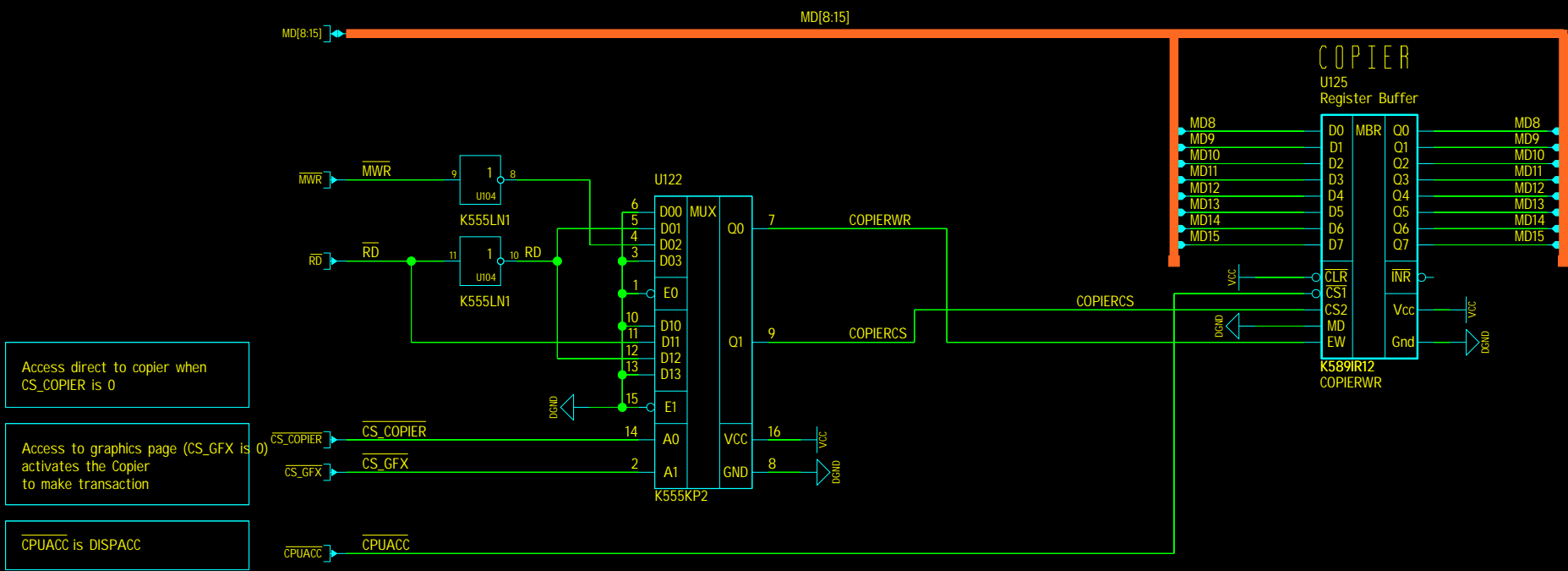
SPECIFICATIONS		
BASED ON		SPECIALIST
CPU		K580IK80
ROM	6KB	3 x K573RF5
RAM	64KB	16 x K565RU5 (manufacturer de-rated)
ADRESSABLE	48KB / 16KB	Directly/Indirectly
ACCELERATOR	COPIER	16 bits per single copy operation (note 1)
GRAPHICS	384x256	Pixels
	2 of 16	Colors per each 8 pixels
	32KB / 24KB	Graphics memory / Frame buffer
PALETTE	32x8 ROM	OPTION 1 (note 2)
	16	Colors each palette set
	2	Colors sets in ROM based palette
	16x8 RAM	OPTION 2 (note 2)
	256	Colors ROM based palette
EXPANSION	16	Bits GPIO
SOUND	3	Square form frequence generators
	1	Noise generator
	3	8 steps volume DACs
CASSETTE		Cassette recorder with remote motor control
INTERRUPTS	50Hz	Interrput vector RST7 (note 3)

NOTES: (1) Only for graphics buffer
(2) Only one of two options used
(3) GPIO test for end of frame









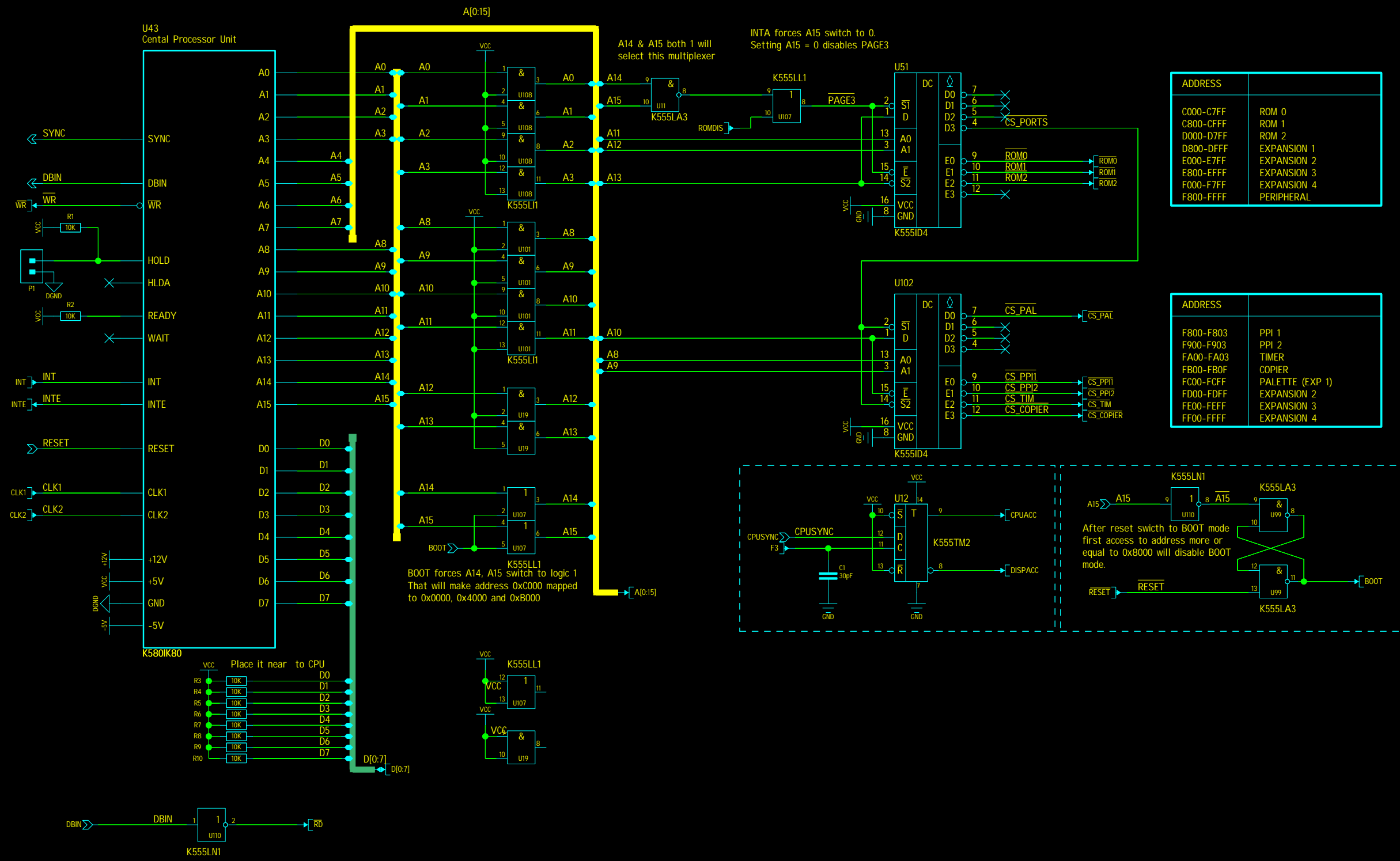
Access direct to copier when CS_COPIER is 0

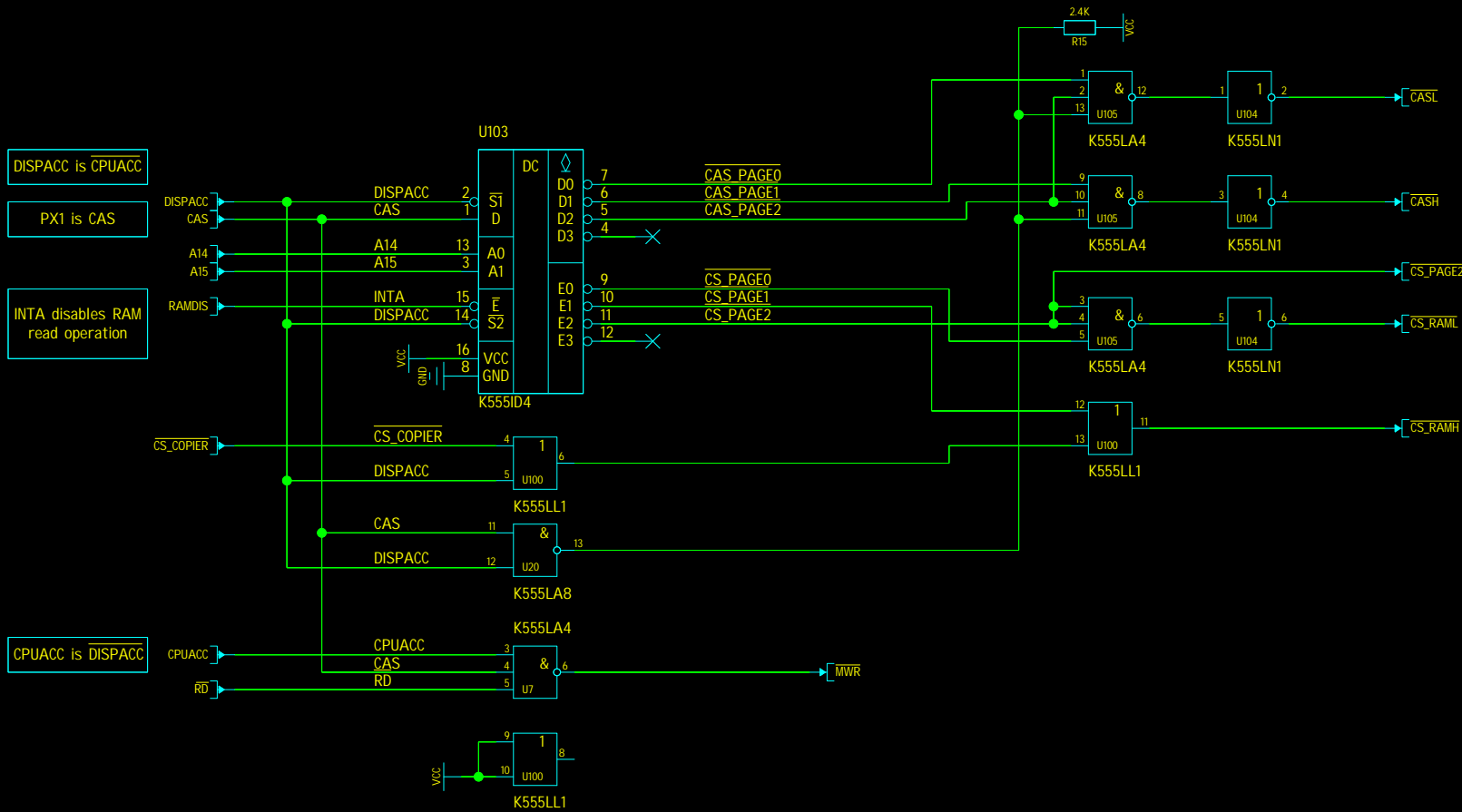
Access to graphics page (CS_GFX is 0) activates the Copier to make transaction

CPUACC is DISPACC

BUF_PAGE2 8000-BFFF					COPIER's Operation
CPUACC	CSCOPIER	RD	MWR		
1	X	X	X	X	Nothing
X	0	0	X	X	Nothing
X	1	1	X	X	Nothing
0	0	1	Access to PAGE2		
Selected In 1			0	X Read	Store
			1	X Write	Read
0	1	0	Access to COPIER		
Selected In 2			0	1 Read	Read
			1	0 Write	Store

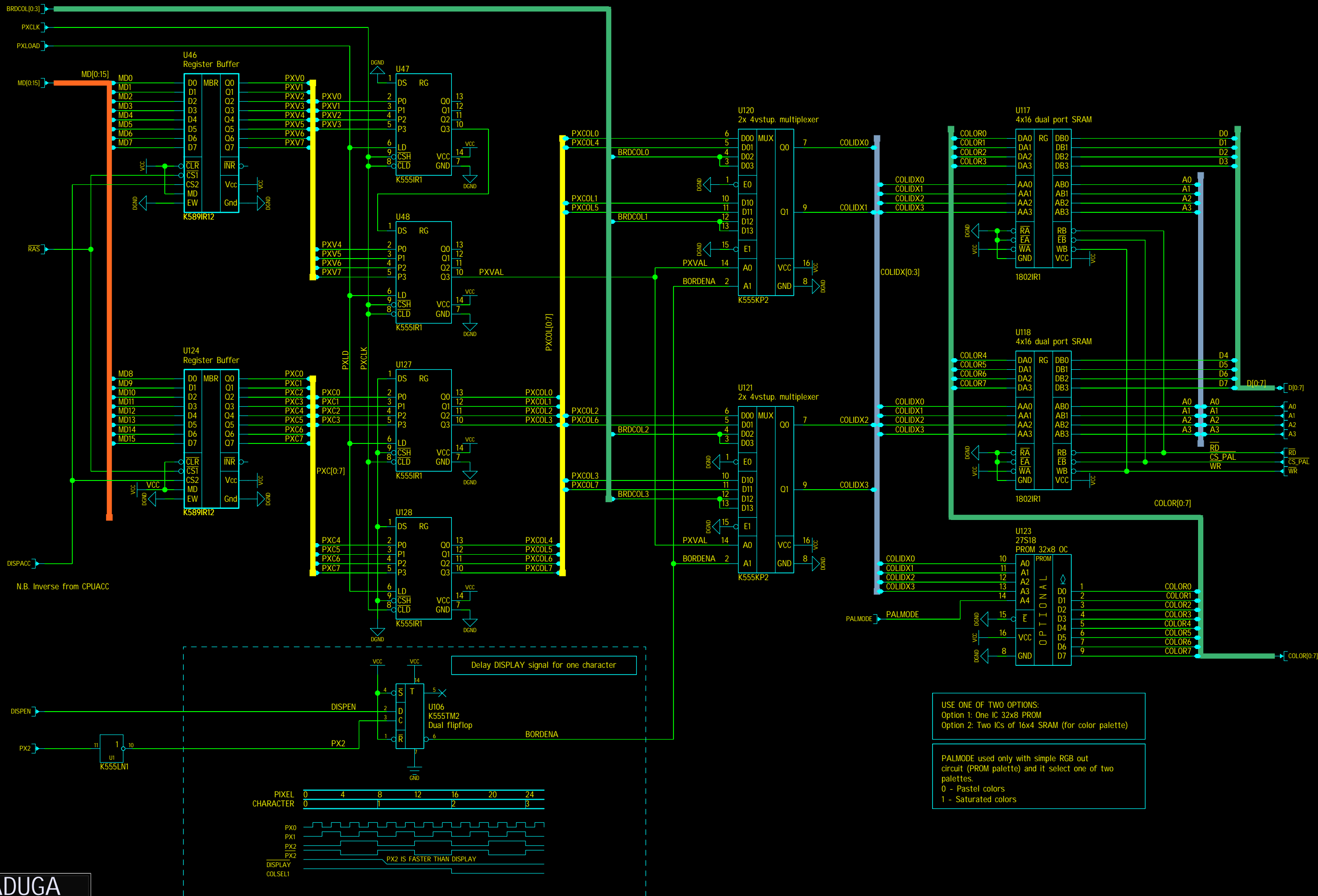


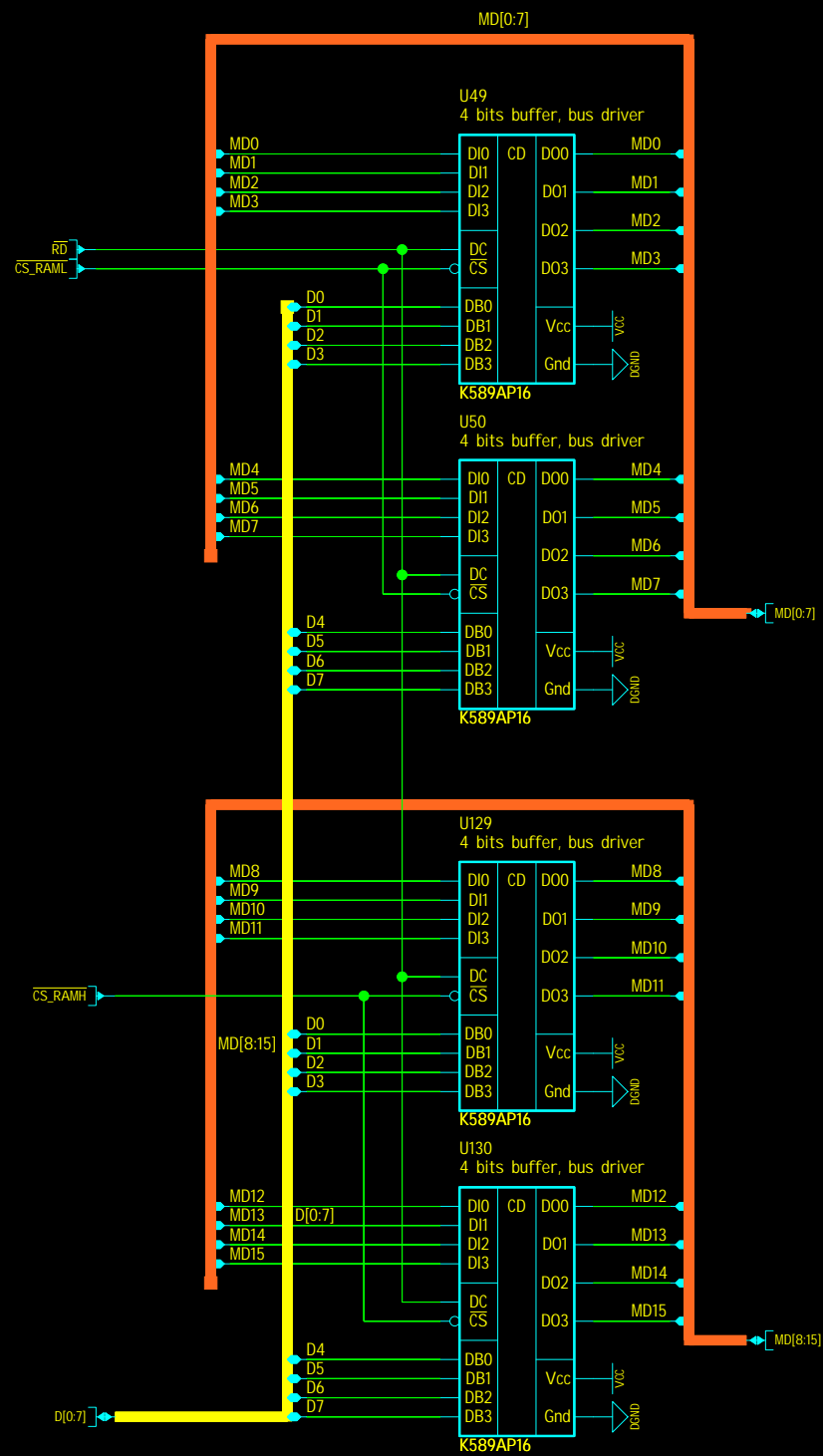





PAGE	ADDRSS	CAS1	CAS2
3	C000-FFFF	NO	NO
2	8000-BFFF	YES	YES
1	4000-7FFF	NO	YES
0	0000-3FFF	YES	NO

PAGE	ADDRSS	MEMBUF1	MEMBUF2
3	C000-FFFF	NO	NO
2	8000-BFFF	YES	YES
1	4000-7FFF	NO	YES
0	0000-3FFF	YES	NO
COPIER	FB00-FB0F	NO	YES



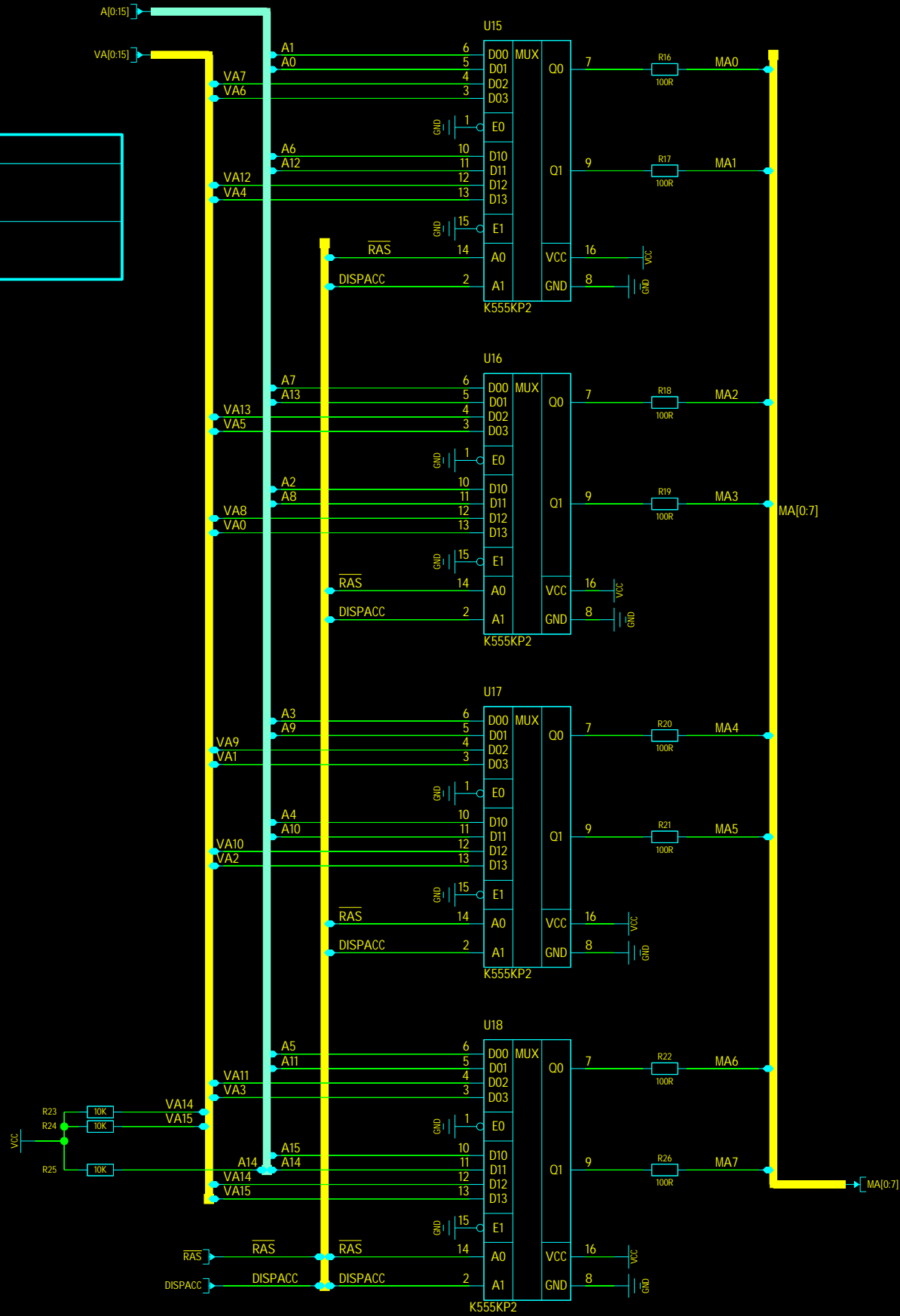




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SIGNAL	VALUE	FUNCTION
\overline{RAS}	0 1	COLUMNS ROWS (REFRESH)
DISPACC	0 1	CPU CRT



Dynamic Memory Map

RADUGA used manufacturer de-rated half sized memory. That is why with 16 ICs there were only 64KB memory.

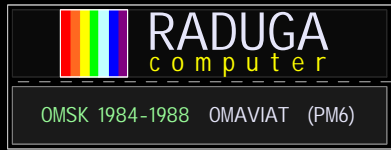
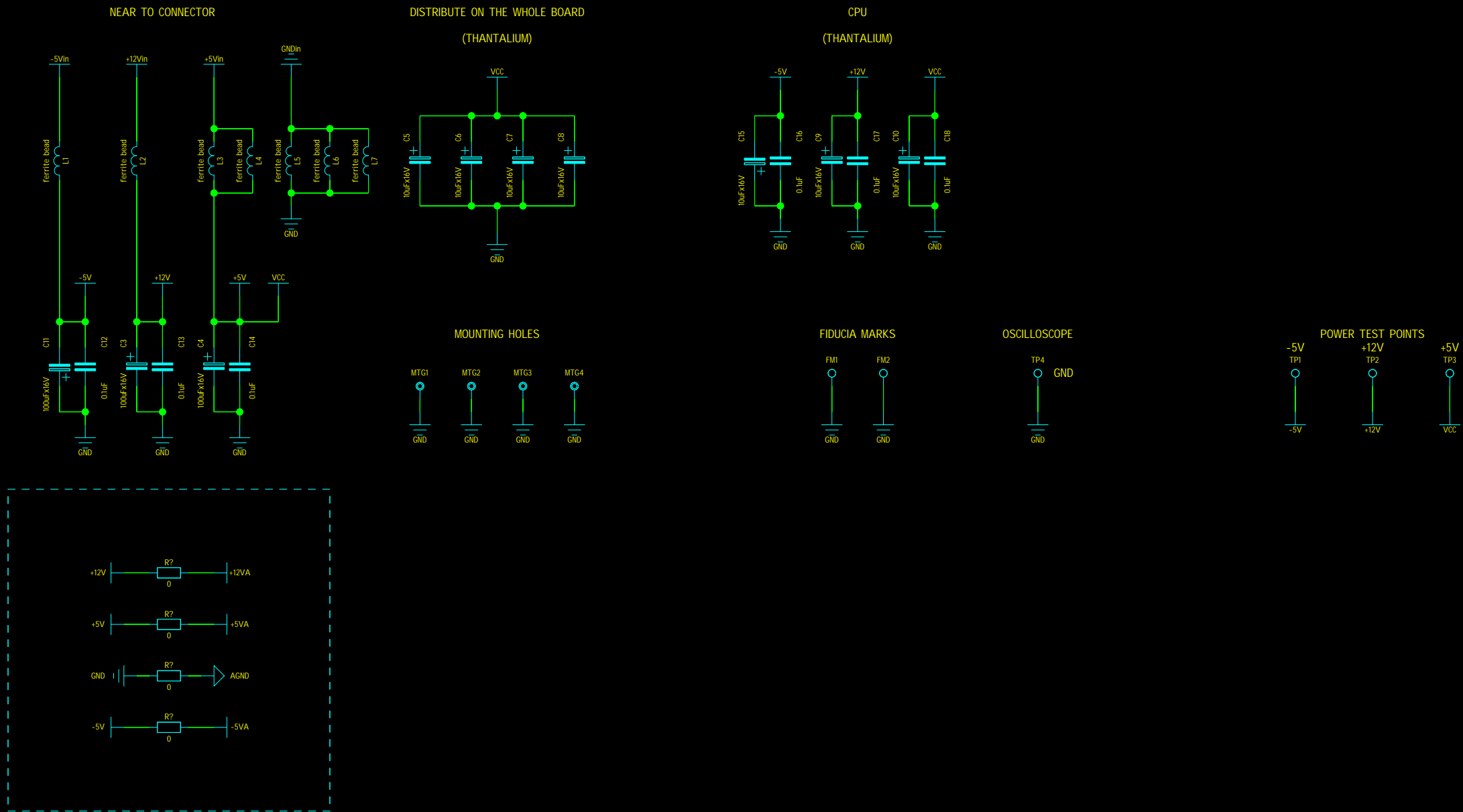
RAM L (PIXELS)		RAM H (COLORS)
	FFFF	
PAGE 1	C000	PAGE 1
	8000	PAGE 0
PAGE 0	4000	
	0000	

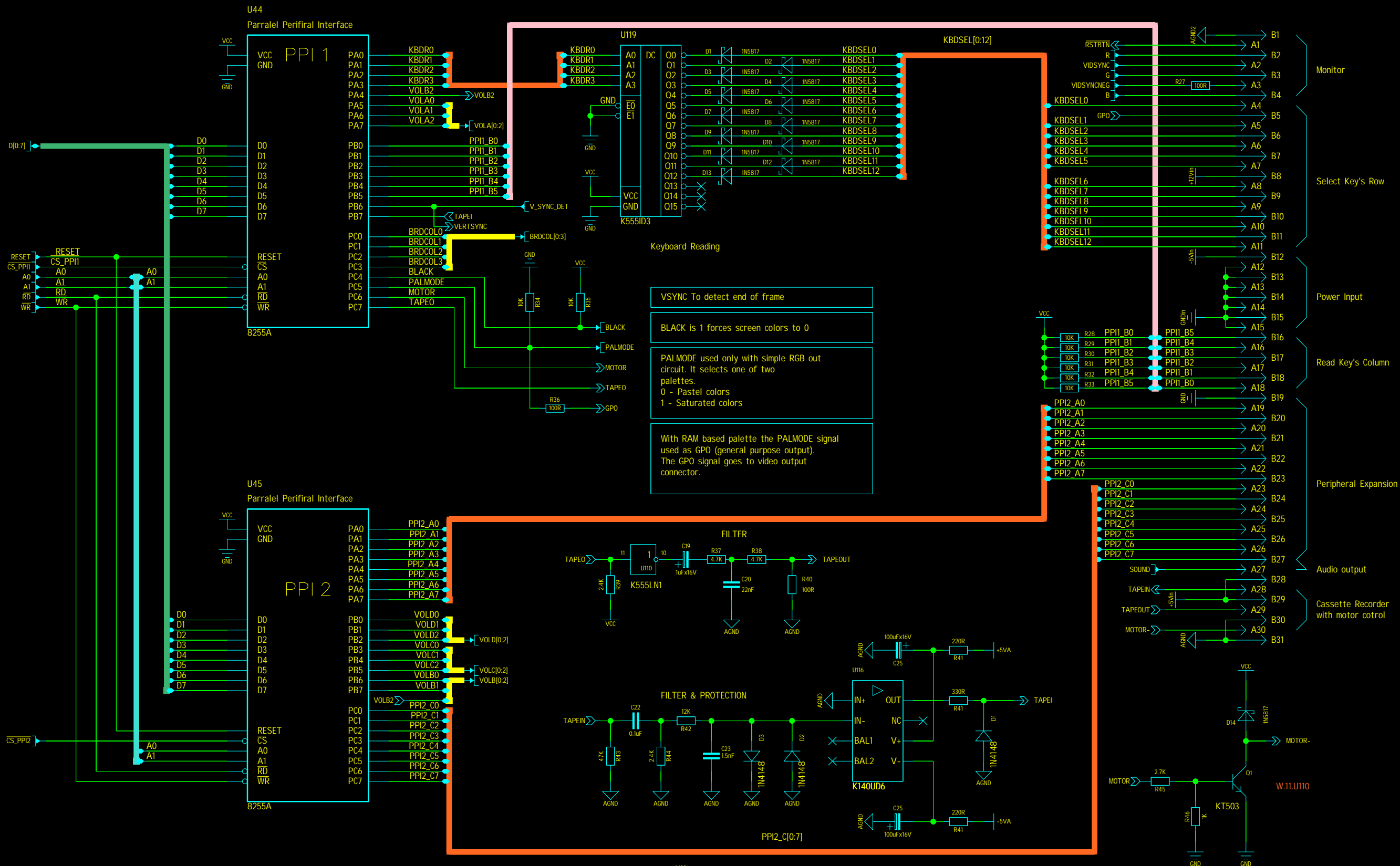


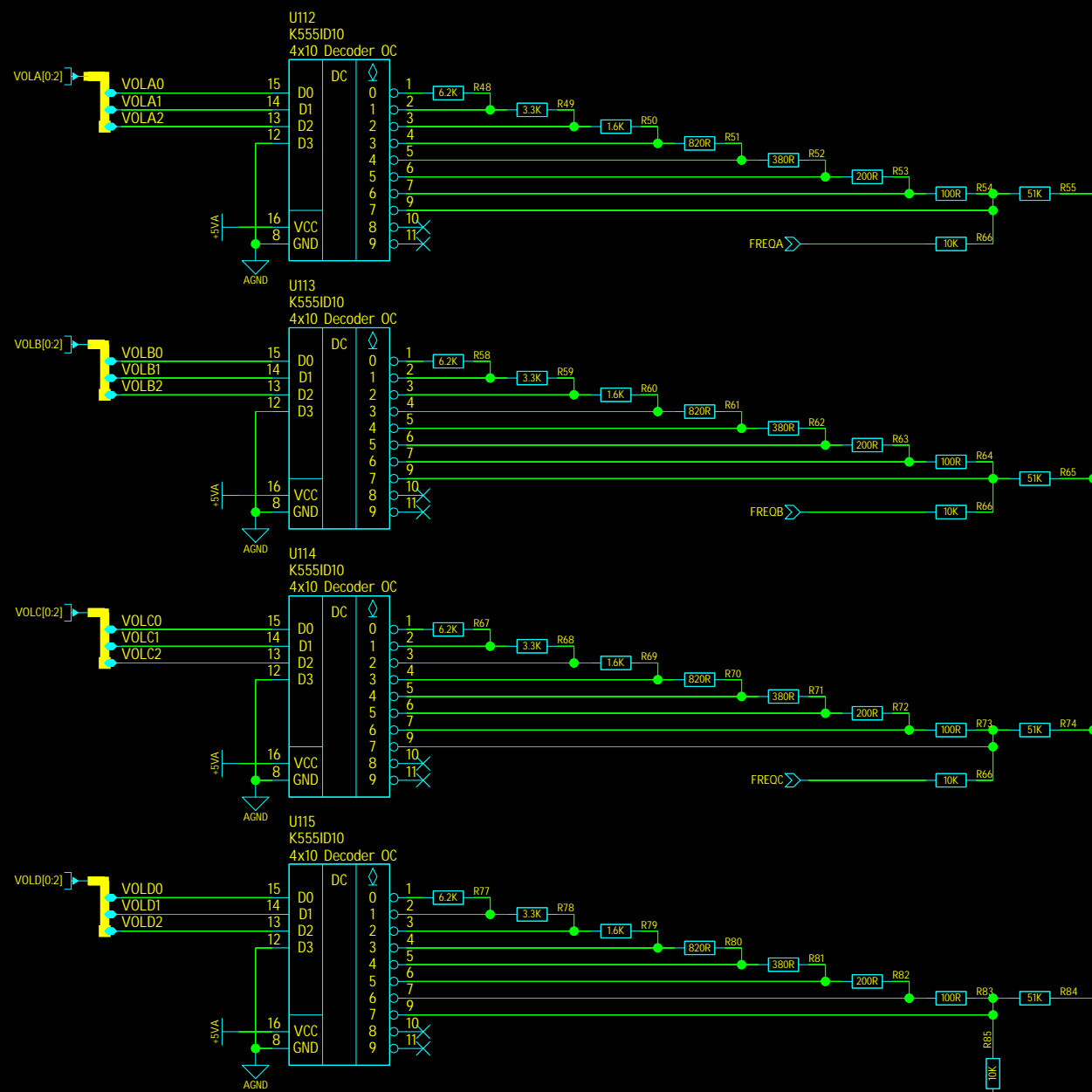
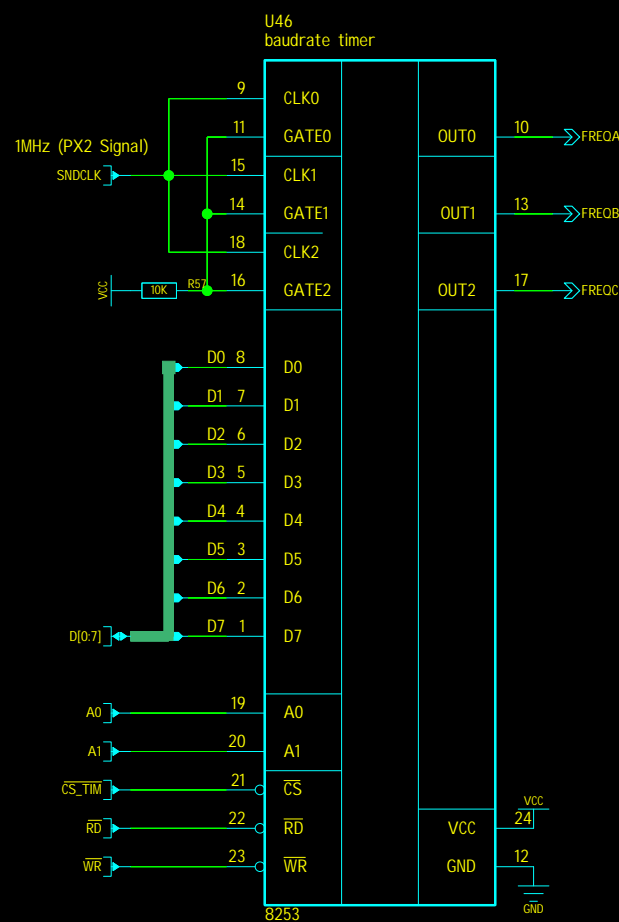
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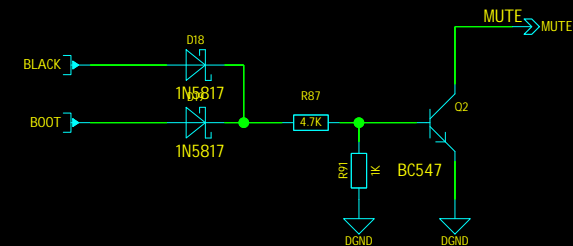
OMSK 1984-1988 OMAVIAT (PM6)



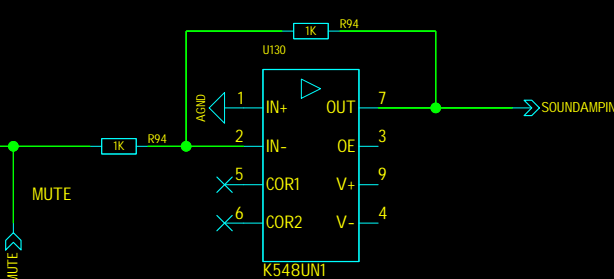




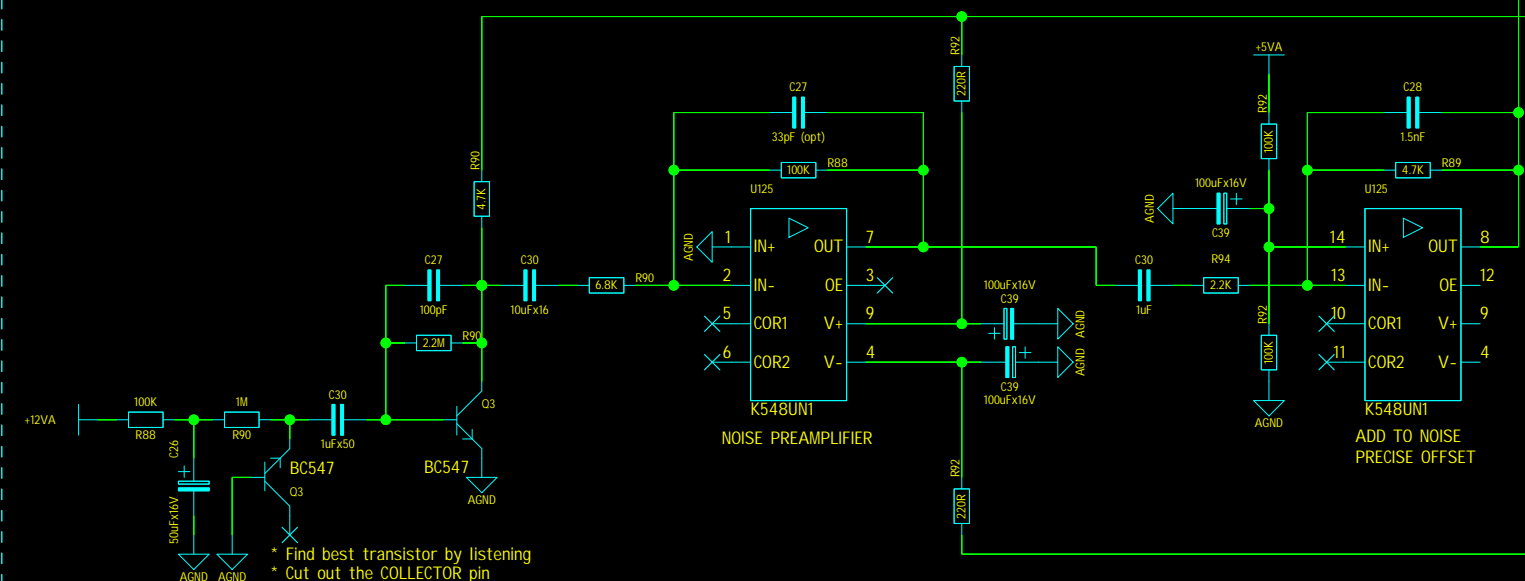
MUTE SOUND



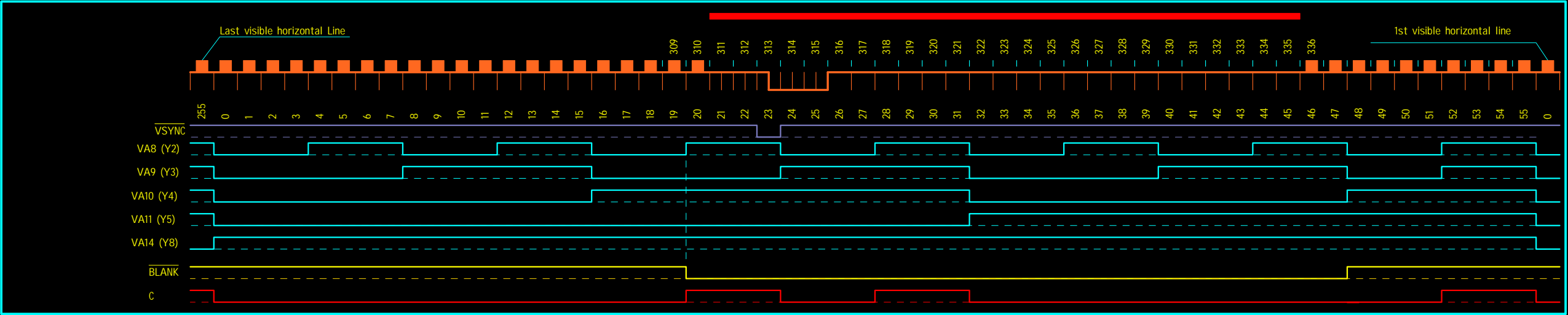
PREAMP



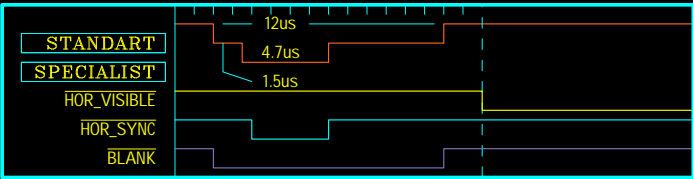
NOISE GENERATOR



Required vertical timing

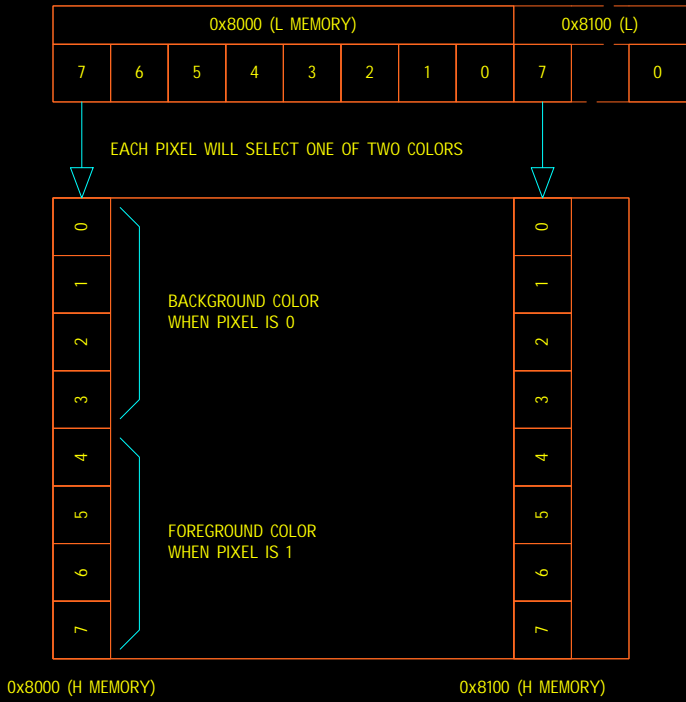


Required horizontal timing (only for composed video)



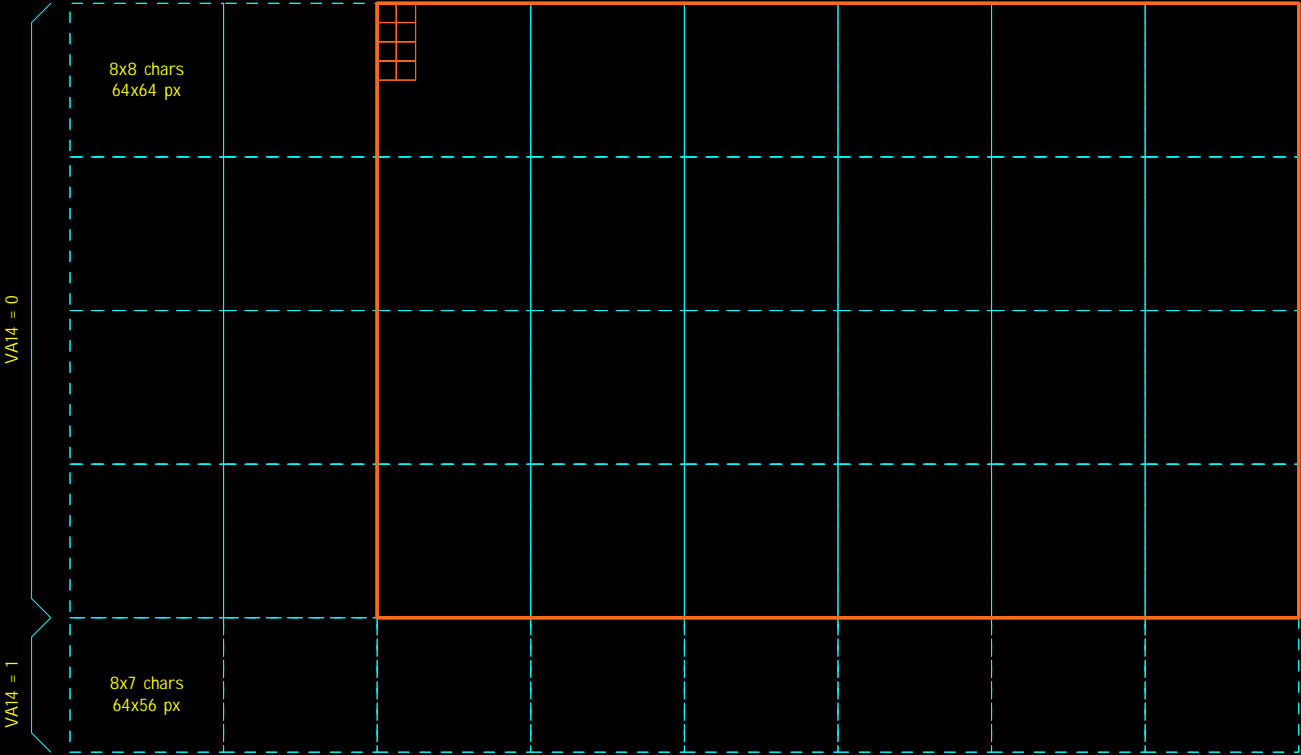
VISIBLE AREA
48x32 CHARACTERS
384x256 PIXELS

TOP-LEFT



GRAPHICS DATA IN MEMORY

0x8000	0x8100
0x8001	0x8101
0x8002	
0x8003	
0x8004	
0x8005	
0x8006	
0x8007	
0x8008	
.....	

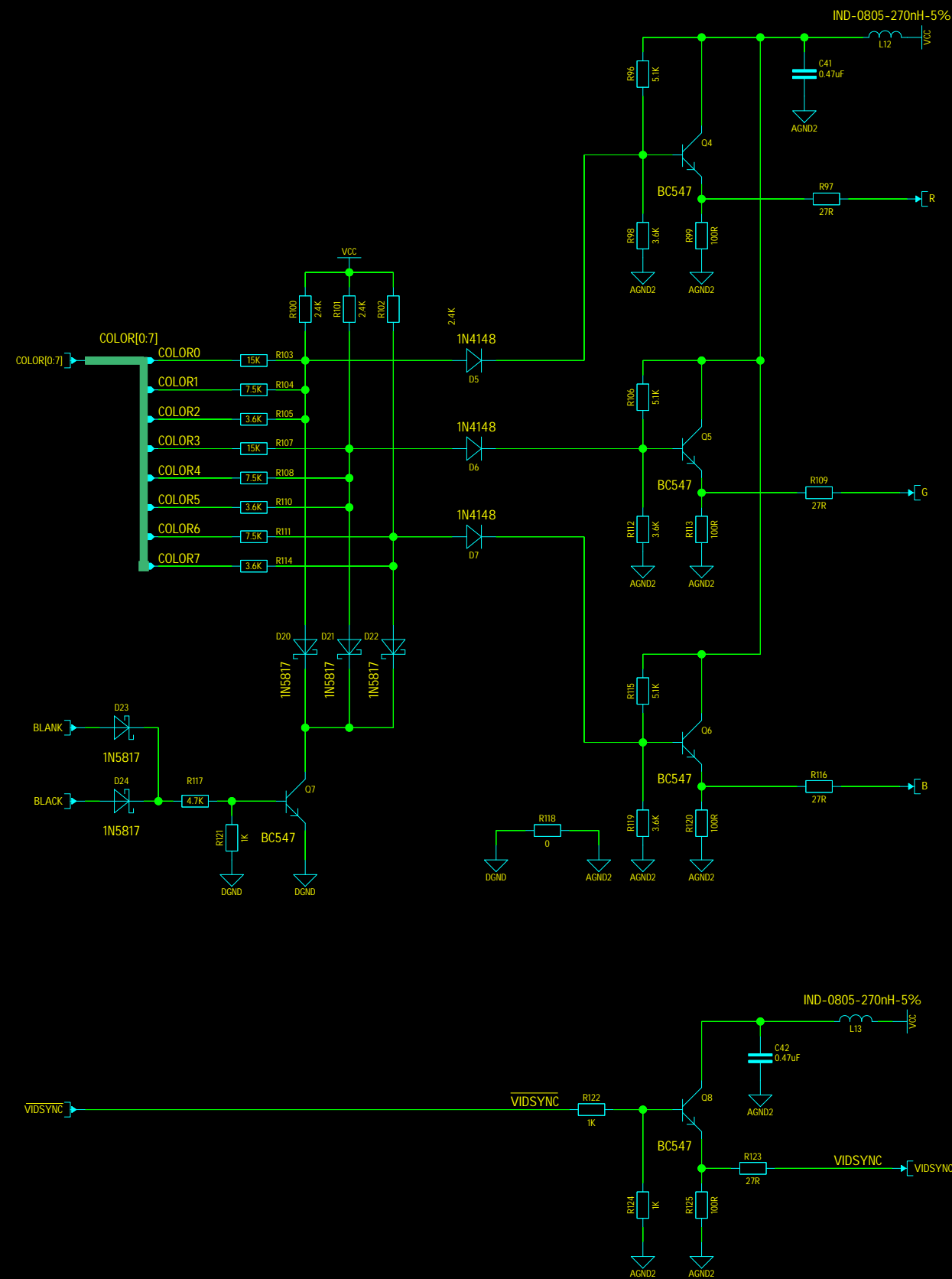




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BLANK forces black picture during SYNC

BLACK forces black picture after boot or by programming PPI1 port

