


Microtel VTX-202 Telidon Terminal

Schematic

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NOTES

- The symbol  represents a connector pin. The solid black end is the male side, the white-filled end is the female side.
- A small black rectangular marker on the upper half of a gate symbol indicates an open-collector output.
- Capacitance in microfarads unless otherwise noted.
- As received, U31 configuration jumpers 2, 4 & 8 were closed.
- This schematic is based on a reverse engineering of unit with Serial No. 569. Component date codes in this unit are primarily 1981.
- 2015 Sep: Initial drawing / bhilpert.

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Section: Title & Notes

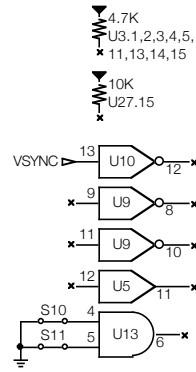
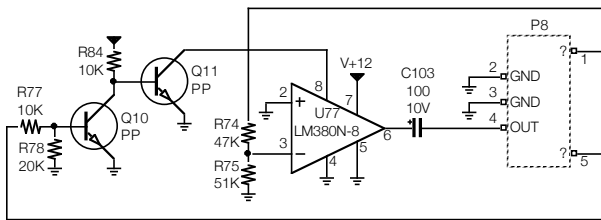
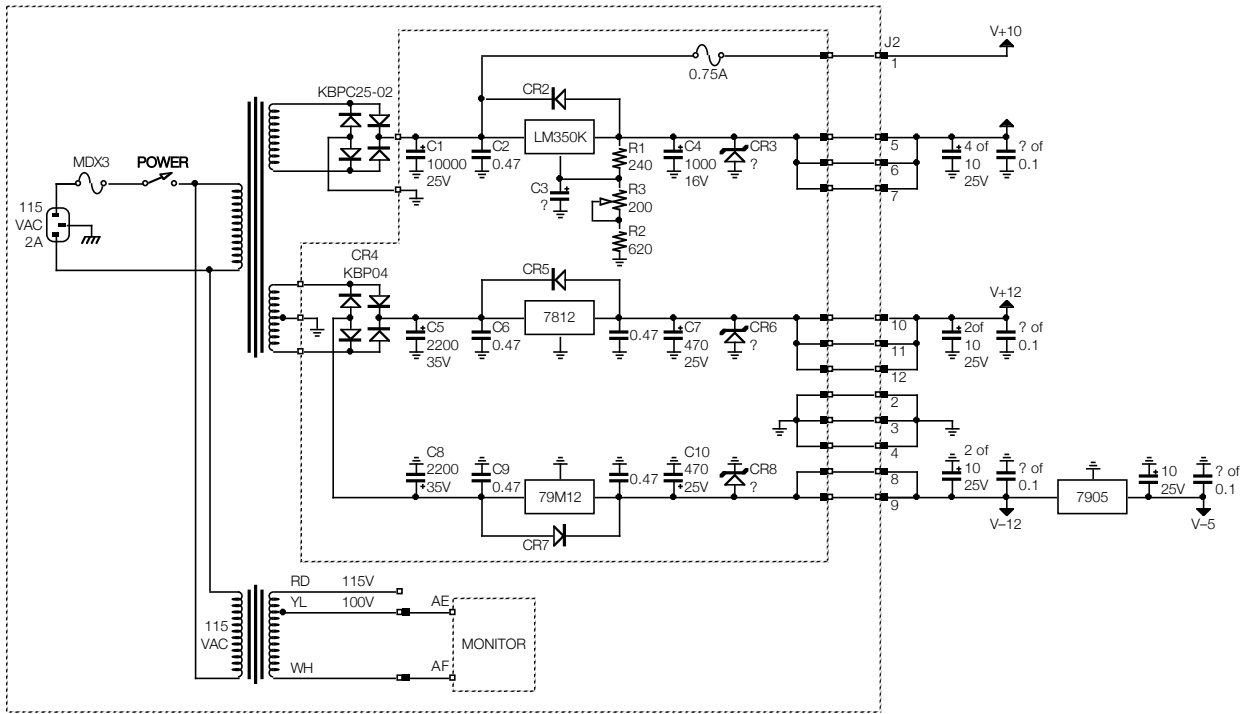
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NOTE

This schematic has been derived through examination of the equipment. This is not the manufacturer's schematic.

bhilpert / 2015



LIST of ICs

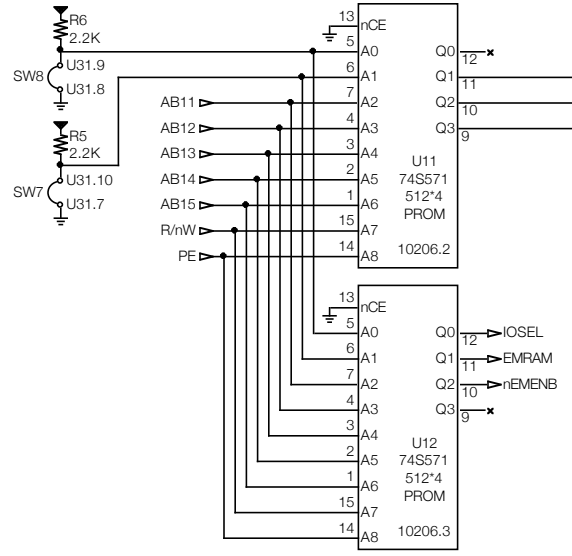
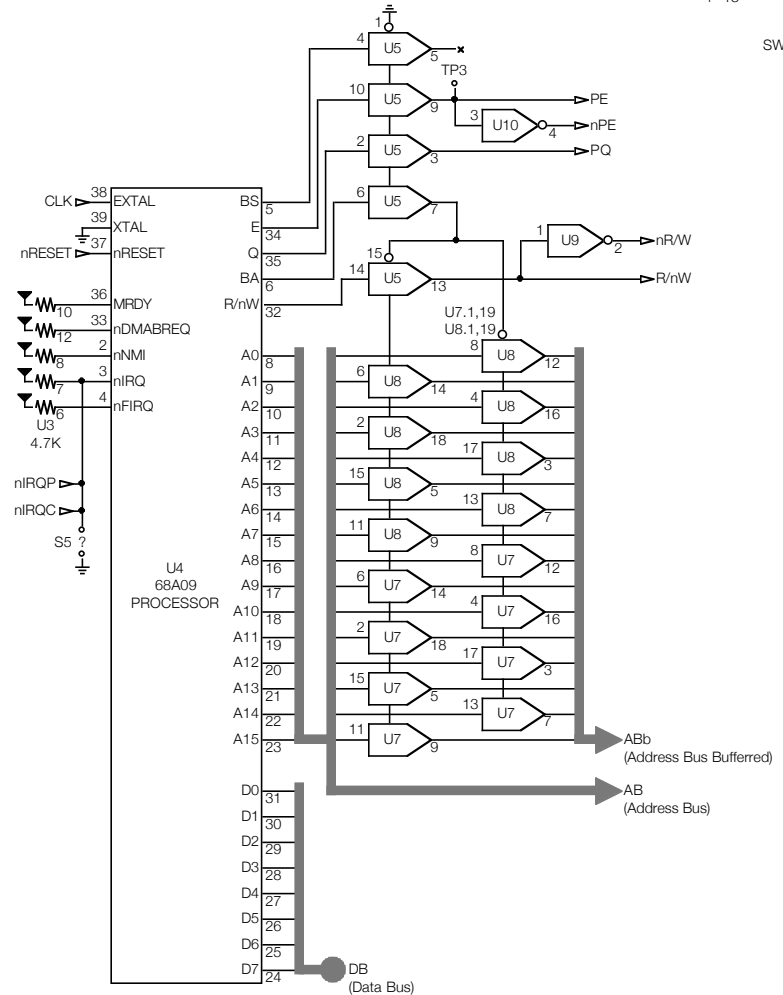
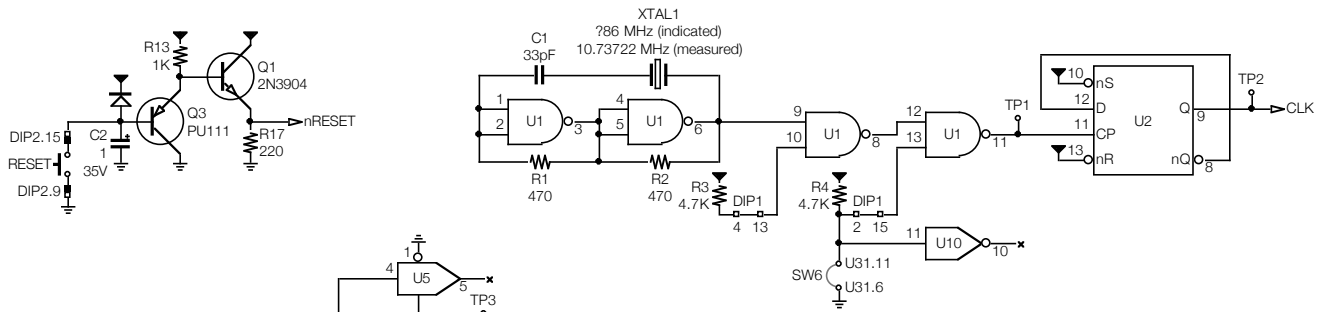
ID	Type	Microtel	ID	Type	V+5	GND
J1	7400	FD-1073-BF	J2	74LS74	14	7
J9	74LS04	FD-1081-AJ	J3	15 * 4.7K R	16	-
J10	74LS04	FD-1081-AJ	J4	68A09	7	1
J22	74LS00	FD-1081-AH	J5	74LS367	16	8
J78	74LS00	FD-1081-AH	J6	74LS245	20	10
			J7	74LS244	20	10
			J8	74LS244	20	10
			J9	74LS04	14	7
J10	74LS04		J10	74LS04	14	7
J11	74S571		J11	74S571	16	8
J12	74S571		J12	74S571	16	8
J13	74LS08		J13	74LS08	14	7
J14	DS8T28		J14	DS8T28	16	8
J15	DS8T28		J15	DS8T28	16	8
J16	74LS10		J16	74LS10	14	7
J17	TR-10208-2		J17	TR-10208-2	24	12
J18	TR-10208-1		J18	TR-10208-1	24	12
J19	2716		J19	2716	24	12
J20	68A45		J20	68A45	20	1
J21	74LS390		J21	74LS390	16	8
J22	74LS00		J22	74LS00	14	7
J23	74S74		J23	74S74	14	7
J24	74LS08		J24	74LS08	14	7
J25	7404		J25	7404	14	7
J26	7404		J26	7404	14	7
J27	15 * 10K R		J27	15 * 10K R	16	-
J28	68A21		J28	68A21	20	1
J29	68A50		J29	68A50	12	1
J30	MC14411		J30	MC14411	24	12
J31	config		J31	config	-	-
J32	74LS157		J32	74LS157	16	8
J33	1489		J33	1489	14	7
J34	1488		J34	1488	*	*
J35	74LS373		J35	74LS373	20	10
J36	74LS373		J36	74LS373	20	10
J37	74S257		J37	74S257	16	8
J38	74S257		J38	74S257	16	8
J39	74S257		J39	74S257	16	8
J40	74S257		J40	74S257	16	8
J41	8 * 33R		J41	8 * 33R	-	-
J42-57	MM5290J-2		J42-57	MM5290J-2	*	*
J58	74LS373		J58	74LS373	20	10
J59	74LS373		J59	74LS373	20	10
J60	74LS166		J60	74LS166	16	8
J61	74LS166		J61	74LS166	16	8
J62	74LS166		J62	74LS166	16	8
J63	74LS166		J63	74LS166	16	8
J64	74LS74		J64	74LS74	14	7
J65	74LS74		J65	74LS74	14	7
J66	74S571		J66	74S571	16	8
J67	74S571		J67	74S571	16	8
J68	DAC0800		J68	DAC0800	*	*
J69	74LS03		J69	74LS03	14	7
J70	74LS138		J70	74LS138	16	8
J71	2716		J71	2716	24	12
J72	M3-6551-5		J72	M3-6551-5	*	*
J73	M3-6551-5		J73	M3-6551-5	*	*
J74	74LS00		J74	74LS00	14	7
J75	4011		J75	4011	*	*
J76	ICL8212CPA		J76	ICL8212CPA	*	*
J77	LM380N-8		J77	LM380N-8	*	*
J78	74LS00		J78	74LS00	14	7
J79	AY-3-1015		J79	AY-3-1015	1	3
J80	74LS86		J80	74LS86	14	7

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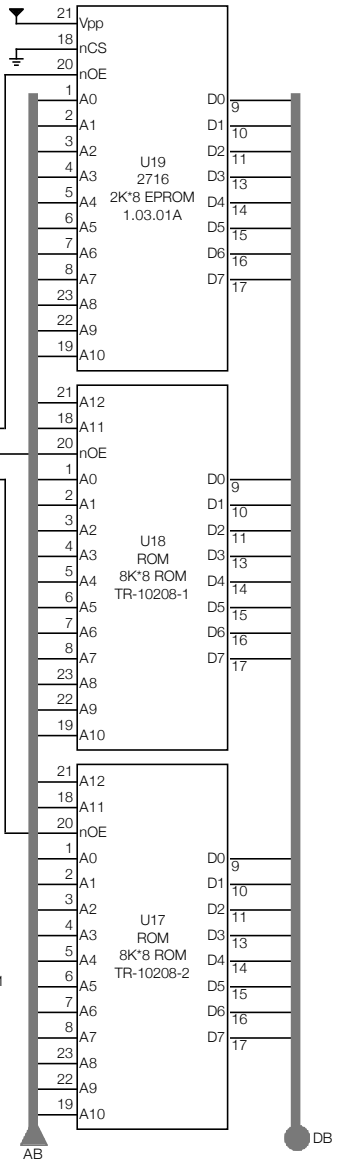
Section: Power Supply, IC List

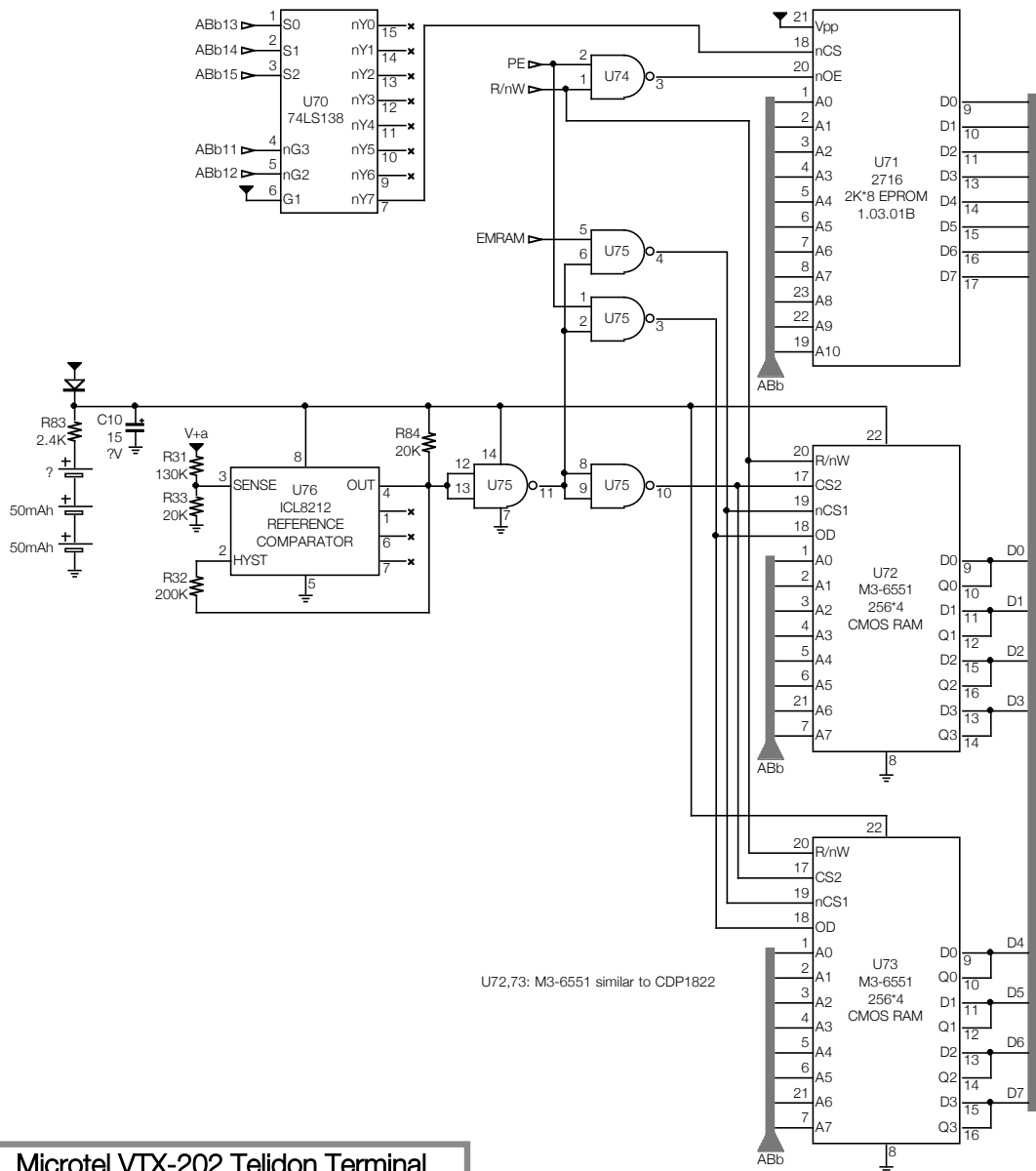
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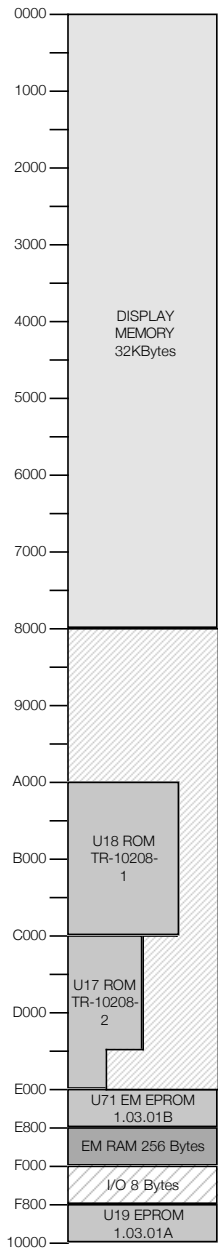


U17,18: similar to HM-76641





U72,73: M3-6551 similar to CDP1822

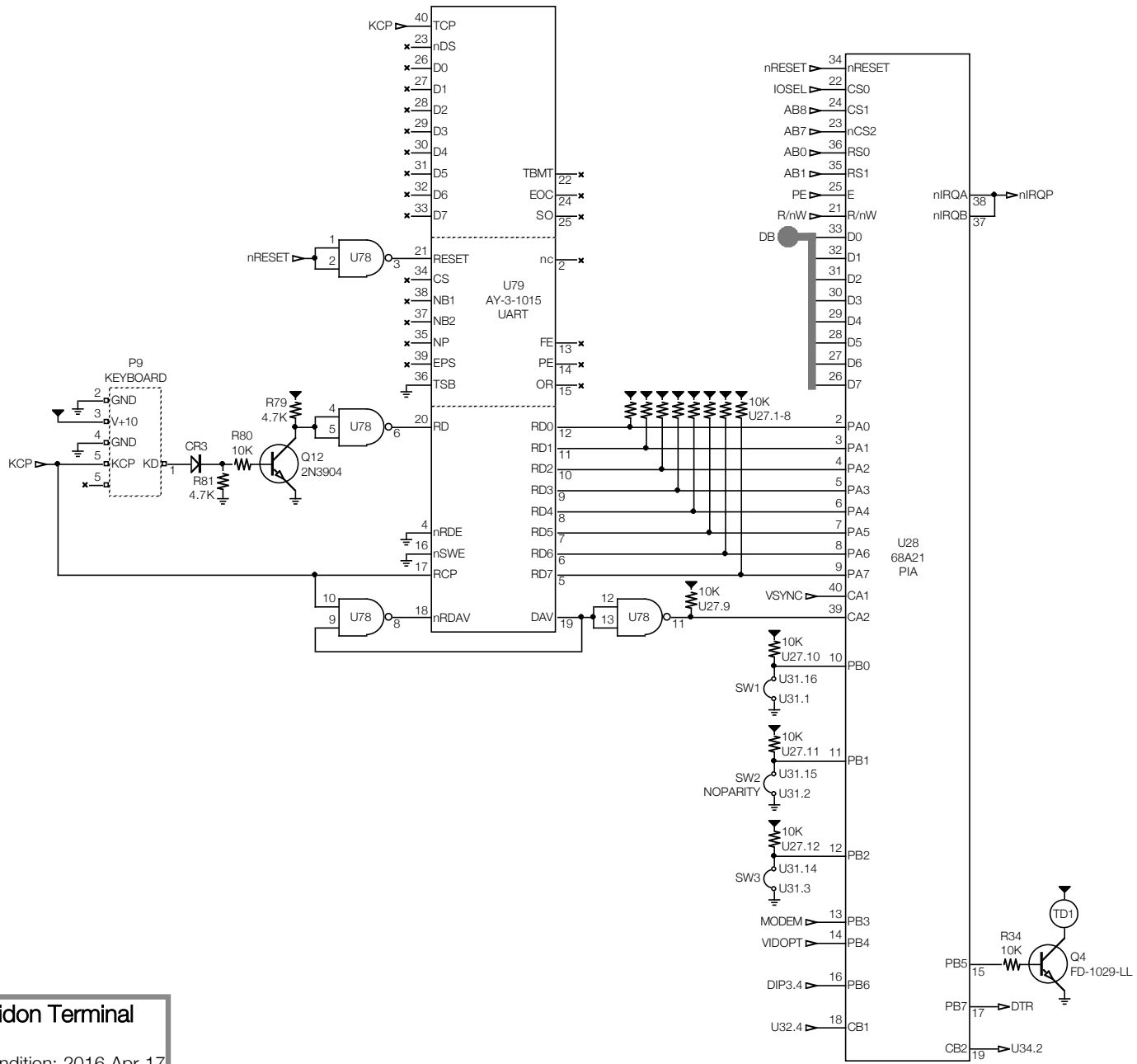


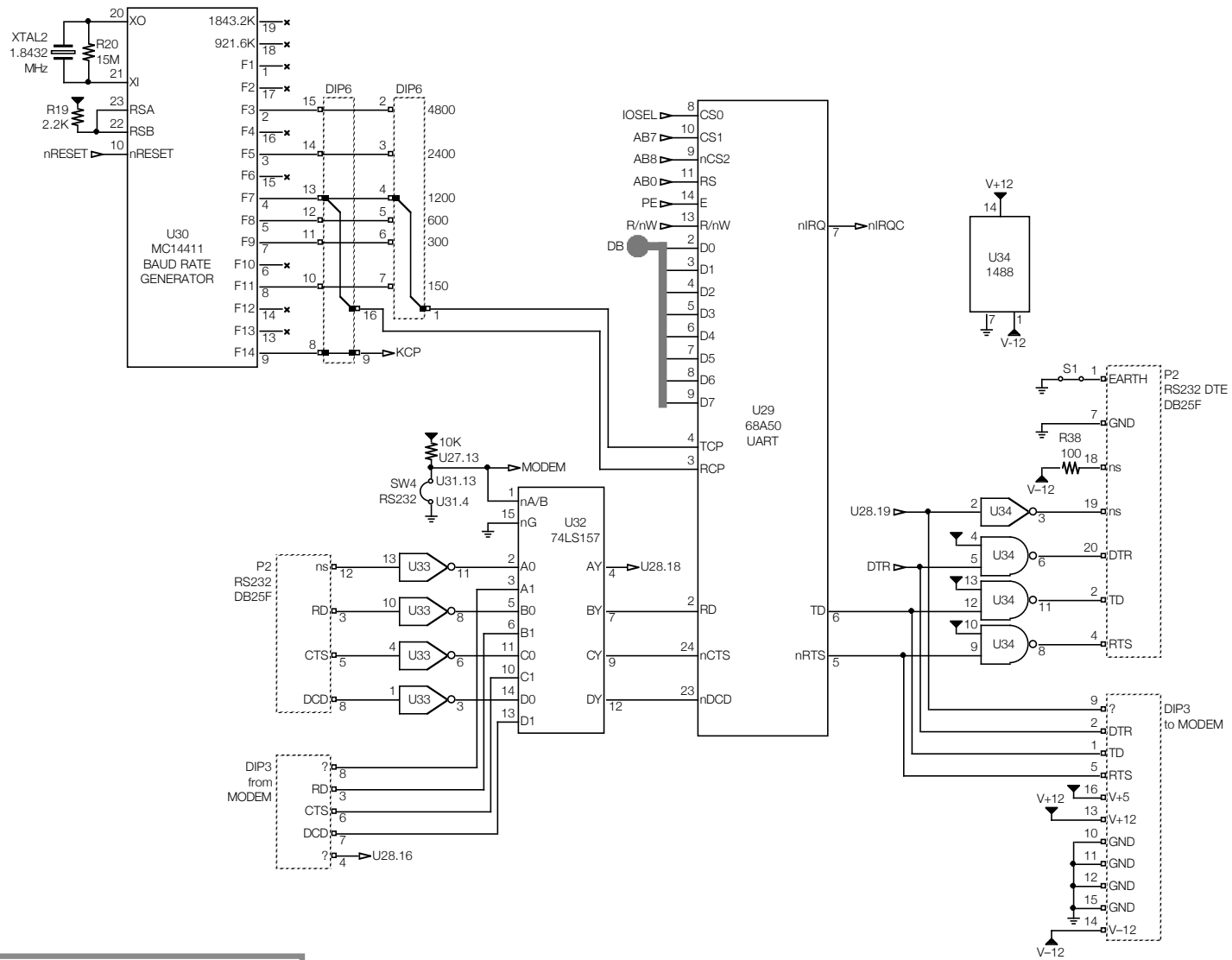
MEMORY MAP

- Extended Memory RAM is 256 bytes overmapped into the region E800 to EFFF.
- The Extended Memory bus is enabled in the region 8000 to 9FFF, but there is no memory there to respond.
- U31 switches 7 & 8 control the mapping of the ROMs and Extended Memory in the region A000 to DFFF:

SW78	A000	C000	D800
	-BFFF	-D7FF	-DFFF
00	EM	EM	EM
* 01	U18	EM	EM
10	U18	U17	EM
11	U18	U17	U17
- However there is once again no actual Extended Memory present in that region.
- I/O devices are overmapped into the region F000 to F7FF, with base addresses:

F080	Comm. Control/Status
F081	Comm. Data
F100	PIA Keyboard Data
F101	PIA Keyboard Control
F102	PIA Misc. Data
F103	PIA Misc. Control
F180	CRT Address
F181	CRT Data



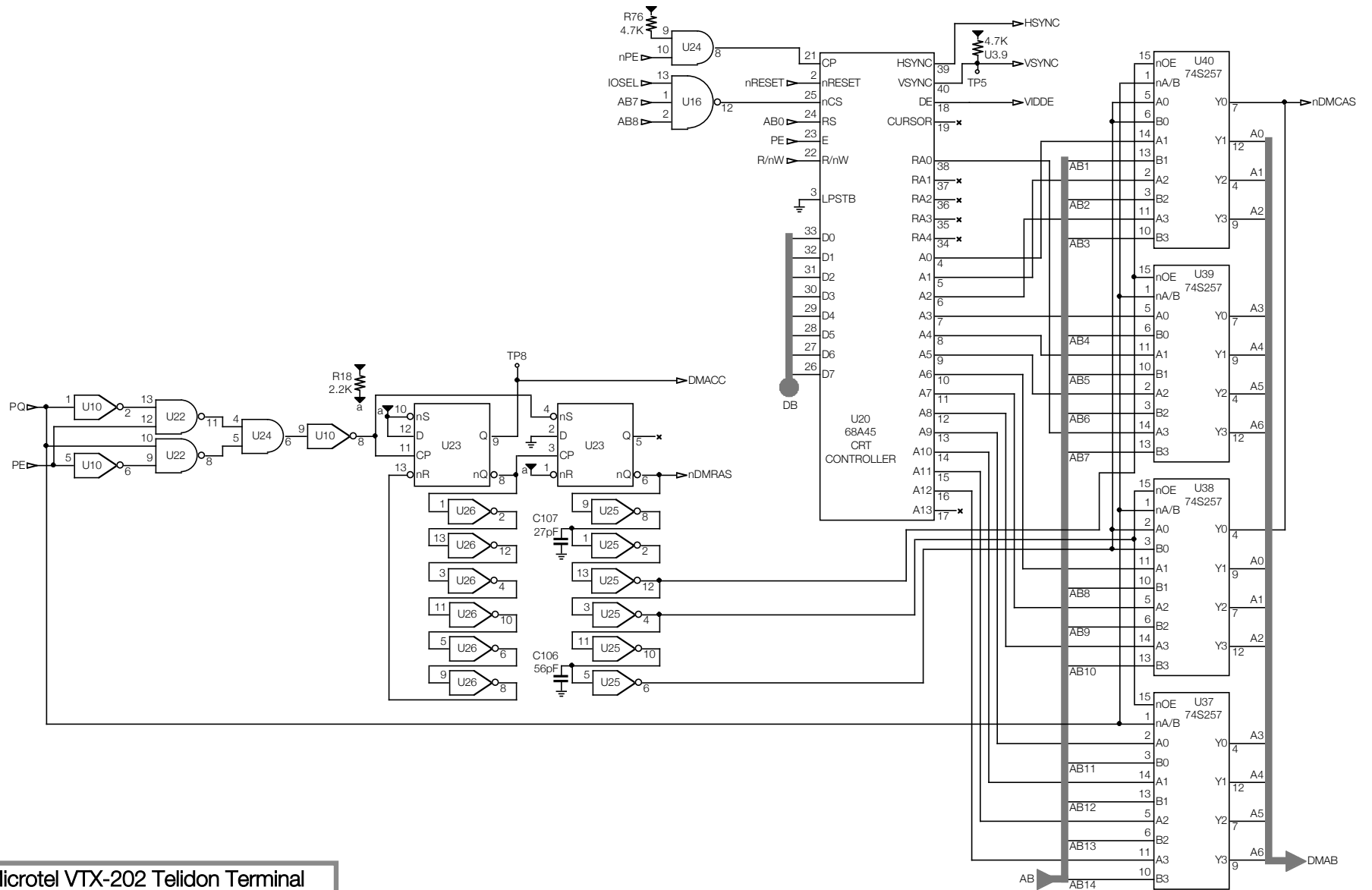


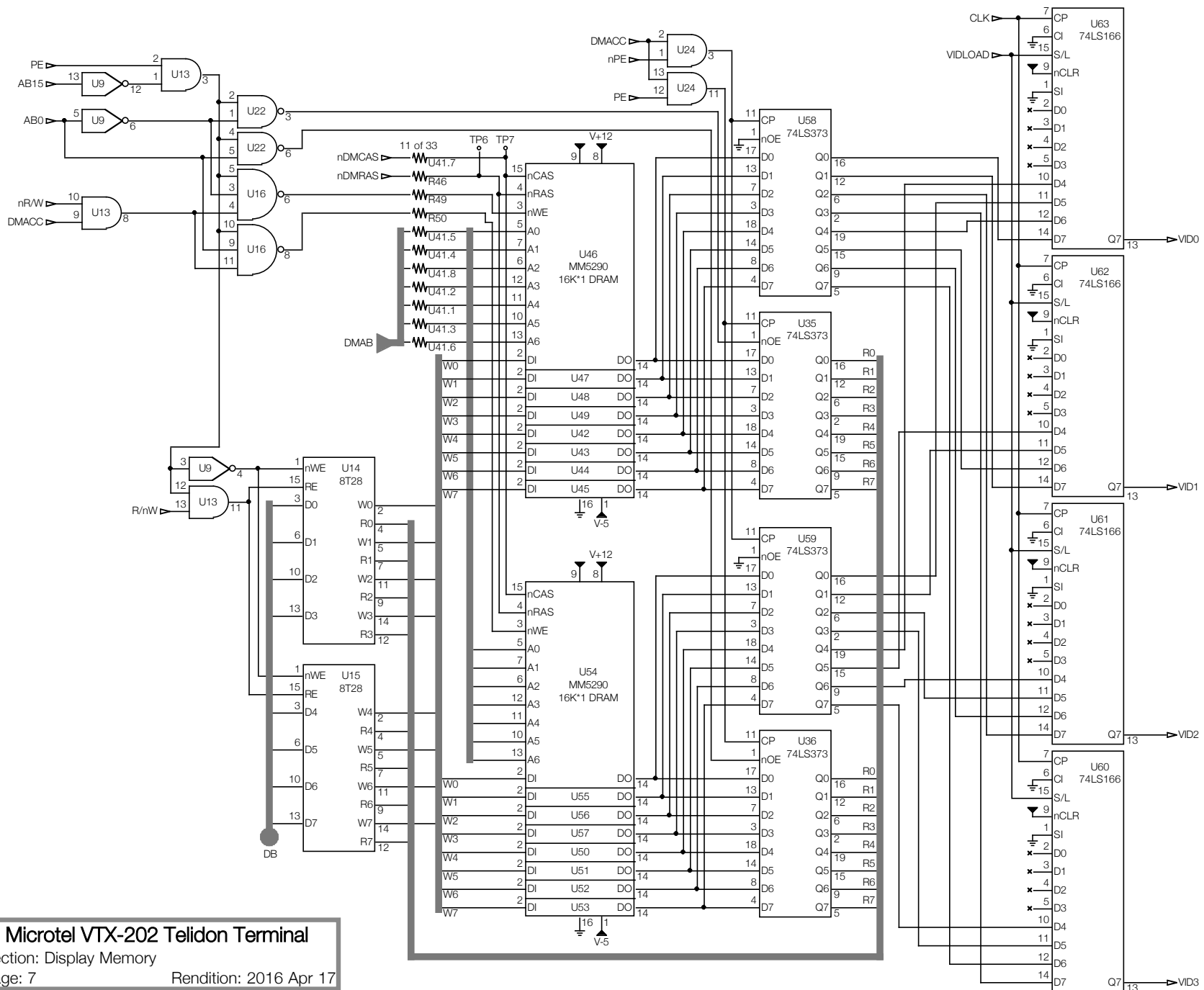
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Section: Communication Interface

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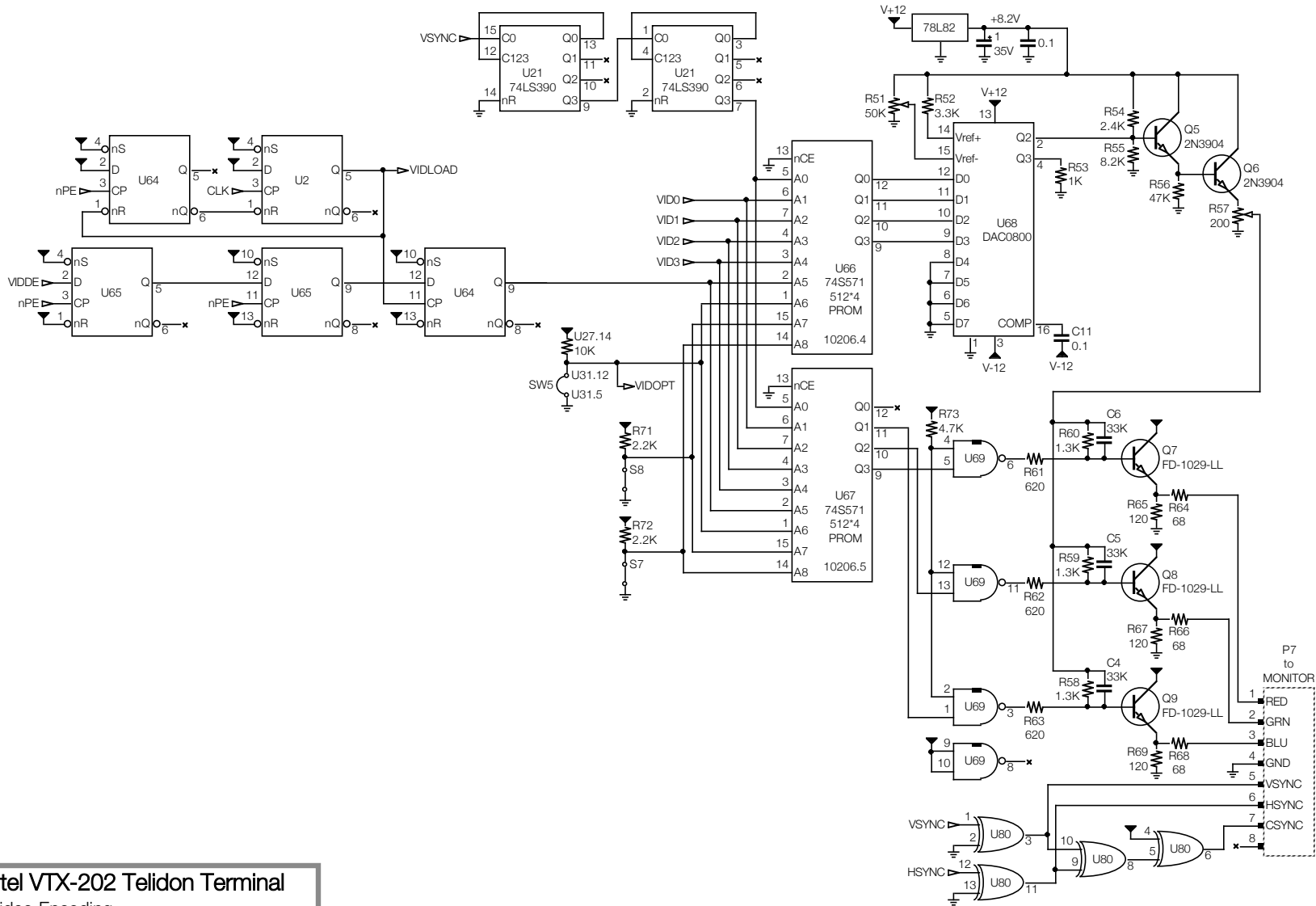


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Section: Display Memory

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Section: Video Encoding

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