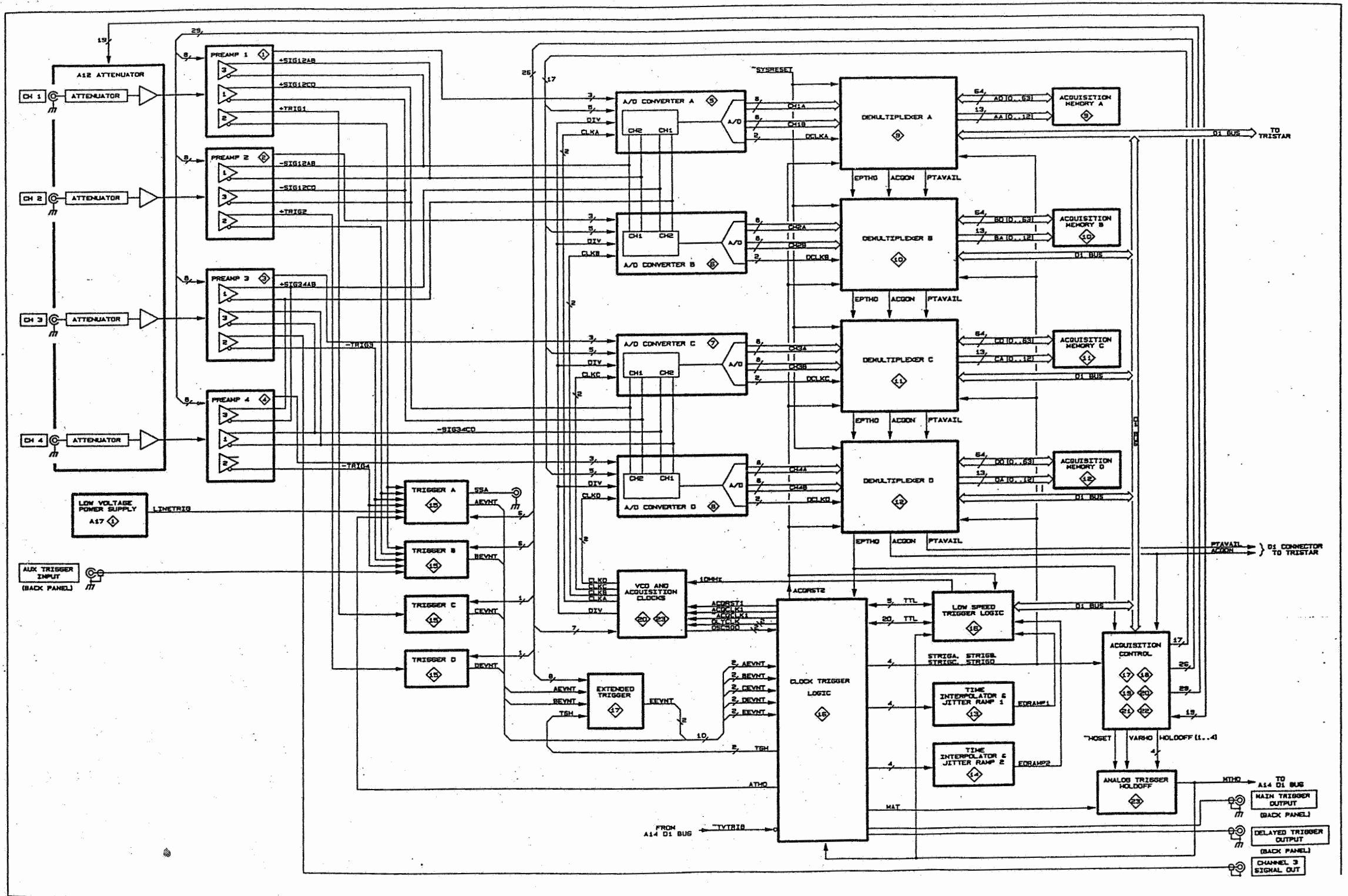
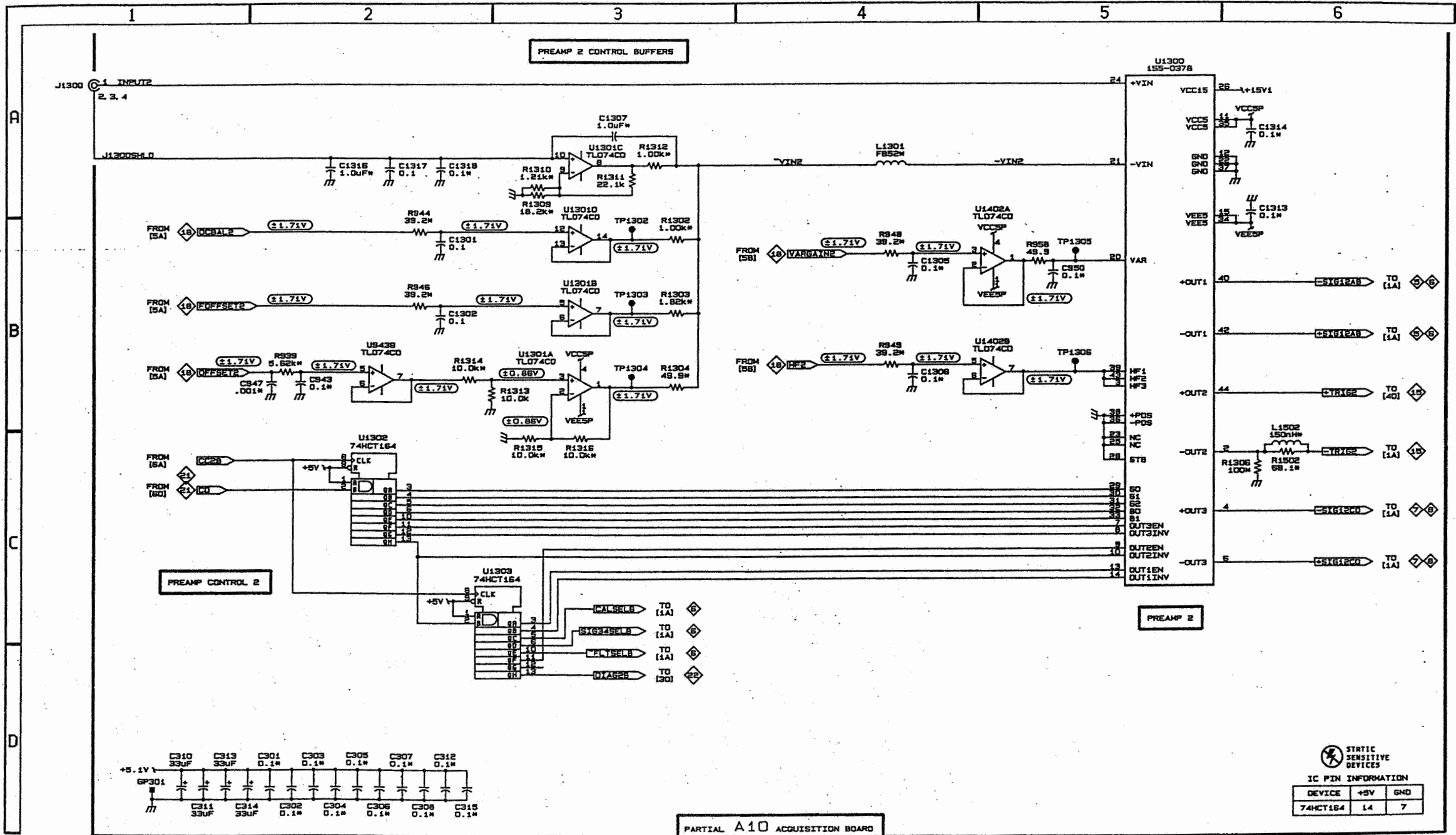


TDS 540

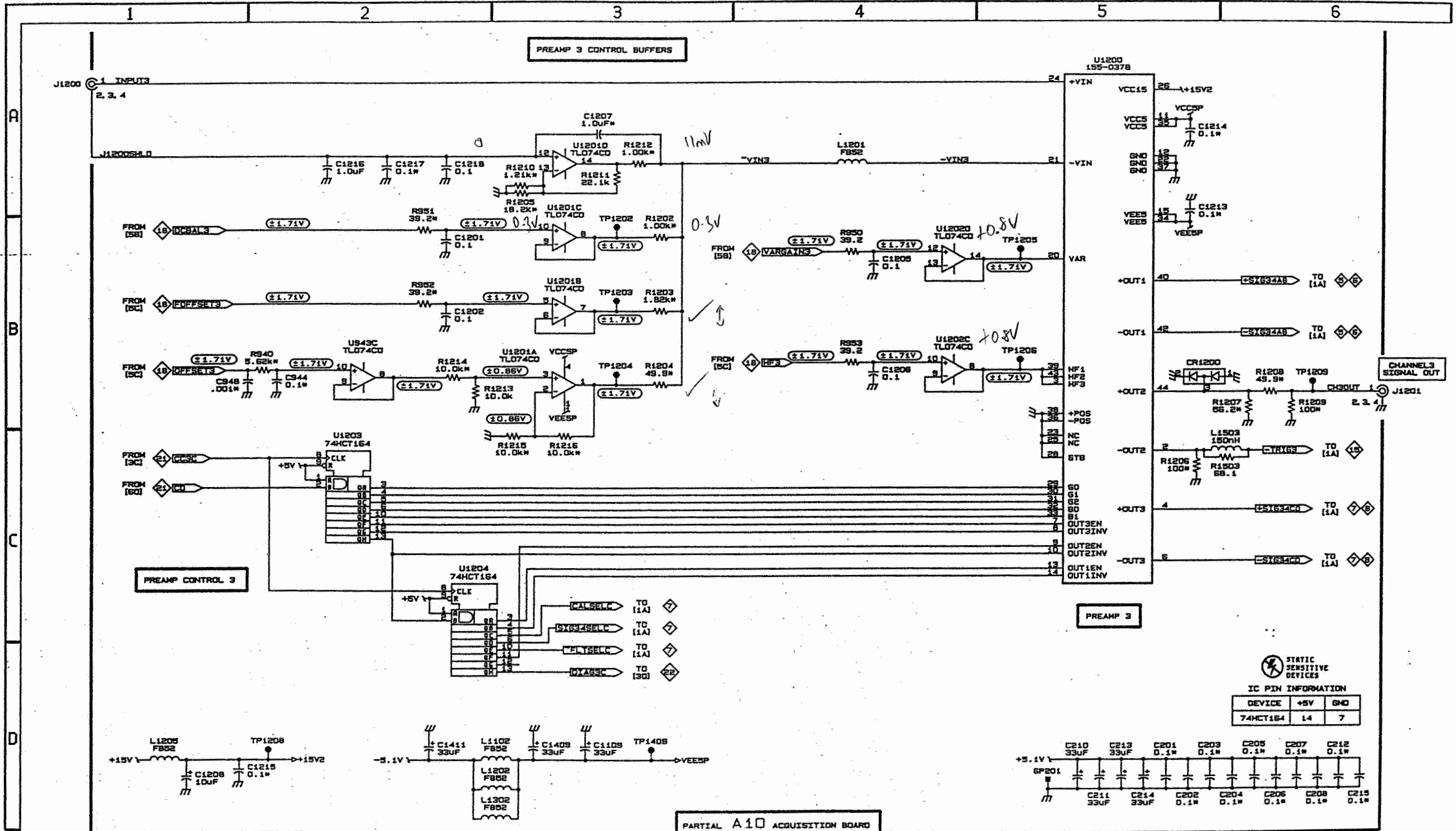
TDS 540 BLOCK DIAGRAM





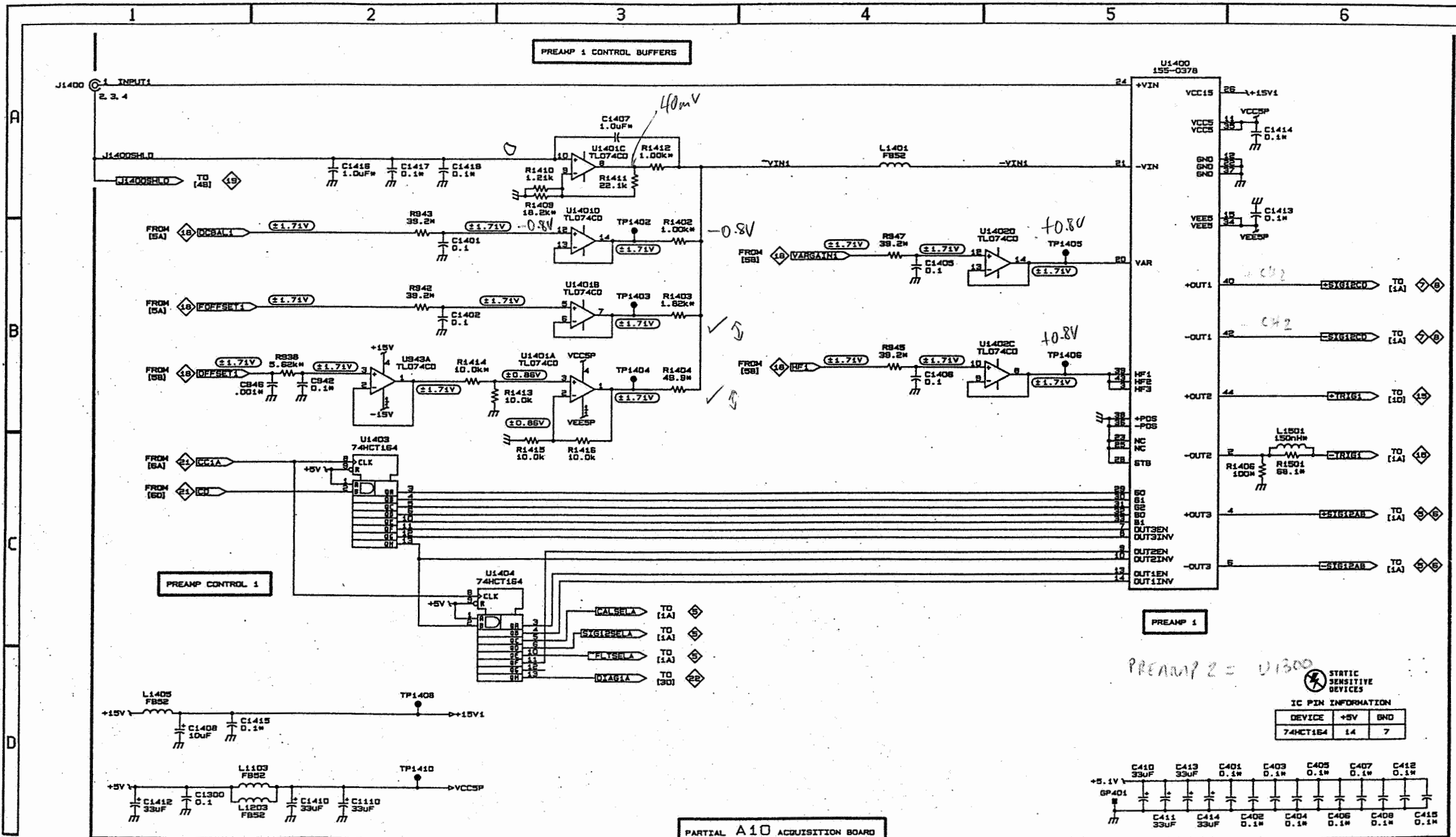
TDS 540

PREAMP 2 A10



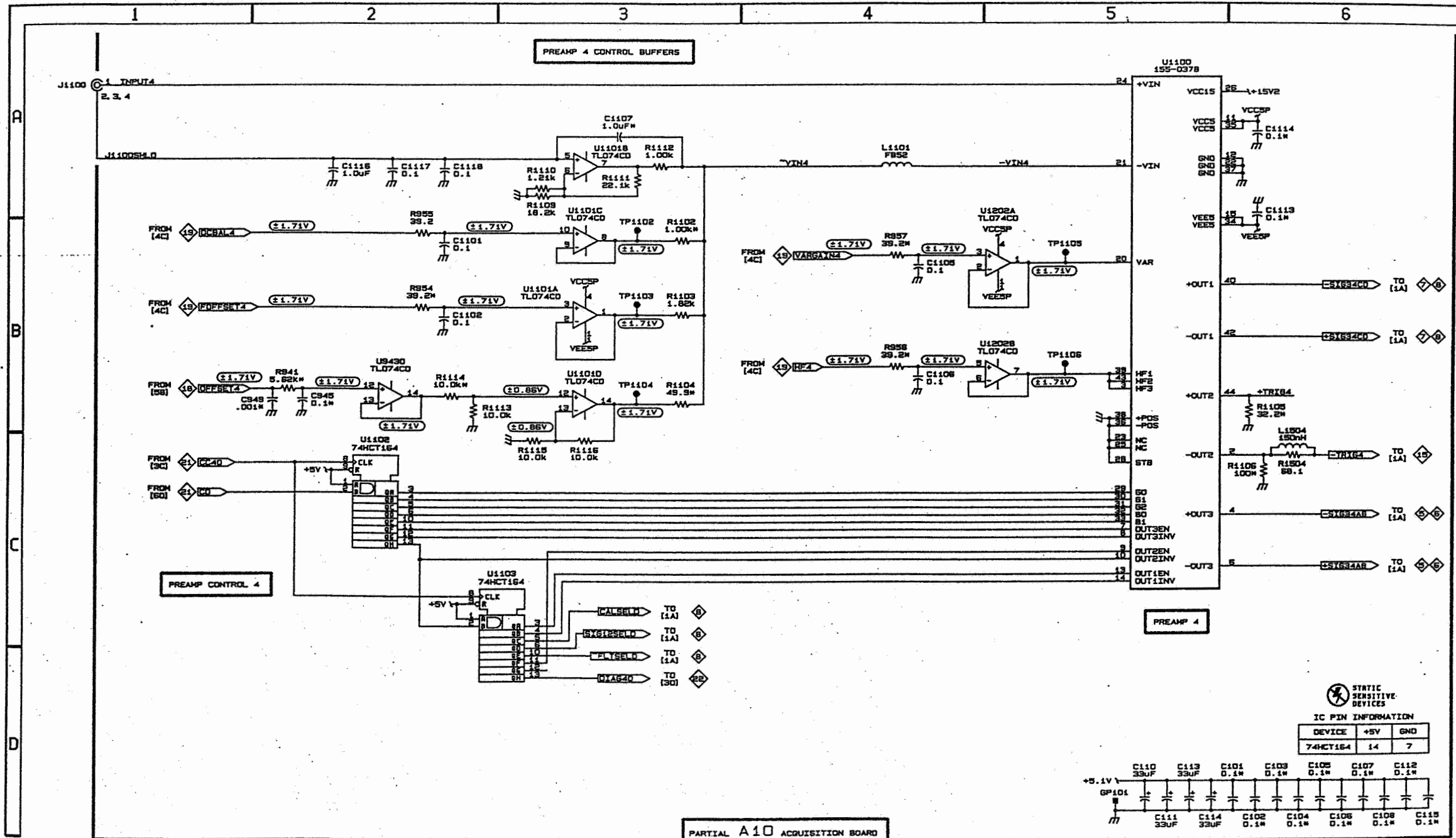
TDS 540

PREAMP 3 A10



TDS 540

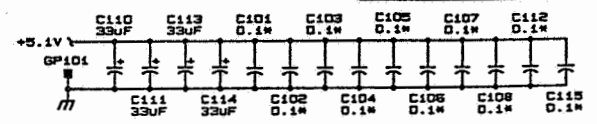
PREAMP 1 A10 1



⚡ STATIC SENSITIVE DEVICES

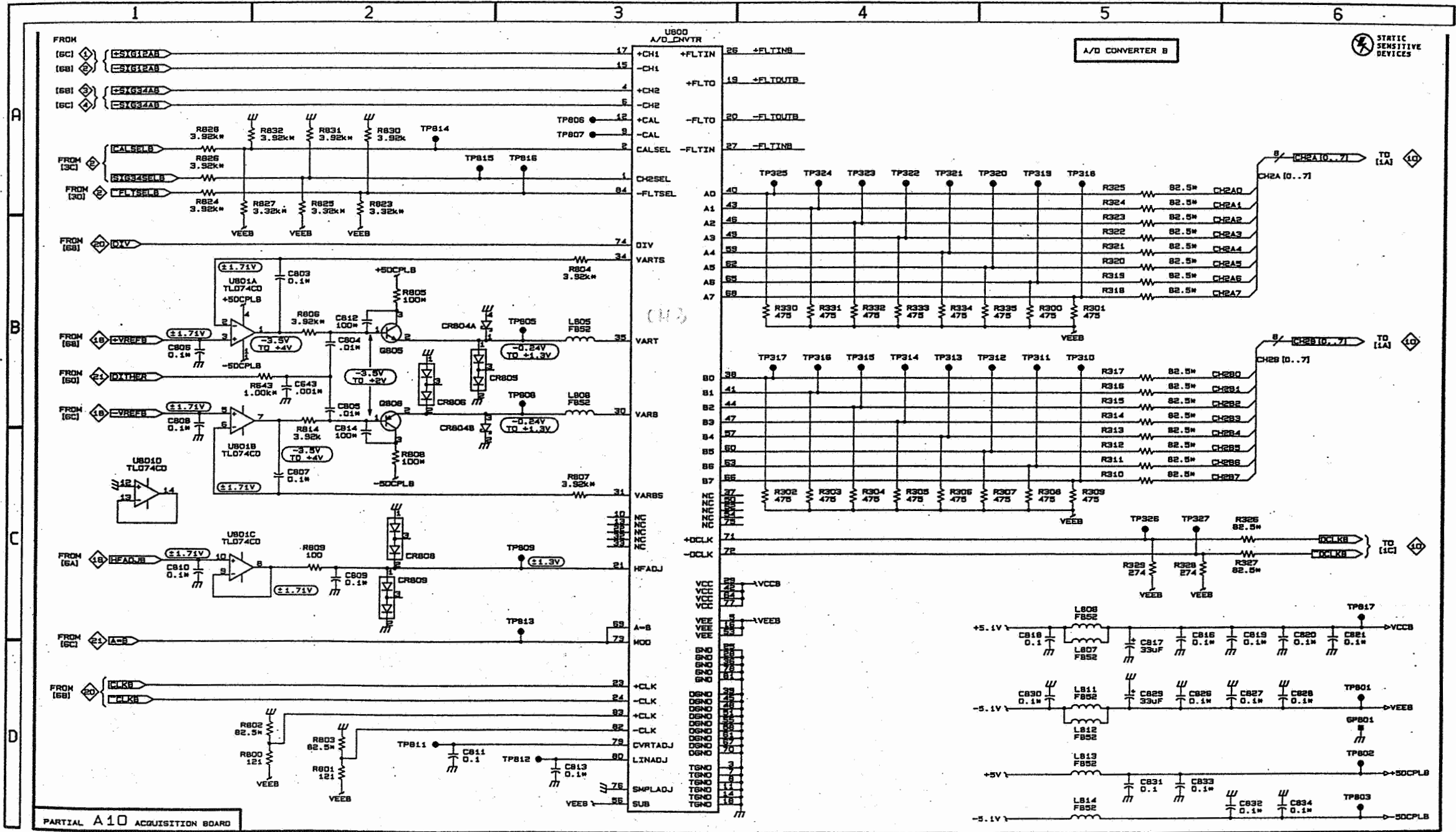
IC PIN INFORMATION

DEVICE	+5V	GND
74HCT164	14	7



TDS 540

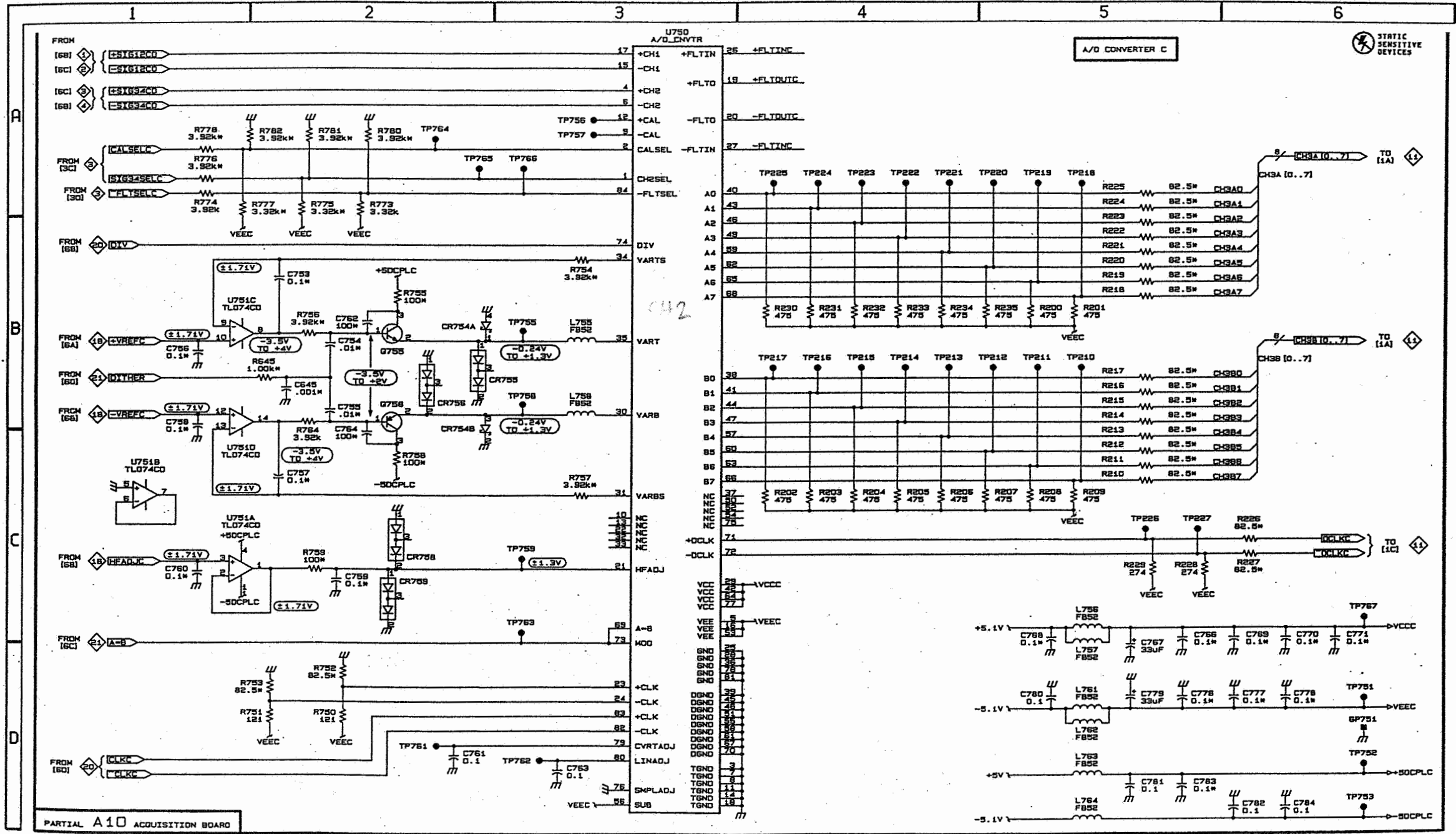
PREAMP 4 A10



PARTIAL A10 ACQUISITION BOARD

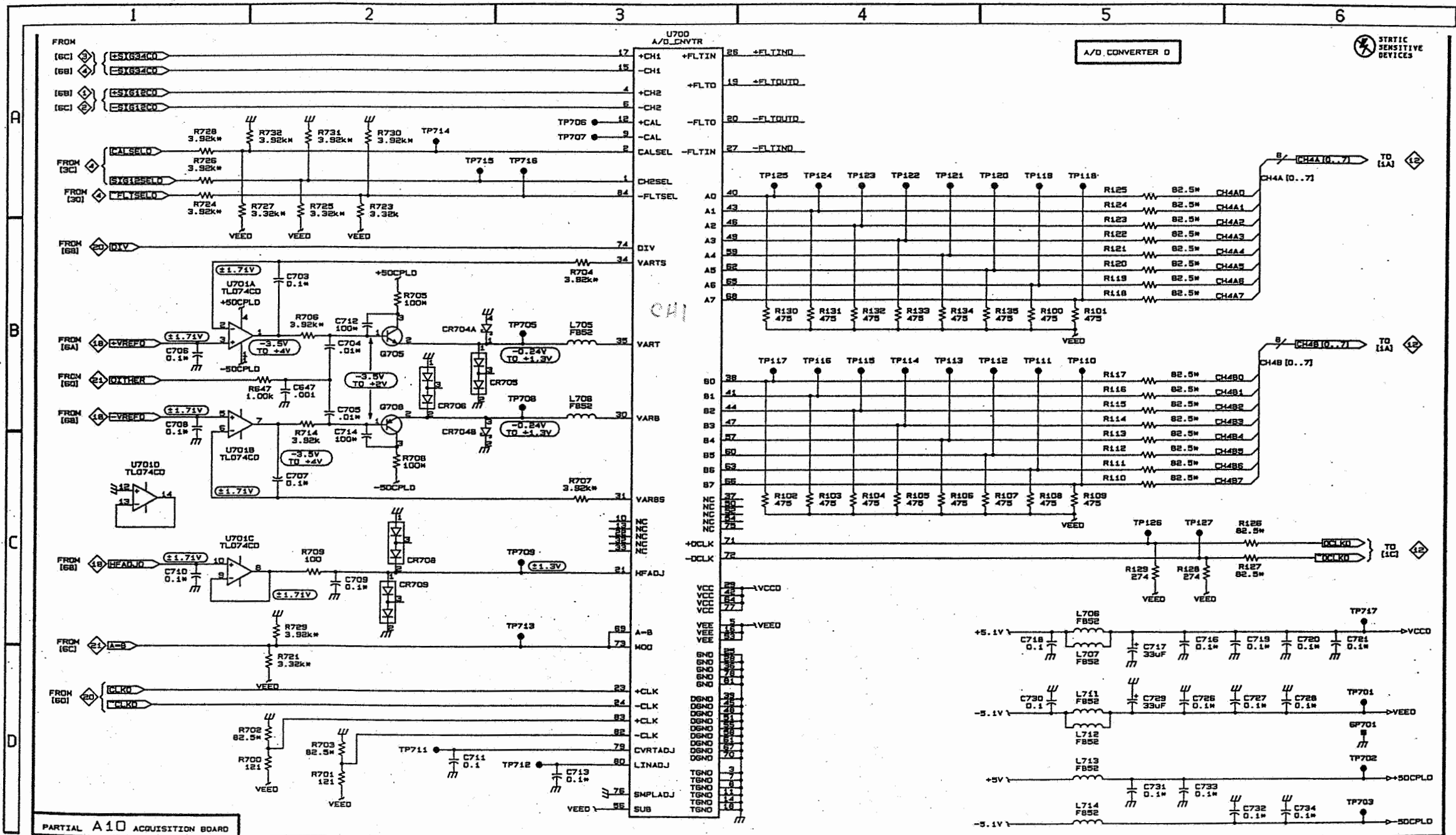
TDS 540

CHANNEL B CONVERTER A10



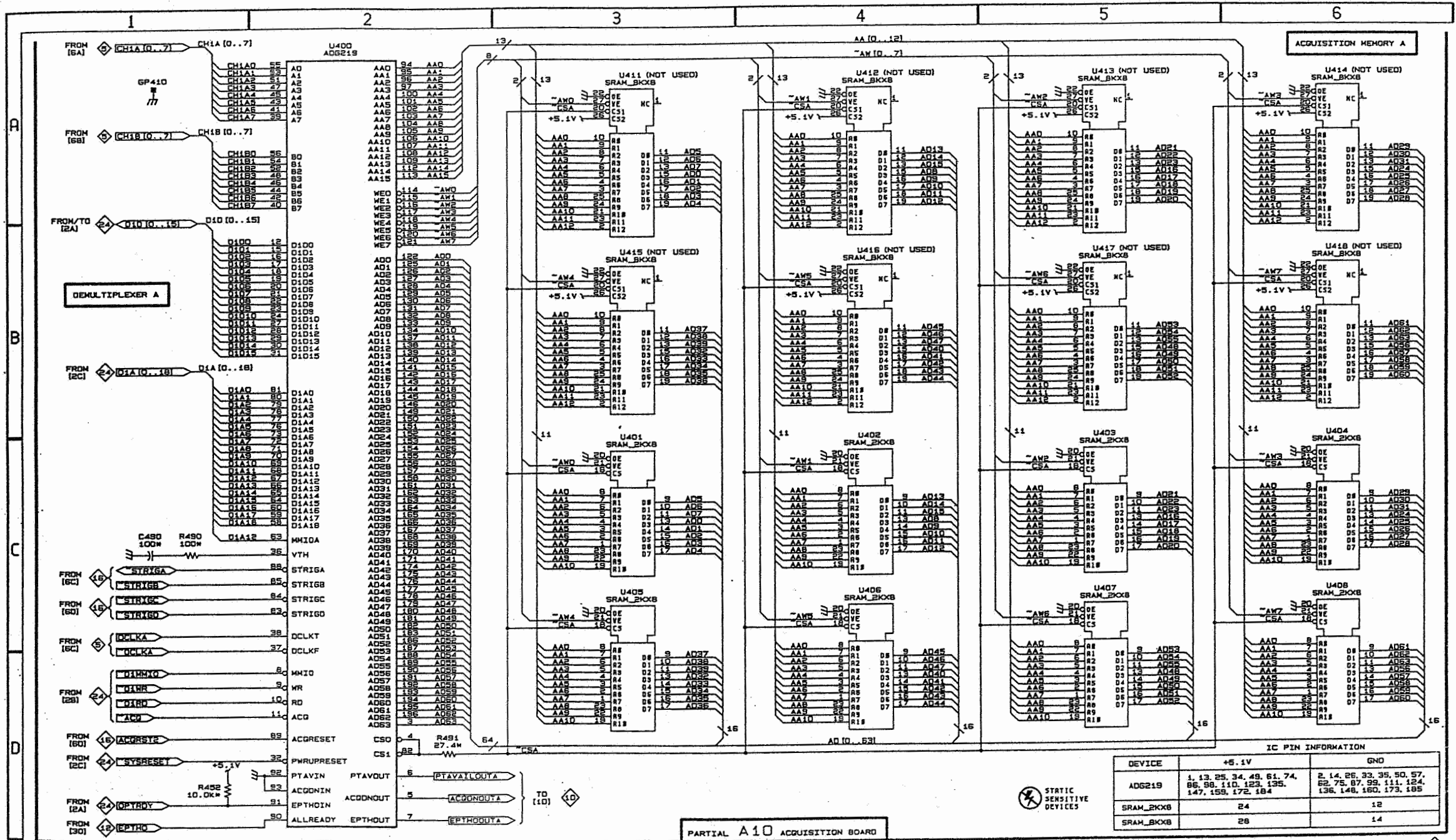
TDS 540

CHANNEL C CONVERTER A10



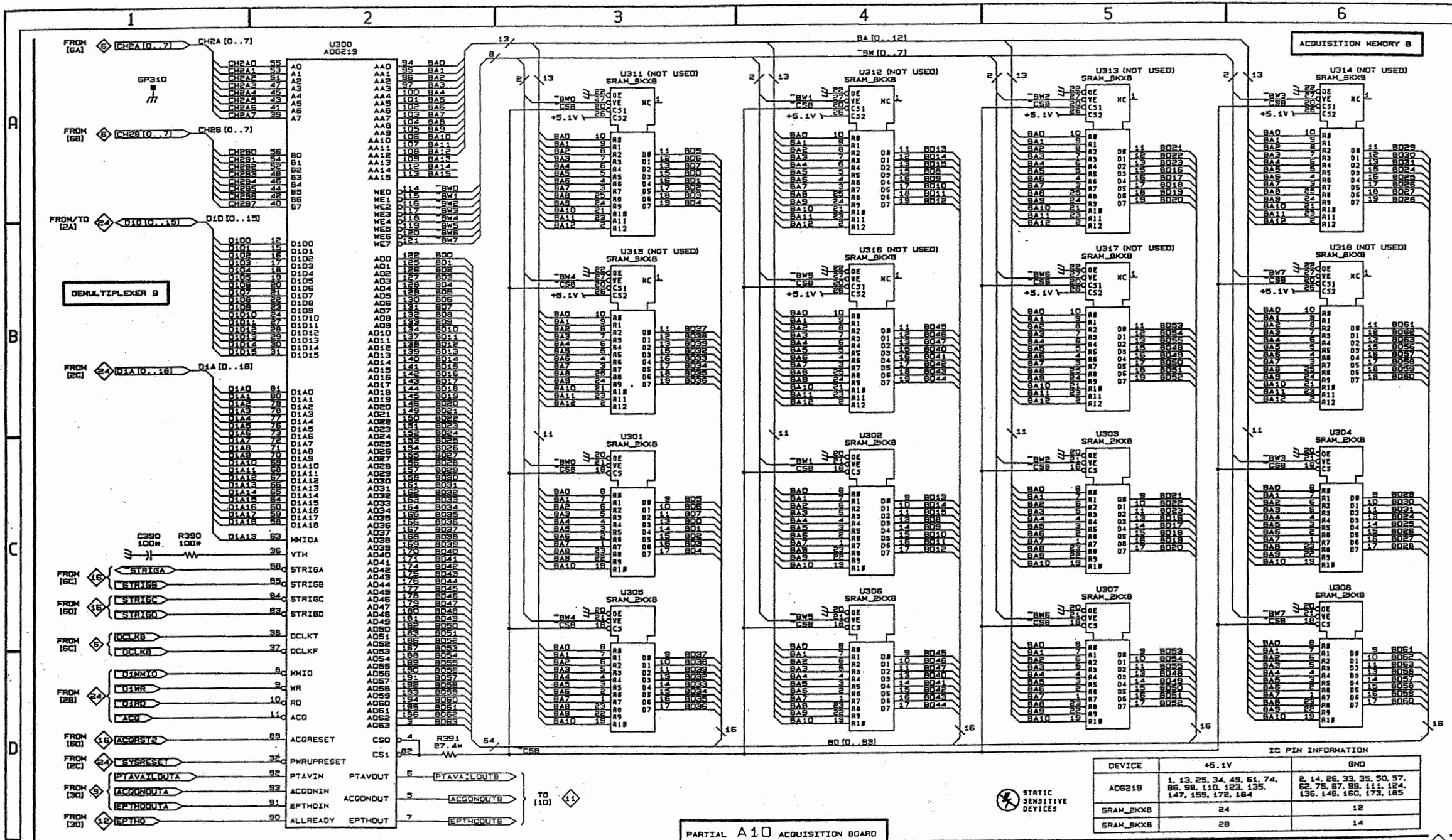
TDS 540

CHANNEL 0 CONVERTER A10



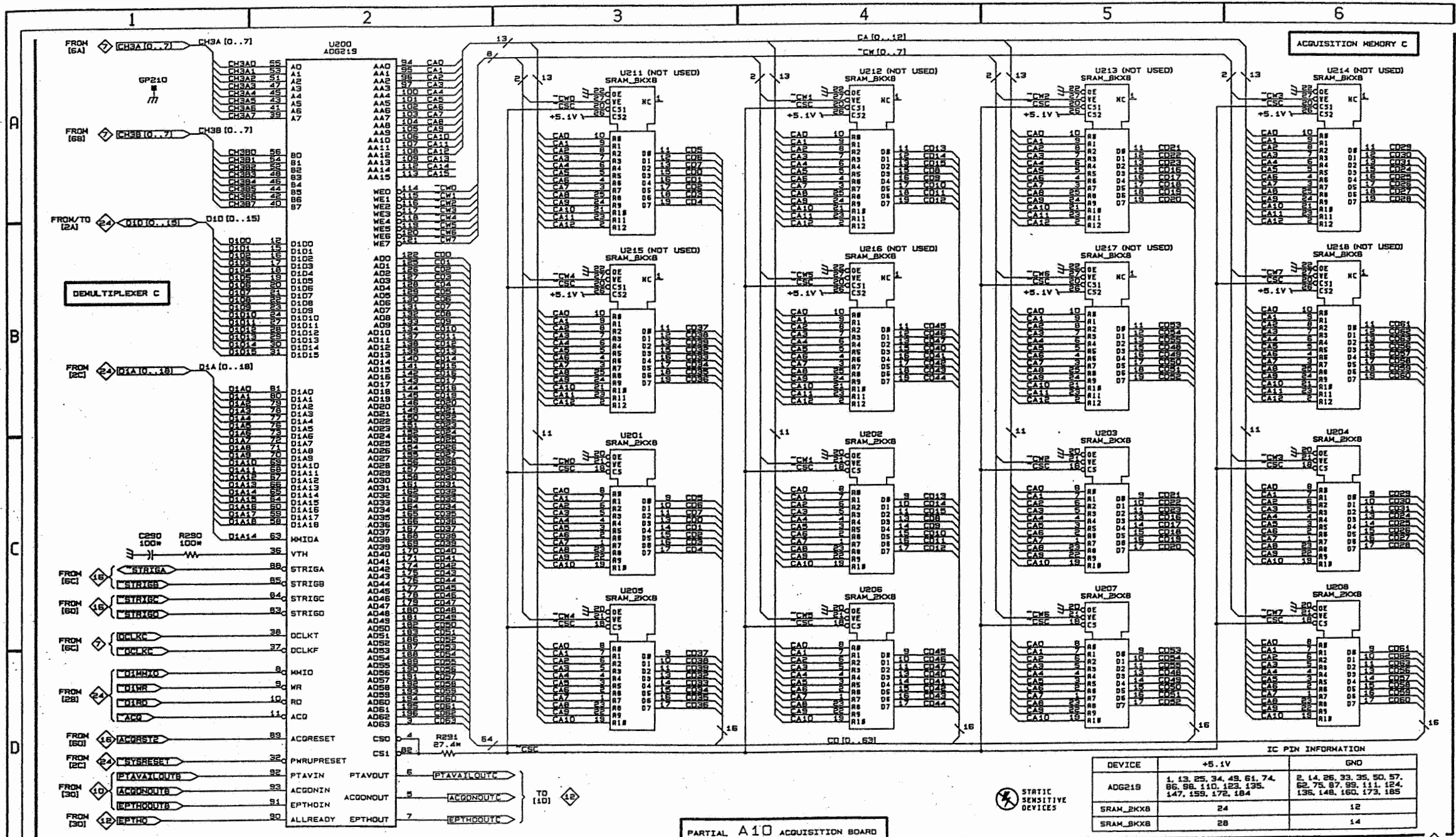
TDS 540

CHANNEL A ACQUISITION MEMORY A10



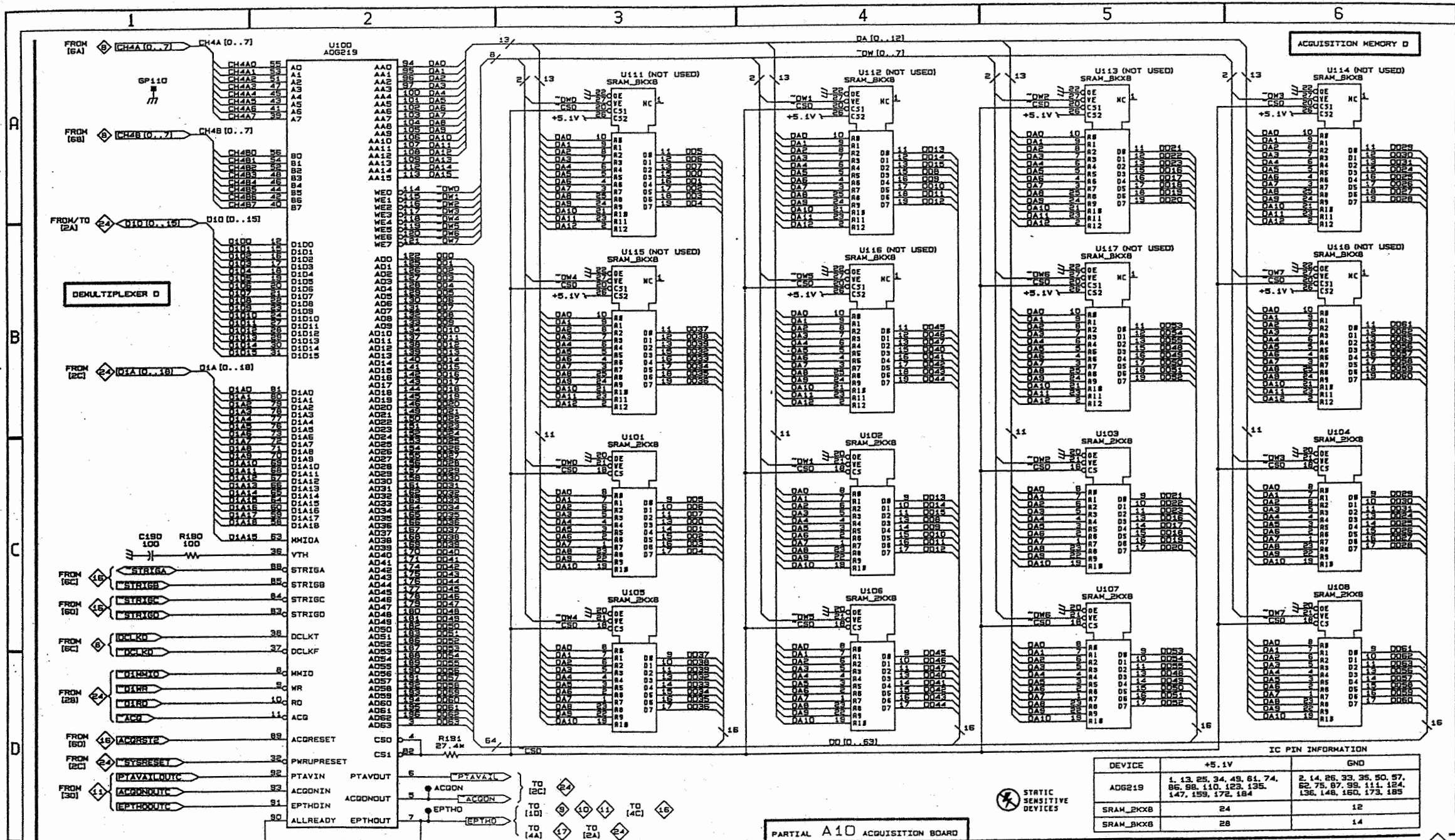
TDS 540

CHANNEL B ACQUISITION MEMORY A10



TDS 540

CHANNEL C ACQUISITION MEMORY A10 11

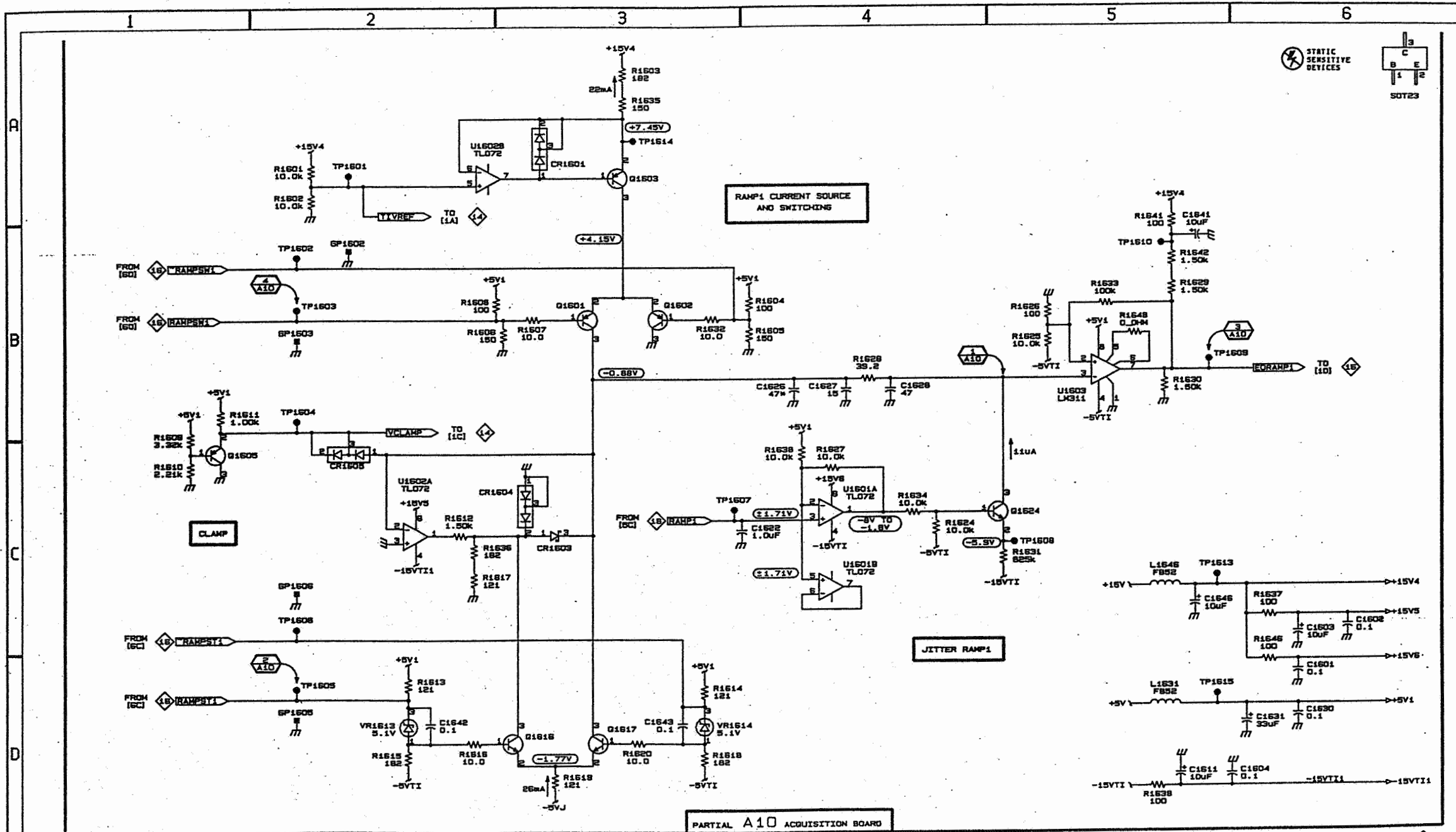


IC PIN INFORMATION

DEVICE	+5.1V	GND
ADGE19	1, 13, 25, 34, 49, 61, 74, 86, 98, 110, 123, 135, 147, 159, 172, 184	2, 14, 26, 33, 35, 50, 57, 62, 75, 87, 95, 111, 124, 136, 148, 160, 173, 185
SRAM_2KXB	24	12
SRAM_8KXB	28	14

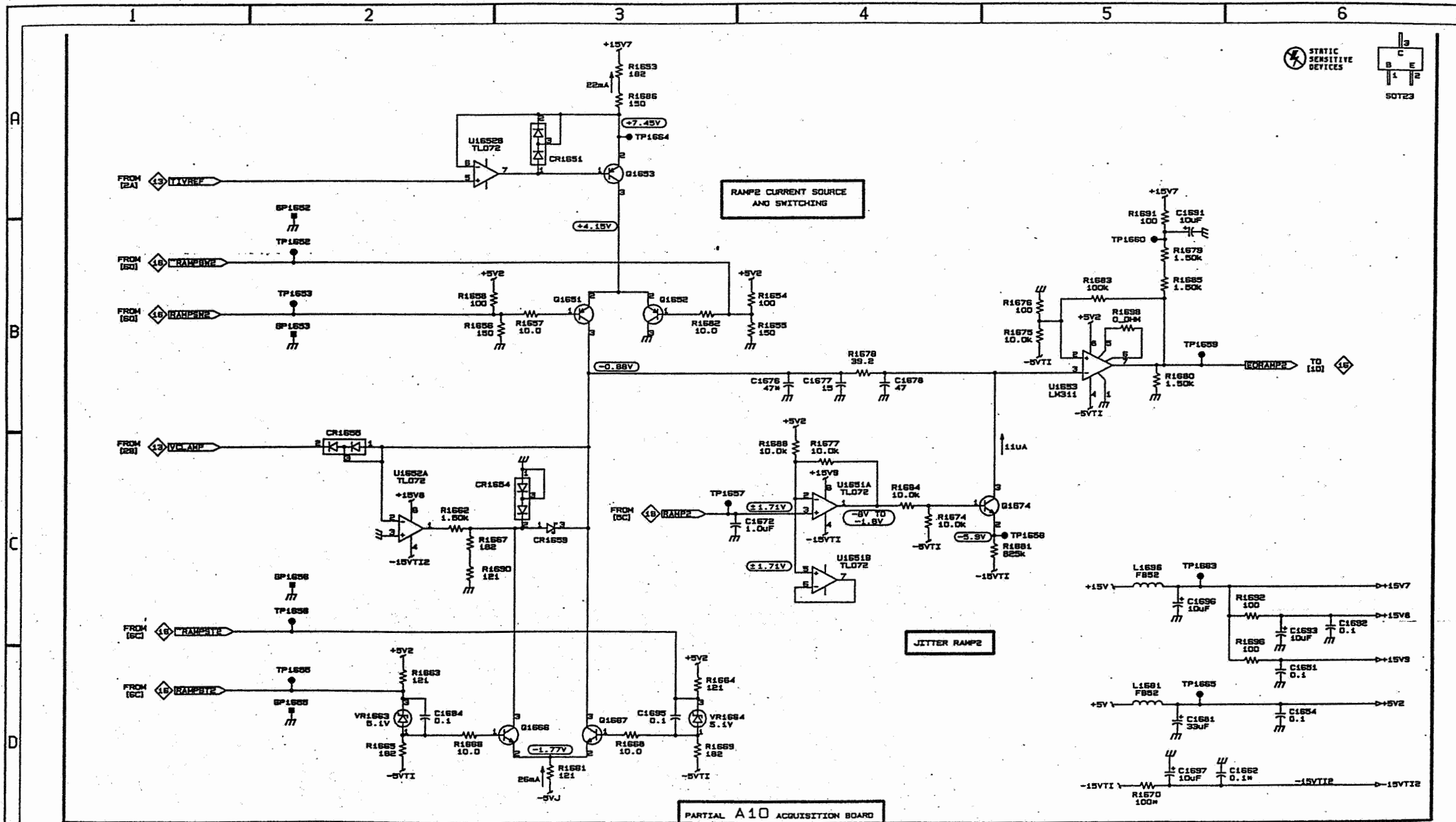
TDS 540

CHANNEL D ACQUISITION MEMORY A10



TDS 540

TIME INTERPOLATOR AND JITTER RAMP 1 A10 13



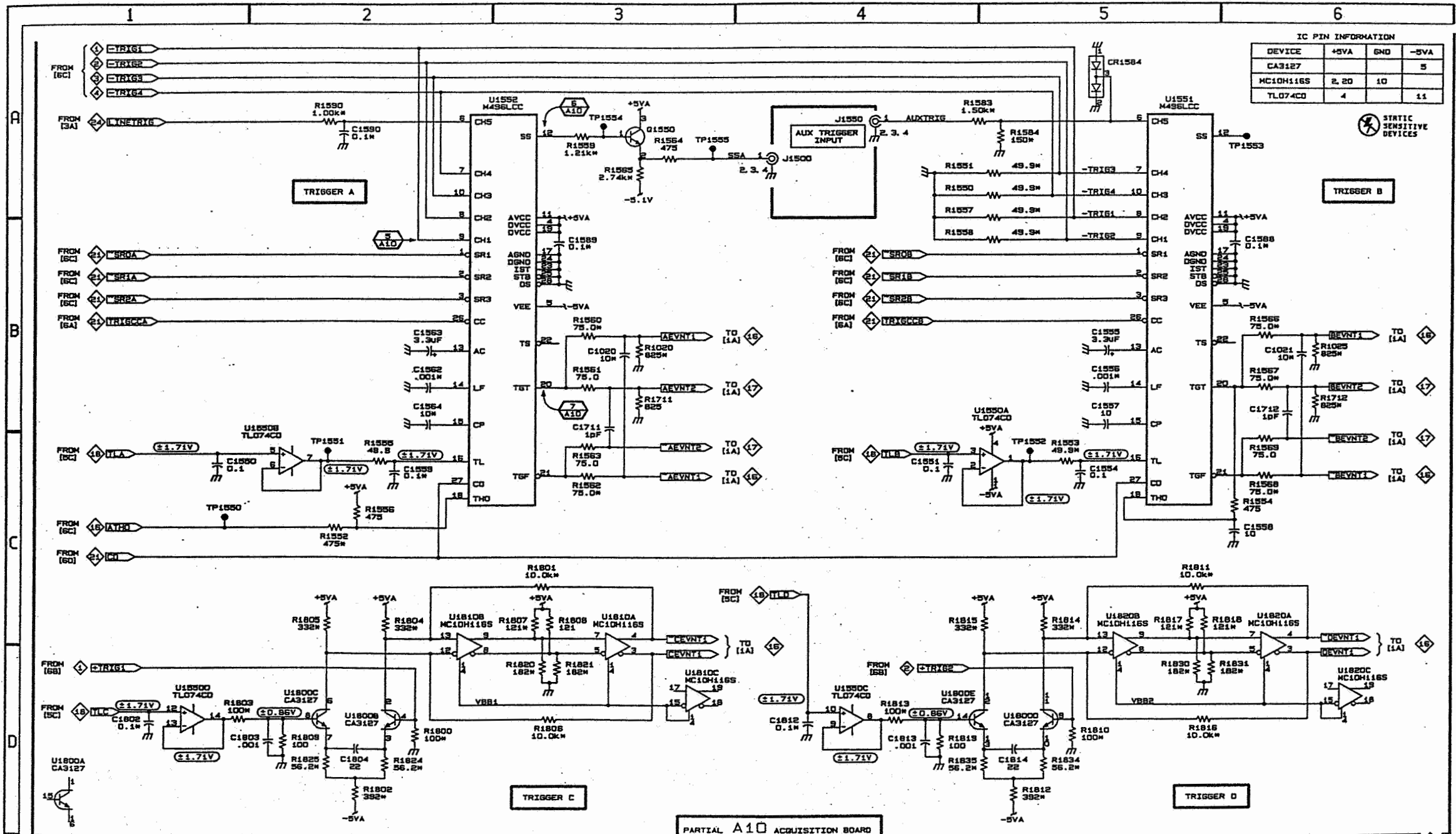
STATIC SENSITIVE DEVICES

 SOT23

PARTIAL A10 ACQUISITION BOARD

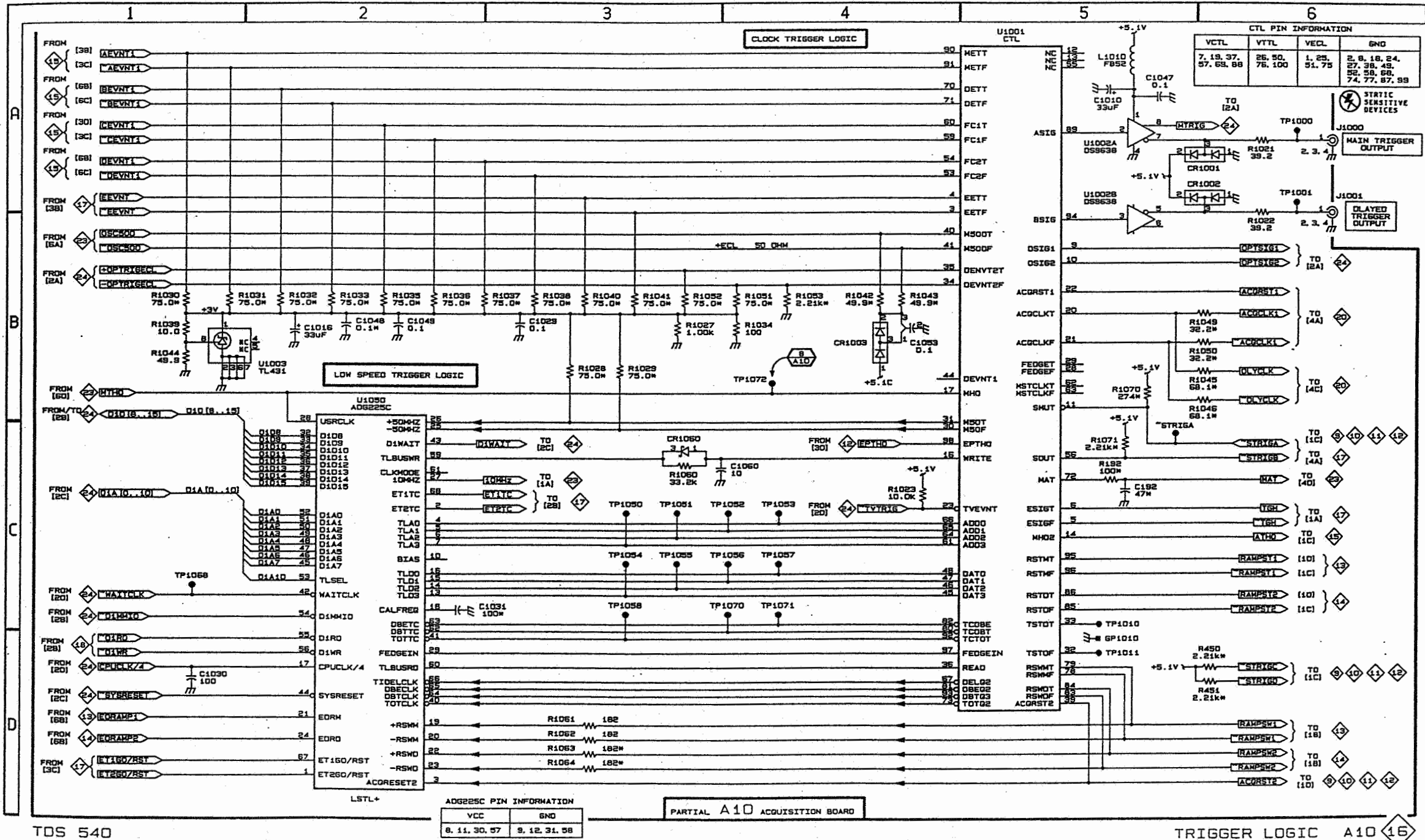
TDS 540

TIME INTERPOLATOR AND JITTER RAMP 2 A10 14



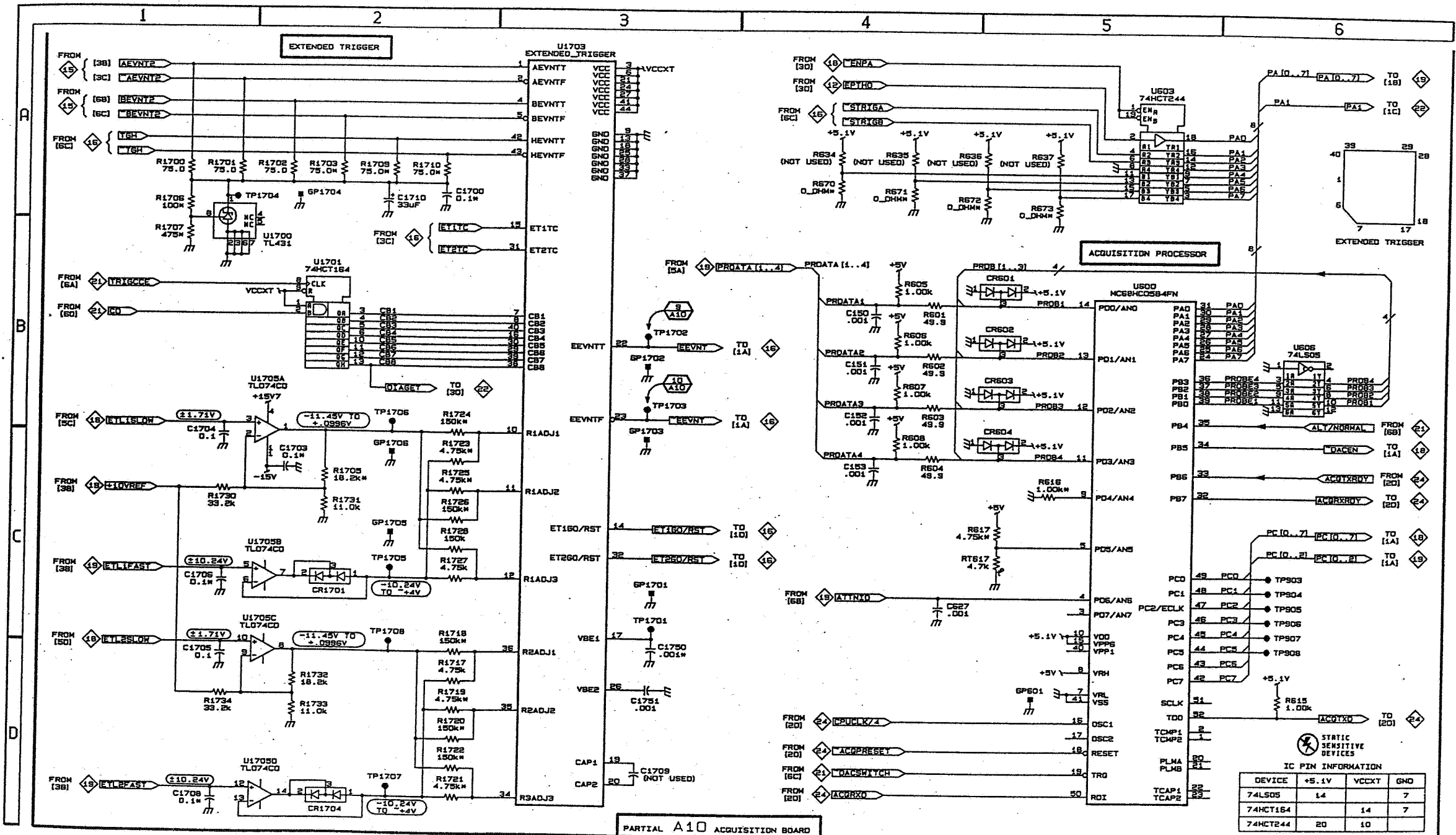
TDS 540

ANALOG TRIGGERS A10 15



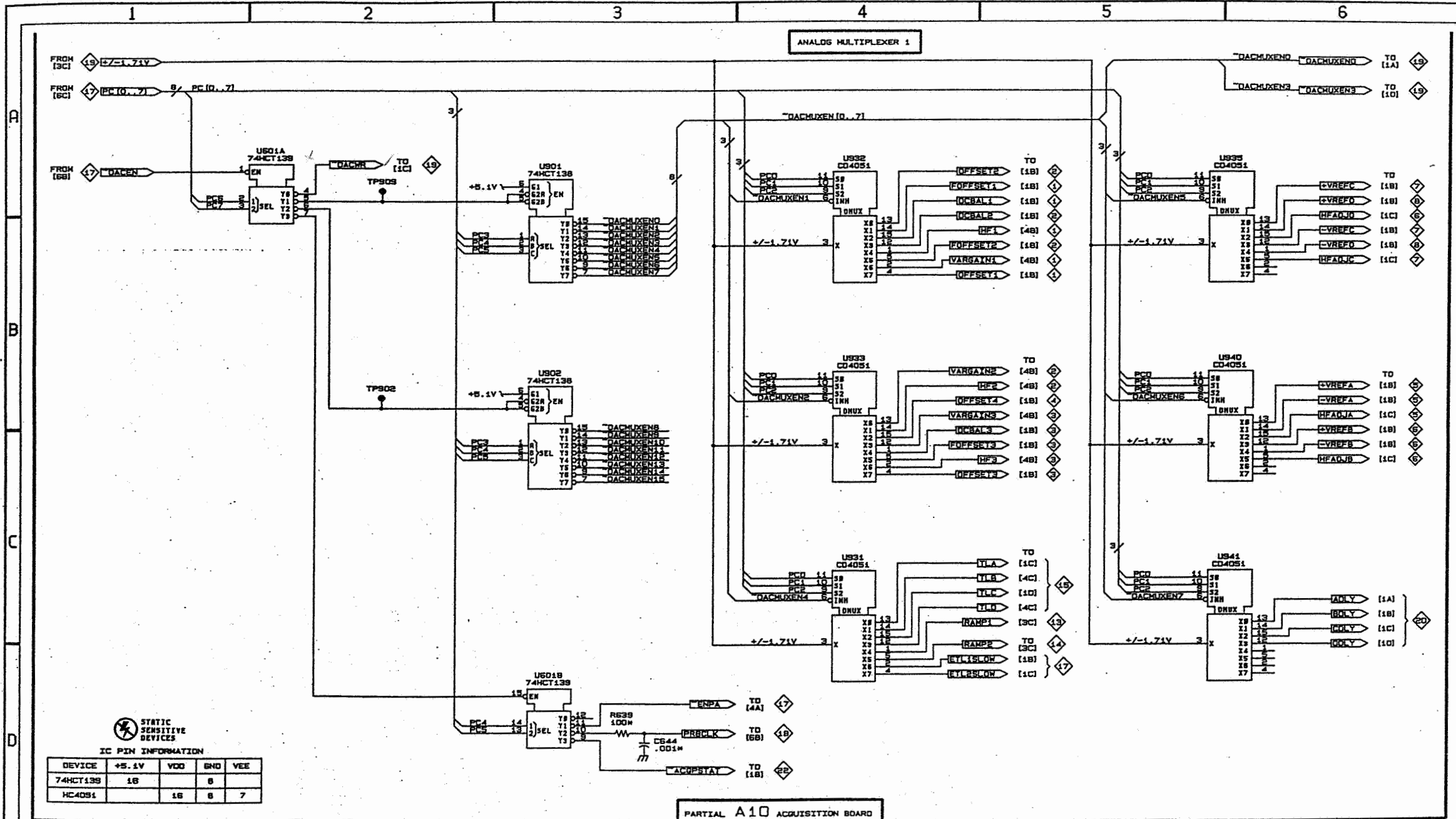
TDS 540

TRIGGER LOGIC A10 16



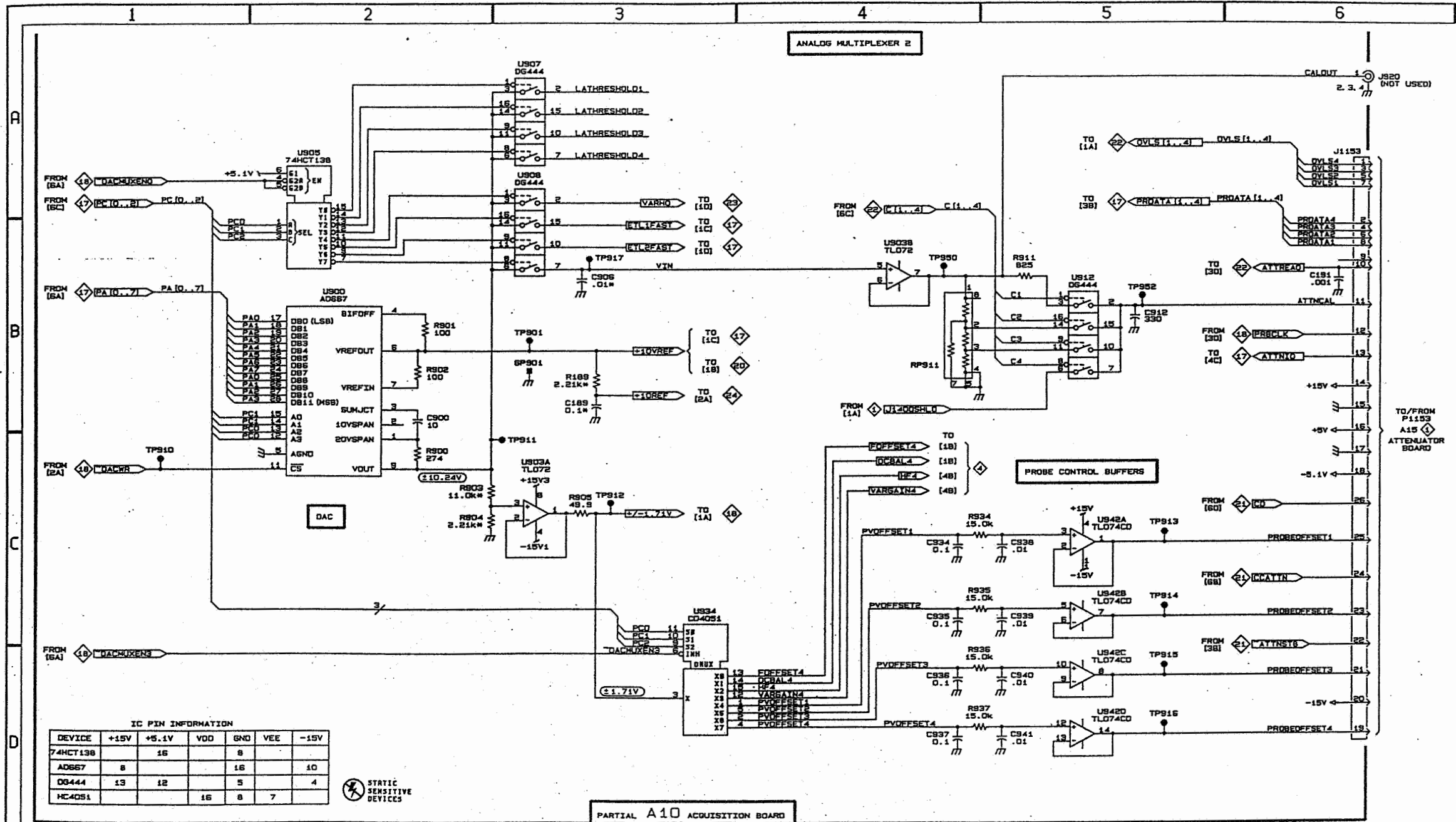
TDS 540

EXTENDED TRIGGER AND ACQ CONTROL SYSTEM A10 17



TDS 540

ANALOG DAC CONTROL 1 A10 18



IC PIN INFORMATION

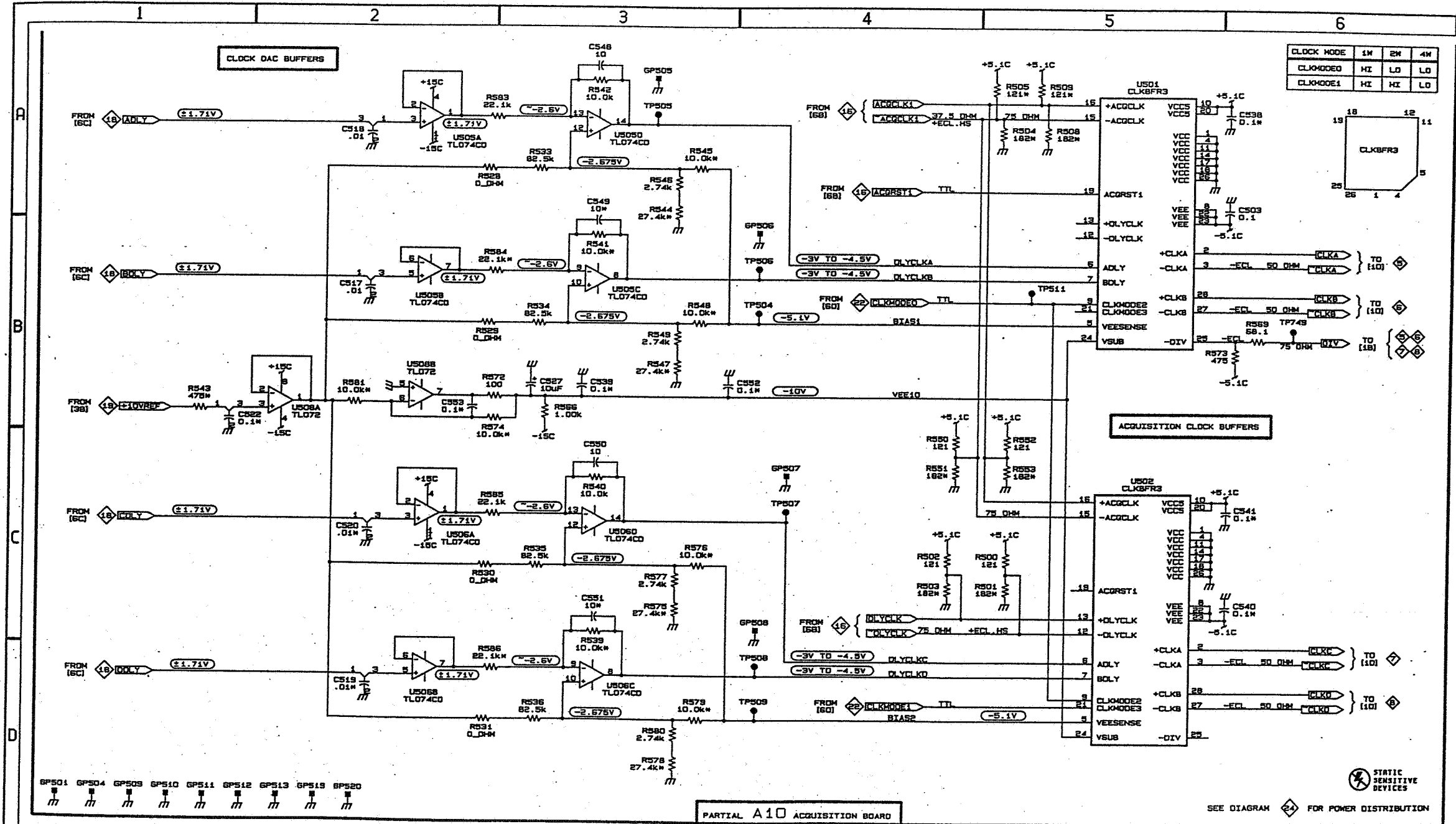
DEVICE	+15V	+5.1V	VDD	GND	VEE	-15V
74HCT138		16		8		
AD667	8			16		10
DG444	13	12		5		4
HC4051			16	8	7	

⚡ STATIC SENSITIVE DEVICES

PARTIAL A10 ACQUISITION BOARD

TDS 540

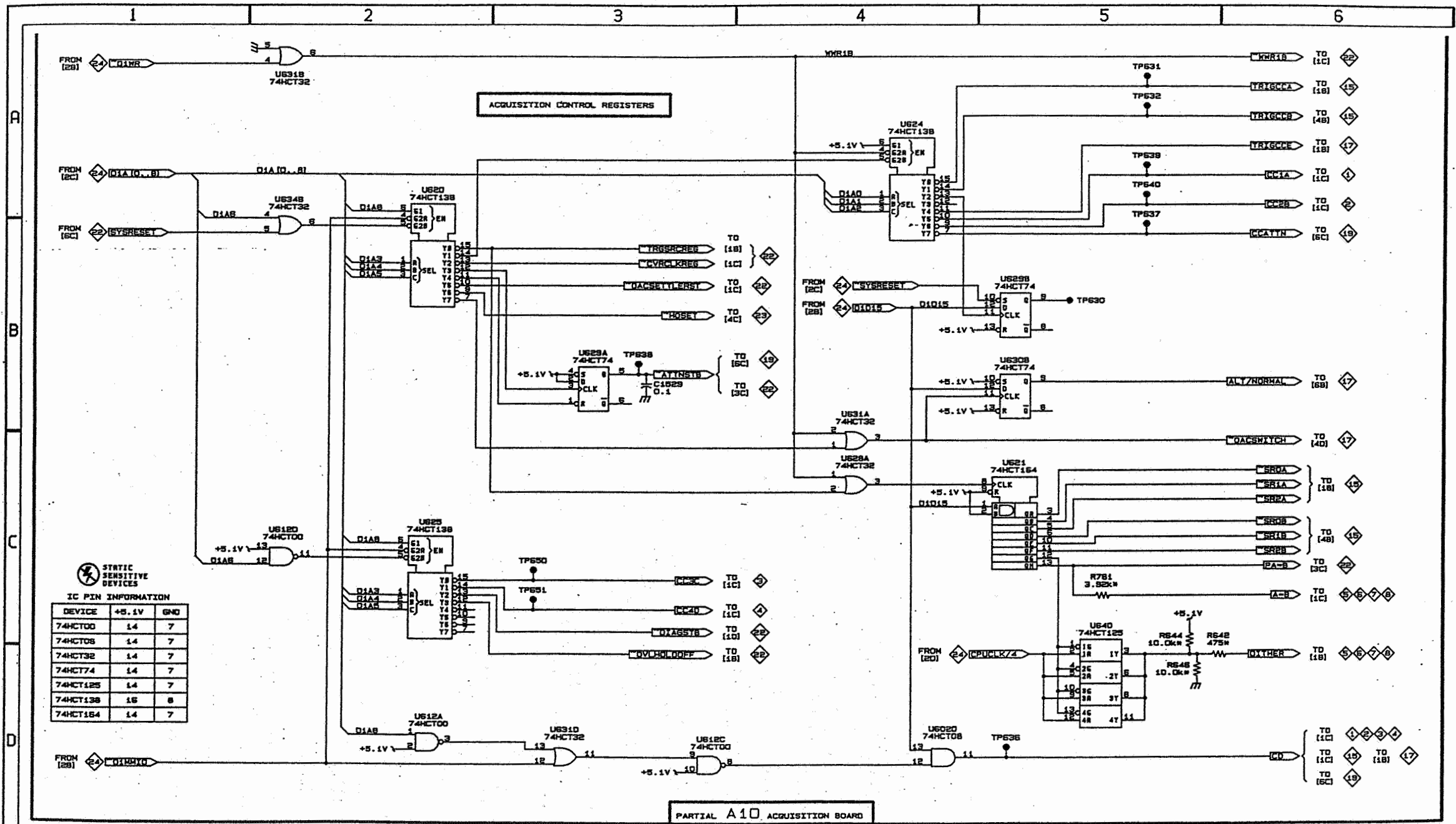
ANALOG DAC CONTROL 2 A10 19



TDS 540

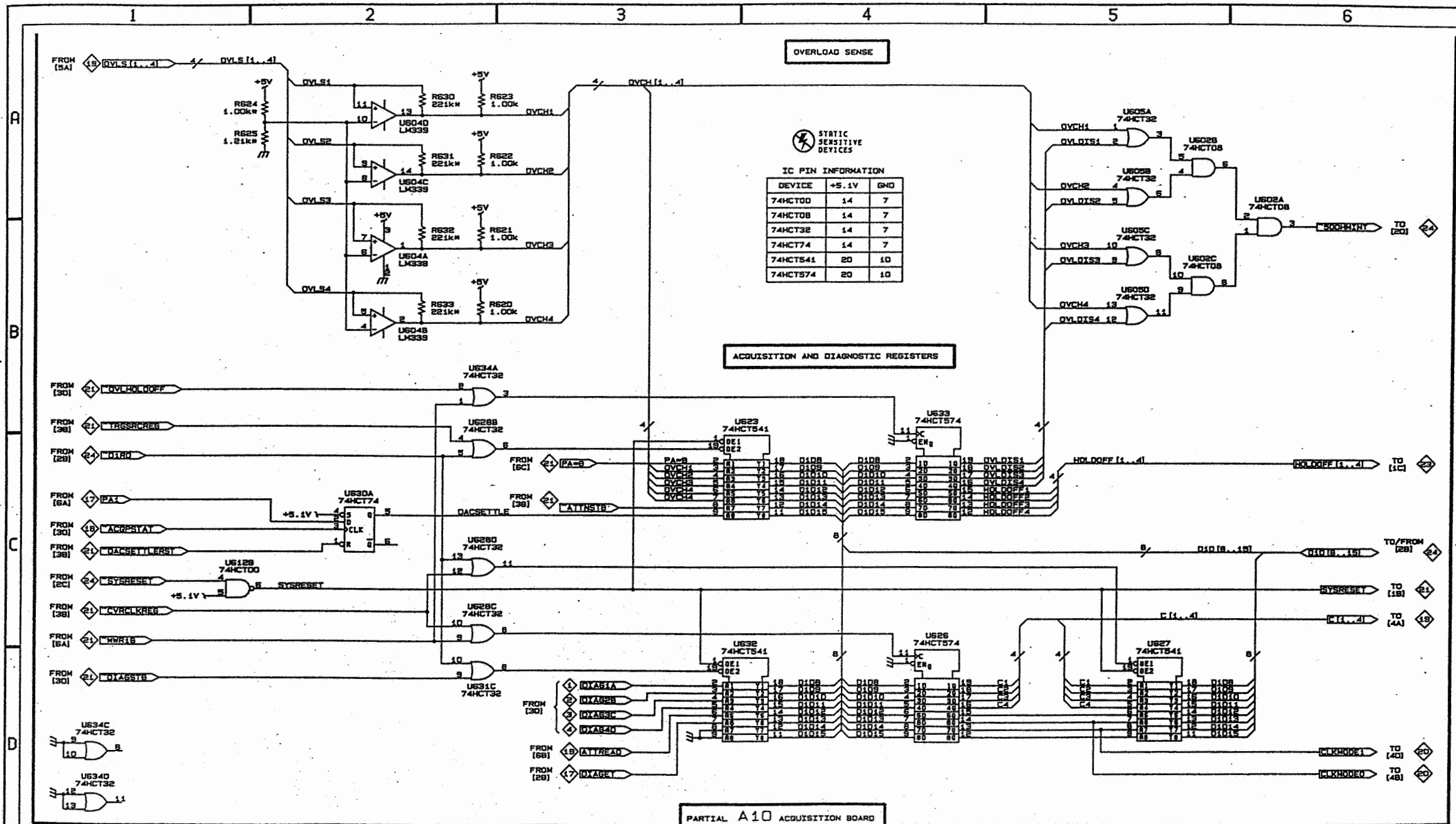
PARTIAL A10 ACQUISITION BOARD

CLOCK DAC BUFFERS & ACQUISITION CLOCKS A10 20

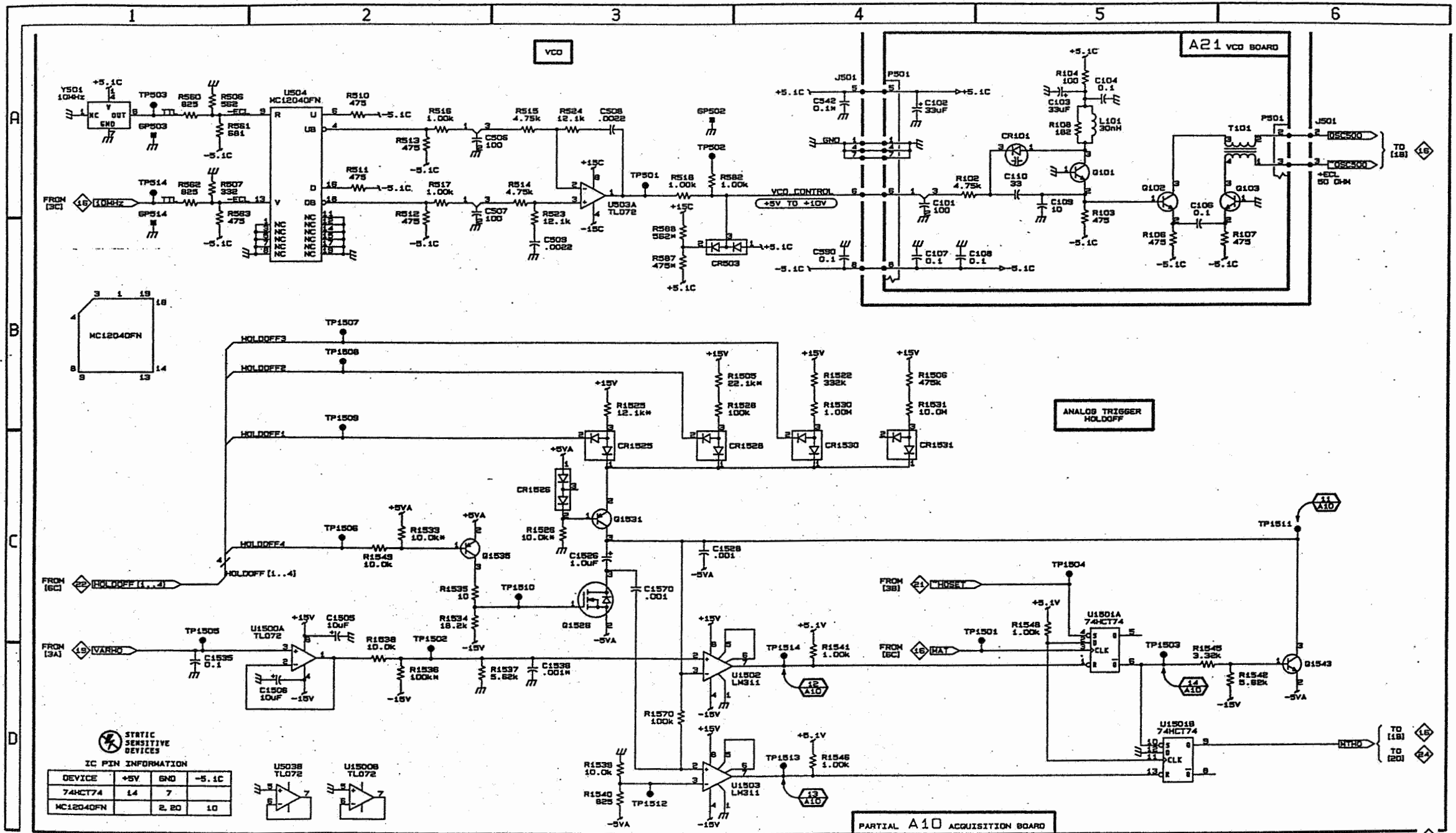


TDS 540

ACQUISITION DIGITAL CONTROL 1 A10 21



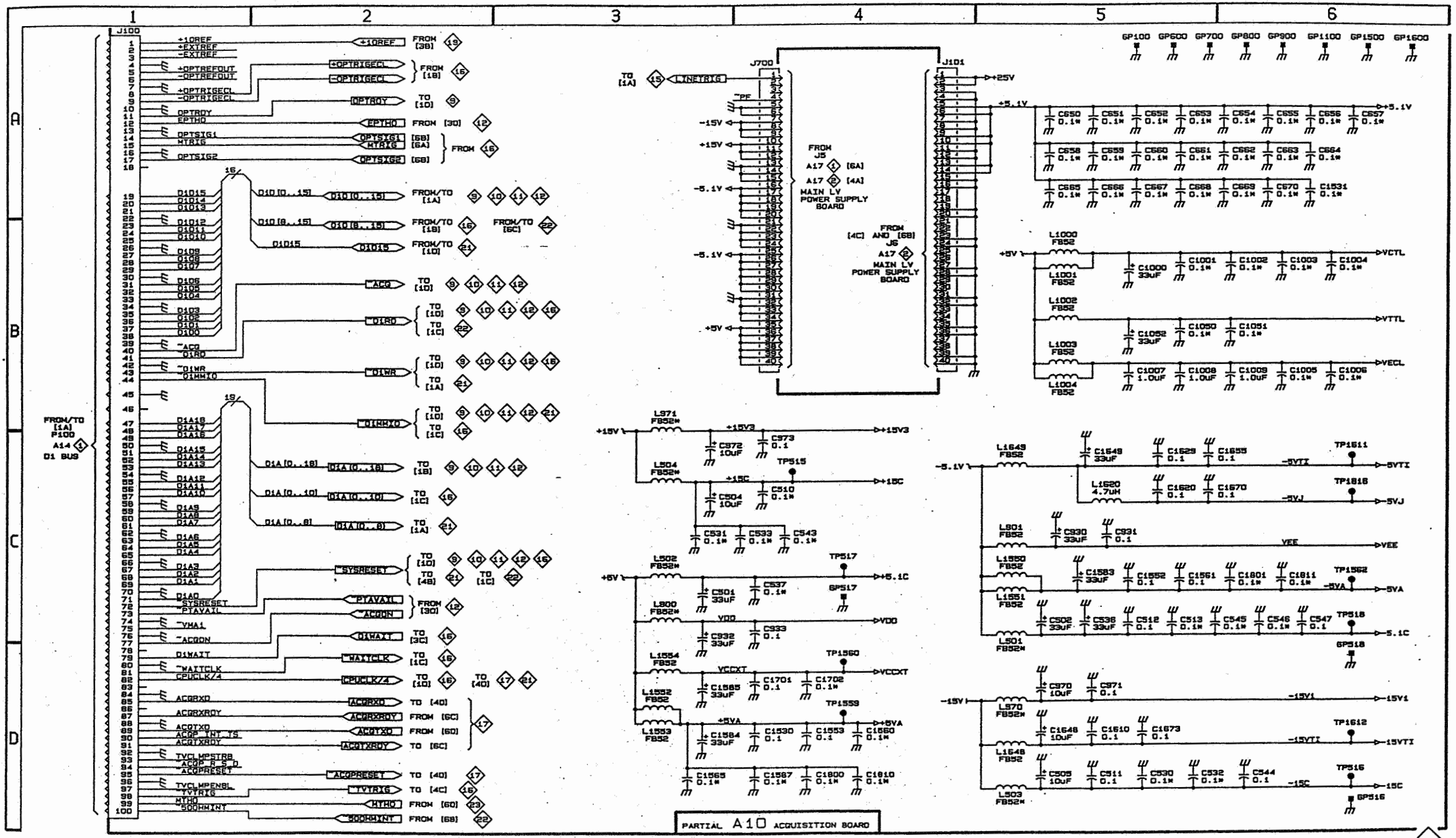
TDS 540



TDS 540

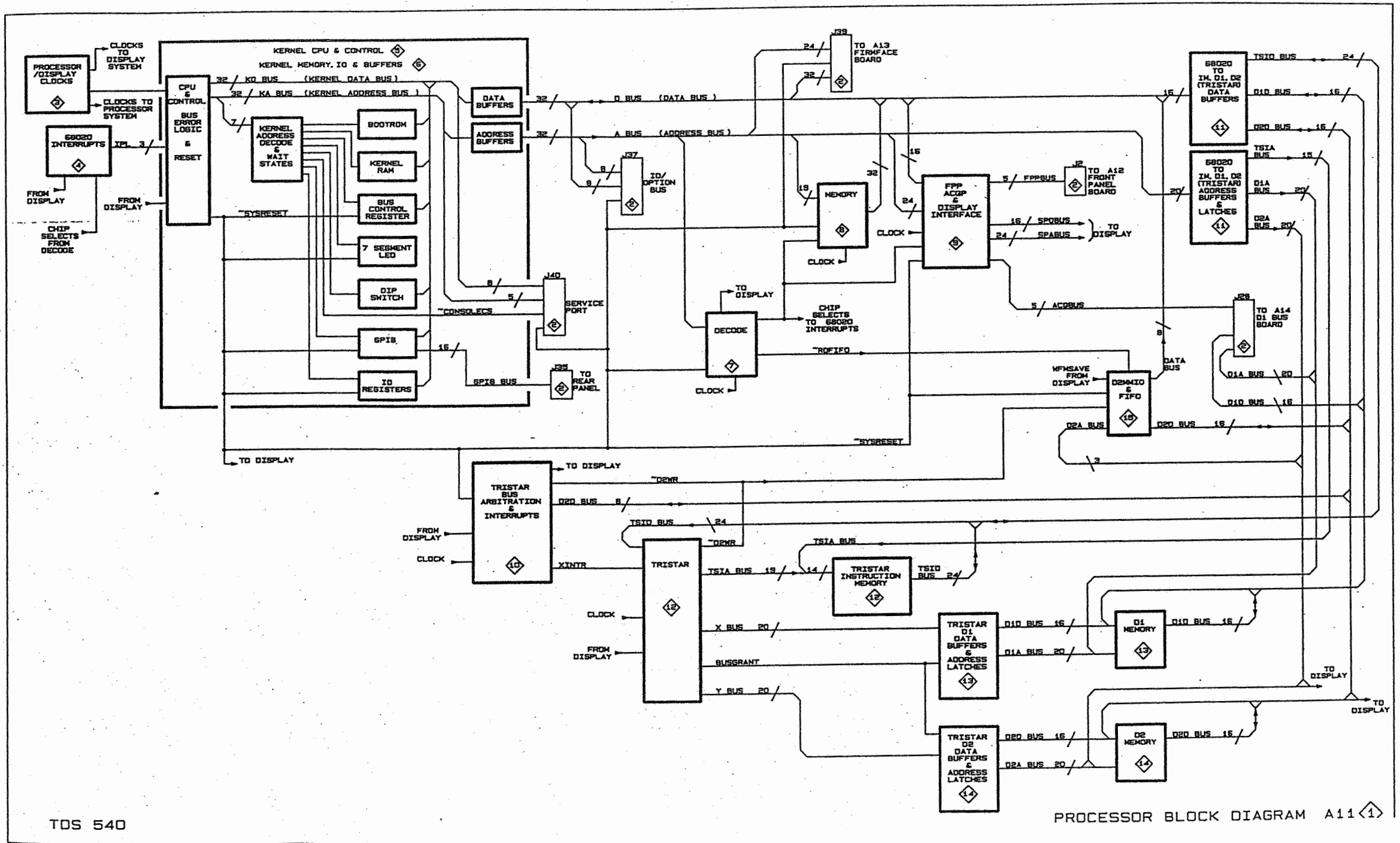
VCO AND ANALOG TRIGGER HOLDOFF

A10 23



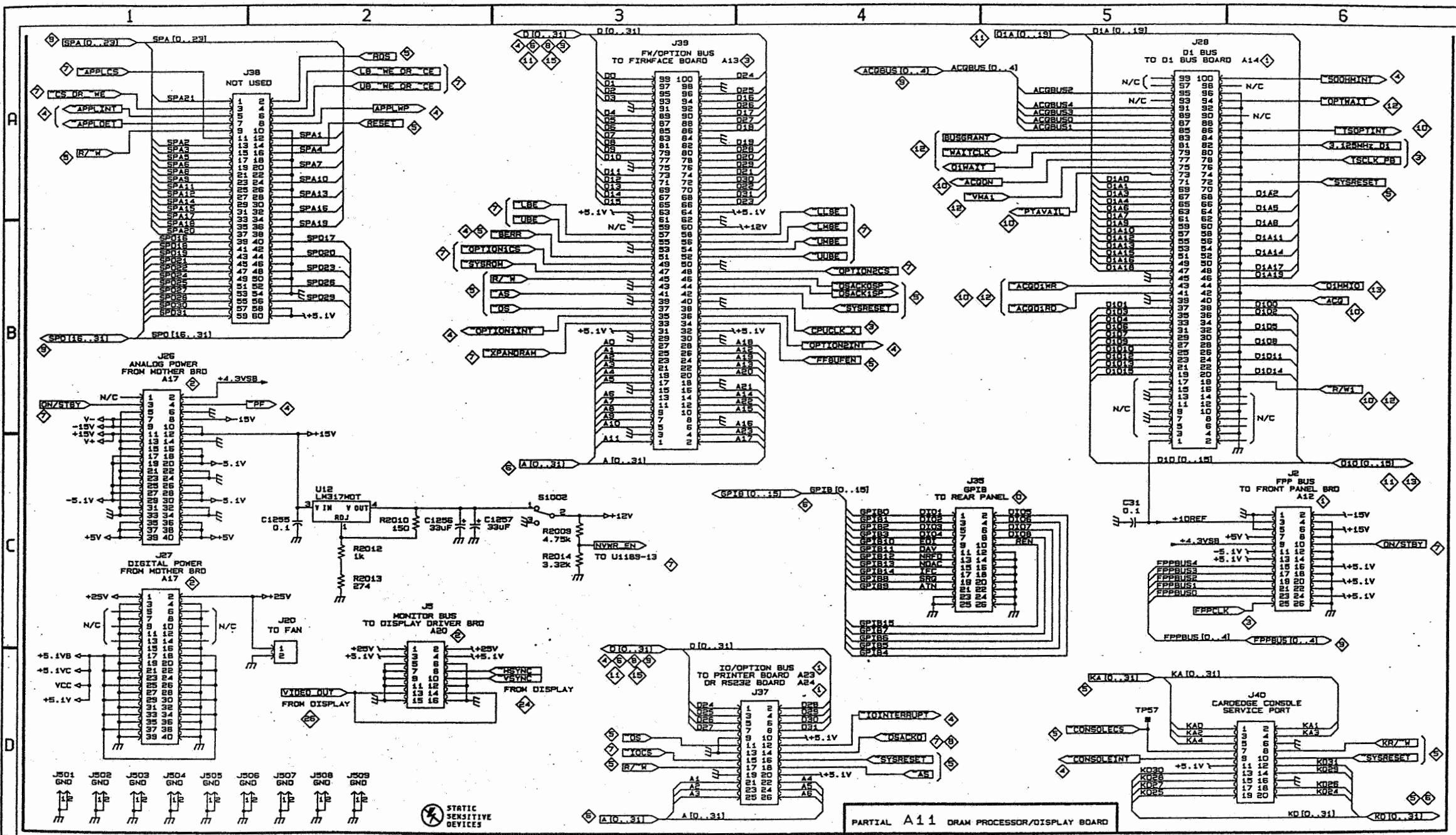
TDS 540

POWER DISTRIBUTION A10 24



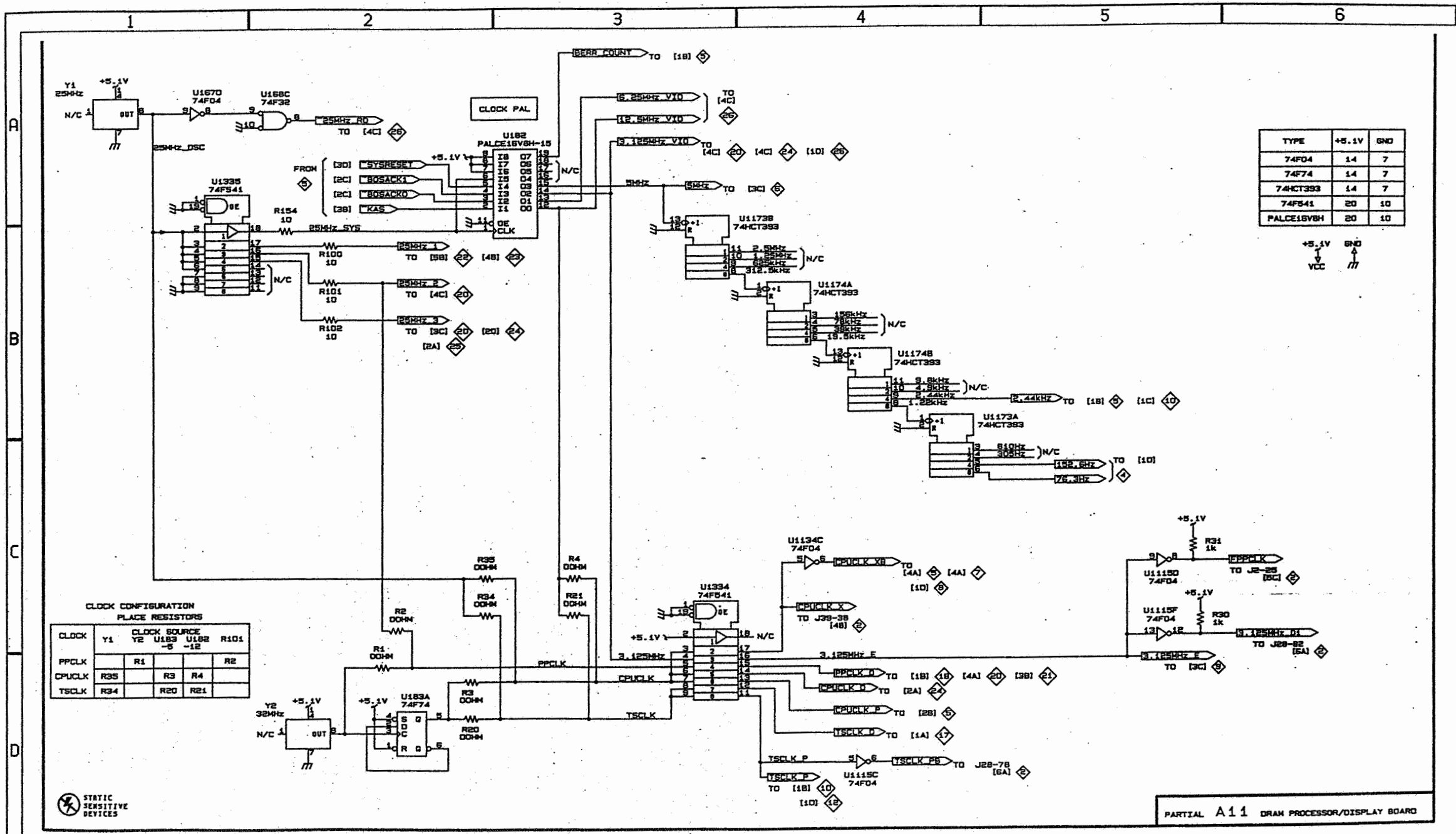
TDS 540

PROCESSOR BLOCK DIAGRAM A11



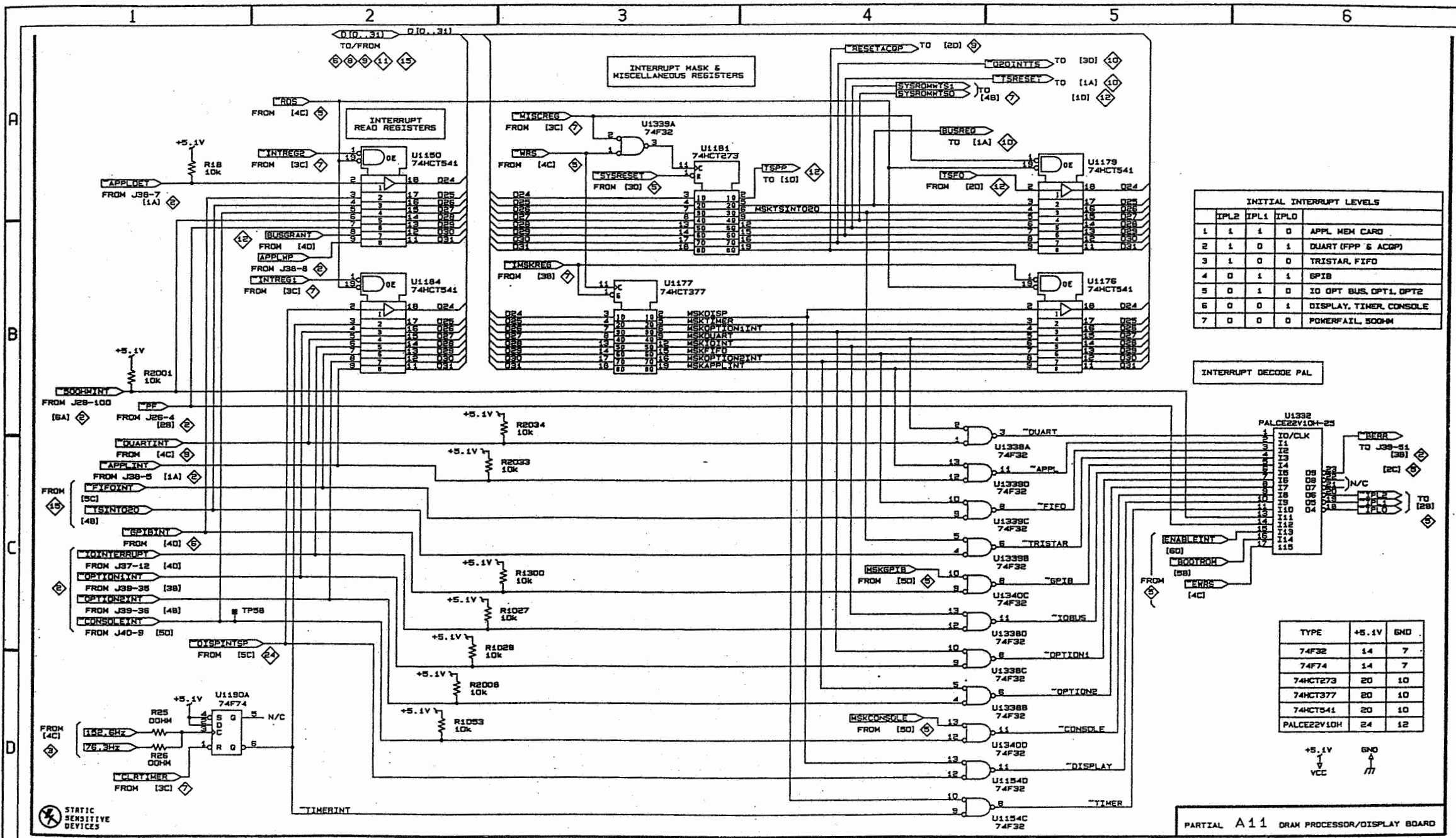
TDS 540

PROCESSOR/DISPLAY BOARD CONNECTORS A11



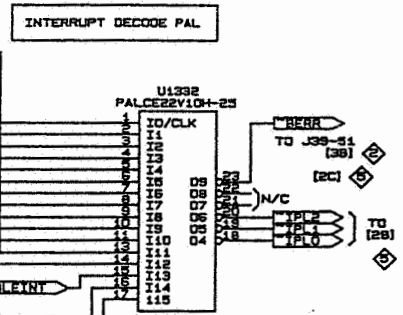
TDS 540

PROCESSOR/DISPLAY CLOCKS A11



INITIAL INTERRUPT LEVELS

IPLE	IPL1	IPL0		
1	1	1	0	APPL MEM CARD
2	1	0	1	DUART (FPP & ACQP)
3	1	0	0	TRISTAR, FIFO
4	0	1	1	GPXB
5	0	1	0	ID OPT BUS, OPT1, OPT2
6	0	0	1	DISPLAY, TIMER, CONSOLE
7	0	0	0	POWERFAIL, 500-M

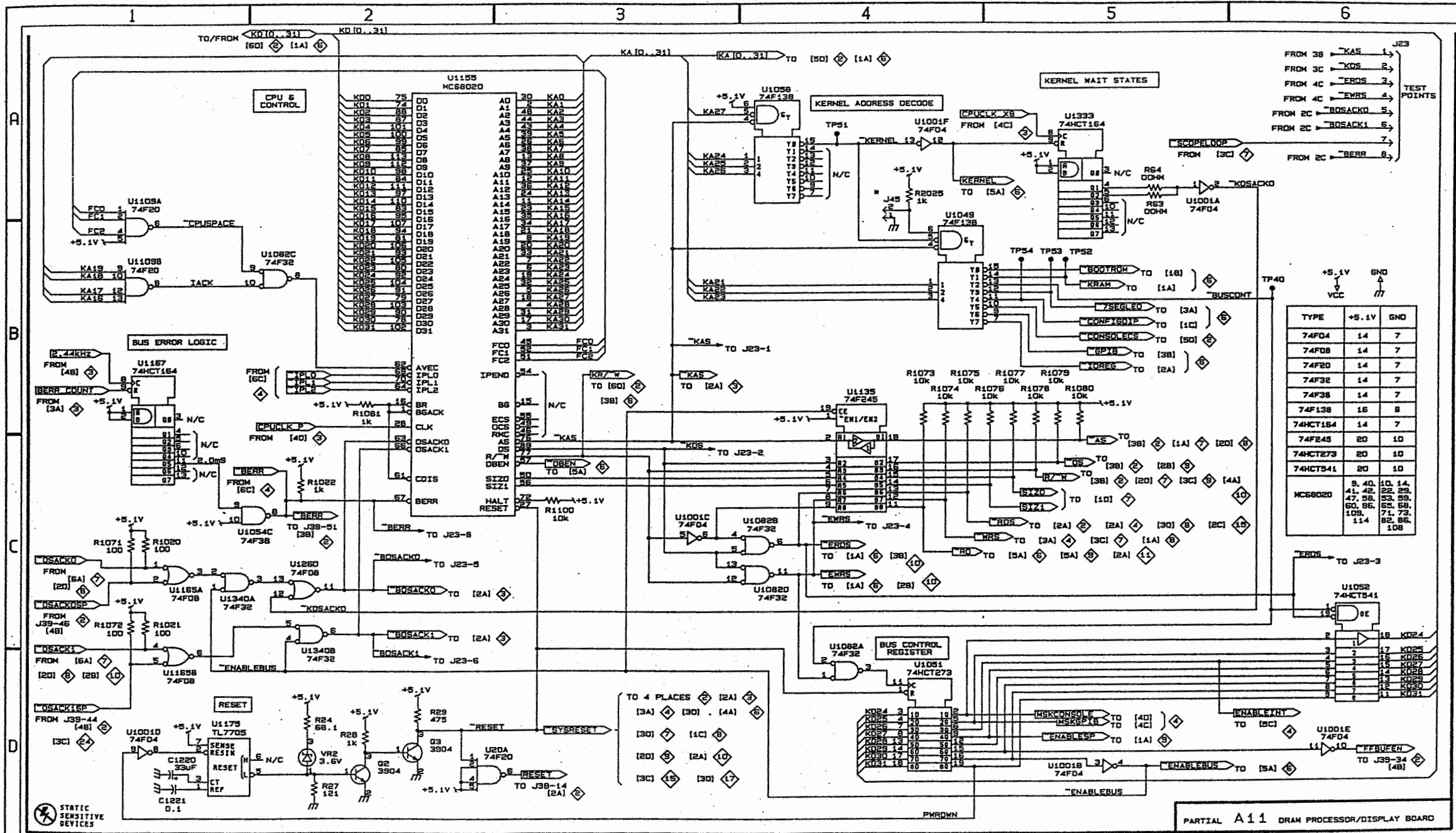


TYPE	+5.1V	GND
74F32	14	7
74F74	14	7
74HCT273	20	10
74HCT377	20	10
74HCT541	20	10
PALCE22V10H	24	12

TDS 540

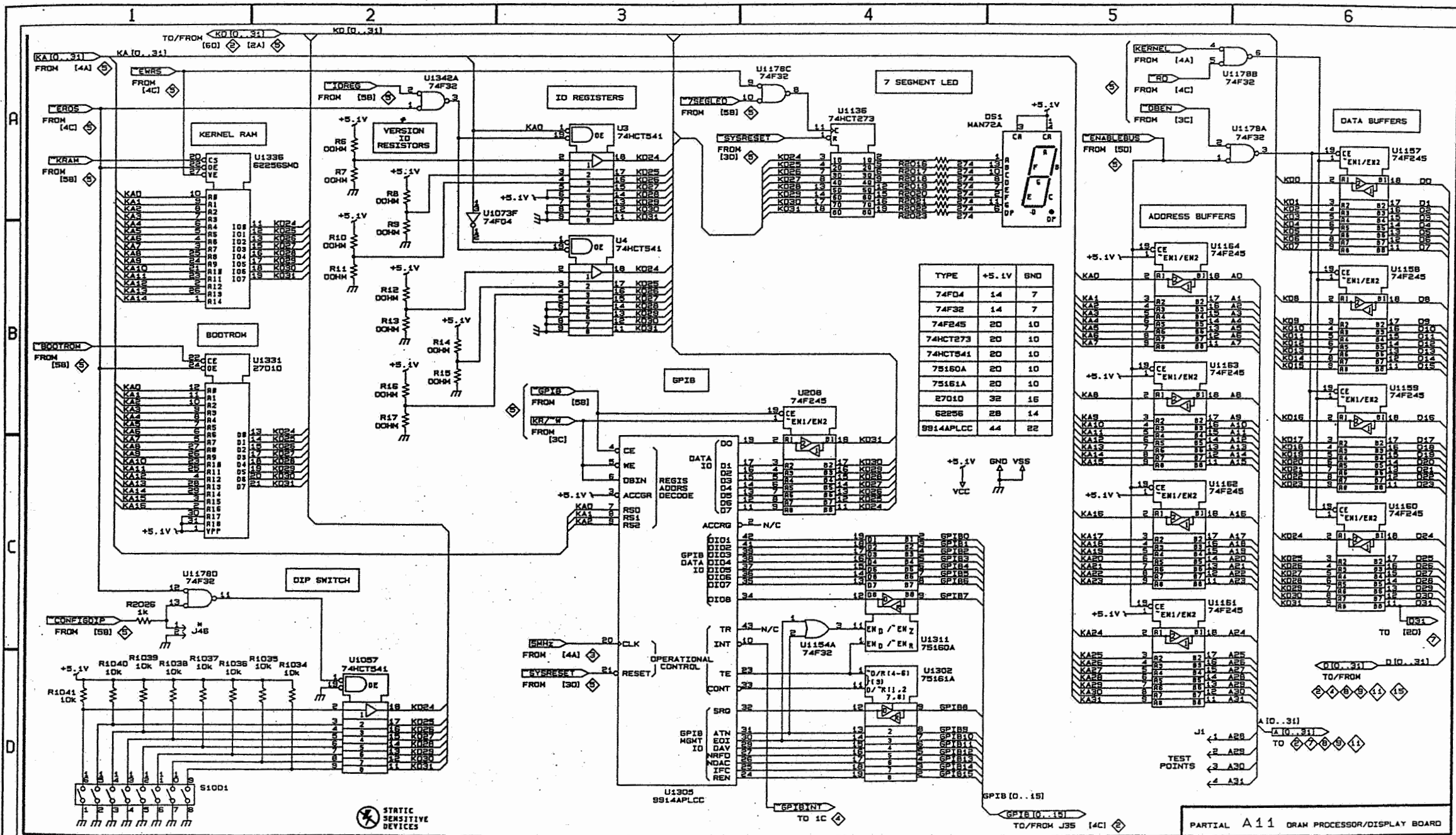
68020 INTERRUPTS

A11



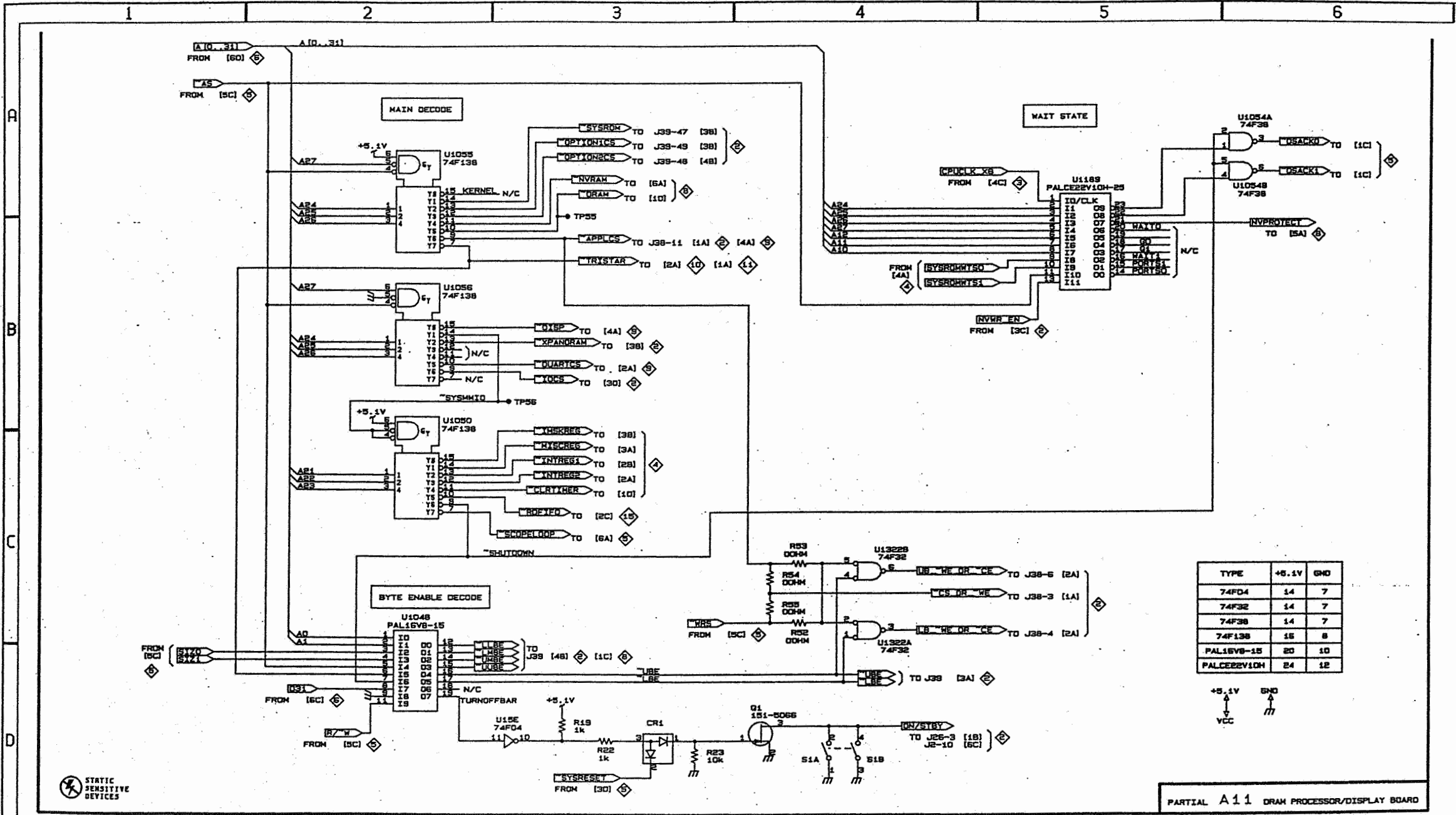
TDS 540

KERNEL CPU & CONTROL A11

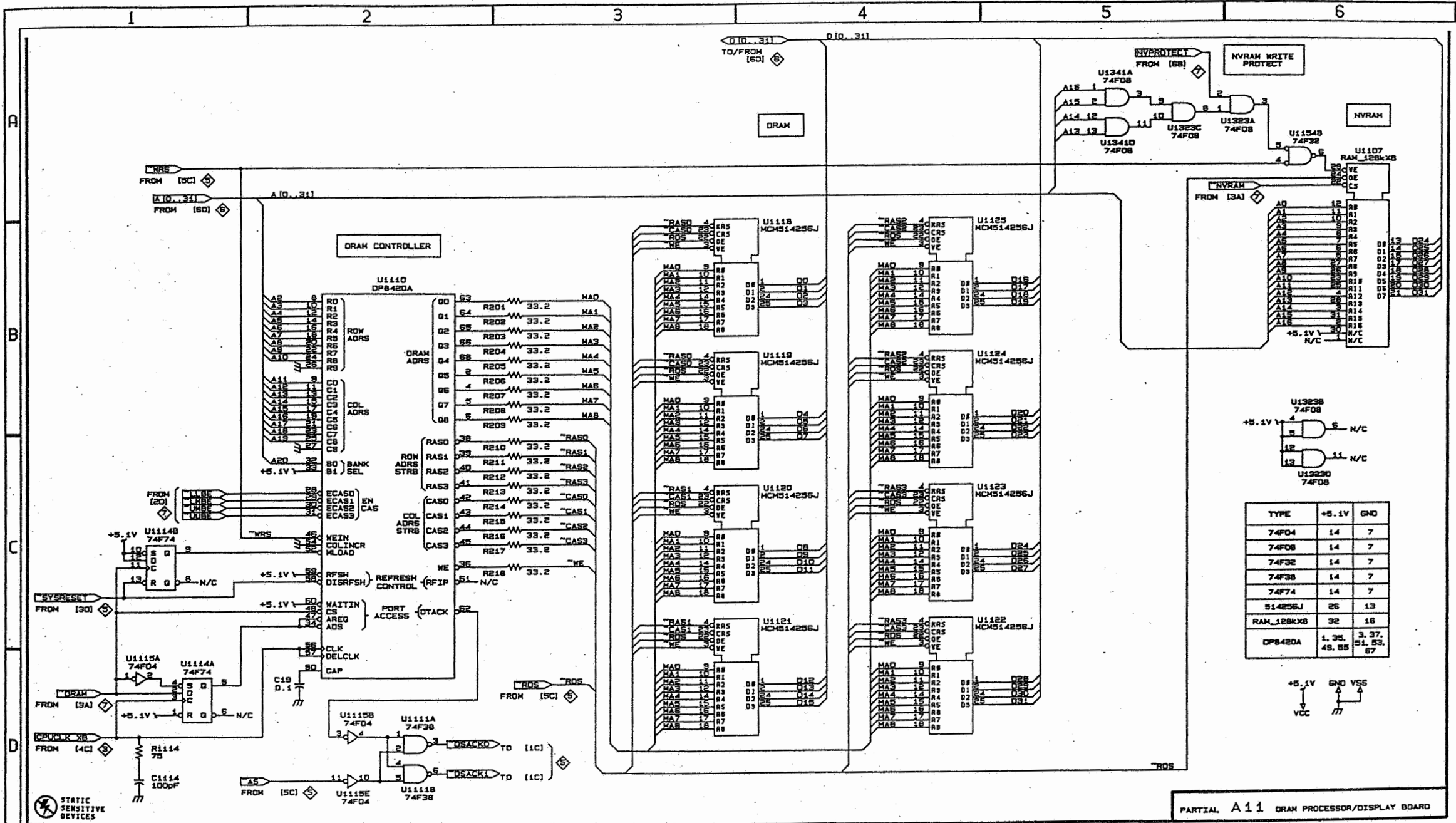


TDS 540

KERNEL MEMORY, IO & BUFFERS A11



PARTIAL A11 DRAM PROCESSOR/DISPLAY BOARD

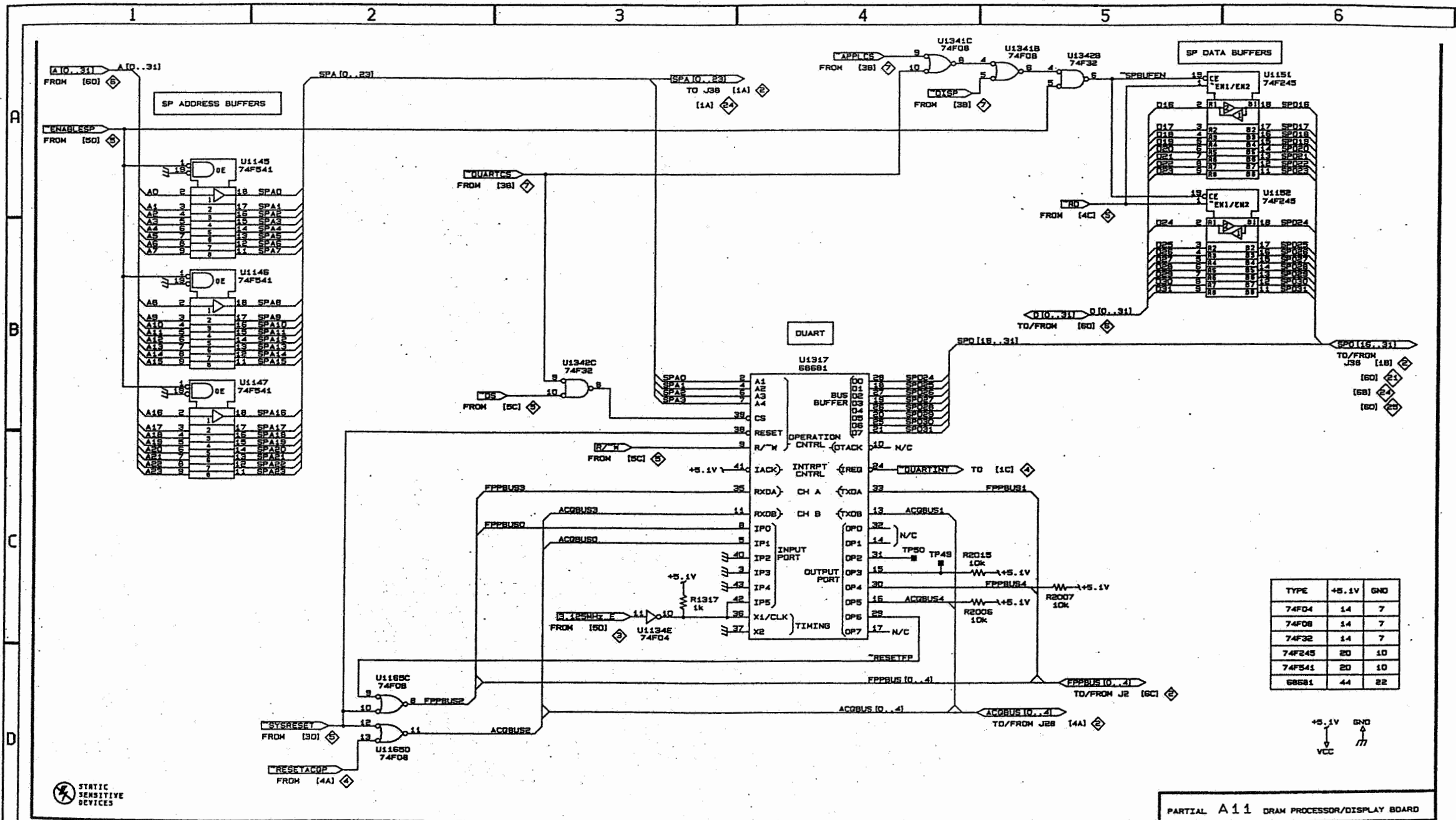


TYPE	+5.1V	GND
74F04	14	7
74F08	14	7
74F32	14	7
74F38	14	7
74F74	14	7
514256J	26	13
RAM_128Kx8	32	16
DP842DA	1, 35, 49, 55	3, 37, 51, 53, 57

PARTIAL A11 DRAM PROCESSOR/DISPLAY BOARD

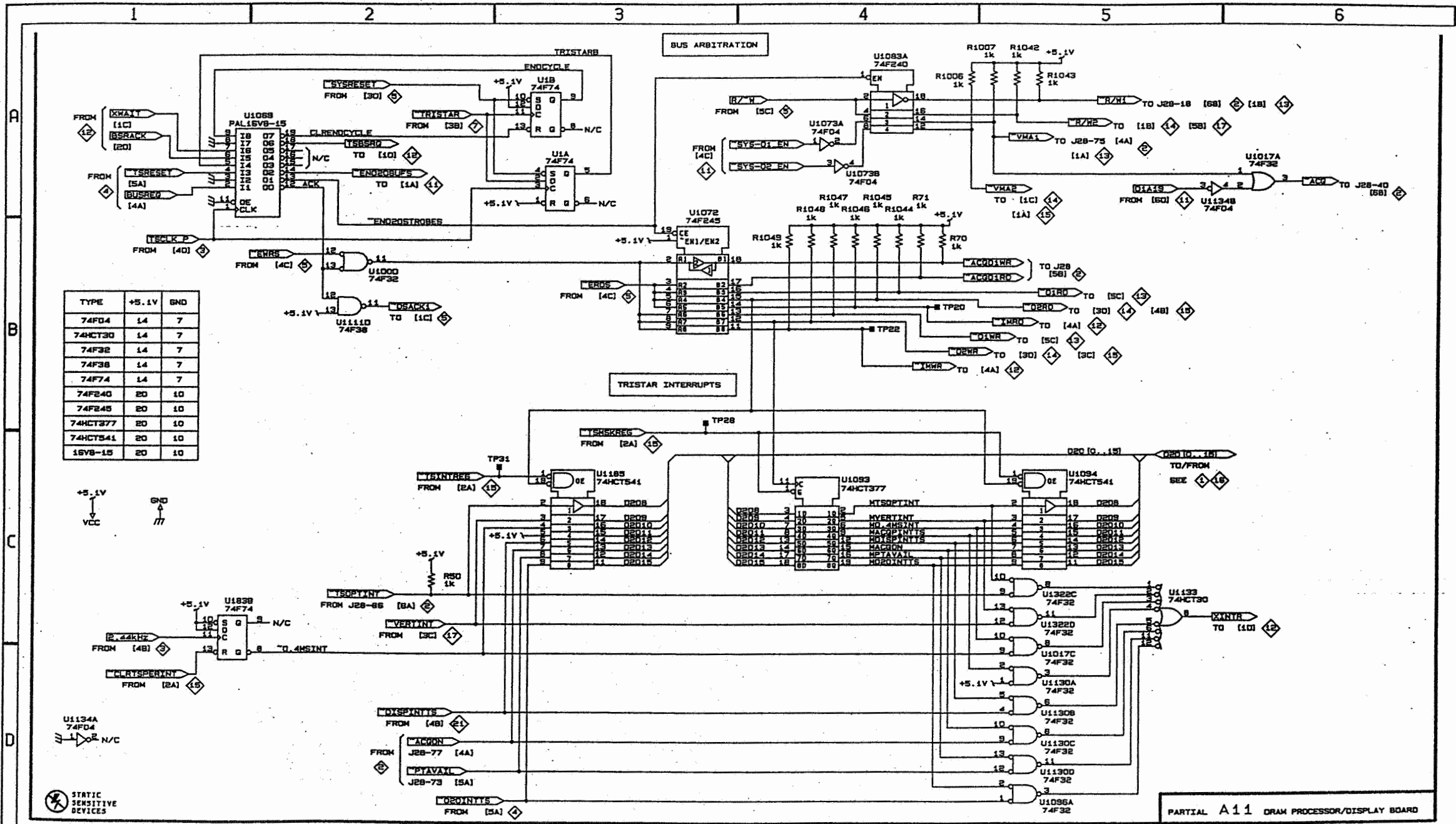
TDS 540

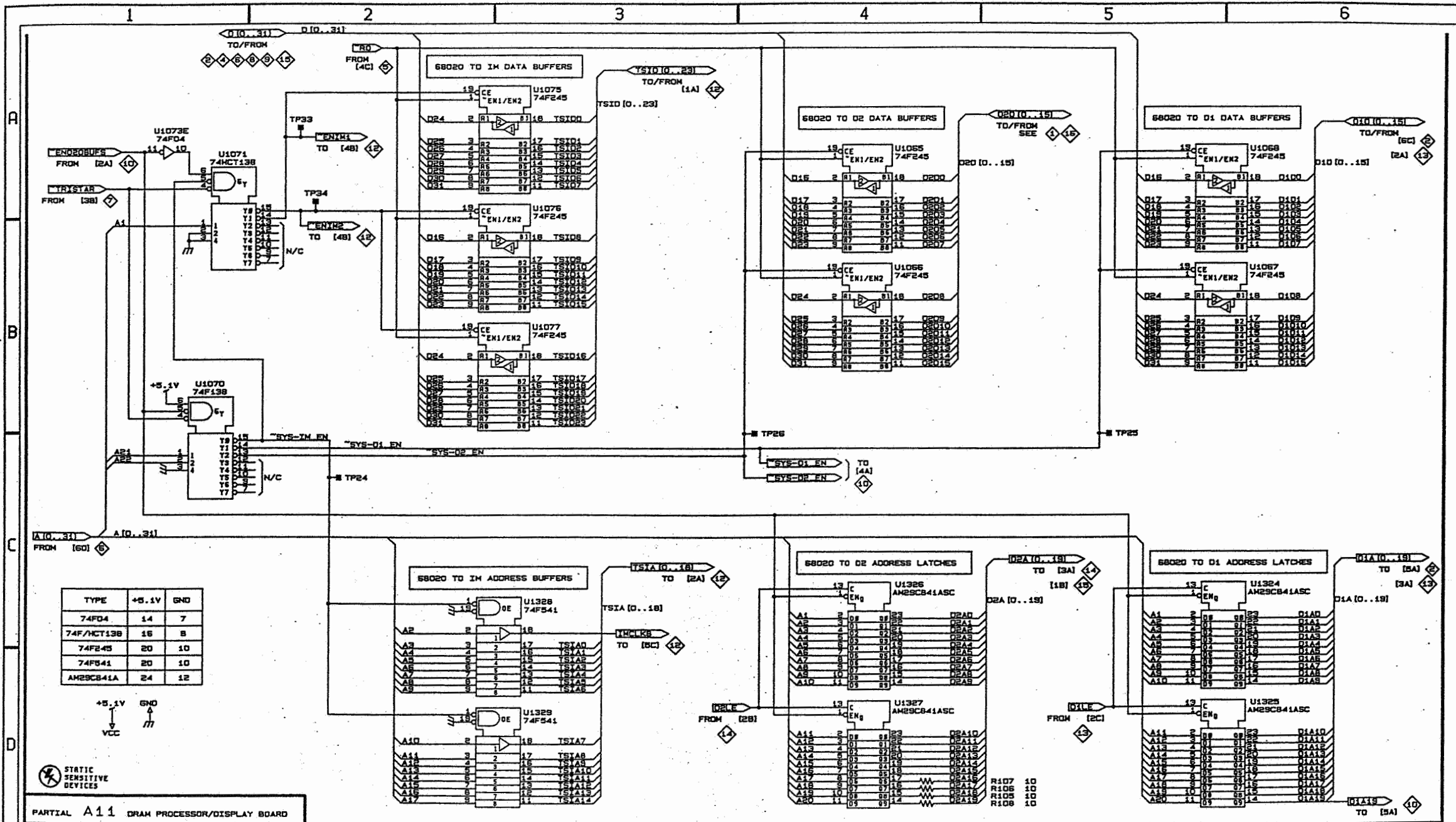
MEMORY A11



TDS 540

FPP, ACQP & DISPLAY INTERFACE A11

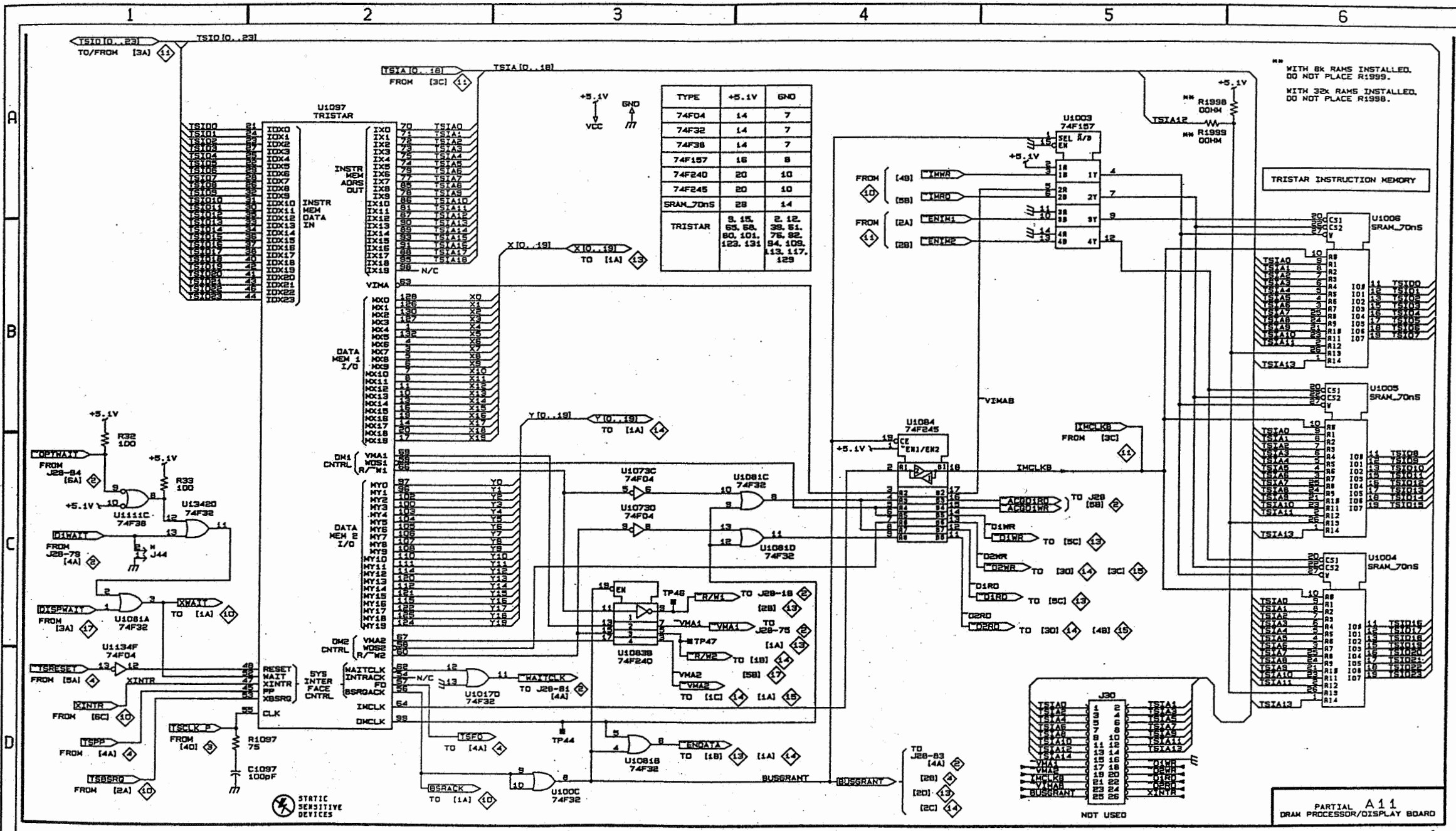




PARTIAL A11 DRAM PROCESSOR/DISPLAY BOARD

TDS 540

68020 TO TRISTAR BUFFERS & LATCHES A11 11

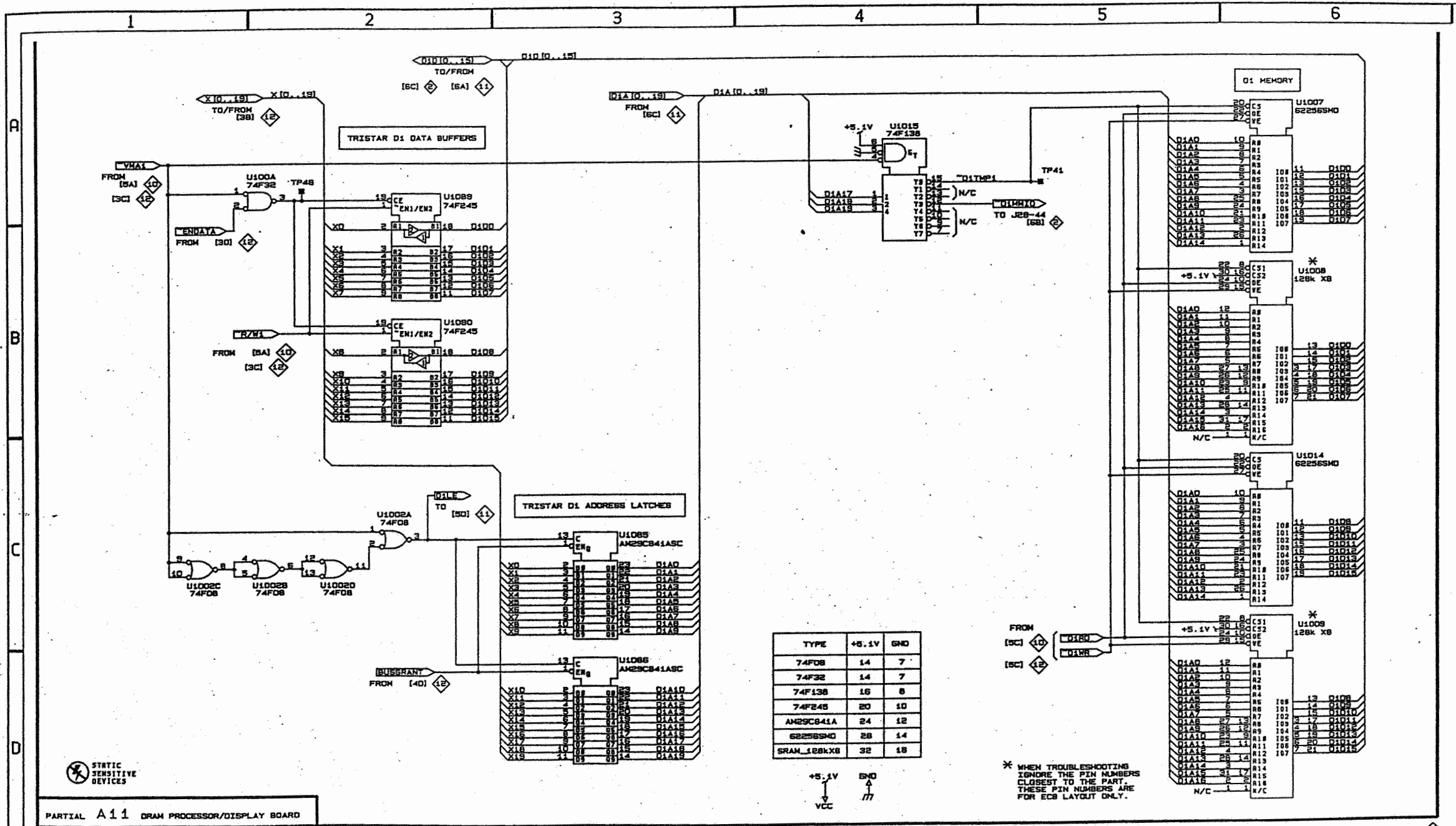


TOS 540

TRISTAR & INSTRUCTION MEMORY

A11 12

* J44: INSTALL JUMPER TO THRUOUT TRISTAR WAFER



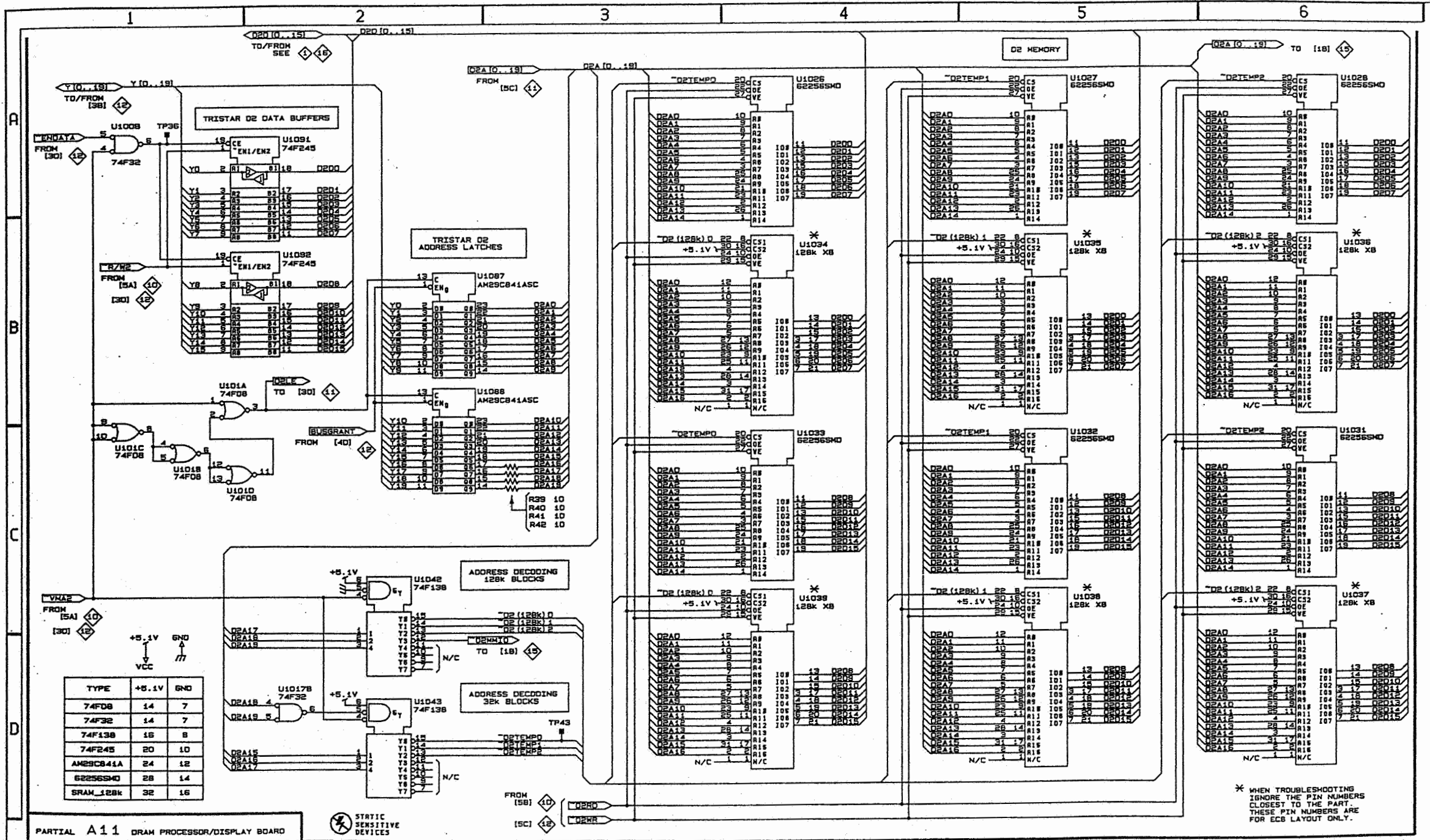
TYPE	+5.1V	GND
74F08	14	7
74F32	14	7
74F138	16	8
74F245	20	10
AM29C41A	24	12
62256SMD	28	14
SRAM_128kX8	32	18

* WHEN TROUBLESHOOTING IGNORE THE PIN NUMBERS CLOSEST TO THE PART. THESE PIN NUMBERS ARE FOR PCB LAYOUT ONLY.

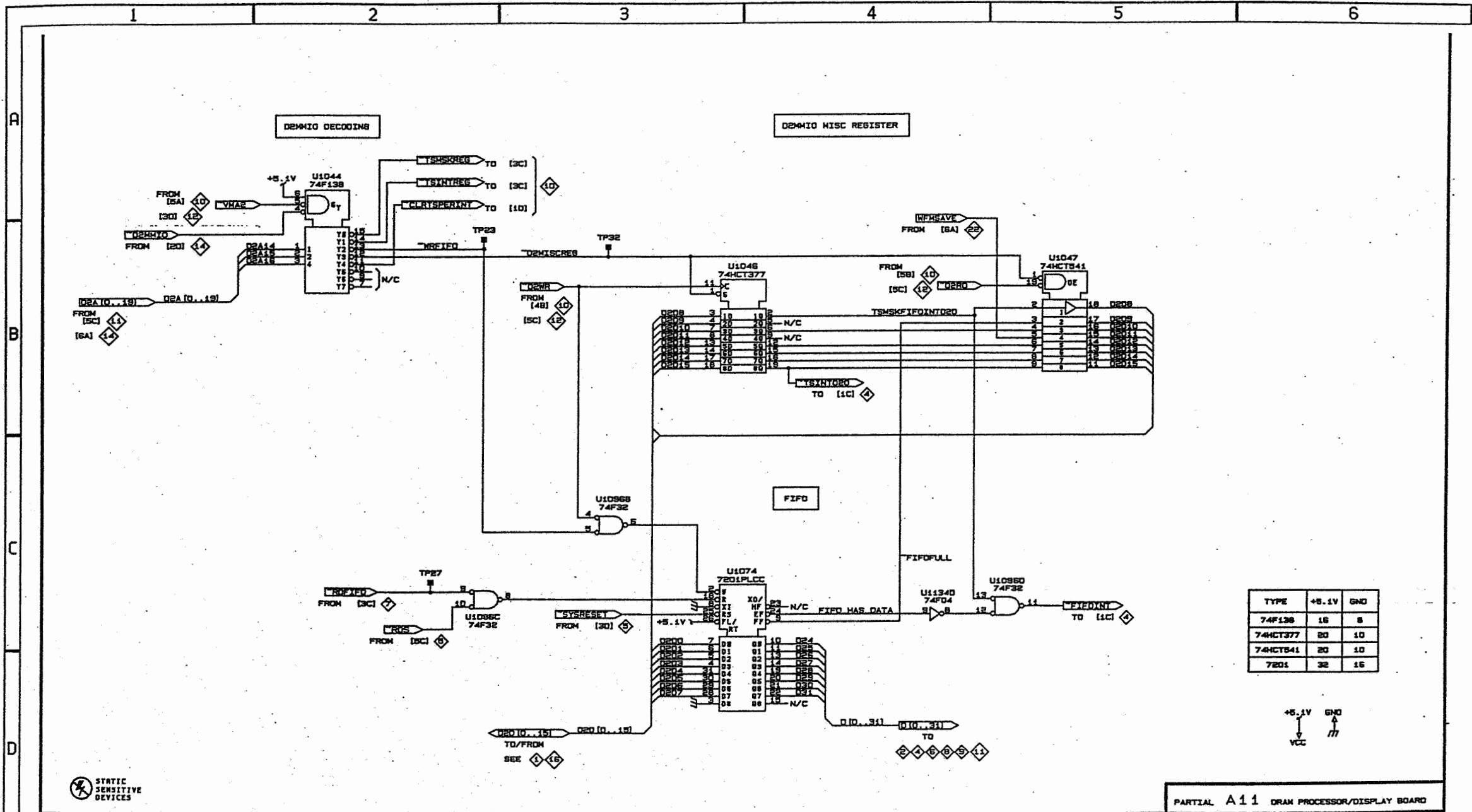
PARTIAL A11 DRAM PROCESSOR/DISPLAY BOARD

TDS 540

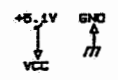
TRISTAR D1 BUFFERS, LATCHES & MEMORY



PARTIAL A11 DRAM PROCESSOR/DISPLAY BOARD



TYPE	+5.1V	GND
74F138	16	8
74HCT377	20	10
74HCT541	20	10
7201	32	16

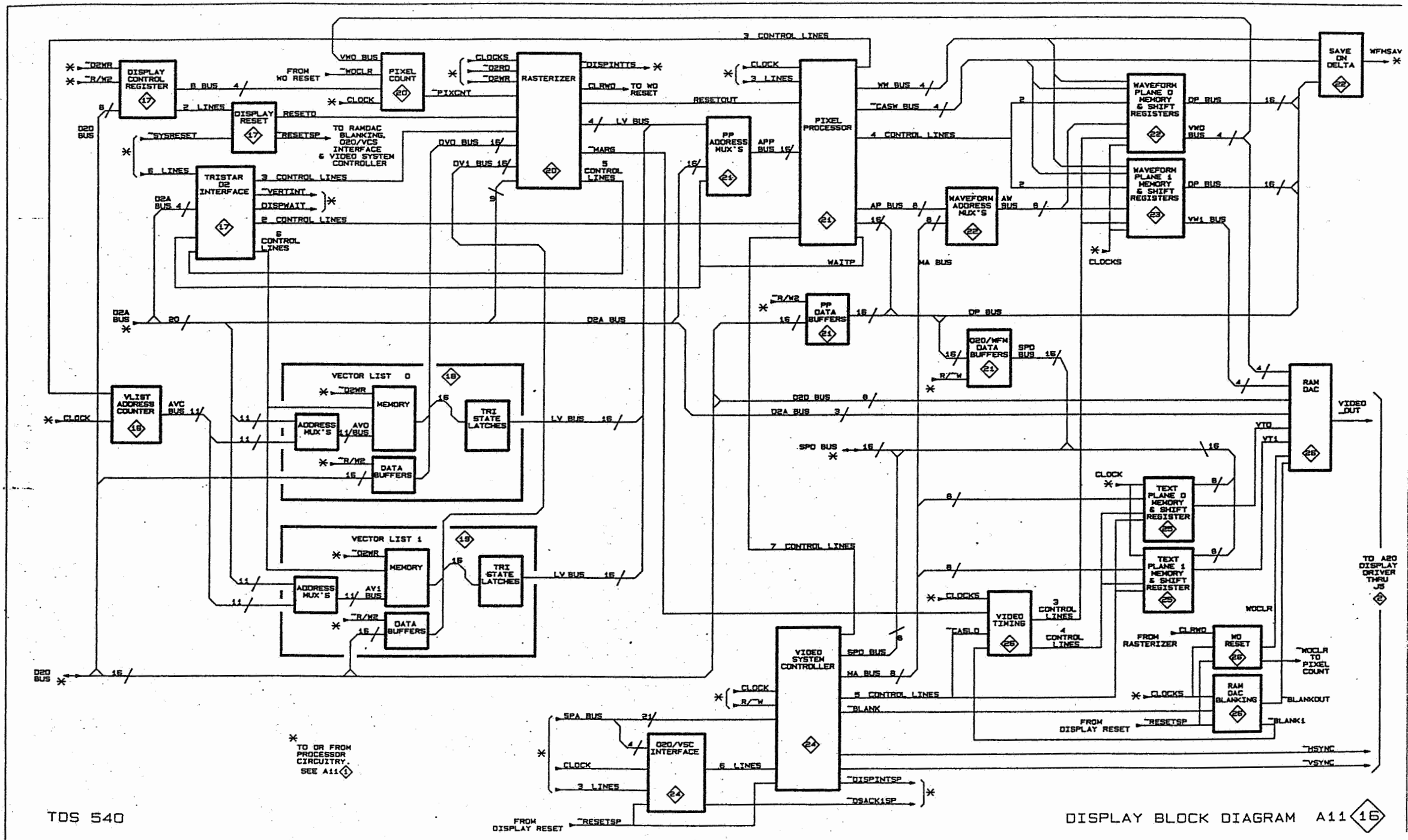


PARTIAL A11 ORAN PROCESSOR/DISPLAY BOARD

TDS 540

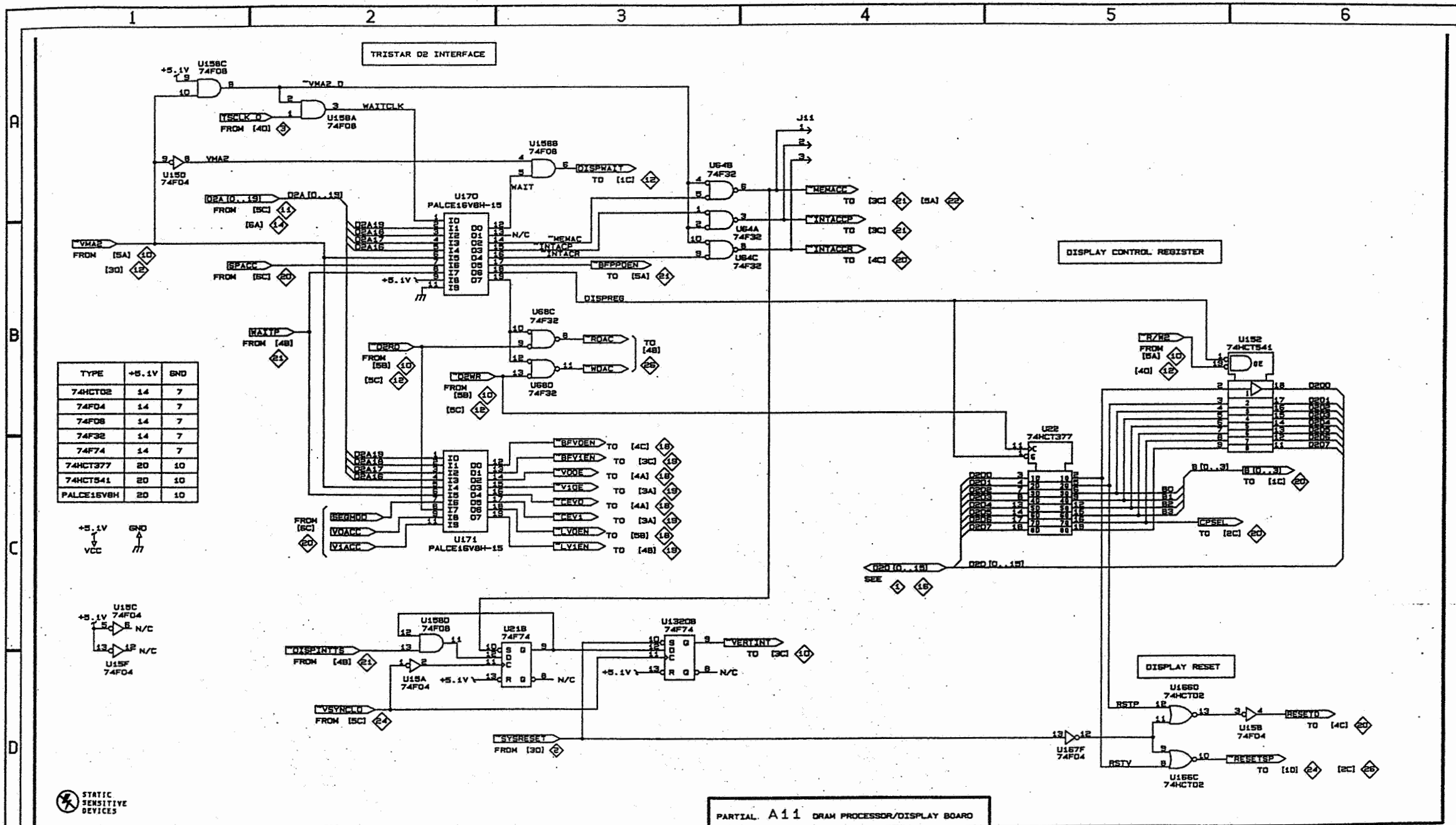
D2MMIO & FIFO

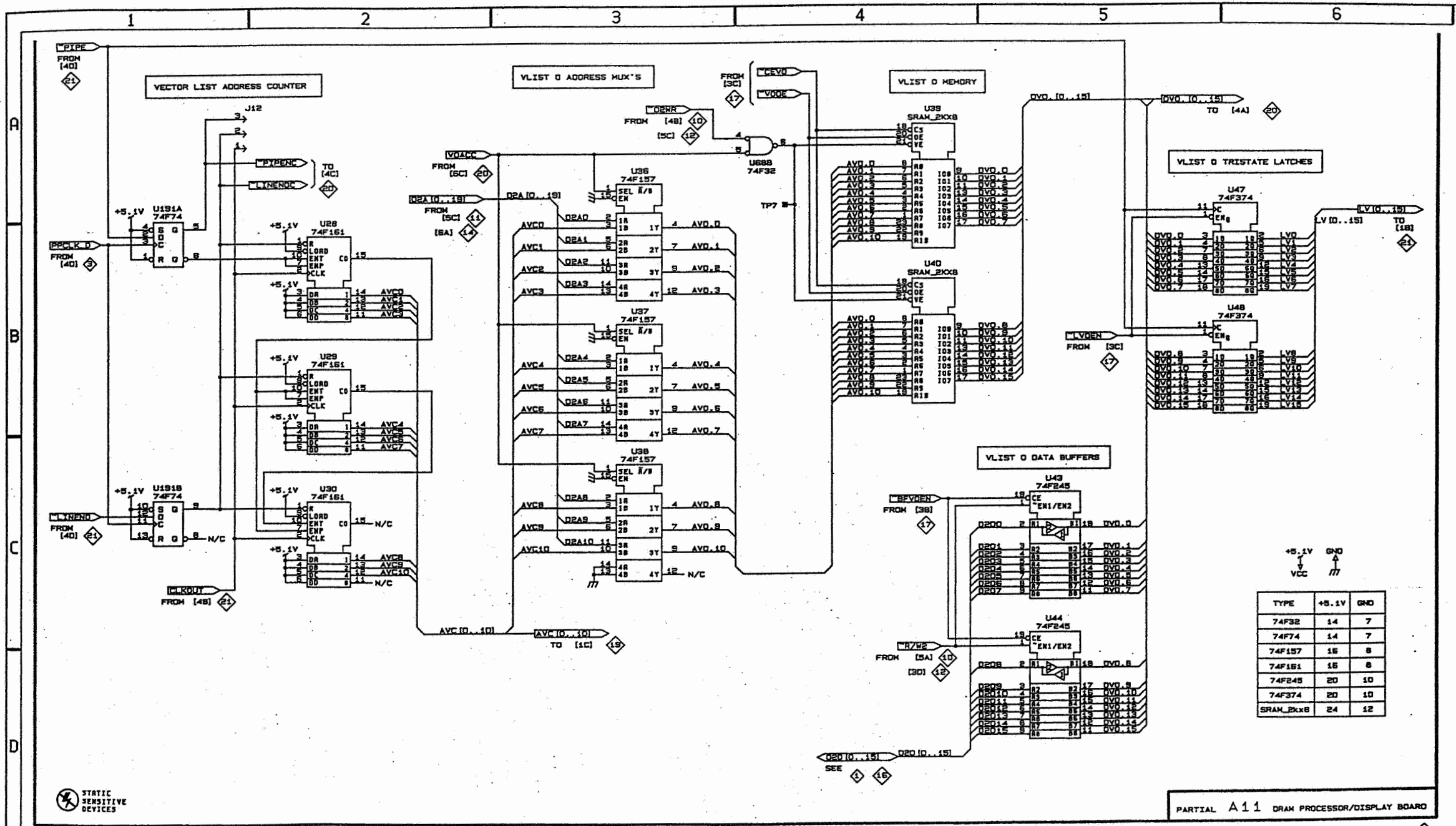
A11 15



TDS 540

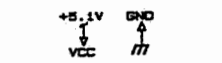
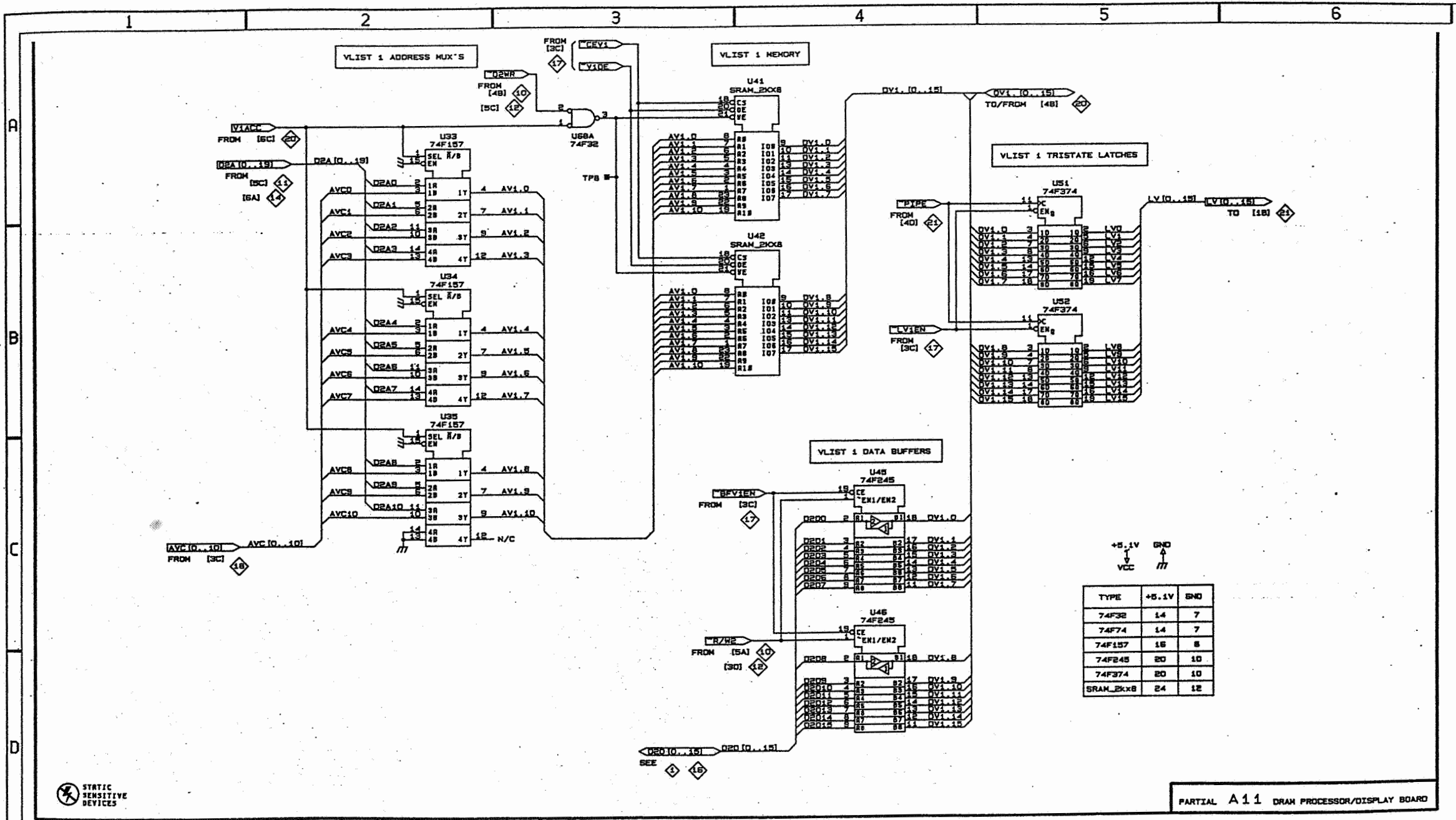
DISPLAY BLOCK DIAGRAM A11 16





TYPE	+5.1V	GND
74F32	14	7
74F74	14	7
74F157	15	8
74F151	15	8
74F245	20	10
74F374	20	10
SRAM_2Kx8	24	12

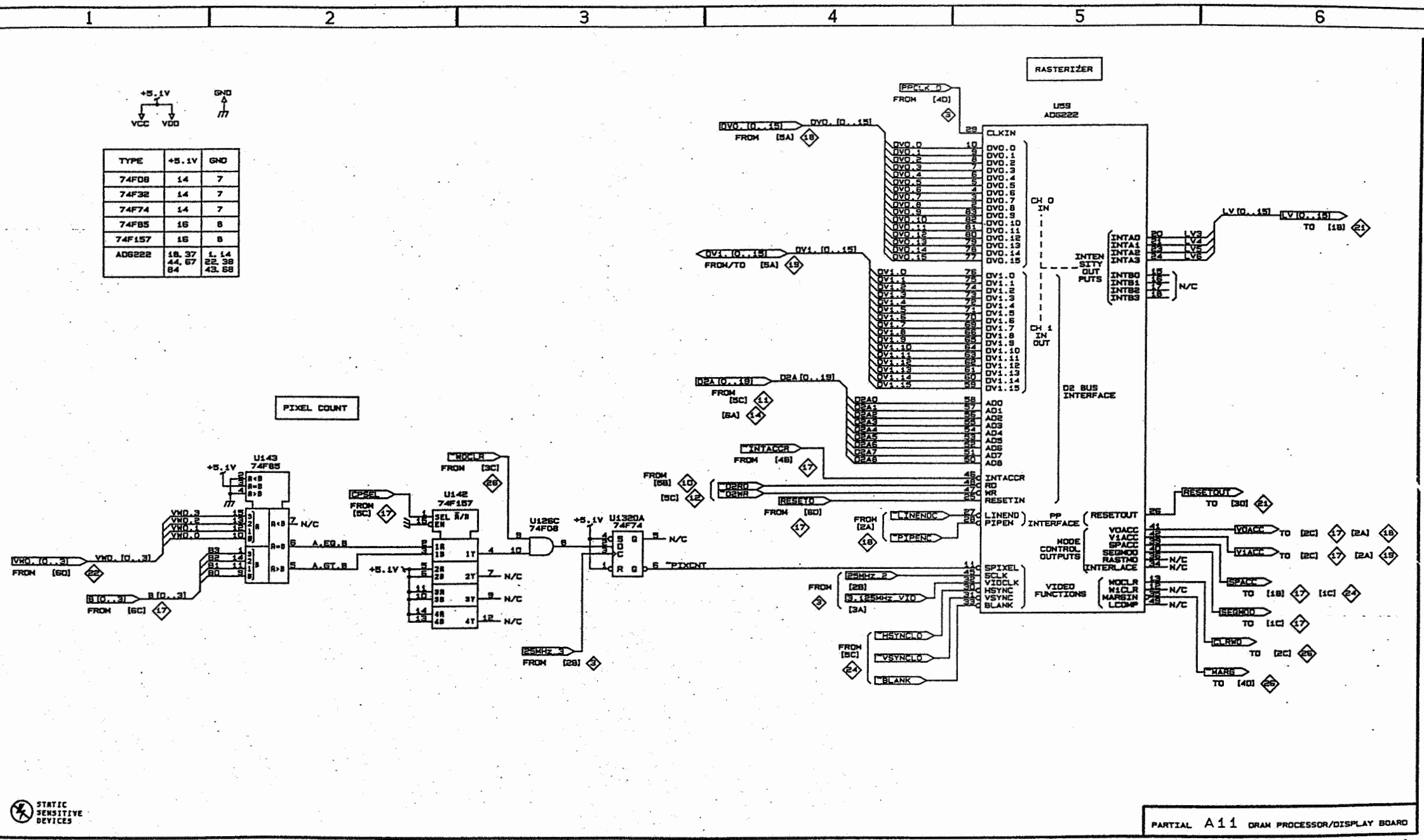
PARTIAL A11 DRAM PROCESSOR/DISPLAY BOARD



TYPE	+5.1V	GND
74F32	14	7
74F74	14	7
74F157	16	8
74F245	20	10
74F374	20	10
SRAM_2Kx8	24	12

PARTIAL A11 DRAM PROCESSOR/DISPLAY BOARD

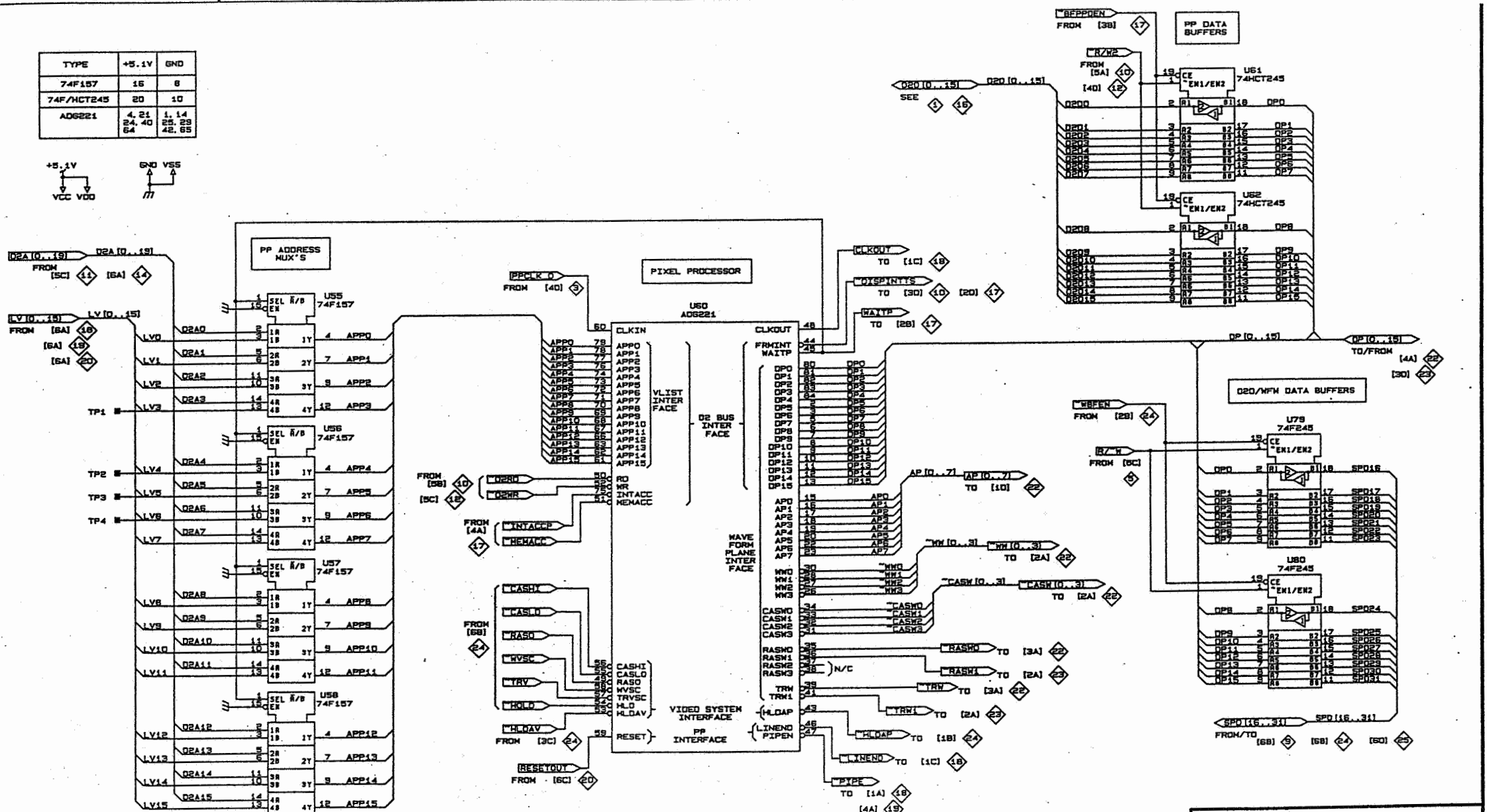
TYPE	+5.1V	GND
74F08	14	7
74F32	14	7
74F74	14	7
74F85	16	8
74F157	16	8
ADG222	18, 37 44, 67 84	1, 14 22, 38 43, 58



TDS 540

PARTIAL A11 ORAM PROCESSOR/DISPLAY BOARD
RASTERIZER & PIXEL COUNT A11 20

TYPE	+5.1V	GND
74F157	15	8
74F/HCT245	20	10
ADG221	4, 21 24, 40 64	1, 14 25, 29 42, 65

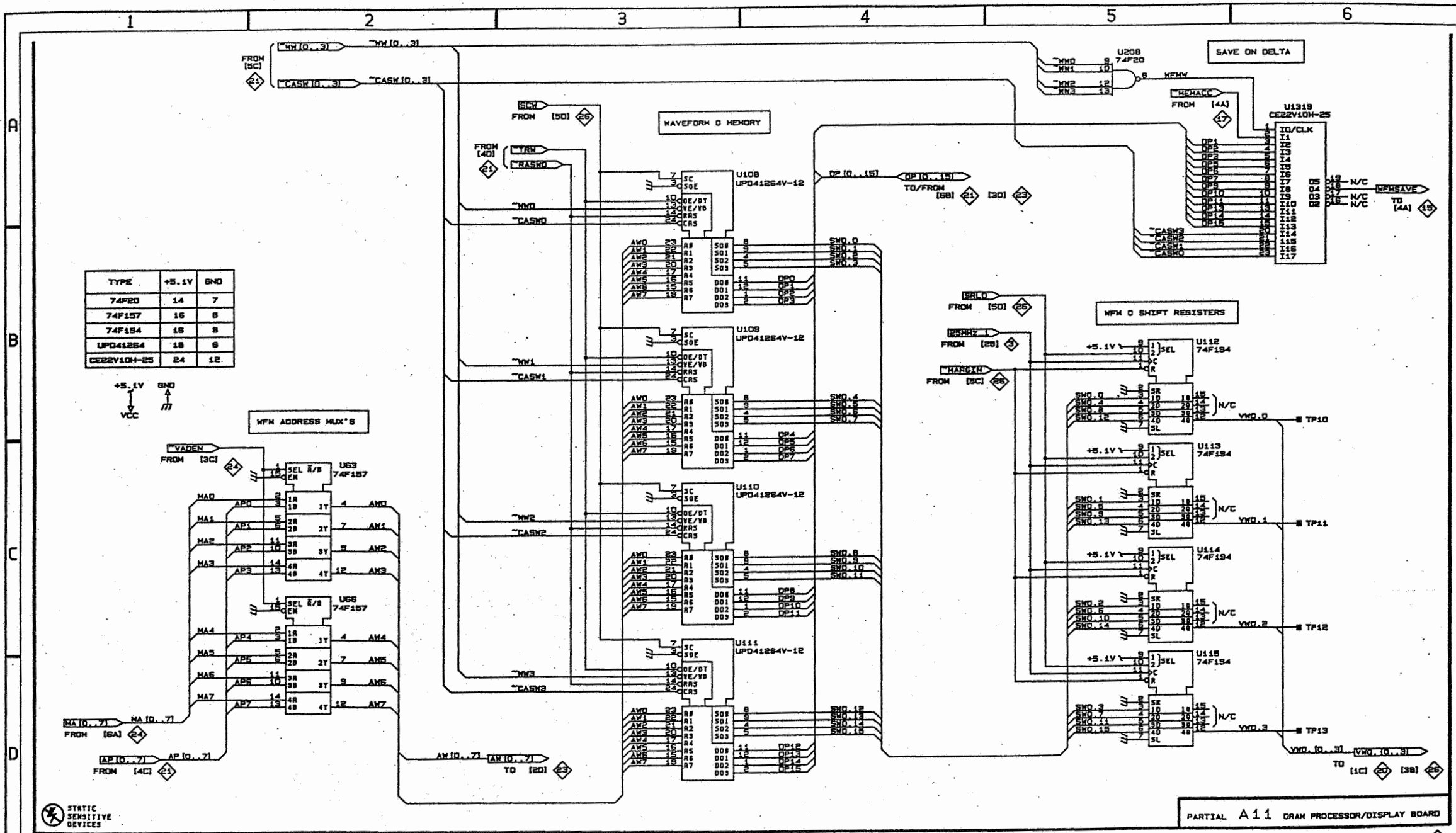


STATIC SENSITIVE DEVICES

TDS 540

PXEL PRORSSOR & O2O/WFM DATA BUFFERS

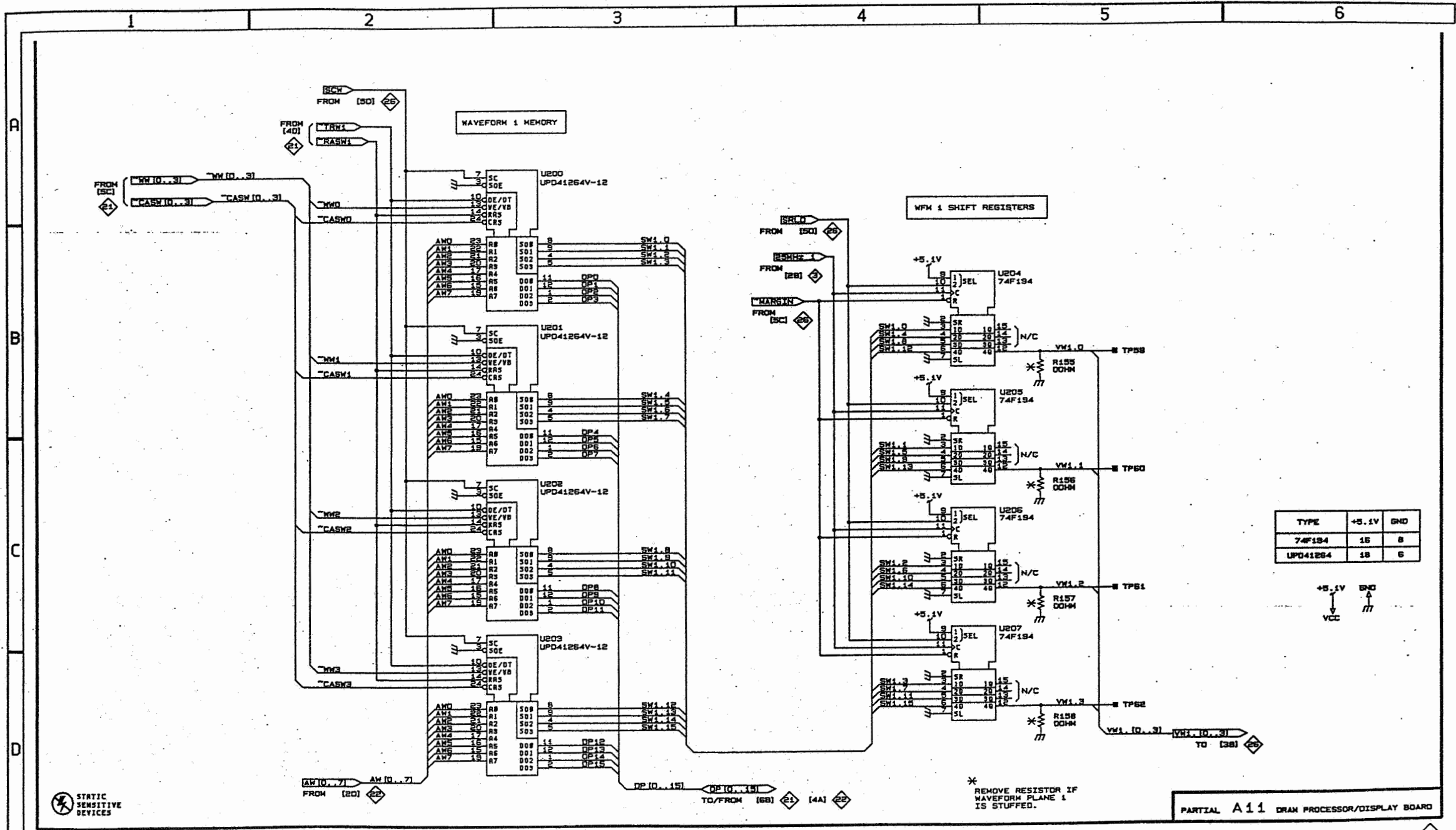
A11 21

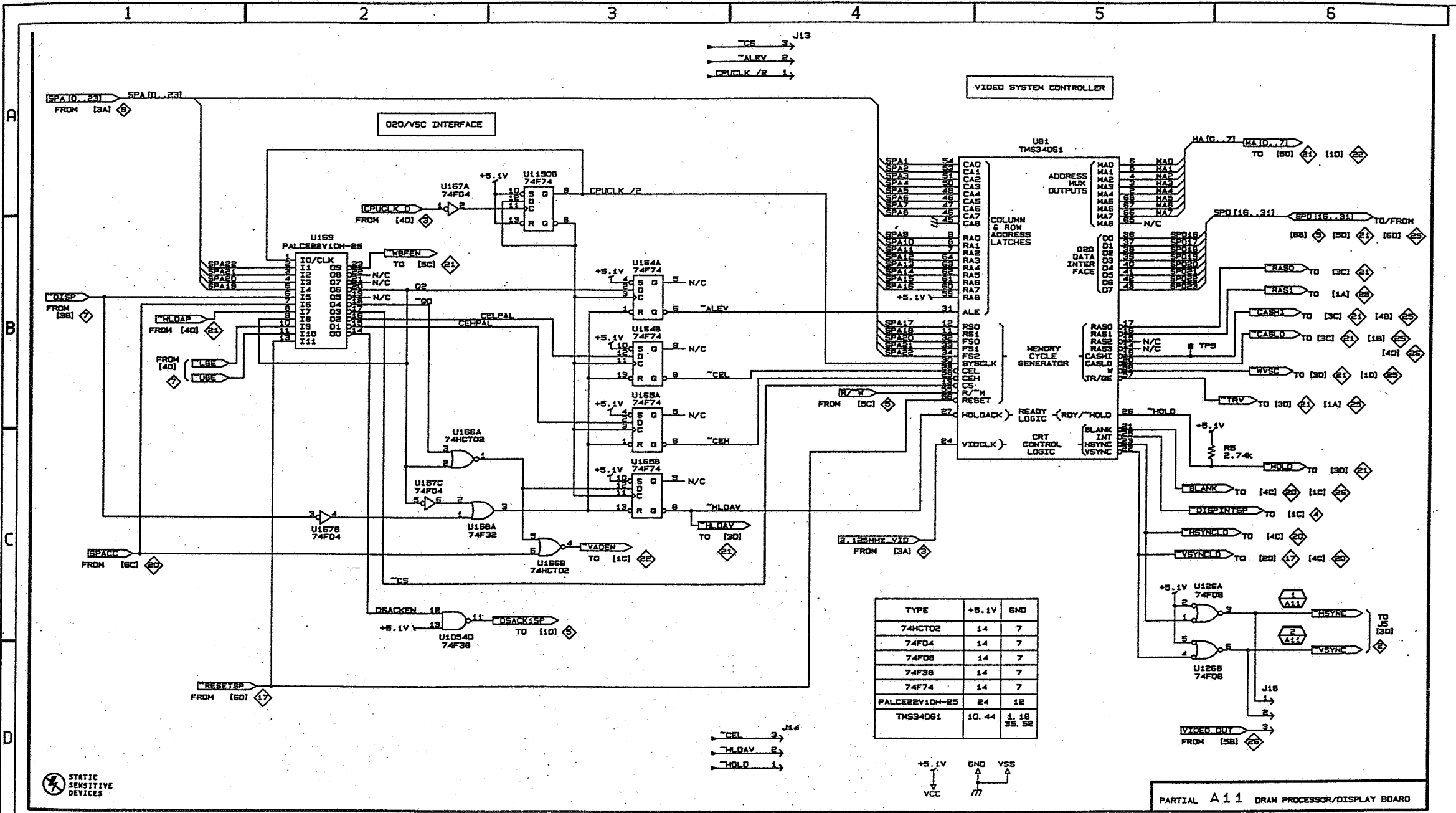


TDS 540

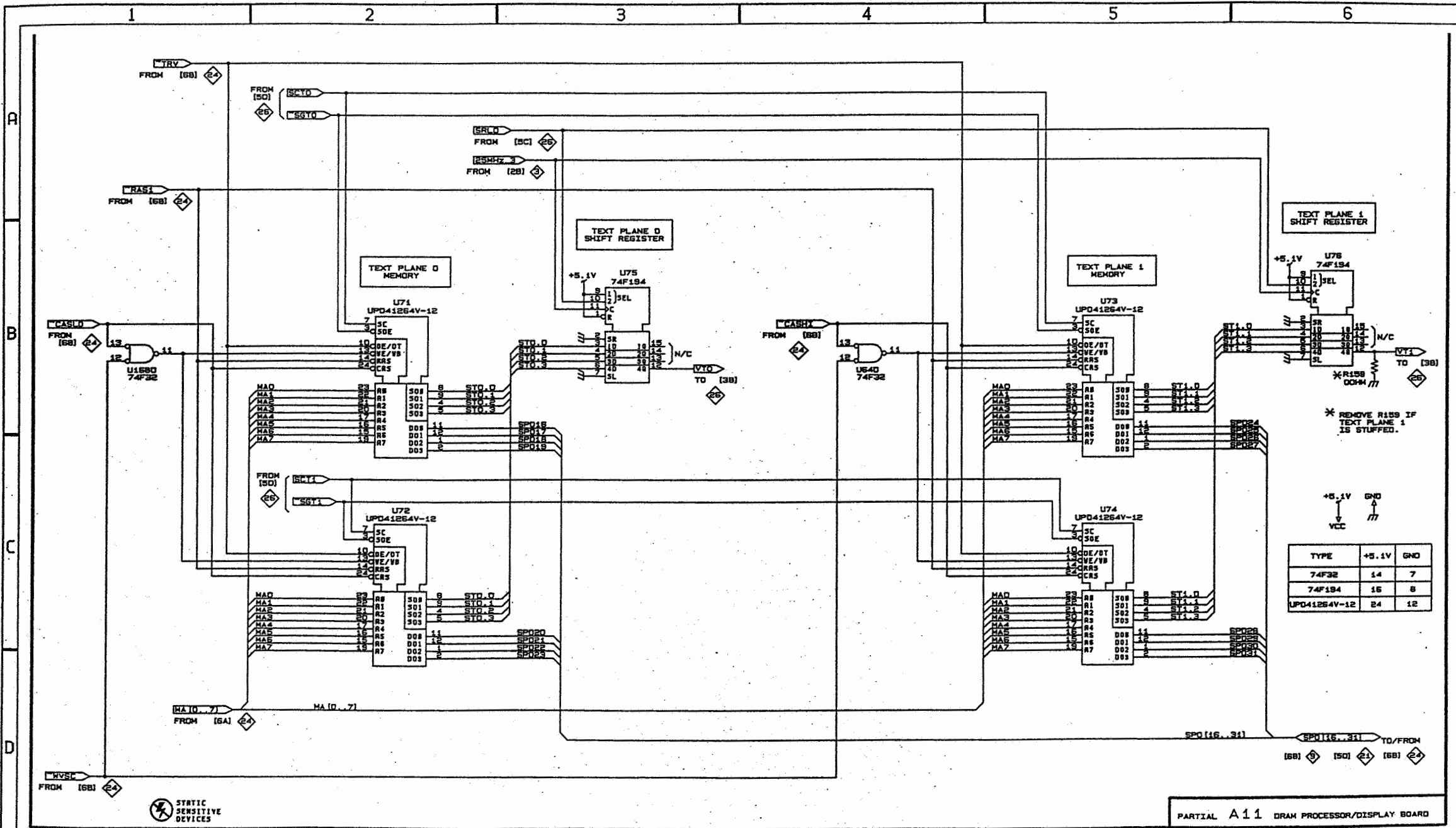
WAVEFORM PLANE 0 & SAVE ON DELTA

A11 22





PARTIAL A11 DRAM PROCESSOR/DISPLAY BOARD



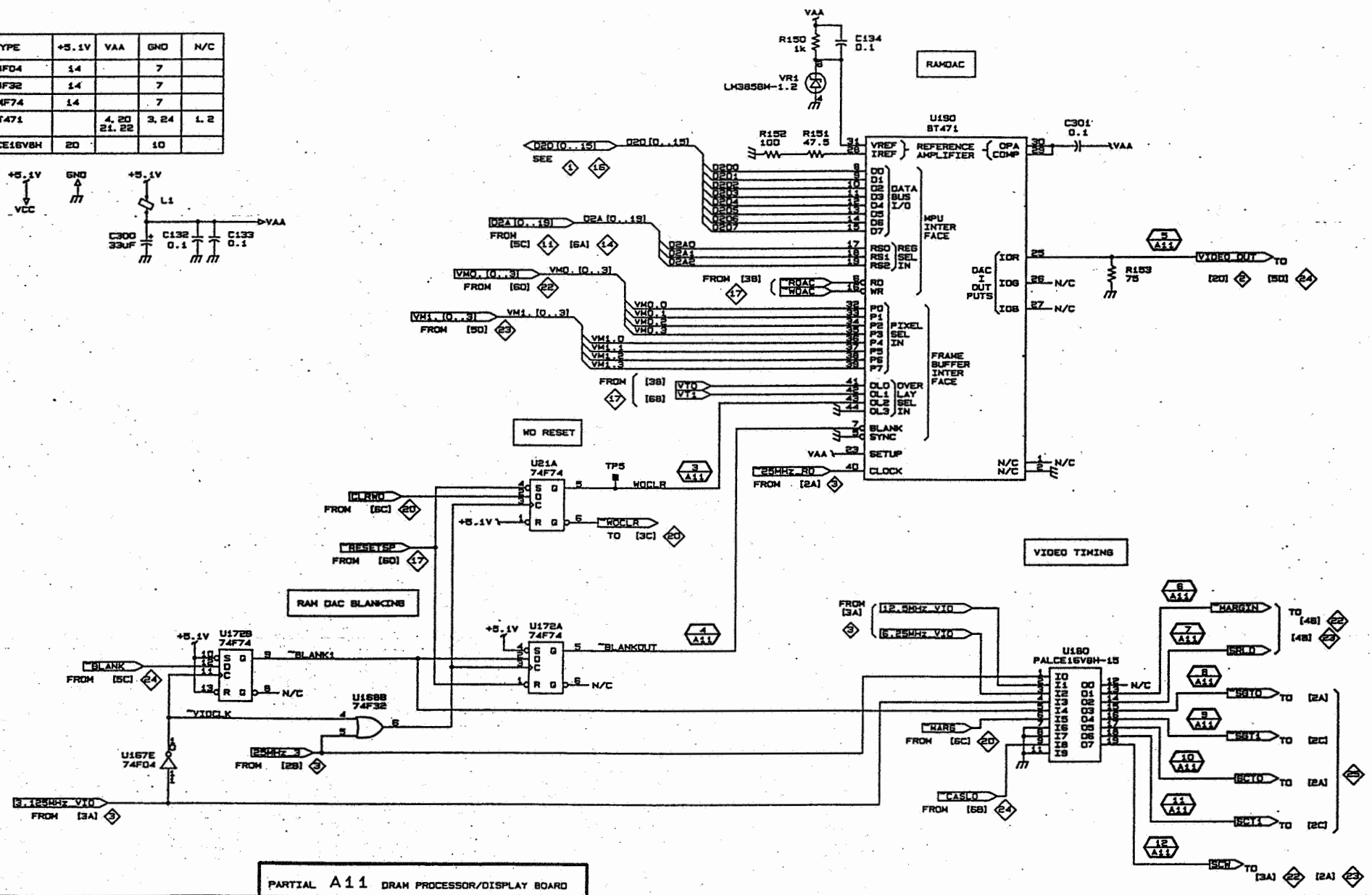
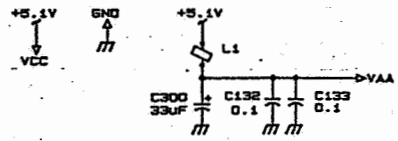
PARTIAL A11 DRAM PROCESSOR/DISPLAY BOARD

TDS 540

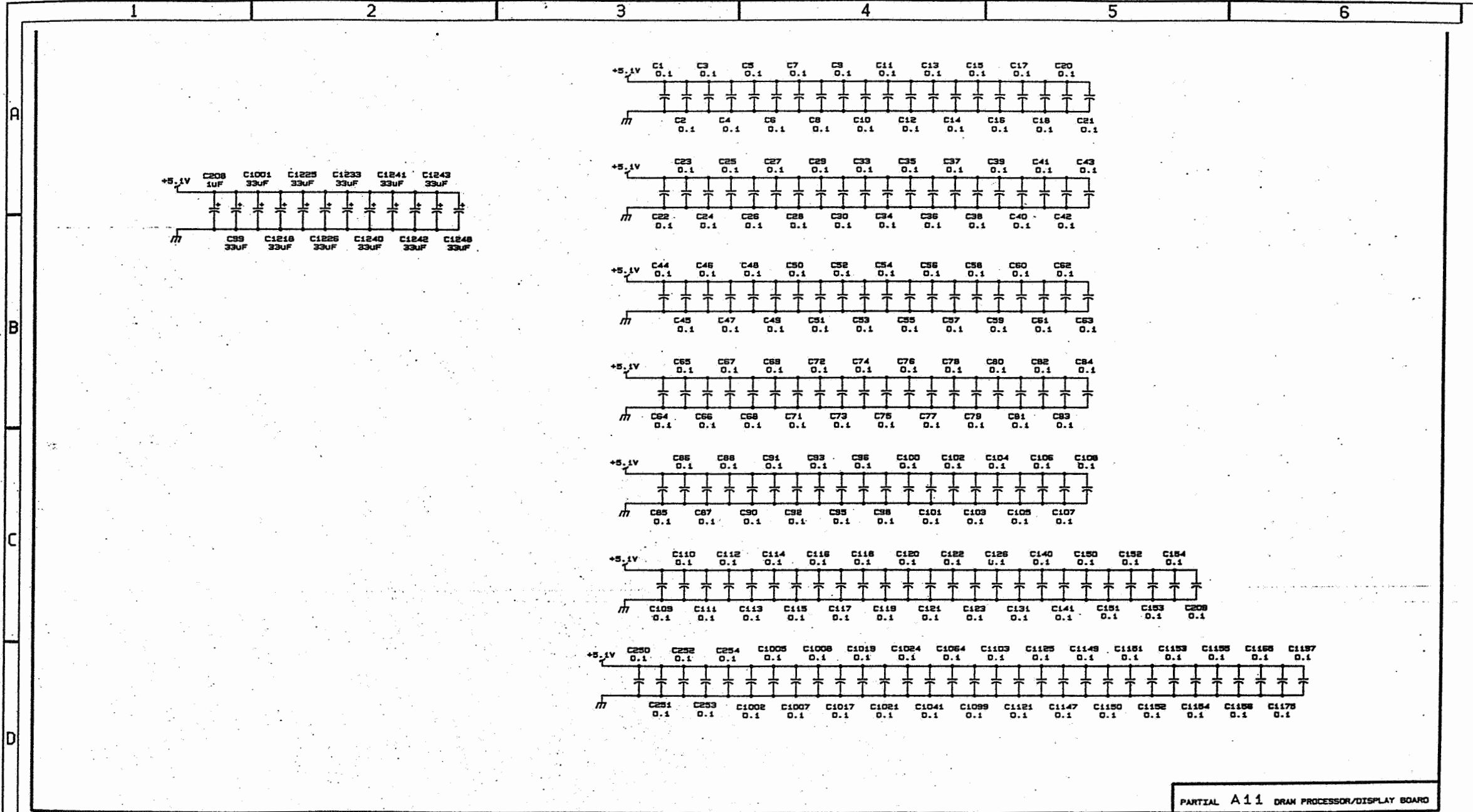
TEXT PLANES 0 & 1

A11 25

TYPE	+5.1V	VAA	GND	N/C
74FD4	14		7	
74F32	14		7	
74F74	14		7	
BT471		4, 20 21, 22	3, 24	1, 2
PALCE16V8H	20		10	



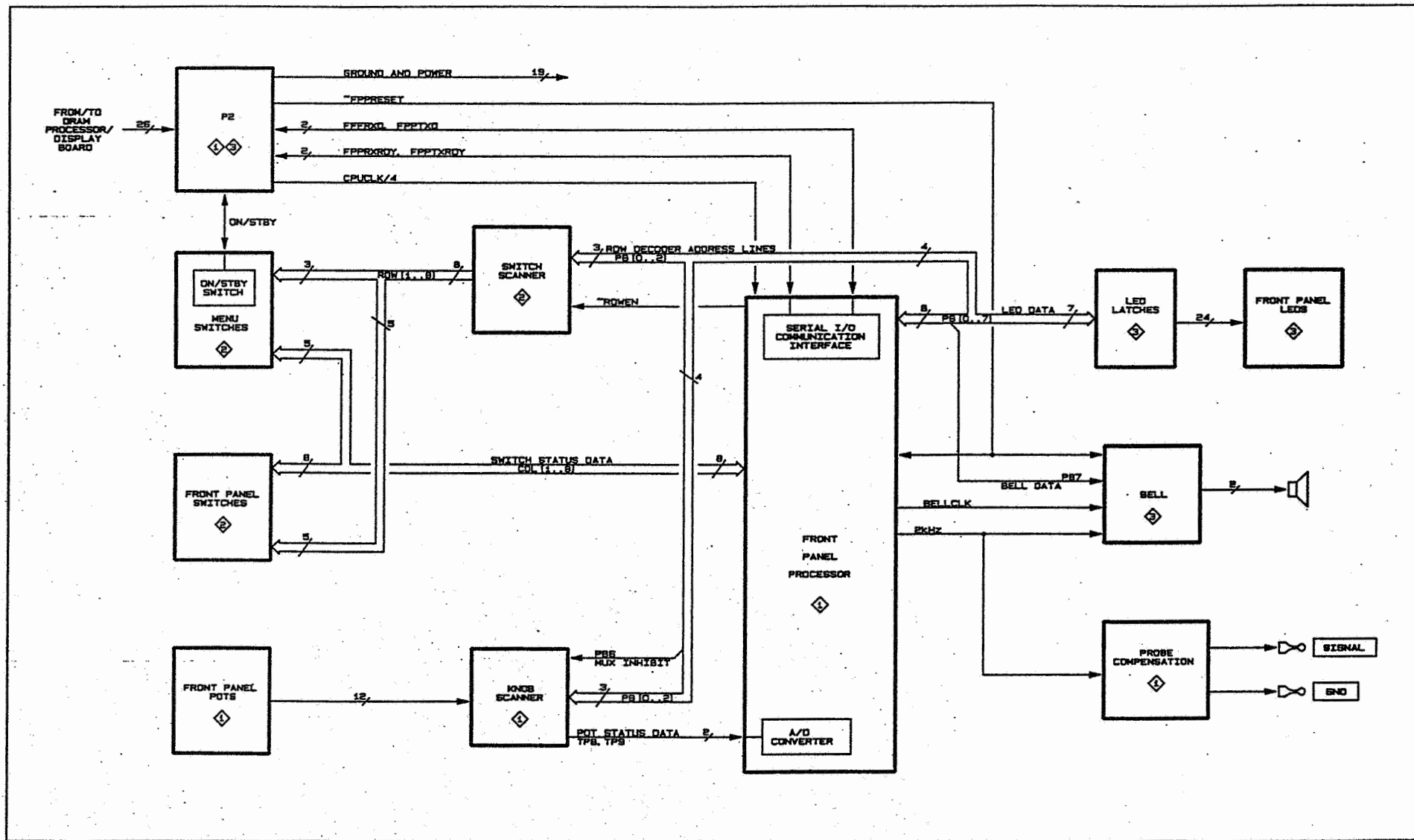
PARTIAL A11 DRAM PROCESSOR/DISPLAY BOARD



TDS 540

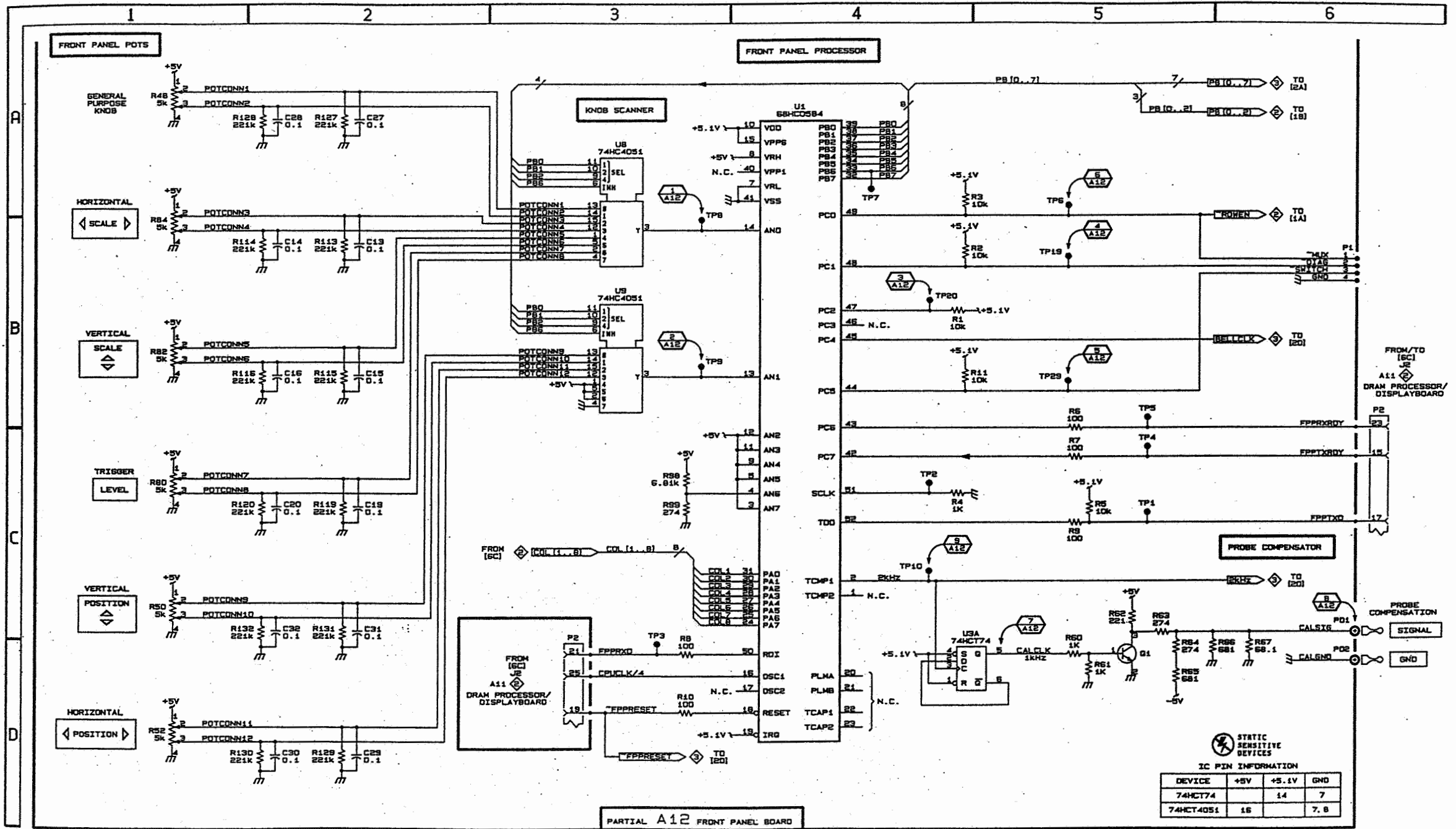
PARTIAL A11 DRAM PROCESSOR/DISPLAY BOARD

DECOUPLING CAPS A11 27



TDS 540

A12 FRONT PANEL BOARD BLOCK DIAGRAM A12



STATIC SENSITIVE DEVICES

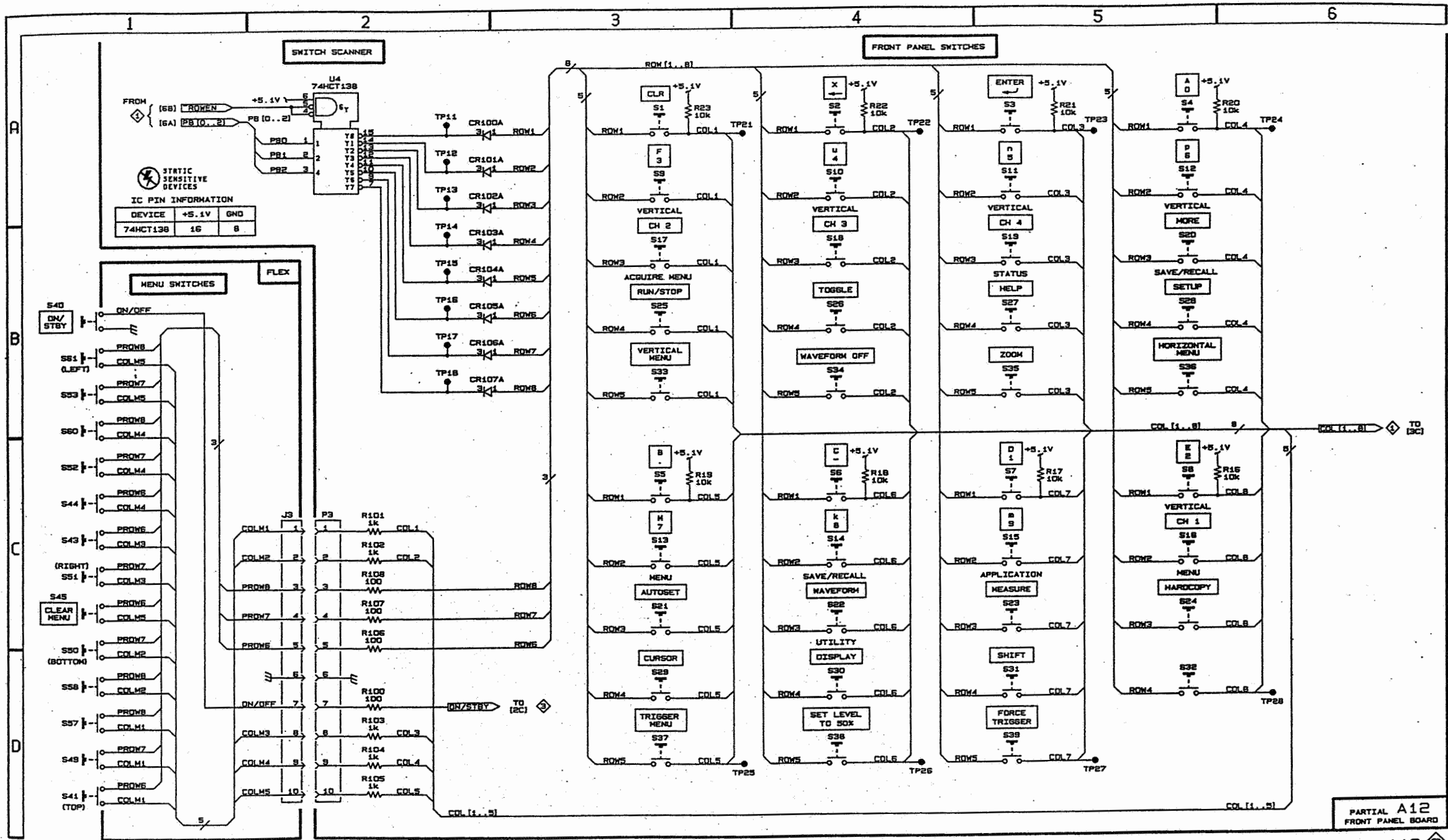
IC PIN INFORMATION

DEVICE	+5V	+5.1V	GND
74HC174		14	7
74HC4051		16	7, 8

PARTIAL A12 FRONT PANEL BOARD

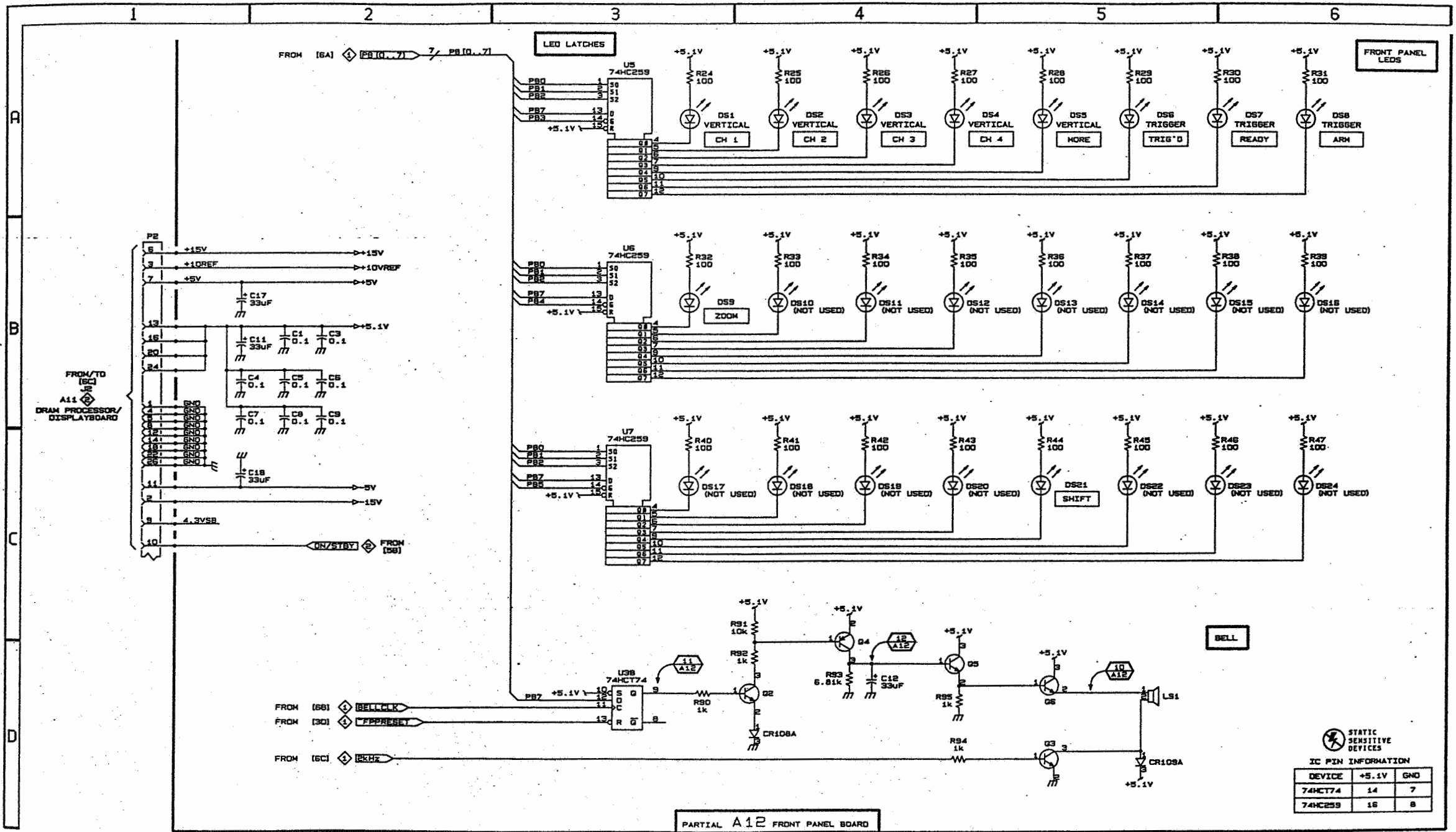
POTS, FPP, & CALIBRATOR A12 1

TDS 540



TDS 540

PARTIAL A12
FRONT PANEL BOARD
SWITCHES A12



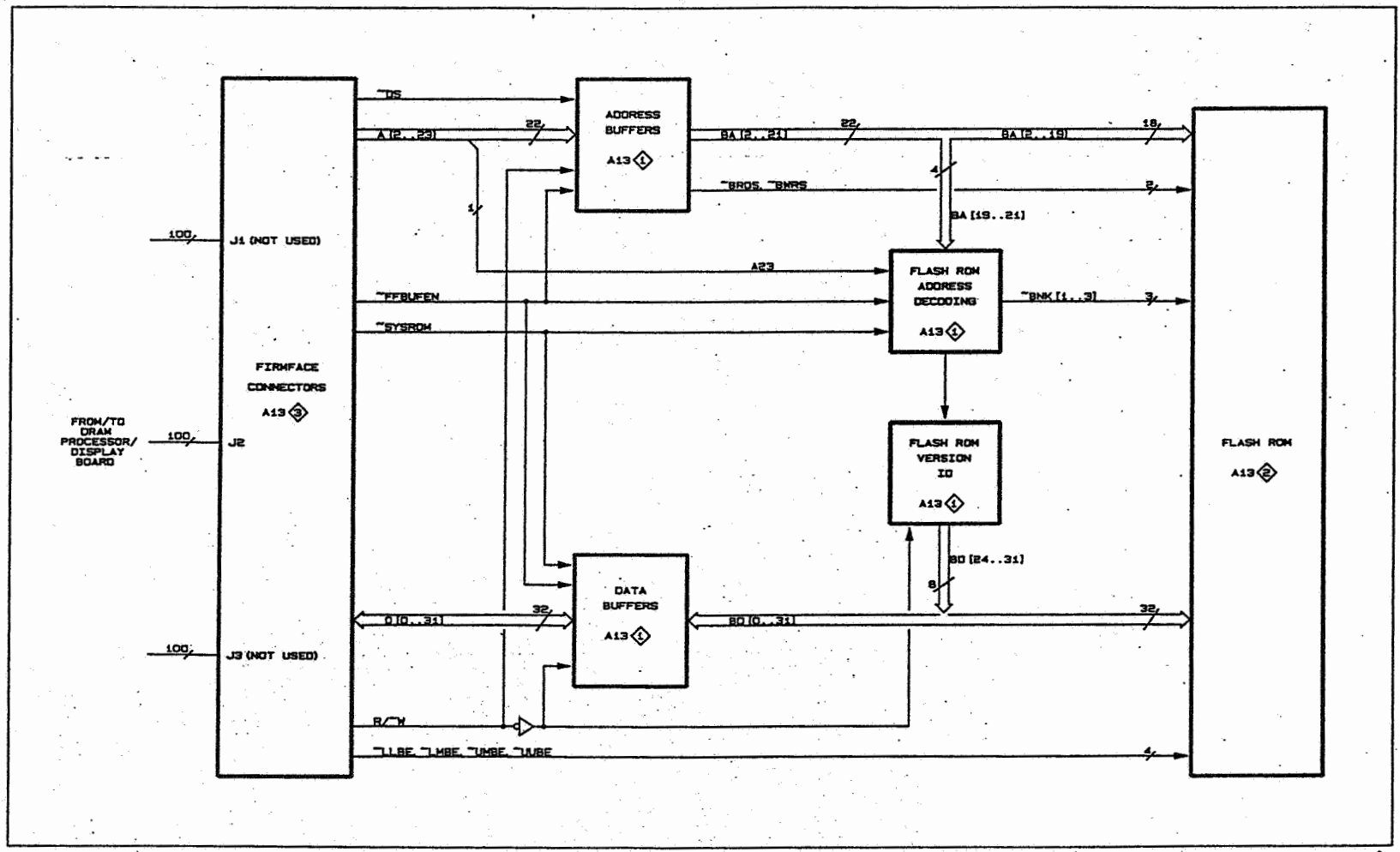
⚡ STATIC SENSITIVE DEVICES

IC PIN INFORMATION

DEVICE	+5.1V	GND
74HC74	14	7
74HC259	16	8

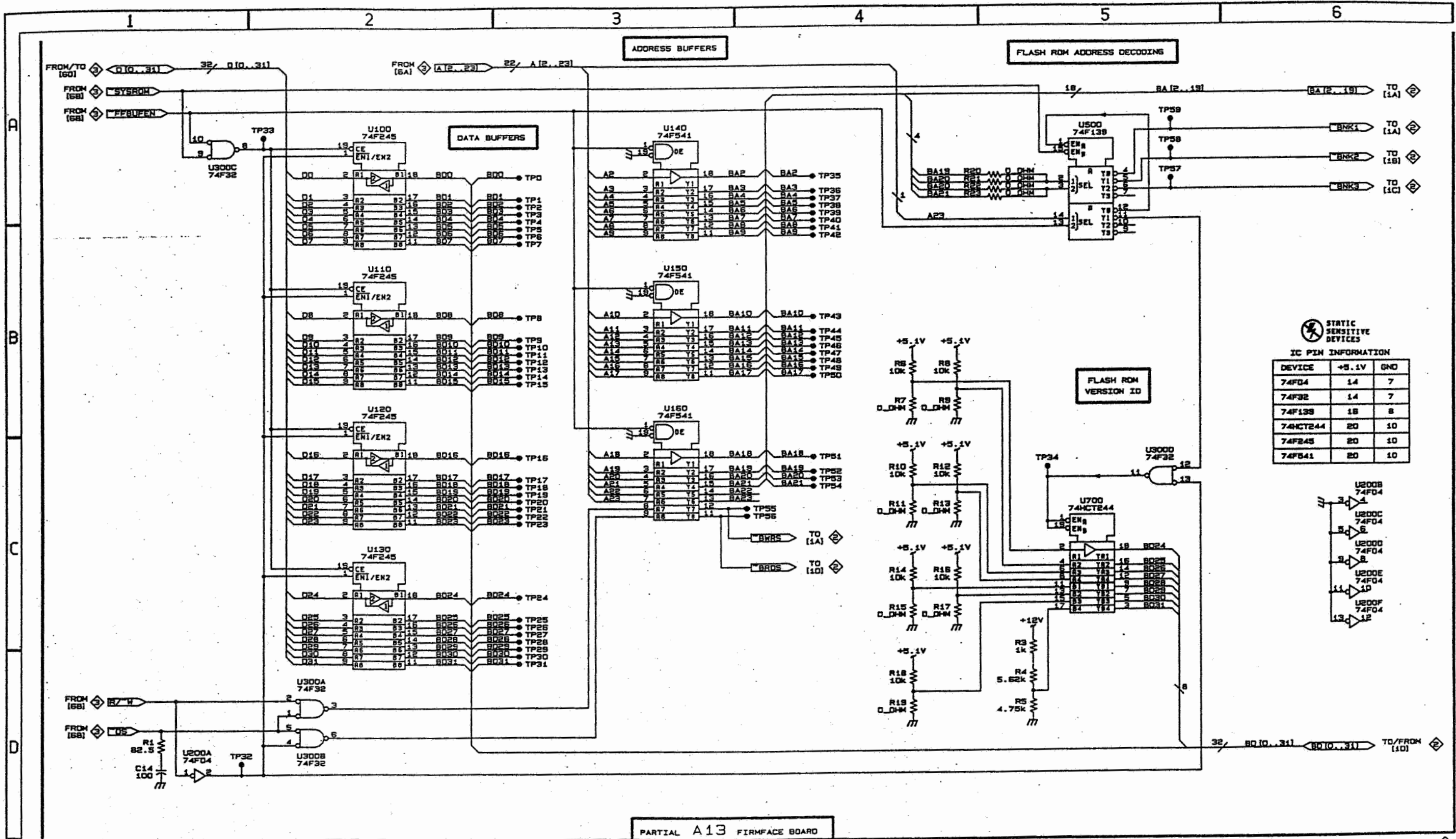
TDS 540

LEDS, BELL, AND POWER SUPPLY A12 3



TDS 540

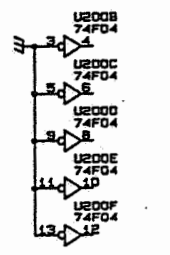
A13 FIRMFACE BOARD BLOCK DIAGRAM A13



⚡ STATIC SENSITIVE DEVICES

IC PIN INFORMATION

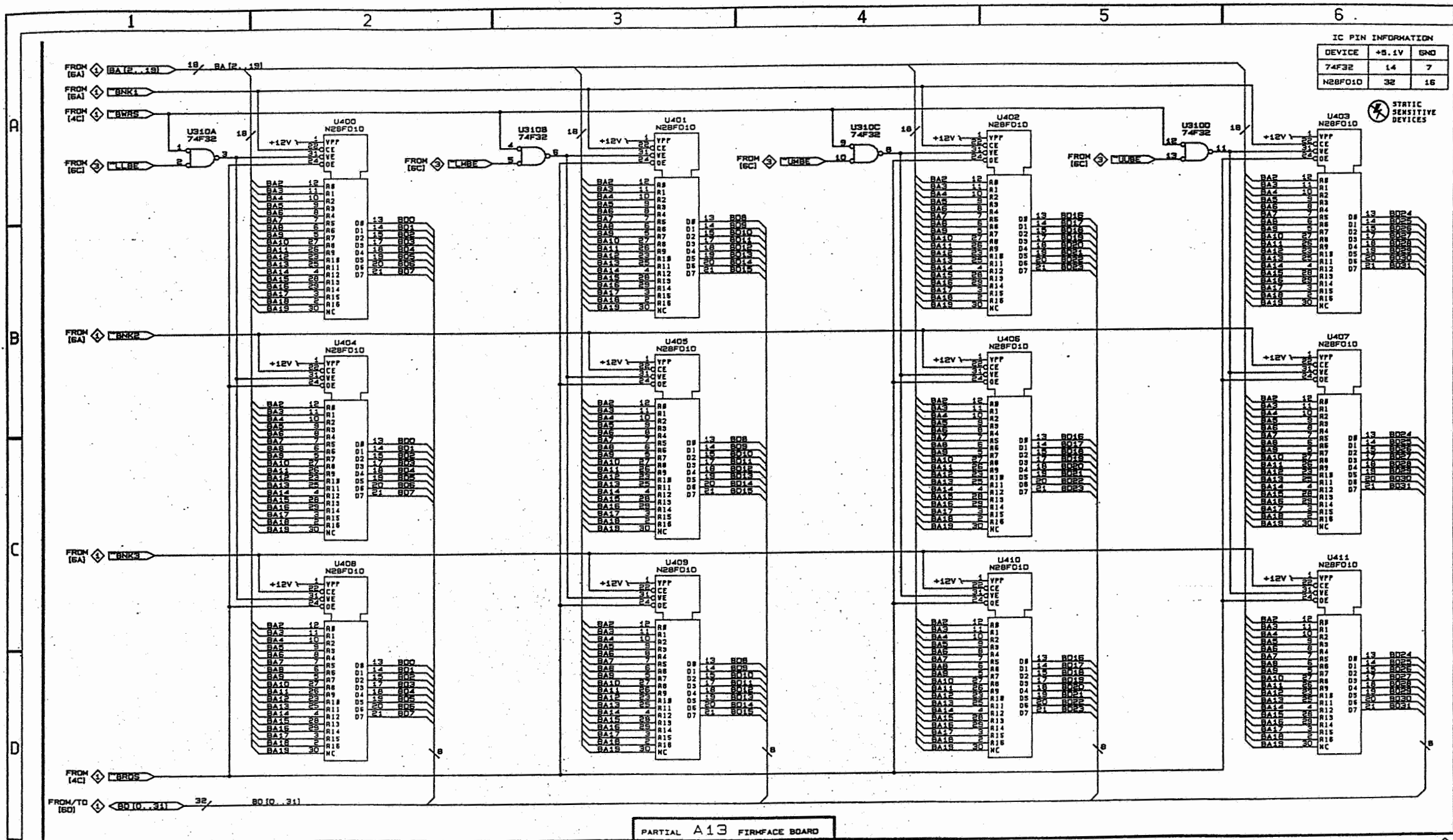
DEVICE	+5.1V	GND
74F04	14	7
74F32	14	7
74F138	16	8
74HCT244	20	10
74F245	20	10
74F541	20	10



PARTIAL A13 FIRMFACE BOARD

TDS 540

FLASH ROM BUFFERS, DECODING, AND VERSION ID A13 1



IC PIN INFORMATION

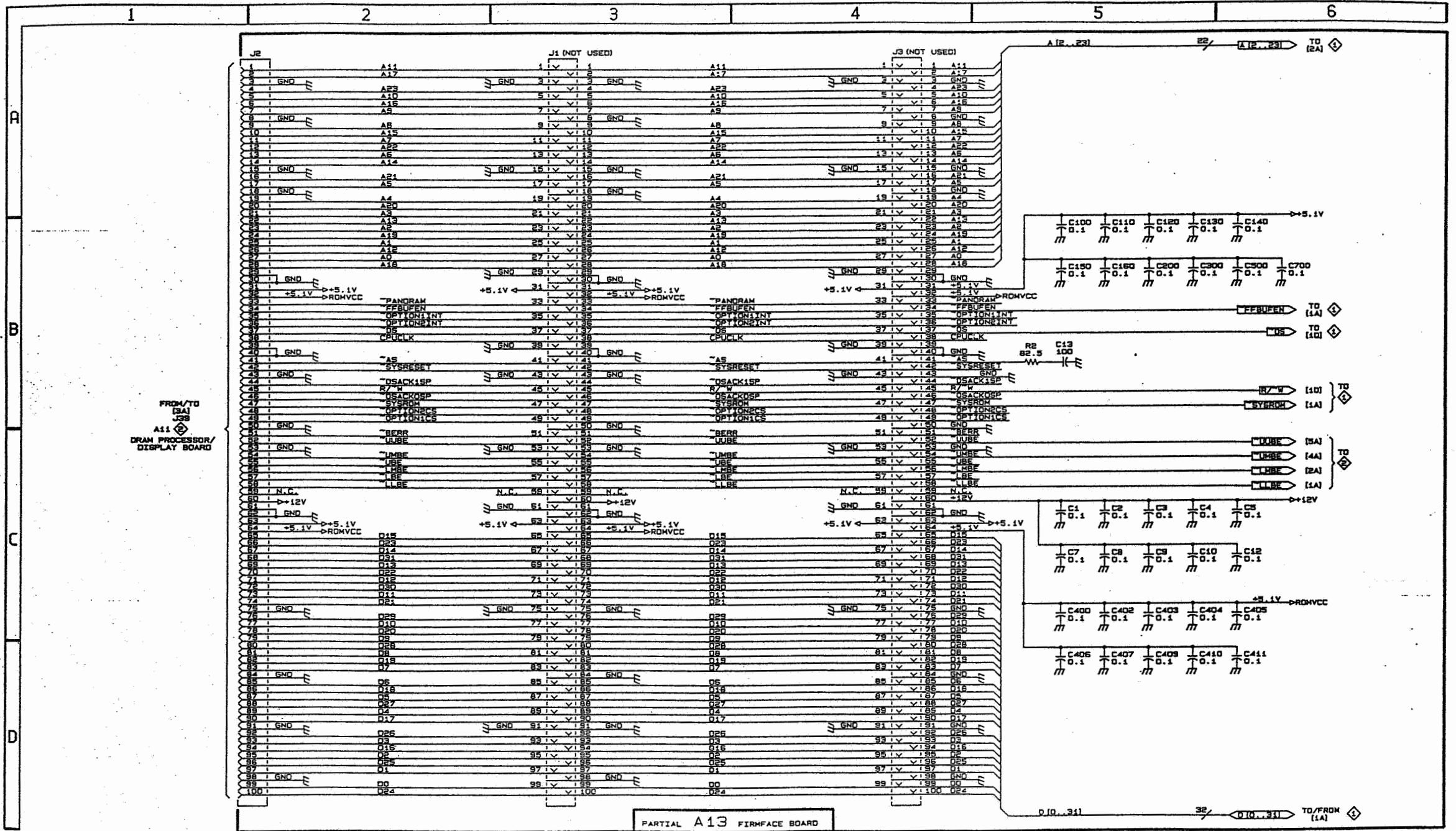
DEVICE	+5.1V	GND
74F32	14	7
N28F010	32	16

STATIC SENSITIVE DEVICES

PARTIAL A13 FIRRFACE BOARD

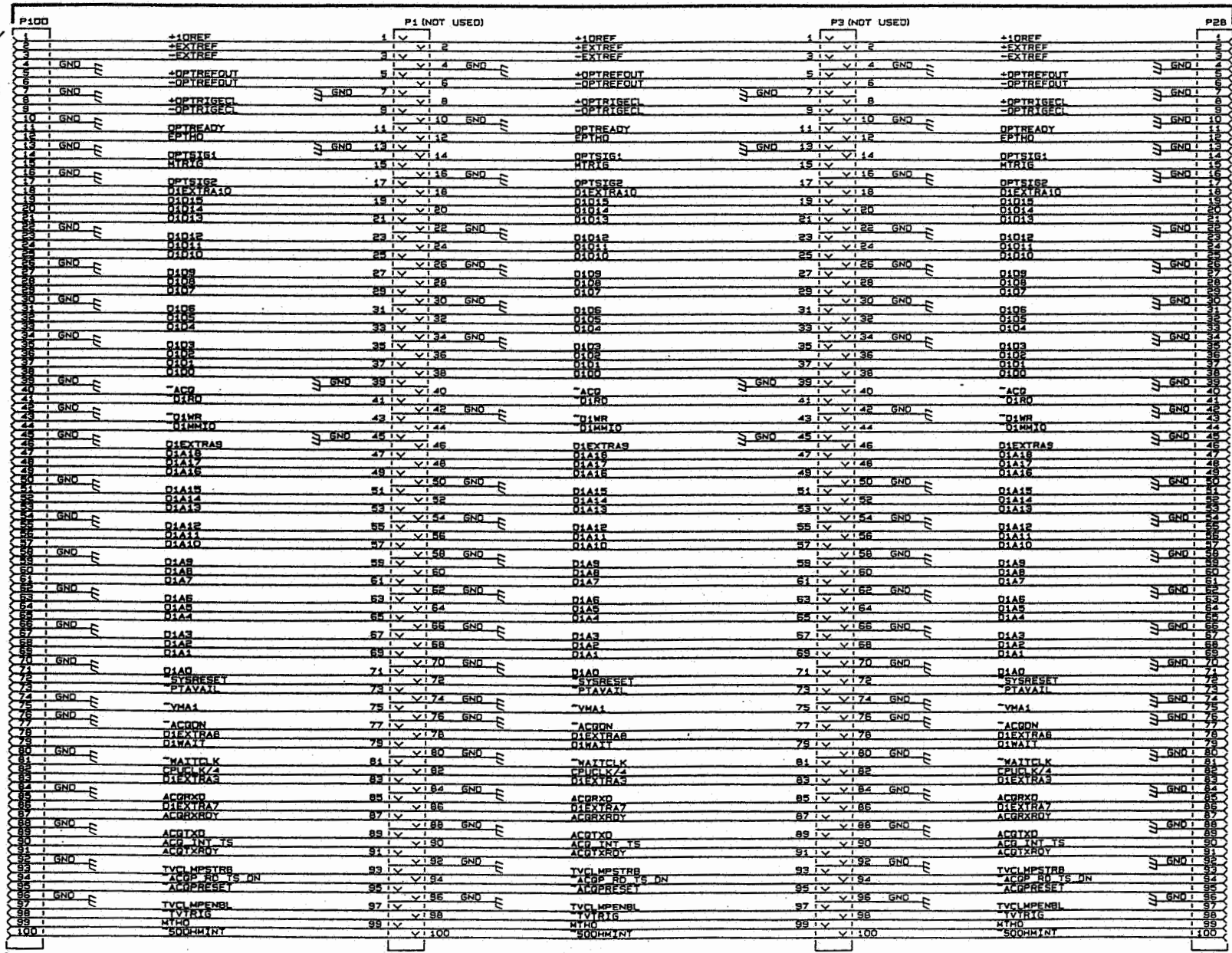
TDS 540

FLASH ROM A13



TDS 540

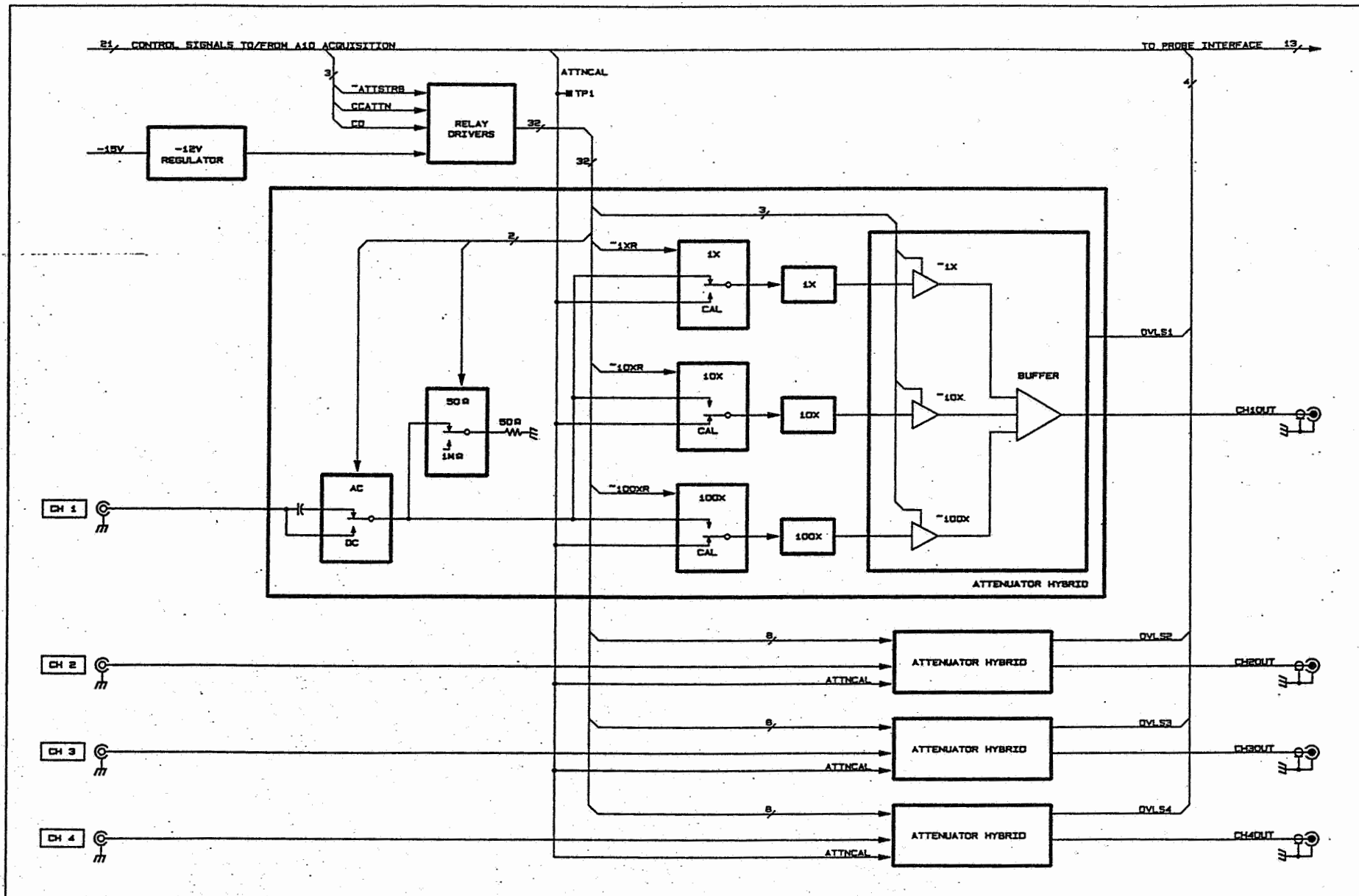
FIRMFACE CONNECTORS A13



FROM/TO
[1A]
J100
A10
ACQUISITION BOARD

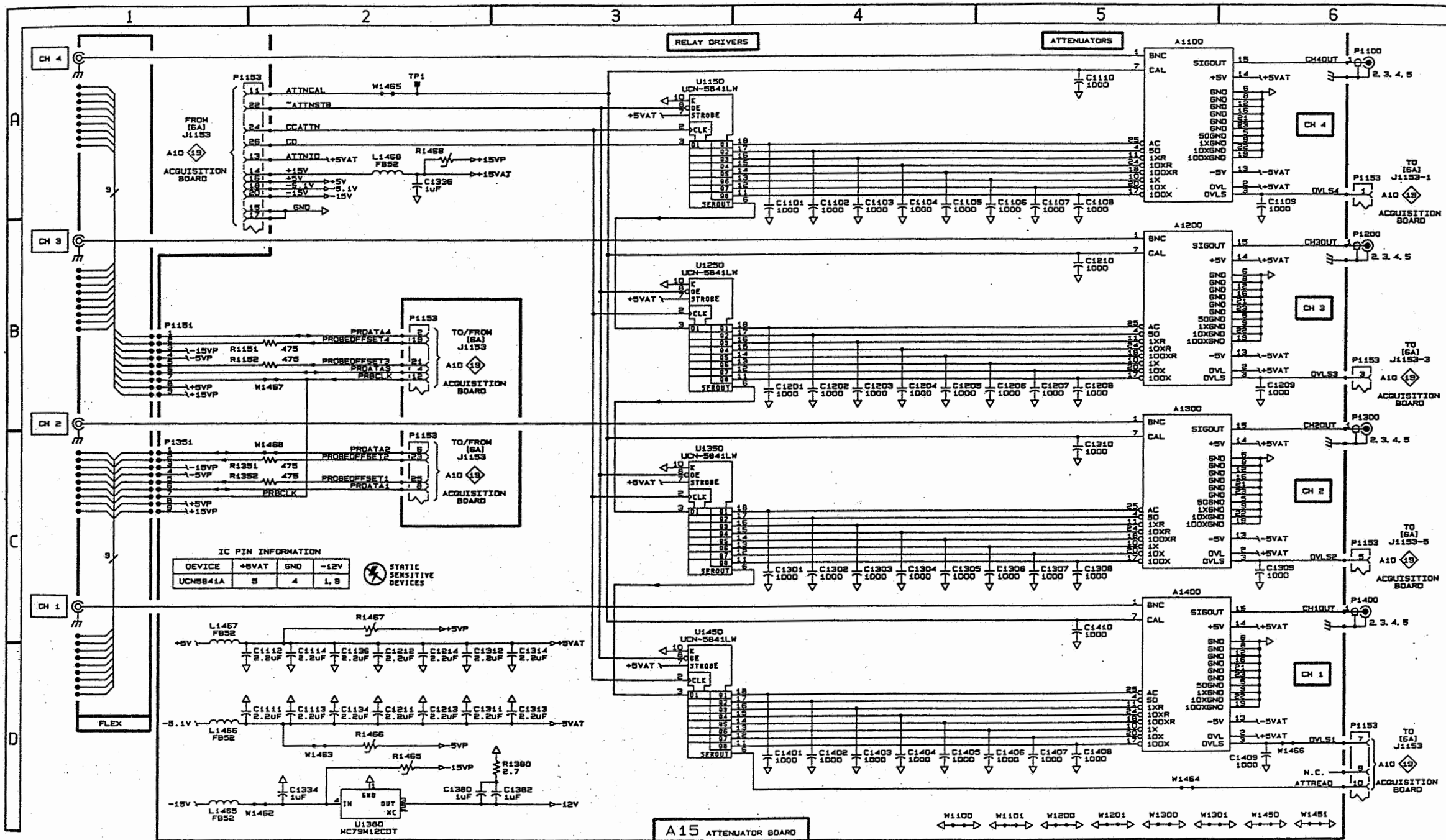
FROM/TO
[5A]
J28
A11
DRAM PROCESSOR/
DISPLAY BOARD

A14 D1 BUS BOARD



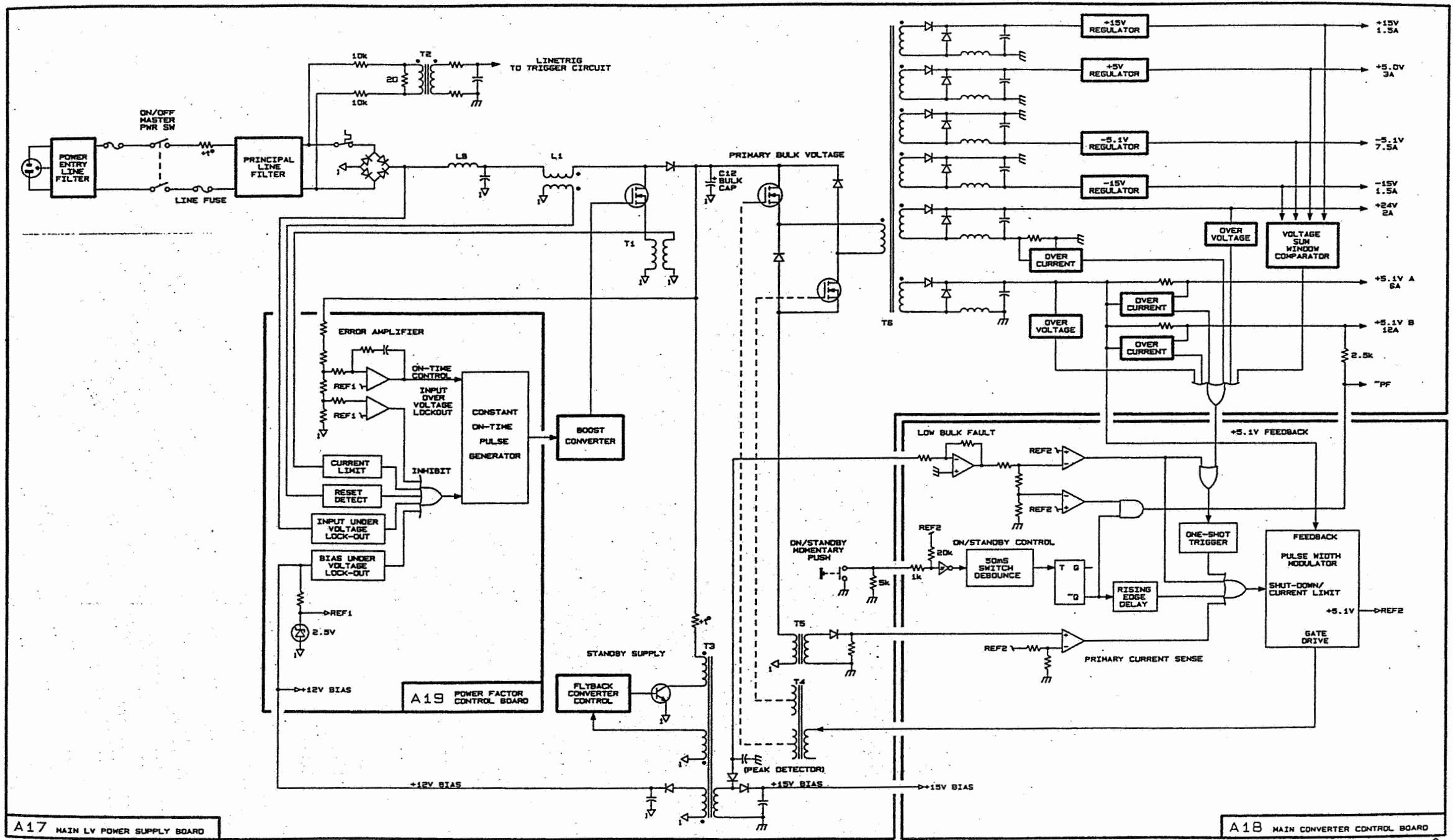
TDS 540

A15 ATTENUATOR BOARD BLOCK DIAGRAM A15



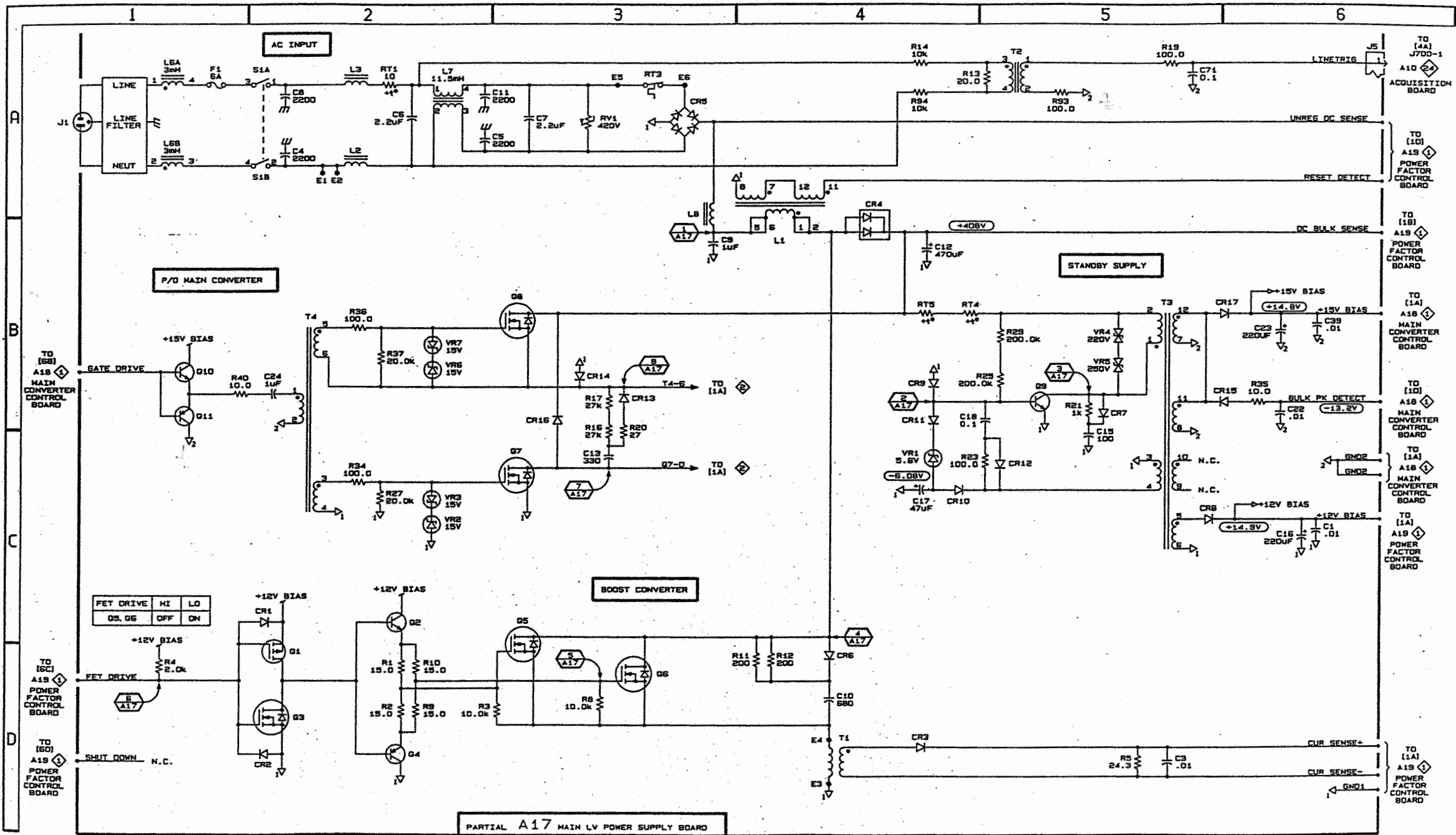
TOS 540

ATTENUATOR A15



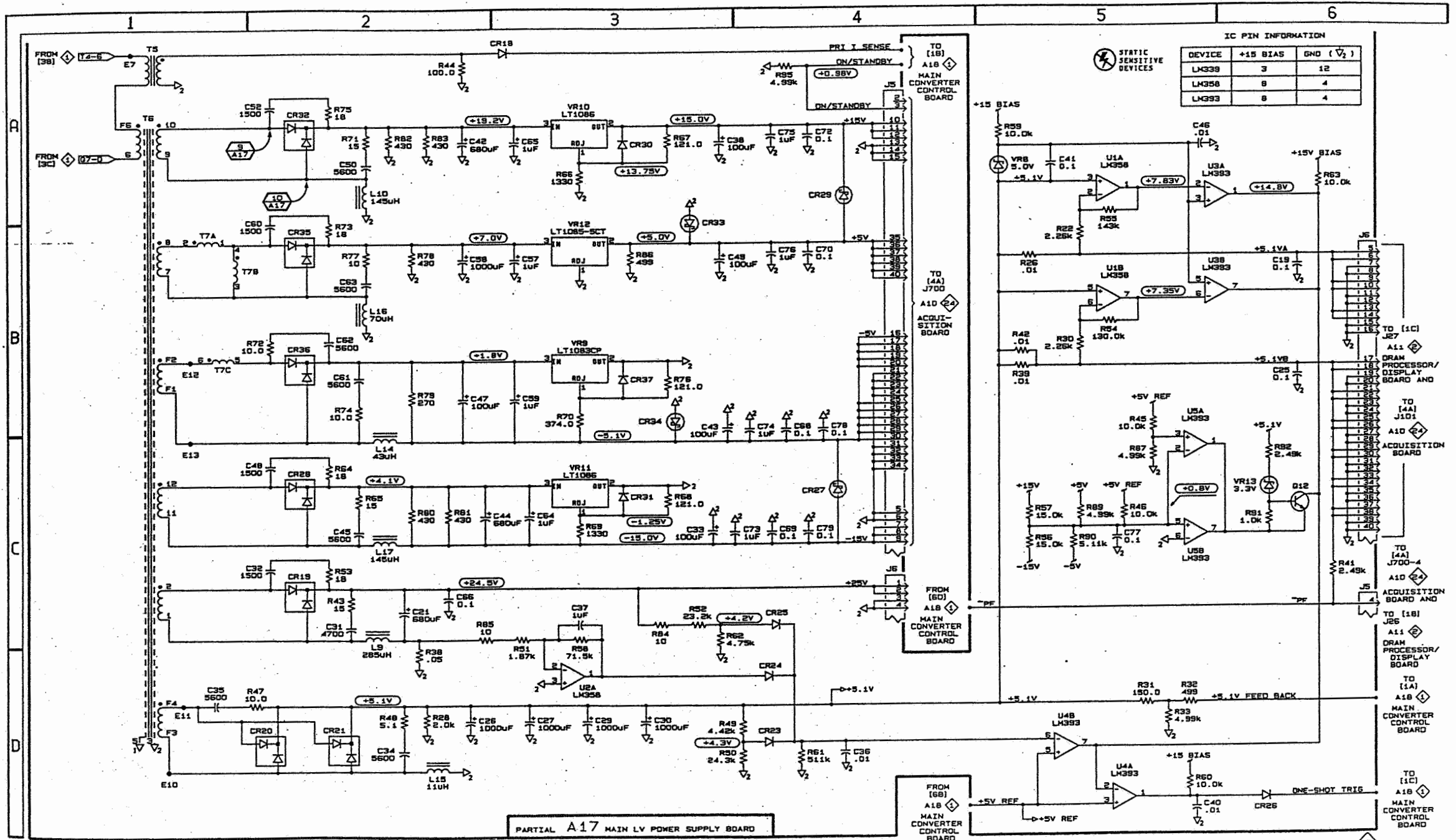
A17 MAIN LV POWER SUPPLY BOARD

A18 MAIN CONVERTER CONTROL BOARD



TDS 540

AC INPUT, STANDBY SUPPLY, AND CONVERTERS A17 1



IC PIN INFORMATION

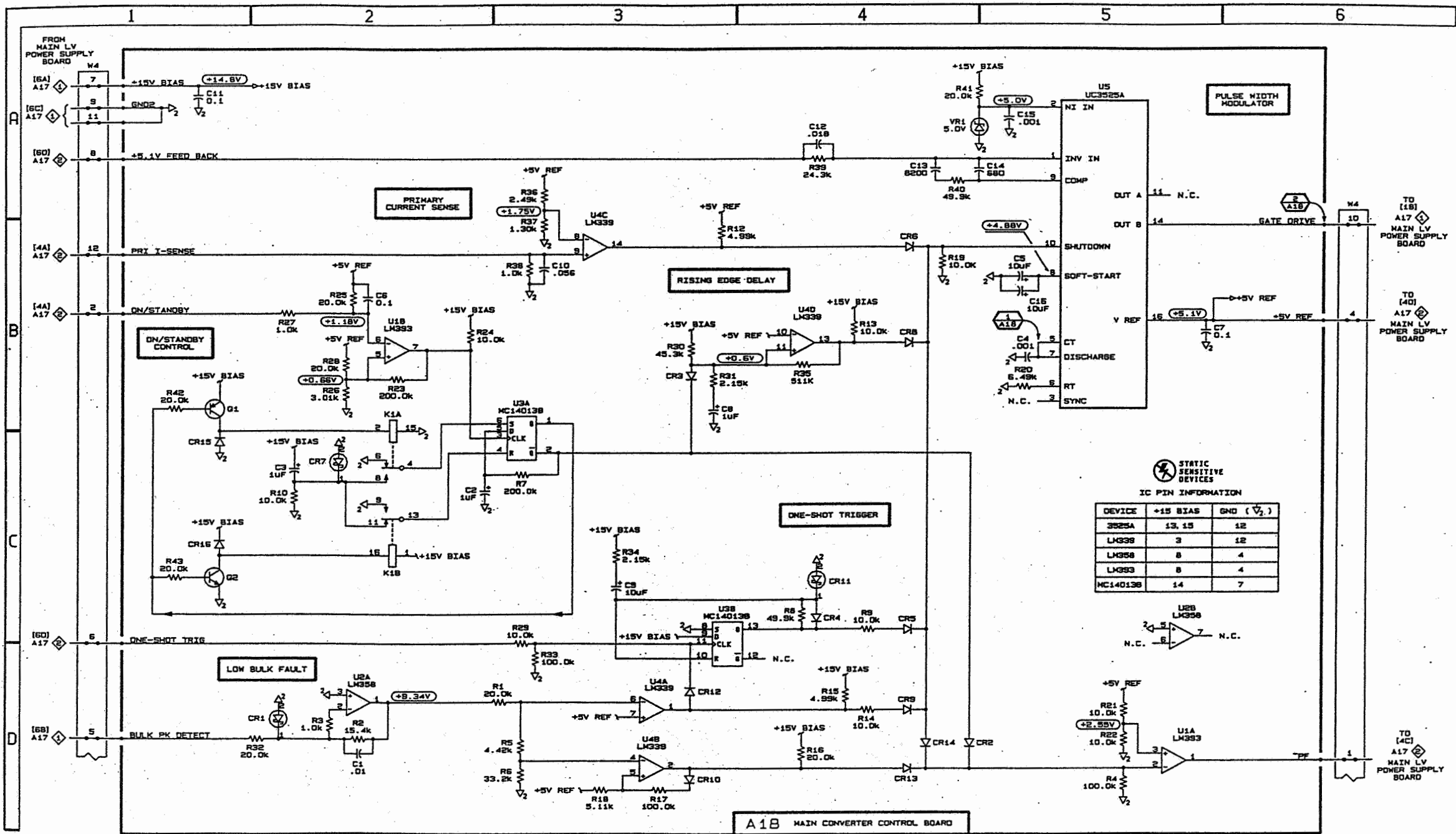
DEVICE	+15 BIAS	GND (V ₂)
LM339	3	12
LM358	8	4
LM393	8	4

STATIC SENSITIVE DEVICES

PARTIAL A17 MAIN LV POWER SUPPLY BOARD

MAIN CONVERTER A17

TDS 540



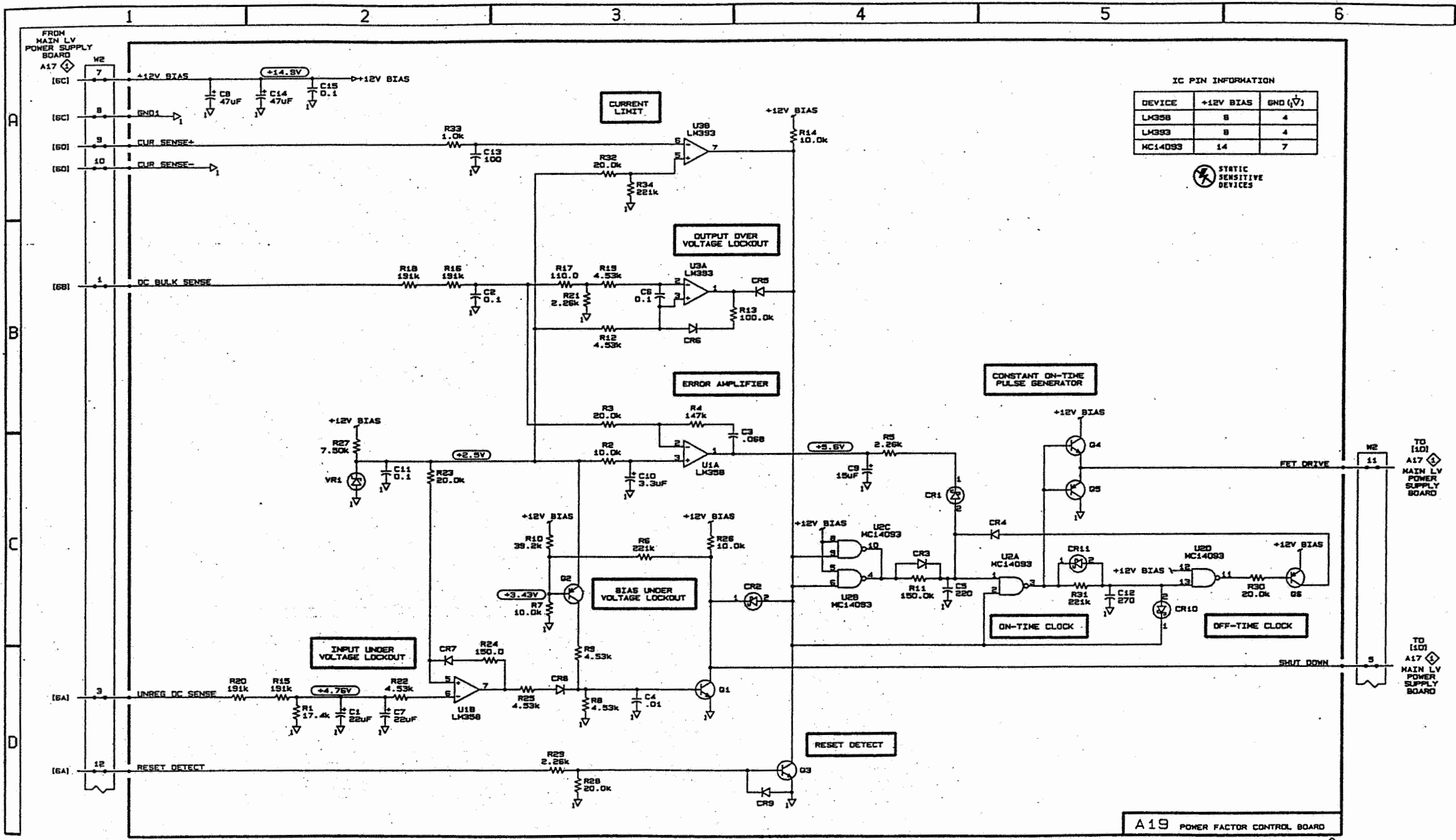
STATIC SENSITIVE DEVICES

IC PIN INFORMATION

DEVICE	+15V BIAS	GND (V ₂)
3525A	13, 15	12
LM339	3	12
LM358	8	4
LM393	8	4
MC14013B	14	7

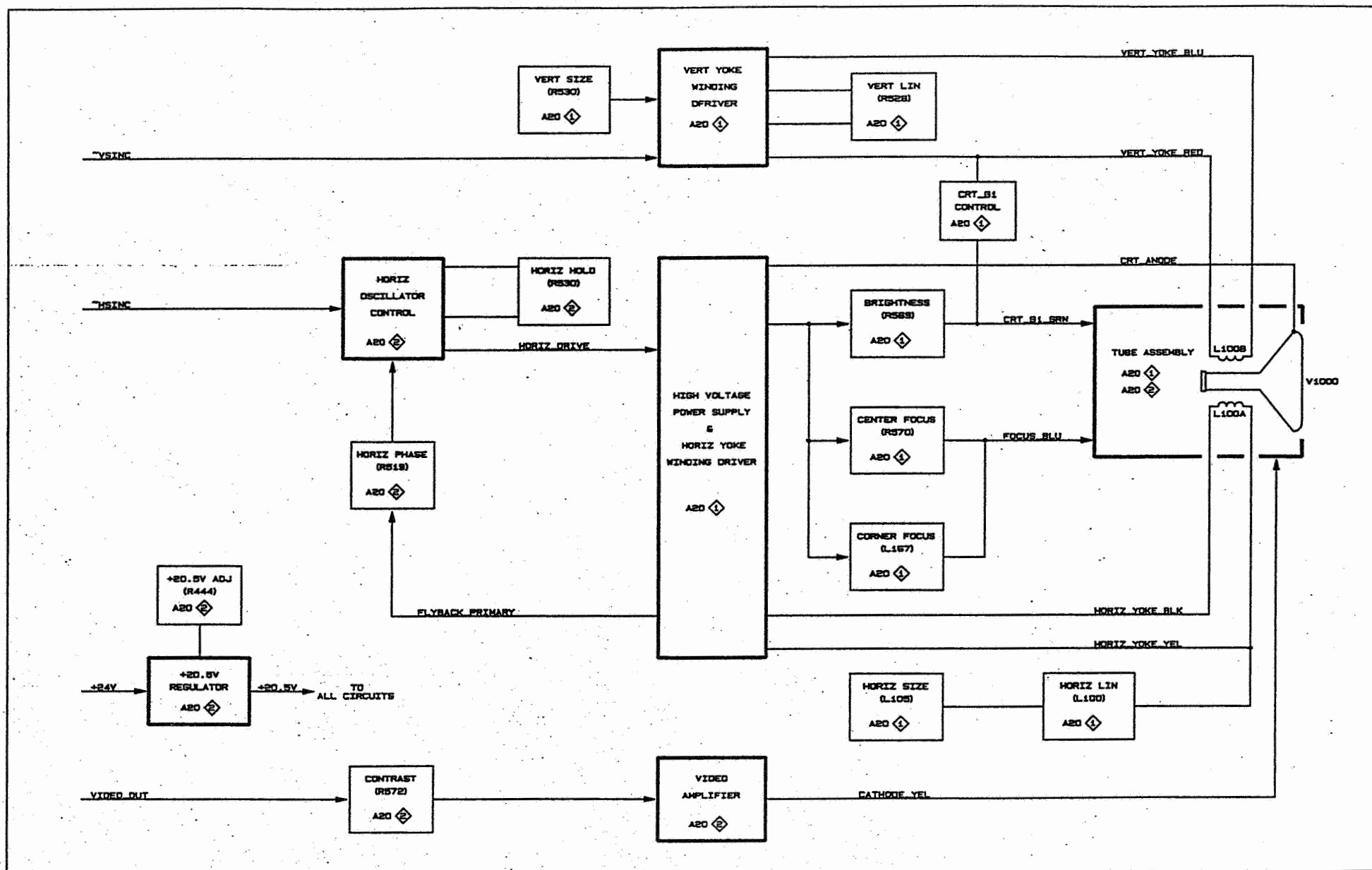
TDS 540

MAIN CONVERTER CONTROL A18 1



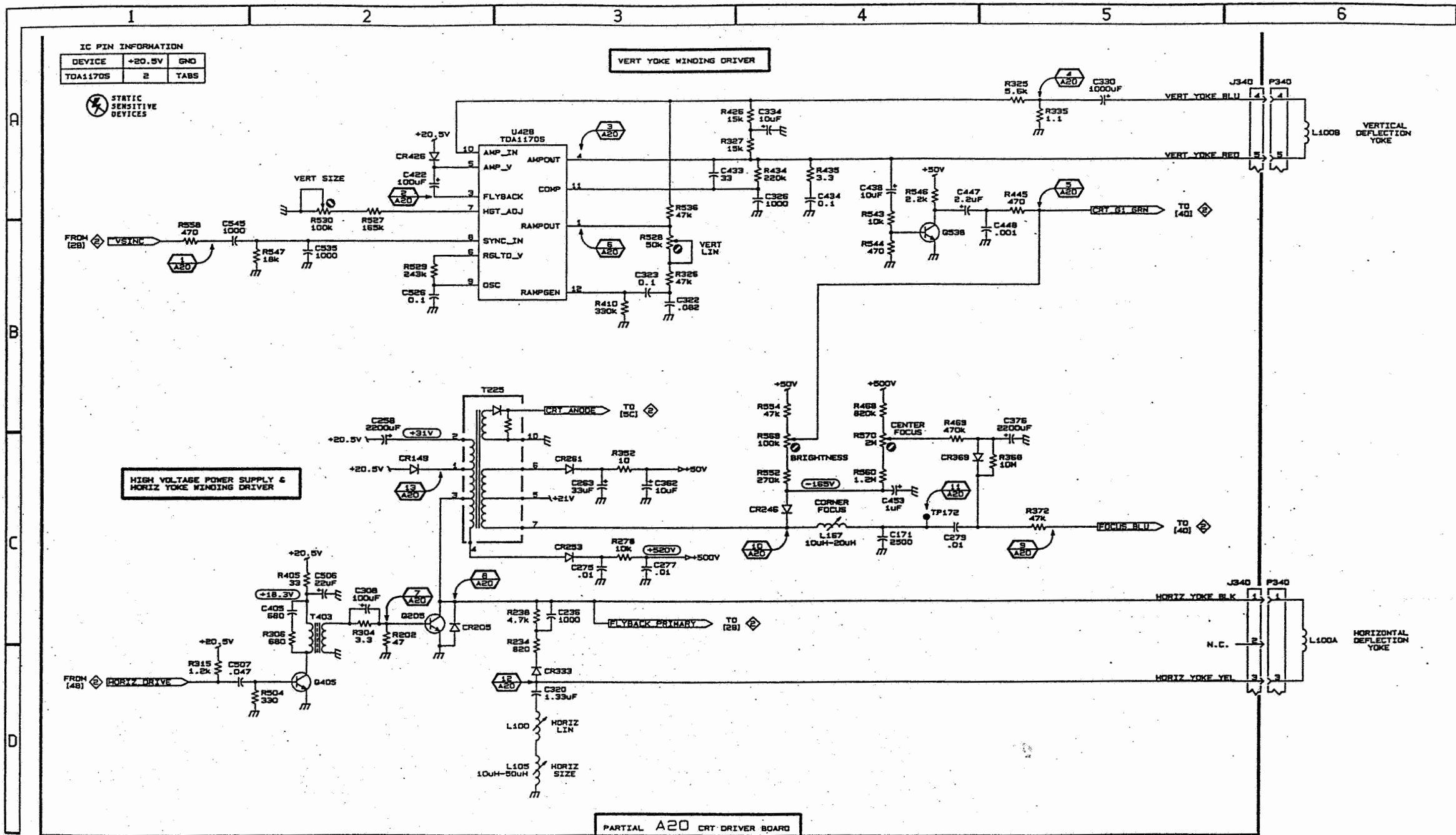
TDS 540

POWER FACTOR CONTROL A19



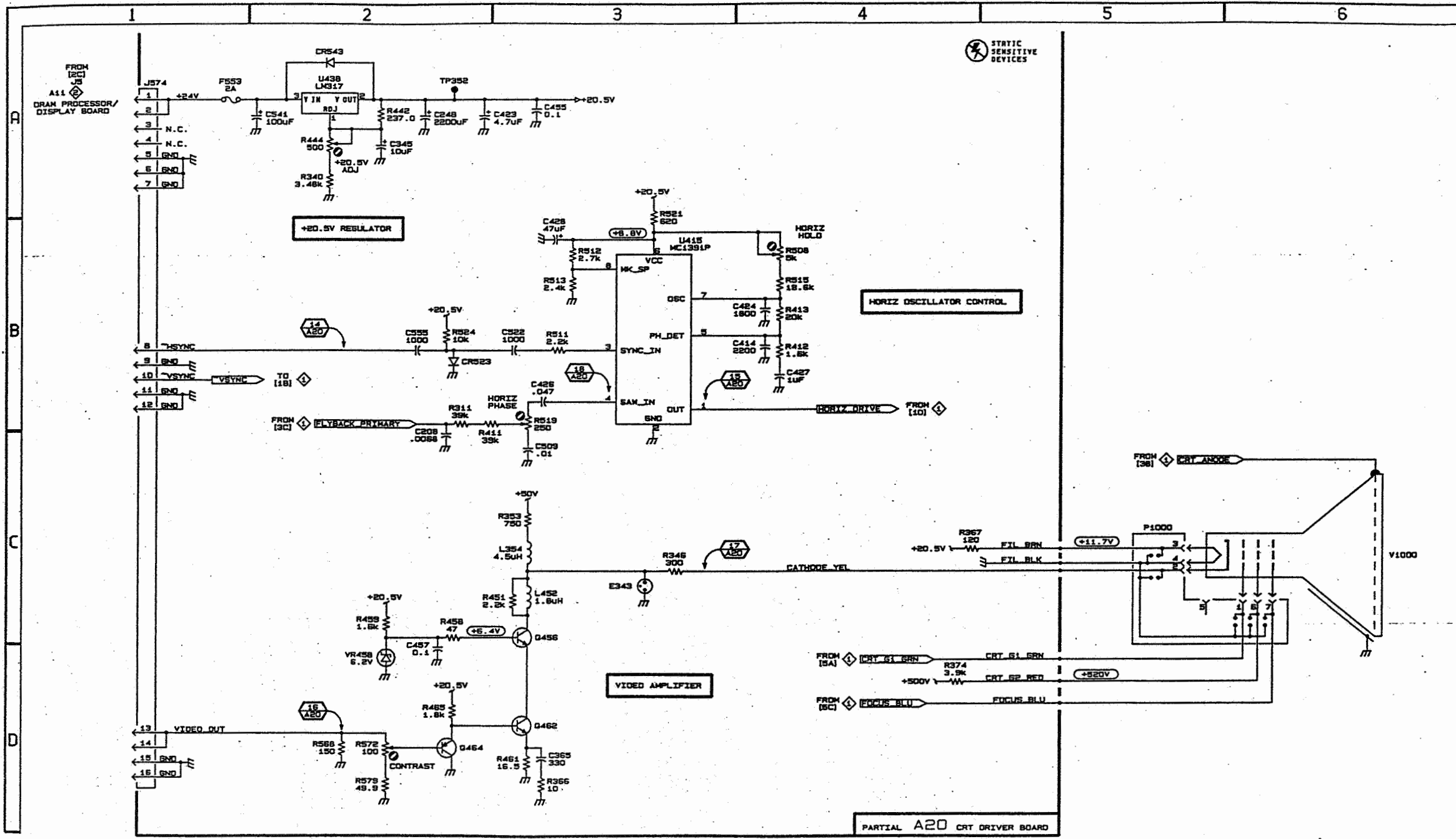
TDS 540

CRT DRIVER BOARD BLOCK DIAGRAM A20



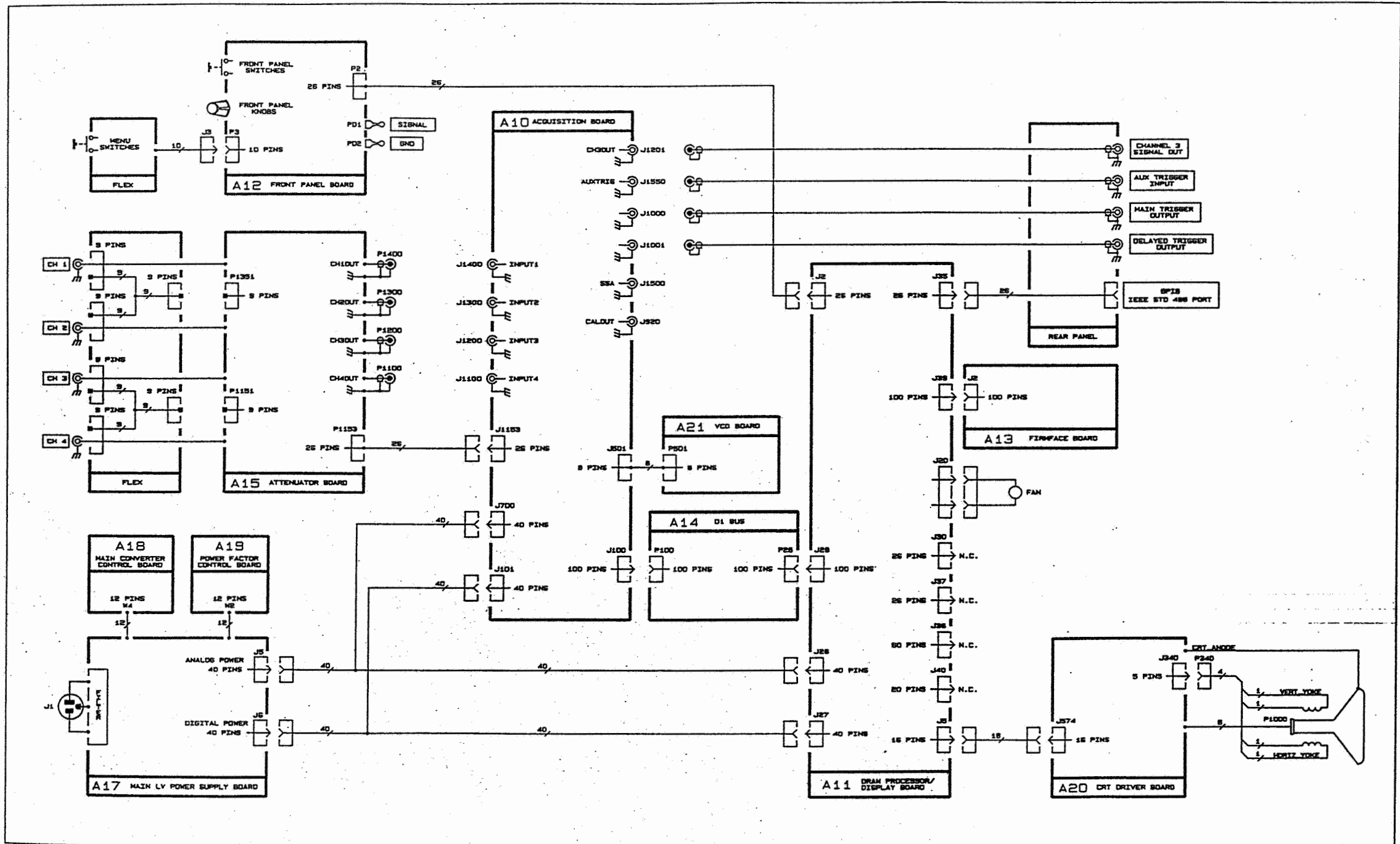
TDS 540

H.V. POWER SUPPLY & YOKE WINDING DRIVERS A20 1




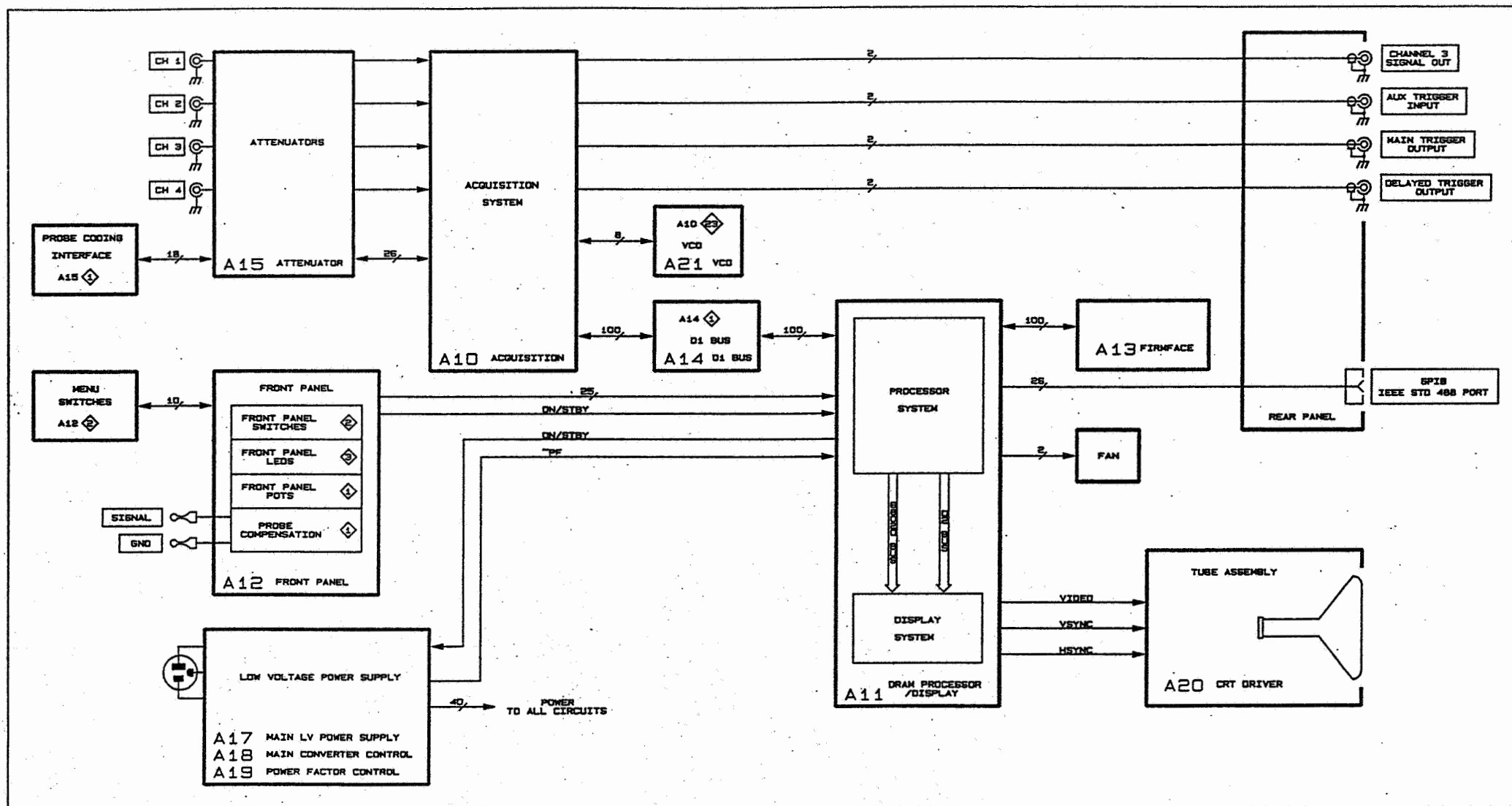
TDS 540

HORIZ OSC CONTROL, MONITOR DRIVER AND CRT A20



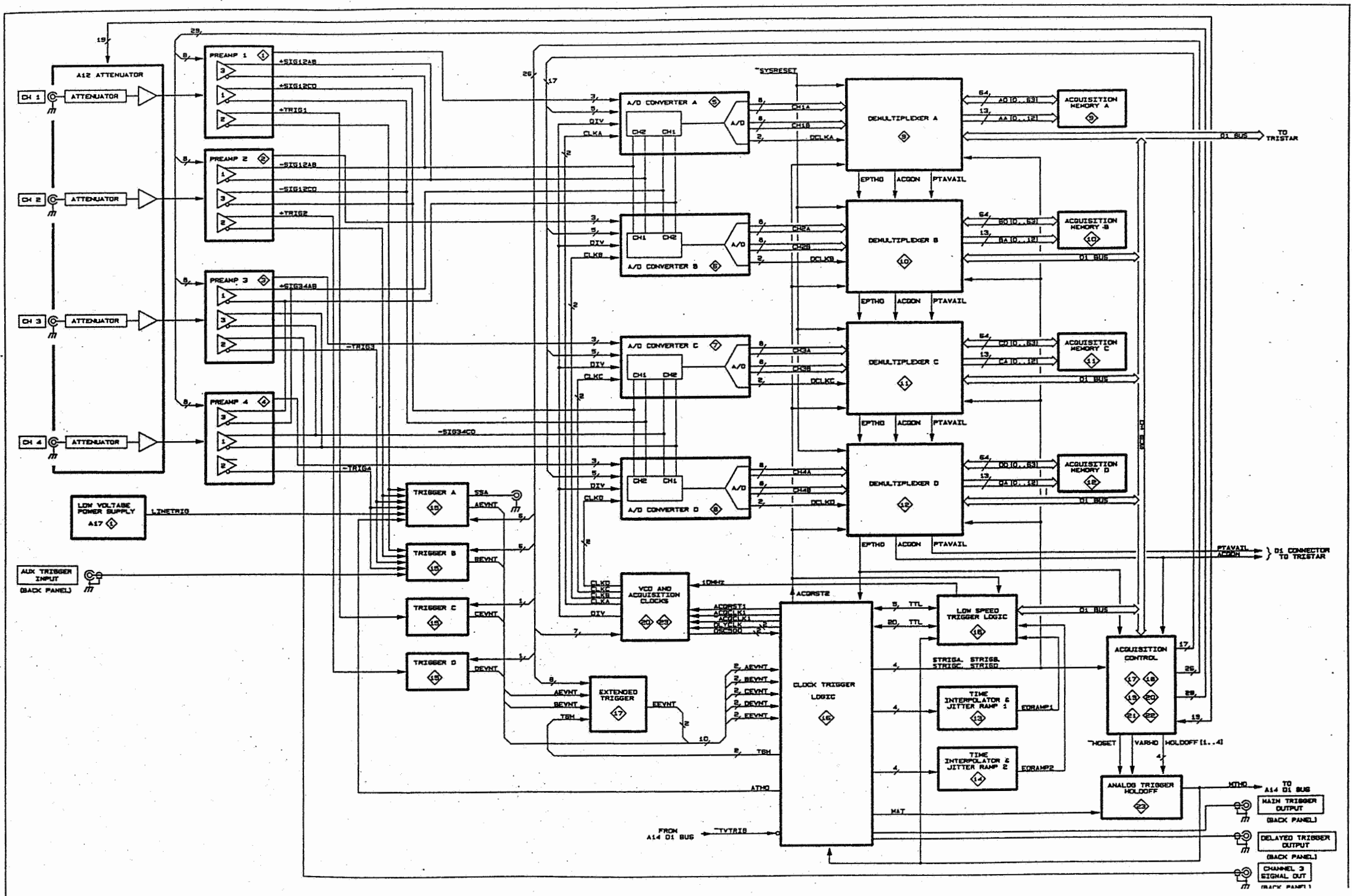
TDS 540

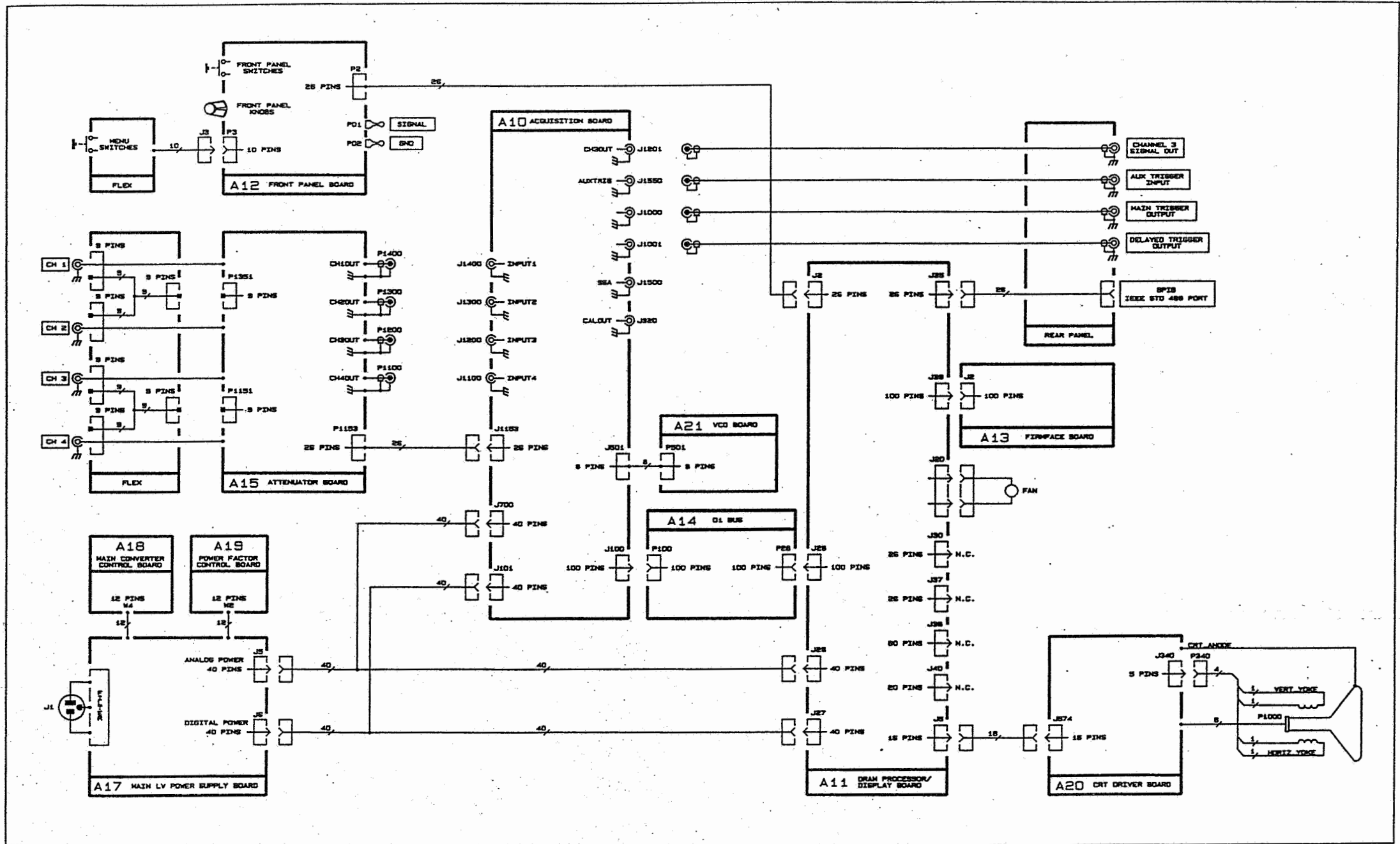
INTERCONNECTIONS 



TDS 540

TDS 540 BLOCK DIAGRAM





TDS 540

INTERCONNECTIONS 