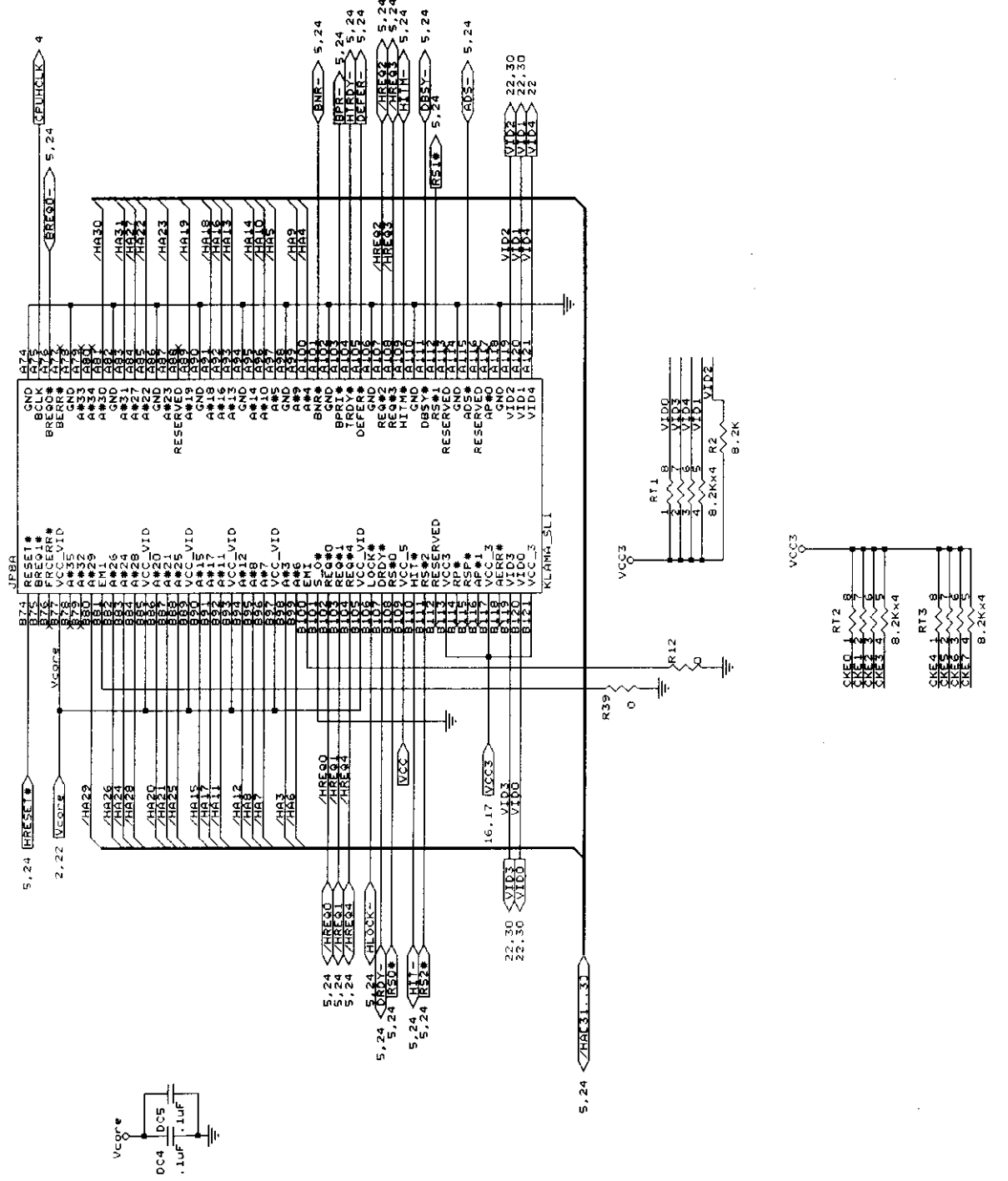


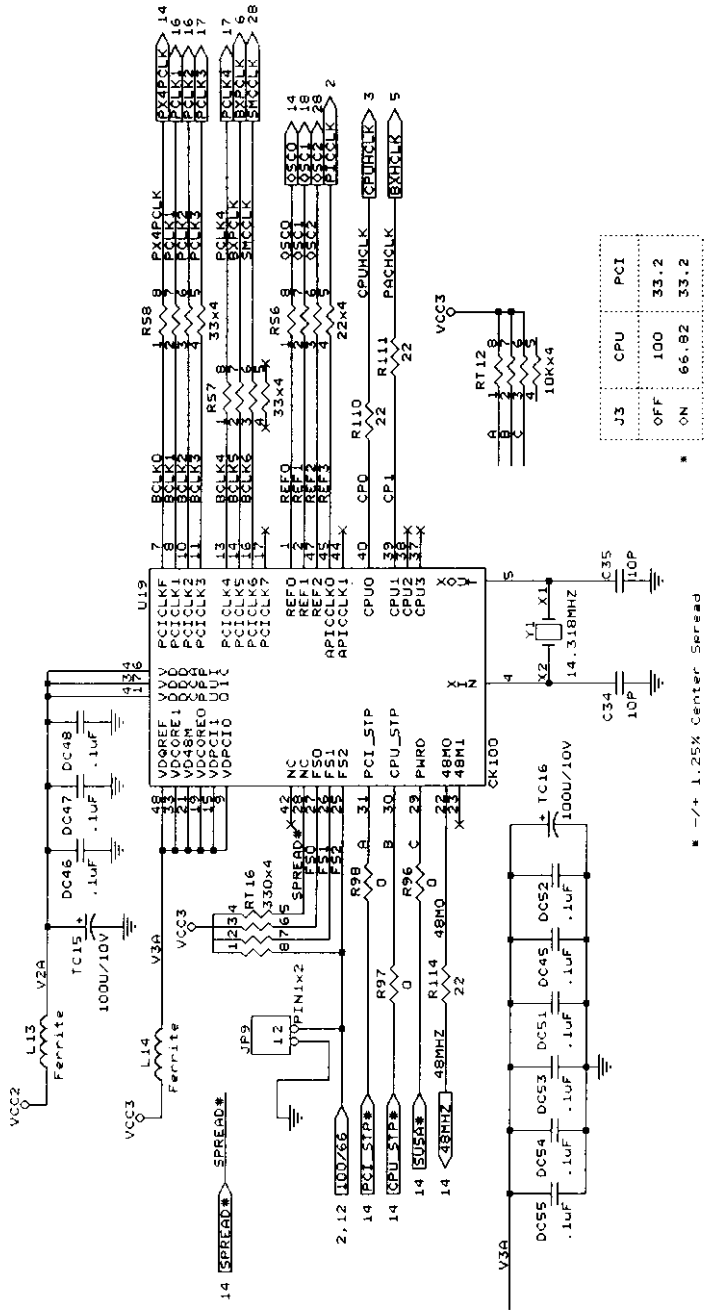
440BX CUSTOMER REFERENCE DESIGN

TITLE PAGE

TITLE	PAGE	COMPONENT	PLACEMENT	PAGE
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CLK SYNTHESIZER	4	74HC74	U9	19
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DIMM3, 4	11, 12			
KEYB / MOUSE	23	PIIX4	U16	13, 14
PIIX4	13, 14	74ALS14	U21	19
AGP CONN.	15	74LVC14	U21	19
PCI CONN.	16, 17	7407	U10	15, 19
ISA CONN.	18	74HC10	U18	19
PANEL	19	29EE00	U25	20
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ISA/PAC DECOUP	26			
VREF PAGE	27			
SMC I/O CHIP	28			
SERIAL/FLOPPY	29			
TEMPERATURE SENSOR	30			

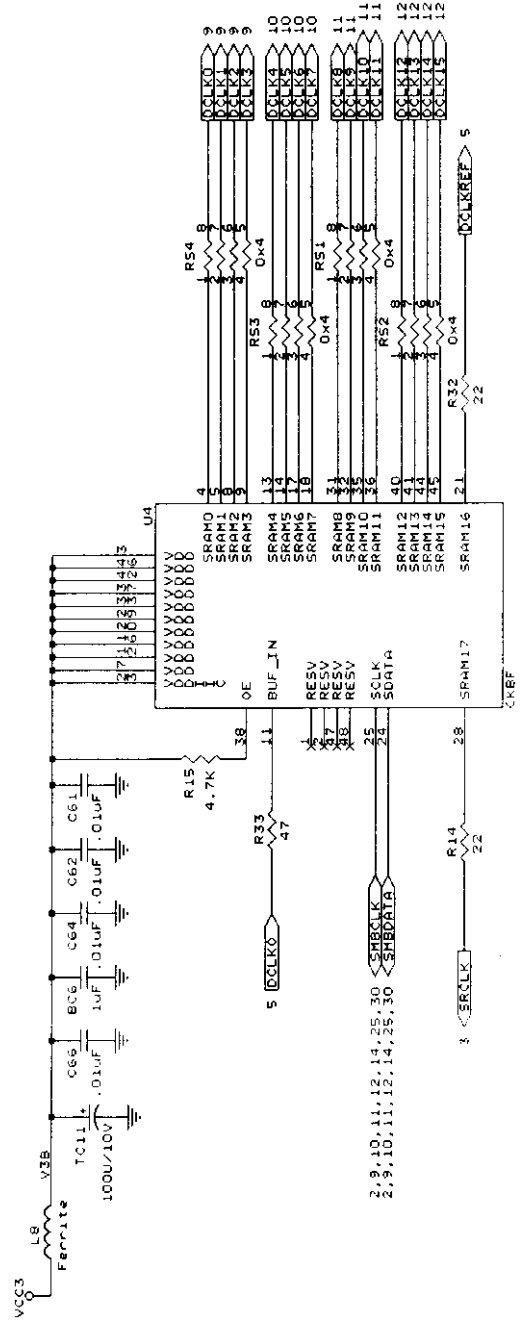
LINK
 129.5SCH
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 200.5SCH





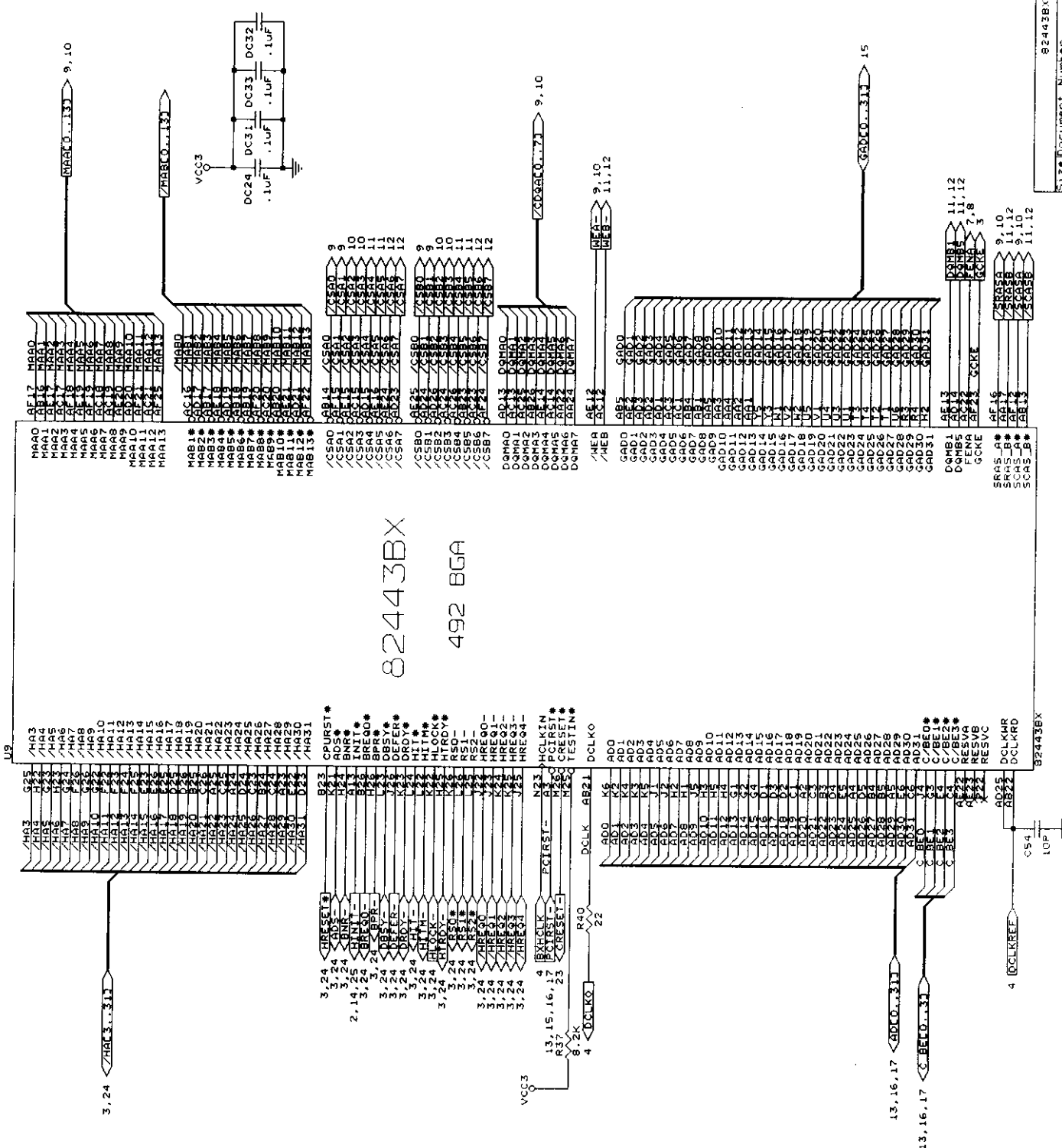
J3	CPU	PCI
OFF	100	33.2
ON	66.92	33.2

* -/+ 1.25% Center Spread

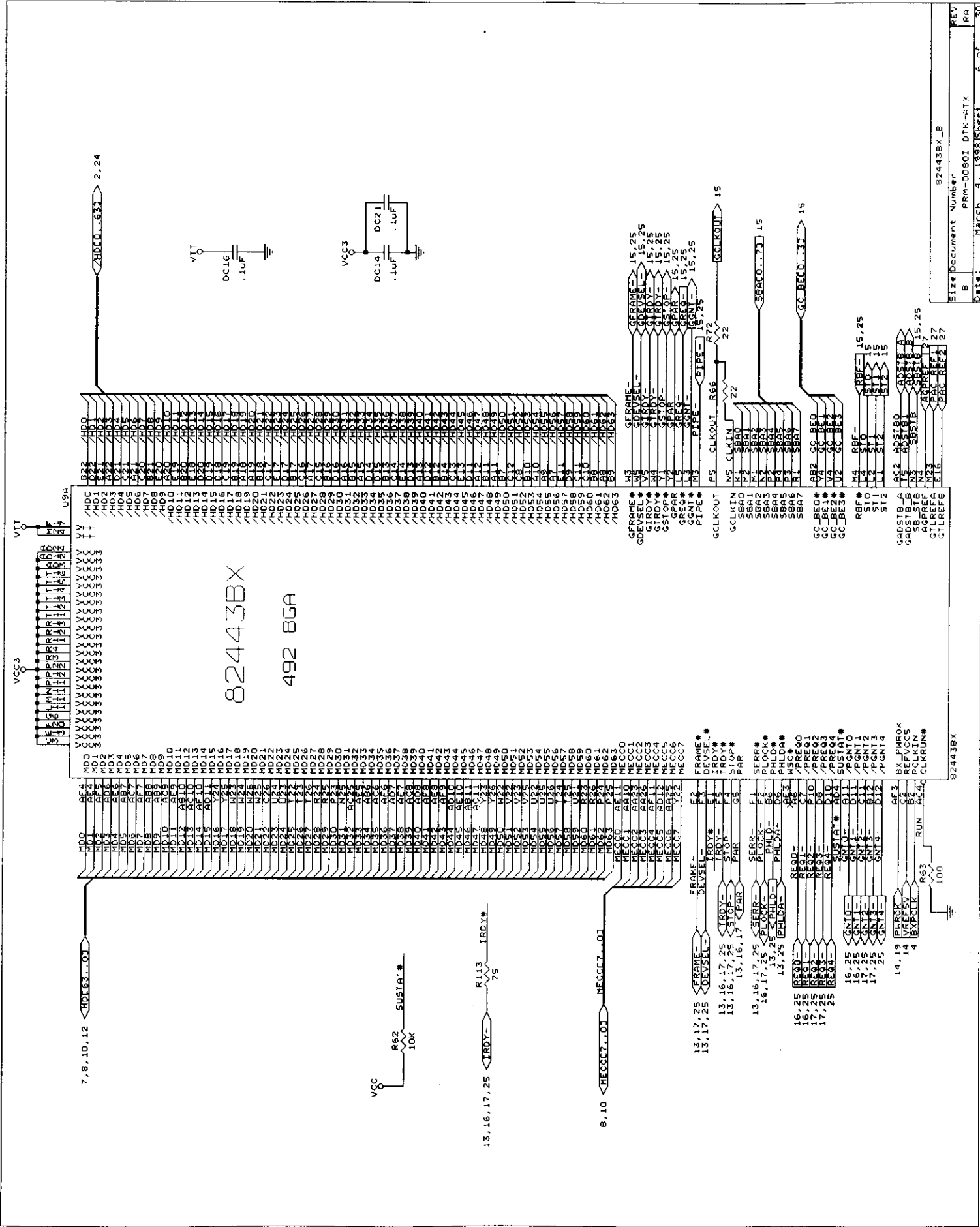


82443BX

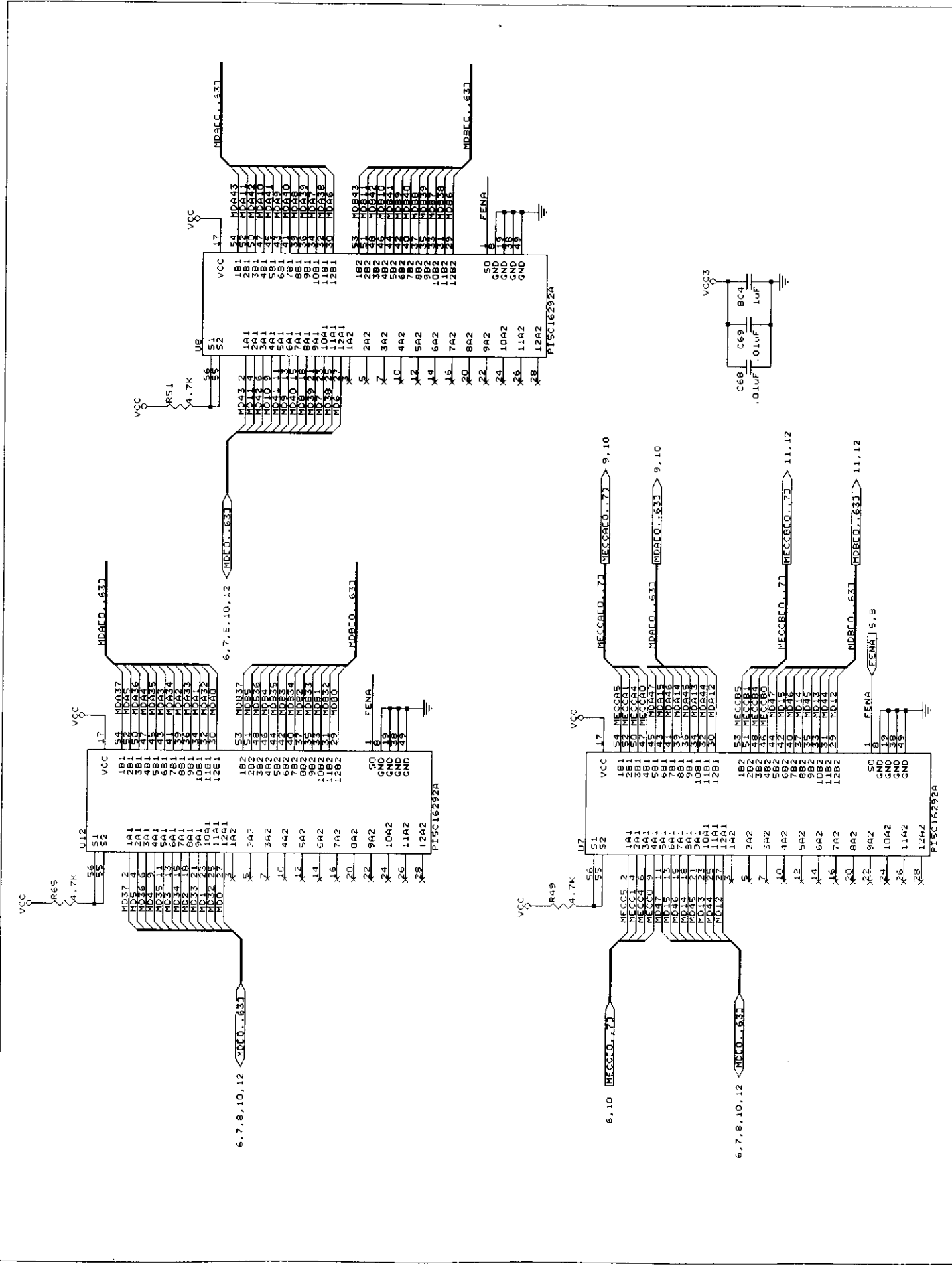
492 BGA

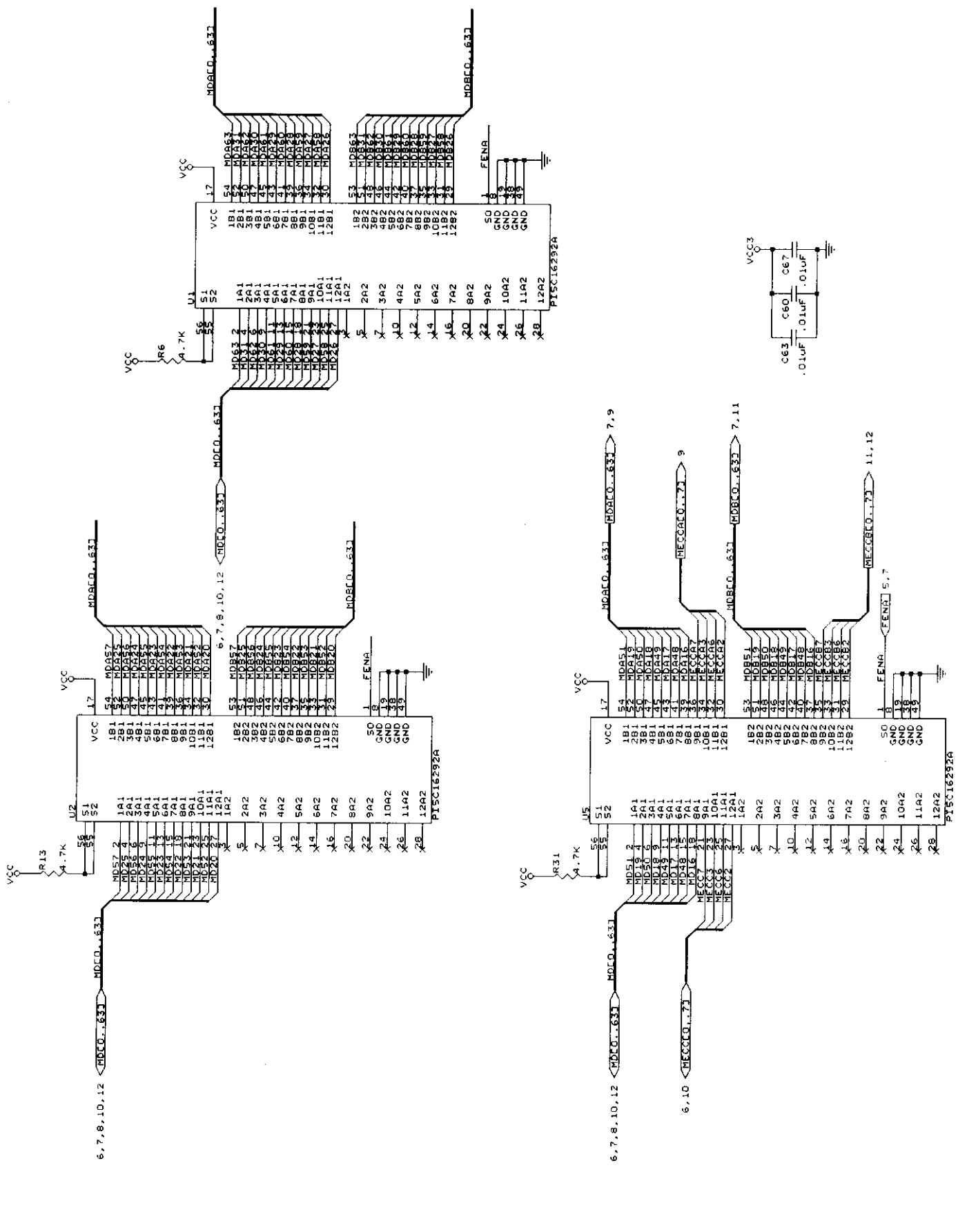


HA0 HA1 HA2 HA3 HA4 HA5 HA6 HA7 HA8 HA9 HA10 HA11 HA12 HA13 HA14 HA15 HA16 HA17 HA18 HA19 HA20 HA21 HA22 HA23 HA24 HA25 HA26 HA27 HA28 HA29 HA30 HA31
 DA0 DA1 DA2 DA3 DA4 DA5 DA6 DA7 DA8 DA9 DA10 DA11 DA12 DA13 DA14 DA15 DA16 DA17 DA18 DA19 DA20 DA21 DA22 DA23 DA24 DA25 DA26 DA27 DA28 DA29 DA30 DA31
 RES# INIT# DBS# DEF# DRDY# HLD# HLOCK# HTRDY# RD# WR# FCS# FCS2# FCS3# HREQ# HRES#
 CLK#
 VCC3 VCC4
 GAD0 GAD1 GAD2 GAD3 GAD4 GAD5 GAD6 GAD7 GAD8 GAD9 GAD10 GAD11 GAD12 GAD13 GAD14 GAD15 GAD16 GAD17 GAD18 GAD19 GAD20 GAD21 GAD22 GAD23 GAD24 GAD25 GAD26 GAD27 GAD28 GAD29 GAD30 GAD31
 GDB0 GDB1 GDB2 GDB3 GDB4 GDB5 GDB6 GDB7 GDB8 GDB9 GDB10 GDB11 GDB12 GDB13 GDB14 GDB15 GDB16 GDB17 GDB18 GDB19 GDB20 GDB21 GDB22 GDB23 GDB24 GDB25 GDB26 GDB27 GDB28 GDB29 GDB30 GDB31
 GDBI# GDBE# GDBF# GDBG# GDBH# GDBI# GDBJ# GDBK# GDBL# GDBM# GDBN# GDBO# GDBP# GDBQ# GDBR# GDBS# GDBT# GDBU# GDBV# GDBW# GDBX# GDBY# GDBZ#
 VCC3 VCC4
 GND

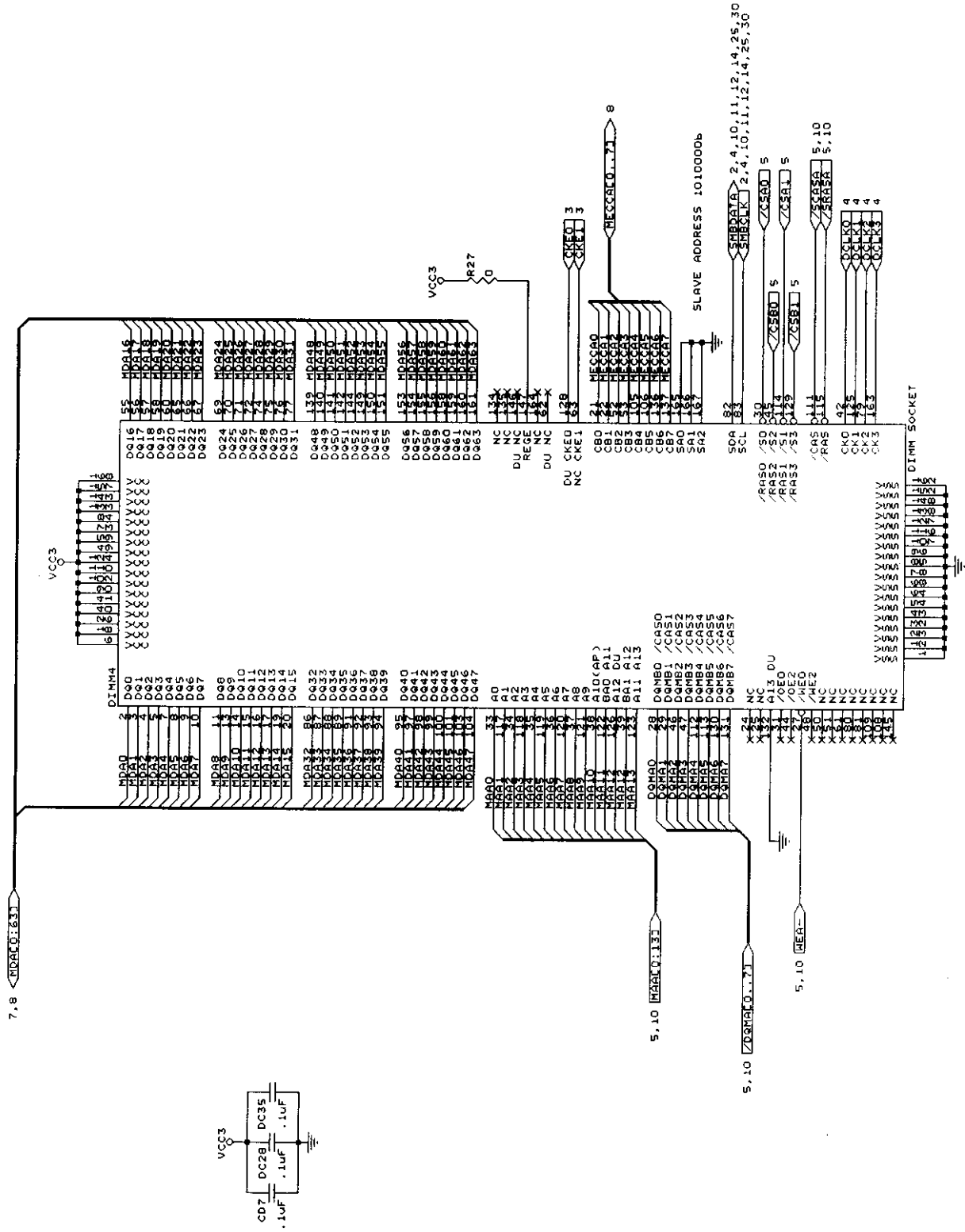


82443BX
492 BGA

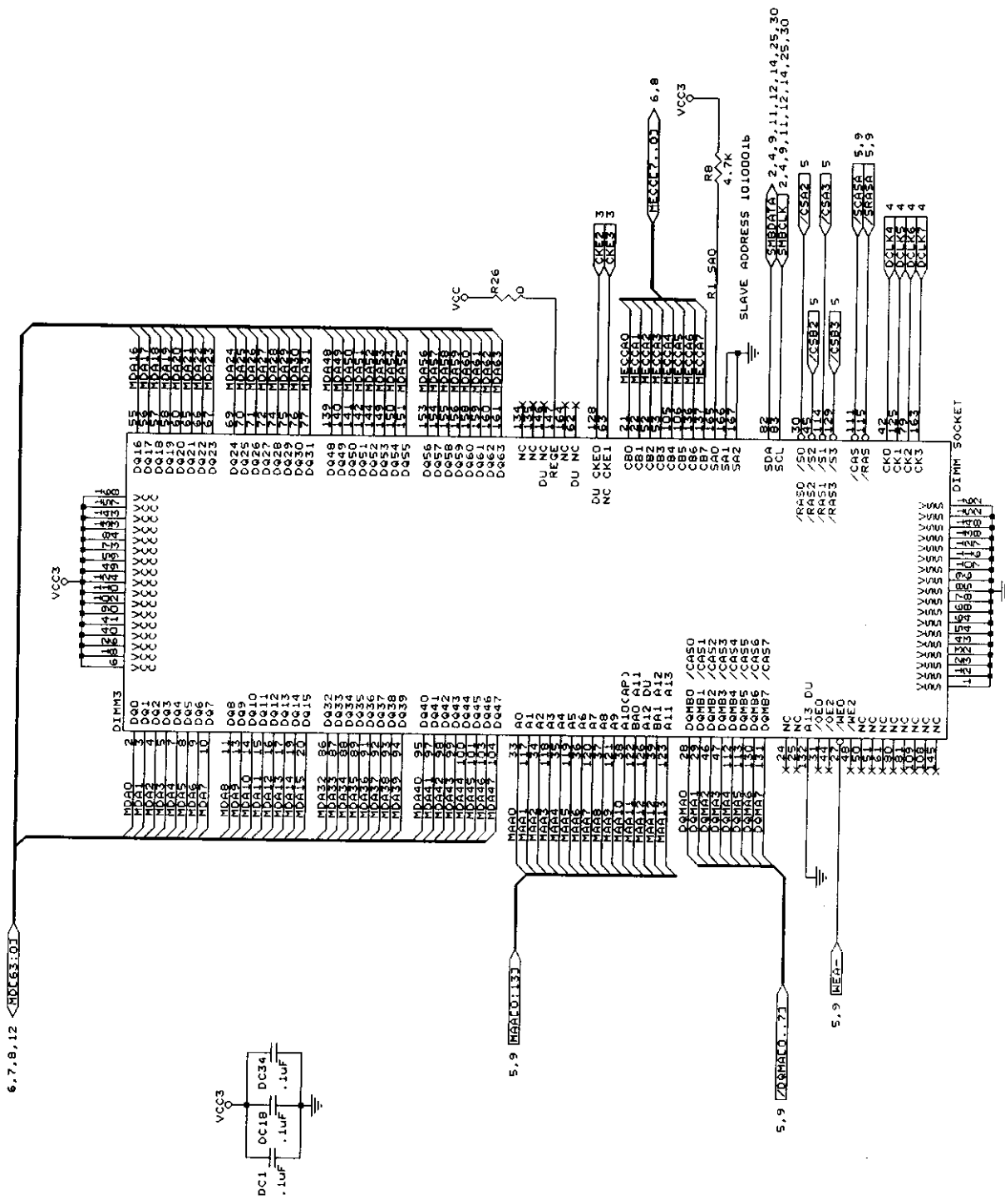




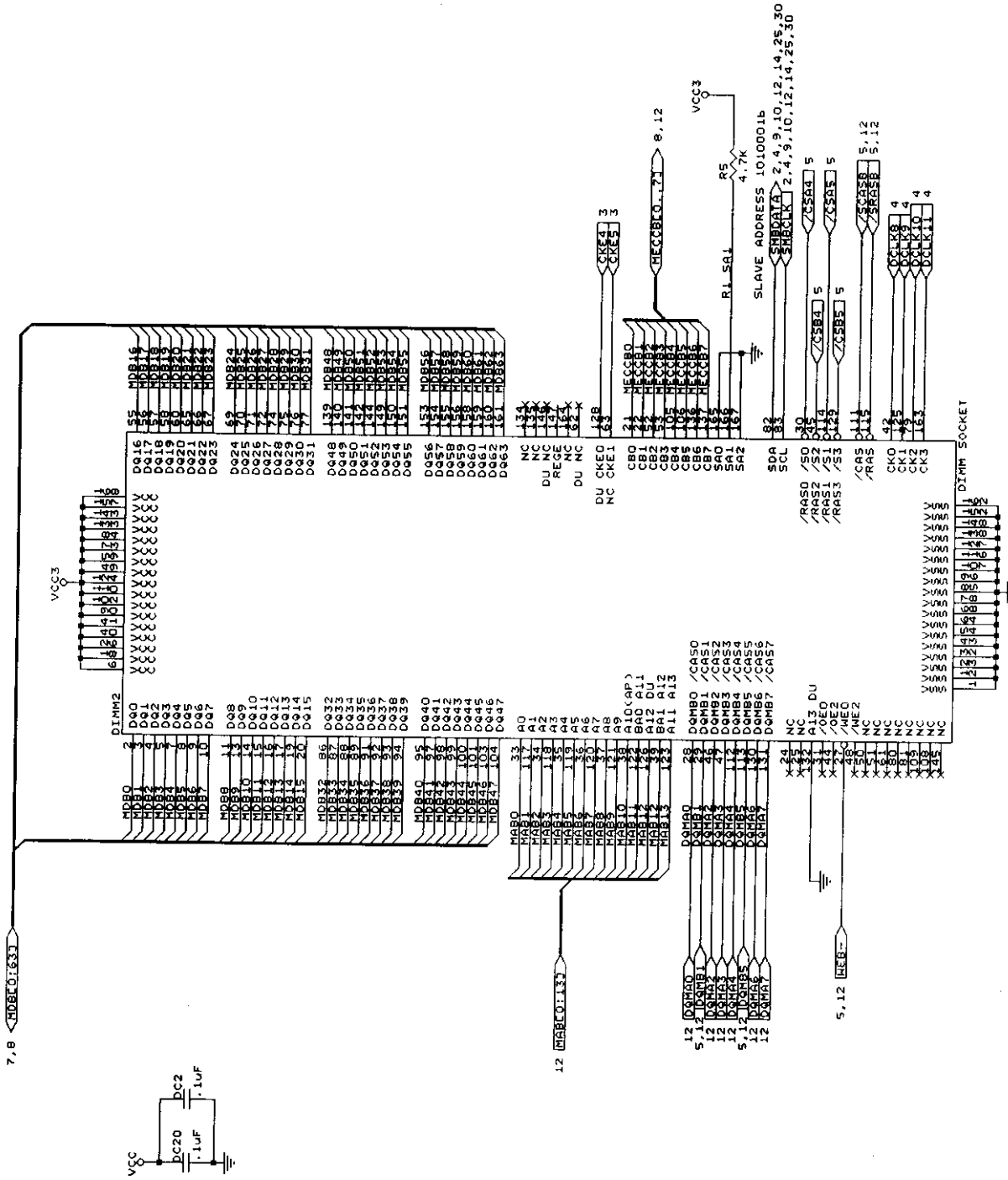
DIMM CONNECTOR Ø



DIMM CONNECTOR 1

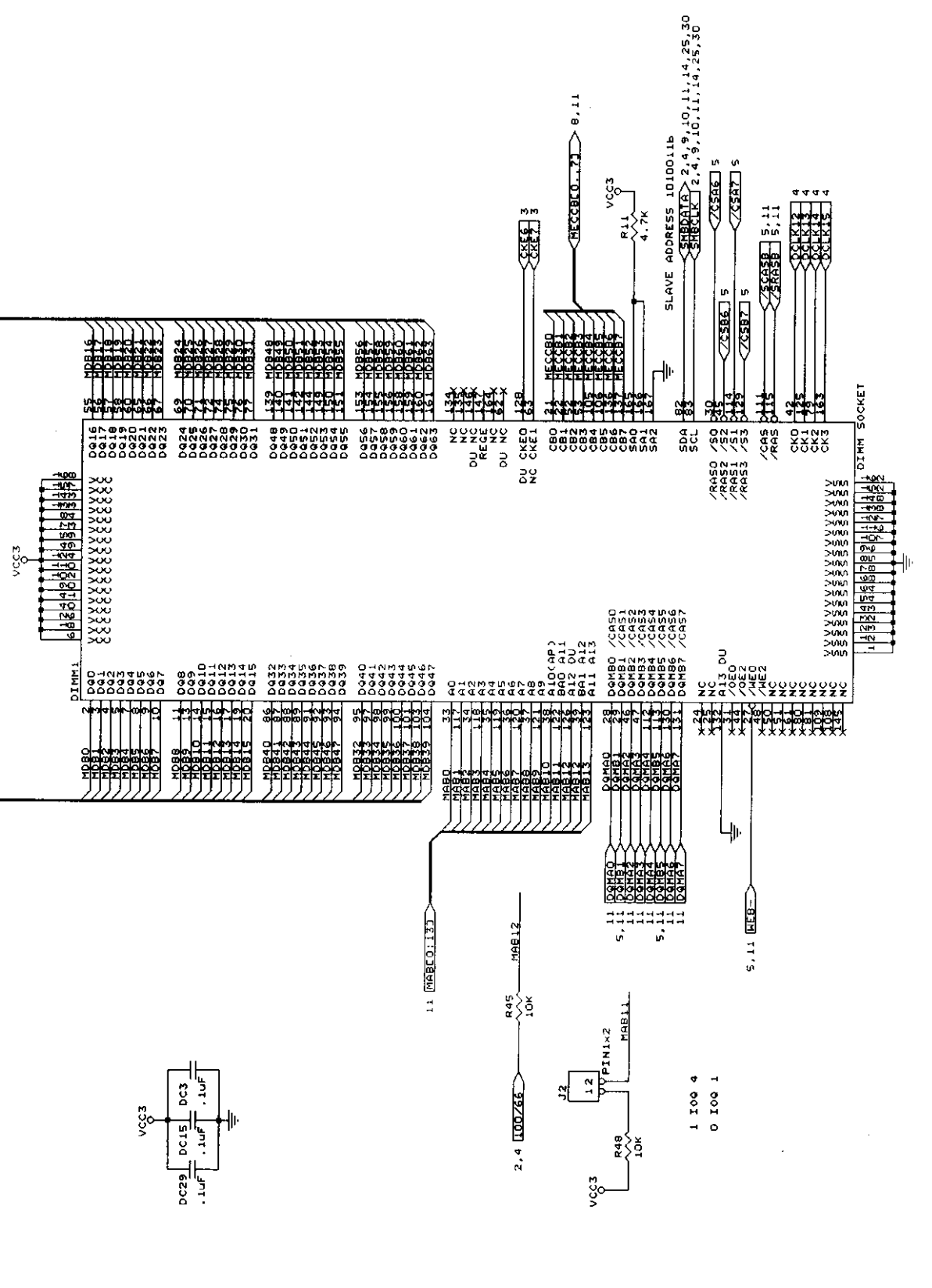


DIMM CONNECTOR 2



DIMM CONNECTOR 3

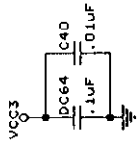
6,7,8,10 MPK63103



4th DIMM SOCKET (BANK3)
Size Document Number
B PRM-00801 DTK-ATX RA
Date: APR 21, 1998 Sheet 12 of 30

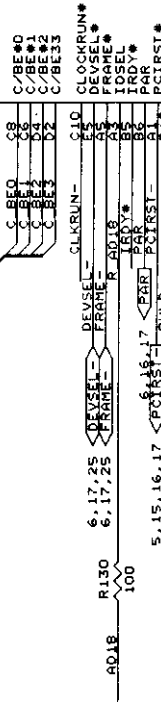
5, 16, 17 <DDE31..03> DDE31..03 20

5, 16, 17 <DDE31..03> DDE31..03 20



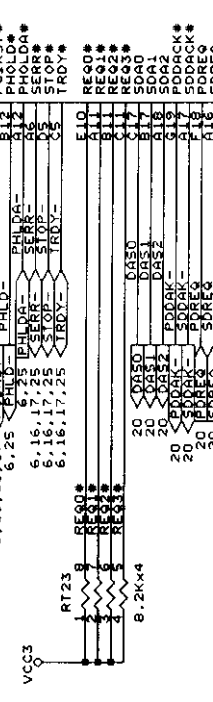
6, 16, 17, 25 <IRDY* > R113 IRDY* 33

5, 16, 17 <C.BE0..33> C.BE0..33 20



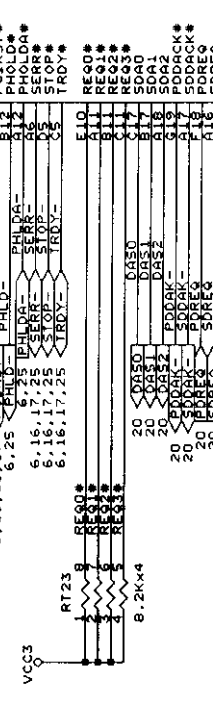
PIIX4

18, 21, 26, 28, 30 <SAC0..193> SAC0..193 20

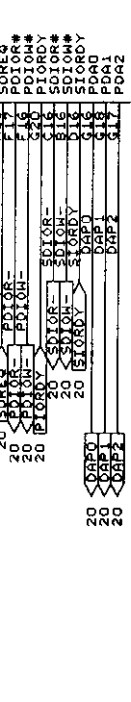


18, 21, 26, 28, 30 <SAC0..193> SAC0..193 20

18, 21, 26, 28, 30 <SAC0..193> SAC0..193 20

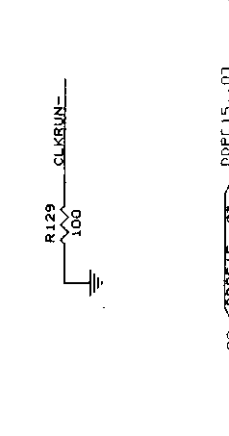
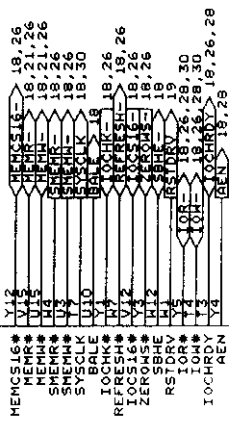


18, 26 <LAC23..179> LAC23..179 20



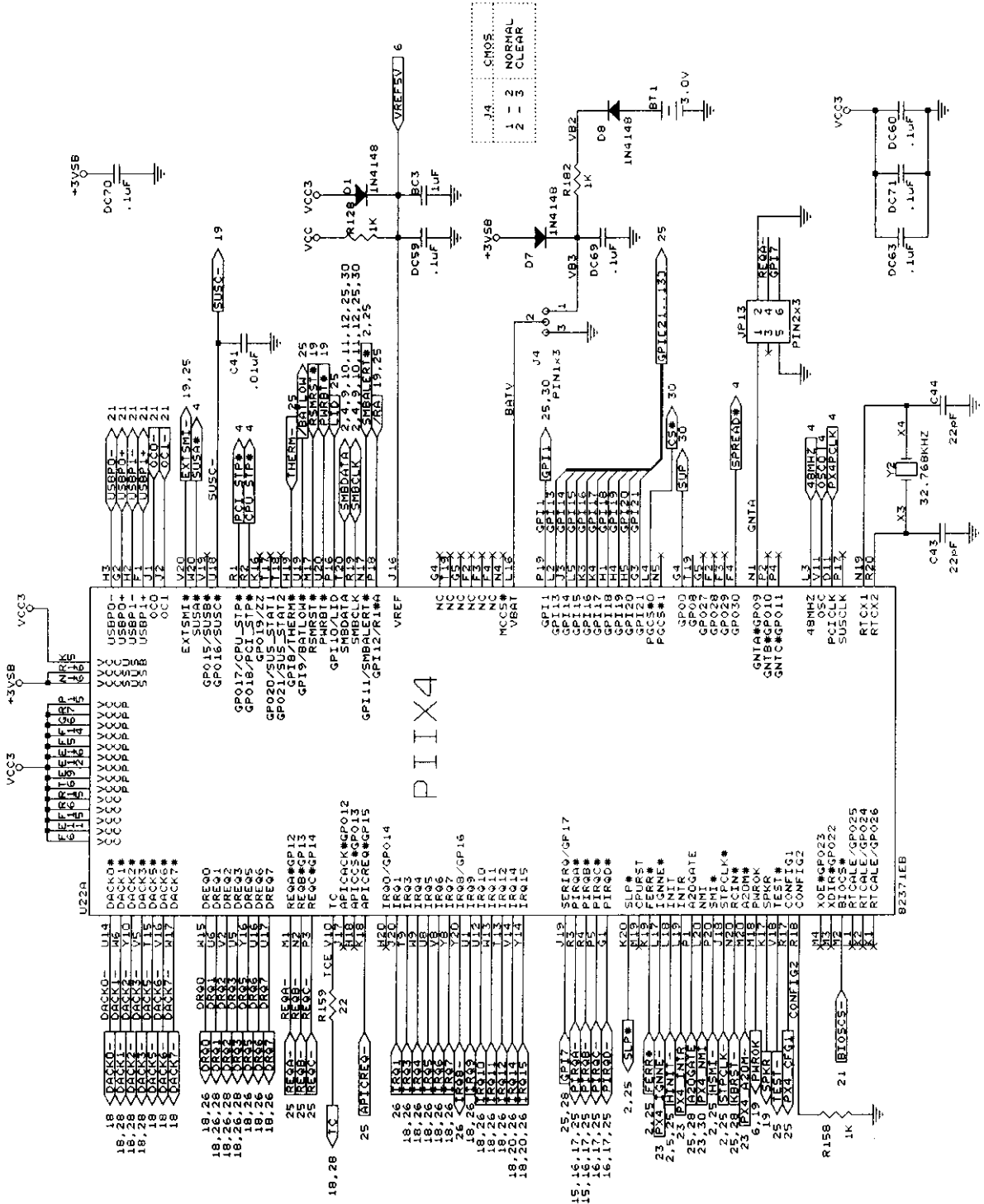
18, 26 <LAC23..179> LAC23..179 20

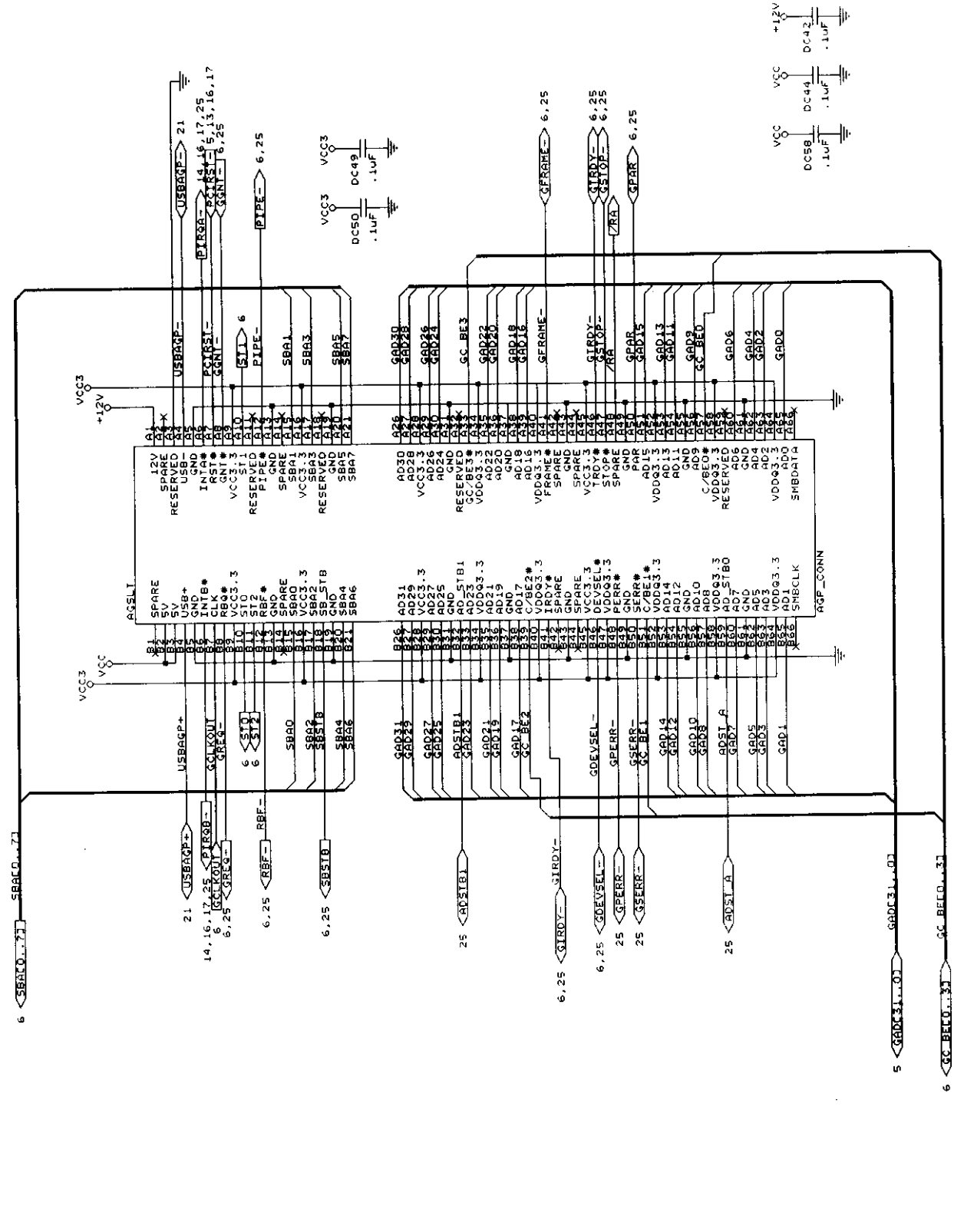
18, 26 <LAC23..179> LAC23..179 20

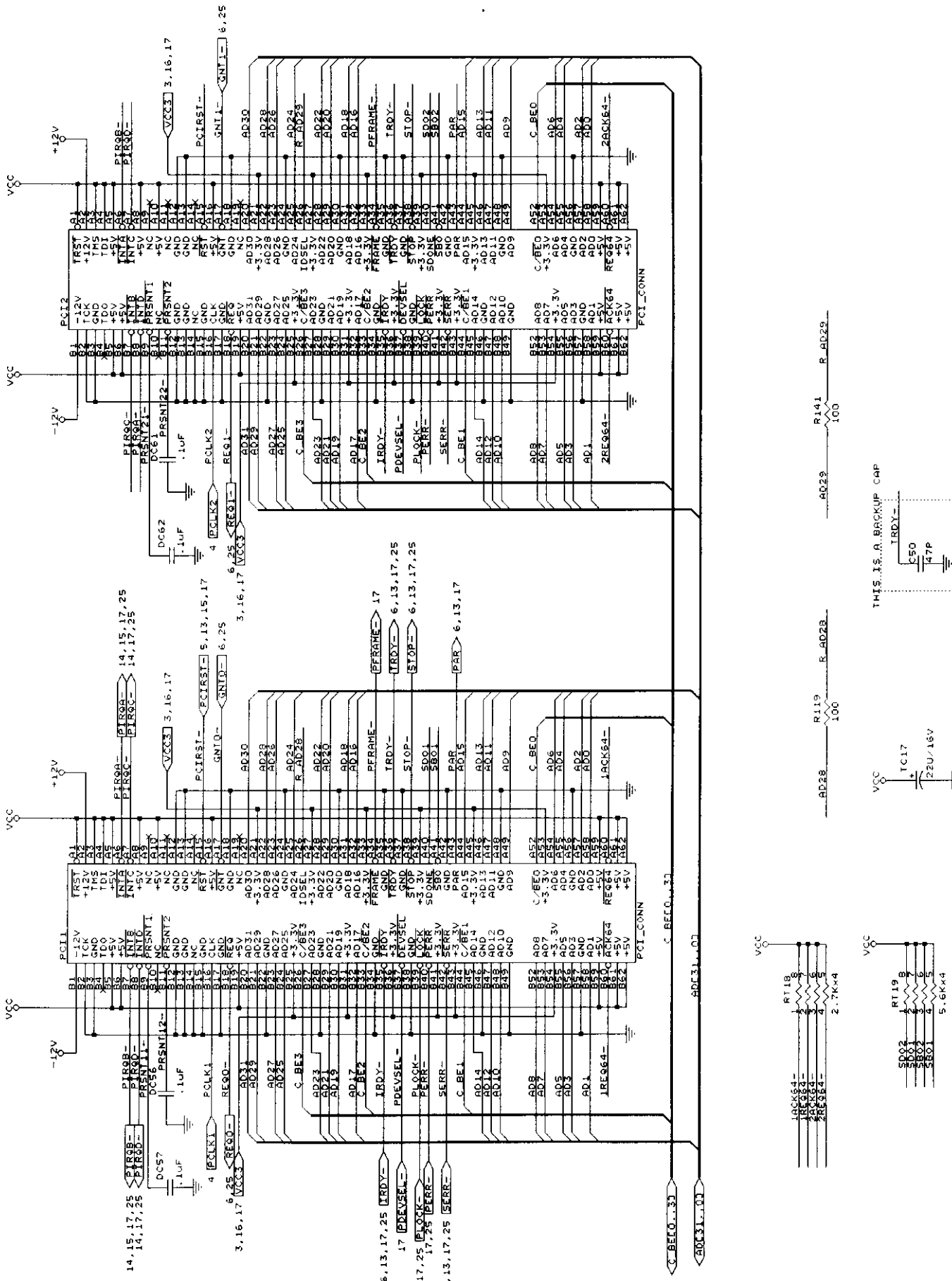


20 <DDE31..03> DDE31..03 20

8237 IEB

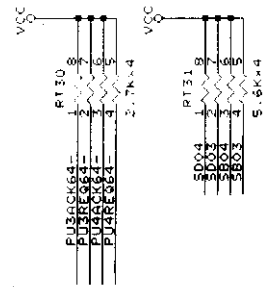
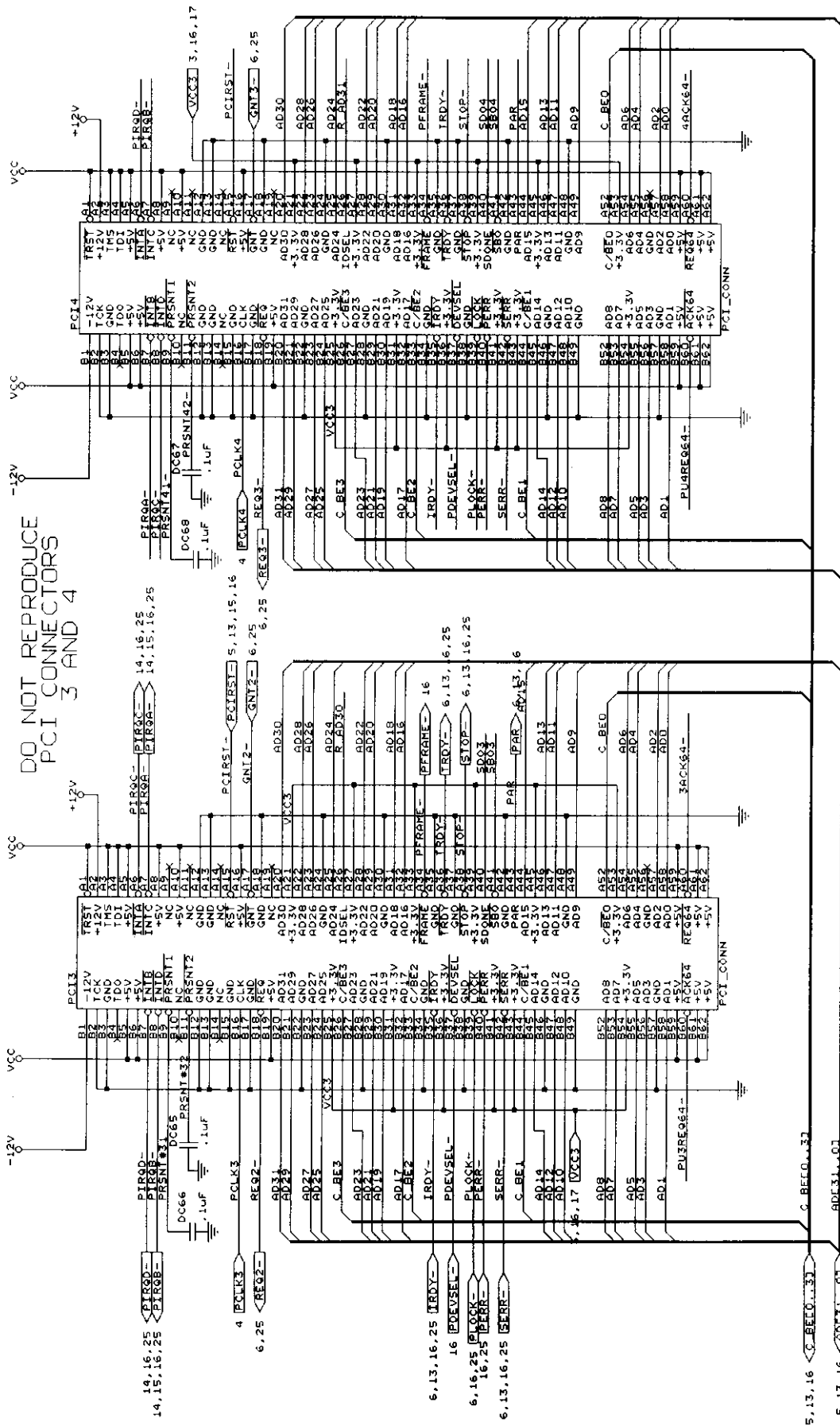


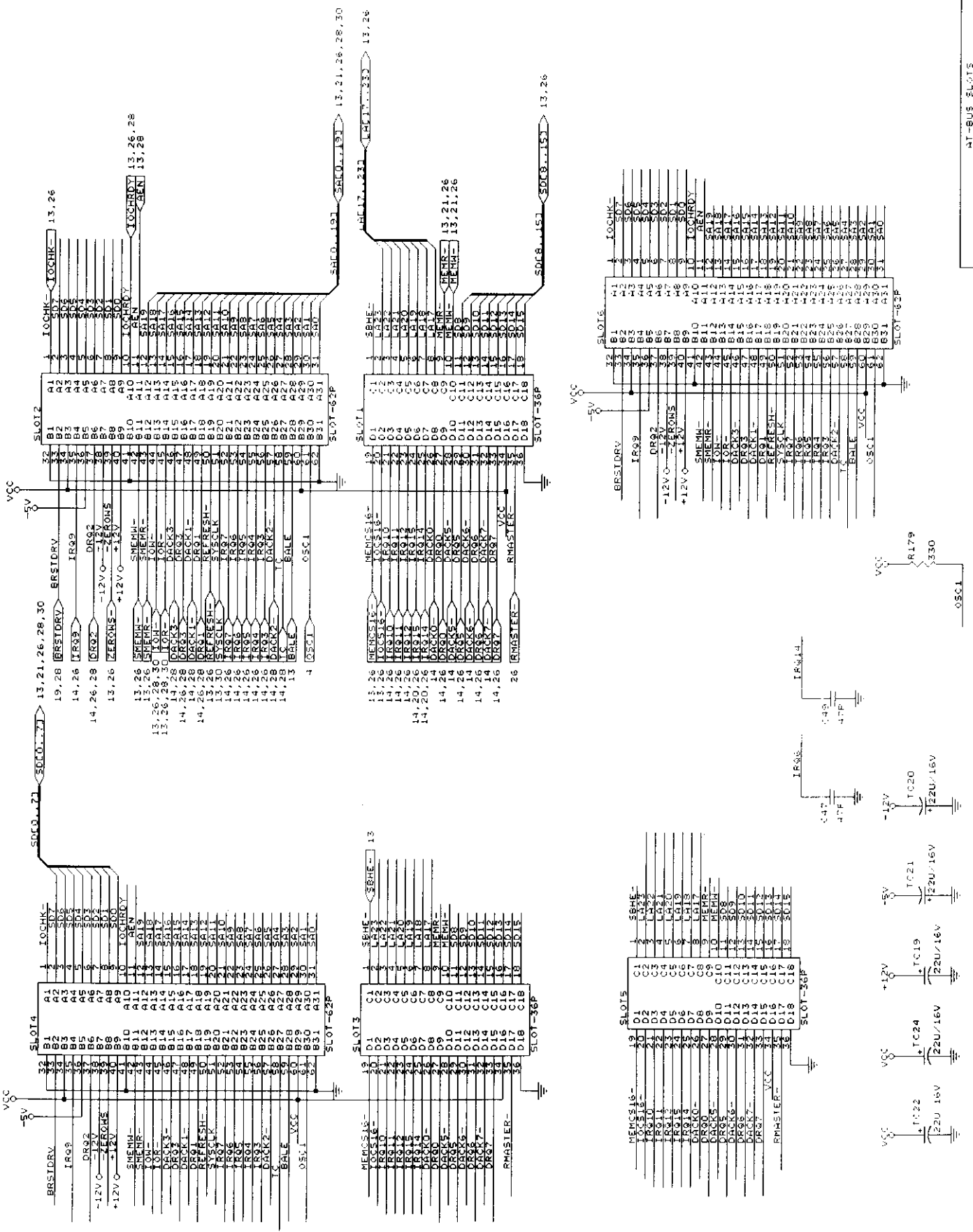


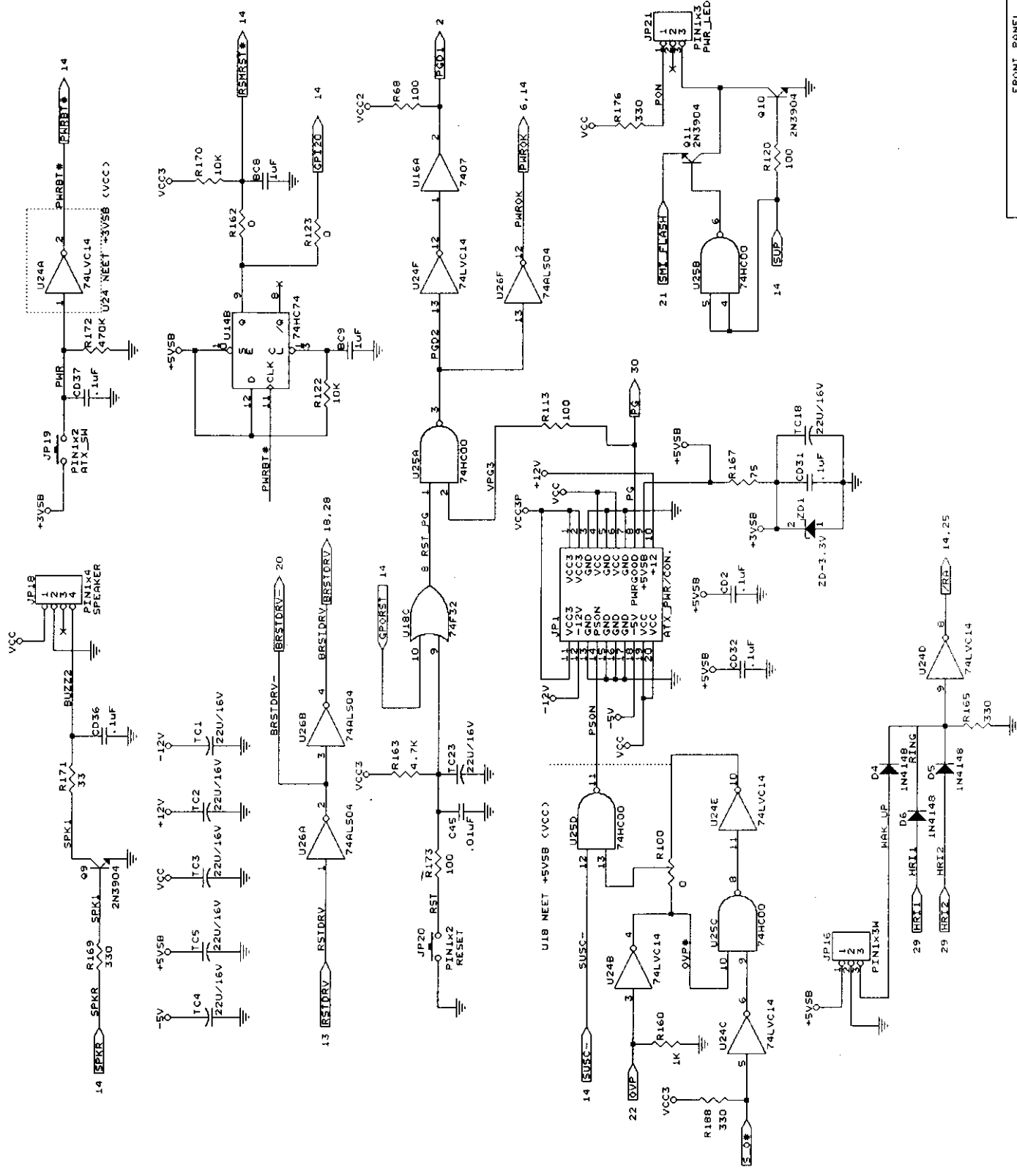


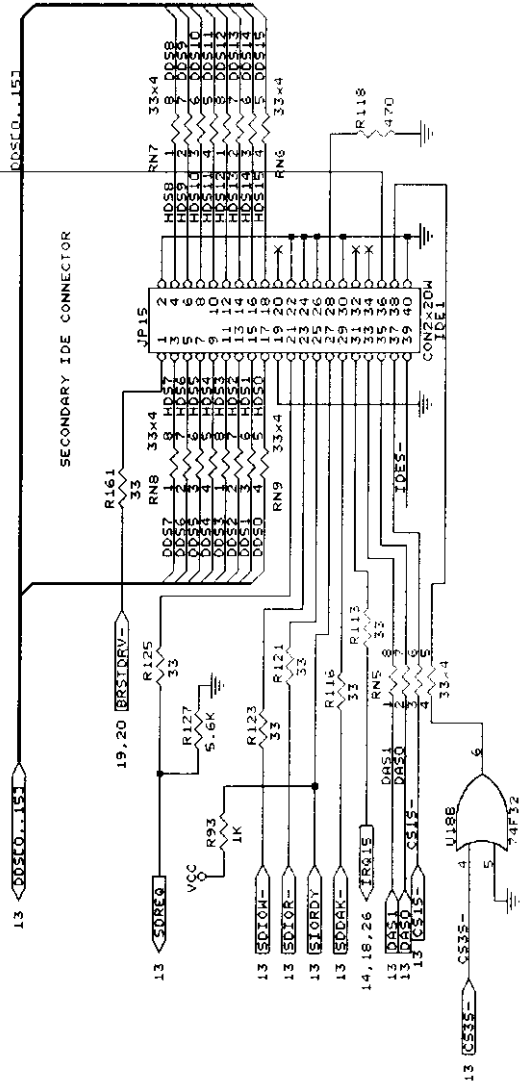
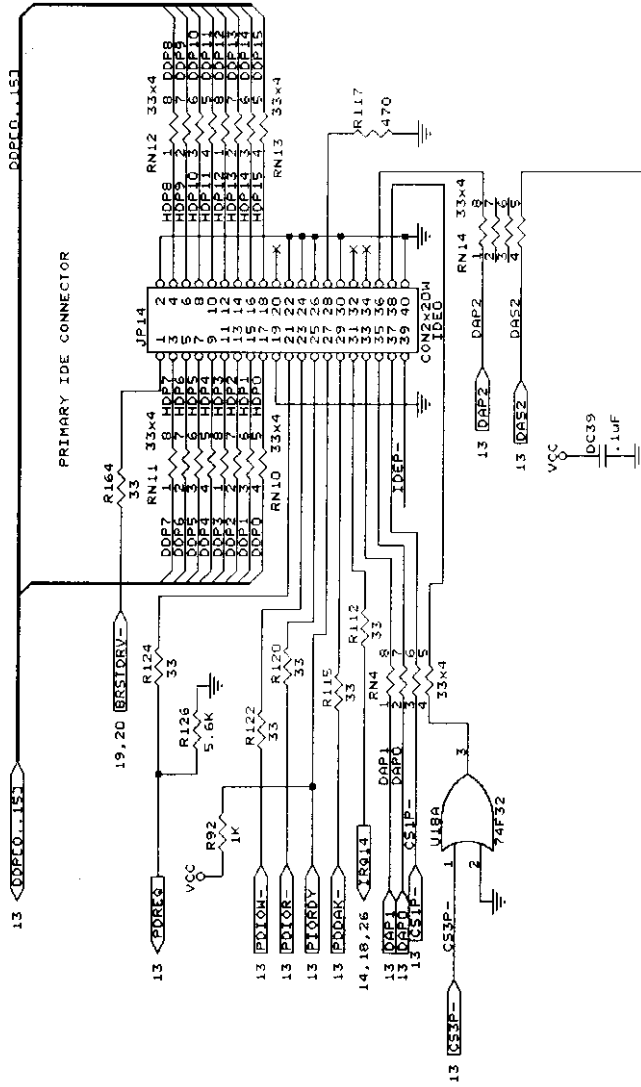
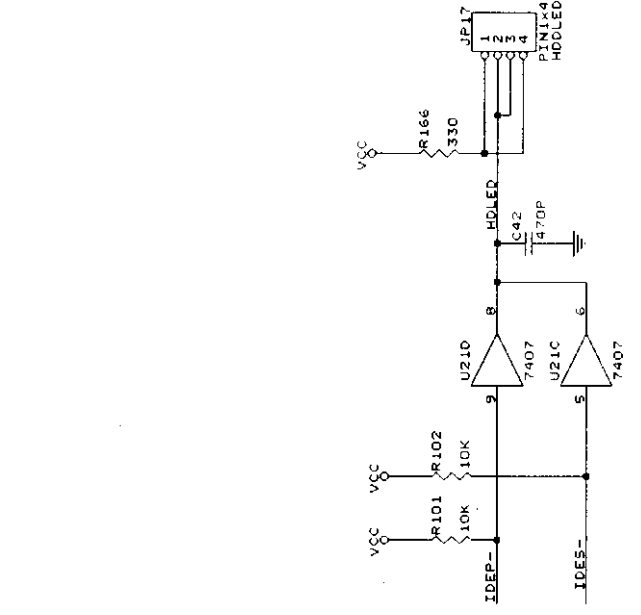
THIS IS A BACKUP CAP
 IRDY-
 C50
 47P

DO NOT REPRODUCE
PCI CONNECTORS
3 AND 4

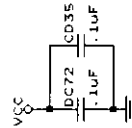
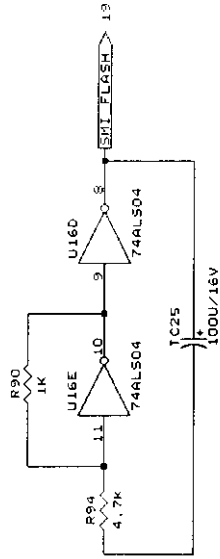
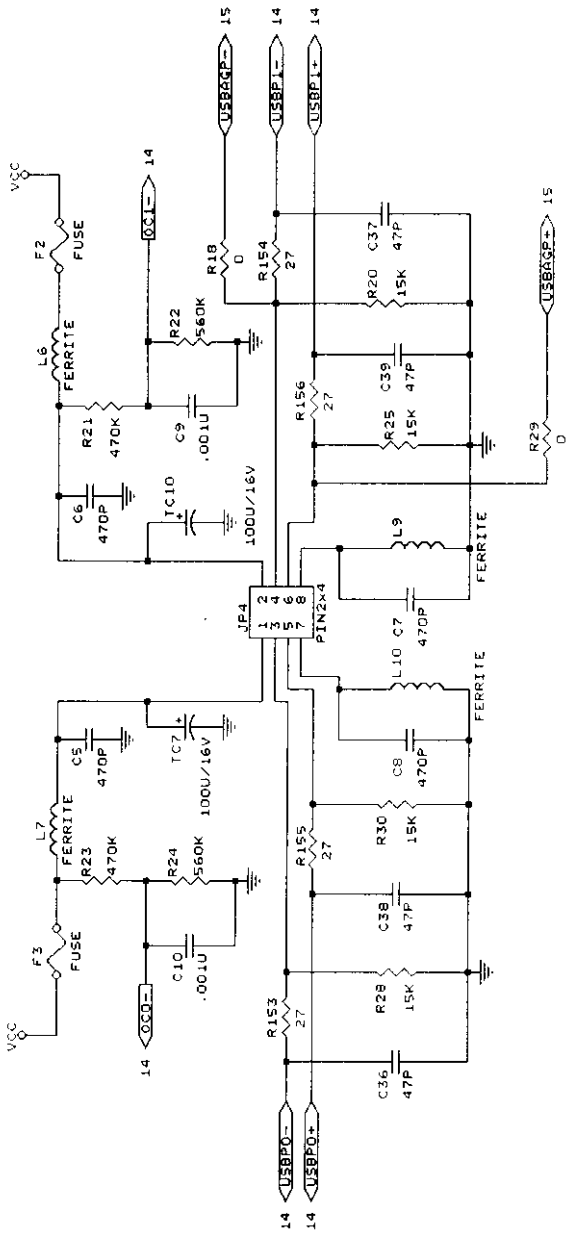




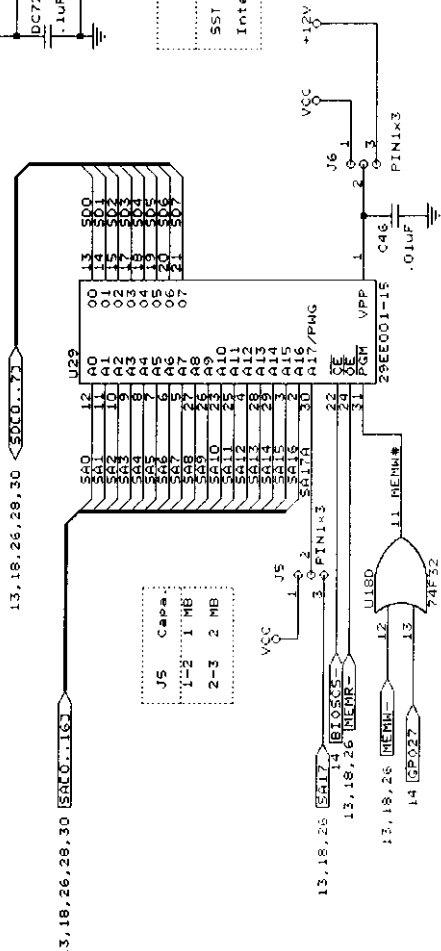


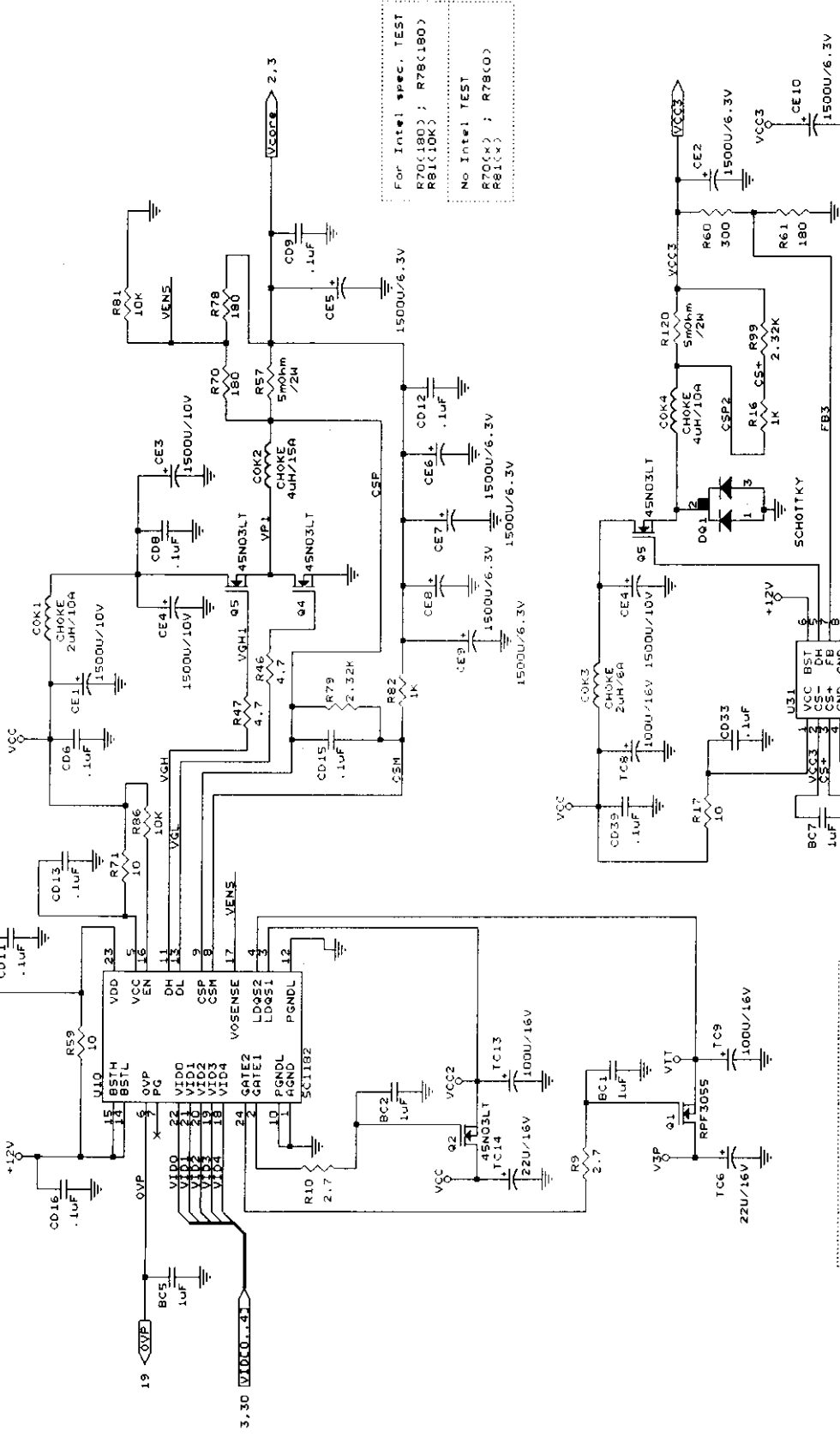


IDE CONNECTORS

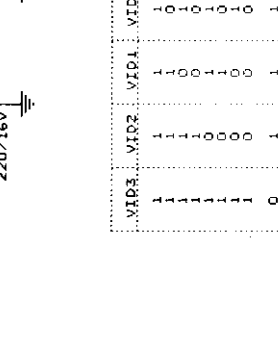
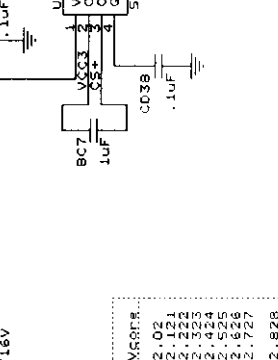


MODE	J6
SST, Winbond	1-2
Intel, MXIC	2-3

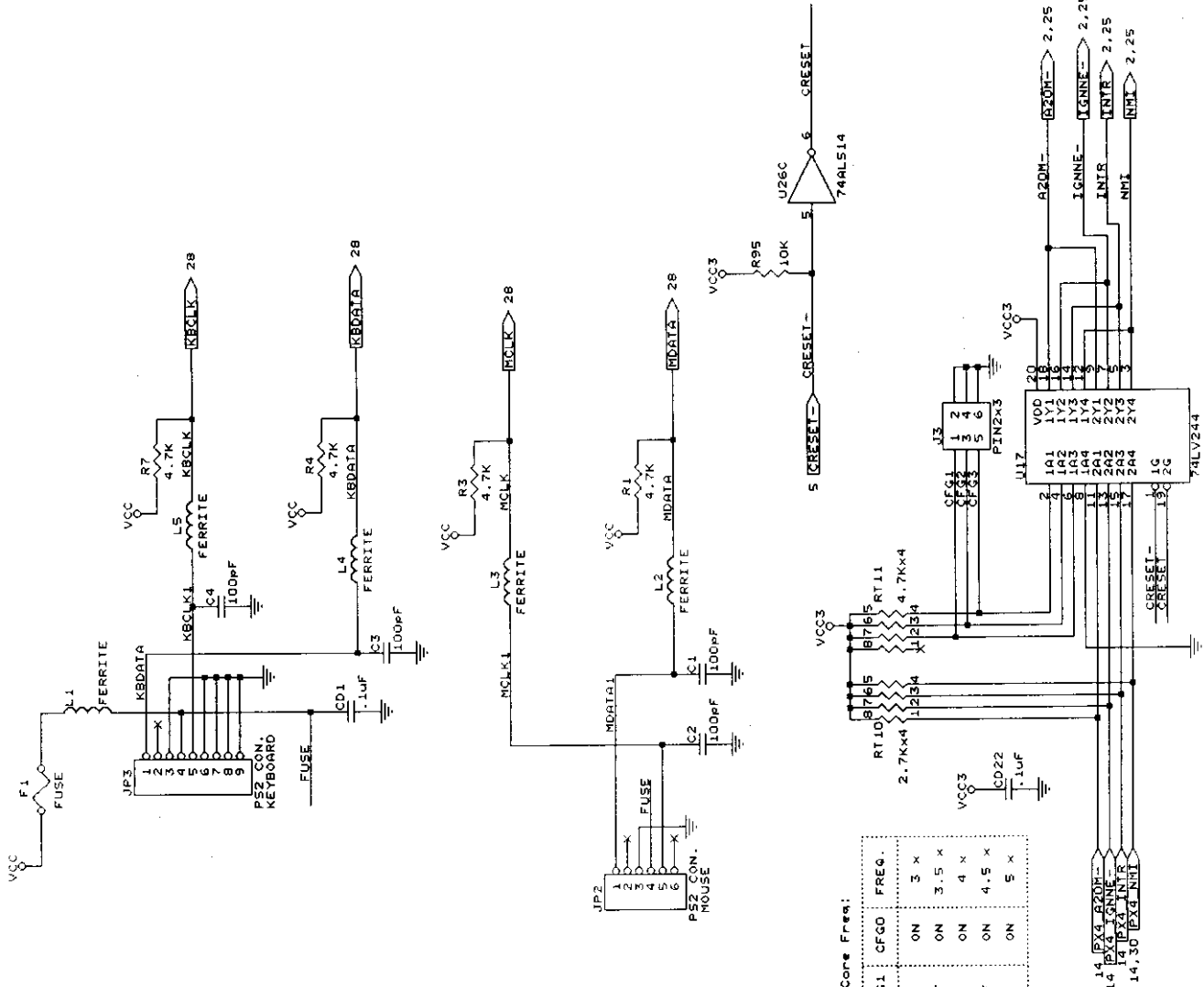




For Intel spec. TEST
 R70(180) ; R78(180)
 R81(10K)
 No Intel TEST
 R70(*) ; R78(0)
 R81(*)

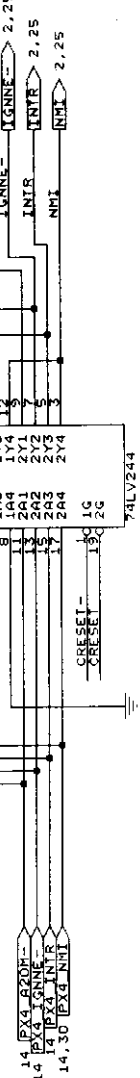


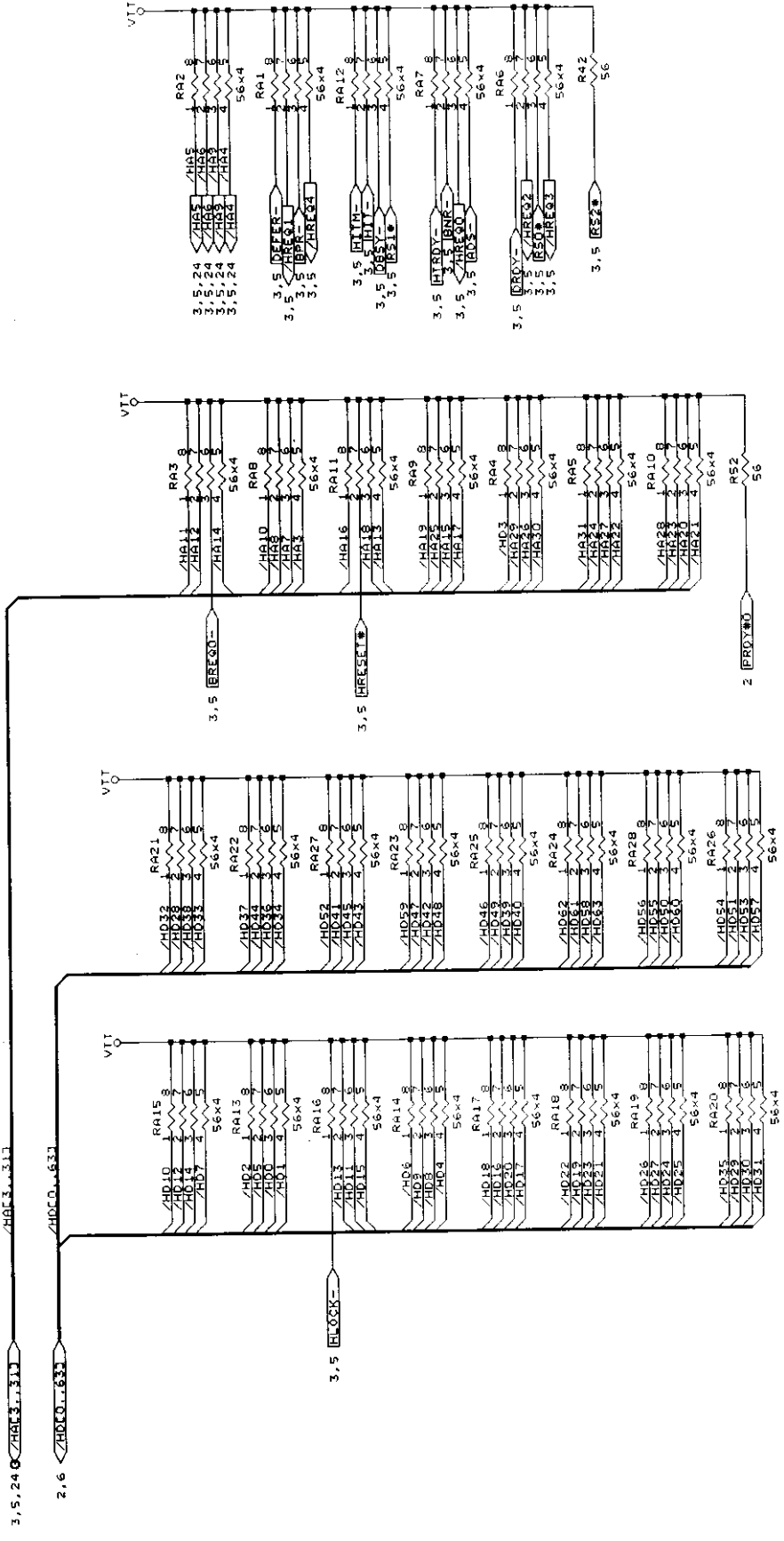
VID0	VID1	VID2	VID3	VID4	VID0	VID1	VID2	VID3	VID4
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1	1	1	1	1	1	1	1	1	1
0	0	0	0	0	0	0	0	0	0
1	1	1	1	1	1	1	1	1	1
0	0	0	0	0	0	0	0	0	0
1	1	1	1	1	1	1	1	1	1
0	0	0	0	0	0	0	0	0	0
1	1	1	1	1	1	1	1	1	1
0	0	0	0	0	0	0	0	0	0
1	1	1	1	1	1	1	1	1	1
0	0	0	0	0	0	0	0	0	0
1	1	1	1	1	1	1	1	1	1
0	0	0	0	0	0	0	0	0	0
1	1	1	1	1	1	1	1	1	1
0	0	0	0	0	0	0	0	0	0
1	1	1	1	1	1	1	1	1	1
0	0	0	0	0	0	0	0	0	0
1	1	1	1	1	1	1	1	1	1
0	0	0	0	0	0	0	0	0	0
1	1	1	1	1	1	1	1	1	1
0	0	0	0	0	0	0	0	0	0
1	1	1	1	1	1	1	1	1	1
0	0	0	0	0	0	0	0	0	0
1	1	1	1	1	1	1	1	1	1
0	0	0	0	0	0	0	0	0	0
1	1	1	1	1	1	1	1	1	1
0	0	0	0	0	0	0	0	0	0
1	1	1	1	1	1	1	1	1	1



Processor Core Freq:

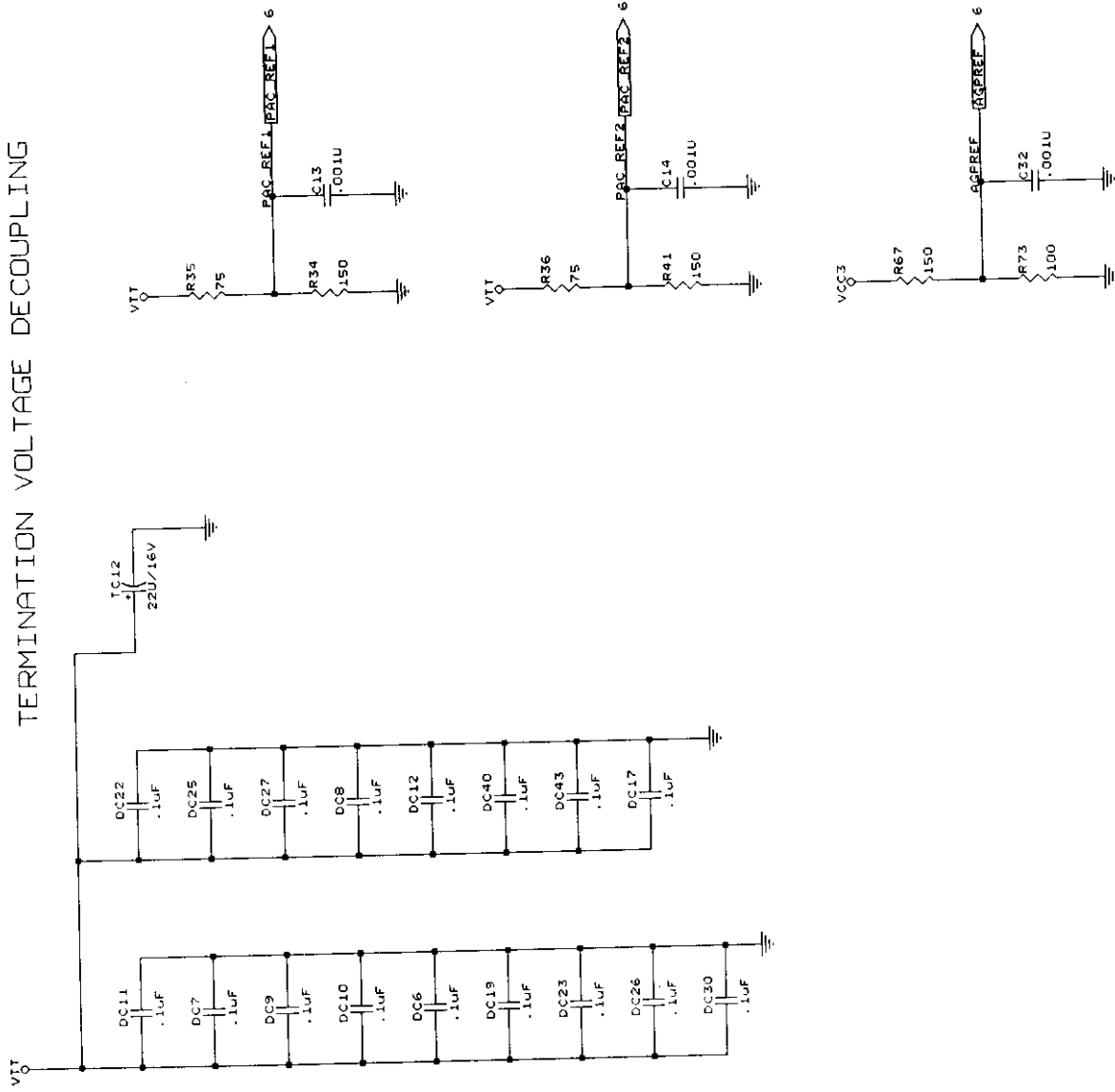
CFG3	CFG2	CFG1	CFG0	FREQ.
ON	OFF	ON	ON	3 x
ON	OFF	OFF	ON	3.5 x
OFF	ON	ON	ON	4 x
OFF	ON	OFF	ON	4.5 x
OFF	OFF	ON	ON	5 x



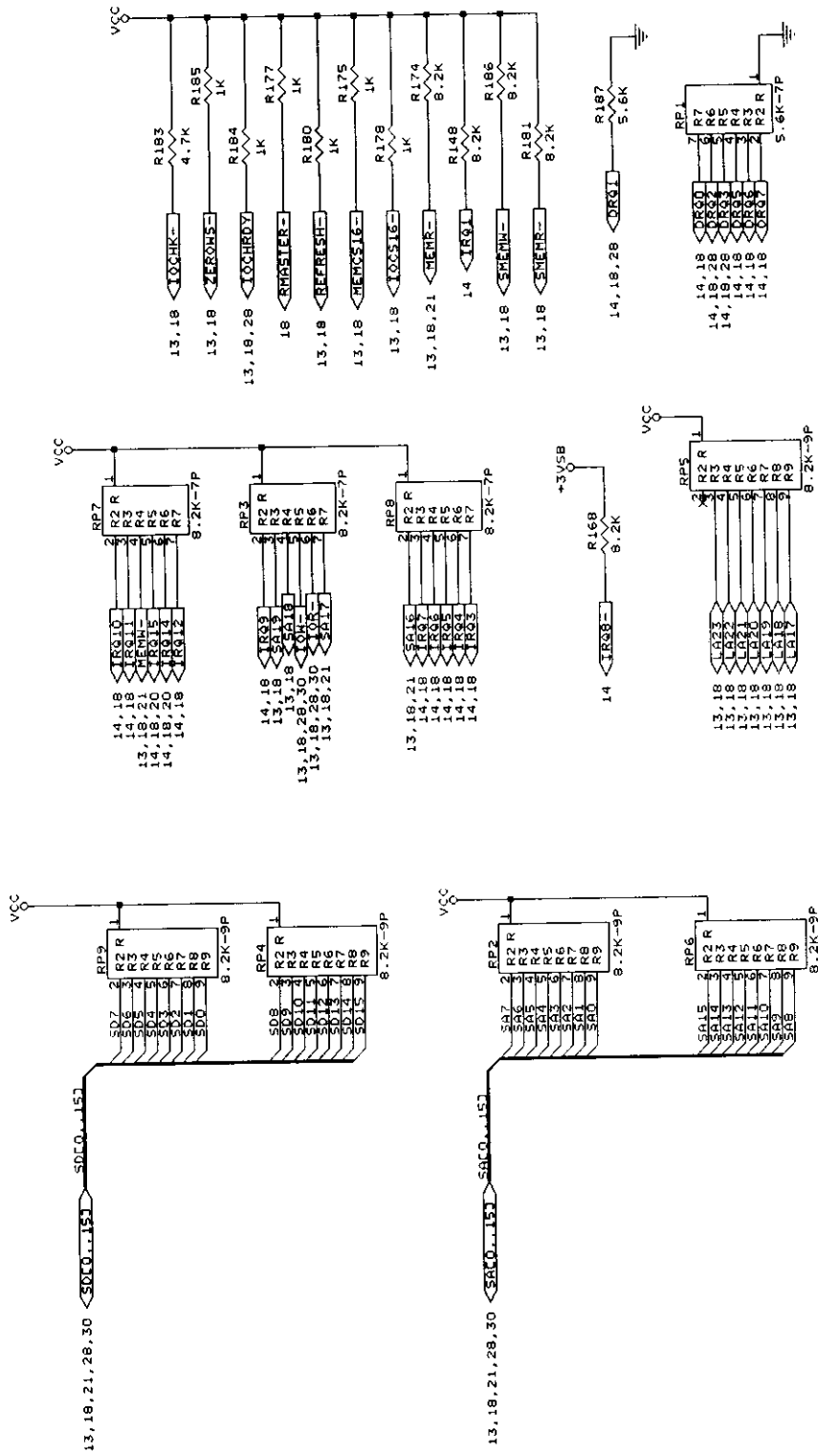


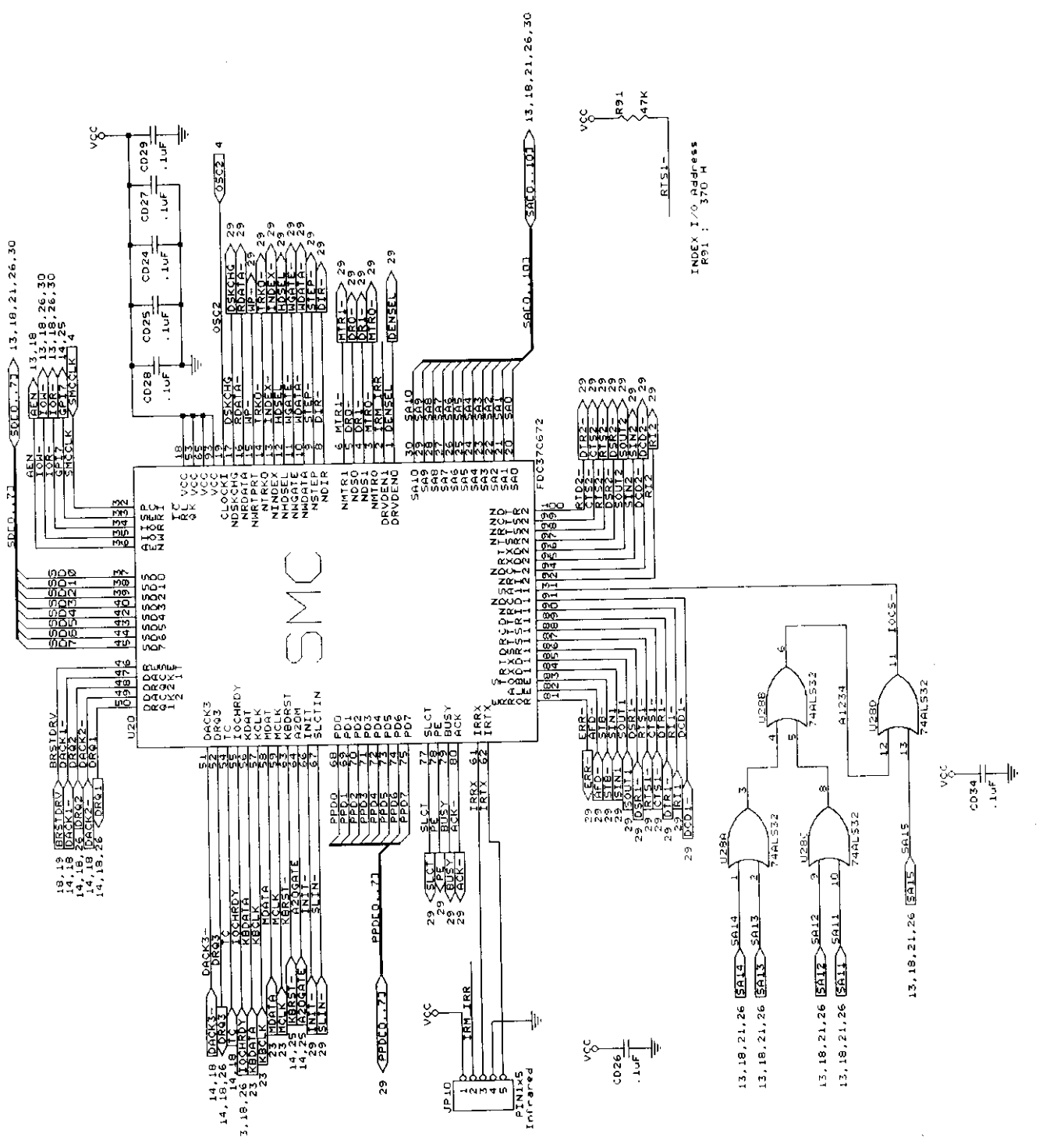
NOTE : VTT = TERMINATION VOLTAGE

TERMINATION VOLTAGE DECOUPLING



ISA BUS RESISTORS





INDEX I/O Address
 R91: 370 M

VCC
 C034
 .1uF

In order to minimize the crosstalk in ECP mode, the termination circuits shown below are recommended. Place all termination circuits close to the connector to avoid EMI

