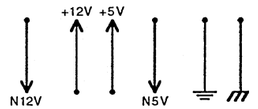
THE TEMPEST

Schematic Table of Contents

Corresponds to 820-0453-B

Globals



N5V Regulated off -12V; see Cuda page 28

051-0124-A	Size D	Rev	Build	Board	Date 7/27/94
Table of Contents	Engineer: Joseph Palmer				
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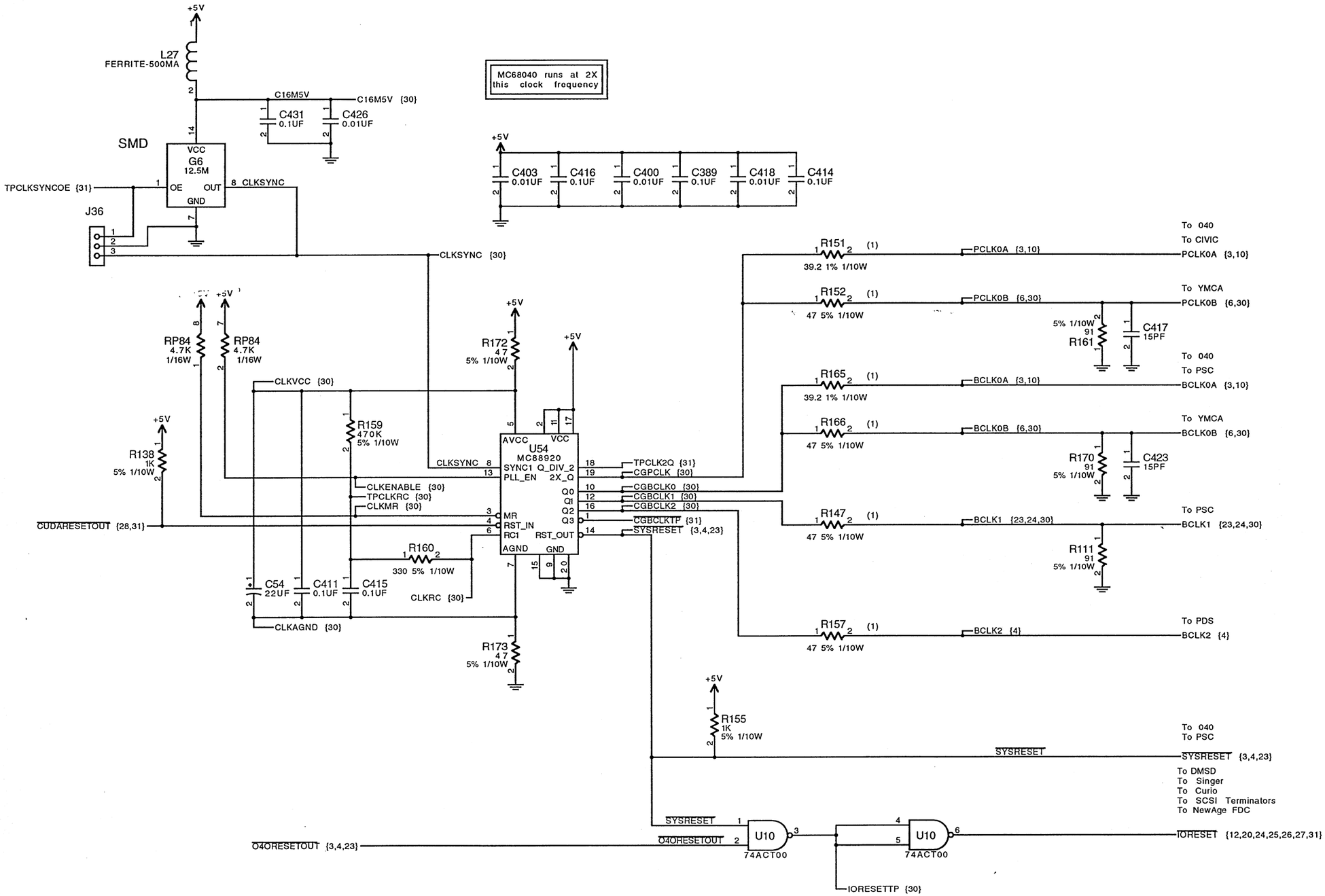
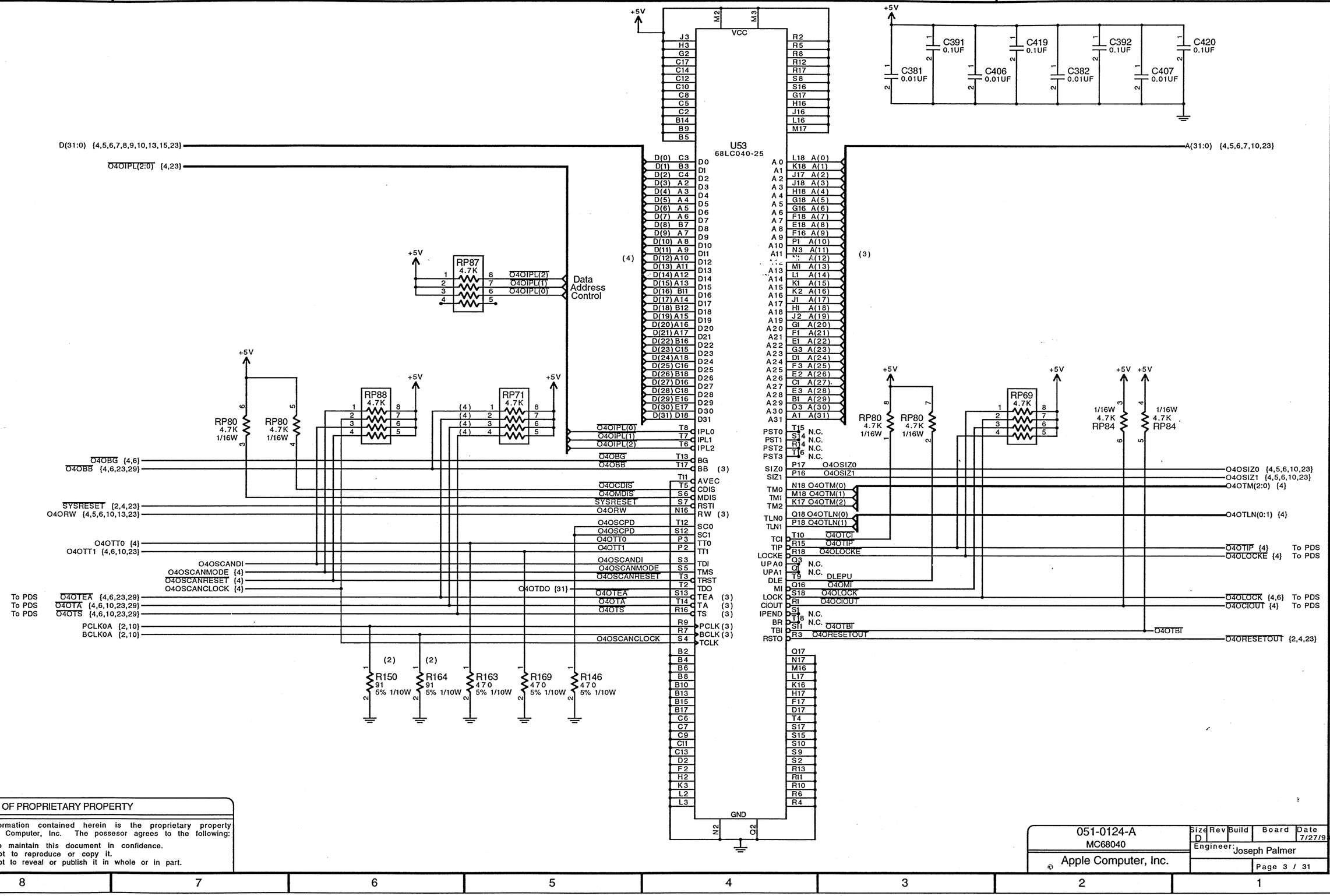


051-0124-A
System Clocks & Reset
Apple Computer, Inc.

Size D | Rev | Build | Board | Date 7/27/9

Engineer: Joseph Palmer



051-0124-A	Size D	Rev	Build	Board	Date 7/27/93
MC68040	Engineer: Joseph Palmer				
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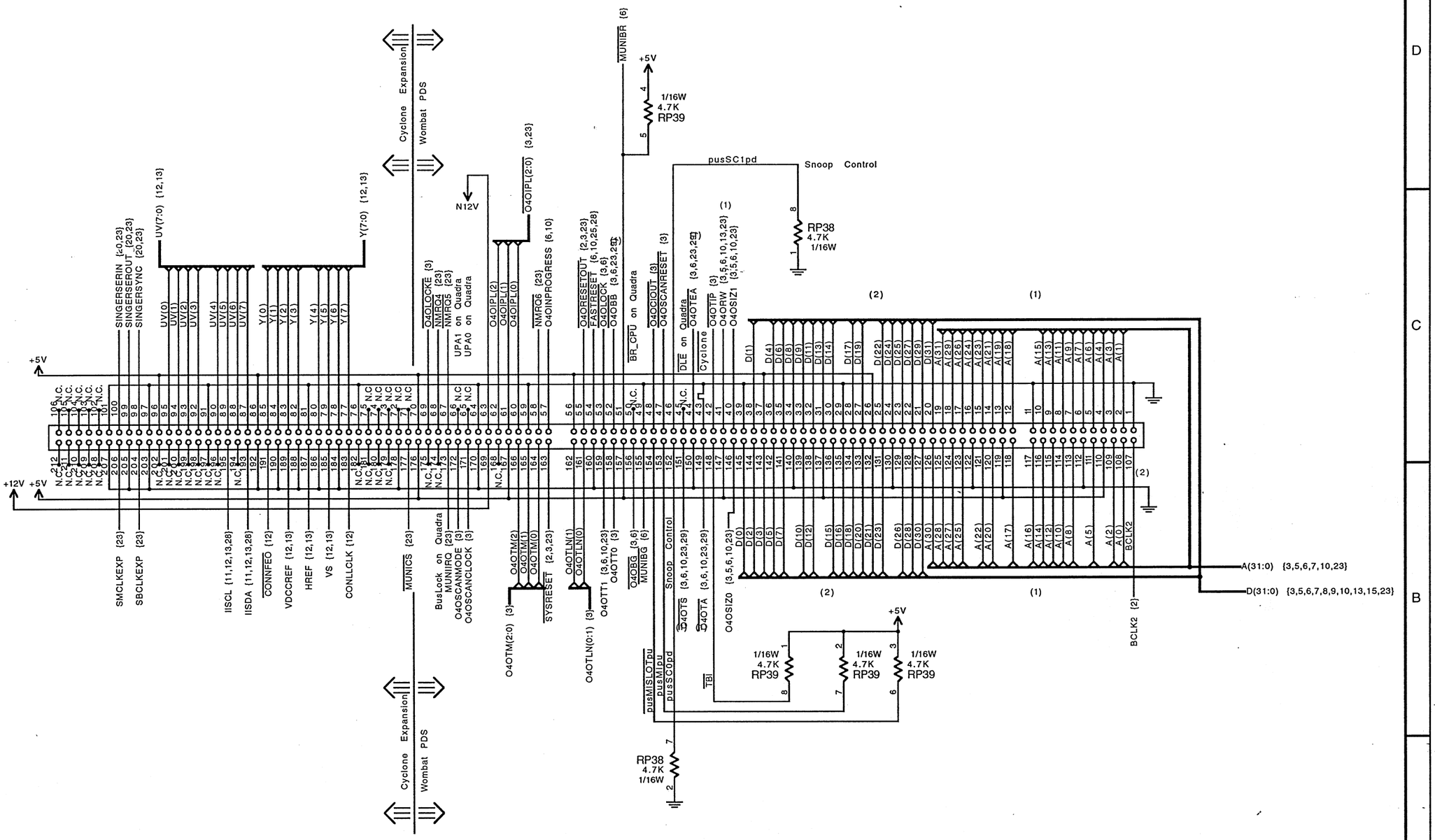

051-0124-A	Size D	Rev	Build	Board	Date 7/27/93
Processor Direct Slot	Engineer: Joseph Palmer				
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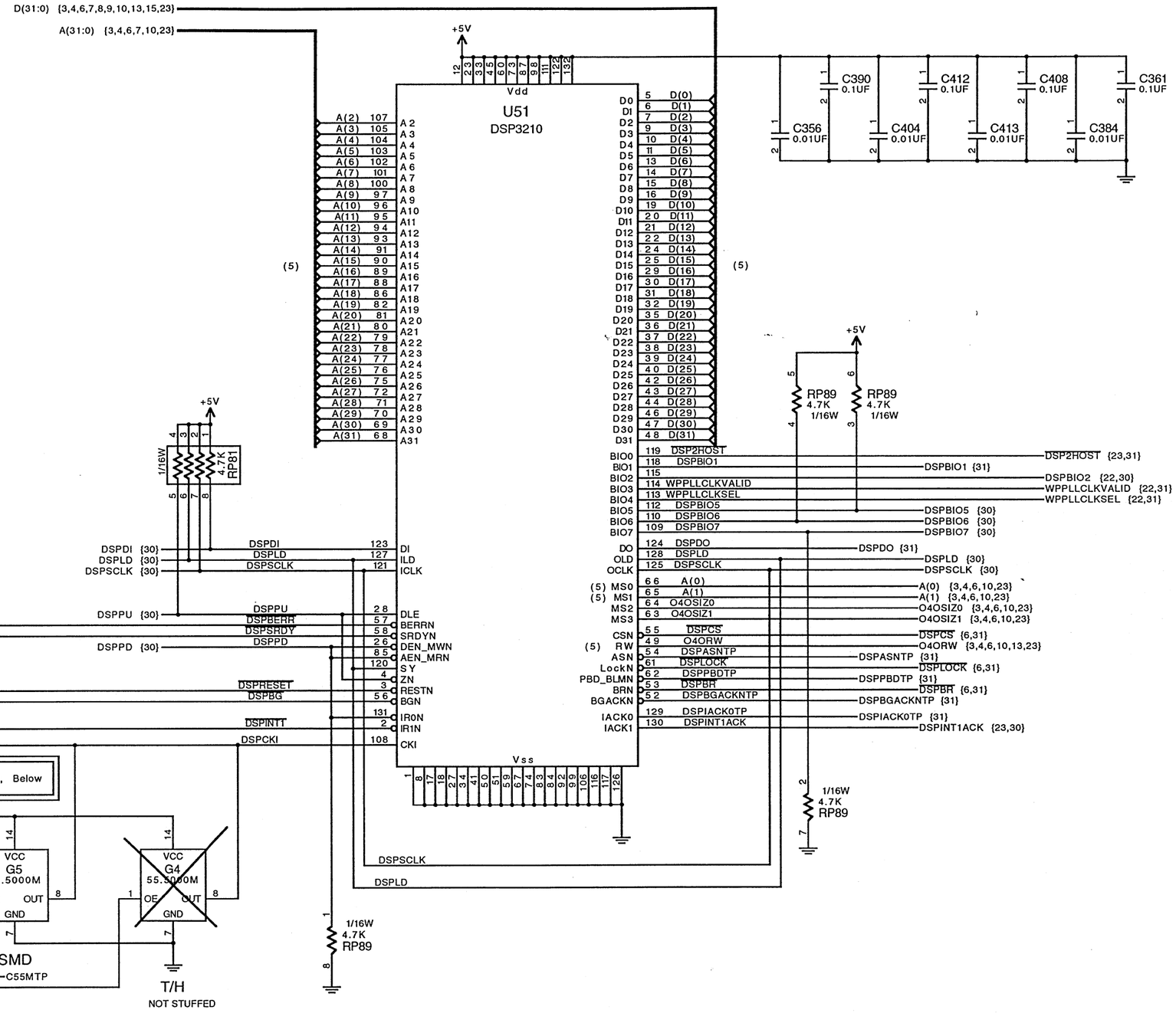

Keep RPAKs near YMCA

Note: RAS(2) is actualy driven by RAS(4) by the YMCA
Note: RAS(4) is actualy driven by RAS(6) by the YMCA
Name will be changed at next Revision of Board

Parts Marked N/S
Are not Stuffed

CPU I.D.	25MHz		33MHz		40MHz	
3	R137 22K / R139 N/S	1	22K / N/S	1	22K / N/S	—
2	R145 N/S / R144 4.7K	0	N/S / 4.7K	0	N/S / 4.7K	—
1	R140 4.7K / R142 N/S	1	4.7K / N/S	0	N/S / 4.7K	—
0	R143 4.7K / R148 N/S	1	4.7K / N/S	0	N/S / 4.7K	—

Place AC termination at the end of the line
Placement near MMC assumes oscillator near DSP.

STUFF ONLY PULL UP or DOWN FOR CPU ID

051-0124-A	Size D	Rev	Build	Board	Date 7/27/9	
YMCA Memory Controller	Engineer: Joseph Palmer					
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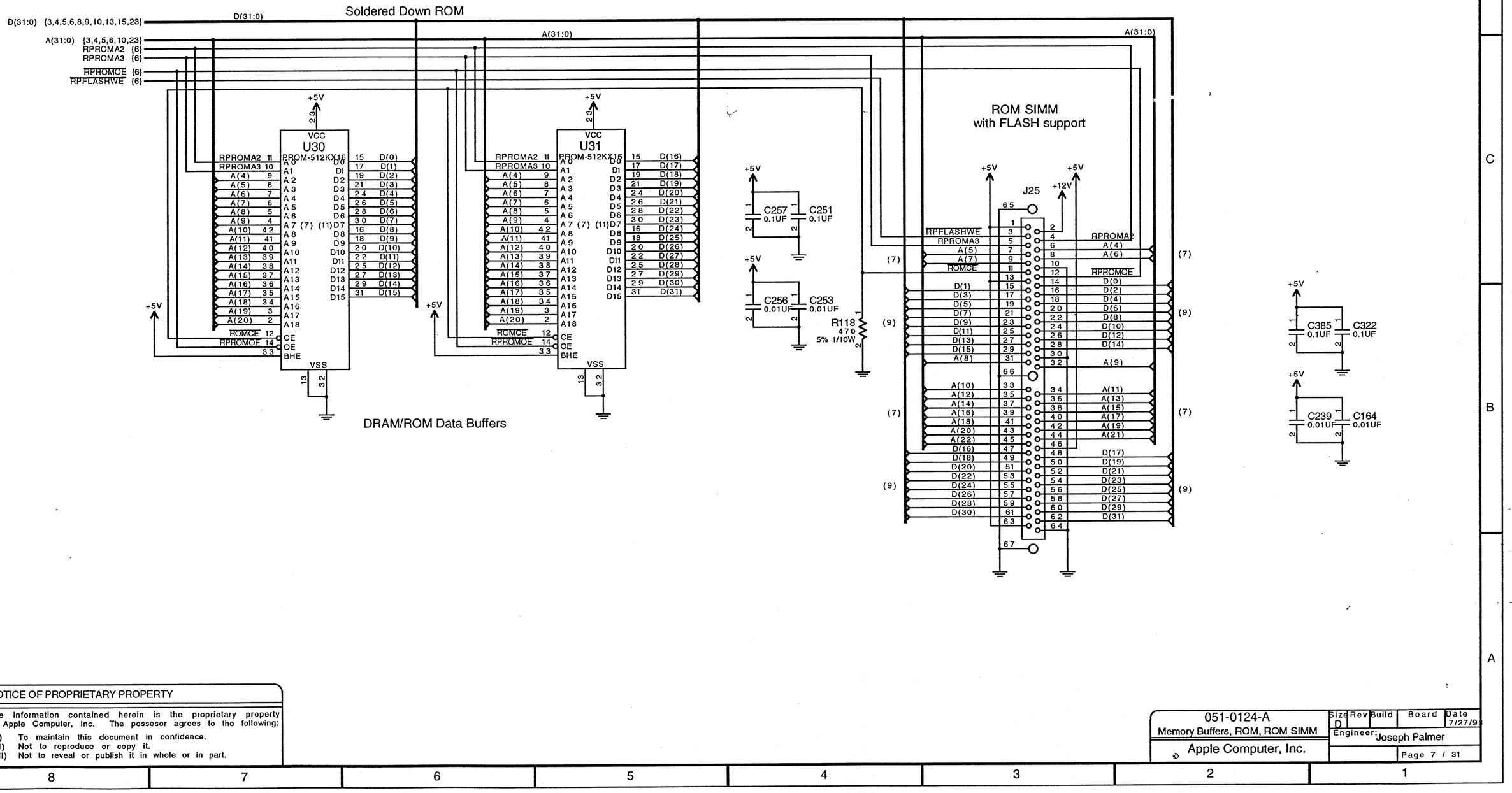

051-0124-A
Memory Buffers, ROM, ROM SIMM
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Size D | Rev | Build | Board | Date 7/27/93
Engineer: Joseph Palmer
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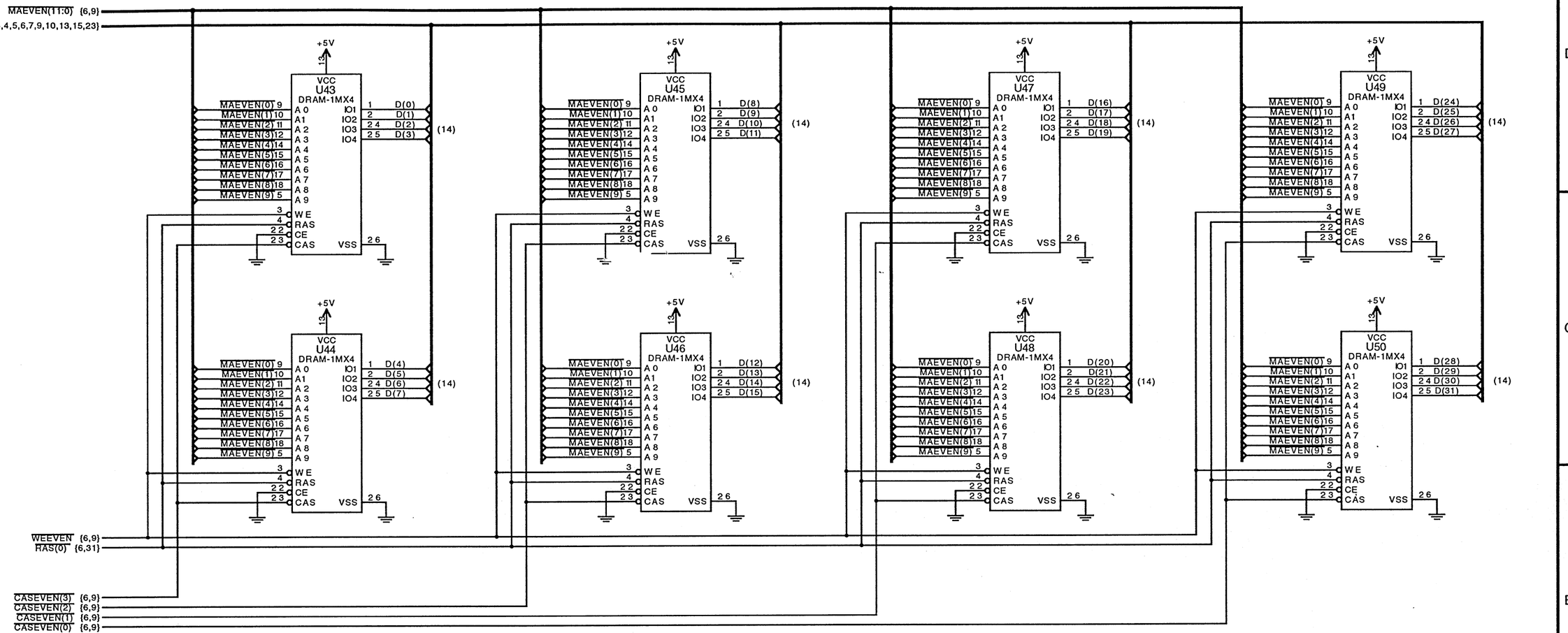

051-0124-A	Size D	Rev	Build	Board
Solder Down RAM	Engineer: Joseph Palmer			Date 7/27/9
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D(31:0) {3,4,5,6,7,8,10,13,15,23}
MAODD(11:0) {6}
MAEVEN(11:0) {6,8}

DRAM SIMM A
J27

+5V

(13)

D(31:0)

DRAM SIMM B
J26

+5V

(12)

C288 N/S
C287 N/S
C308 N/S
C307 N/S
C265 10 PF
C264 10 PF
C284 10 PF
C283 10pF

CASODD(3:0) {6}
CASEVEN(3:0) {6}
RAS(4:0) {6}
WEEVEN {6,8}
WEODD {6}

+5V
C279 0.1UF
C281 0.1UF
C266 0.1UF

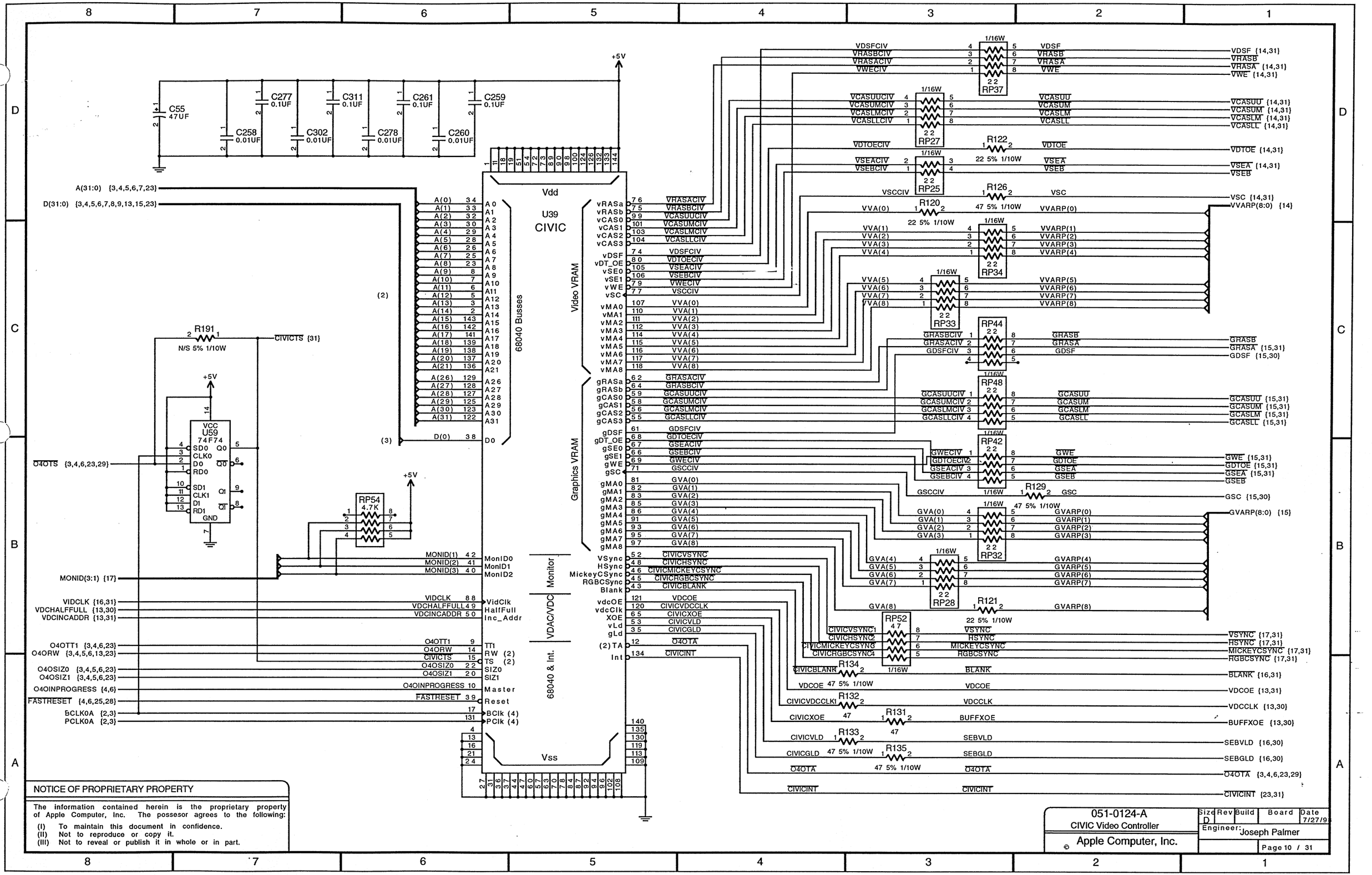
+5V
C280 0.01UF
C282 0.01UF
C173 0.01UF

+5V
C303 0.1UF
C305 0.1UF
C289 0.1UF

+5V
C304 0.01UF
C306 0.01UF
C290 0.01UF

051-0124-A
DRAM SIMMs

Size D | Rev | Build | Board | Date 7/27/93
Engineer: Joseph Palmer



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051-0124-A	Size D	Rev	Build	Board
CIVIC Video Controller	Engineer: Joseph Palmer			Date 7/27/9
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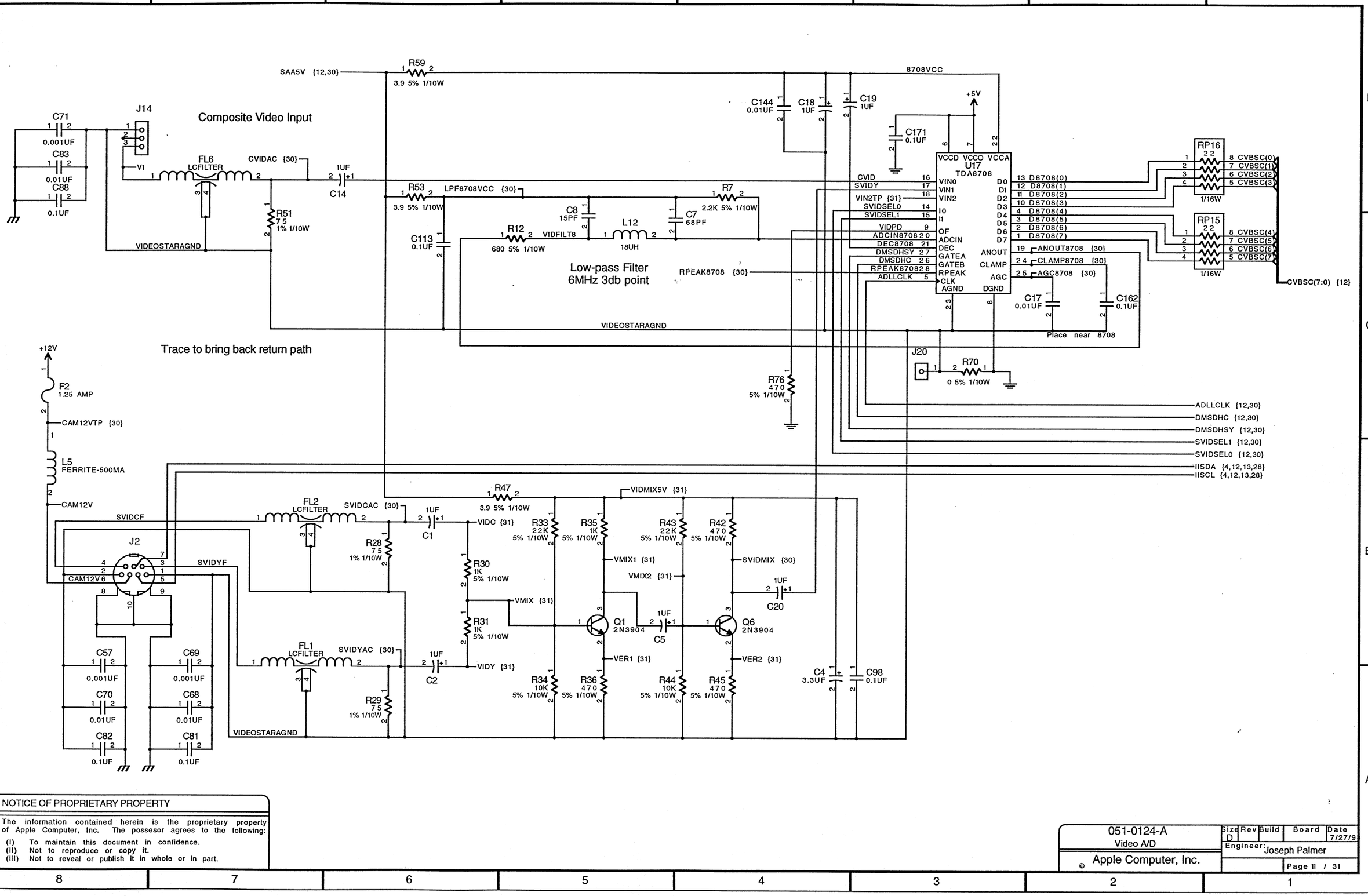

051-0124-A
Video A/D
© Apple Computer, Inc.
Size D | Rev | Build | Board | Date 7/27/9
Engineer: Joseph Palmer
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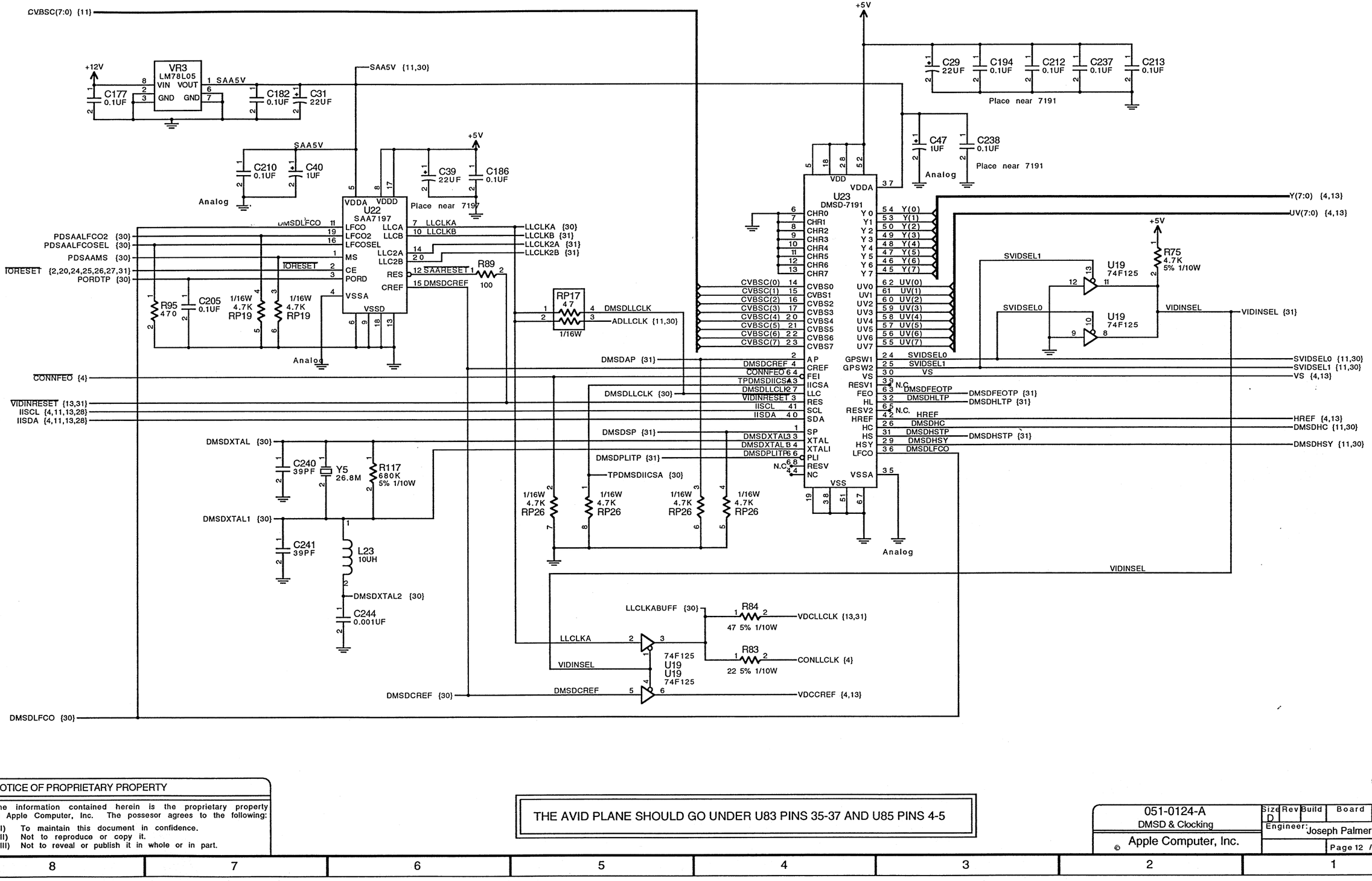

THE AVID PLANE SHOULD GO UNDER U83 PINS 35-37 AND U85 PINS 4-5

051-0124-A
DMSD & Clocking
Apple Computer, Inc.

Size D | Rev | Build | Board | Date 7/27/9
Engineer: Joseph Palmer
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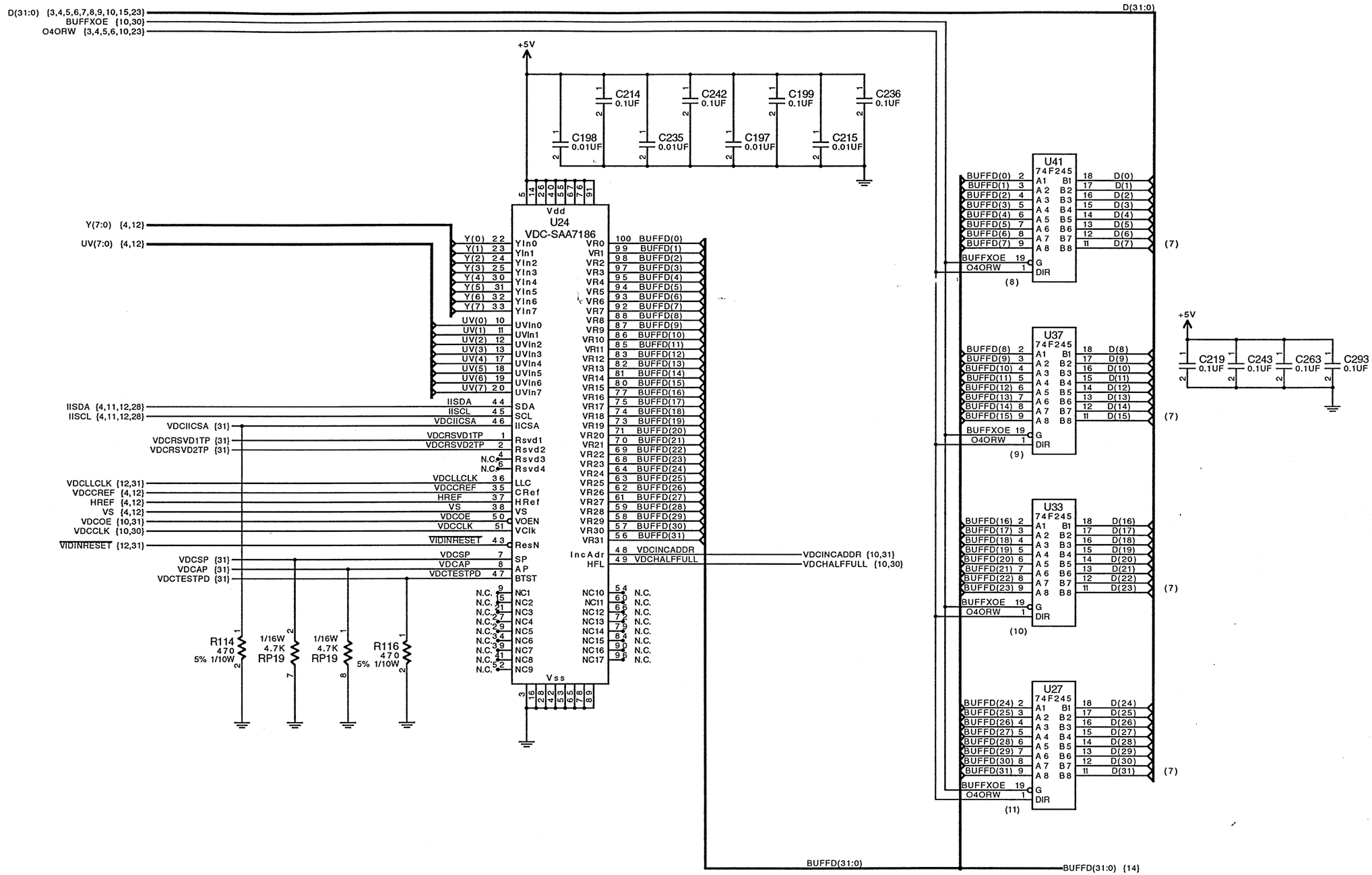

051-0124-A	Size D	Rev	Build	Board
VDC & Data Buffers	Engineer: Joseph Palmer			Date 7/27/93
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Soldered Down VRAM

VIDD(31:0)

+5V

U26 VRAM-128KX8 — VCC1 11, VCC2 20, VSS1 40, VSS2 30

VVARP(0)	25	A0	SIO1 2 VIDD(24)
VVARP(1)	24	A1	SIO2 3 VIDD(25)
VVARP(2)	23	A2	SIO3 4 VIDD(26)
VVARP(3)	22	A3	SIO4 5 VIDD(27)
VVARP(4)	19	A4	SIO5 36 VIDD(28)
VVARP(5)	18	A5	SIO6 37 VIDD(29)
VVARP(6)	17	A6	SIO7 38 VIDD(30)
VVARP(7)	21	A7	SIO8 39 VIDD(31)
VVARP(8)	16	A8	WIO1 7 BUFFD(24)
VRASA	14	RAS	WIO2 8 BUFFD(25)
VCASUU	27	CAS	WIO3 9 BUFFD(26)
VDTOE	6	DT-OE	WIO4 10 BUFFD(27)
VWE	12	WB-WE	WIO5 31 BUFFD(28)
VDSF	29	DSF	WIO6 32 BUFFD(29)
VSEA	35	SE	WIO7 33 BUFFD(30)
VSC	1	SCLK	WIO8 34 BUFFD(31)
PUDSF2	15	DSF2	QSF 26 VRAM0QSFTP {31}

U32 VRAM-128KX8

VVARP(0)	25	A0	SIO1 2 VIDD(16)
VVARP(1)	24	A1	SIO2 3 VIDD(17)
VVARP(2)	23	A2	SIO3 4 VIDD(18)
VVARP(3)	22	A3	SIO4 5 VIDD(19)
VVARP(4)	19	A4	SIO5 36 VIDD(20)
VVARP(5)	18	A5	SIO6 37 VIDD(21)
VVARP(6)	17	A6	SIO7 38 VIDD(22)
VVARP(7)	21	A7	SIO8 39 VIDD(23)
VVARP(8)	16	A8	WIO1 7 BUFFD(16)
VRASA	14	RAS	WIO2 8 BUFFD(17)
VCASUM	27	CAS	WIO3 9 BUFFD(18)
VDTOE	6	DT-OE	WIO4 10 BUFFD(19)
VWE	12	WB-WE	WIO5 31 BUFFD(20)
VDSF	29	DSF	WIO6 32 BUFFD(21)
VSEA	35	SE	WIO7 33 BUFFD(22)
VSC	1	SCLK	WIO8 34 BUFFD(23)
PUDSF2	15	DSF2	QSF 26 VRAM1QSFTP {31}

U36 VRAM-128KX8

VVARP(0)	25	A0	SIO1 2 VIDD(8)
VVARP(1)	24	A1	SIO2 3 VIDD(9)
VVARP(2)	23	A2	SIO3 4 VIDD(10)
VVARP(3)	22	A3	SIO4 5 VIDD(11)
VVARP(4)	19	A4	SIO5 36 VIDD(12)
VVARP(5)	18	A5	SIO6 37 VIDD(13)
VVARP(6)	17	A6	SIO7 38 VIDD(14)
VVARP(7)	21	A7	SIO8 39 VIDD(15)
VVARP(8)	16	A8	WIO1 7 BUFFD(8)
VRASA	14	RAS	WIO2 8 BUFFD(9)
VCASLM	27	CAS	WIO3 9 BUFFD(10)
VDTOE	6	DT-OE	WIO4 10 BUFFD(11)
VWE	12	WB-WE	WIO5 31 BUFFD(12)
VDSF	29	DSF	WIO6 32 BUFFD(13)
VSEA	35	SE	WIO7 33 BUFFD(14)
VSC	1	SCLK	WIO8 34 BUFFD(15)
PUDSF2	15	DSF2	QSF 26 VRAM2QSETP {31}

U40 VRAM-128KX8

VVARP(0)	25	A0	SIO1 2 VIDD(0)
VVARP(1)	24	A1	SIO2 3 VIDD(1)
VVARP(2)	23	A2	SIO3 4 VIDD(2)
VVARP(3)	22	A3	SIO4 5 VIDD(3)
VVARP(4)	19	A4	SIO5 36 VIDD(4)
VVARP(5)	18	A5	SIO6 37 VIDD(5)
VVARP(6)	17	A6	SIO7 38 VIDD(6)
VVARP(7)	21	A7	SIO8 39 VIDD(7)
VVARP(8)	16	A8	WIO1 7 BUFFD(0)
VRASA	14	RAS	WIO2 8 BUFFD(1)
VCASLL	27	CAS	WIO3 9 BUFFD(2)
VDTOE	6	DT-OE	WIO4 10 BUFFD(3)
VWE	12	WB-WE	WIO5 31 BUFFD(4)
VDSF	29	DSF	WIO6 32 BUFFD(5)
VSEA	35	SE	WIO7 33 BUFFD(6)
VSC	1	SCLK	WIO8 34 BUFFD(7)
PUDSF2	15	DSF2	QSF 26 VRAM3QSFTP {31}

BUFFD(31:0) {13}
VVARP(8:0) {10}
VRASA {10,31}
VCASUU {10,31}
VCASUM {10,31}
VCASLM {10,31}
VCASLL {10,31}
VDTOE {10,31}
VWE {10,31}
VDSF {10,31}
VSEA {10,31}
VSC {10,31}
PUDSF2 {15,30}

Place Near Driver (EMI)

RP50 47 1/16W: VIDD(0)–VIDD(3) 1–4 ↔ VIDDRC(0)–VIDDRC(3) 8–5
RP55 47 1/16W: VIDD(4)–VIDD(7) 4–1 ↔ VIDDRC(4)–VIDDRC(7) 5–8
RP40 47 1/16W: VIDD(8)–VIDD(11) 1–4 ↔ VIDDRC(8)–VIDDRC(11) 8–5
RP45 47 1/16W: VIDD(12)–VIDD(15) 1–4 ↔ VIDDRC(12)–VIDDRC(15) 8–5
RP30 47 1/16W: VIDD(16)–VIDD(19) 1–4 ↔ VIDDRC(16)–VIDDRC(19) 8–5
RP35 47 1/16W: VIDD(20)–VIDD(23) 4–1 ↔ VIDDRC(20)–VIDDRC(23) 5–8
RP21 47 1/16W: VIDD(24)–VIDD(27) 1–4 ↔ VIDDRC(24)–VIDDRC(27) 8–5
RP23 47 1/16W: VIDD(28)–VIDD(31) 4–1 ↔ VIDDRC(28)–VIDDRC(31) 5–8

VIDDRC(31:0) {16}

+5V

C228 0.1UF, C246 0.1UF, C268 0.1UF, C297 0.1UF

+5V

C227 0.01UF, C245 0.01UF, C267 0.01UF, C296 0.01UF

051-0124-A
Video VRAM: Soldered & SIMMs
© Apple Computer, Inc.
Size D | Rev | Build | Board | Date 7/27/9
Engineer: Joseph Palmer
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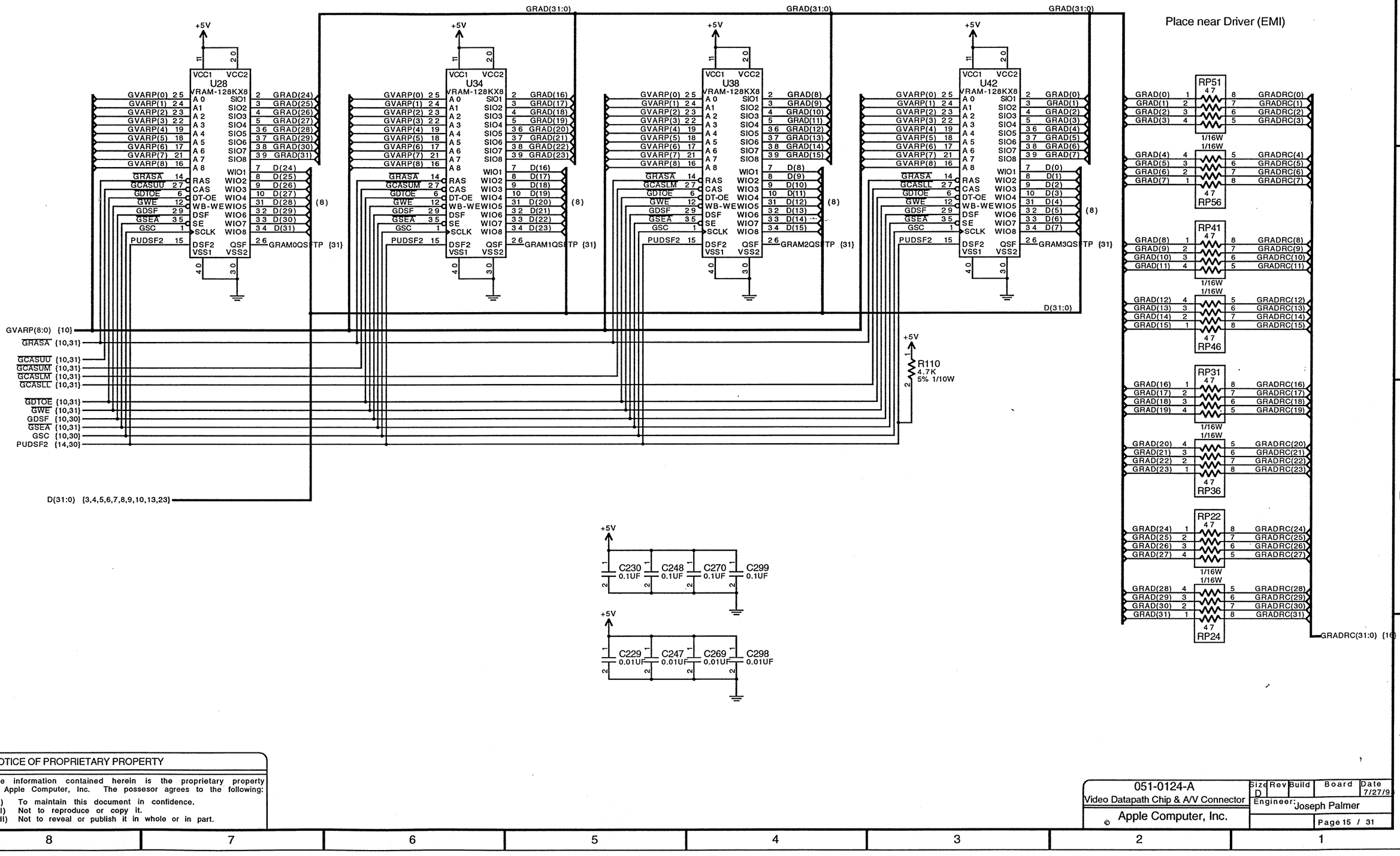

051-0124-A
Video Datapath Chip & A/V Connector
Apple Computer, Inc.
Size D | Rev | Build | Board | Date 7/27/9
Engineer: Joseph Palmer
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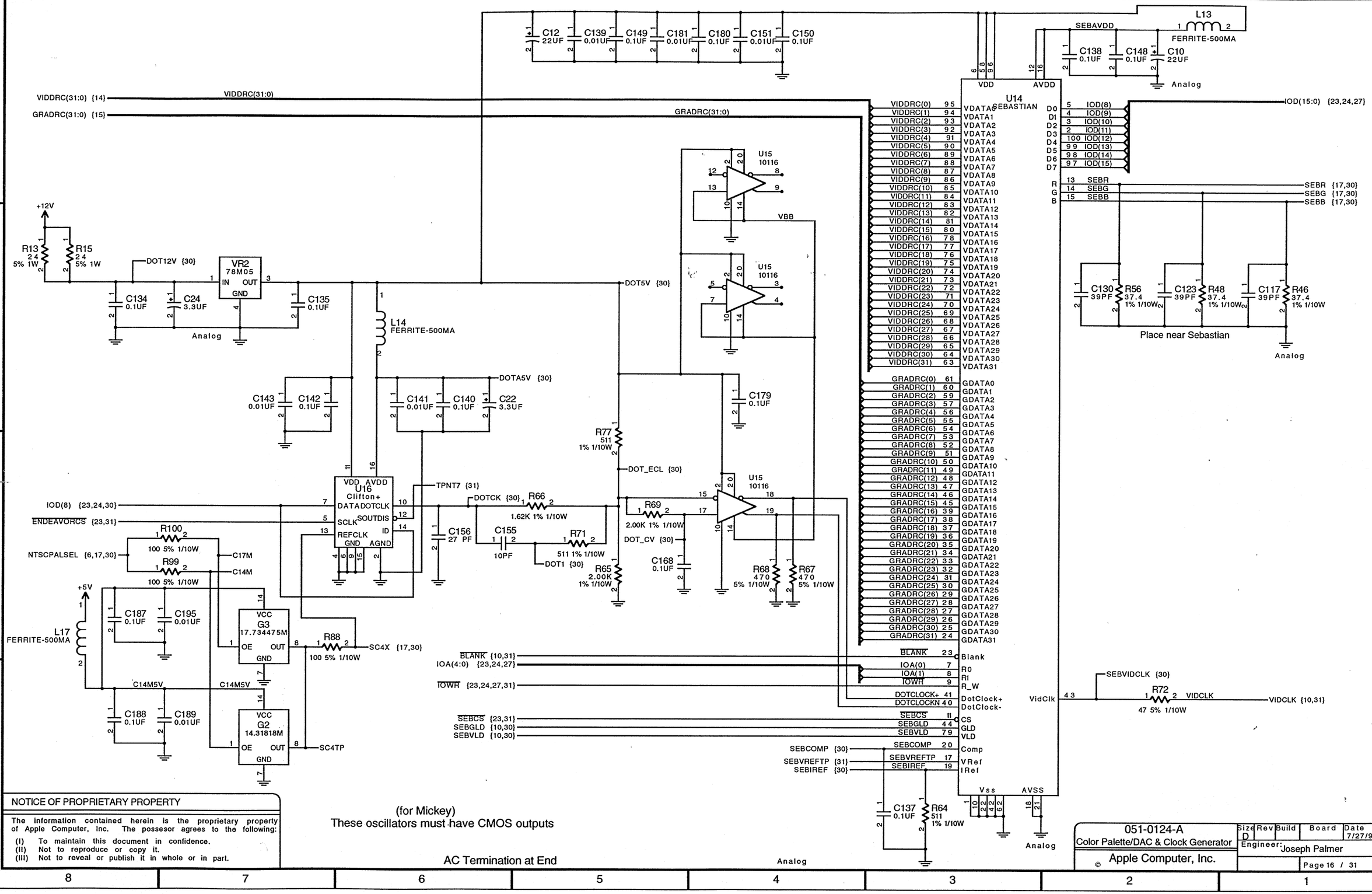
C12 22UF
C139 0.01UF
C149 0.1UF
C181 0.01UF
C180 0.1UF
C151 0.01UF
C150 0.1UF
L13 FERRITE-500MA
SEBAVDD
C138 0.1UF
C148 0.1UF
C10 22UF
Analog
VIDDRC(31:0) {14}
GRADRC(31:0) {15}
U14 SEBASTIAN
VDD
AVDD
IOD(15:0) {23,24,27}
SEBR {17,30}
SEBG {17,30}
SEBB {17,30}
C130 39PF
R56 37.4 1% 1/10W
C123 39PF
R48 37.4 1% 1/10W
C117 39PF
R46 37.4 1% 1/10W
Place near Sebastian
+12V
R13 24 5% 1W
R15 24 5% 1W
DOT12V {30}
VR2 78M05 IN OUT GND
C134 0.1UF
C24 3.3UF
C135 0.1UF
U15 10116
VBB
DOT5V {30}
L14 FERRITE-500MA
DOTA5V {30}
C143 0.01UF
C142 0.1UF
C141 0.01UF
C140 0.1UF
C22 3.3UF
C179 0.1UF
R77 511 1% 1/10W
DOT_ECL {30}
U16 Clifton+
VDD AVDD
DATA DOTCLK
SCLK SOUTDIS
REFCLK ID
GND AGND
TPNT7 {31}
IOD(8) {23,24,30}
ENDEAVORCS {23,31}
DOTCK {30}
R66 1.62K 1% 1/10W
C156 27 PF
C155 10PF
R71 511 1% 1/10W
DOT1 {30}
R65 2.00K 1% 1/10W
R69 2.00K 1% 1/10W
DOT_CV {30}
C168 0.1UF
R68 470 5% 1/10W
R67 470 5% 1/10W
R100 100 5% 1/10W
NTSCPALSEL {6,17,30}
C17M
R99 100 5% 1/10W
C14M
+5V
L17 FERRITE-500MA
C187 0.1UF
C195 0.01UF
VCC G3 17.734475M OE OUT GND
R88 100 5% 1/10W
SC4X {17,30}
C14M5V
C188 0.1UF
C189 0.01UF
VCC G2 14.31818M OE OUT GND
SC4TP
BLANK {10,31}
IOA(4:0) {23,24,27}
IOWR {23,24,27,31}
SEBCS {23,31}
SEBGLD {10,30}
SEBVLD {10,30}
SEBCOMP {30}
SEBVREFTP {31}
SEBIREF {30}
C137 0.1UF
R64 511 1% 1/10W
SEBVIDCLK {30}
R72 47 5% 1/10W
VIDCLK
VIDCLK {10,31}
Vss
AVSS
Analog
(for Mickey)
These oscillators must have CMOS outputs
AC Termination at End
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051-0124-A
Color Palette/DAC & Clock Generator
Apple Computer, Inc.
Size D
Rev
Build
Board
Date 7/27/9
Engineer: Joseph Palmer
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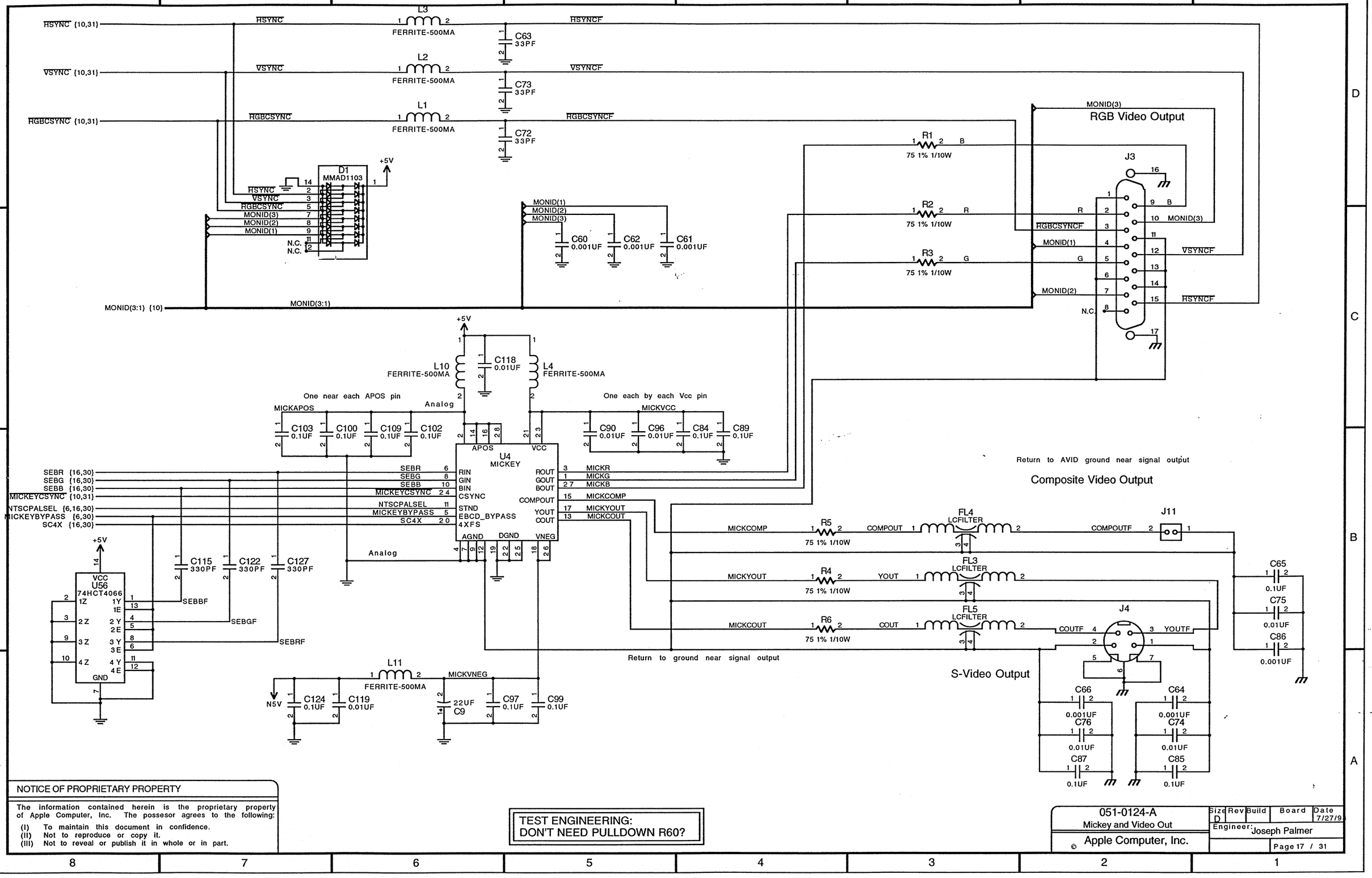
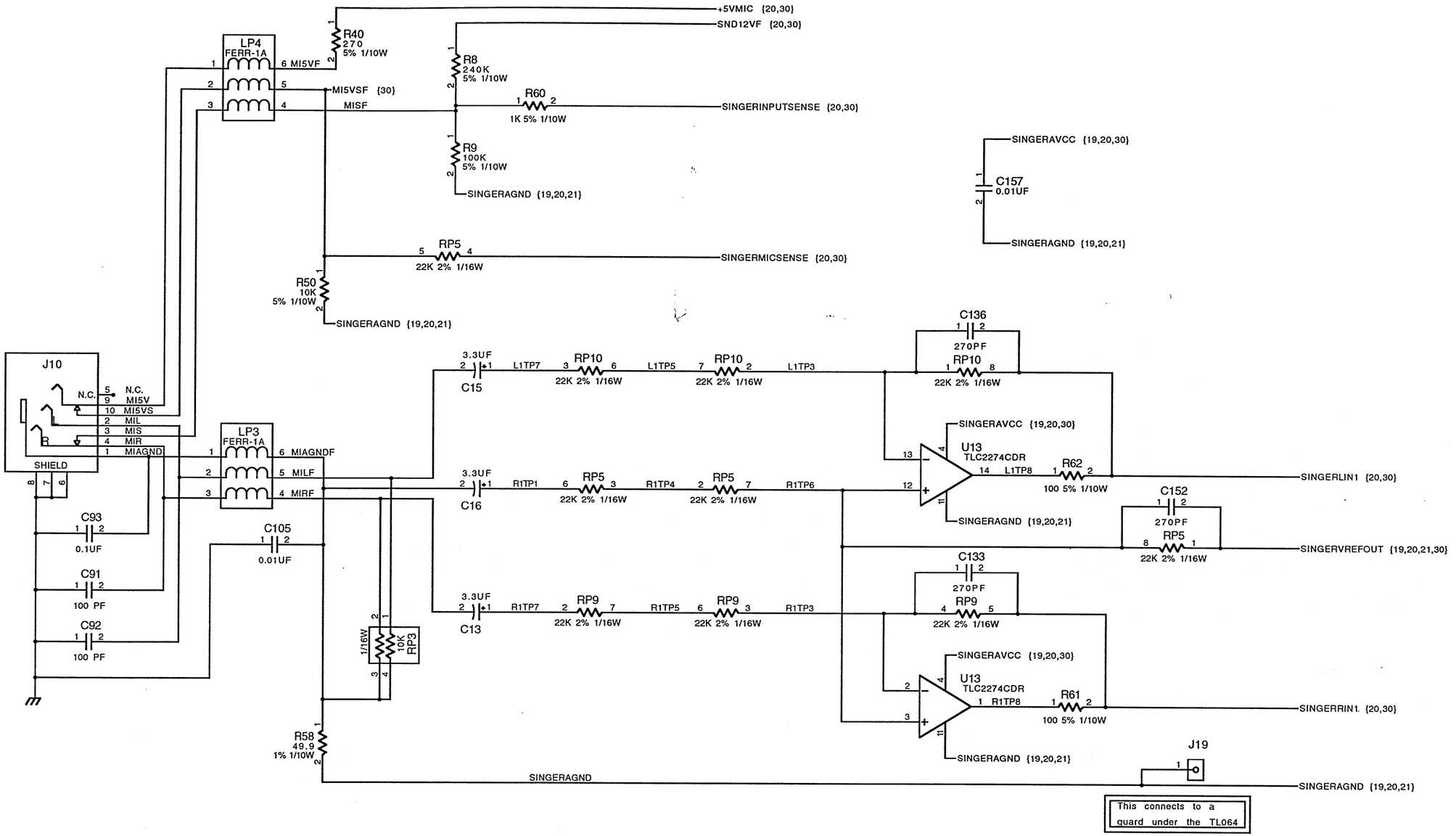


TEST ENGINEERING:
DON'T NEED PULLDOWN R60?

051-0124-A	Size D	Rev	Build	Board
Mickey and Video Out	Engineer: Joseph Palmer			Date 7/27/9
Apple Computer, Inc.				Page 17 / 31



051-0124-A	Size D	Rev	Build	Board	Date 7/27/9
Line / Mic Input	Engineer: Joseph Palmer				
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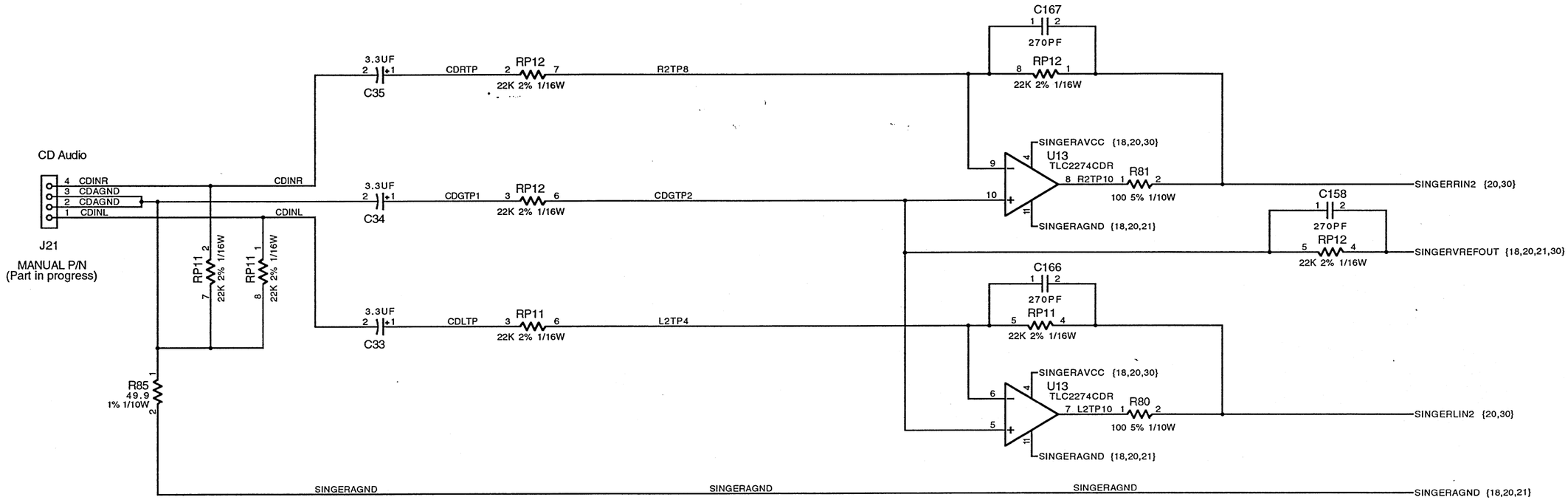
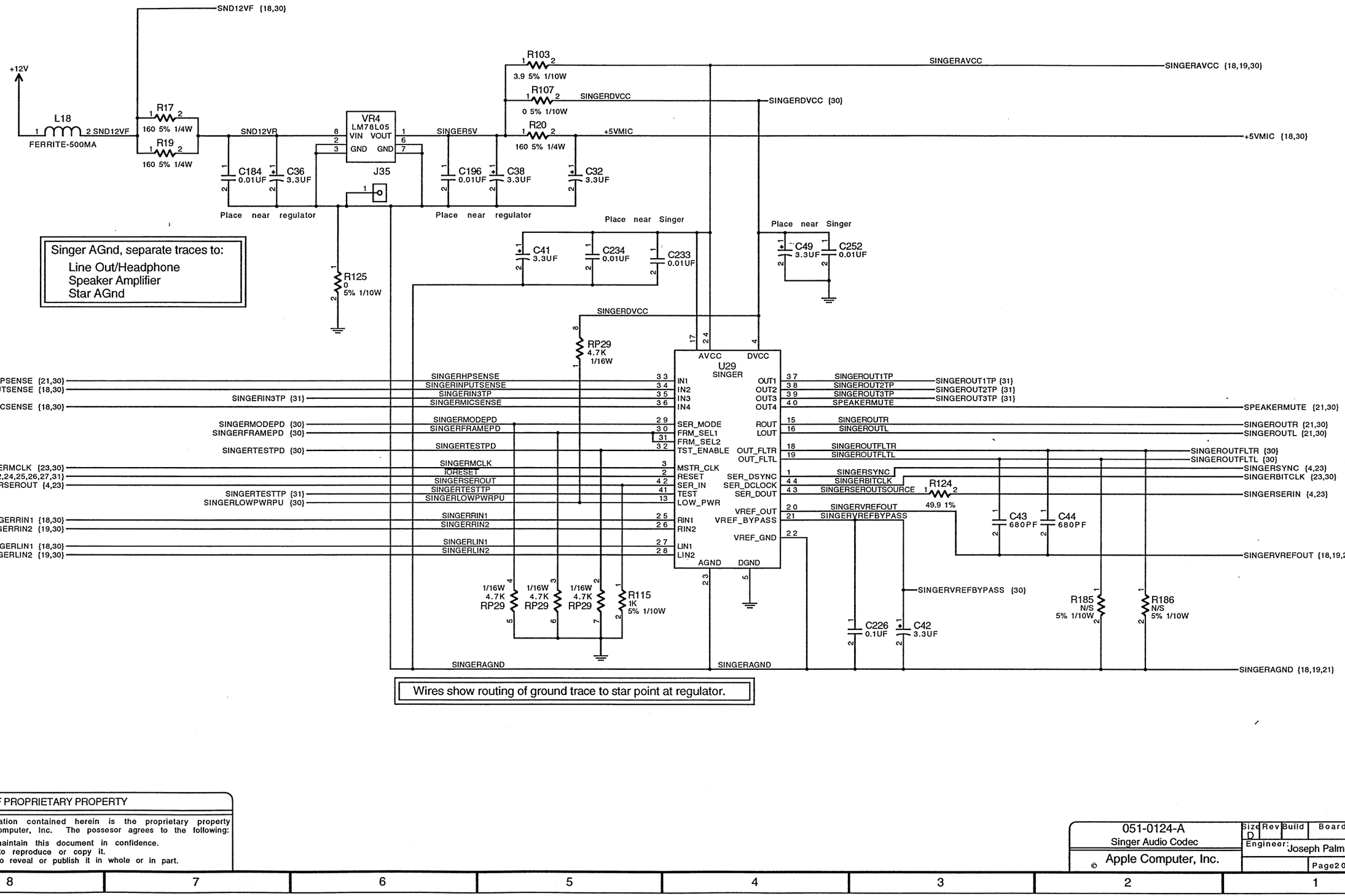


051-0124-A
CD Audio Input

Size D | Rev | Build | Board | Date 7/27/9

Engineer: Joseph Palmer



051-0124-A	Size D	Rev	Build	Board
Singer Audio Codec	Engineer: Joseph Palmer			Date 7/27/9
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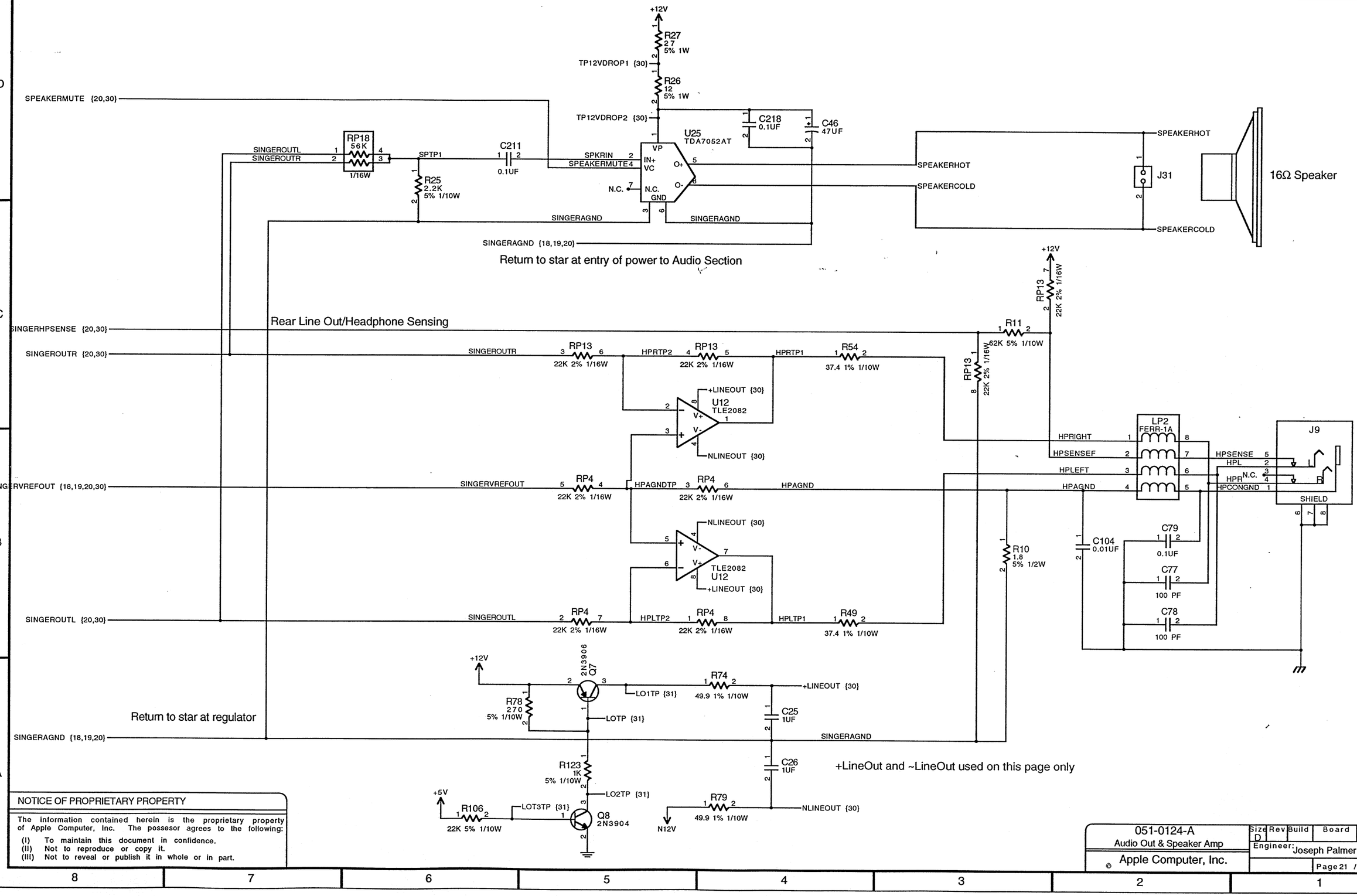

051-0124-A	Size D	Rev	Build	Board	Date 7/27/99
Audio Out & Speaker Amp	Engineer: Joseph Palmer				
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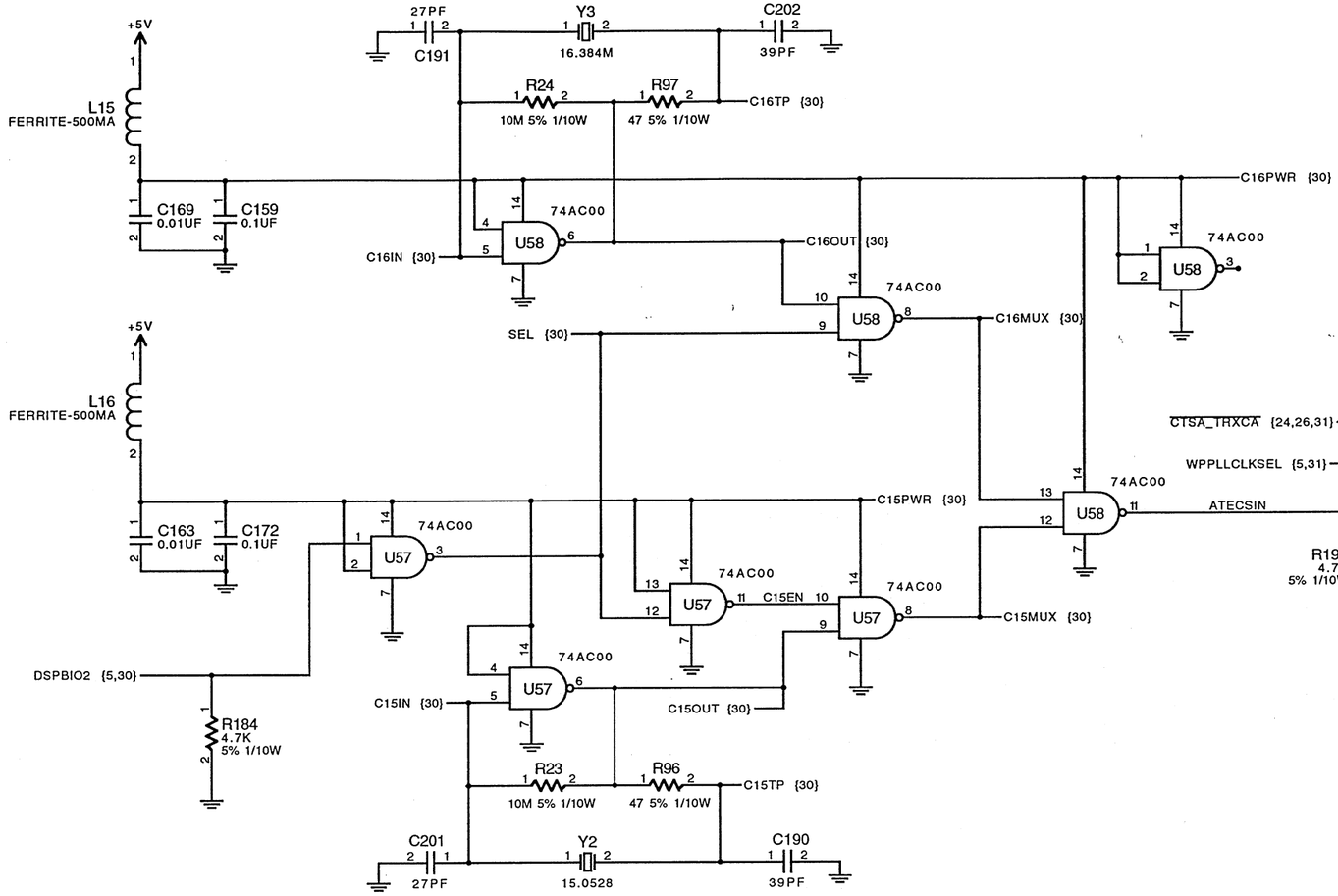
Oscillator for 48 KHz Sample Rate



Oscillator for 44.1 KHz Sample Rate

051-0124-A	Size D	Rev	Build	Board	Date 7/27/9
Apple Computer, Inc. ©	Engineer: Joseph Palmer				
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U21

PSC-ETE-V1

040 Signals

Gen. IO Bus

DSP

Snd

Ethernet

SCSI

Serial

FDC

Cuda

Interrupt

Chip Sel

A(31:0) {3,4,5,6,7,10}

D(31:0) {3,4,5,6,7,8,9,10,13,15}

+5V

C225 0.1UF
C220 0.1UF
C175 0.1UF
C165 0.1UF
C174 0.01UF
C224 0.01UF
C221 0.01UF
C176 0.01UF

L8 FERRITE-500MA

C111 0.1UF
C112 0.01UF

VCC
G1
31.3344M
OE
OUT
GND

C32M5V {30}
C31_3344M {26,30}
OEC32M {31}

R98 470 5% 1/10W
R82 4.7K 5% 1/10W
RP8 4.7K

SYSNMI {28,31}
NMRQ4 {4}
NMRQ5 {4}
NMRQ6 {4}
CIVICINT {10,31}
PSCTEST
PSCTEST {30}

C49_1520M {22,30}
SINGERSERIN {4,20}

O4OTT1 {3,4,6,10}
O4ORW {3,4,5,6,10,13}
O4OSIZ0 {3,4,5,6,10}
O4OSIZ1 {3,4,5,6,10}
O4OTS {3,4,6,10,29}
O4OTEA {3,4,6,29}
PSCBG {6,31}
SYSRESET {2,3,4}
O4ORESETOUT {2,3,4}
BCLK1 {2,24,30}
IOD(15:0) {16,24,27}

ENETRDTREQ {24,31}
ENETTDTREQ {24,31}
ENETEOF {24,31}
ENETINTR {24,31}
SCSIDRQ {24,31}
SCSIINT {24,31}
SCCAINT {24,31}
SCCBINT {24,31}
SCCWREQA {24,31}
SCCWREQB {24,31}
SCCREQA {24,31}
DCDA {24,26,31}
NEWAGEDMA {27,30}
NEWAGEINT {27,30}
CUDAVIADATA {28,30}
CUDAVIACLOCK {28,31}
CUDATREQ {28,31}
MUNIIRQ {4}

O4OIPL(2:0) {3,4}
O4OTA {3,4,6,10,29}
O4OBB {3,4,6,29}
PSCBR {6,31}
IOA(4:0) {16,24,27}
IORD {24,26,27,31}
IOWR {16,24,27,31}

RP7 4.7 1/16W
NAC16M {27,30}
CURIOC16M {24,30}
C24_576M {30}
R101 49.9 1% 1/10W
SMCLKEXP {4}
R102 49.9 1% 1/10W
SINGERMCLK {20,30}
R94 49.9 1% 1/10W
SBCLKEXP {4}
R93 49.9 1% 1/10W
SINGERBITCLK {20,30}

FRAMEIRQ
DSPRESET
C24M
SNDSEROUT
SNDBITCLK
SNDSERSYNC
ENETCS
BE0
ENETIDCS
SCSIDACK
SCSICS
SCCCS
C16M
SCCBCLK
SCCACLK
FDCCS
FDCDACK
TIP
BYTEACK
MUNICS
VCLKCS
CLUTCS

PSCC16M {30}
SEBCS {16,31}

051-0124-A	Size D	Rev	Build	Board	Date 7/27/93
PSC (DMA I/O Controller)	Engineer: Joseph Palmer				
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PROM P/N changed manually

Clear ground under Xfr

Stuff one to select SCSI clock source

051-0124-A	Size	Rev	Build	Board	Date
Curio & Ethernet Connector	D				7/27/94
	Engineer: Joseph Palmer				
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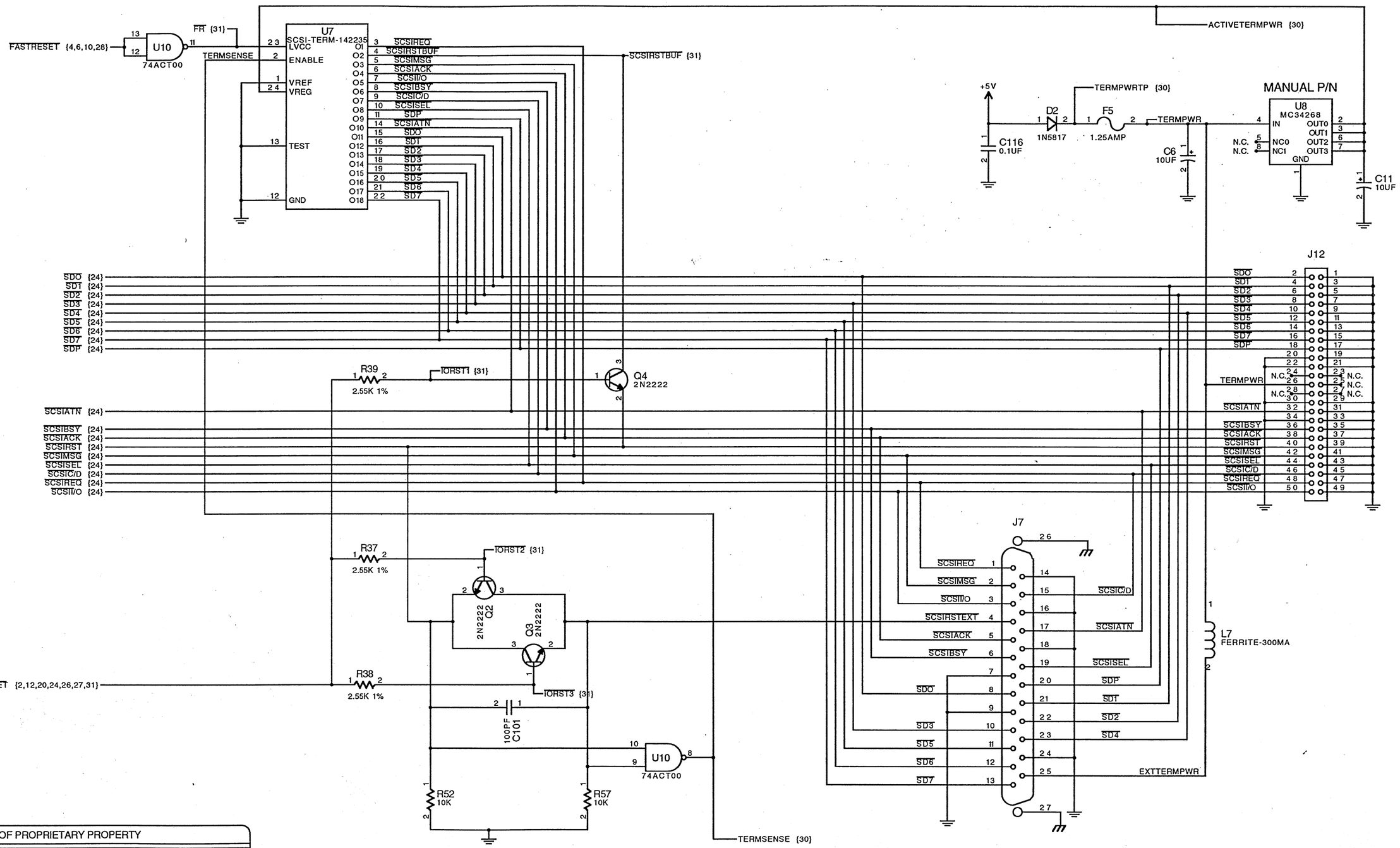

051-0124-A	Size D	Rev	Build	Board	Date 7/27/9
SCSI Terminator & Connectors	Engineer: Joseph Palmer				
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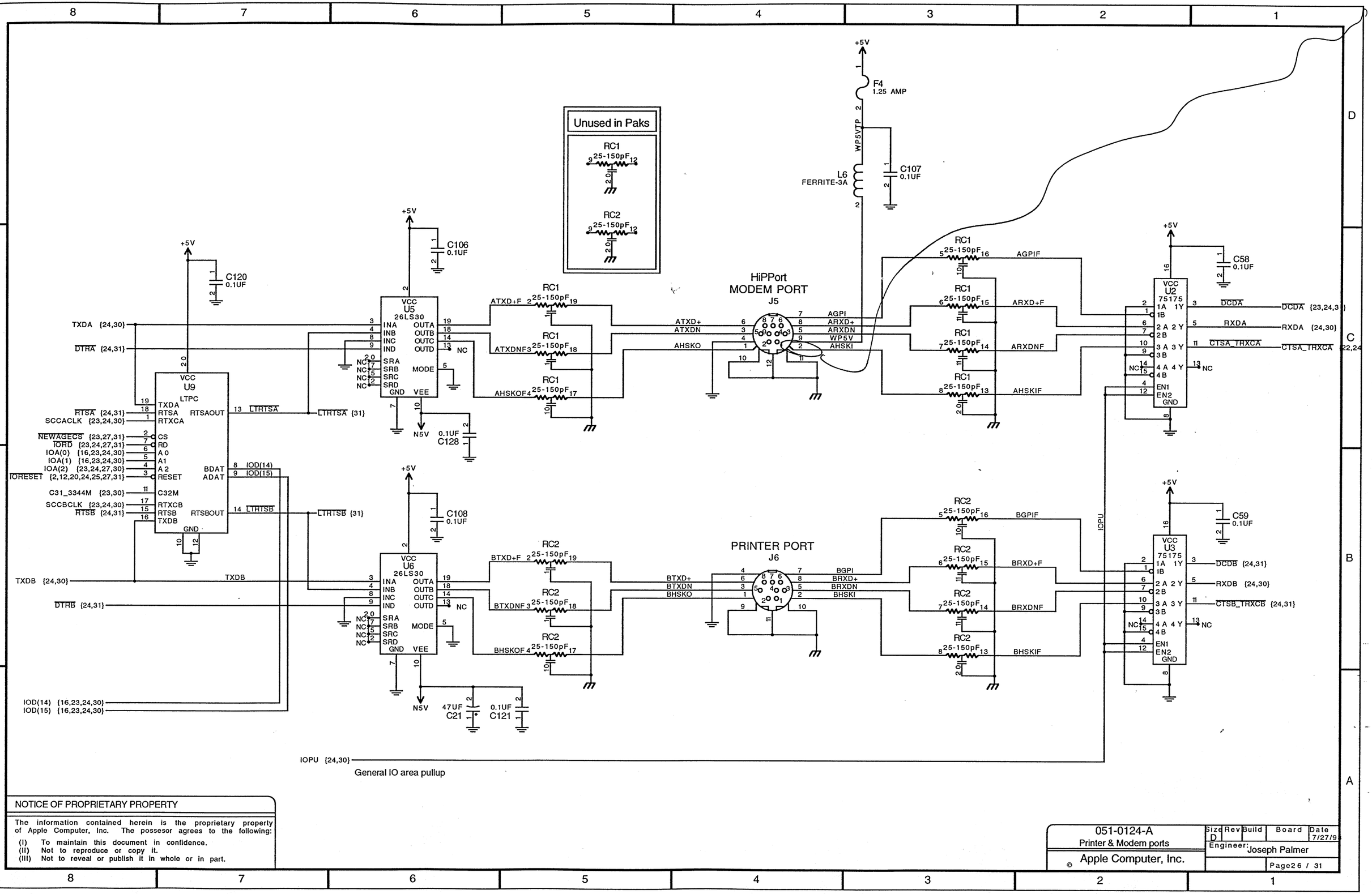

051-0124-A	Size D	Rev	Build	Board
Printer & Modem ports	Engineer: Joseph Palmer			Date 7/27/9
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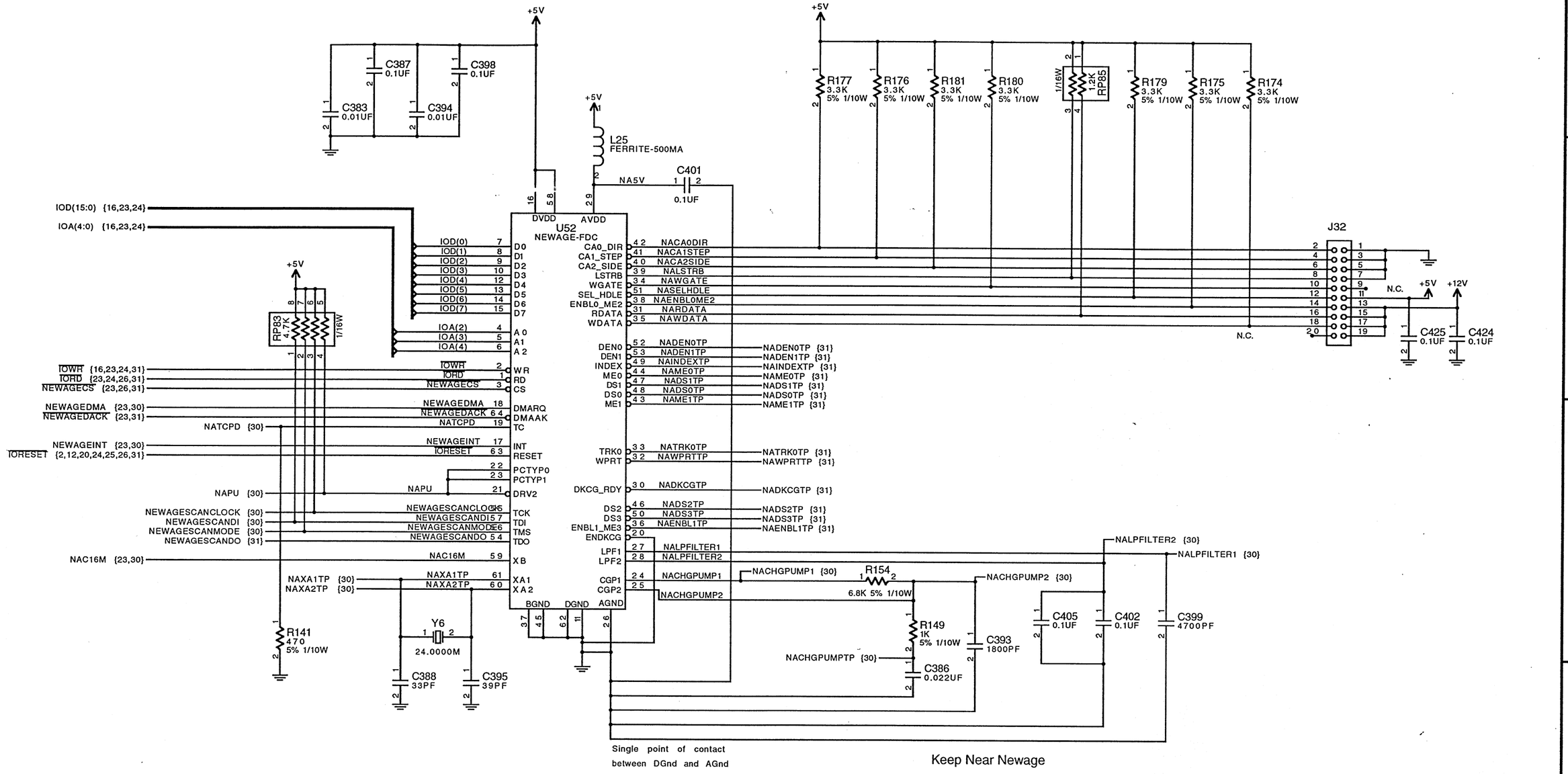

051-0124-A	Size D	Rev	Build
NewAge Floppy Disk Controller	Board	Date 7/27/9	
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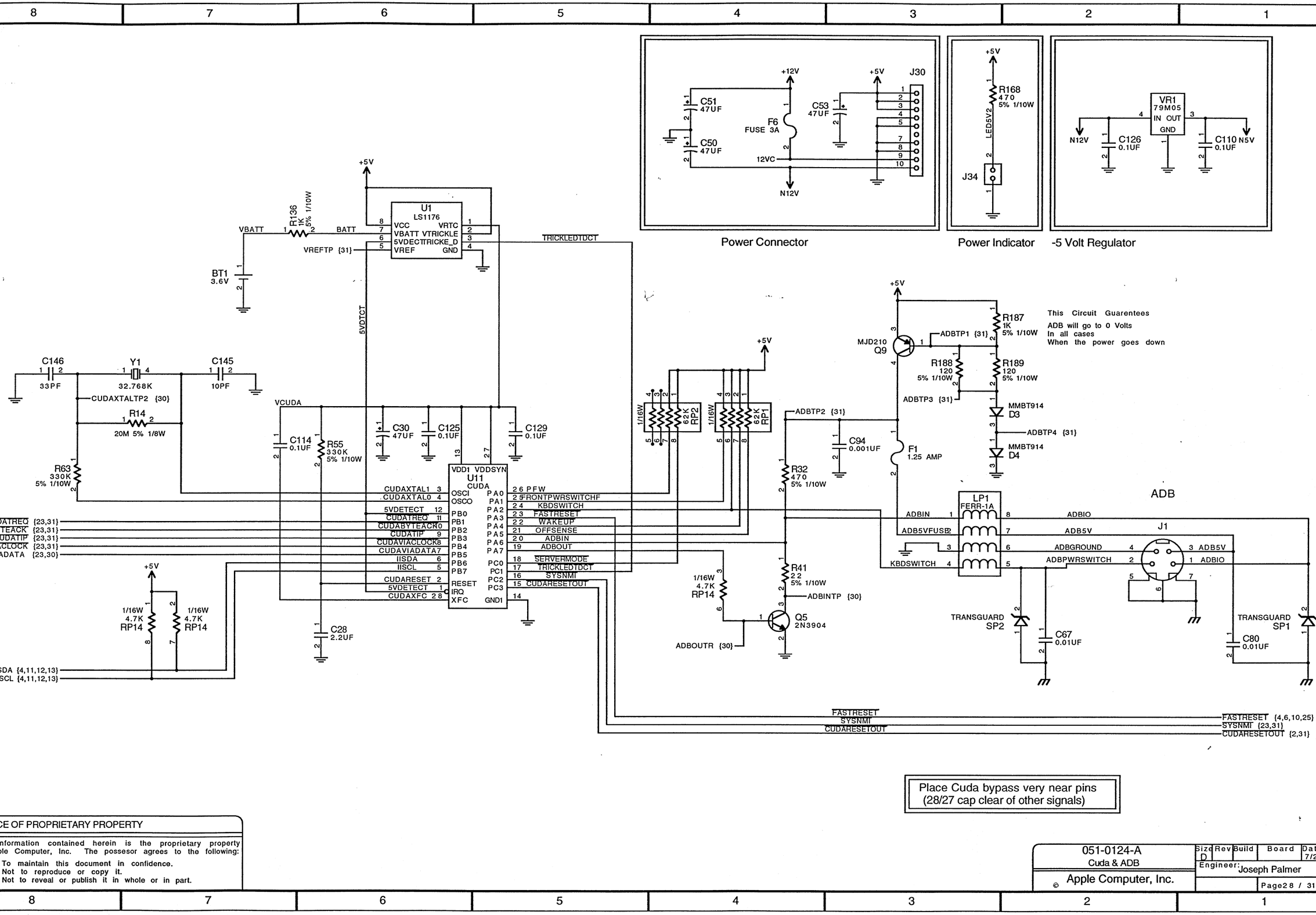

051-0124-A	Size D
Cuda & ADB	Rev
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	Board
	Date 7/27/9
	Engineer: Joseph Palmer
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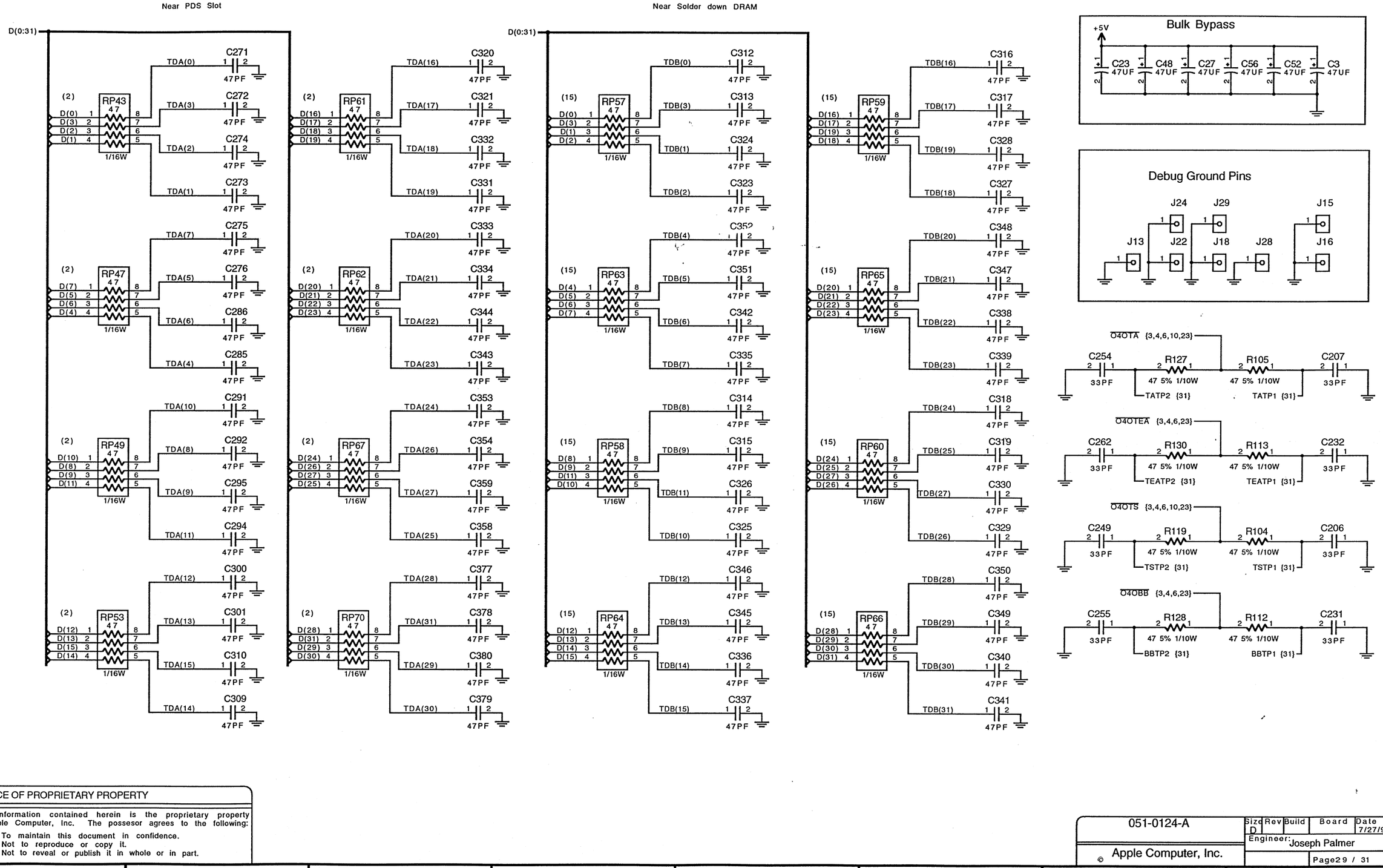

051-0124-A
Size D | Rev | Build | Board | Date 7/27/9
Engineer: Joseph Palmer
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8	7	6	5	4	3	2	1
+5VMIC {18,20} TP80	BUFFD(5) {13,14} TP658	CURIOSCANMODE {24} TP286	GRAD(13) {15} TP595	GVA(1) {10} TP554	MIAGNDF {18} TP55	SCSICLK {24} TP376	TDA(24) {29} TP718
+LINEOUT {21} TP154	BUFFD(6) {13,14} TP673	CURIOSCANRESET {24} TP369	GRAD(14) {15} TP602	GVA(2) {10} TP553	MICKAPOS {17} TP65	SEBAVDD {16} TP141	TDA(25) {29} TP729
5VC25M {24} TP851	BUFFD(7) {13,14} TP678	CVBSC(0) {11,12} TP280	GRAD(15) {15} TP588	GVA(3) {10} TP539	MICKB {17} TP11	SEBB {16,17} TP73	TDA(26) {29} TP725
5VDTOT {28} TP120	BUFFD(8) {13,14} TP532	CVBSC(1) {11,12} TP336	GRAD(16) {15} TP456	GVA(4) {10} TP538	MICKCOMP {17} TP46	SEBCOMP {16} TP140	TDA(27) {29} TP730
8708VCC {11} TP126	BUFFD(9) {13,14} TP543	CVBSC(2) {11,12} TP349	GRAD(17) {15} TP479	GVA(5) {10} TP537	MICKCOUT {17} TP47	SEBG {16,17} TP95	TDA(28) {29} TP731
ACTIVETERMPWR {25} TP92	BUFFXOE {10,13} TP614	CVBSC(3) {11,12} TP275	GRAD(18) {15} TP461	GVA(6) {10} TP626	MICKEYBYPASS {6,17} TP551	SEBGLD {10,16} TP243	TDA(29) {29} TP735
ADB5VFUSE {28} TP16	C15EN {22} TP258	CVBSC(4) {11,12} TP279	GRAD(19) {15} TP470	GVA(7) {10} TP603	MICKG {17} TP45	SEBIREF {16} TP182	TDA(3) {29} TP549
ADBIN {28} TP22	C15IN {22} TP328	CVBSC(5) {11,12} TP379	GRAD(2) {15} TP620	GVA(8) {10} TP474	MICKR {17} TP44	SEBR {16,17} TP109	TDA(30) {29} TP734
ADBINTP {28} TP57	C15MUX {22} TP248	CVBSC(6) {11,12} TP278	GRAD(20) {15} TP506	GVARP(0) {10,15} TP680	MICKVCC {17} TP14	SEBVIDCLK {16} TP214	TDA(31) {29} TP732
ADBOUT {28} TP99	C15OUT {22} TP338	CVBSC(7) {11,12} TP307	GRAD(21) {15} TP516	GVARP(1) {10,15} TP660	MICKVNEG {17} TP23	SEBVLD {10,16} TP597	TDA(4) {29} TP596
ADBOUTR {28} TP98	C15PWR {22} TP235	CVID {11} TP180	GRAD(22) {15} TP521	GVARP(2) {10,15} TP679	MICKYOUT {17} TP33	SEL {22} TP247	TDA(5) {29} TP585
ADCIN8708 {11} TP178	C15TP {22} TP292	CVIDAC {11} TP106	GRAD(23) {15} TP502	GVARP(3) {10,15} TP425	MILF {18} TP40	SINGER5V {20} TP324	TDA(6) {29} TP600
ADLLCLK {11,12} TP234	C16IN {22} TP325	D8708(0) {11} TP239	GRAD(24) {15} TP402	GVARP(4) {10,15} TP365	MIRF {18} TP39	SINGERAVCC {18,19,20} TP401	TDA(7) {29} TP579
AGC8708 {11} TP125	C16M5V {2} TP858	D8708(1) {11} TP228	GRAD(25) {15} TP403	GVARP(5) {10,15} TP366	MISF {18} TP30	SINGERBITCLK {20,23} TP295	TDA(8) {29} TP622
AGPIF {26} TP1	C16MUX {22} TP332	D8708(2) {11} TP238	GRAD(26) {15} TP421	GVARP(6) {10,15} TP373	N5V TP89	SINGERDVCC {20} TP443	TDA(9) {29} TP633
AHSKIF {26} TP50	C16OUT {22} TP293	D8708(3) {11} TP268	GRAD(27) {15} TP383	GVARP(7) {10,15} TP364	NA5V {27} TP785	SINGERFRAMEPD {20} TP413	TDA(0) {29} TP676
AHSKOF {26} TP88	C16PWR {22} TP192	D8708(4) {11} TP211	GRAD(28) {15} TP486	GVARP(8) {10,15} TP475	NAC16M {23,27} TP757	SINGERHPSENSE {20,21} TP430	TDB(1) {29} TP693
ANOUT8708 {11} TP156	C16TP {22} TP339	D8708(5) {11} TP233	GRAD(29) {15} TP420	HPAGND {21} TP37	NACHGPUMP1 {27} TP770	SINGERINPUTSENSE {18,20} TP160	TDB(10) {29} TP695
ARXD+F {26} TP25	C24_576M {23} TP345	D8708(6) {11} TP232	GRAD(3) {15} TP619	HPAGNDTP {21} TP148	NACHGPUMP2 {27} TP760	SINGERLIN1 {18,20} TP370	TDB(11) {29} TP699
ARXDNF {26} TP36	C25TP {24} TP374	D8708(7) {11} TP267	GRAD(30) {15} TP444	HPLEFT {21} TP29	NACHGPUMPTP {27} TP759	SINGERLIN2 {19,20} TP386	TDB(12) {29} TP720
ATECSIN {22} TP225	C31_3344M {23,26} TP107	DEC8708 {11} TP155	GRAD(31) {15} TP442	HPLTP1 {21} TP96	NALPFILTER1 {27} TP774	SINGERLOWPWRPU {20} TP431	TDB(13) {29} TP719
ATXD+F {26} TP67	C32M5V {23} TP79	DITP {24} TP322	GRAD(4) {15} TP656	HPLTP2 {21} TP133	NALPFILTER2 {27} TP795	SINGERMCLK {20,23} TP496	TDB(14) {29} TP711
ATXDNF {26} TP68	C49_1520M {22,23} TP249	DMSDCREF {12} TP296	GRAD(5) {15} TP674	HPRIGHT {21} TP34	NAPU {27} TP751	SINGERMICSENSE {18,20} TP445	TDB(15) {29} TP712
AVCCC {24} TP385	CAM12VTP {11} TP6	DMSDHC {11,12} TP404	GRAD(6) {15} TP659	HPRTP1 {21} TP123	NATCPD {27} TP739	SINGERMODEPD {20} TP397	TDB(16) {29} TP662
AVSSC {24} TP368	CDGTP1 {19} TP255	DMSDHSY {11,12} TP387	GRAD(7) {15} TP675	HPRTP2 {21} TP195	NAXA1TP {27} TP752	SINGEROUTFLTL {20} TP377	TDB(17) {29} TP663
BATT {28} TP7	CDGTP2 {19} TP197	DMSDLFCO {12} TP389	GRAD(8) {15} TP545	HPSENSEF {21} TP35	NAXA2TP {27} TP761	SINGEROUTFLTR {20} TP378	TDB(18) {29} TP696
BCLK0B {2,6} TP835	CDLTP {19} TP224	DMSDLLCLK {12} TP306	GRAD(9) {15} TP531	IOA(0) {16,23,24,26} TP170	NEWAGEDMA {23,27} TP253	SINGEROUTL {20,21} TP414	TDB(19) {29} TP700
BCLK1 {2,23,24} TP754	CDRTP {19} TP274	DMSDXTAL {12} TP435	GRADRC(0) {15,16} TP465	IOA(1) {16,23,24,26} TP261	NEWAGEINT {23,27} TP449	SINGEROUTR {20,21} TP424	TDB(2) {29} TP698
BGPIF {26} TP3	CGBCLK0 {2} TP834	DMSDXTAL1 {12} TP436	GRADRC(1) {15,16} TP544	IOA(2) {23,24,26,27} TP236	NEWAGESCANCLOCK {27} TP780	SINGERRIN1 {18,20} TP371	TDB(20) {29} TP722
BHSKIF {26} TP53	CGBCLK1 {2} TP753	DMSDXTAL2 {12} TP452	GRADRC(10) {15,16} TP463	IOA(3) {23,24,27} TP288	NEWAGESCANDI {27} TP764	SINGERRIN2 {19,20} TP256	TDB(21) {29} TP721
BHSKOF {26} TP10	CGBCLK2 {2} TP800	DOT1 {16} TP183	GRADRC(11) {15,16} TP511	IOA(4) {23,24,27} TP423	NEWAGESCANMODE {27} TP775	SINGERSEROUTSOURCE {20} TP493	TDB(22) {29} TP713
BRXD+F {26} TP52	CGPCLK {2} TP765	DOT12V {16} TP127	GRADRC(12) {15,16} TP559	IOD(0) {23,24,27} TP522	NLINEOUT {21} TP196	SINGERTESTPD {20} TP457	TDB(23) {29} TP714
BRXDNF {26} TP19	CITP {24} TP263	DOT5V {16} TP244	GRADRC(13) {15,16} TP599	IOD(1) {23,24,27} TP507	NTSCPALSEL {6,16,17} TP344	SINGERVREFBYPASS {20} TP392	TDB(24) {29} TP684
BTXD+F {26} TP4	CIVICGLD {10} TP702	DOTA5V {16} TP135	GRADRC(14) {15,16} TP610	IOD(10) {16,23,24} TP142	OFFSENSE {28} TP85	SINGERVREFOUT {18,19,20,21} TP342	TDB(25) {29} TP666
BTXDNF {26} TP77	CIVICVDCCLK {10} TP566	DOTCK {16} TP185	GRADRC(15) {15,16} TP352	IOD(11) {16,23,24} TP187	PCLK0B {2,6} TP778	SND12VF {18,20} TP323	TDB(26) {29} TP701
BUFFD(0) {13,14} TP632	CIVICVLD {10} TP601	DOTCLOCK+ {16} TP181	GRADRC(16) {15,16} TP257	IOD(12) {16,23,24} TP165	PDSAALFCO2 {12} TP276	SND12VR {20} TP264	TDB(27) {29} TP705
BUFFD(1) {13,14} TP637	CIVICXOE {10} TP592	DOTCLOCKN {16} TP207	GRADRC(17) {15,16} TP97	IOD(13) {16,23,24} TP136	PDSAALFCOSEL {12} TP251	SPEAKERMUTE {20,21} TP451	TDB(28) {29} TP724
BUFFD(10) {13,14} TP550	CLAMP8708 {11} TP177	DOT_CV {16} TP191	GRADRC(18) {15,16} TP311	IOD(14) {16,23,24,26} TP169	PDSAAMS {12} TP363	SPKRIN {21} TP355	TDB(29) {29} TP723
BUFFD(11) {13,14} TP564	CLKAGND {2} TP845	DOT_ECL {16} TP204	GRADRC(19) {15,16} TP309	IOD(15) {16,23,24,26} TP152	PFW {28} TP86	SPTP1 {21} TP346	TDB(3) {29} TP682
BUFFD(12) {13,14} TP570	CLKENABLE {2} TP811	DSPBIO2 {5,22} TP220	GRADRC(2) {15,16} TP219	IOD(2) {23,24,27} TP423	PORDTP {12} TP331	SVIDCAC {11} TP2	TDB(30) {29} TP715
BUFFD(13) {13,14} TP584	CLKMR {2} TP844	DSPBIO5 {5} TP840	GRADRC(20) {15,16} TP134	IOD(3) {23,24,27} TP147	PSCC16M {23} TP250	SVIDMIX {11} TP124	TDB(31) {29} TP716
BUFFD(14) {13,14} TP586	CLKRC {2} TP831	DSPBIO6 {5} TP846	GRADRC(21) {15,16} TP490	IOD(4) {23,24,27} TP94	PSCSINGERBITCLK {23} TP294	SVIDSEL0 {11,12} TP263	TDB(4) {29} TP728
BUFFD(15) {13,14} TP598	CLKSYNC {2} TP861	DSPBIO7 {5} TP847	GRADRC(22) {15,16} TP476	IOD(5) {23,24,27} TP159	PSCTEST {23} TP223	SVIDSEL1 {11,12} TP158	TDB(5) {29} TP727
BUFFD(16) {13,14} TP455	CLKVCC {2} TP814		GRADRC(23) {15,16} TP360	IOD(6) {23,24,27} TP122	PUDSF2 {14,15} TP391	SVIDY {11} TP157	TDB(6) {29} TP709
BUFFD(17) {13,14} TP460	COMPOUT {17} TP18	DSPDI {5} TP801	GRADRC(24) {15,16} TP327	IOD(7) {23,24,27} TP146	R1TP1 {18} TP113	SVIDYAC {11} TP5	TDB(7) {29} TP710
BUFFD(18) {13,14} TP468	COUT {17} TP24	DSPINT1ACK {5,23} TP328	GRADRC(25) {15,16} TP246	IOD(8) {16,23,24} TP316	R1TP3 {18} TP172	TDA(0) {29} TP533	TDB(8) {29} TP683
BUFFD(19) {13,14} TP471	CUDARESET {28} TP116	DSPLD {5} TP782	GRADRC(26) {15,16} TP372	IOD(9) {16,23,24} TP312	R1TP4 {18} TP149	TDA(1) {29} TP557	TDB(9) {29} TP667
BUFFD(2) {13,14} TP644	CUDAVIADATA {23,28} TP118	DSPPD {5} TP777	GRADRC(27) {15,16} TP101	IOPU {24,26} TP260	R1TP5 {18} TP137	TDA(10) {29} TP605	TERMPWRTP {25} TP104
BUFFD(20) {13,14} TP485	CUDAXFC {28} TP83	DSPPU {5} TP766	GRADRC(28) {15,16} TP139	IORESETTP {2} TP91	R1TP6 {18} TP171	TDA(11) {29} TP631	TERMSENSE {25} TP110
BUFFD(21) {13,14} TP491	CUDAXTAL0 {28} TP117	DSPSCLK {5} TP832	GRADRC(29) {15,16} TP310		R1TP7 {18} TP189	TDA(12) {29} TP641	TP12VDROP1 {21} TP497
BUFFD(22) {13,14} TP501	CUDAXTAL1 {28} TP161	ENET5VTP1 {24} TP28	GRADRC(3) {15,16} TP208	KBDSWITCH {28} TP70	R1TP8 {18} TP130	TDA(13) {29} TP646	TP12VDROP2 {21} TP475
BUFFD(23) {13,14} TP510	CUDAXTALTP2 {28} TP173	ENETXTAL1 {24} TP384	GRADRC(30) {15,16} TP304	L1TP3 {18} TP167	R2TP10 {19} TP241	TDA(14) {29} TP654	TPCLKRC {2} TP826
BUFFD(24) {13,14} TP382	CURIOC16M {23,24} TP143	ENETXTAL2 {24} TP405	GRADRC(31) {15,16} TP412	L1TP5 {18} TP112	R2TP8 {19} TP201	TDA(15) {29} TP657	TPDMSDIICSA {12} TP415
BUFFD(25) {13,14} TP390	CURIOCI+ {24} TP80	FRONTPWRSWITCHF {28} TP84	GRADRC(4) {15,16} TP703	L1TP7 {18} TP150	ROMA2 {6} TP736	TDA(16) {29} TP668	
BUFFD(26) {13,14} TP400	CURIOCIN {24} TP38	GDSF {10,15} TP616	GRADRC(5) {15,16} TP692	L1TP8 {18} TP168	ROMA3 {6} TP733	TDA(17) {29} TP677	
BUFFD(27) {13,14} TP406	CURIODI+ {24} TP27	GDSFCIV {10} TP627	GRADRC(6) {15,16} TP707	L2TP10 {19} TP254	RPEAK8708 {11} TP176	TDA(18) {29} TP687	TXDA {24,26} TP58
BUFFD(28) {13,14} TP411	CURIODIN {24} TP49		GRADRC(7) {15,16} TP686	L2TP4 {19} TP210	RXDA {24,26} TP145	TDA(19) {29} TP685	TXDB {24,26} TP54
BUFFD(29) {13,14} TP419	CURIODO+ {24} TP48	GRAD(0) {15} TP621	GRADRC(8) {15,16} TP515	LLCLKA {12} TP308	RXDB {24,26} TP128	TDA(2) {29} TP568	VBB {16} TP198
BUFFD(3) {13,14} TP653	CURIODON {24} TP26	GRAD(1) {15} TP645	GRADRC(9) {15,16} TP523	LLCLKABUFF {12} TP265	SAA5V {11,12} TP138	TDA(20) {29} TP697	VCCPLL {24} TP361
BUFFD(30) {13,14} TP426	CURIOSBTP {24} TP367	GRAD(10) {15} TP560	GSC {10,15} TP518	LPF8708VCC {11} TP103	SC4X {16,17} TP17	TDA(21) {29} TP706	VCUDA {28} TP31
BUFFD(31) {13,14} TP427	CURIOSCANCLOCK {24} TP272	GRAD(11) {15} TP548	GSCCIV {10} TP530	MI5VF {18} TP56	SCCACLK {23,24,26} TP252	TDA(22) {29} TP717	VDCCLK {10,13} TP459
BUFFD(4) {13,14} TP655	CURIOSCANDI {24} TP300	GRAD(12) {15} TP567	GVA(0) {10} TP555	MI5VSF {18} TP41	SCCBCLK {23,24,26} TP193	TDA(23) {29} TP708	VDCHALFFULL {10,13} TP393

Test Points/Holes/Stiffeners, Bypass

051-0124-A	Size D	Rev	Build	Board	Date 7/27/9
	Engineer: Joseph Palmer				
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VDCIICSA {13} — 1 — UP410
VDCINCADDR {10,13} — 1 — UP447
VDCLLCLK {12,13} — 1 — UP266
VDCOE {10,13} — 1 — UP462
VDCTESTPD {13} — 1 — UP437
VDSF {10,14} — 1 — UP577
VDSFCIV {10} — 1 — UP575
VER1 {11} — 1 — UP32
VER2 {11} — 1 — UP81
VIDC {11} — 1 — UP13
VIDCLK {10,16} — 1 — UP213
VIDD(0) {14} — 1 — UP650
VIDD(1) {14} — 1 — UP635
VIDD(10) {14} — 1 — UP541
VIDD(11) {14} — 1 — UP561
VIDD(12) {14} — 1 — UP611
VIDD(13) {14} — 1 — UP582
VIDD(14) {14} — 1 — UP612
VIDD(15) {14} — 1 — UP583
VIDD(16) {14} — 1 — UP467
VIDD(17) {14} — 1 — UP454
VIDD(18) {14} — 1 — UP466
VIDD(19) {14} — 1 — UP453
VIDD(2) {14} — 1 — UP649
VIDD(20) {14} — 1 — UP498
VIDD(21) {14} — 1 — UP513
VIDD(22) {14} — 1 — UP499
VIDD(23) {14} — 1 — UP514
VIDD(24) {14} — 1 — UP399
VIDD(25) {14} — 1 — UP381
VIDD(26) {14} — 1 — UP398
VIDD(27) {14} — 1 — UP380
VIDD(28) {14} — 1 — UP432
VIDD(29) {14} — 1 — UP417
VIDD(3) {14} — 1 — UP634
VIDD(30) {14} — 1 — UP433
VIDD(31) {14} — 1 — UP434
VIDD(4) {14} — 1 — UP690
VIDD(5) {14} — 1 — UP671
VIDD(6) {14} — 1 — UP691
VIDD(7) {14} — 1 — UP672
VIDD(8) {14} — 1 — UP542
VIDD(9) {14} — 1 — UP562
VIDDRC(0) {14,16} — 1 — UP395
VIDDRC(1) {14,16} — 1 — UP624
VIDDRC(10) {14,16} — 1 — UP287
VIDDRC(11) {14,16} — 1 — UP569
VIDDRC(12) {14,16} — 1 — UP520
VIDDRC(13) {14,16} — 1 — UP594
VIDDRC(14) {14,16} — 1 — UP563
VIDDRC(15) {14,16} — 1 — UP623
VIDDRC(16) {14,16} — 1 — UP448
VIDDRC(17) {14,16} — 1 — UP284
VIDDRC(18) {14,16} — 1 — UP441
VIDDRC(19) {14,16} — 1 — UP218
VIDDRC(2) {14,16} — 1 — UP613
VIDDRC(20) {14,16} — 1 — UP489
VIDDRC(21) {14,16} — 1 — UP500
VIDDRC(22) {14,16} — 1 — UP483
VIDDRC(23) {14,16} — 1 — UP484
VIDDRC(24) {14,16} — 1 — UP217
VIDDRC(25) {14,16} — 1 — UP245

VIDDRC(26) {14,16} — 1 — UP190
VIDDRC(27) {14,16} — 1 — UP303
VIDDRC(28) {14,16} — 1 — UP216
VIDDRC(29) {14,16} — 1 — UP416
VIDDRC(3) {14,16} — 1 — UP636
VIDDRC(30) {14,16} — 1 — UP418
VIDDRC(31) {14,16} — 1 — UP215
VIDDRC(4) {14,16} — 1 — UP704
VIDDRC(5) {14,16} — 1 — UP651
VIDDRC(6) {14,16} — 1 — UP681
VIDDRC(7) {14,16} — 1 — UP652
VIDDRC(8) {14,16} — 1 — UP524
VIDDRC(9) {14,16} — 1 — UP509
VIDFILT8 {11} — 1 — UP105
VIDINSEL {12} — 1 — UP231
VIDMIX5V {11} — 1 — UP42
VIDPD {11} — 1 — UP237
VIDY {11} — 1 — UP21

VMIX {11} — 1 — UP20
VMIX1 {11} — 1 — UP43
VMIX2 {11} — 1 — UP61
VSC {10,14} — 1 — UP359
VSCCIV {10} — 1 — UP494
VSSPLL {24} — 1 — UP354
VVA(0) {10} — 1 — UP473
VVA(1) {10} — 1 — UP446
VVA(2) {10} — 1 — UP547
VVA(3) {10} — 1 — UP528
VVA(4) {10} — 1 — UP504
VVA(5) {10} — 1 — UP487
VVA(6) {10} — 1 — UP546
VVA(7) {10} — 1 — UP534
VVA(8) {10} — 1 — UP512
VVARP(0) {10,14} — 1 — UP665
VVARP(1) {10,14} — 1 — UP688
VVARP(2) {10,14} — 1 — UP438
VVARP(3) {10,14} — 1 — UP664
VVARP(4) {10,14} — 1 — UP508
VVARP(5) {10,14} — 1 — UP405
VVARP(6) {10,14} — 1 — UP482
VVARP(7) {10,14} — 1 — UP527
VVARP(8) {10,14} — 1 — UP488
WP5VTP {26} — 1 — UP75
WPPLLCLKSEL {5,22} — 1 — UP726
WPPLLCLKVALID {5,22} — 1 — UP812
YOUT {17} — 1 — UP12
BLANK {10,16} — 1 — UP648
CIVICBLANK {10} — 1 — UP643
CIVICHSYNC {10} — 1 — UP638
CIVICINT {10,23} — 1 — UP625
CIVICMICKEYCSYNC {10} — 1 — UP647
CIVICRGBCSYNC {10} — 1 — UP639
CIVICVSYNC {10} — 1 — UP630
CTSA_TRXCA {22,24,26} — 1 — UP184
CTSB_TRXCB {24,26} — 1 — UP90
CUDABYTEACK {23,28} — 1 — UP119
CUDARESETOUT {2,28} — 1 — UP642
CUDATIP {23,28} — 1 — UP111
CUDATREQ {23,28} — 1 — UP326
CUDAVIACLOCK {23,28} — 1 — UP271
CURIOCE1 {23,24} — 1 — UP251

DCDA {23,24,26} — 1 — UP87
DCDB {24,26} — 1 — UP194
DSP2HOST {5,23} — 1 — UP340
DSPBERR {5,6} — 1 — UP815
DSPBG {5,6} — 1 — UP821
DSPBR {5,6} — 1 — UP822
DSPCS {5,6} — 1 — UP859
DSPINT1 {5,23} — 1 — UP640
DSPLOCK {5,6} — 1 — UP862
DSPRESET {5,23} — 1 — UP768
DSPSRDY {5,6} — 1 — UP836
DTRA {24,26} — 1 — UP102
DTRB {24,26} — 1 — UP129
EMMCCASEVEN(0) {6} — 1 — UP839
EMMCCASEVEN(1) {6} — 1 — UP833
EMMCCASEVEN(2) {6} — 1 — UP830
EMMCCASEVEN(3) {6} — 1 — UP828
EMMCCASODD(0) {6} — 1 — UP818
EMMCCASODD(1) {6} — 1 — UP805
EMMCCASODD(2) {6} — 1 — UP803
EMMCCASODD(3) {6} — 1 — UP793
EMMCMAEVEN(0) {6} — 1 — UP742
EMMCMAEVEN(1) {6} — 1 — UP755
EMMCMAEVEN(10) {6} — 1 — UP773
EMMCMAEVEN(11) {6} — 1 — UP763
EMMCMAEVEN(2) {6} — 1 — UP790
EMMCMAEVEN(3) {6} — 1 — UP743
EMMCMAEVEN(4) {6} — 1 — UP817
EMMCMAEVEN(5) {6} — 1 — UP791
EMMCMAEVEN(6) {6} — 1 — UP792
EMMCMAEVEN(7) {6} — 1 — UP772
EMMCMAEVEN(8) {6} — 1 — UP744
EMMCMAEVEN(9) {6} — 1 — UP762
EMMCMAODD(0) {6} — 1 — UP756
EMMCMAODD(1) {6} — 1 — UP786
EMMCMAODD(10) {6} — 1 — UP767
EMMCMAODD(11) {6} — 1 — UP750
EMMCMAODD(2) {6} — 1 — UP804
EMMCMAODD(3) {6} — 1 — UP787
EMMCMAODD(4) {6} — 1 — UP740
EMMCMAODD(5) {6} — 1 — UP788
EMMCMAODD(6) {6} — 1 — UP738
EMMCMAODD(7) {6} — 1 — UP748
EMMCMAODD(8) {6} — 1 — UP741
EMMCMAODD(9) {6} — 1 — UP749
EMMCRAS(0) {6} — 1 — UP857
EMMCRAS(1) {6} — 1 — UP856
EMMCRAS(2) {6} — 1 — UP854
EMMCRAS(3) {6} — 1 — UP850
EMMCRAS(4) {6} — 1 — UP841
EMMCWEEVEN {6} — 1 — UP779
EMMCWEODD {6} — 1 — UP784
EMMC_DSPBERR {6} — 1 — UP827
EMMC_DSPBG {6} — 1 — UP816
EMMC_DSPSRDY {6} — 1 — UP837
ENDEAVORCS {16,23} — 1 — UP202
ENETBE0 {24} — 1 — UP285
ENETBE1 {23,24} — 1 — UP242
ENETCS {23,24} — 1 — UP230
ENETEOF {23,24} — 1 — UP121
ENETIDCS {23,24} — 1 — UP464
ENETINTR {23,24} — 1 — UP205

ENETRDTREQ {23,24} — 1 — UP273
ENETTDTREQ {23,24} — 1 — UP226
FLASHWE {6} — 1 — UP848
FR {25} — 1 — UP82
GCASLL {10,15} — 1 — UP609
GCASLLCIV {10} — 1 — UP629
GCASLM {10,15} — 1 — UP615
GCASLMCIV {10} — 1 — UP607
GCASUM {10,15} — 1 — UP571
GCASUMCIV {10} — 1 — UP628
GCASUU {10,15} — 1 — UP492
GCASUUCIV {10} — 1 — UP606
GDTOE {10,15} — 1 — UP495
GDTOECIV {10} — 1 — UP590
GHASA {10,15} — 1 — UP565
GHASACIV {10} — 1 — UP605
GHASBCIV {10} — 1 — UP593
GSEA {10,15} — 1 — UP525
GSEACIV {10} — 1 — UP591
GSEBCIV {10} — 1 — UP604
GWE {10,15} — 1 — UP578
GWECIV {10} — 1 — UP576
HSYNC {10,17} — 1 — UP9
IORD {23,24,26,27} — 1 — UP737
IORST1 {25} — 1 — UP64
IORST2 {25} — 1 — UP51
IORST3 {25} — 1 — UP69
IOWR {16,23,24,27} — 1 — UP262
MICKEYCSYNC {10,17} — 1 — UP15
MMCTESTTP {6} — 1 — UP769
NEWAGECS {23,26,27} — 1 — UP745
NEWAGEDACK {23,27} — 1 — UP270
PSCBG {6,23} — 1 — UP396
PSCBR {6,23} — 1 — UP789
RAS(0) {6,8} — 1 — UP694
RGBCSYNC {10,17} — 1 — UP580
ROMOE {6} — 1 — UP843
RTSA {24,26} — 1 — UP74
RTSB {24,26} — 1 — UP199
SAARESET {12} — 1 — UP283
SCCAINT {23,24} — 1 — UP203
SCCBINT {23,24} — 1 — UP186
SCCREQA {23,24} — 1 — UP164
SCCWREQA {23,24} — 1 — UP341
SCCWREQB {23,24} — 1 — UP240
SCSICS {23,24} — 1 — UP227
SCSIDACK {23,24} — 1 — UP115
SCSIDRQ {23,24} — 1 — UP153
SCSIINT {23,24} — 1 — UP151
SCSIRSTBUF {25} — 1 — UP93
SEBCS {16,23} — 1 — UP144
SERVERMODE {28} — 1 — UP78
SYSNMI {23,28} — 1 — UP100
THICKLEDTDCT {28} — 1 — UP72
VCASLL {10,14} — 1 — UP669
VCASLLCIV {10} — 1 — UP536
VCASLM {10,14} — 1 — UP617
VCASLMCIV {10} — 1 — UP552
VCASUM {10,14} — 1 — UP477
VCASUMCIV {10} — 1 — UP572
VCASUU {10,14} — 1 — UP394

IORESET {2,12,20,24,25,26,27} — 1 — UP166

VCASUUCIV {10} — 1 — UP589
VDTOE {10,14} — 1 — UP476
VDTOECIV {10} — 1 — UP556
VIDINRESET {12,13} — 1 — UP348
VRASA {10,14} — 1 — UP558
VRASACIV {10} — 1 — UP573
VRASBCIV {10} — 1 — UP574
VSEA {10,14} — 1 — UP670
VSEACIV {10} — 1 — UP535
VSEBCIV {10} — 1 — UP529
VSYNC {10,17} — 1 — UP212
VWE {10,14} — 1 — UP618
VWECIV {10} — 1 — UP540
WAKEUP {28} — 1 — UP71

TPCLK2Q {2} — 1 — UP758
CGBCLKTP {2} — 1 — UP820
DSPDO {5} — 1 — UP783
DSPASNTP {5} — 1 — UP746
DSPPBDTP {5} — 1 — UP776
DSPBGACKNTP {5} — 1 — UP747
DSPIACK0TP {5} — 1 — UP781
MD245OE {6} — 1 — UP813
MD245RW {6} — 1 — UP823
VIN2TP {11} — 1 — UP179

LLCLKB {12} — 1 — UP343
LLCLK2A {12} — 1 — UP282
LLCLK2B {12} — 1 — UP281
DMSDPLITP {12} — 1 — UP283
DMSDFEOTP {12} — 1 — UP290
DMSDHLTP {12} — 1 — UP403
DMSDHSTP {12} — 1 — UP388
VDCRSVD1TP {13} — 1 — UP305
VDCRSVD2TP {13} — 1 — UP321
VRAM0QSFTP {14} — 1 — UP439

VRAM1QSFTP {14} — 1 — UP519
VRAM2QSFTP {14} — 1 — UP581
VRAM3QSFTP {14} — 1 — UP683
GRAM0QSFTP {15} — 1 — UP428
GRAM1QSFTP {15} — 1 — UP517
GRAM2QSFTP {15} — 1 — UP587
GRAM3QSFTP {15} — 1 — UP661

TPNT7 {16} — 1 — UP174
SEBVREFTP {16} — 1 — UP114
SINGERIN3TP {20} — 1 — UP440

SINGERTESTTP {20} — 1 — UP481
SINGEROUT1TP {20} — 1 — UP450
SINGEROUT2TP {20} — 1 — UP458
SINGEROUT3TP {20} — 1 — UP472
TPNT8 {22} — 1 — UP222
ATECSOETP {22} — 1 — UP131
WPPLLCLKDETECT {22} — 1 — UP163
ATECSTP1 {22} — 1 — UP162
ATECSTP2 {22} — 1 — UP221
ATECSTP3 {22} — 1 — UP132
ATECSTP4 {22} — 1 — UP209
CURIOEDTVTP {24} — 1 — UP206

LOTP {21} — 1 — UP175
LO1TP {21} — 1 — UP200
LO2TP {21} — 1 — UP480
LOT3TP {21} — 1 — UP362
DMSDAP {12} — 1 — UP337
DMSDSP {12} — 1 — UP358
VDCSP {13} — 1 — UP351
VDCAP {13} — 1 — UP350
EMCCPSCBG {6} — 1 — UP771
EMCCMUNIBG {6} — 1 — UP855

LTRTSB {26} — 1 — UP76
LTRTSA {26} — 1 — UP66
O4OTDO {3} — 1 — UP852

CURIOSCANDO {24} — 1 — UP347
CURIOTXENTP {24} — 1 — UP301
CURIOTXDATTP1 {24} — 1 — UP318
CURIOTXDATTP2 {24} — 1 — UP333
CURIORXDATTP {24} — 1 — UP319
CURIORXCRSTP {24} — 1 — UP334
CURIOCLSNTP {24} — 1 — UP302
CURIOSTDCLKTP {24} — 1 — UP320
CURIOSRDCLKTP {24} — 1 — UP335
CURIOPWRDNTP {24} — 1 — UP317
CURIOSYNCATP {24} — 1 — UP330
CURIOTXDCTP {24} — 1 — UP313
RXDCTP {24} — 1 — UP297
RTXCTP {24} — 1 — UP314
CURIOTXDDTP {24} — 1 — UP298
RXDDTP {24} — 1 — UP315
TRXCDTP {24} — 1 — UP299
REQBTP {24} — 1 — UP223
SBINTP {24} — 1 — UP353
NEWAGESCANDO {27} — 1 — UP739
NADEN0TP {27} — 1 — UP810
NADEN1TP {27} — 1 — UP802
NAINDEXTP {27} — 1 — UP798
NAME0TP {27} — 1 — UP796
NADS1TP {27} — 1 — UP797
NADS0TP {27} — 1 — UP808
NAME1TP {27} — 1 — UP806
NATRK0TP {27} — 1 — UP824
NAWPRTTP {27} — 1 — UP819
NADKCGTP {27} — 1 — UP794
NADS2TP {27} — 1 — UP807
NADS3TP {27} — 1 — UP809
NAENBL1TP {27} — 1 — UP825
RAS5TP {6} — 1 — UP849
RAS6TP {6} — 1 — UP838
RAS7TP {6} — 1 — UP829

CURIOESTP {24} — 1 — UP277
ENETTC {24} — 1 — UP188
CURIOSYNCBTP {24} — 1 — UP259
DSPBIO1 {5} — 1 — UP842

OEC32M {23} — 1 — UP59
TPCLKSYNCOE {2} — 1 — UP853
C25Mtp {24} — 1 — UP860
VREFTP {28} — 1 — UP8

TATP2 {29} — 1 — UP503
TATP1 {29} — 1 — UP357
TEATP2 {29} — 1 — UP526
TEATP1 {29} — 1 — UP422

TSTP2 {29} — 1 — UP468
TSTP1 {29} — 1 — UP356
BBTP2 {29} — 1 — UP505
BBTP1 {29} — 1 — UP407

Was J17 GND — 1 — UP867
CIVICTS {10} — 1 — UP868
ADBTP1 {28} — 1 — UP863
ADBTP2 {28} — 1 — UP864
ADBTP3 {28} — 1 — UP865
ADBTP4 {28} — 1 — UP866

SEBBF {17} — 1 — UP63
SEBGF {17} — 1 — UP62
SEBRF {17} — 1 — UP108

Address Pin Order Diagram

		A0-7	A8-15	A16-23	A24-31	
Expansion	J22	■	■	■	■	1
CIVIC	U37	■	■	■	□	2
68040	U43	■	■	■	■	3
YMCA	U45	■	■	■	■	5
DSP 3210	U42	■	■	■	■	4
ROM SIMM	J23	□	■	■	□	7
ROM HIGH	U32	□	■	■	□	7
ROM LOW	U31	□	■	■	□	7
PSC	U19	■	■	■	■	9

Control Pin Order Diagram

		040TA	040TEA	040TS	040BB	040RW	
Expansion	J22	□	□	□	□	□	1
CIVIC	U37	□		□		□	2
68040	U43	□	□	□	□	□	3
Pull Up	RP56	□	□	□	□		4
DSP 3210	U42					□	5
YMCA	U45	□	□	□	□	□	6
PSC	U19	□	□	□	□	□	7
74F245	U25					□	8
74F245	U29					□	9
74F245	U35					□	10
74F245	U39					□	11

Data Pin Order Diagram

	D0-7	D8-15	D16-23	D24-31	
Termination	RP3xx				1
Expansion	J22				2
CIVIC	□				3
68040	U43				4
DSP 3210	U42				5
YMCA	U45				6
74F245	U25	U29	U35	U39	7
Gra VRAM	U26	U30	U36	U40	8
ROM SIMM	J23				9
PSC	U19				10
ROM	U31		U32		11
RAM SIMM	J24				12
RAM SIMM	J26				13
Solder Ram	U5xx				14
Termination	RP4xx				15

051-0124-A
NewAge Floppy Control & Connector

Size D | Rev | Build | Board | Date 7/27/93
Engineer: Joseph Palmer
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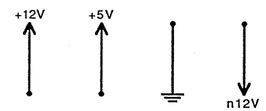
THE TEMPEST NUBUS

Schematic Table of Contents

Corresponds to NuBus 820-0454-A

Notes:

1) SB0, SB1 are not terminated
   (Single slot system can not use SB0, SB1)
2) _PFW is not supported by Tempest
3) _PFW signal routed to card edge for future use
4) +5TRICKLE is not supported on Tempest
5) +5TRICKLE is routed to card edge for future use
6) +5TRICKLE is N.C. on TEMPEST MLB



Globals

051-0126-A Table of Contents	Size D	Rev	Build	Board	Date 7/27/9
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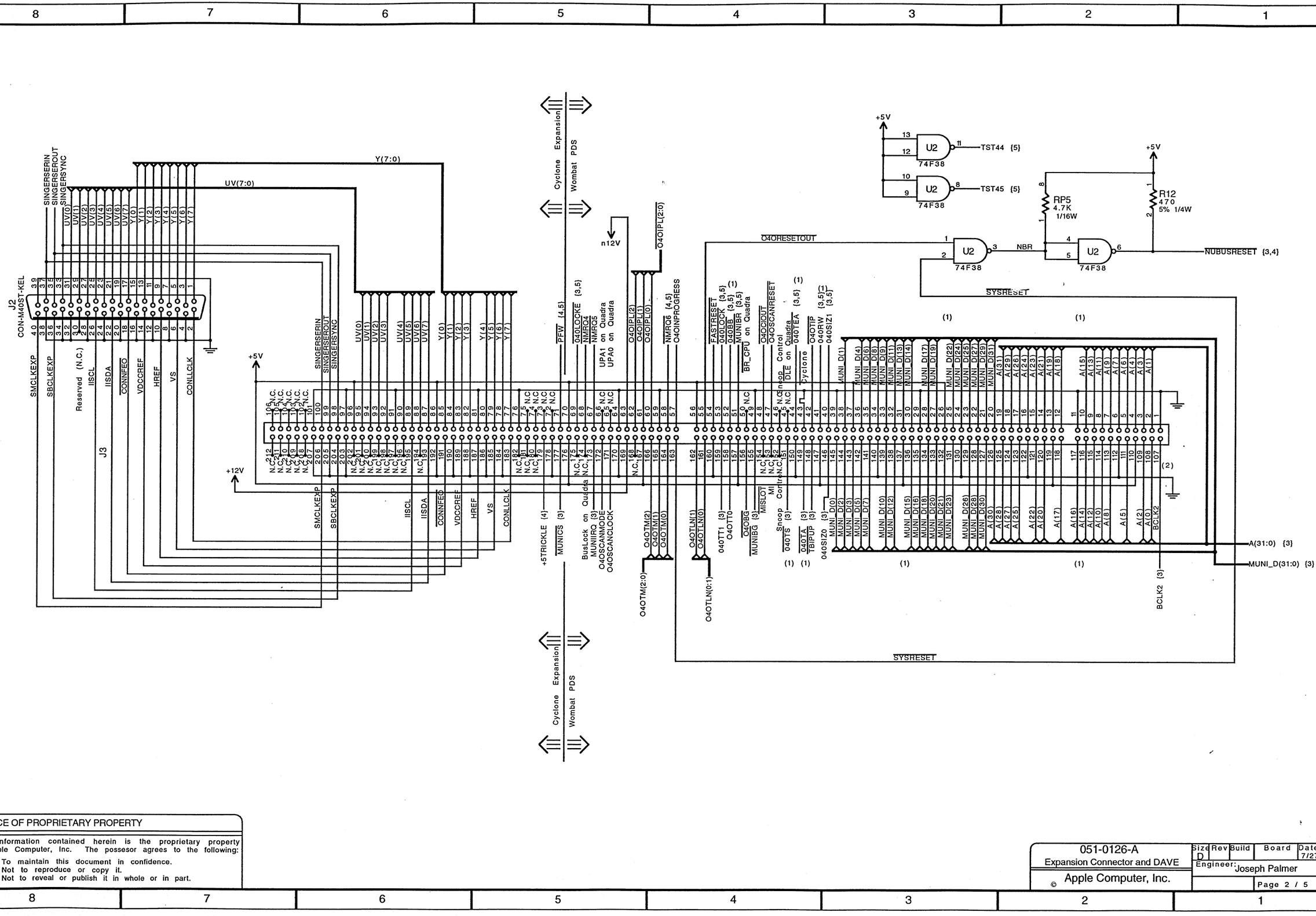

051-0126-A	Size D	Rev	Build	Board
Expansion Connector and DAVE	Engineer: Joseph Palmer			Date 7/27/9
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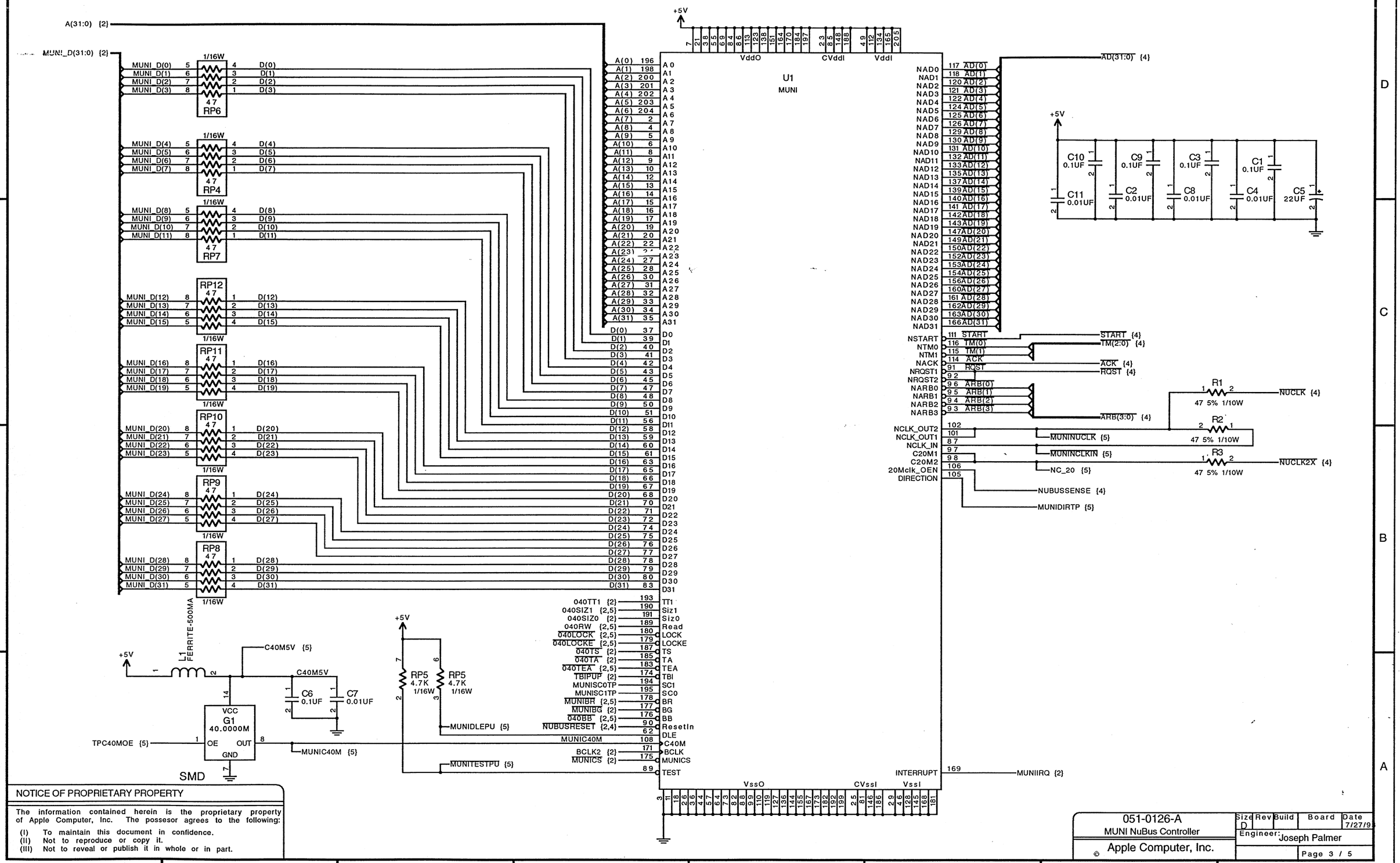

051-0126-A	Size	Rev	Build	Board	Date
MUNI NuBus Controller	D				7/27/93
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NuBus Slot 6 ($E)

TM(2:0) {3}
AD(31:0) {3}
NUBUSRESET {2,3}
NMRQ6 {2,5}
ROST {3}
PFW {2,5}
ARB(3:0) {3}
ACK {3}
START {3}
NUBUSSENSE {3}
+5TRICKLE {2}
NUCLK2X {3}
NUCLK {3}

J1 (A1–A32)
A1 n12V
A2 SB0
A3 SPV
A4 SP
A5 TM(1)
A6 AD(1)
A7 AD(3)
A8 AD(5)
A9 AD(7)
A10 AD(9)
A11 AD(11)
A12 AD(13)
A13 AD(15)
A14 AD(17)
A15 AD(19)
A16 AD(21)
A17 AD(23)
A18 AD(25)
A19 AD(27)
A20 AD(29)
A21 AD(31)
A22
A23
A24 ARB(1)
A25 ARB(3)
A26 IDT
A27 ID3
A28 ACK
A29
A30 ROST
A31 NMRQ6
A32 +12V

R4 220 5% 1/4W
R9 220 5% 1/4W
R7 220 5% 1/4W
+5V

J1 (B1–B32)
B1 +5V
B2
B3 n12V
B4
B5
B6
B7
B8 TM(2)
B9 CM(0)
B10 CM(1)
B11 CM(2)
B12
B13
B14
B15
B16
B17
B18
B19
B20
B21
B22
B23
B24 NUCLK2X
B25 +5TRICKLE
B26 NUBUSSENSE
B27 NuCBusy
B28
B29
B30 +12V
B31
B32

R11 220 5% 1/4W
R10 220 5% 1/4W
R13 220 5% 1/4W
R5 220 5% 1/4W
+5V

J1 (C1–C32)
C1
C2
C3 SB1
C4
C5 TM(0)
C6 AD(0)
C7 AD(2)
C8 AD(4)
C9 AD(6)
C10 AD(8)
C11 AD(10)
C12 AD(12)
C13 AD(14)
C14 AD(16)
C15 AD(18)
C16 AD(20)
C17 AD(22)
C18 AD(24)
C19 AD(26)
C20 AD(28)
C21 AD(30)
C22
C23 PFW
C24 ARB(0)
C25 ARB(2)
C26 ID0
C27 ID2
C28 START
C29
C30
C31
C32 NUCLK
+5V

RP5 4.7K 1/16W
R8 220 5% 1/4W
R6 220 5% 1/4W
+5V

TM(2:0)
AD(31:0)
NUBUSRESET
NUCLK2X
NUCLK

RP3 RPAK-270-470 +5V
1 SPV
2 SP
3 TM(0)
4 AD(0)
5 AD(2)
6 AD(4)
7 AD(6)
8
16
15 TM(1)
14 AD(1)
13 AD(3)
12 AD(5)
11 TM(2)
10 AD(7)
9 AD(8)

RP2 RPAK-270-470 +5V
1 AD(9)
2 AD(11)
3 AD(13)
4 AD(15)
5 AD(17)
6 AD(19)
7 AD(21)
8
16
15 AD(10)
14 AD(12)
13 AD(14)
12 AD(16)
11 AD(18)
10 AD(20)
9 AD(22)

RP1 RPAK-270-470 +5V
1 AD(23)
2 AD(25)
3 AD(27)
4 AD(29)
5 AD(31)
6 ACK
7 START
8
16
15 AD(24)
14 AD(26)
13 AD(28)
12 AD(30)
11 NC
10 NC
9 NC

270Ω/470Ω NuBus Termination

051-0126-A	Size D	Rev	Build	Board
NUBUS Connector	Engineer: Joseph Palmer			Date 7/27/9
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A(31) {2,3} — 1 — TP15
A(29) {2,3} — 1 — TP79
A(26) {2,3} — 1 — TP14
A(24) {2,3} — 1 — TP67
A(23) {2,3} — 1 — TP13
A(21) {2,3} — 1 — TP78
A(19) {2,3} — 1 — TP28
A(18) {2,3} — 1 — TP66
A(15) {2,3} — 1 — TP22
A(13) {2,3} — 1 — TP77
A(11) {2,3} — 1 — TP12
A(9) {2,3} — 1 — TP76
A(7) {2,3} — 1 — TP85
A(6) {2,3} — 1 — TP64
A(4) {2,3} — 1 — TP65
A(3) {2,3} — 1 — TP71
A(1) {2,3} — 1 — TP75

MUNI_D(1) {2,3} — 1 — TP47
MUNI_D(4) {2,3} — 1 — TP68
MUNI_D(6) {2,3} — 1 — TP32
MUNI_D(8) {2,3} — 1 — TP36
MUNI_D(9) {2,3} — 1 — TP57
MUNI_D(11) {2,3} — 1 — TP44
MUNI_D(13) {2,3} — 1 — TP61
MUNI_D(14) {2,3} — 1 — TP60
MUNI_D(17) {2,3} — 1 — TP59
MUNI_D(19) {2,3} — 1 — TP58
MUNI_D(22) {2,3} — 1 — TP72
MUNI_D(24) {2,3} — 1 — TP55
MUNI_D(25) {2,3} — 1 — TP81
MUNI_D(27) {2,3} — 1 — TP54
MUNI_D(29) {2,3} — 1 — TP80
MUNI_D(31) {2,3} — 1 — TP53

MUNIDLEPU {3} — 1 — TP48
MUNITESTPU {3} — 1 — TP5
040RESETOUT {2} — 1 — TP37
TST45 {2} — 1 — TP45
TST44 {2} — 1 — TP39
NBR {2} — 1 — TP42
PFW {2,4} — 1 — TP84
040LOCKE {2,3} — 1 — TP83
NMRQ6 {2,4} — 1 — TP82
040LOCK {2,3} — 1 — TP63
040BB {2,3} — 1 — TP74
MUNIBR {2,3} — 1 — TP62
040TEA {2,3} — 1 — TP73
040RW {2,3} — 1 — TP70
040SIZ1 {2,3} — 1 — TP56

Test Points

MUNINUCLK {3} — 1 — TP3
MUNINCLKIN {3} — 1 — TP1
NC_20 {3} — 1 — TP10
MUNIDIRTP {3} — 1 — TP4
TPC40MOE {3} — 1 — TP21
MUNIC40M {3} — 1 — TP11
C40M5V {3} — 1 — TP20

D(0) {3} — 1 — TP51
D(1) {3} — 1 — TP50
D(2) {3} — 1 — TP86
D(3) {3} — 1 — TP87
D(4) {3} — 1 — TP29
D(5) {3} — 1 — TP16
D(6) {3} — 1 — TP17
D(7) {3} — 1 — TP18
D(8) {3} — 1 — TP35
D(9) {3} — 1 — TP19
D(10) {3} — 1 — TP38
D(11) {3} — 1 — TP33
D(12) {3} — 1 — TP25
D(13) {3} — 1 — TP41
D(14) {3} — 1 — TP31
D(15) {3} — 1 — TP24
D(16) {3} — 1 — TP9
D(17) {3} — 1 — TP23
D(18) {3} — 1 — TP40
D(19) {3} — 1 — TP30
D(20) {3} — 1 — TP27
D(21) {3} — 1 — TP8
D(22) {3} — 1 — TP26
D(23) {3} — 1 — TP34
D(24) {3} — 1 — TP7
D(25) {3} — 1 — TP43
D(26) {3} — 1 — TP46
D(27) {3} — 1 — TP49
D(28) {3} — 1 — TP2
D(29) {3} — 1 — TP6
D(30) {3} — 1 — TP52
D(31) {3} — 1 — TP69

051-0126-A
Test Points & Other

Size	Rev	Build	Board	Date
D				7/27/9

Engineer: Joseph Palmer