

# M60 - PVT

## 08/01/06

1. ALL RESISTANCE VALUES ARE IN OHMS, 0.1 WATT +/- 5%.
2. ALL CAPACITANCE VALUES ARE IN MICROFARADS.
3. ALL CRYSTALS & OSCILLATOR VALUES ARE IN HERTZ.

REV	ZONE	ECN	DESCRIPTION OF CHANGE	CK APPD	ENG APPD
				DATE	DATE
D		452633	PRODUCTION RELEASED	08/01/06	06/22/04

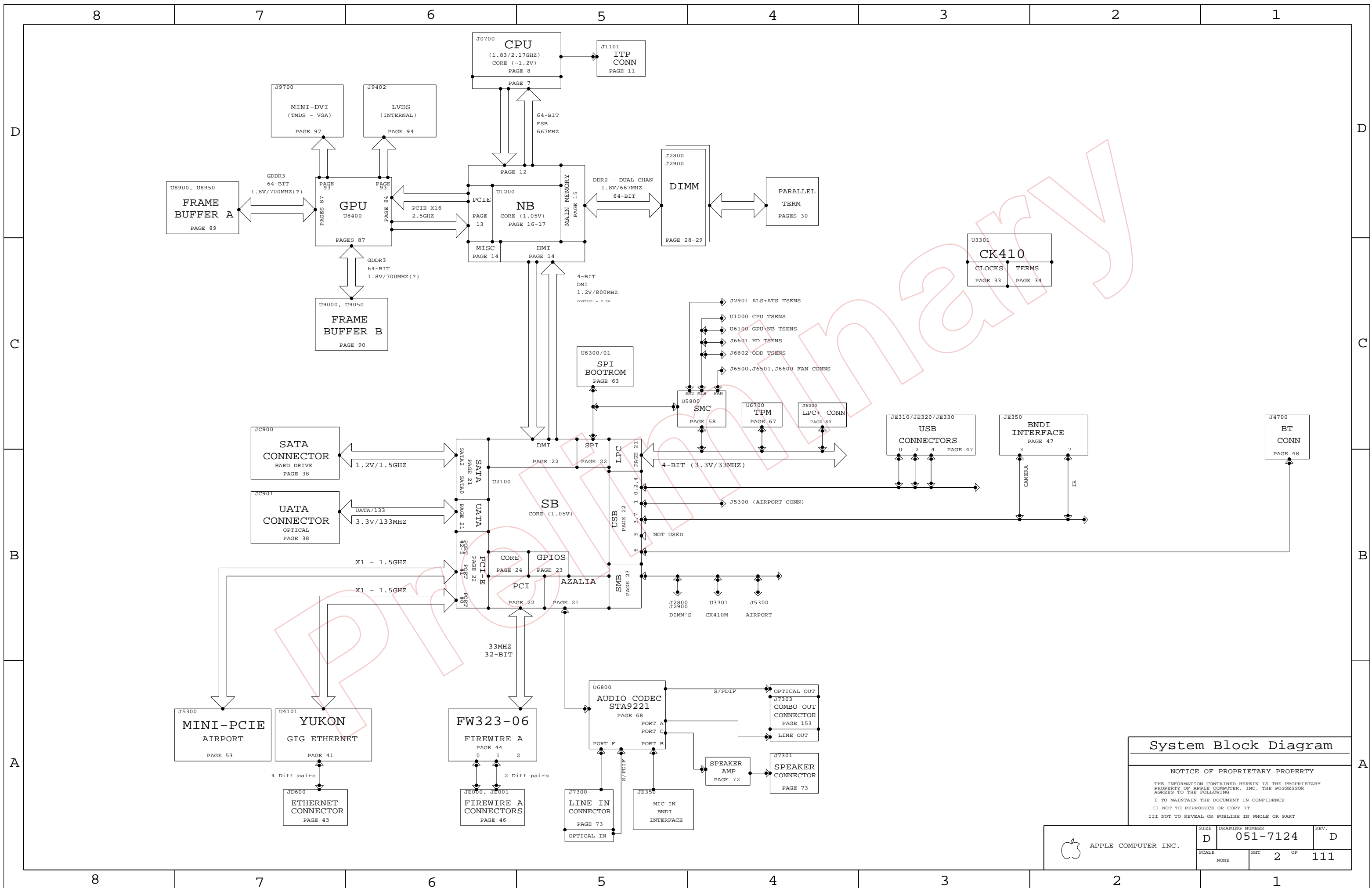
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3	MY	3 POWER BLOCK DIAGRAM
4	JD	4 TABLE ITEMS & REVISION HISTORY
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13	JH	13 NB - VIDEO INTERFACE
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16	JH	16 NB - POWER 1
17	JH	17 NB - POWER 2
18	JH	18 NB - GROUNDS
19	JH	19 NB - DECAPS
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21	JD	21 SB - RTC, LAN, AUDIO, ATA, CPU, LPC
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23	JD	23 SB - SMB, GPIO, PM, CLKS
24	JD	24 SB - POWERS AND GROUNDS
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42	JD	36 LAN - YUKON'S PWR, MISC
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63	MY	49 SMC - SPI BOOTROM
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78	MY	60 VR - "S0" 1.8V
79	MY	61 VR - "S3" 1.8V
80	MY	62 VR - "S0" 1.5V
81	MY	63 VR - "S0" 1.05V
82	MY	64 VR - "S5" 5V AND "S0" 4.5V
83	MY	65 VR - FETS FOR REMAINING RAILS
84	JH	66 GPU - M56 PCI-E
85	JH	67 GPU - VCORE SUPPLY
86	JH	68 GPU - M56 CORE PWR
87	JH	69 GPU - M56 FRAME BUFFER
88	JH	70 GPU - MISC
89	JH	71 GPU - GDDR SDRAM A
90	JH	72 GPU - GDDR SDRAM B
91	JH	73 GPU - M56 GPIO, DVO, MISC
92	JH	74 GPU - M56 CLOCKS
93	JH	75 GPU - M56 VIDEO INTERFACES
94	JH	76 GPU - INTERNAL DISPLAY CONN'S
95	JH	77 GPU - TP'S
96	JH	78 GPU - TMDS, INVERTER, EXT VGA
97	JH	79 GPU - EXTERNAL DISPLAY CONN'S

<p style="font-size: small;">DIMENSIONS ARE IN MILLIMETERS</p> <p>XX : _____</p> <p>X.XX : _____</p> <p>X.XXX : _____</p> <p>ANGLES : _____</p> <p style="font-size: x-small;">DO NOT SCALE DRAWING</p> <div style="text-align: center;"> <p style="font-size: x-small;">THIRD ANGLE PROJECTION</p> </div>	<p><b>METRIC</b></p>	<p>Apple Computer Inc.</p>
<p>DRAPTER</p> <p>ENG APPD</p> <p>QA APPD</p> <p>RELEASE</p>	<p>DESIGN CK</p> <p>MFG APPD</p> <p>DESIGNER</p> <p>SCALE</p>	<p><b>NOTICE OF PROPRIETARY PROPERTY</b></p> <p>THE INFORMATION CONTAINED HEREIN IS THE PROPRIETARY PROPERTY OF APPLE COMPUTER, INC. THE POSSESSOR AGREES TO THE FOLLOWING</p> <p>I TO MAINTAIN THE DOCUMENT IN CONFIDENCE</p> <p>II NOT TO REPRODUCE OR COPY IT</p> <p>III NOT TO REVEAL OR PUBLISH IN WHOLE OR PART</p>
<p><b>SCH, MLB, M60</b></p>		<p><b>TITLE</b></p>
<p>MATERIAL/FINISH NOTED AS APPLICABLE</p>		<p><b>DRAWING NUMBER</b> 051-7124 <b>REV.</b> D</p>
<p>SIZE D</p>		<p>SHT 1 OF 111</p>

D  
C  
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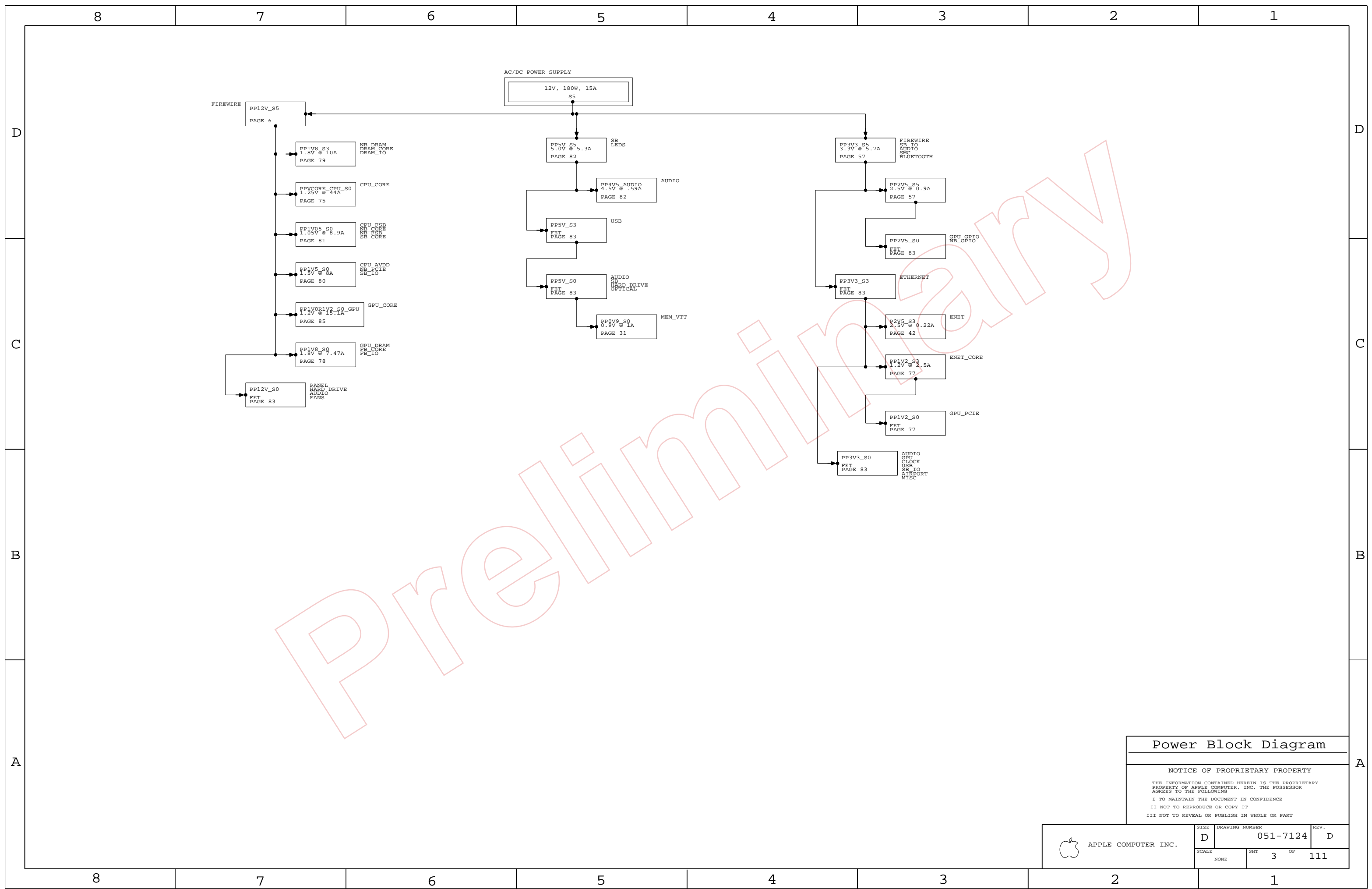
D  
C  
B  
A



### System Block Diagram

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	SCALE NONE	SHEET 2 OF 111	



Preliminary

**Power Block Diagram**

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	D	051-7124	D
SCALE	SHT	OF	REV.
NONE	3	111	

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COMMON

PART#	QTY	DESCRIPTION	REFERENCE DESIGNATOR(S)	CRITICAL	BOM OPTION
511S0025	1	IC,CPU-SKT,479BGA	J0700	CRITICAL	
338S0328	1	IC,945PM,NORTHBRIDGE	U1200	CRITICAL	
343S0385	1	IC,SB,652BGA	U2100	CRITICAL	
338S0345	1	IC,ATI,M56D,GRAFIXCTLR,880BGA,LF	U8400	CRITICAL	
359S0101	1	IC,CY28445-5,CLK GEN,68PIN QFN	U3301	CRITICAL	
338S0270	1	IC,88E8053,1GIGABIT ENET XCVR,64P QFN,MD	U4101	CRITICAL	
(335S0382) 341S1797	1	IC,ENET LAN ROM	U4102	CRITICAL	
338S0279	1	IC,FW32306,1394A LINK,TQFP	U4400	CRITICAL	
341S1789	1	IC,TPM,TSSOP,28P	U6700	CRITICAL	LEMENU
UNSCREENED P/N 353S1465	1	IC,CPU VREG,1MVP,TWO PHASE	U7500	CRITICAL	
152S0138	2	IND,PWR,SMD,3.3OH,20%,6A,30MHZ,LF,MD	L5703,L8203	CRITICAL	
128S0078	2	CAP,EL,AL,330UF,20%,16V,10X12.7MM,SMD,LF	C7517,C7518	CRITICAL	
825-6447	1	MLB LABEL,48.0X4.8	X14	CRITICAL	
155S0289	7	EMI CHOKE	FLR011,FLR021,FL4610,FL4620,L4712,L4722,L4732	CRITICAL	

(341S1904 - DEV)  
 (341S1905 - PVT)  
 (335S0384 - BLNK)  
 (341S1903 - PROG)  
 (338S0274 - BLNK)

PART#	QTY	DESCRIPTION	REFERENCE DESIGNATOR(S)	CRITICAL	BOM OPTION
051-7124	1	PCB,SCHEM,MLB,M60	SCH1		20_INCH_LCD
820-2031	1	PCB,FAB,MLB,M60	MLB1		20_INCH_LCD
341T0036	1	EPI ROM,M60	U6301	CRITICAL	20_INCH_LCD
341T0035	1	IC,SMC,M60	U5800	CRITICAL	20_INCH_LCD
338S0315	1	IC,ATI,M56LP,GRAFIX CTLR,880BGA,LF	U8400	CRITICAL	GPU_B26_LP
114S0264	1	3.01K,1%,1/16W,402,MP-LF	R8522		GPU_VCORE_1P2V
337S3390	1	2.16GHZ MEROM	CPU	CRITICAL	2P16_CPU
337S3392	1	2.33GHZ MEROM	CPU	CRITICAL	2P33_CPU

PART#	QTY	DESCRIPTION	REFERENCE DESIGNATOR(S)	CRITICAL	BOM OPTION
333S0354	4	IC,SDRAM,GDDR3,8MX32,700MHZ,136FBGA	U8900,U8950,U9000,U9050	CRITICAL	ATI_FB_128M_SAMSUNG
333S0358	4	IC,SDRAM,GDDR3,8MX32,700MHZ,136FBGA	U8900,U8950,U9000,U9050	CRITICAL	ATI_FB_128M_HYNIX
333S0376	4	IC,SDRAM,GDDR3,8MX32,700MHZ,136FBGA	U8900,U8950,U9000,U9050	CRITICAL	ATI_FB_128M_INFINEON

PART#	QTY	DESCRIPTION	REFERENCE DESIGNATOR(S)	CRITICAL	BOM OPTION
333S0350	4	IC,SDRAM,GDDR3,16MX32,700MHZ,136FBGA	U8900,U8950,U9000,U9050	CRITICAL	ATI_FB_256M_SAMSUNG
333S0351	4	IC,SDRAM,GDDR3,16MX32,700MHZ,136FBGA	U8900,U8950,U9000,U9050	CRITICAL	ATI_FB_256M_HYNIX
333S0377	4	IC,SDRAM,GDDR3,16MX32,600MHZ,136FBGA	U8900,U8950,U9000,U9050	CRITICAL	ATI_FB_256M_INFINEON

PART NUMBER	ALTERNATE FOR PART NUMBER	BOM OPTION	REF DES	COMMENTS:
126S0086	126S0078		C940,C1900,C1901,C1968	SANYO W6CE330FS 330UF 6.3V LF
128S0080	128S0078		C7517,C7518	SANYO 166VP330M 330UF 16V SMD LF
124-0338	124-0333			CAP,AL,EL,680UF,16V,RAD,10X12.5MM
138S0580	138S0552			22UF 0805
124-0361	124-0339		C7807	SANYO
353S1321	353S1105		U7910	LM339
338S0344	338S0345		U8400	M56 B26 P - DIFF P/N
353S1461	353S1465		U7500	CPU REGULATOR - ISL9504
378S0141	378S0140		LED01,LED02,LED03	LED
138S0598	138S0512			SAMSUNG

Preliminary

Table Items


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SCALE	SHT	OF	REV.
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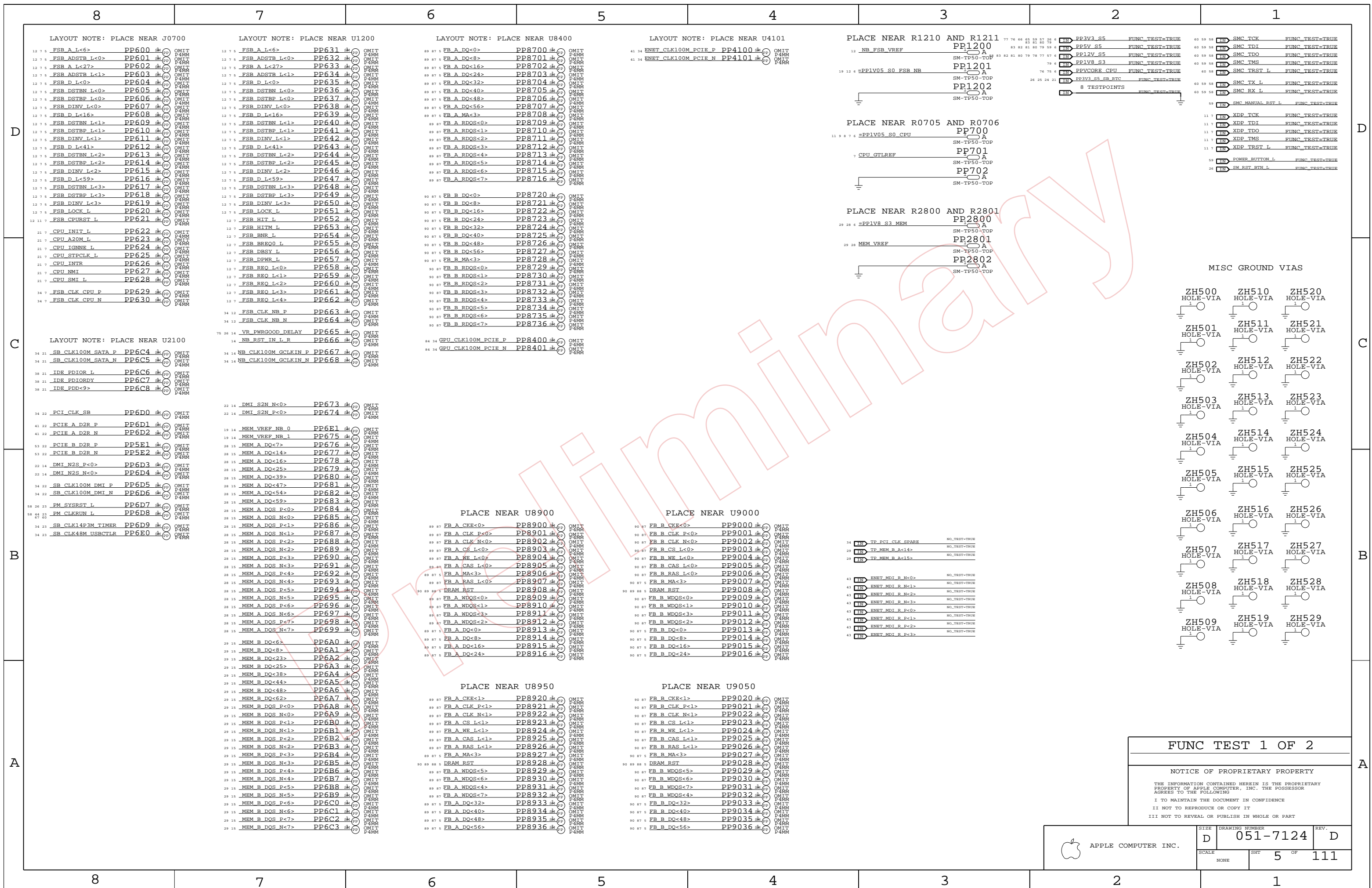
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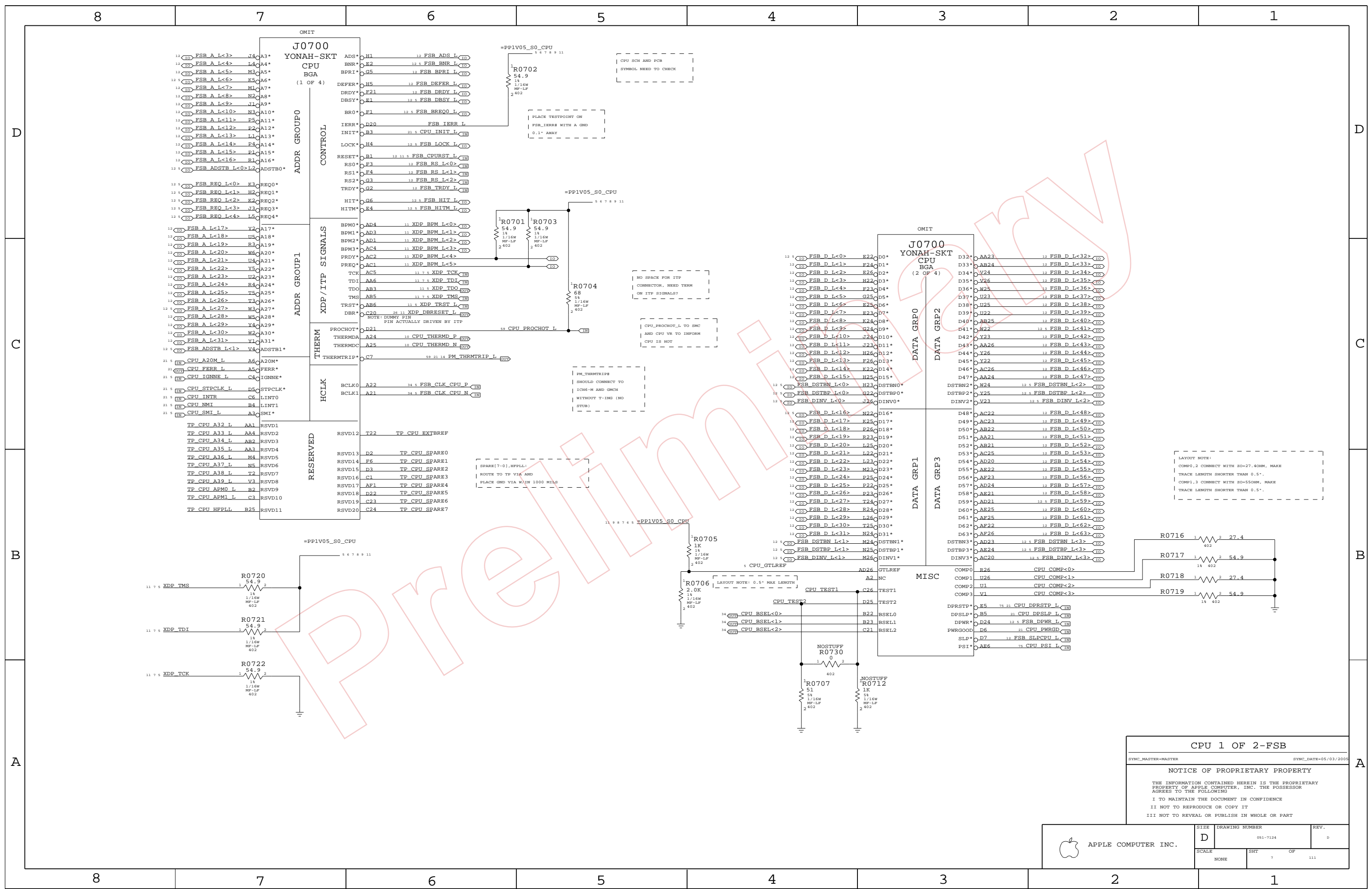
FUNC TEST 1 OF 2

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SCALE	SHEET	OF	TOTAL
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**CPU 1 OF 2-FSB**

SYNC\_MASTER=MASTER SYNC\_DATE=05/03/2005

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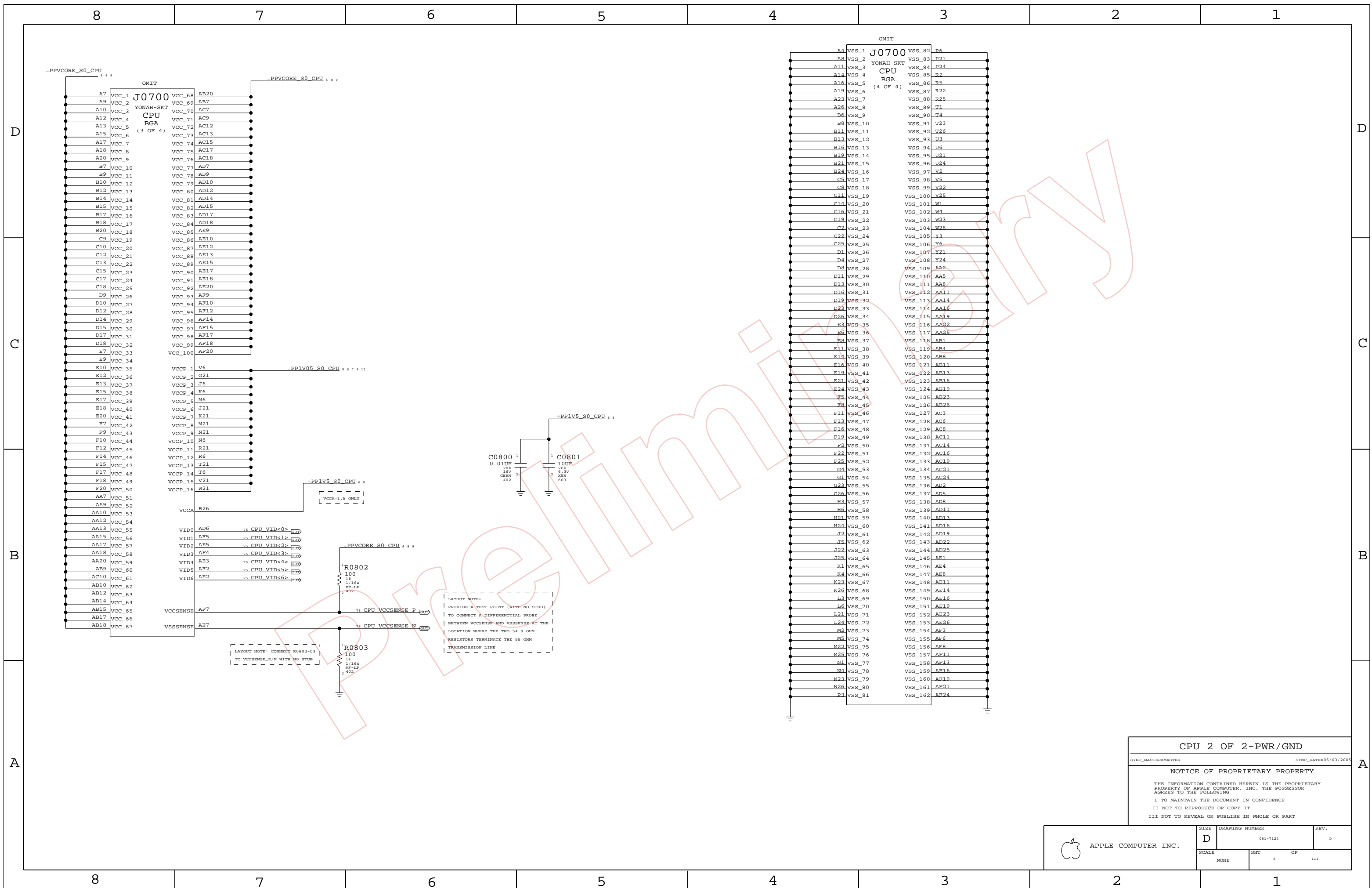
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	SCALE NONE	SHEET 7	OF 111



**CPU 2 OF 2-PWR/GND**

SYNC\_MASTER=MASTER SYNC\_DATE=05/03/2005

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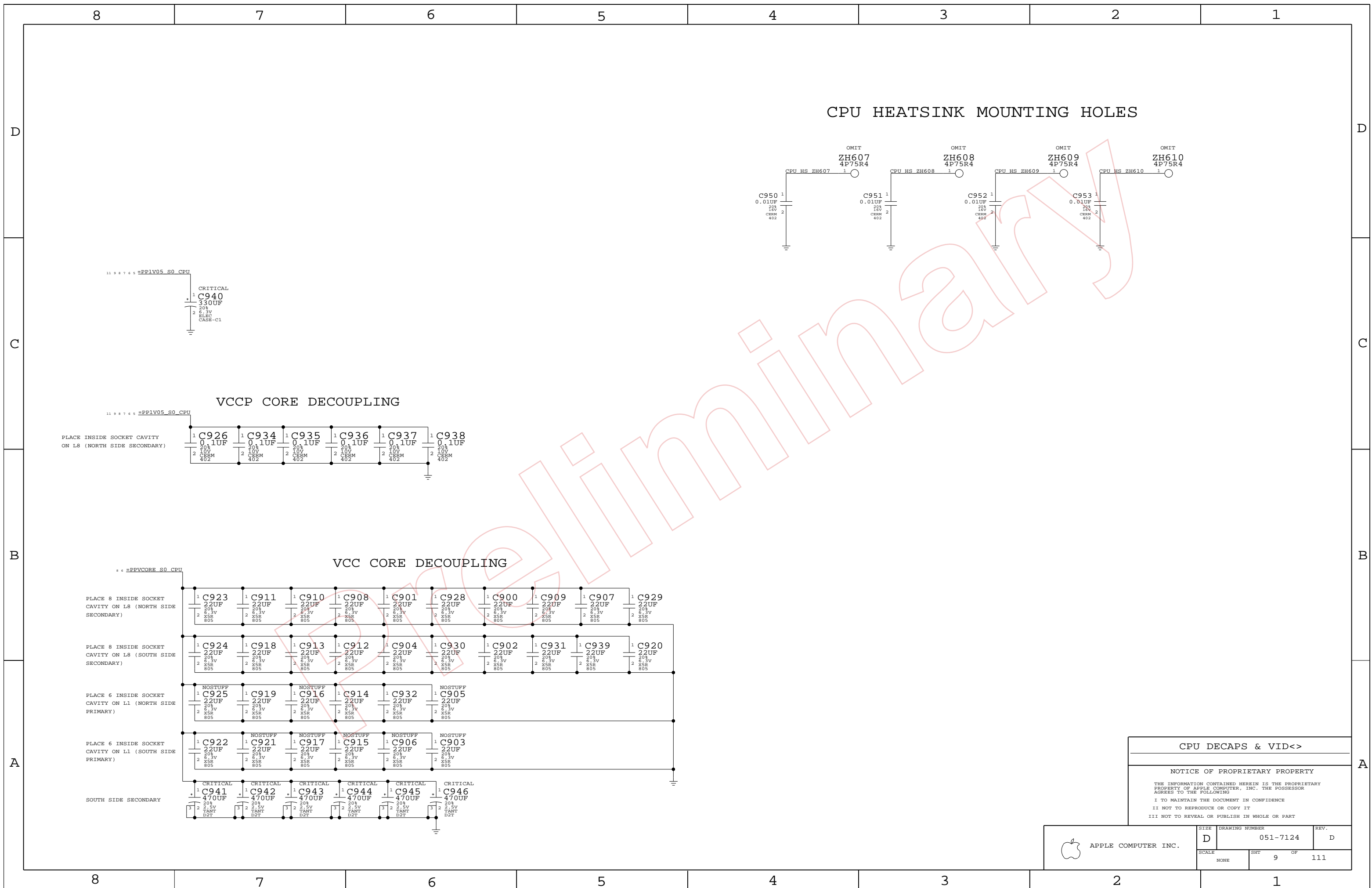
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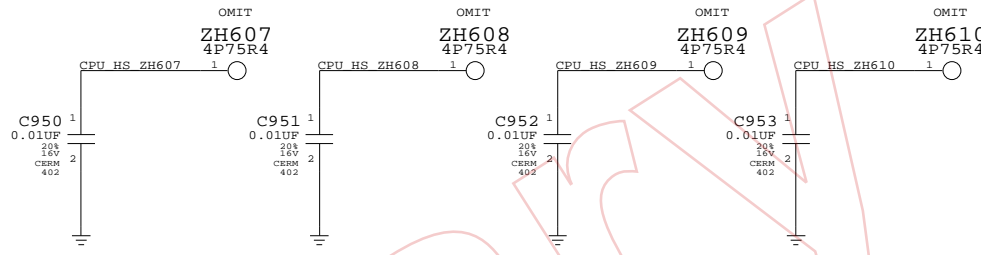
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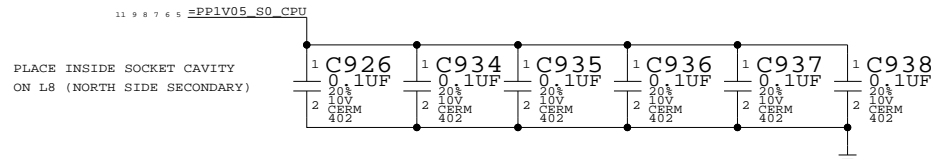




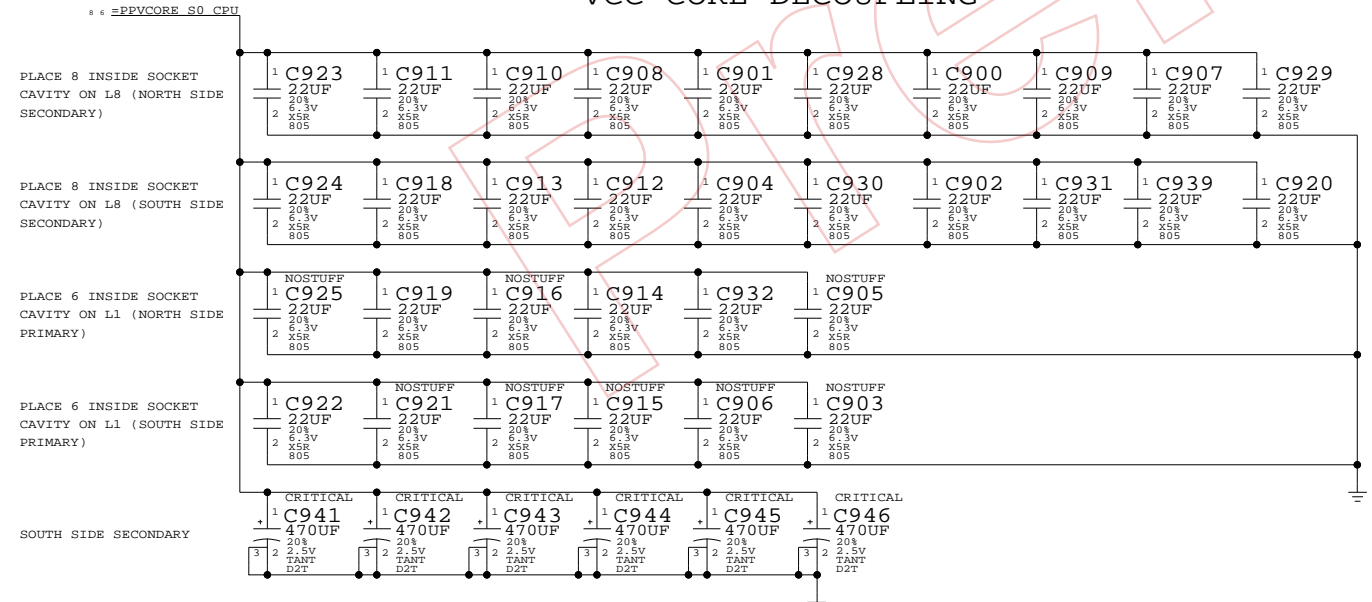
CPU HEATSINK MOUNTING HOLES



VCCP CORE DECOUPLING



VCC CORE DECOUPLING



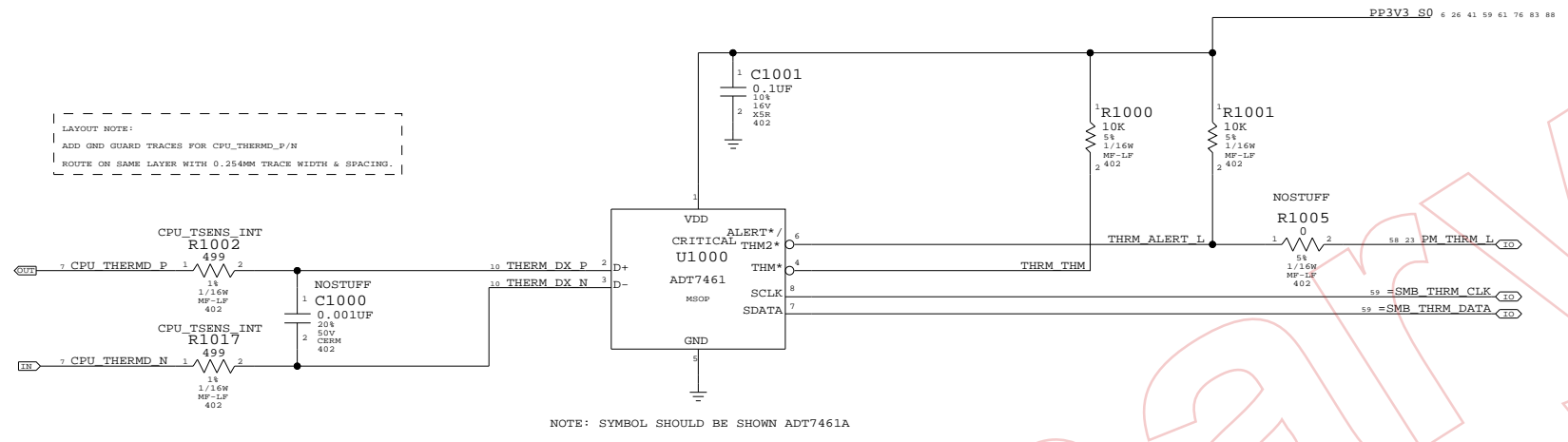
CPU DECAPS & VID<>		
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# CPU THERMAL SENSOR

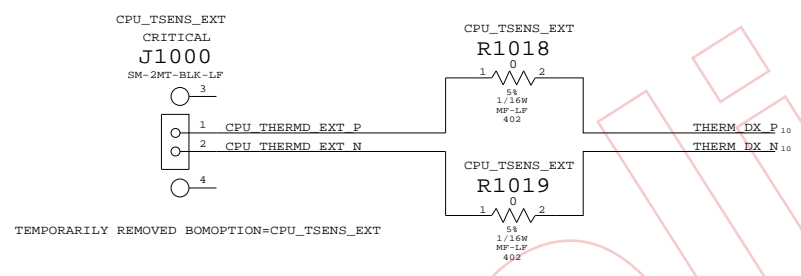
NOTE:  
IF CPU T DIODE TO BE READ IN OFF STATE,  
THEN THIS SHOULD BE S5

LAYOUT NOTE:  
ADD GND GUARD TRACKS FOR CPU\_THERMD\_P/N  
ROUTE ON SAME LAYER WITH 0.254MM TRACE WIDTH & SPACING.



NOTE: SYMBOL SHOULD BE SHOWN ADT7461A

LAYOUT NOTE:  
PLACE R1002 AND R1018 SUCH THAT THEY SHARE ONE PAD  
PLACE R1017 AND R1019 SUCH THAT THEY SHARE ONE PAD



TEMPORARILY REMOVED BOMOPTION=CPU\_TSENS\_EXT

**CPU TEMP SENSOR**

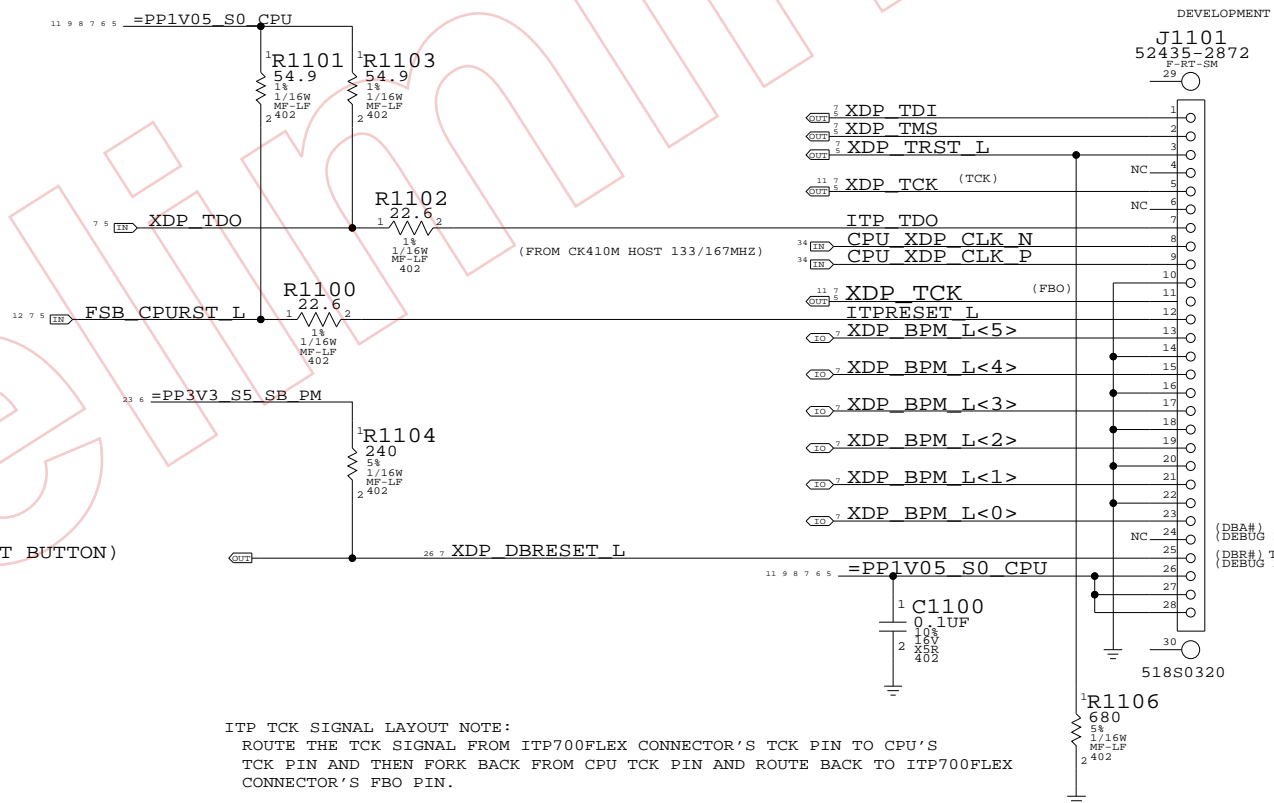
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SCALE	SHT	OF	111
NONE	10		

### CPU ITP700FLEX DEBUG SUPPORT

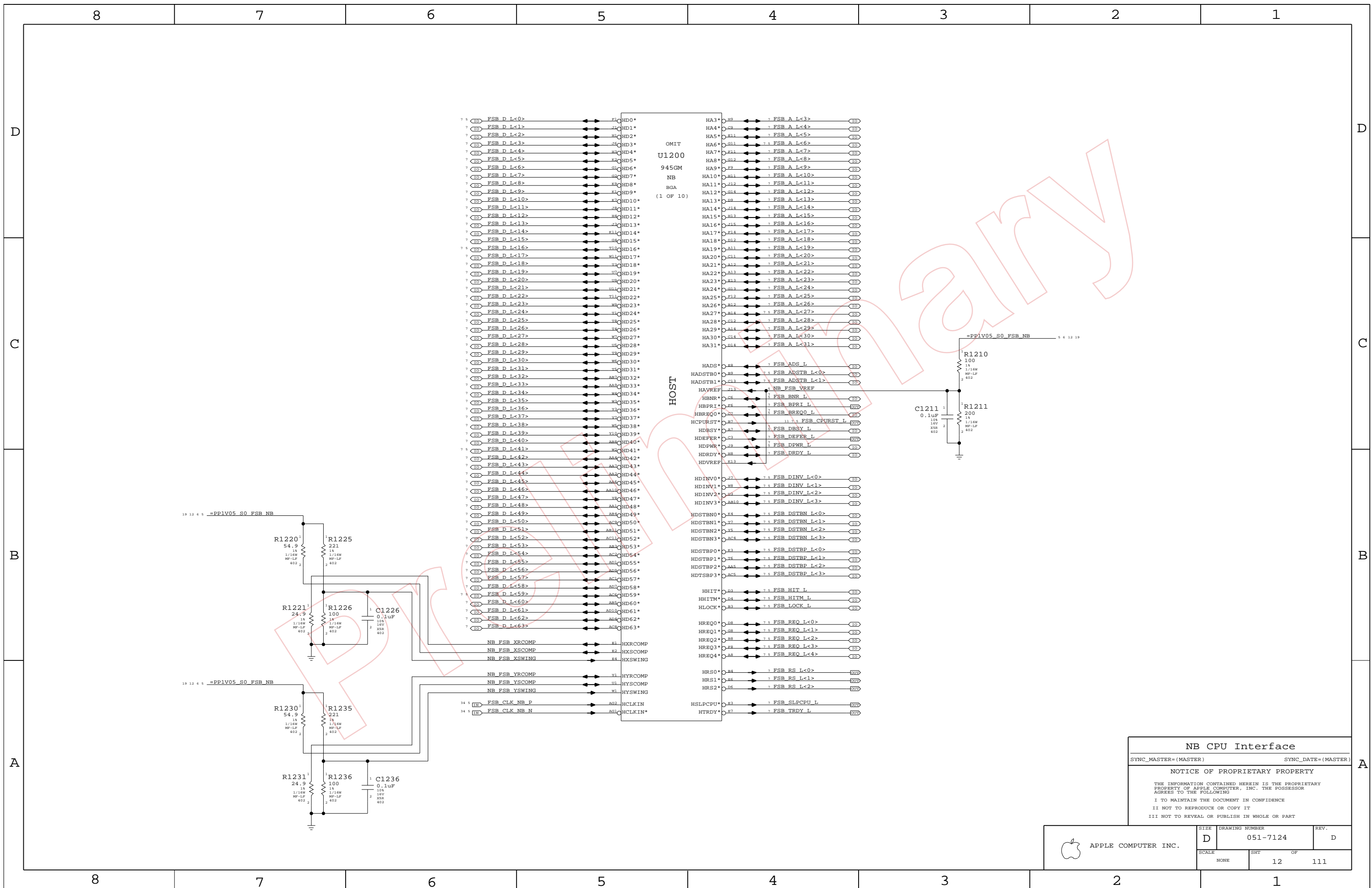


ITP TCK SIGNAL LAYOUT NOTE:  
 ROUTE THE TCK SIGNAL FROM ITP700FLEX CONNECTOR'S TCK PIN TO CPU'S  
 TCK PIN AND THEN FORK BACK FROM CPU TCK PIN AND ROUTE BACK TO ITP700FLEX  
 CONNECTOR'S FBO PIN.

(DBA#) INDICATE THAT ITP IS USING TAP I/F, NC IN 945GM CHIPSET SYSTEM.  
 (DEBUG PORT ACTIVE)  
 (DBR#) TO ICH7M SYS\_RST\*, AND WITH SYSTEM RESET LOGIC  
 (DEBUG PORT RESET)

**CPU ITP700FLEX DEBUG**  
 SYNC\_MASTER=MASTER SYNC\_DATE=5/23/05  
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NONE	11	111	



**NB CPU Interface**

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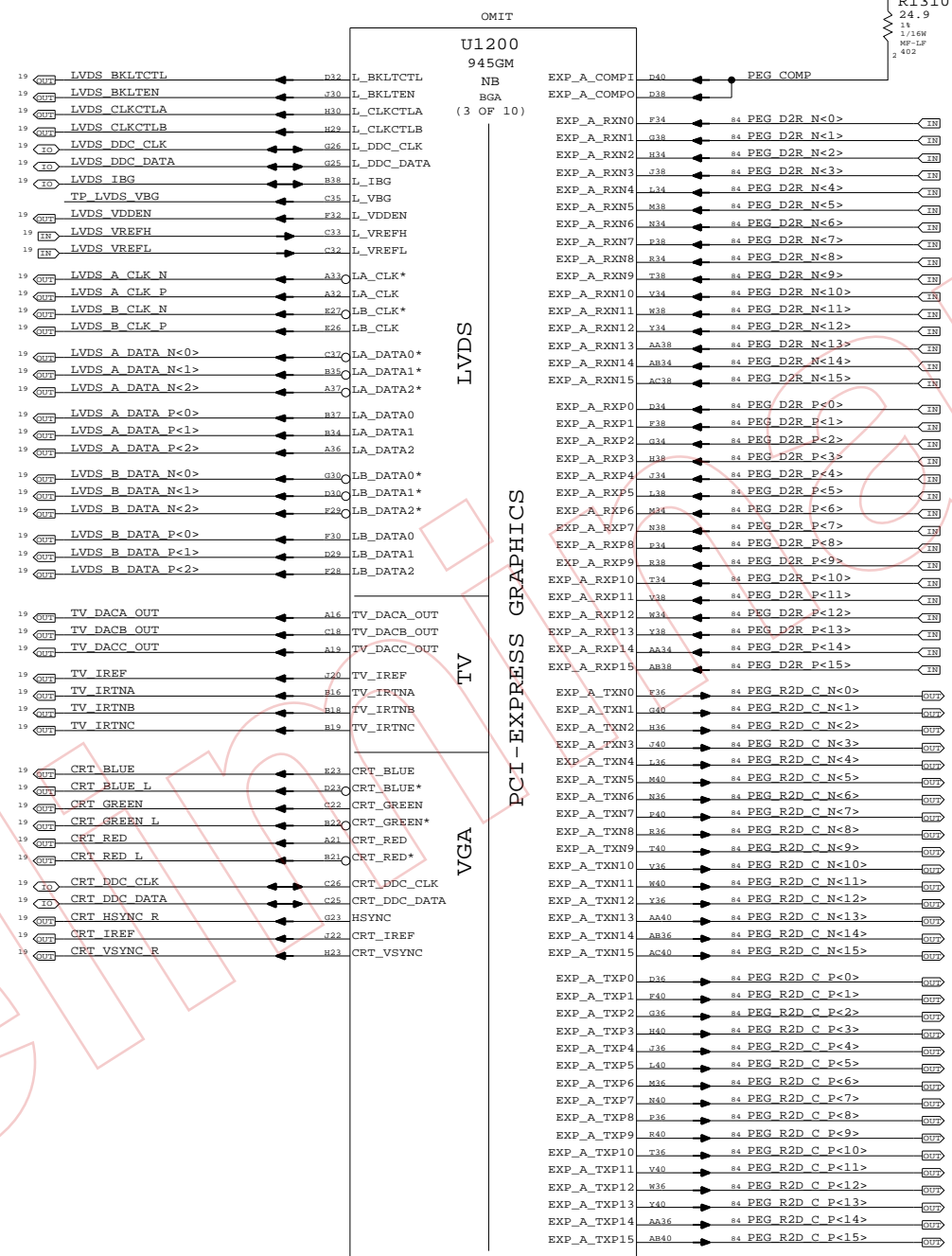
**LVDS Disable**  
 Can leave all signals NC if LVDS is not implemented  
 Tie VCC\_TXLVDS and VCCA\_LVDS to GND. If SDVO is used  
 VCCD\_LVDS must remain powered with proper decoupling.  
 Otherwise, tie VCCD\_LVDS to GND also.

**TV-Out Signal Usage:**  
 Composite: DACA only  
 S-Video: DACB & DACC only  
 Component: DACA, DACB & DACC

Unused DAC outputs must remain powered, but can omit  
 filtering components. Unused DAC outputs should  
 connect to GND through 75-ohm resistors.

**TV-Out Disable**  
 Tie DACx\_OUT, IRTNx, and IREF to 1.5V power rail.  
 Tie VCCD\_TVDAC, VCCD\_QTVDAC, VCCA\_TVDACx, and  
 VCCA\_TVVBG to 1.5V power rail. Tie VSSA\_TVVBG to GND.

**CRT Disable**  
 Tie R/R#/G/G#/B/B# and IREF to VCC Core rail, tie  
 HSYNC and VSYNC to GND. Tie VCCA\_CRTDAC to VCC Core  
 rail, and tie VSSA\_CRTDAC and VCC\_SYNC to GND.



SDVO Alternate Function  
 SDVO\_TVCLKIN#  
 SDVO\_INT#  
 SDVO\_FLDSTALL#

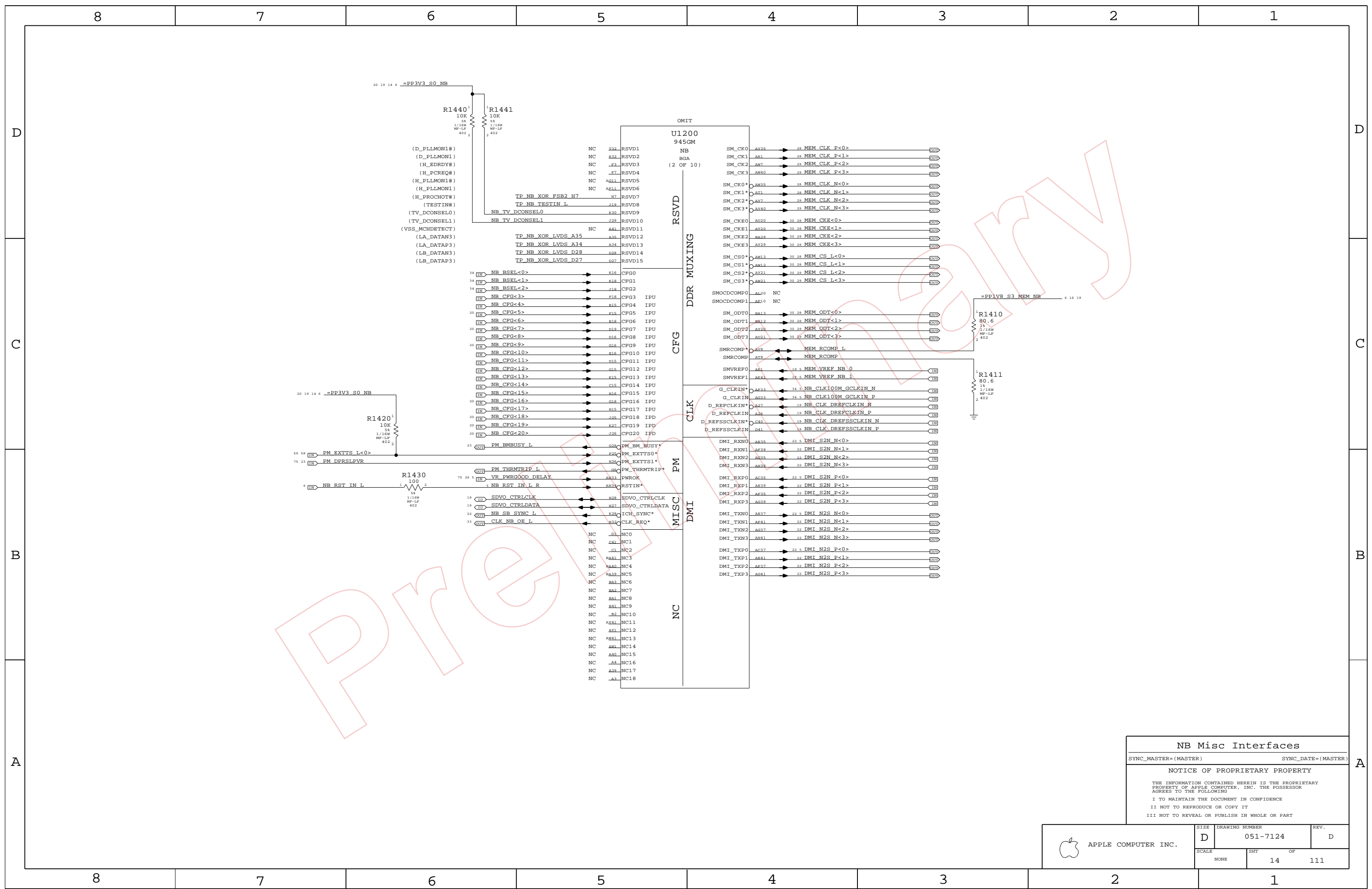
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 SDVO\_FLDSTALL

SDVOB\_RED#  
 SDVOB\_GREEN#  
 SDVOB\_BLUE#  
 SDVOB\_CLKN  
 SDVOC\_RED#  
 SDVOC\_GREEN#  
 SDVOC\_BLUE#  
 SDVOC\_CLKN

SDVOB\_RED  
 SDVOB\_GREEN  
 SDVOB\_BLUE  
 SDVOB\_CLKP  
 SDVOC\_RED  
 SDVOC\_GREEN  
 SDVOC\_BLUE  
 SDVOC\_CLKP

**NB PEG / Video Interfaces**  
 SYNC\_MASTER=(MASTER) SYNC\_DATE=(MASTER)  
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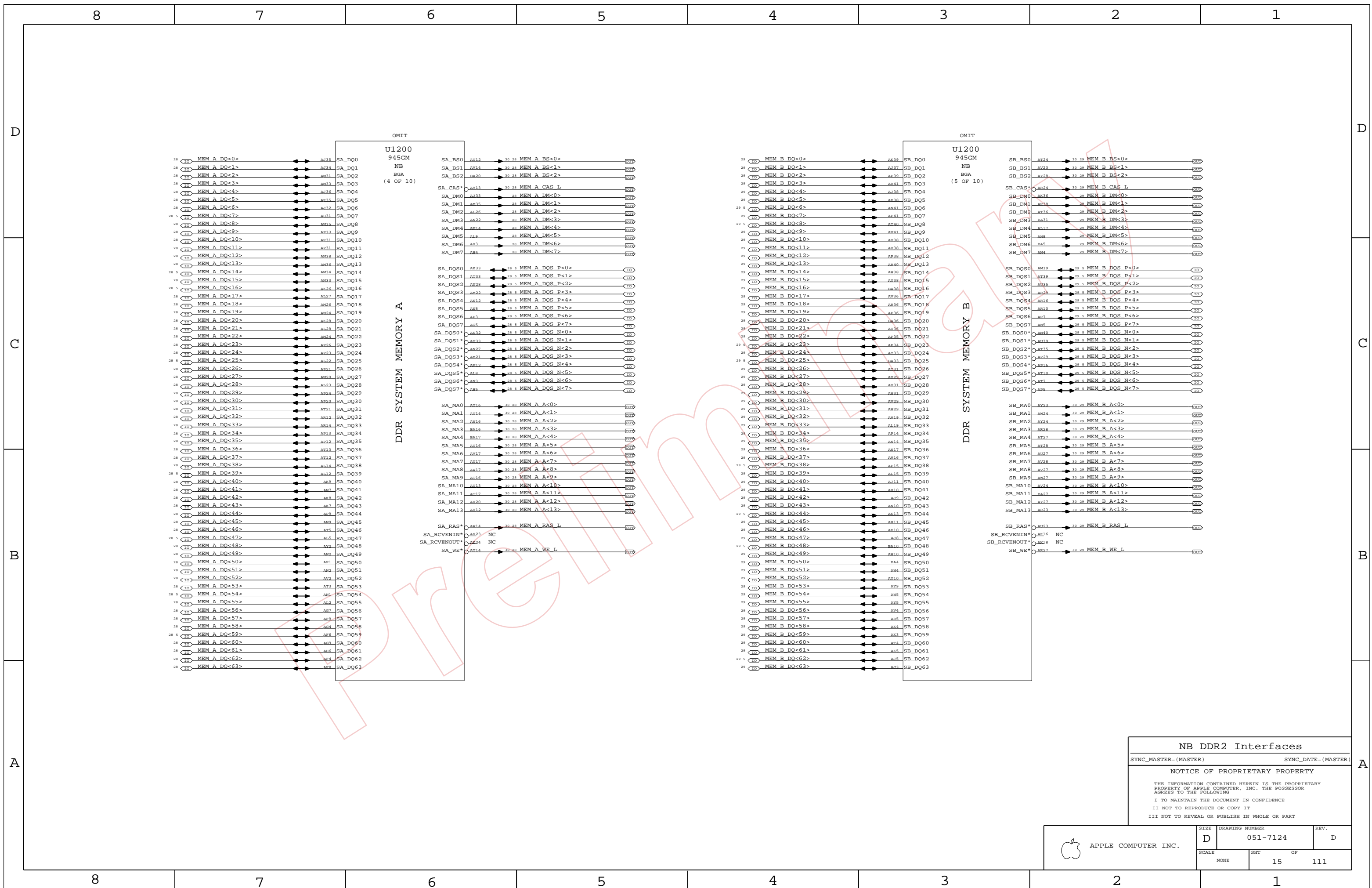
**NB Misc Interfaces**

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	SCALE NONE	SHEET 14	OF 111



**NB DDR2 Interfaces**

SYNC\_MASTER=(MASTER)      SYNC\_DATE=(MASTER)

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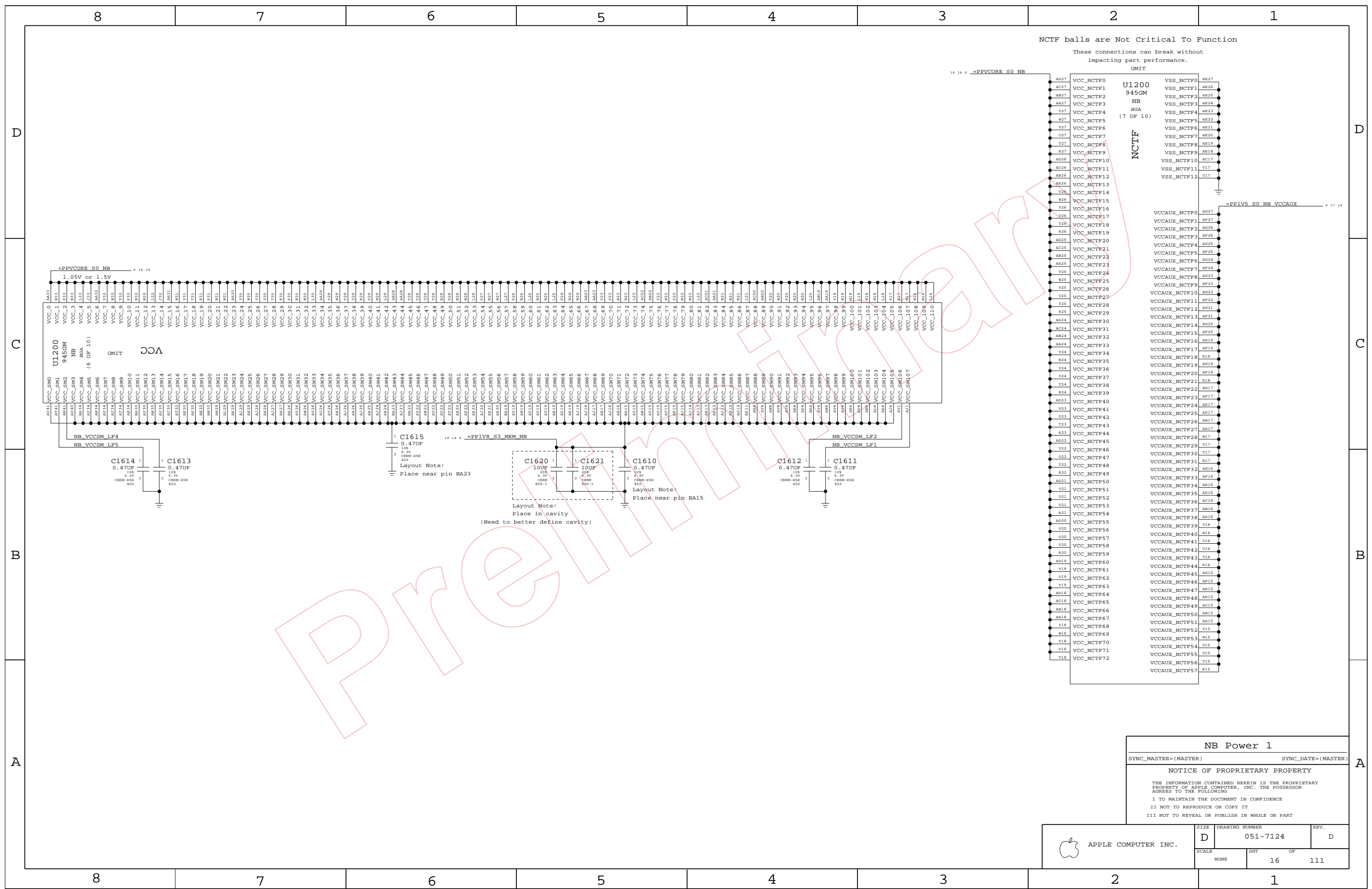
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SCALE	SHT	OF	
NONE	15	111	



NCTF balls are Not Critical To Function  
 These connections can break without impacting part performance.  
 OMIT

U1200  
 945GM  
 NB  
 BGA  
 (7 OF 10)

NCTF

VCC

NB VCCSM LP4  
 NB VCCSM LP5

C1614  
 0.47UF  
 6.3V  
 CERM-XSR  
 402

C1613  
 0.47UF  
 6.3V  
 CERM-XSR  
 402

C1615  
 0.47UF  
 6.3V  
 CERM-XSR  
 402

C1620  
 10UF  
 6.3V  
 CERM-XSR  
 805-1

C1621  
 10UF  
 6.3V  
 CERM-XSR  
 805-1

C1610  
 0.47UF  
 6.3V  
 CERM-XSR  
 402

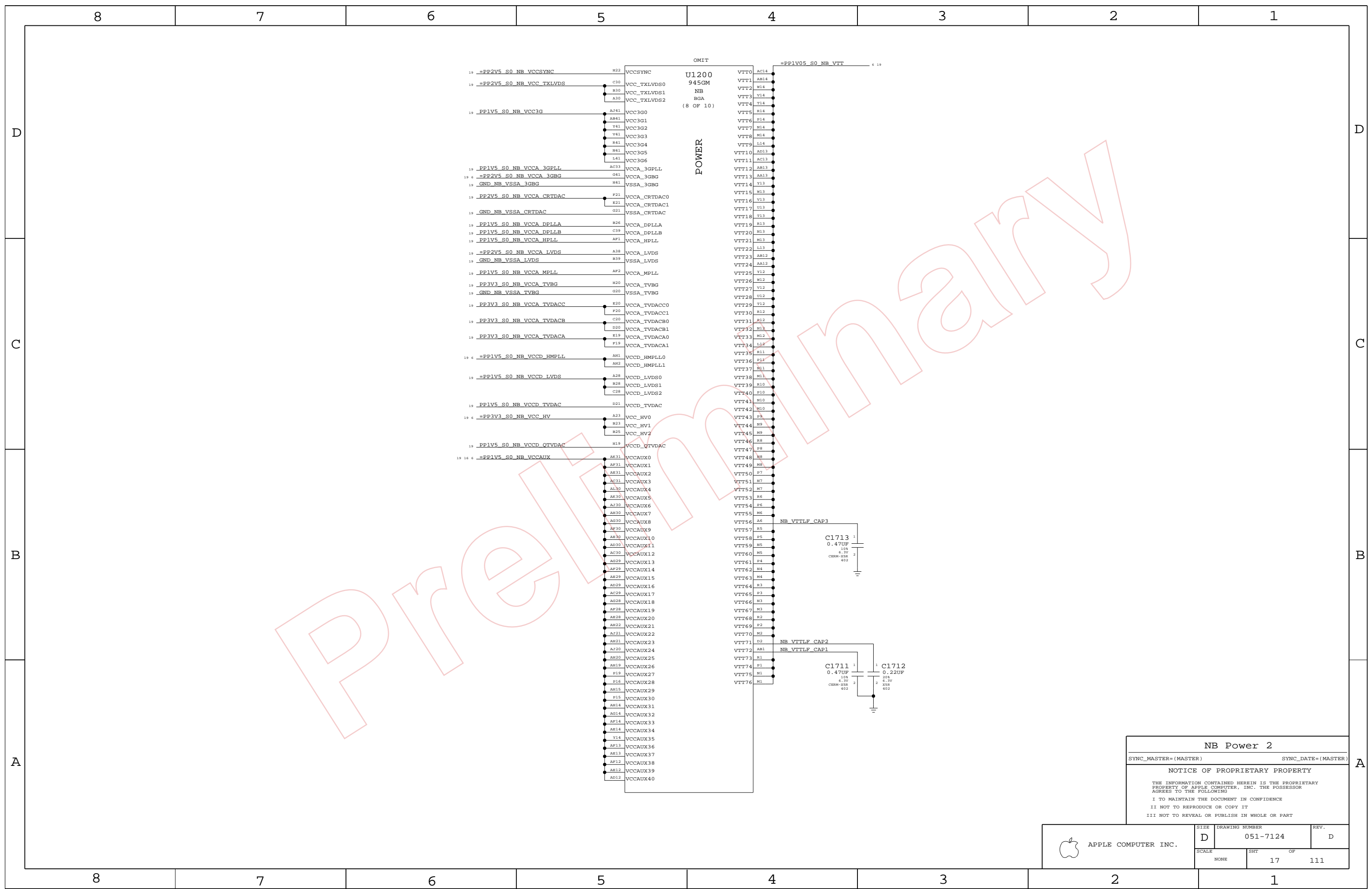
C1612  
 0.47UF  
 6.3V  
 CERM-XSR  
 402

C1611  
 0.47UF  
 6.3V  
 CERM-XSR  
 402

NB Power 1  
 SYNC\_MASTER=(MASTER) SYNC\_DATE=(MASTER)  
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SCALE NONE	SIZE D	DRAWING NUMBER 051-7124	REV. D
	APPLE COMPUTER INC.		OF 16
		111	





D  
C  
B  
A

D  
C  
B  
A

**NB Power 2**

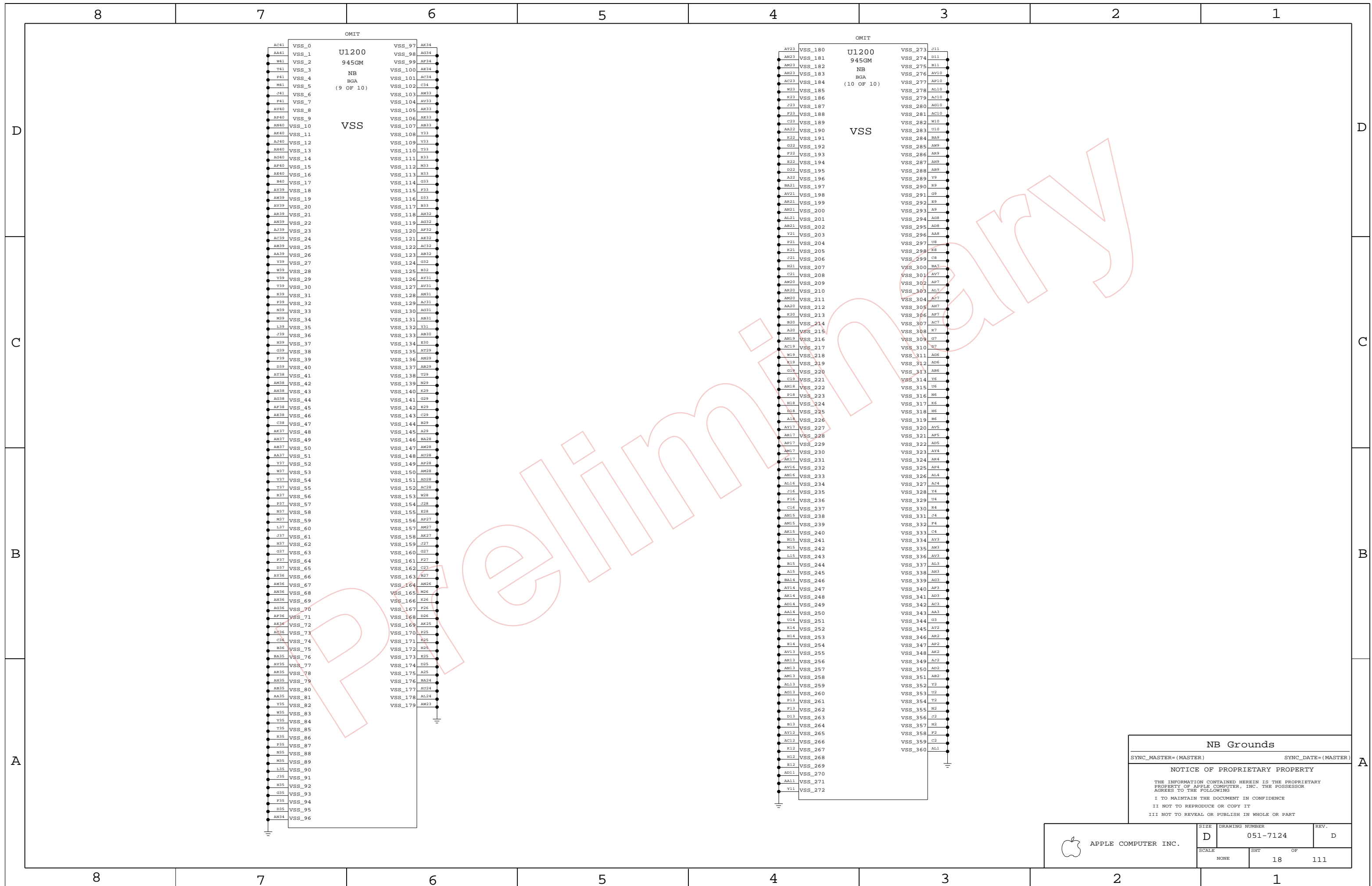
SYNC\_MASTER=(MASTER)      SYNC\_DATE=(MASTER)

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APPLE COMPUTER INC.	SIZE <b>D</b>	DRAWING NUMBER <b>051-7124</b>	REV. <b>D</b>
	SCALE NONE	SHEET 17	OF 111



**NB Grounds**

SYNC\_MASTER=(MASTER)      SYNC\_DATE=(MASTER)

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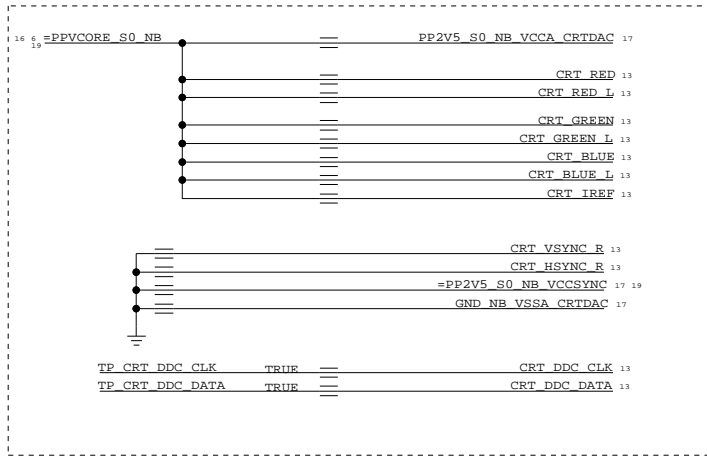
APPLE COMPUTER INC.	SIZE <b>D</b>	DRAWING NUMBER 051-7124	REV. D
	SCALE NONE	SHEET 18	OF 111

### Power Interface

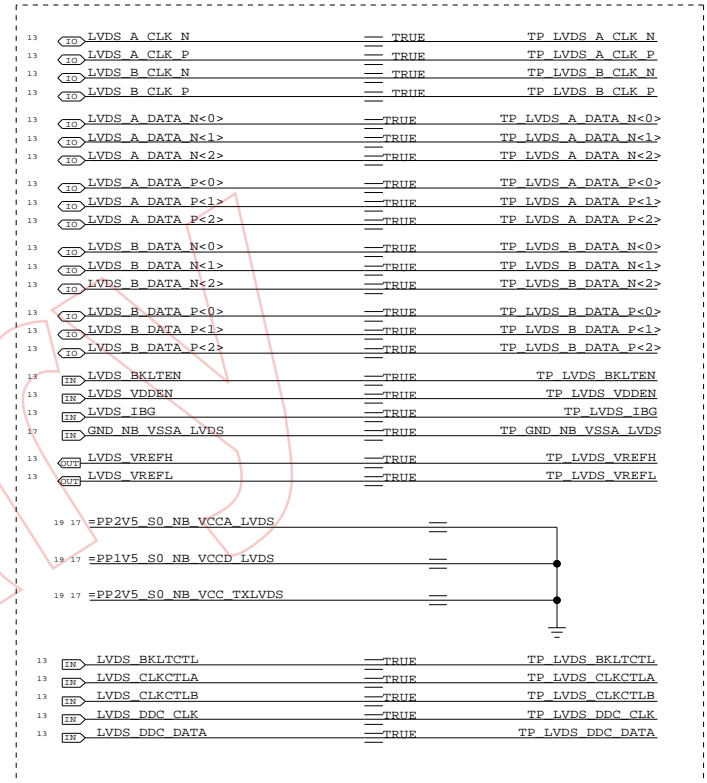
These are the power signals that leave the NB "block"

IN	=PP1V05_S0_FSB_NB	5 6 12
IN	=PPVCORE_S0_NB	6 16 19
IN	=PP1V05_S0_NB	6
IN	=PP1V05_S0_NB_VTT	6 17 19
IN	=PP1V5_S0_NB	6 19
IN	=PP1V5_S0_NB_PCIE	6 13
IN	=PP1V5_S0_NB_PLL	6 19
IN	=PP1V5_S0_NB_TVDAC	6 19
IN	=PP1V5_S0_NB_VCCD_HMPLL	6 19
IN	=PP1V5_S0_NB_VCCD_LVDS	17 19
IN	=PP1V5_S0_NB_VCCAUX	6 16 17 19
IN	=PP1V8_S3_MEM_NB	6 14 16 19
IN	=PP2V5_S0_NB_VCCSYNCR	17 19
IN	=PP2V5_S0_NB_VCC_TXLVDS	17 19
IN	=PP2V5_S0_NB_VCCA_3GBG	6 17 19
IN	=PP2V5_S0_NB_VCCA_LVDS	17 19
IN	=PP3V3_S0_NB	6 14 20
IN	=PP3V3_S0_NB_TVDAC	6
IN	=PP3V3_S0_NB_VCC_HV	6 17 19

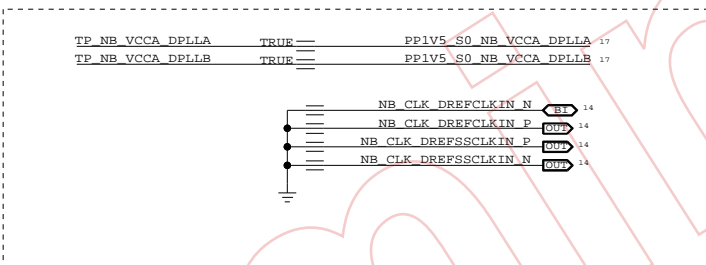
### TVOUT DISABLE



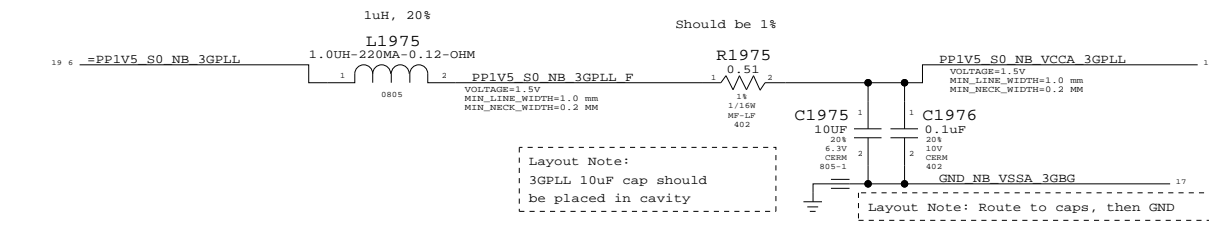
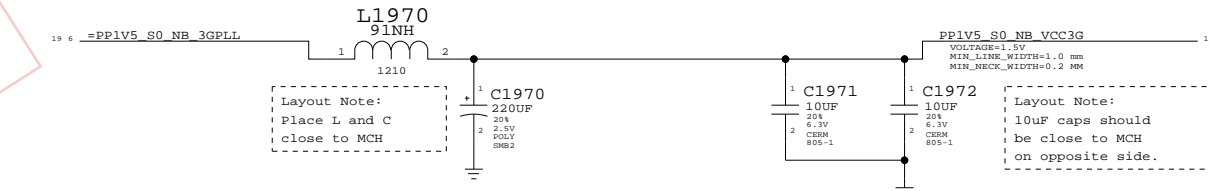
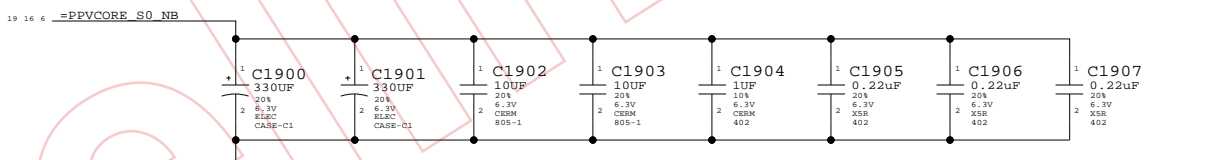
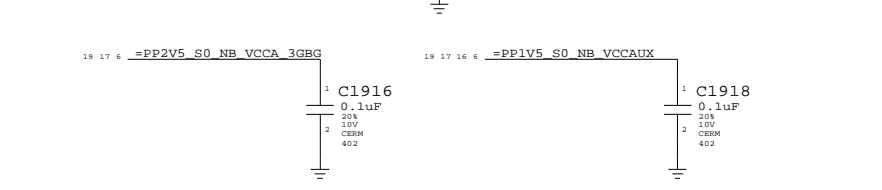
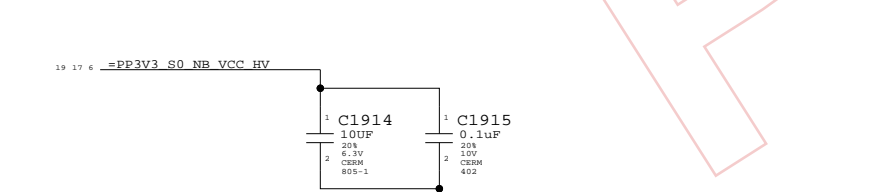
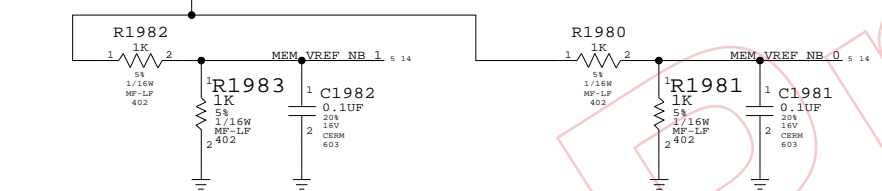
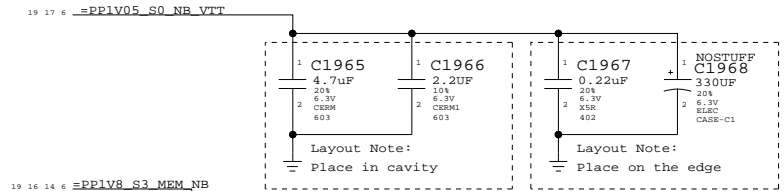
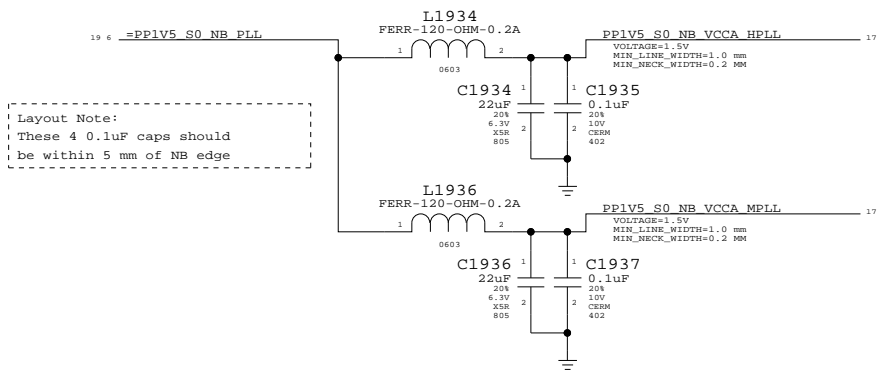
### LVDS DISABLE



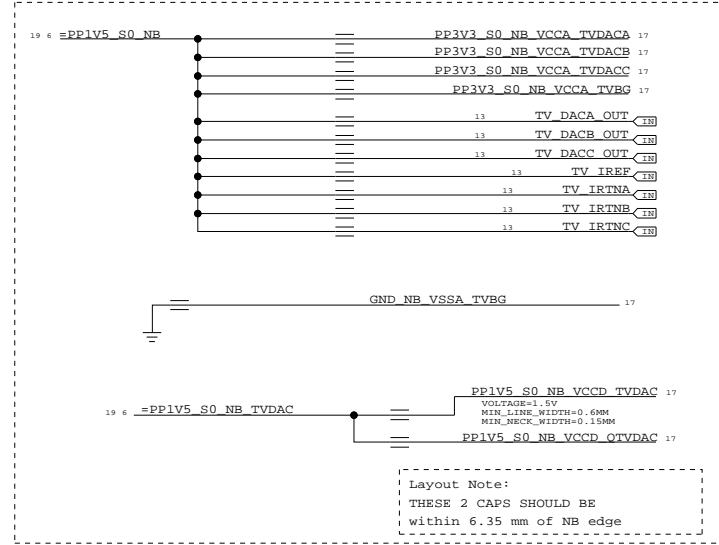
### DISPLAY DISABLE



Layout Note:  
These 4 0.1uF caps should be within 5 mm of NB edge



### TVOUT DISABLE



Layout Note:  
THESE 2 CAPS SHOULD BE WITHIN 6.35 mm OF NB EDGE

**NB (GM) Decoupling**

SYNC\_MASTER=(MASTER)      SYNC\_DATE=(MASTER)

**NOTICE OF PROPRIETARY PROPERTY**

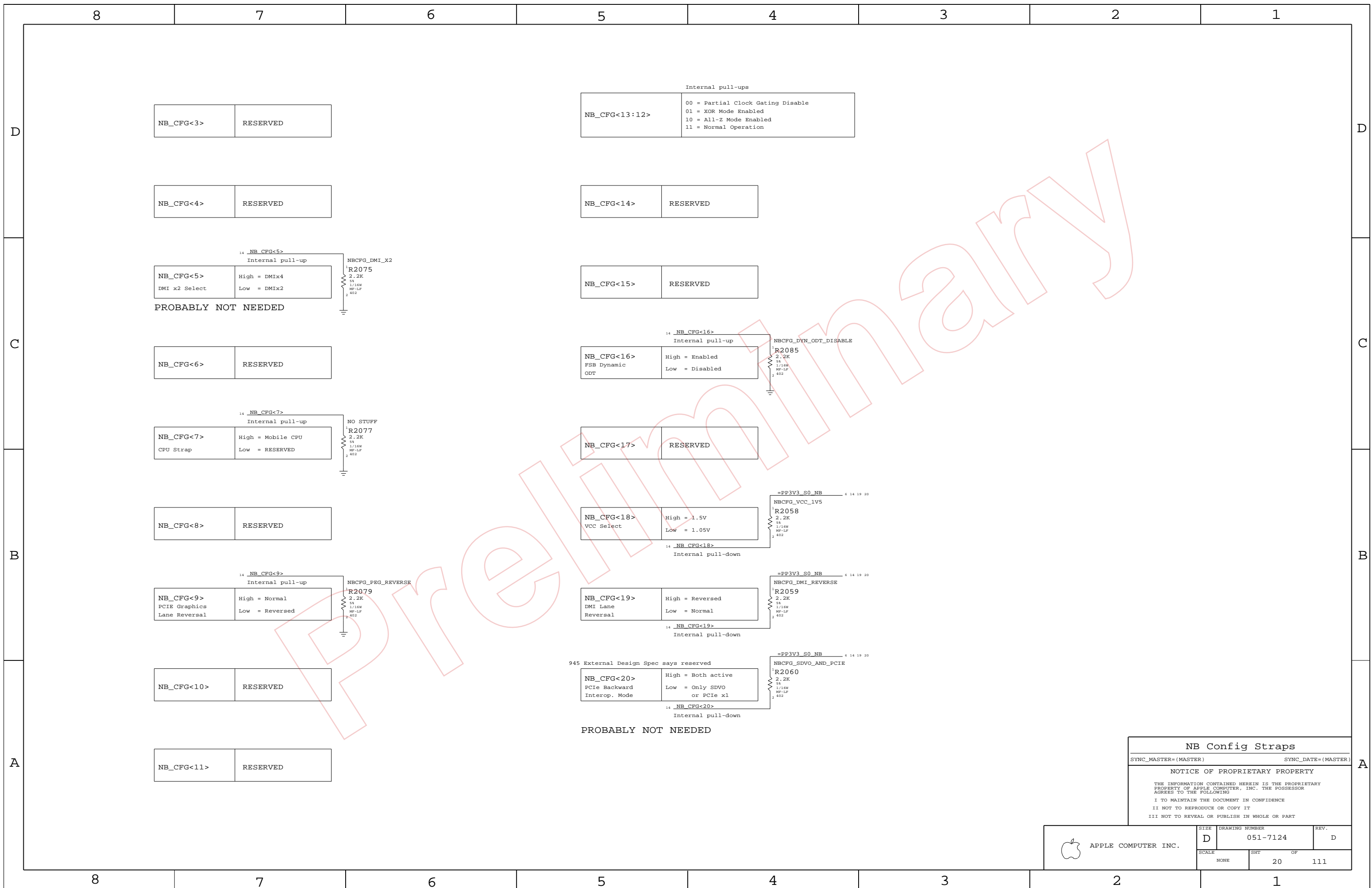
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	D	051-7124	D
SCALE	SHT	OF	
NONE	19	111	



NB_CFG<3>	RESERVED
-----------	----------

Internal pull-ups	
NB_CFG<13:12>	00 = Partial Clock Gating Disable 01 = XOR Mode Enabled 10 = All-Z Mode Enabled 11 = Normal Operation

NB_CFG<4>	RESERVED
-----------	----------

NB_CFG<14>	RESERVED
------------	----------

14_NB_CFG<5> Internal pull-up	
NB_CFG<5>	High = DMIX4 DMI x2 Select Low = DMIX2

PROBABLY NOT NEEDED

NB_CFG<15>	RESERVED
------------	----------

NB_CFG<6>	RESERVED
-----------	----------

14_NB_CFG<16> Internal pull-up	
NB_CFG<16>	High = Enabled FSB Dynamic ODT Low = Disabled

14_NB_CFG<7> Internal pull-up	
NB_CFG<7>	High = Mobile CPU CPU Strap Low = RESERVED

NB_CFG<17>	RESERVED
------------	----------

NB_CFG<8>	RESERVED
-----------	----------

14_NB_CFG<18> Internal pull-down	
NB_CFG<18>	High = 1.5V VCC Select Low = 1.05V

14_NB_CFG<9> Internal pull-up	
NB_CFG<9>	High = Normal PCIe Graphics Lane Reversal Low = Reversed

14_NB_CFG<19> Internal pull-down	
NB_CFG<19>	High = Reversed DMI Lane Reversal Low = Normal

NB_CFG<10>	RESERVED
------------	----------

945 External Design Spec says reserved	
14_NB_CFG<20> Internal pull-down	
NB_CFG<20>	High = Both active PCIe Backward Interop. Mode Low = Only SDVO or PCIe x1

NB_CFG<11>	RESERVED
------------	----------

PROBABLY NOT NEEDED

**NB Config Straps**

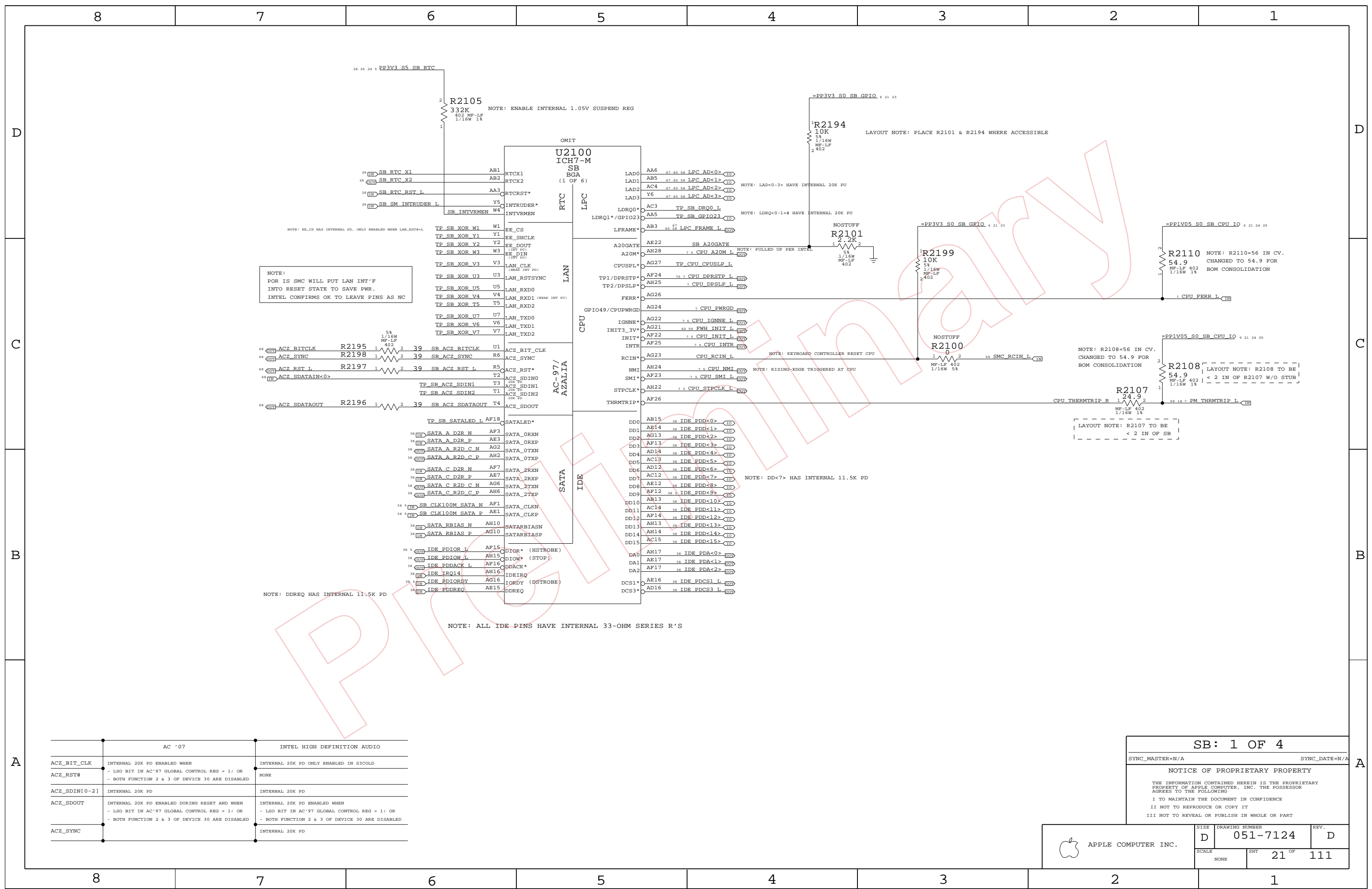
SYNC\_MASTER=(MASTER)      SYNC\_DATE=(MASTER)

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	D	051-7124	D
SCALE	SHT	OF	
NONE	20	111	



NOTE:  
 POR IS SMC WILL PUT LAN INT'F  
 INTO RESET STATE TO SAVE PWR.  
 INTEL CONFIRMS OK TO LEAVE PINS AS NC

NOTE: DDREQ HAS INTERNAL 11.5K PD

NOTE: ALL IDE PINS HAVE INTERNAL 33-OHM SERIES R'S

AC '07	INTEL HIGH DEFINITION AUDIO
ACZ_BIT_CLK	INTERNAL 20K PD ENABLED WHEN - LSO BIT IN AC'97 GLOBAL CONTROL REG = 1; OR INTERNAL 20K PD ONLY ENABLED IN S3COLD
ACZ_RST#	NONE
ACZ_SDIN[0-2]	INTERNAL 20K PD
ACZ_SDOUT	INTERNAL 20K PD ENABLED DURING RESET AND WHEN - LSO BIT IN AC'97 GLOBAL CONTROL REG = 1; OR - BOTH FUNCTION 2 & 3 OF DEVICE 30 ARE DISABLED
ACZ_SYNC	INTERNAL 20K PD

**SB: 1 OF 4**

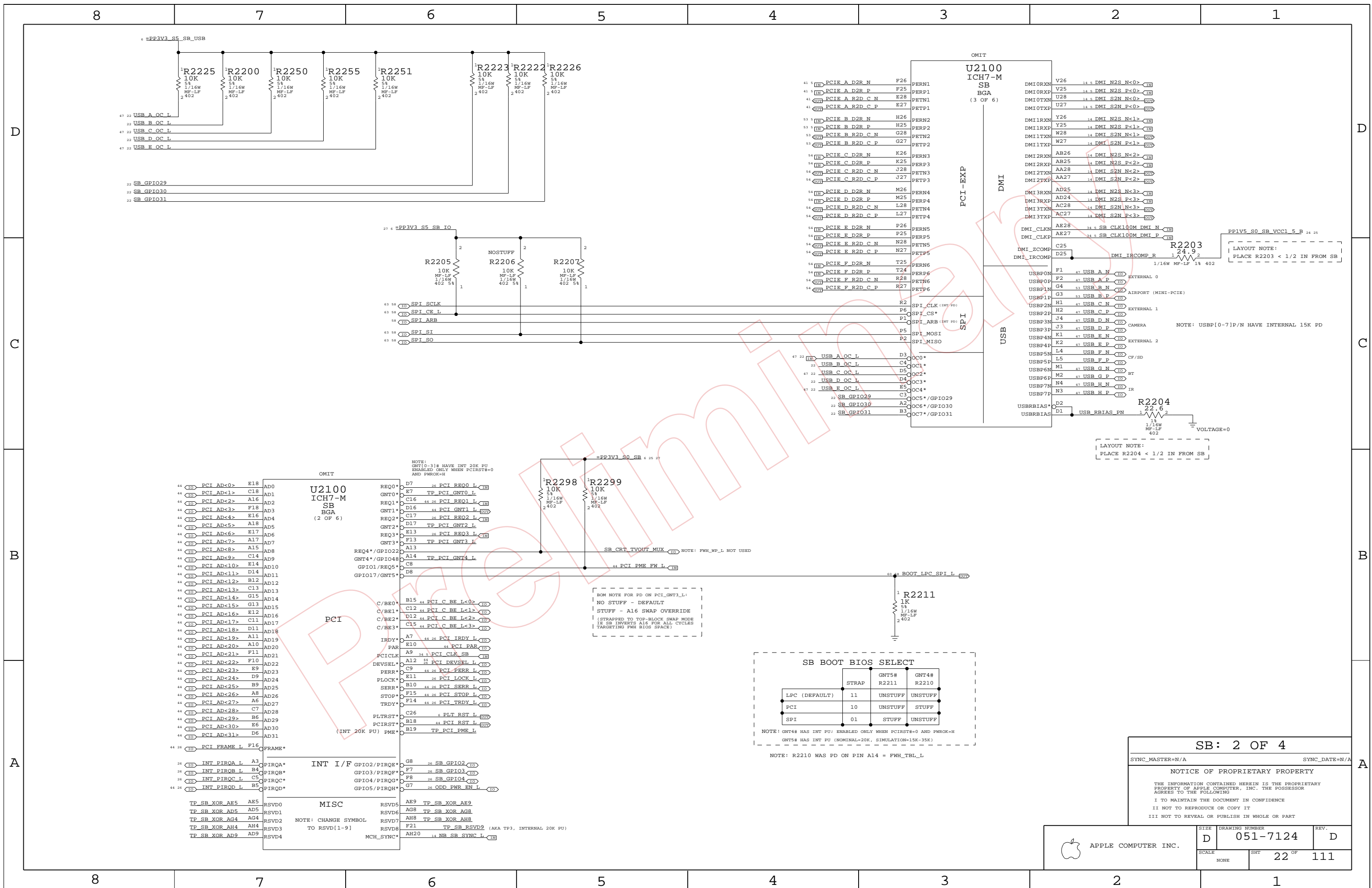
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APPLE COMPUTER INC.	SIZE	DRAWING NUMBER	REV.
	D	051-7124	D
SCALE	SHT	21 OF	111
NONE			



**SB BOOT BIOS SELECT**

	STRAP	GNT5# R2211	GNT4# R2210
LPC (DEFAULT)	11	UNSTUFF	UNSTUFF
PCI	10	UNSTUFF	STUFF
SPI	01	STUFF	UNSTUFF

NOTE: GNT4# HAS INT PU; ENABLED ONLY WHEN PCIRST# = 0 AND FWR0K = H  
GNT5# HAS INT PU (NOMINAL = 20K, SIMULATION = 15K - 35K)  
NOTE: R2210 WAS PD ON PIN A14 = FWH\_TBL\_L

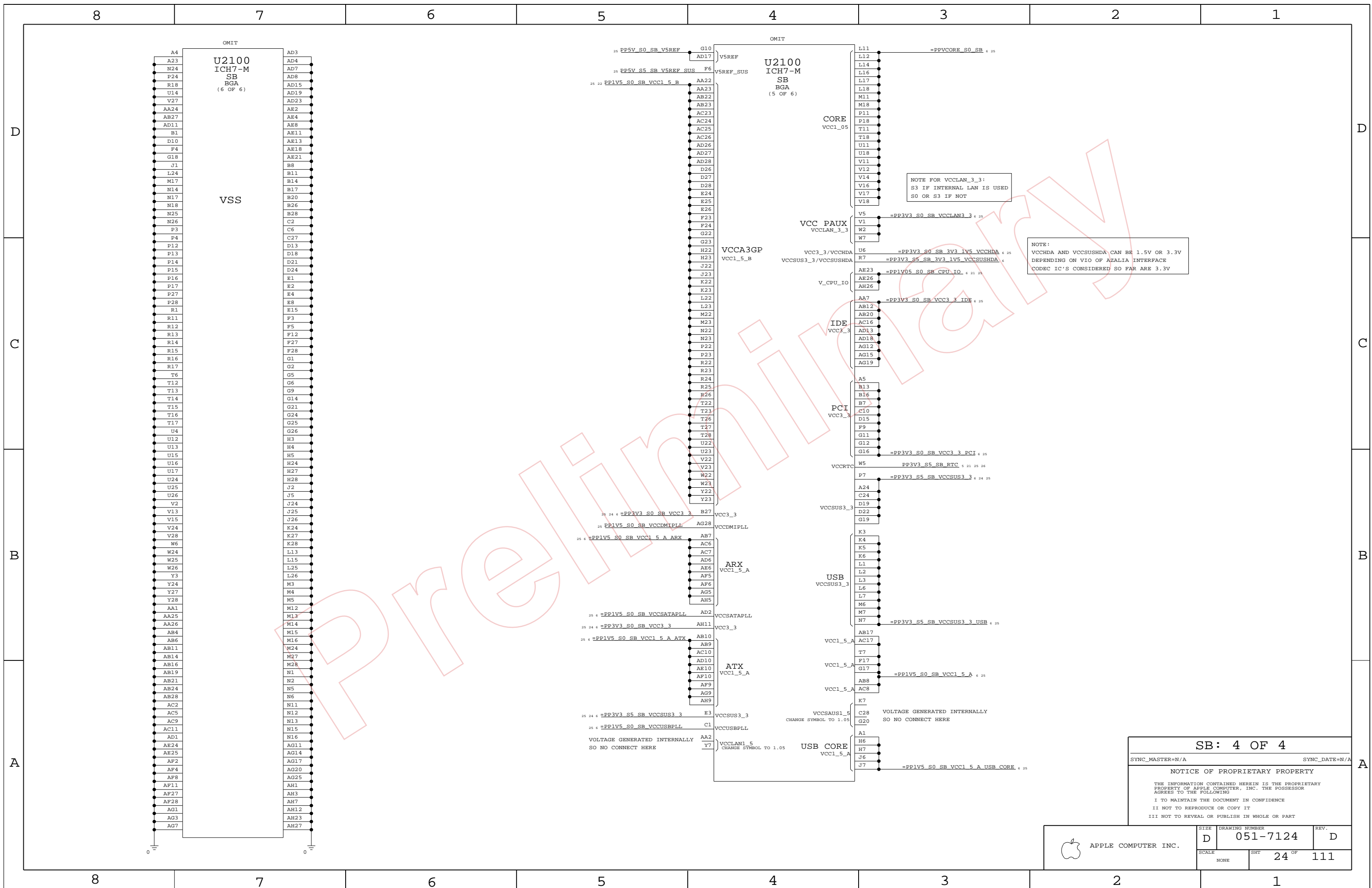
**SB: 2 OF 4**

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	D	051-7124	D
SCALE	SHT	22 OF	111
NONE			





**SB: 4 OF 4**

SYNC\_MASTER=N/A SYNC\_DATE=N/A

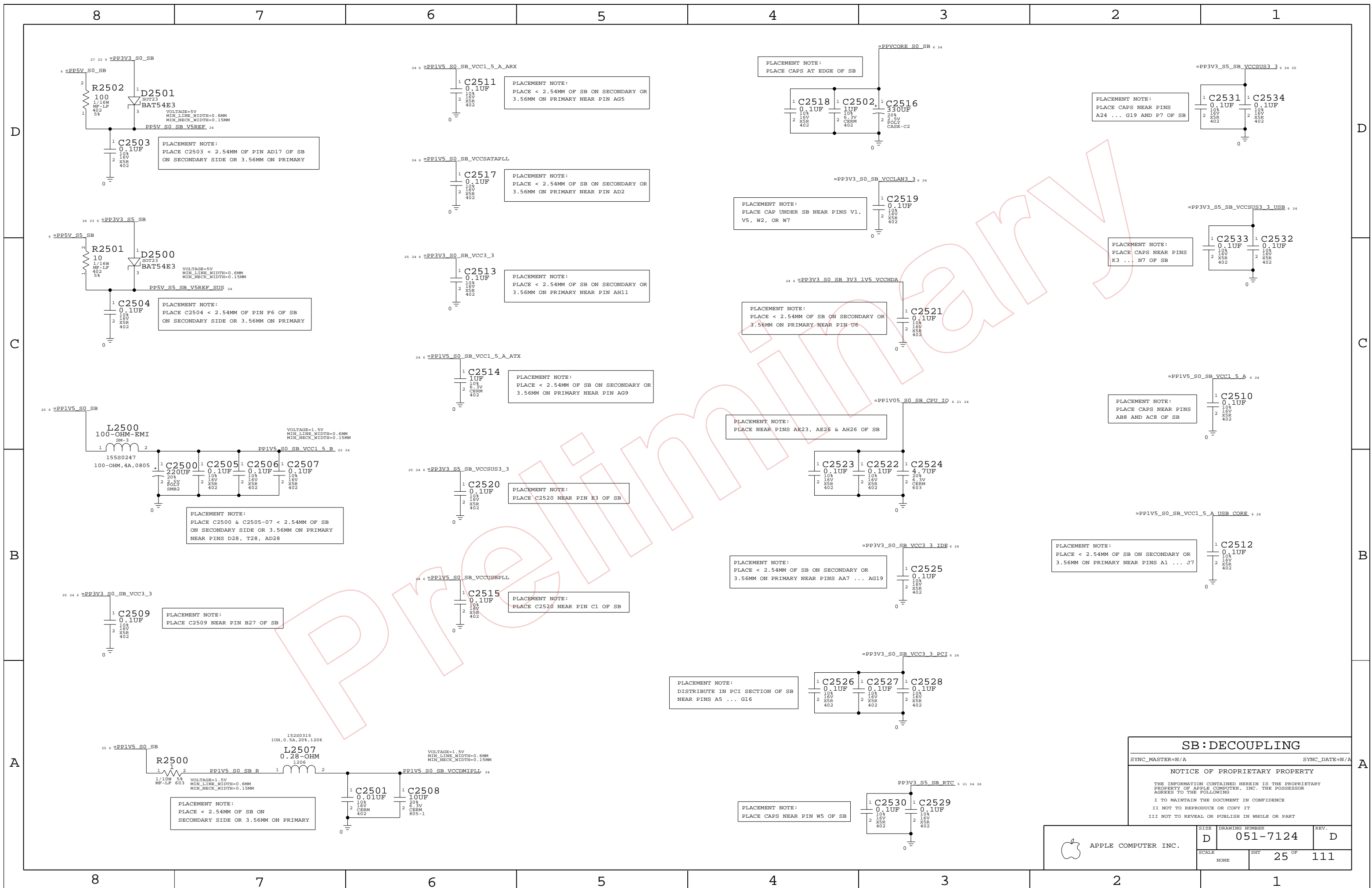
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	SCALE NONE	SHEET <b>24</b> OF <b>111</b>	





**SB: DECOUPLING**

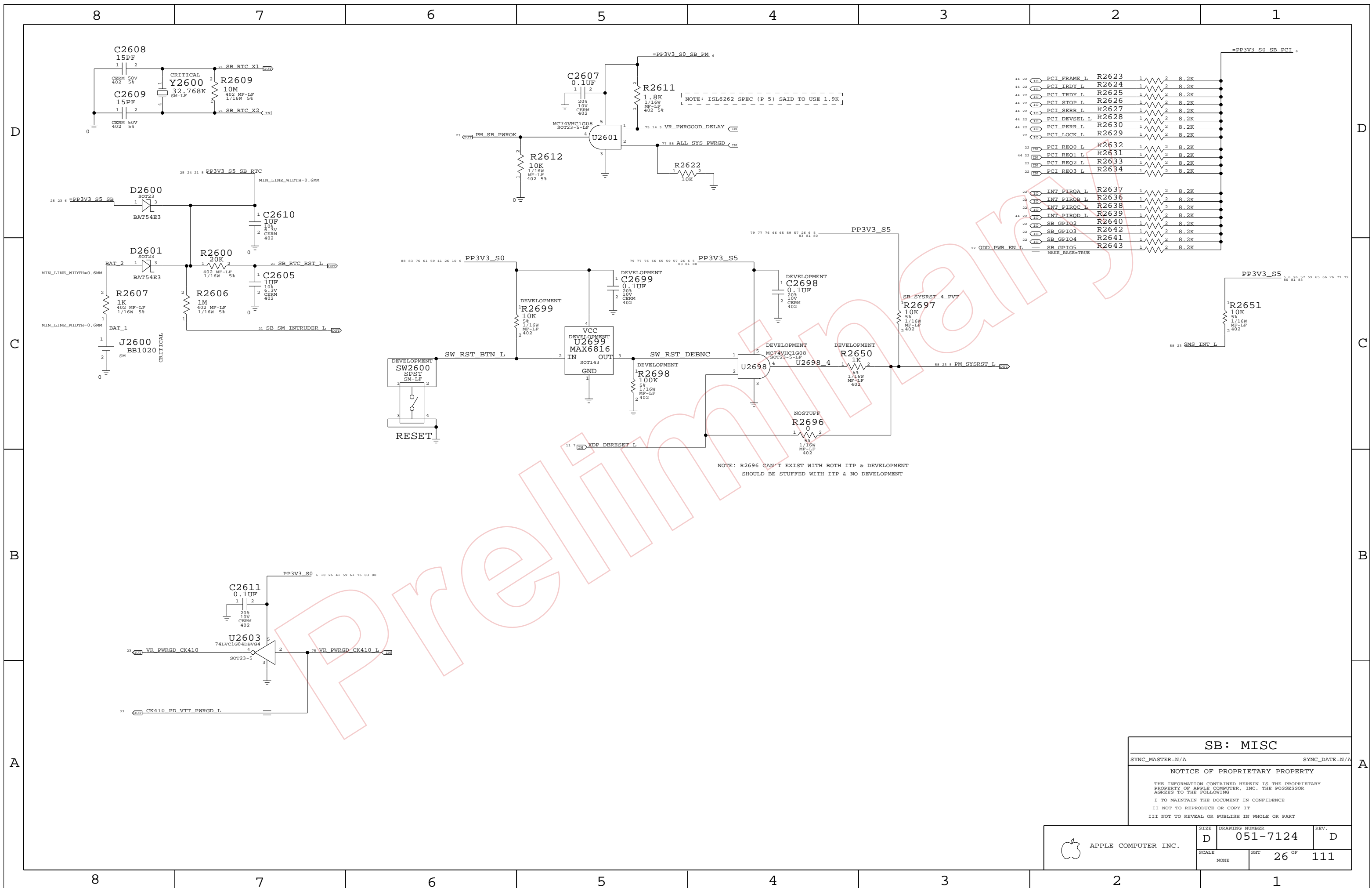
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	D	051-7124	D
SCALE	SHT	25 OF	111
NONE			



**SB: MISC**

SYNC\_MASTER=N/A SYNC\_DATE=N/A

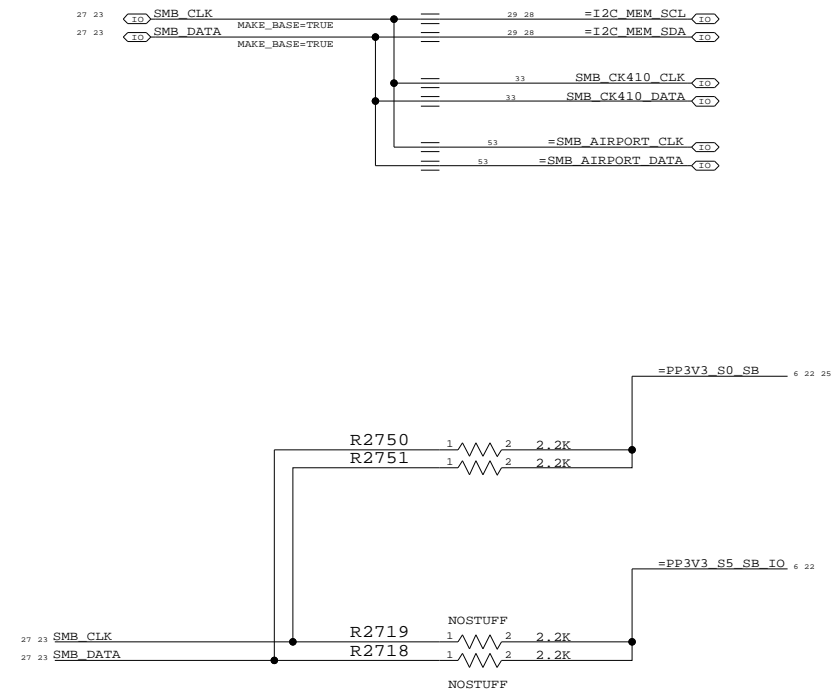
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	SCALE NONE	SHT 26 OF 111	

# SB I2C BUSSES



Preliminary

**SB: SMB HUB**

SYNC\_MASTER=N/A SYNC\_DATE=N/A

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	SCALE NONE	SHIT 27 OF	111

# Page Notes

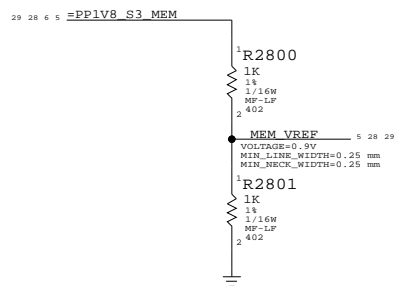
Power aliases required by this page:  
 - =PP1V8\_S3\_MEM  
 - =PPSPD\_S0\_MEM (2.5V - 3.3V)

Signal aliases required by this page:  
 - =I2C\_MEM\_SCL  
 - =I2C\_MEM\_SDA

BOM options provided by this page:  
 (NONE)

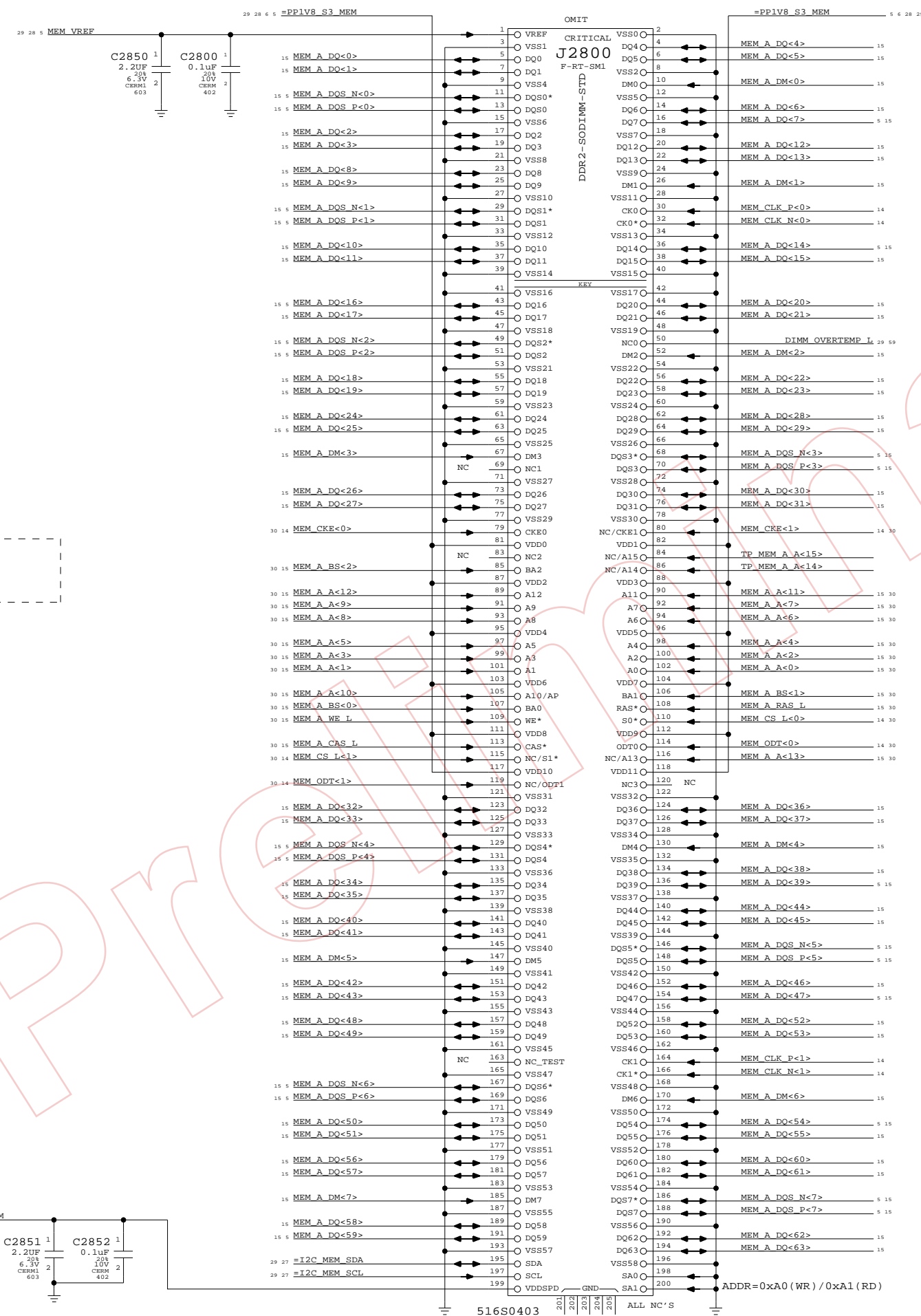
## DDR2 VRef

One 0.1uF per connector



Yellow uses 10K divider and TLV2463 to drive MCH and DIMM connectors.  
 (See Capell Valley pg 47)

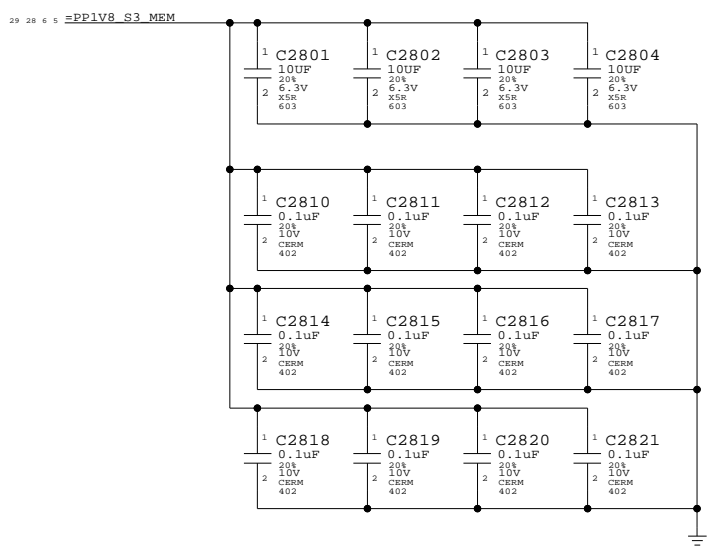
PRINT



PART#	QTY	DESCRIPTION	REFERENCE DESIGNATOR(S)	CRITICAL	BOM OPTION
516S0503	1	DDR2 SODIMM STD	J2800	CRITICAL	

## DDR2 Bypass Caps

(For return current)



**DDR2 SO-DIMM Connector A**

SYNC\_MASTER=(MASTER)      SYNC\_DATE=(MASTER)

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APPLE COMPUTER INC.	SIZE	DRAWING NUMBER	REV.
	D	051-7124	D
SCALE	SHT	OF	
NONE	28	111	

# Page Notes

Power aliases required by this page:  
 - =PP1V8\_S3\_MEM  
 - =PPSPD\_S0\_MEM (2.5V - 3.3V)

Signal aliases required by this page:  
 - =I2C\_MEM\_SCL  
 - =I2C\_MEM\_SDA

BOM options provided by this page:  
 (NONE)

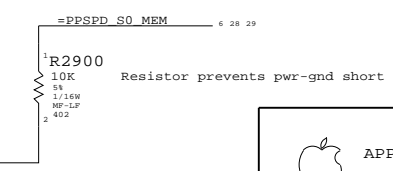
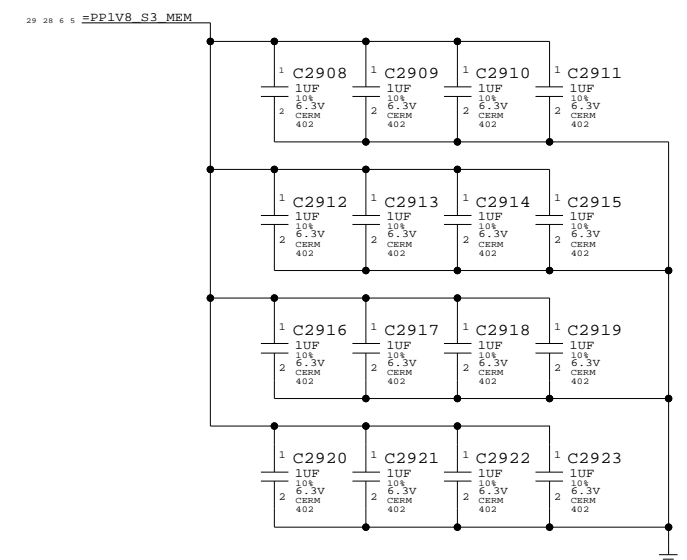
NOTE: This page does not supply VREF.  
 The reference voltage must be provided by another page.



PART#	QTY	DESCRIPTION	REFERENCE DESIGNATOR(S)	CRITICAL	BOM OPTION
516S0504	1	DDR2 SODIMM REV	J2900	CRITICAL	

## DDR2 Bypass Caps

(For return current)



DDR2 SO-DIMM Connector B			
SYNC_MASTER=(MASTER)		SYNC_DATE=(MASTER)	
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APPLE COMPUTER INC.	SIZE	DRAWING NUMBER	REV.
	D	051-7124	D
SCALE	SHT	OF	
NONE	29	111	

8

7

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5

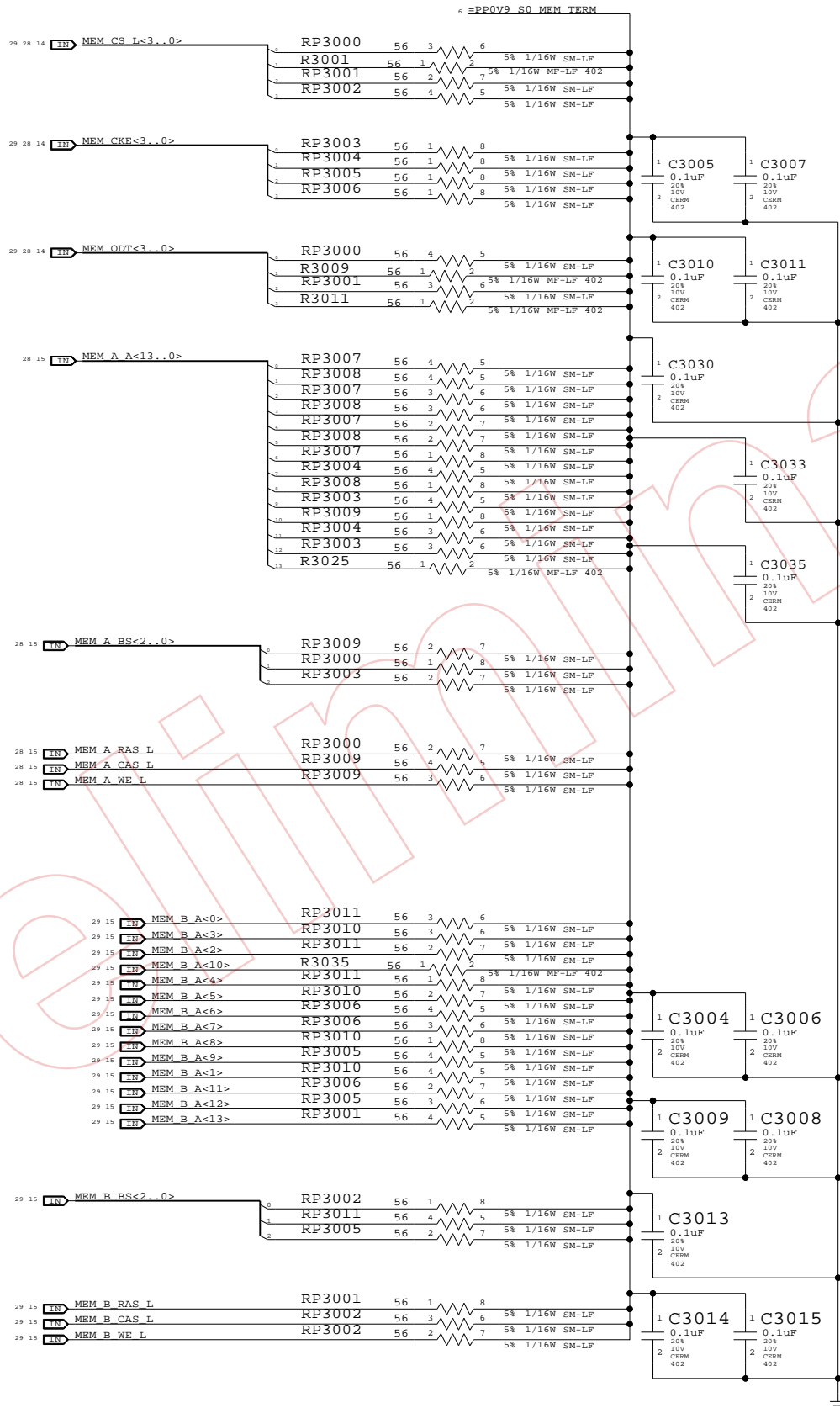
4

3

2

1

One cap for each side of every RPAK, one cap for every two discrete resistors  
BOMOPTION shown at the top of each group applies to every part below it



Memory Active Termination

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	D	051-7124	D
SCALE	SHT	OF	
NONE	30	111	

8

7

6

5

4

3

2

1

Page Notes

Power aliases required by this page:  
 - =PP5V\_S0\_MEMVTT  
 - =PP1V8\_S0\_MEMVTT  
 - =PP0V9\_S0\_MEMVTT\_LDO

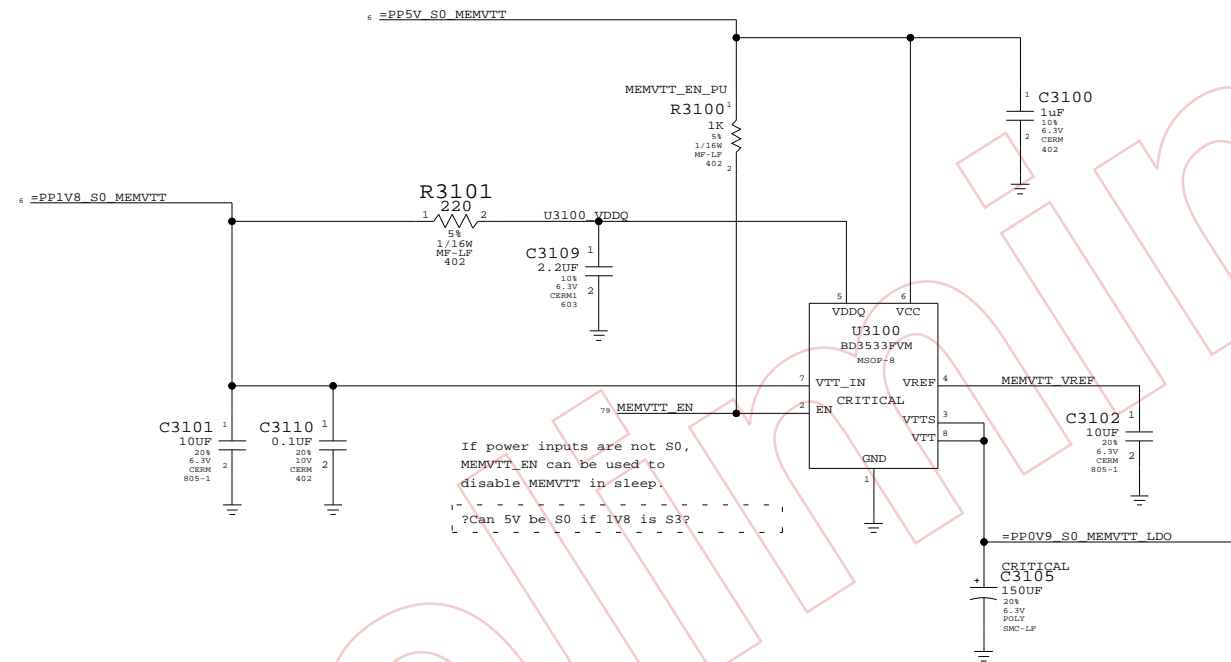
---

Signal aliases required by this page:  
 (NONE)

---

BOM options provided by this page:  
 (NONE)

DDR2 Vtt Regulator



Memory Vtt Supply

SYNC\_MASTER=(MASTER) SYNC\_DATE=(MASTER)

NOTICE OF PROPRIETARY PROPERTY

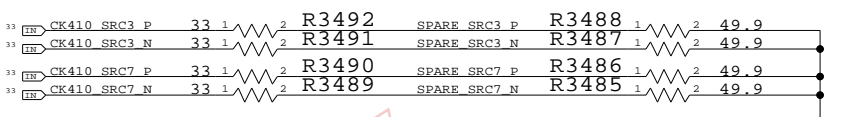
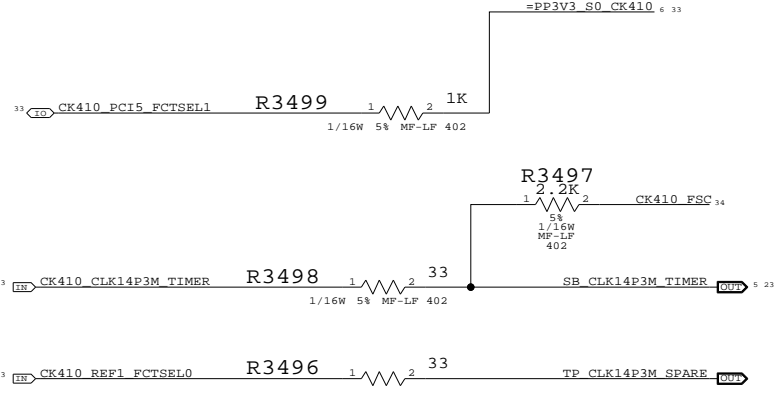
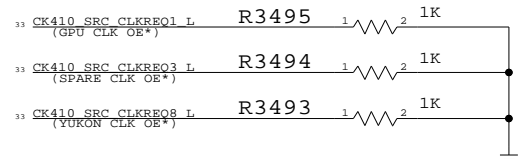
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	D	051-7124	D
SCALE	SHT	OF	REV.
NONE	31	111	



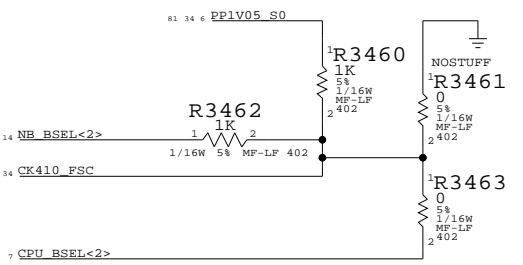
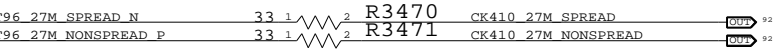
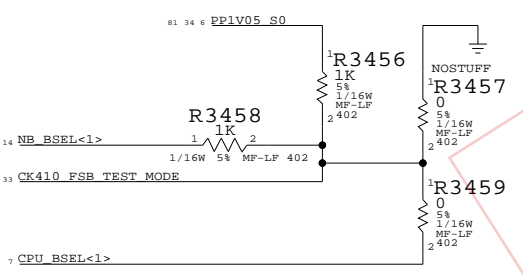
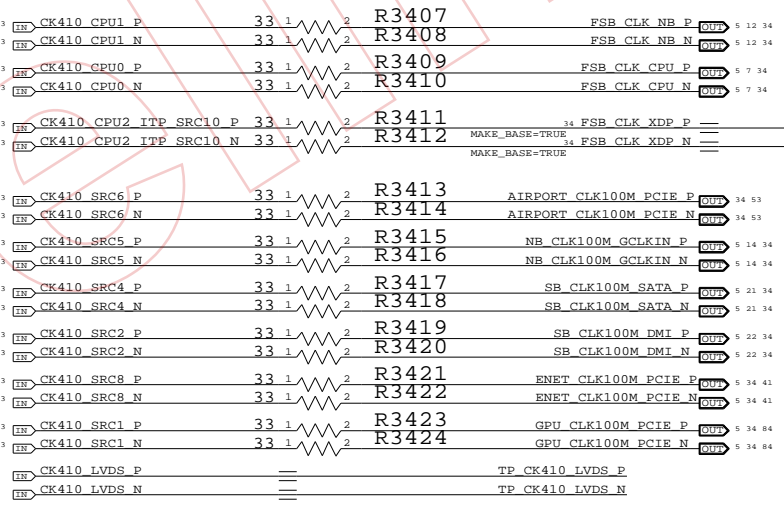
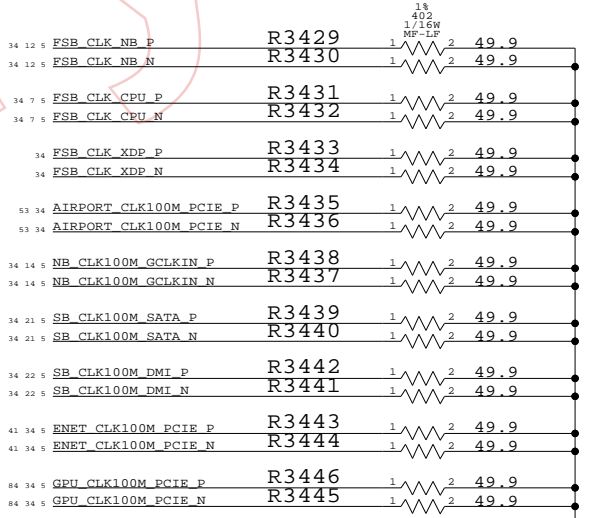
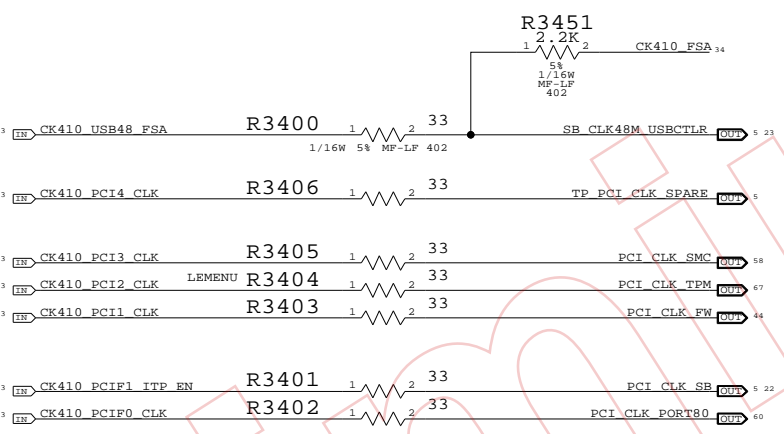
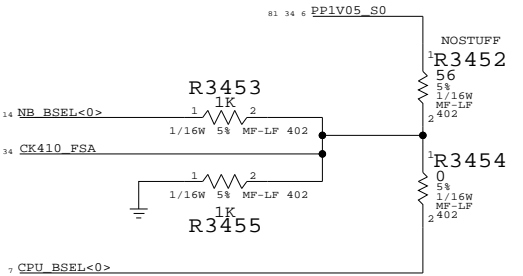


NOTE: USE THESE PULL-DOWNS IF NOT CONNECTED TO GPIO'S



FSB FREQUENCY SELECT:

	STUFF	NO STUFF
CPU DRIVEN	R3452 R3453 R3454 R3455	R3457 R3458 R3459 R3460
533MHZ (133MHZ CPU CLK)	R3452 R3453 R3454 R3455	R3457 R3458 R3459 R3460
667MHZ (166MHZ CPU CLK)	R3452 R3453 R3454 R3455	R3457 R3458 R3459 R3460



CLOCKS: TERMINATIONS

SYNC\_MASTER=N/A SYNC\_DATE=N/A

NOTICE OF PROPRIETARY PROPERTY

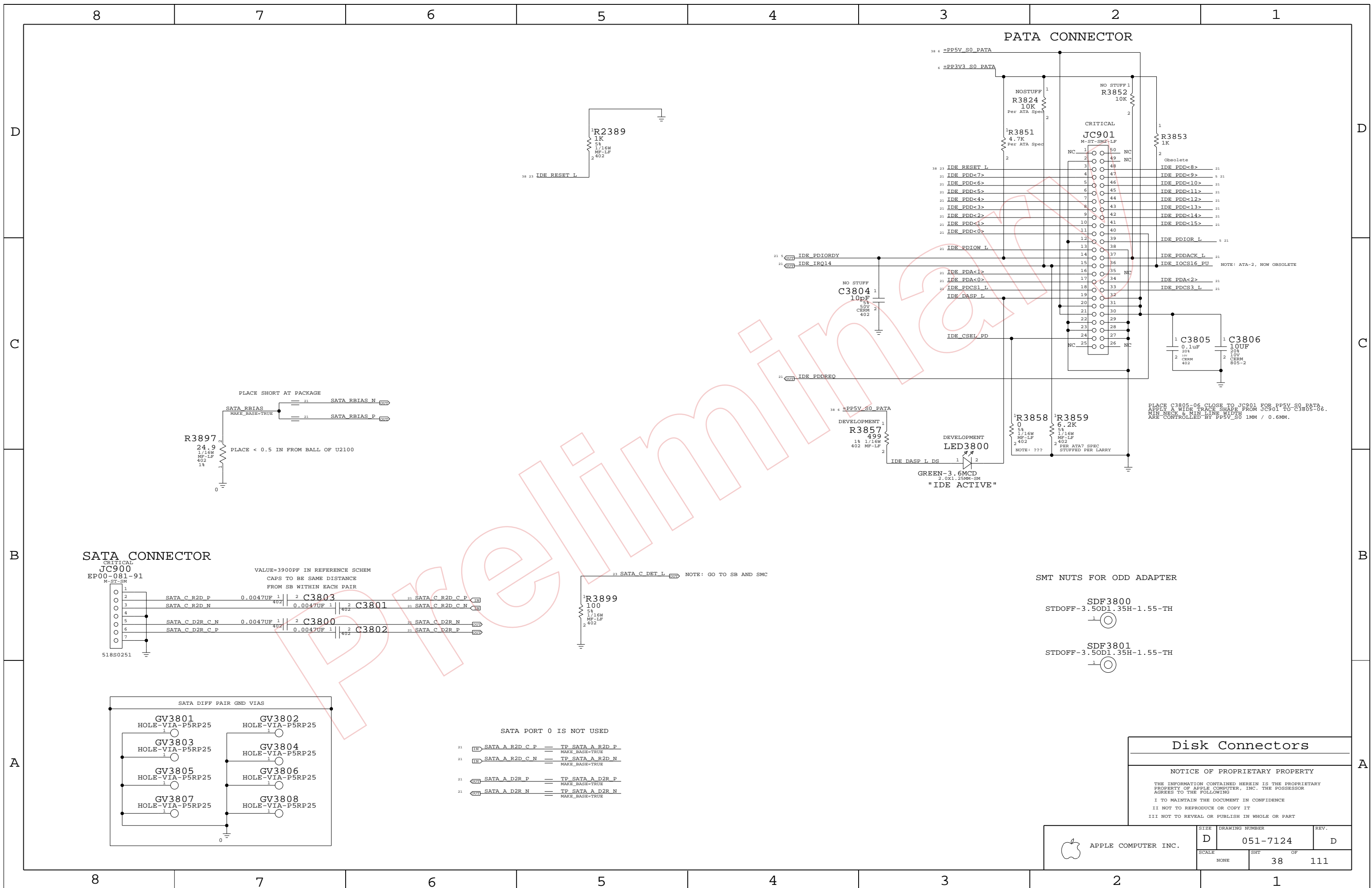
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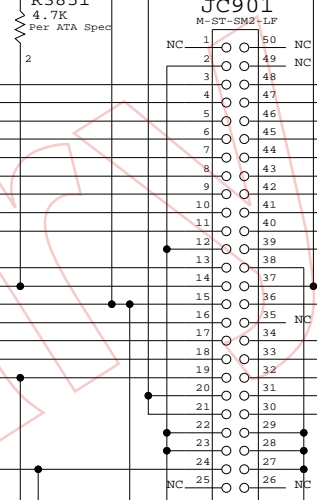
III NOT TO REVEAL OR PUBLISH IN WHOLE OR PART

APPLE COMPUTER INC.	SIZE	DRAWING NUMBER	REV.
	D	051-7124	D
SCALE	SHT	OF	REV.
NONE	34	111	



PATA CONNECTOR

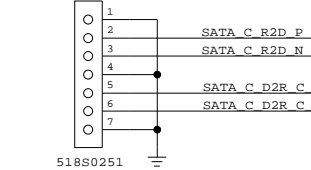
CRITICAL JC901



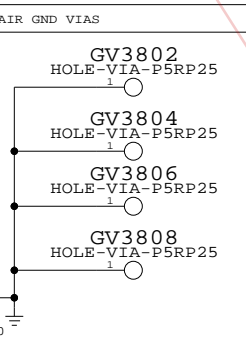
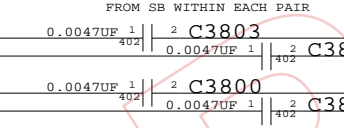
PLACE C3805-06 CLOSE TO JC901 FOR PP5V\_S0\_PATA. APPLY A WIDE TRACE SHAPE FROM JC901 TO C3805-06. MIN NECK & MIN LINE WIDTHS ARE CONTROLLED BY PP5V\_S0 1MM / 0.6MM.

SATA CONNECTOR

CRITICAL JC900 EP00-081-91



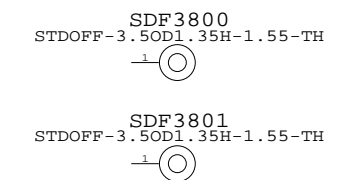
VALUE=3900PF IN REFERENCE SCHEM CAPS TO BE SAME DISTANCE FROM SB WITHIN EACH PAIR



SATA PORT 0 IS NOT USED

IN	SATA A R2D C P	TP_SATA A R2D P
		MAKE_BASE=TRUE
IN	SATA A R2D C N	TP_SATA A R2D N
		MAKE_BASE=TRUE
OUT	SATA A D2R P	TP_SATA A D2R P
		MAKE_BASE=TRUE
OUT	SATA A D2R N	TP_SATA A D2R N
		MAKE_BASE=TRUE

SMT NUTS FOR ODD ADAPTER

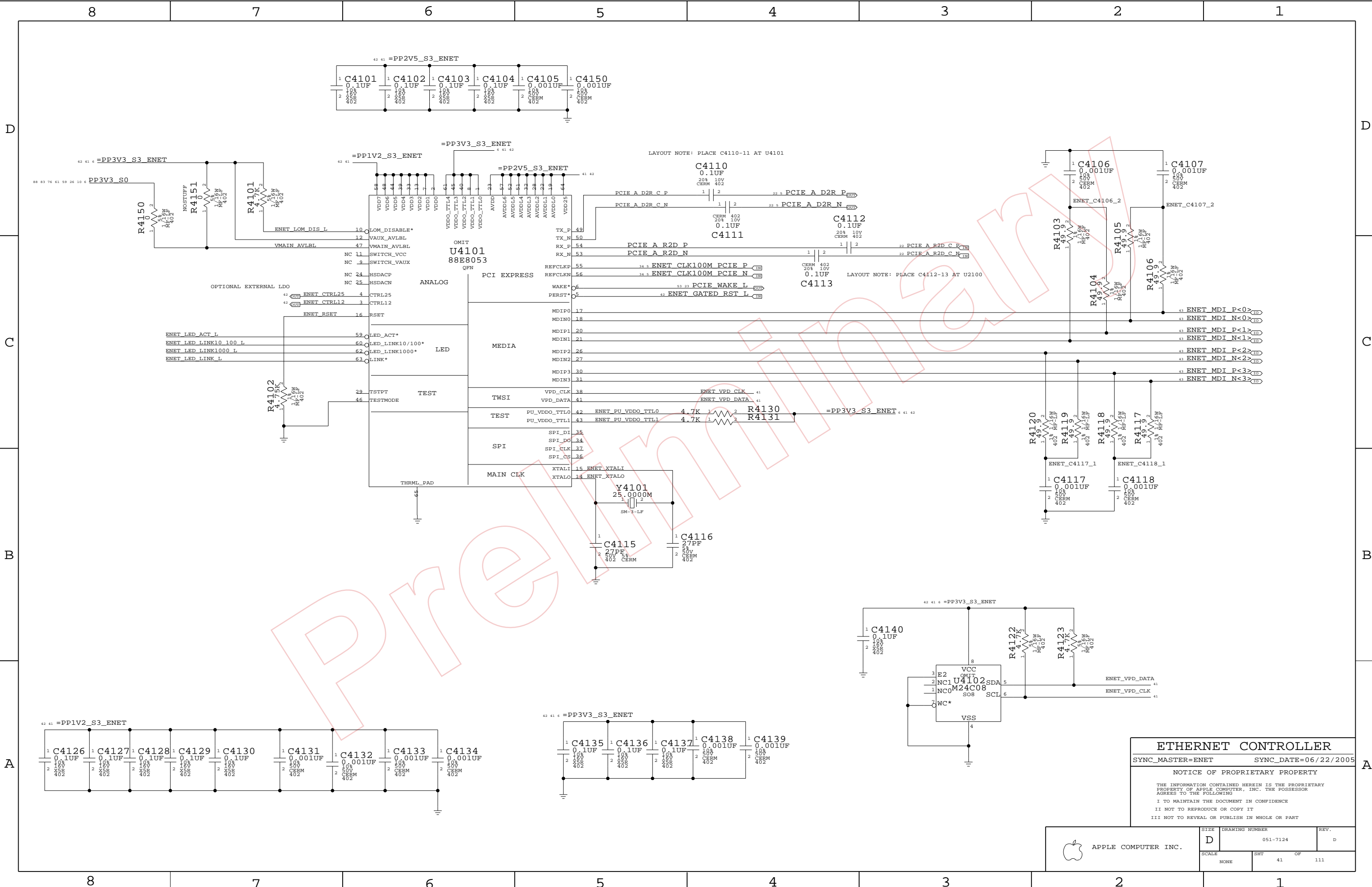


Disk Connectors

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	D	051-7124	D
SCALE	SHT	OF	
NONE	38	111	



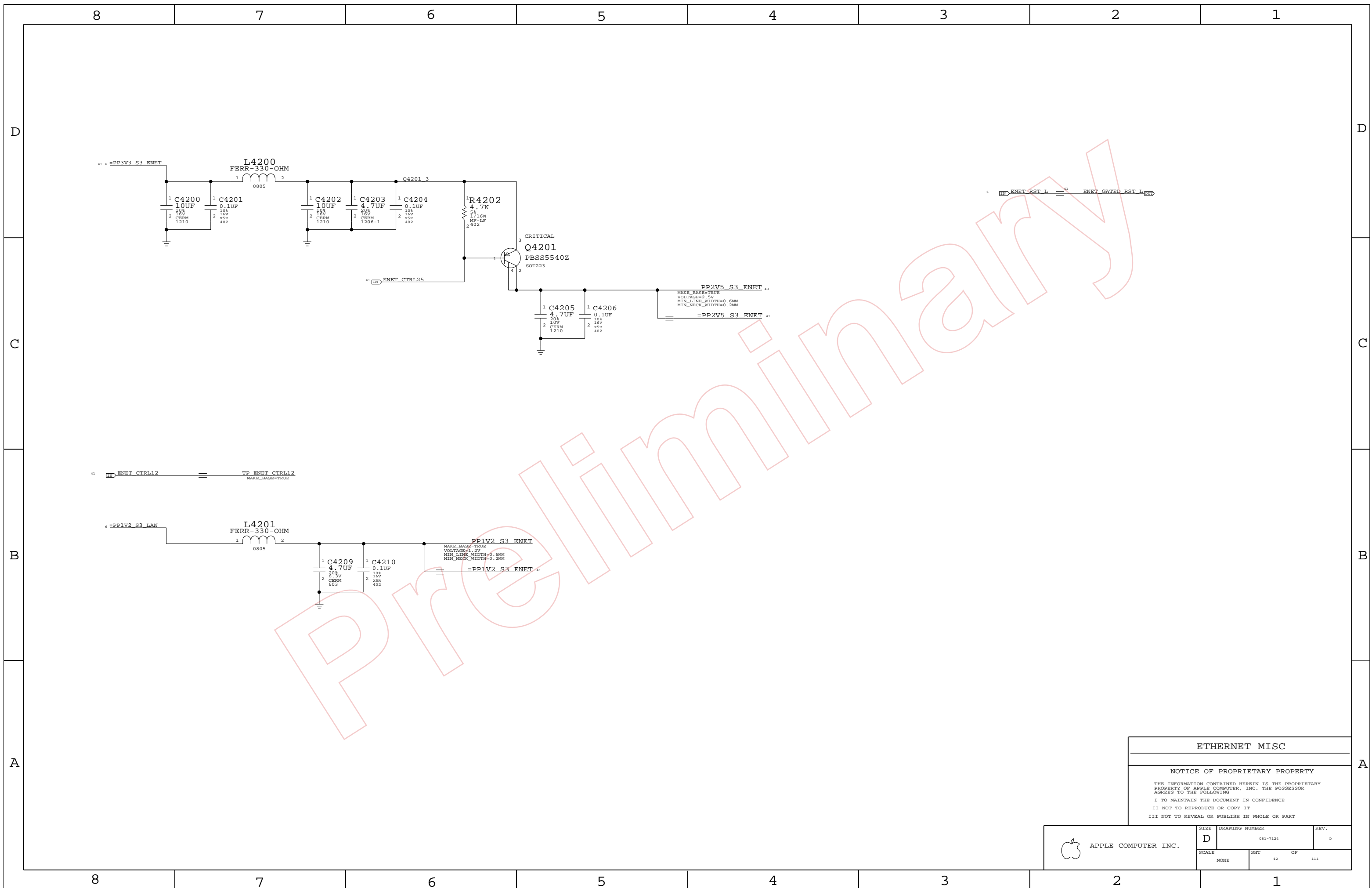
**ETHERNET CONTROLLER**

SYNC\_MASTER=ENET SYNC\_DATE=06/22/2005

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APPLE COMPUTER INC.	SIZE <b>D</b>	DRAWING NUMBER 051-7124	REV. D
	SCALE NONE	SHEET 41	OF 111



**ETHERNET MISC**

---

**NOTICE OF PROPRIETARY PROPERTY**

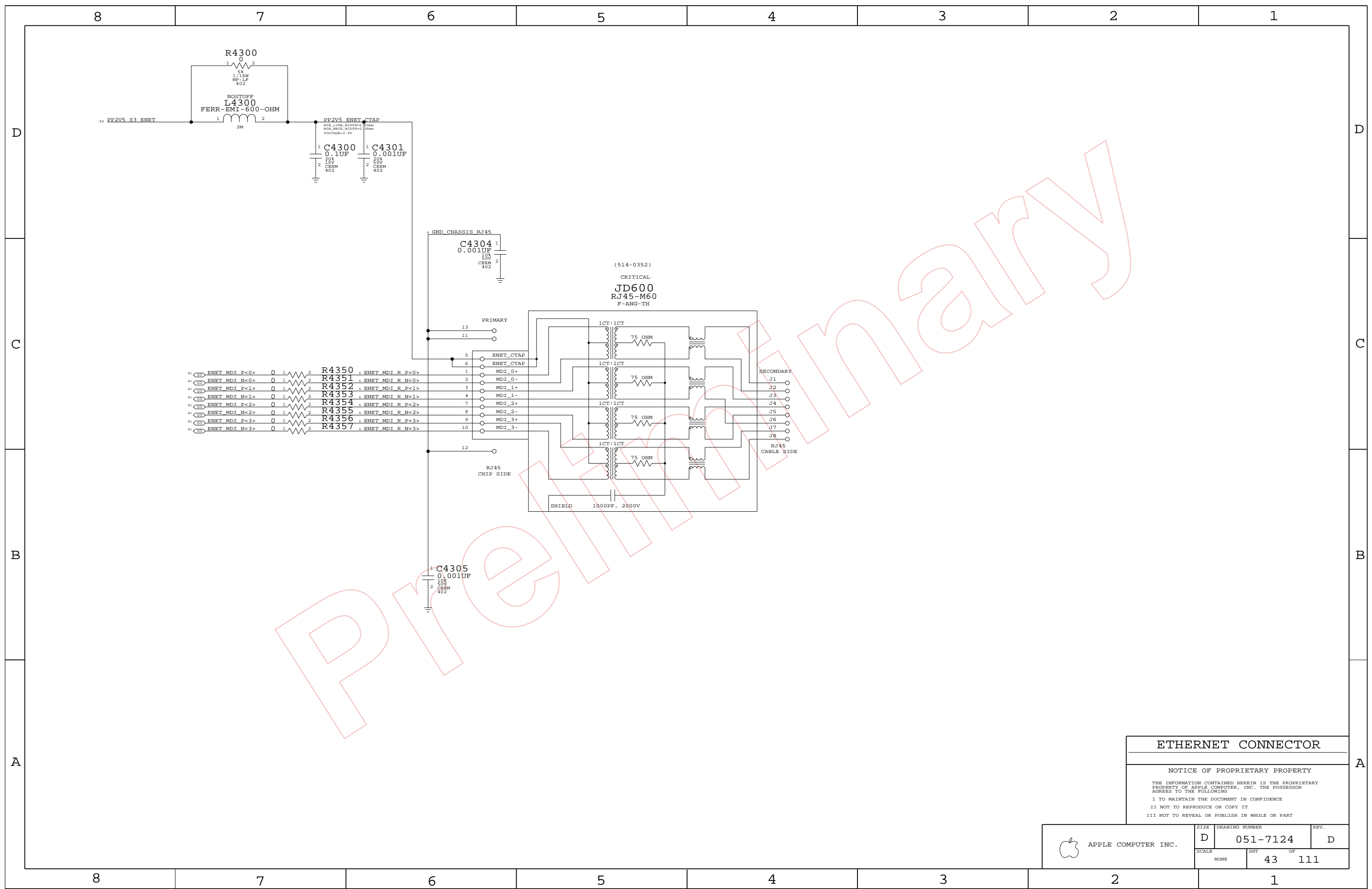
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	SCALE NONE	SHEET 42	OF 111

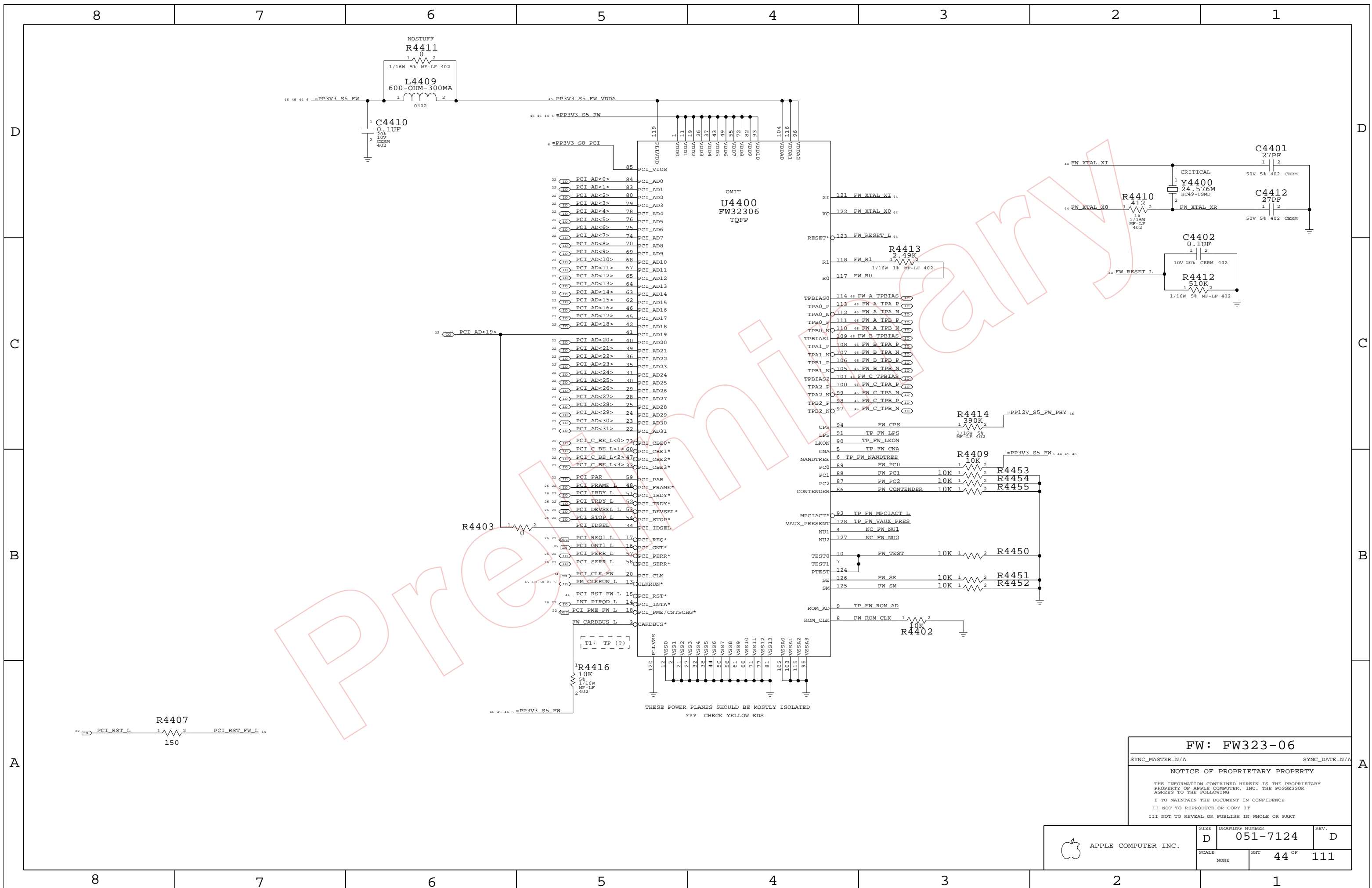


**ETHERNET CONNECTOR**

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	D	051-7124	D
SCALE	SHT	OF	
NONE	43	111	



PRELIMINARY

THESE POWER PLANES SHOULD BE MOSTLY ISOLATED  
 ??? CHECK YELLOW EDS

**FW: FW323-06**

SYNC\_MASTER=N/A SYNC\_DATE=N/A

**NOTICE OF PROPRIETARY PROPERTY**

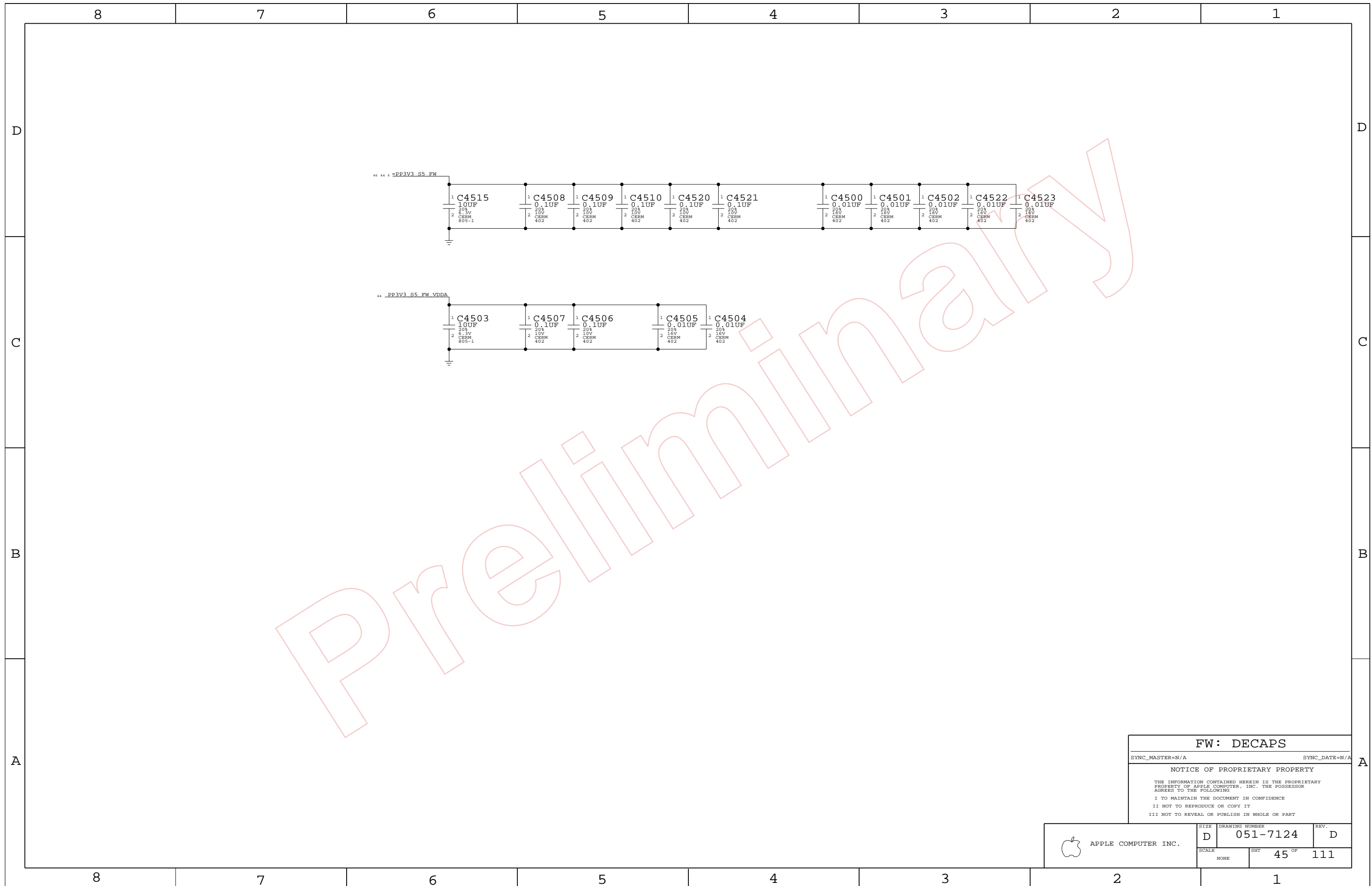
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	D	051-7124	D
SCALE	SHT	44 OF	111
NONE			



Preliminary

**FW: DECAPS**

SYNC\_MASTER=N/A SYNC\_DATE=N/A

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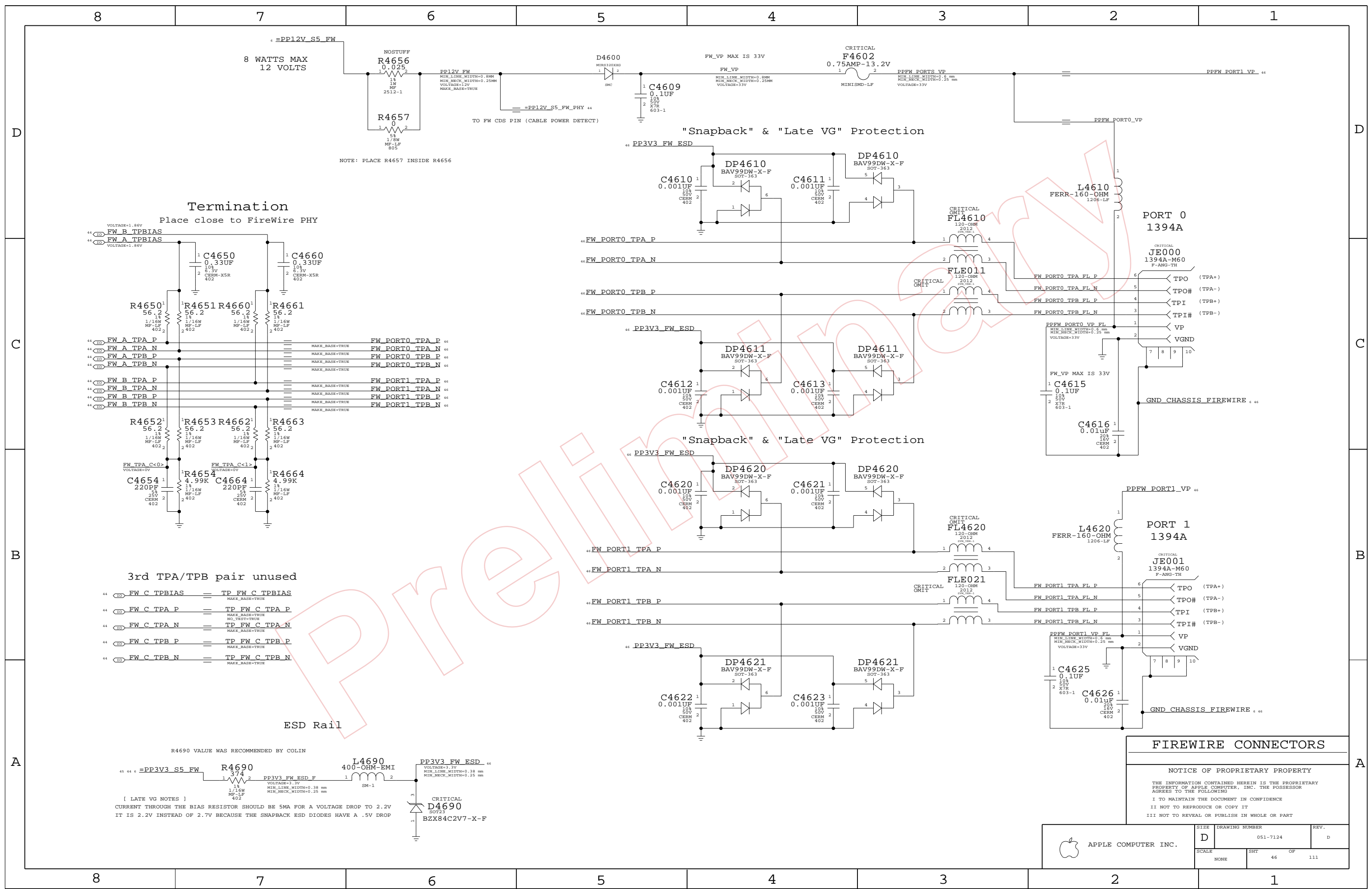
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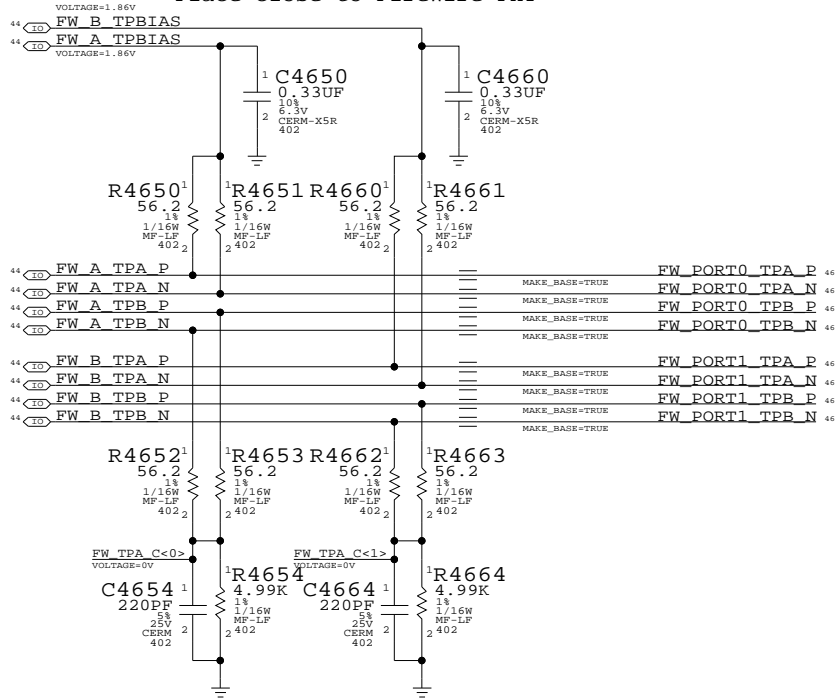
III NOT TO REVEAL OR PUBLISH IN WHOLE OR PART

APPLE COMPUTER INC.	SIZE <b>D</b>	DRAWING NUMBER <b>051-7124</b>	REV. <b>D</b>
	SCALE NONE	SHIT 45 OF 111	



8 WATTS MAX  
12 VOLTS

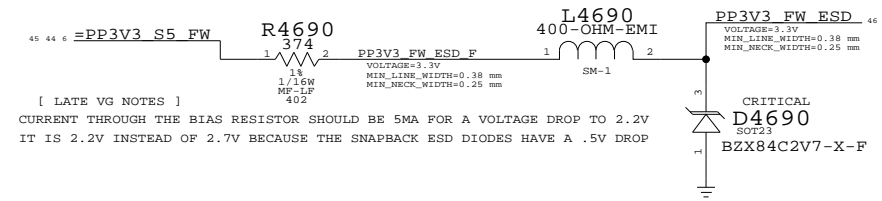
**Termination**  
Place close to FireWire PHY



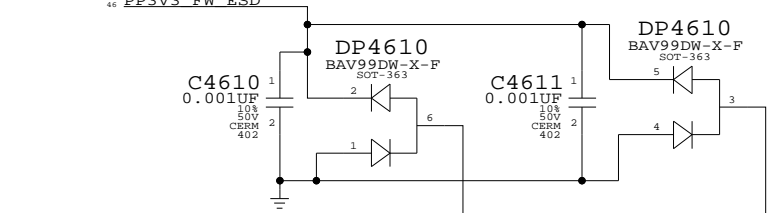
3rd TPA/TPB pair unused

ESD Rail

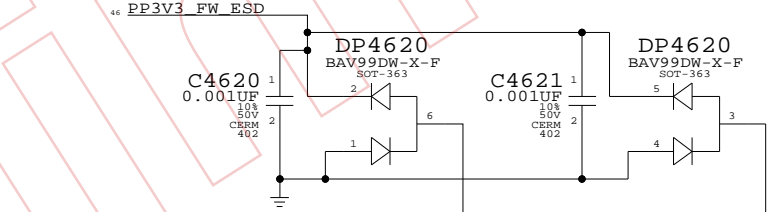
R4690 VALUE WAS RECOMMENDED BY COLIN



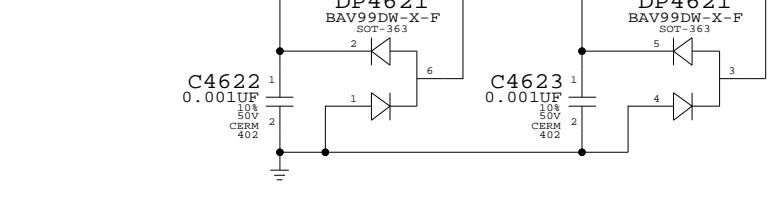
"Snapback" & "Late VG" Protection



"Snapback" & "Late VG" Protection



"Snapback" & "Late VG" Protection



**FIREWIRE CONNECTORS**

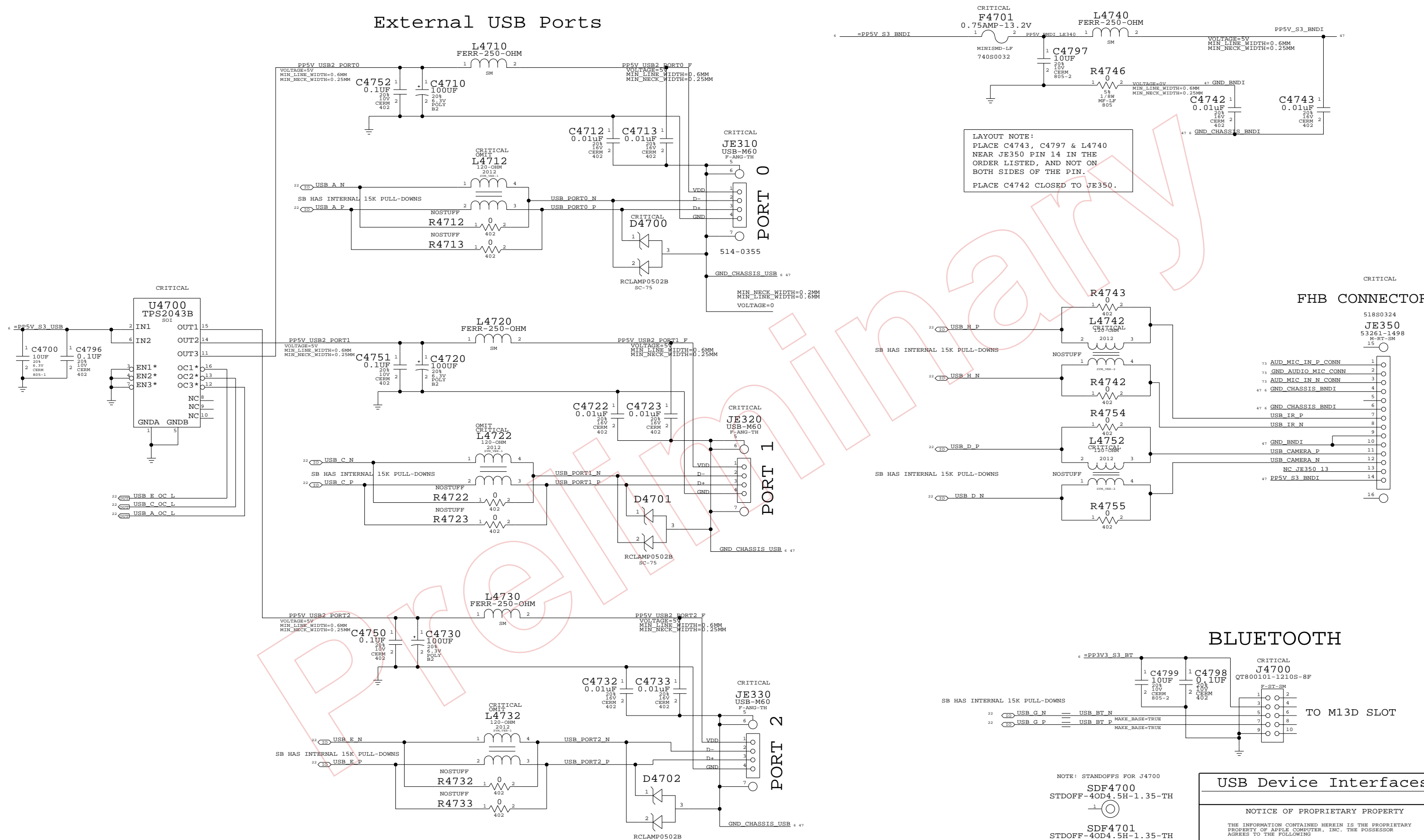
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	D	051-7124	D
SCALE	SHT	OF	111
NONE	46		

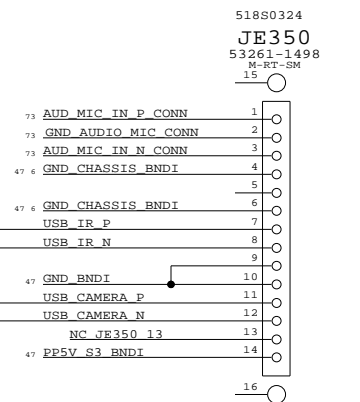


# External USB Ports

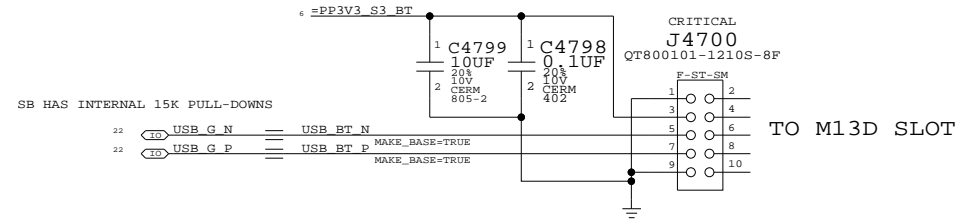


LAYOUT NOTE:  
PLACE C4743, C4797 & L4740  
NEAR JE350 PIN 14 IN THE  
ORDER LISTED, AND NOT ON  
BOTH SIDES OF THE PIN.  
PLACE C4742 CLOSED TO JE350.

## FHB CONNECTOR



## BLUETOOTH



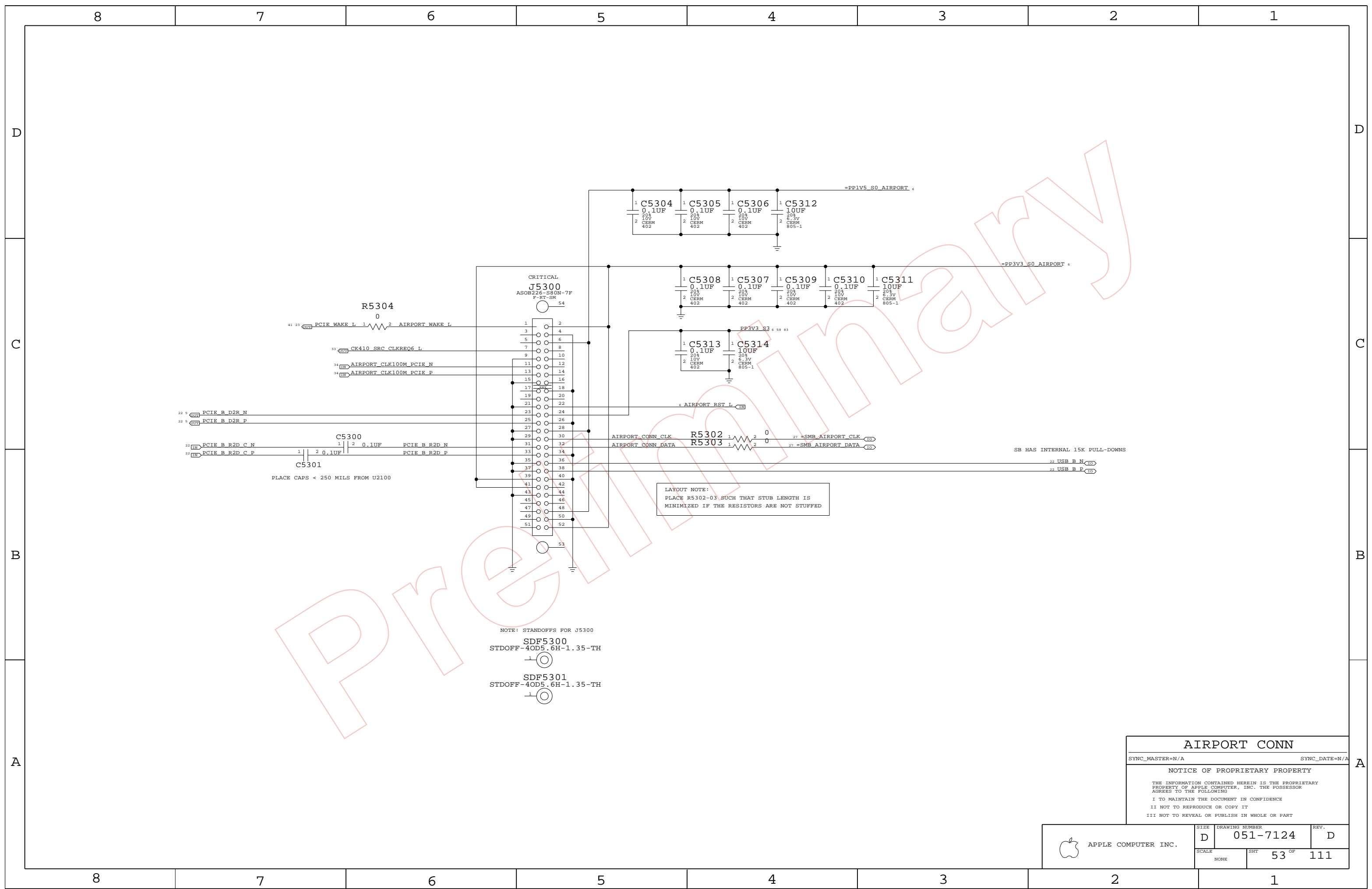
NOTE: STANDOFFS FOR J4700  
SDF4700  
STDOFF-40D4.5H-1.35-TH  
SDF4701  
STDOFF-40D4.5H-1.35-TH

## USB Device Interfaces



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PART#	QTY	DESCRIPTION	REFERENCE DESIGNATOR(S)	CRITICAL	BOM OPTION
514-0355	3	USB RECEPTACLE, 4P, RIBLESS	JE310, JE320, JE330	CRITICAL	20_INCH_LCD

APPLE COMPUTER INC.	SCALE	SHT	OF	REV.
	NONE	47	111	D



PROTOTYPE

NOTE: STANDOFFS FOR J5300  
 SDF5300  
 STDOFF-40D5.6H-1.35-TH  
  
 SDF5301  
 STDOFF-40D5.6H-1.35-TH  


LAYOUT NOTE:  
 PLACE R5302-03 SUCH THAT STUB LENGTH IS  
 MINIMIZED IF THE RESISTORS ARE NOT STUFFED

SB HAS INTERNAL 15K PULL-DOWNS

**AIRPORT CONN**

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	SCALE NONE	SHIT 53 OF 111	

8      7      6      5      4      3      2      1

D  
C  
B  
A

D  
C  
B  
A

8      7      6      5      4      3      2      1

8

7

6

5

4

3

2

1

D

D

C

C

B

B

A

A

22 PCIE C R2D C N == TP PCIE C R2D C N  
MAKE\_BASE=TRUE

22 PCIE C R2D C P == TP PCIE C R2D C P  
MAKE\_BASE=TRUE

22 PCIE C D2R N == TP PCIE C D2R N  
MAKE\_BASE=TRUE

22 PCIE C D2R P == TP PCIE C D2R P  
MAKE\_BASE=TRUE

22 PCIE D R2D C N == TP PCIE D R2D C N  
MAKE\_BASE=TRUE

22 PCIE D R2D C P == TP PCIE D R2D C P  
MAKE\_BASE=TRUE

22 PCIE D D2R N == TP PCIE D D2R N  
MAKE\_BASE=TRUE

22 PCIE D D2R P == TP PCIE D D2R P  
MAKE\_BASE=TRUE

22 PCIE E R2D C N == TP PCIE E R2D C N  
MAKE\_BASE=TRUE

22 PCIE E R2D C P == TP PCIE E R2D C P  
MAKE\_BASE=TRUE

22 PCIE E D2R N == TP PCIE E D2R N  
MAKE\_BASE=TRUE

22 PCIE E D2R P == TP PCIE E D2R P  
MAKE\_BASE=TRUE

22 PCIE F R2D C N == TP PCIE F R2D C N  
MAKE\_BASE=TRUE

22 PCIE F R2D C P == TP PCIE F R2D C P  
MAKE\_BASE=TRUE

22 PCIE F D2R N == TP PCIE F D2R N  
MAKE\_BASE=TRUE

22 PCIE F D2R P == TP PCIE F D2R P  
MAKE\_BASE=TRUE

Preliminary

PCIE UNUSED PORTS

SYNC\_MASTER=N/A SYNC\_DATE=N/A

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	D	051-7124	D
SCALE	SHT	OF	
NONE	54	111	

8

7

6

5

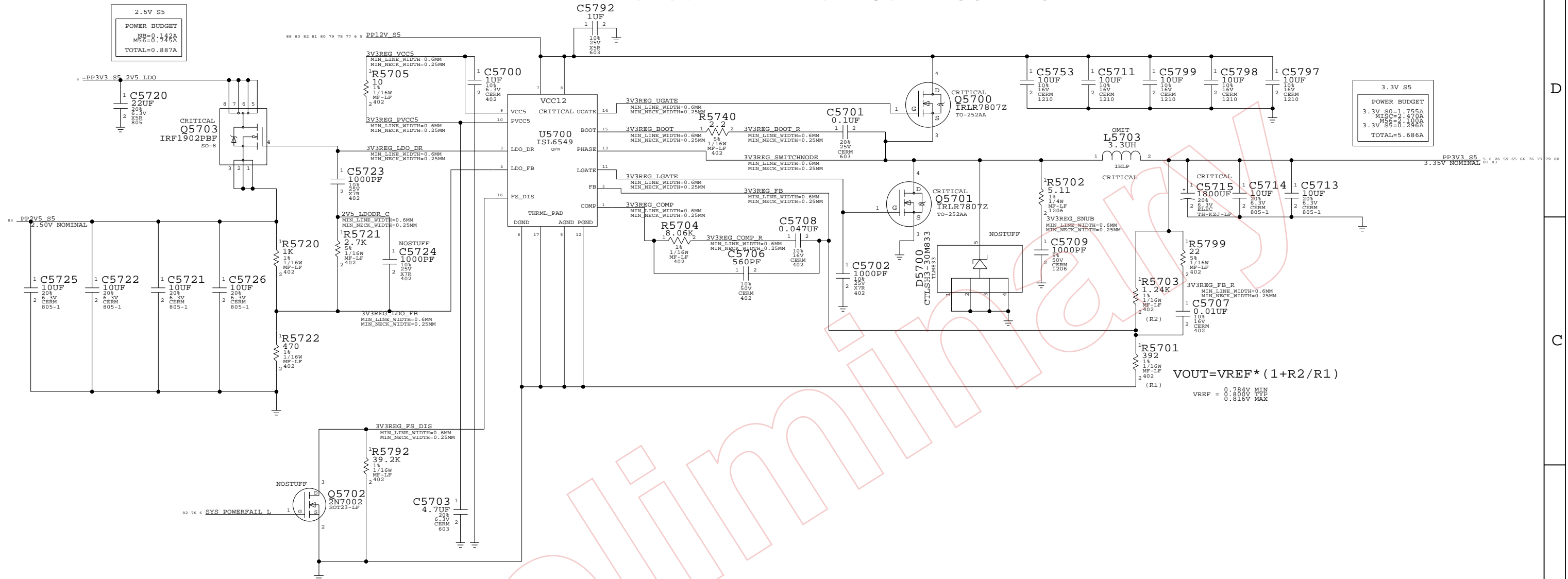
4

3

2

1

# 3.3V AND 2.5V S5 REGULATOR



2.5V S5  
POWER BUDGET  
NB=0.142A  
MS6=0.745A  
TOTAL=0.887A

3.3V S5  
POWER BUDGET  
3.3V S0=1.755A  
MS6=2.470A  
MS7=2.100A  
TOTAL=5.686A

$$V_{OUT} = V_{REF} * (1 + R2/R1)$$

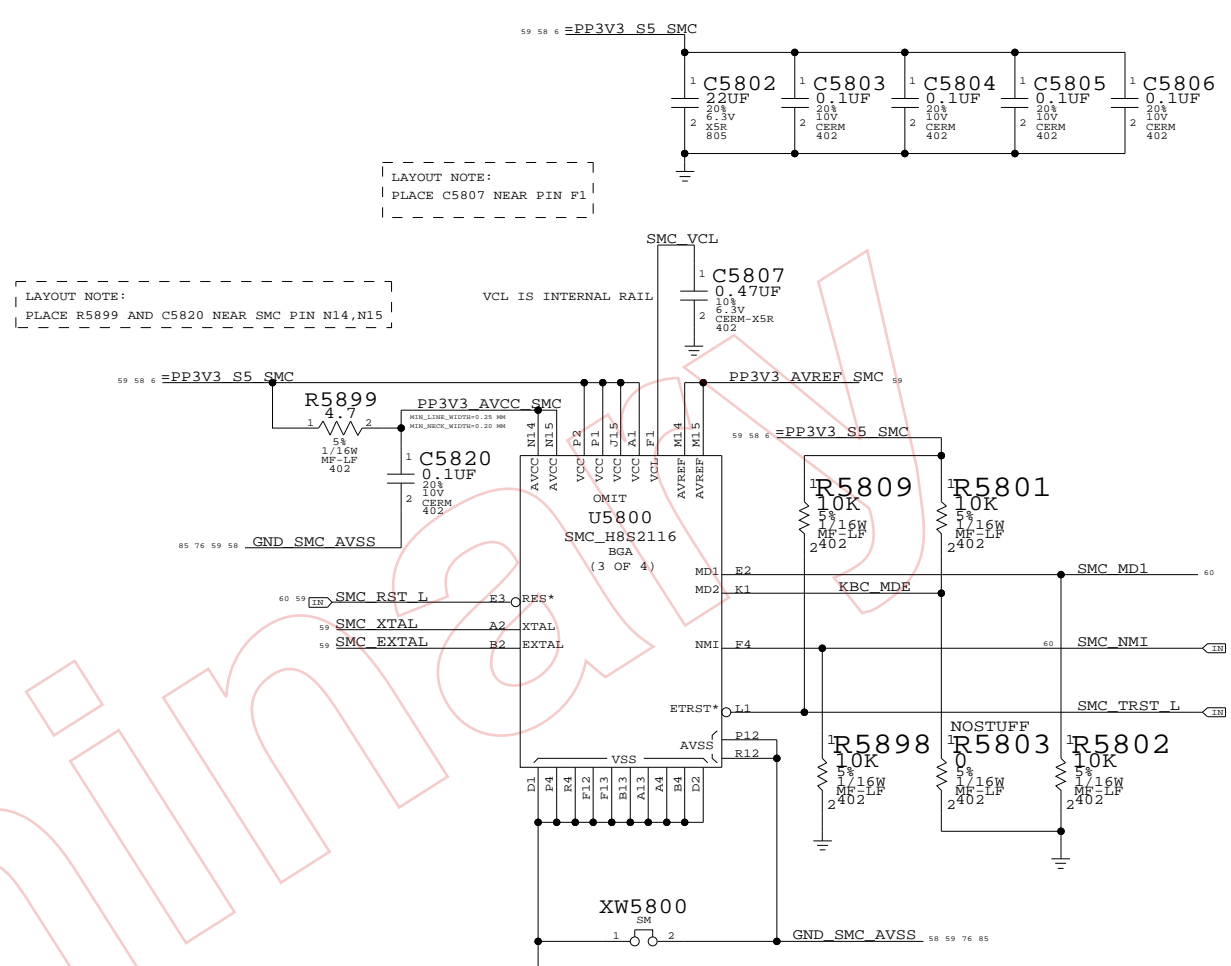
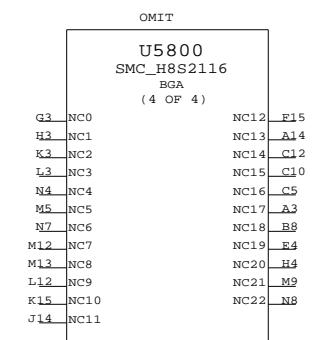
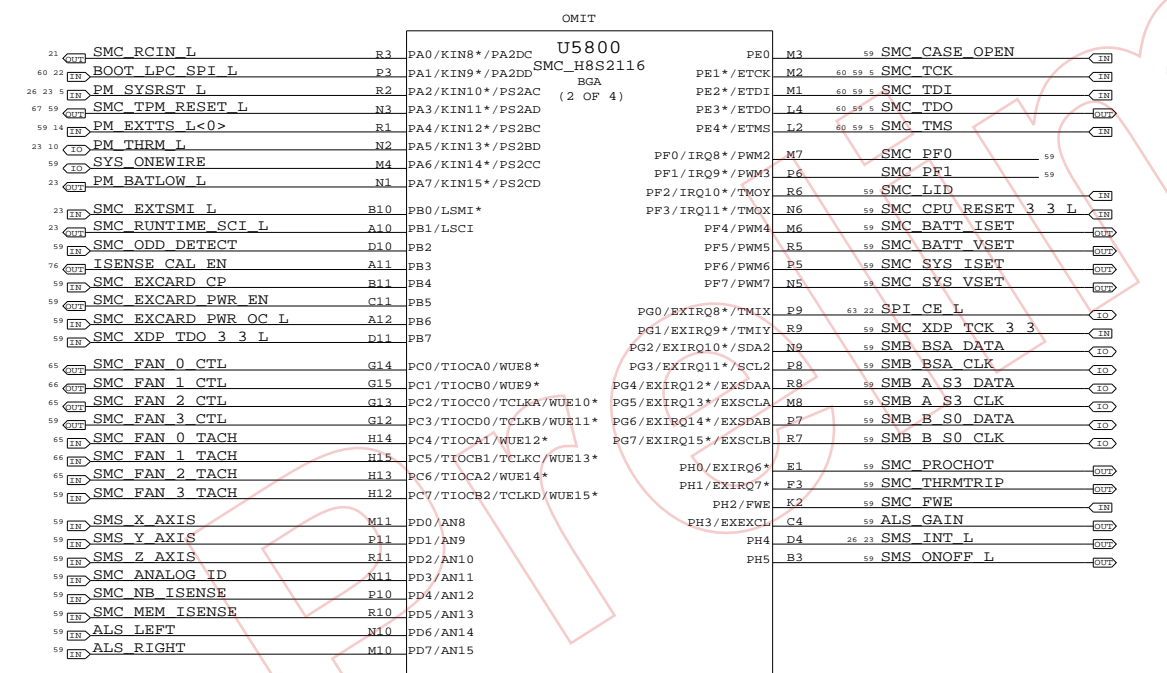
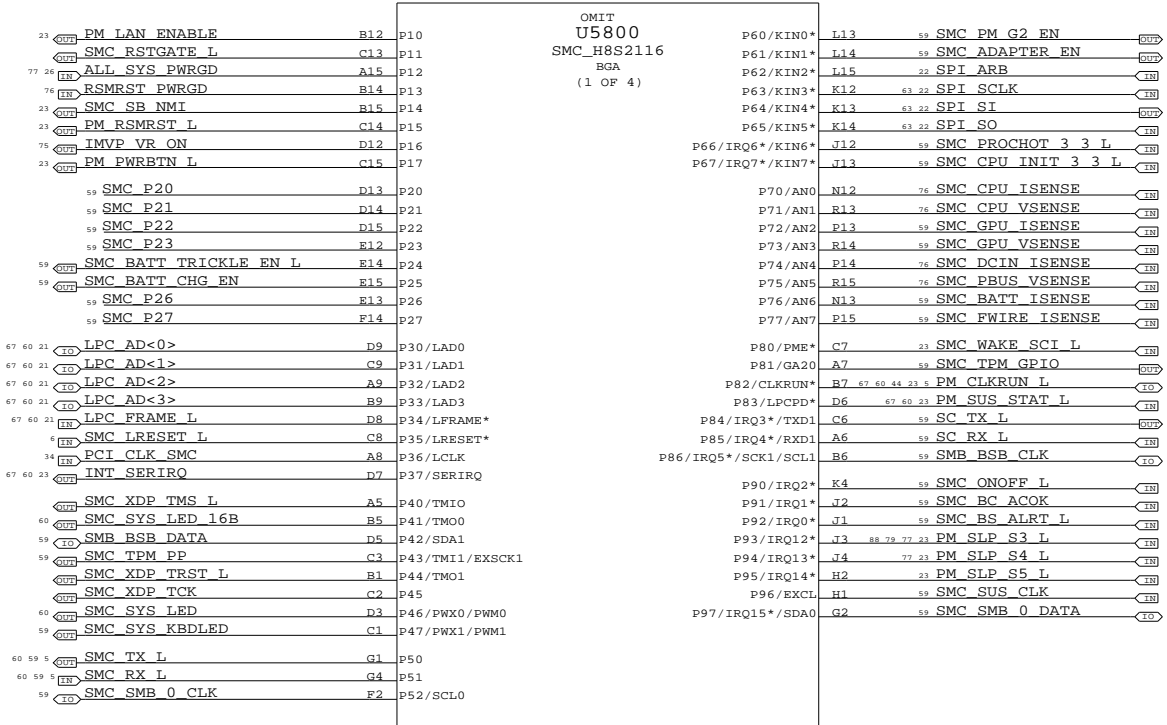
$V_{REF} = 0.784V \text{ MIN}$   
 $0.800V \text{ TYP}$   
 $0.816V \text{ MAX}$

## 3.3V DC/DC 2.5V

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	D	051-7124	D
SCALE	SHT	57 OF	111
NONE			

UNUSED PINS HAVE THE FORMAT SMC\_XXX WHERE XXX IS THE PORT NUMBER. THEY ARE SET BY SOFTWARE TO BE DRIVEN OUTPUTS ALWAYS SO THEY CAN BE LEFT NO-CONNECTED.



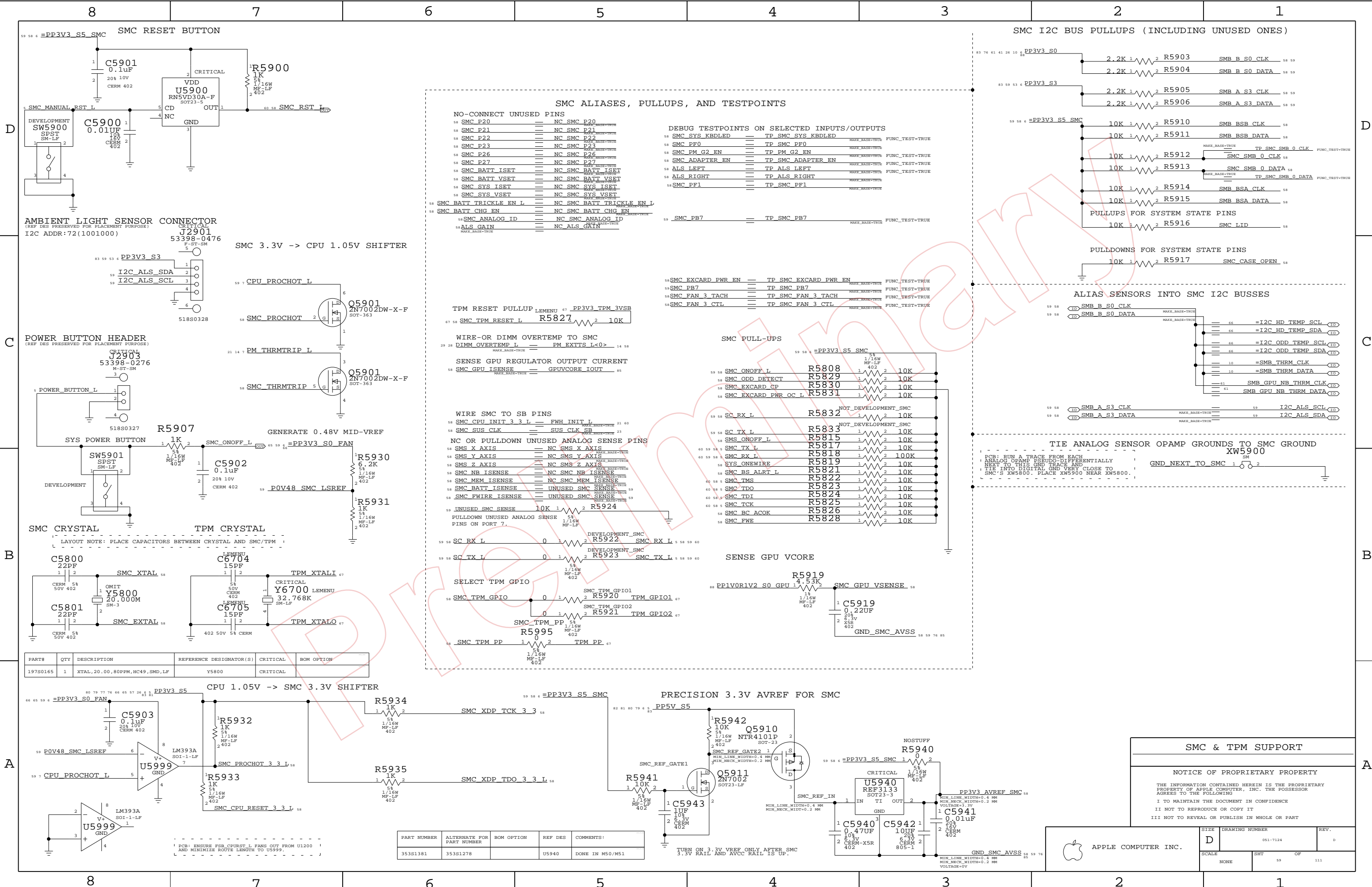
SMC

SYNC\_MASTER=N/A SYNC\_DATE=N/A

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	D	051-7124	D
SCALE	SHT	58 OF	111
NONE			



### SMC ALIASES, PULLUPS, AND TESTPOINTS

NO-CONNECT UNUSED PINS	DEBUG TESTPOINTS ON SELECTED INPUTS/OUTPUTS
SMC P20 == NC SMC P20	SMC SYS_KBDLED == TP_SMC_SYS_KBDLED
SMC P21 == NC SMC P21	SMC PF0 == TP_SMC_PF0
SMC P22 == NC SMC P22	SMC PM_G2_EN == TP_PM_G2_EN
SMC P23 == NC SMC P23	SMC ADAPTER_EN == TP_SMC_ADAPTER_EN
SMC P26 == NC SMC P26	ALS_LEFT == TP_ALS_LEFT
SMC P27 == NC SMC P27	ALS_RIGHT == TP_ALS_RIGHT
SMC BATT_ISET == NC SMC_BATT_ISET	SMC PF1 == TP_SMC_PF1
SMC BATT_VSET == NC SMC_BATT_VSET	
SMC SYS_ISET == NC SMC_SYS_ISET	
SMC SYS_VSET == NC SMC_SYS_VSET	
SMC_BATT_TRICKLE_EN_L == NC_SMC_BATT_TRICKLE_EN_L	
SMC_BATT_CHG_EN == NC_SMC_BATT_CHG_EN	
SMC_ANALOG_ID == NC_SMC_ANALOG_ID	
ALS_GAIN == NC_ALS_GAIN	

### SMC PULL-UPS

SMC_ONOFF_L	R5808	10K
SMC_ODD_DETECT	R5829	10K
SMC_EXCARD_CP	R5830	10K
SMC_EXCARD_PWR_OC_L	R5831	10K
SC_RX_L	R5832	10K
SC_TX_L	R5833	10K
SMS_ONOFF_L	R5815	10K
SMC_TX_L	R5817	10K
SMC_RX_L	R5818	100K
SYS_ONEWIRE	R5819	10K
SMC_BS_ALERT_L	R5821	10K
SMC_TMS	R5822	10K
SMC_TDO	R5823	10K
SMC_TDI	R5824	10K
SMC_TCK	R5825	10K
SMC_BC_ACOK	R5826	10K
SMC_FWE	R5828	10K

### WIRE SMC TO SB PINS

SMC_CPU_INIT_3_3_L	FWH_INIT_L
SMC_SUS_CLK	SUS_CLK_SB
NC_OR_PULLDOWN_UNUSED_ANALOG_SENSE_PINS	
SMS_X_AXIS	NC_SMS_X_AXIS
SMS_Y_AXIS	NC_SMS_Y_AXIS
SMS_Z_AXIS	NC_SMS_Z_AXIS
SMC_NB_ISENSE	NC_SMC_NB_ISENSE
SMC_MEM_ISENSE	NC_SMC_MEM_ISENSE
SMC_BATT_ISENSE	UNUSED_SMC_ISENSE
SMC_FWIRE_ISENSE	UNUSED_SMC_ISENSE
UNUSED_SMC_SENSE	R5924
PULLDOWN_UNUSED_ANALOG_SENSE_PINS_ON_PORT_7	
SC_RX_L	R5922
SC_TX_L	R5923
SMC_TPM_GPIO	R5920
SMC_TPM_PP	R5921
SMC_TPM_PP	R5995

### SMC CPU 1.05V -> SMC 3.3V SHIFTER

SMC_XDP_TCK_3_3	R5934
SMC_XDP_TDO_3_3_L	R5935
SMC_REF_GATE1	R5941
SMC_REF_GATE2	R5942
SMC_REF_IN	R5943

PART#	QTY	DESCRIPTION	REFERENCE DESIGNATOR(S)	CRITICAL	BOM OPTION
197S0165	1	XTAL, 20.00, 80PPM, HC49, SMD, LF	Y5800	CRITICAL	

PART NUMBER	ALTERNATE FOR PART NUMBER	BOM OPTION	REF DES	COMMENTS
353S1381	353S1278		U5940	DONE IN M50/M51

### SMC & TPM SUPPORT

**NOTICE OF PROPRIETARY PROPERTY**

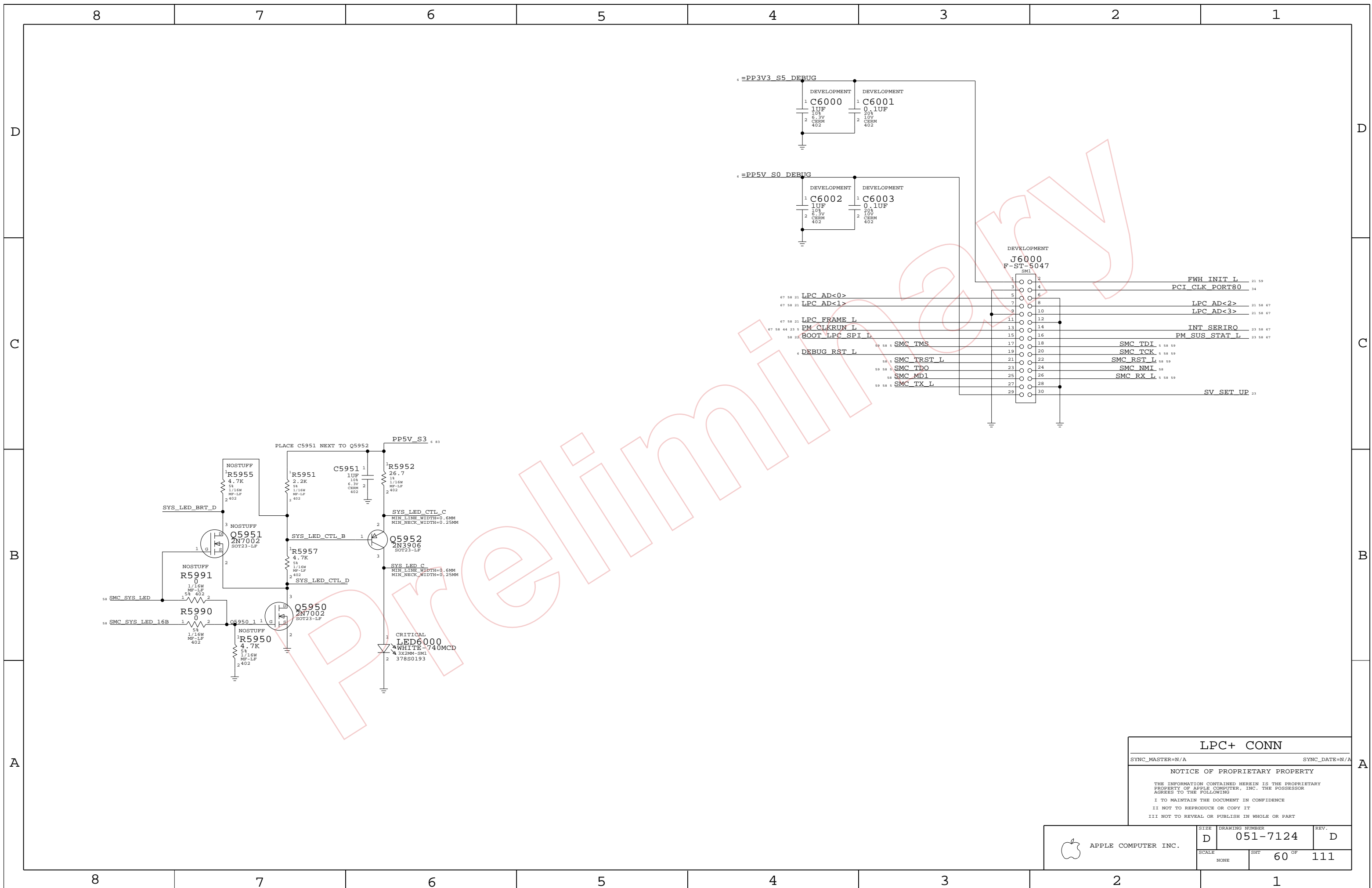
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SIZE	DRAWING NUMBER	REV.
D	051-7124	D

SCALE: NONE    SHEET: 59 OF 111

APPLE COMPUTER INC.



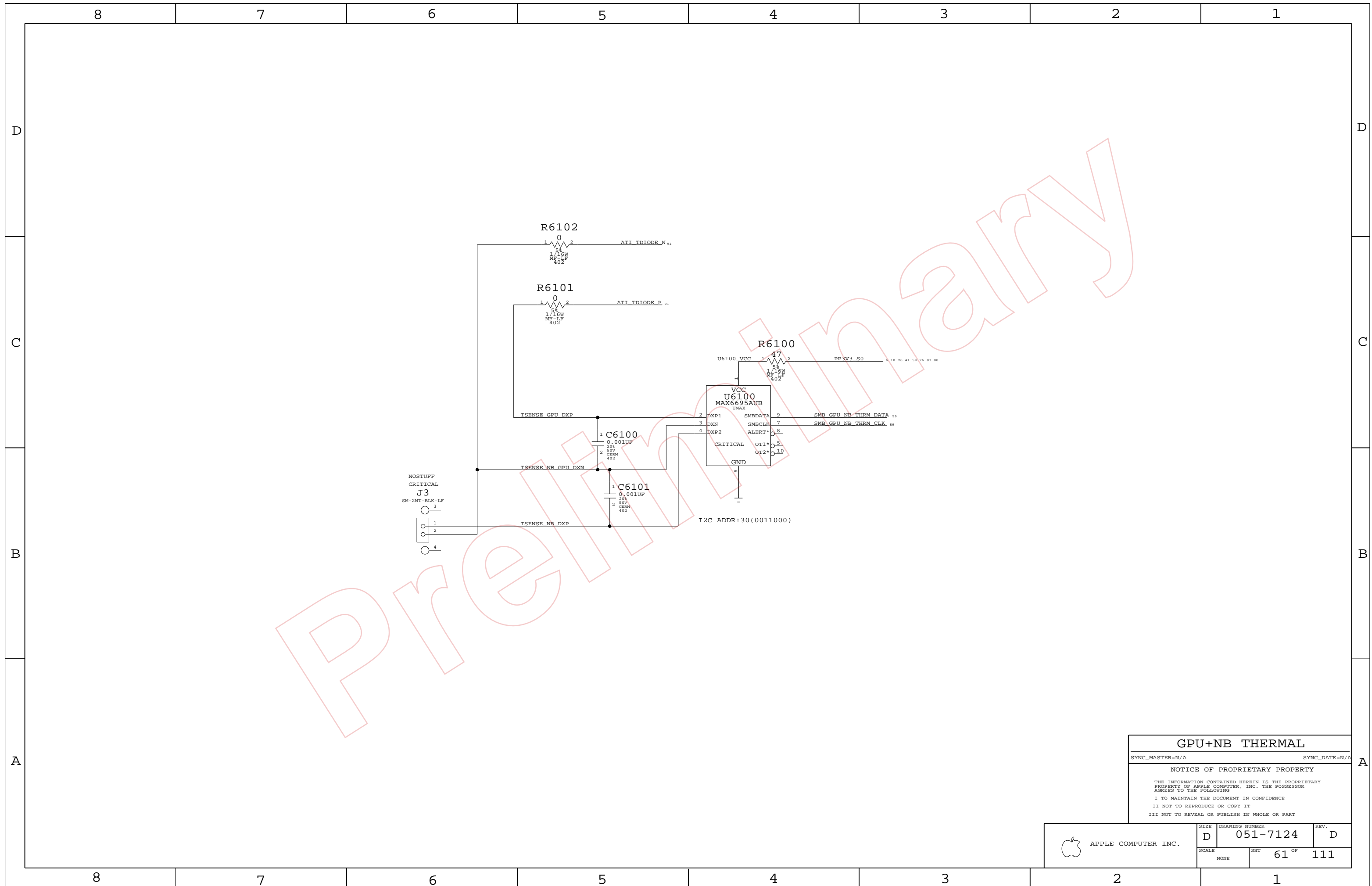
LPC+ CONN

SYNC\_MASTER=N/A SYNC\_DATE=N/A

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APPLE COMPUTER INC.	SIZE	DRAWING NUMBER	REV.
	D	051-7124	D
SCALE	SHT	60 OF	111
NONE			



Preview

**GPU+NB THERMAL**

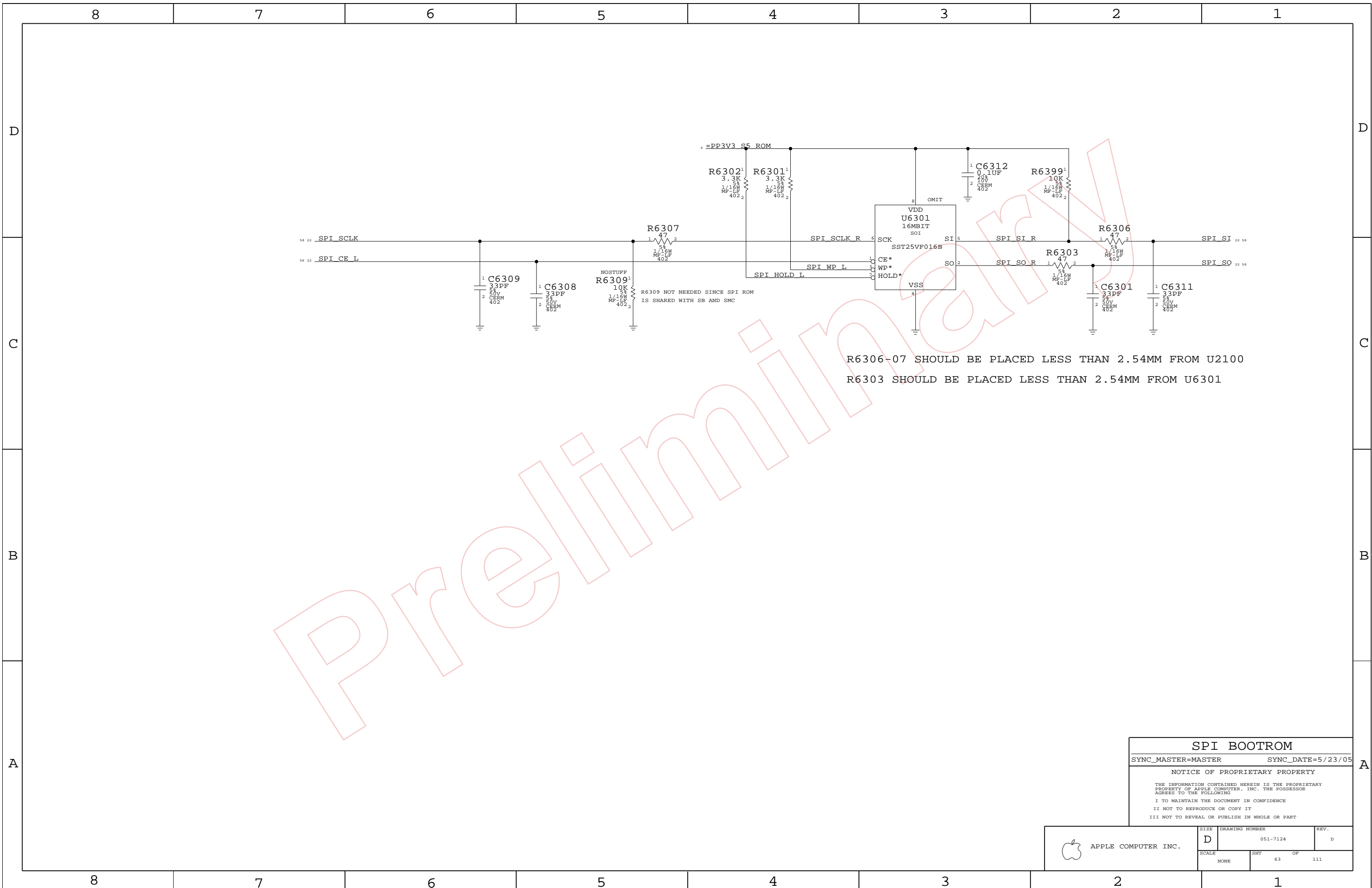
SYNC\_MASTER=N/A SYNC\_DATE=N/A

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APPLE COMPUTER INC.	SIZE <b>D</b>	DRAWING NUMBER <b>051-7124</b>	REV. <b>D</b>
	SCALE NONE	SHEET 61 OF 111	



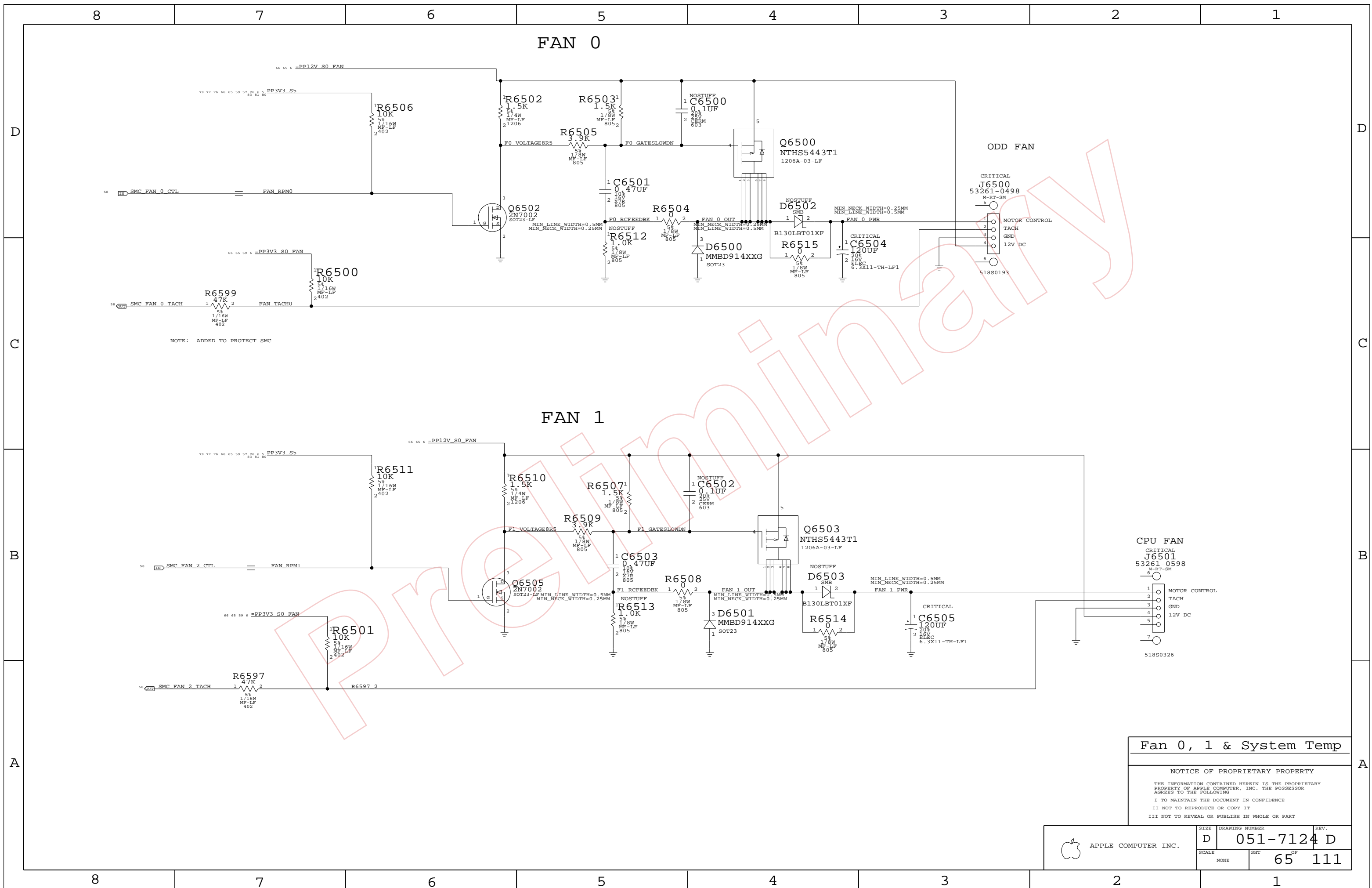


R6306-07 SHOULD BE PLACED LESS THAN 2.54MM FROM U2100  
 R6303 SHOULD BE PLACED LESS THAN 2.54MM FROM U6301

**SPI BOOTROM**  
 SYNC\_MASTER=MASTER SYNC\_DATE=5/23/05

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APPLE COMPUTER INC.	SIZE <b>D</b>	DRAWING NUMBER 051-7124	REV. D
	SCALE NONE	SHEETS 63	OF 111



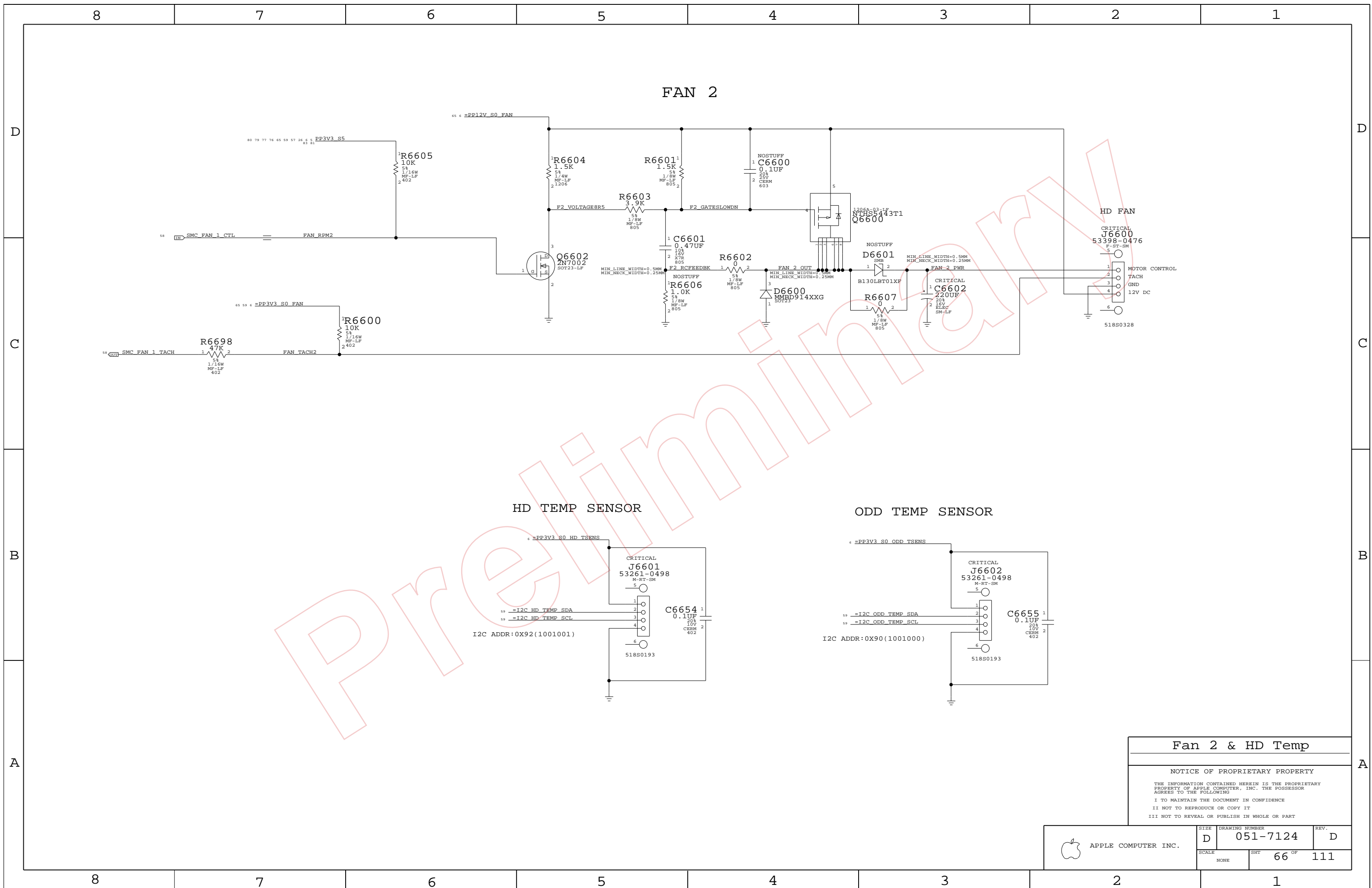
NOTE: ADDED TO PROTECT SMC

Fan 0, 1 & System Temp

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APPLE COMPUTER INC.	SIZE	DRAWING NUMBER	REV.
	D	051-7124 D	D
SCALE	SHT	OF	
NONE	65	111	



FAN 2

HD TEMP SENSOR

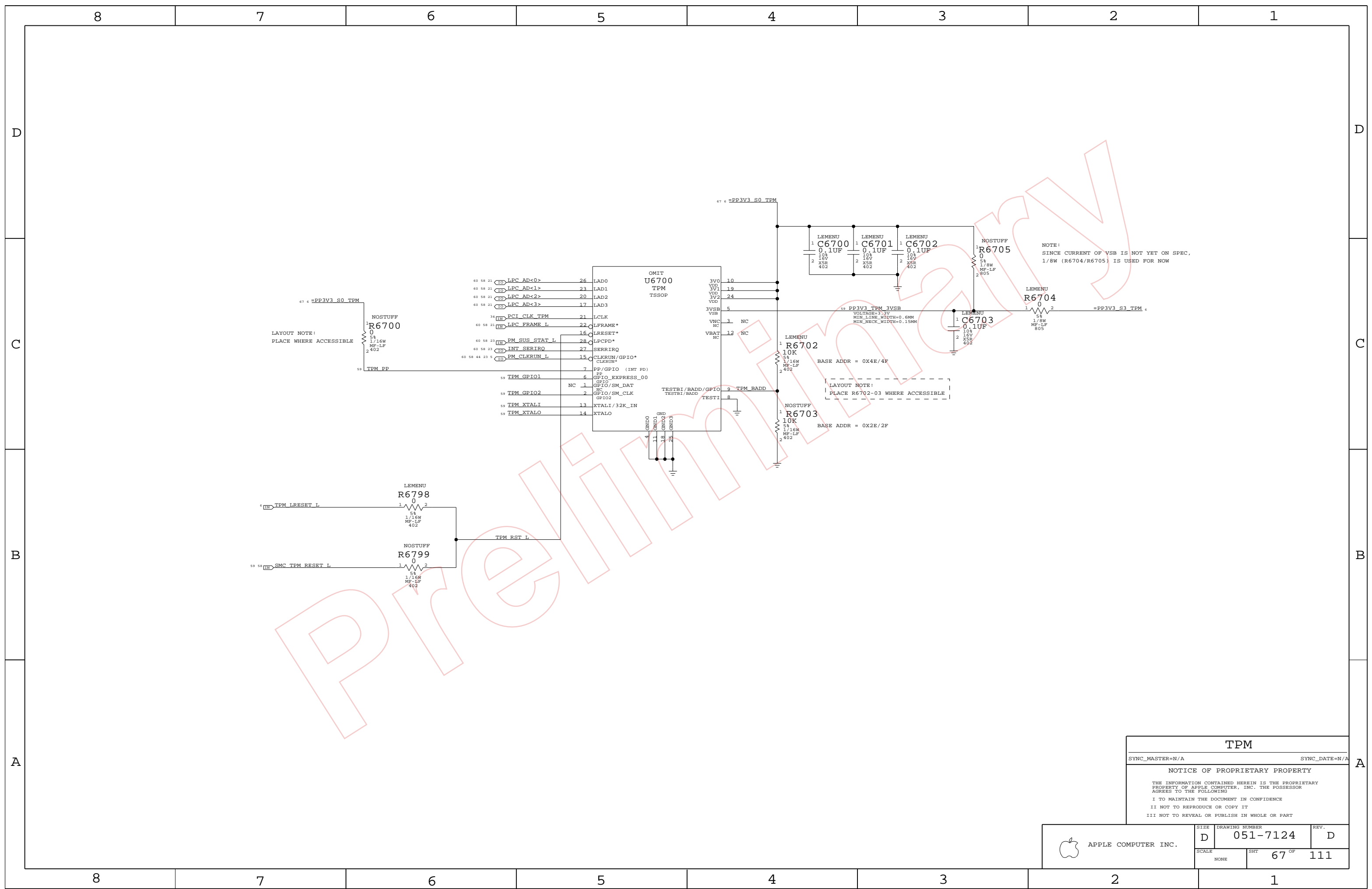
ODD TEMP SENSOR

Fan 2 & HD Temp

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APPLE COMPUTER INC.	SIZE	DRAWING NUMBER	REV.
	D	051-7124	D
SCALE	SHT	OF	REV.
NONE	66	111	



LAYOUT NOTE:  
PLACE WHERE ACCESSIBLE

LAYOUT NOTE:  
PLACE R6702-03 WHERE ACCESSIBLE

NOTE:  
SINCE CURRENT OF VSB IS NOT YET ON SPEC,  
1/8W (R6704/R6705) IS USED FOR NOW

**TPM**

SYNC\_MASTER=N/A SYNC\_DATE=N/A

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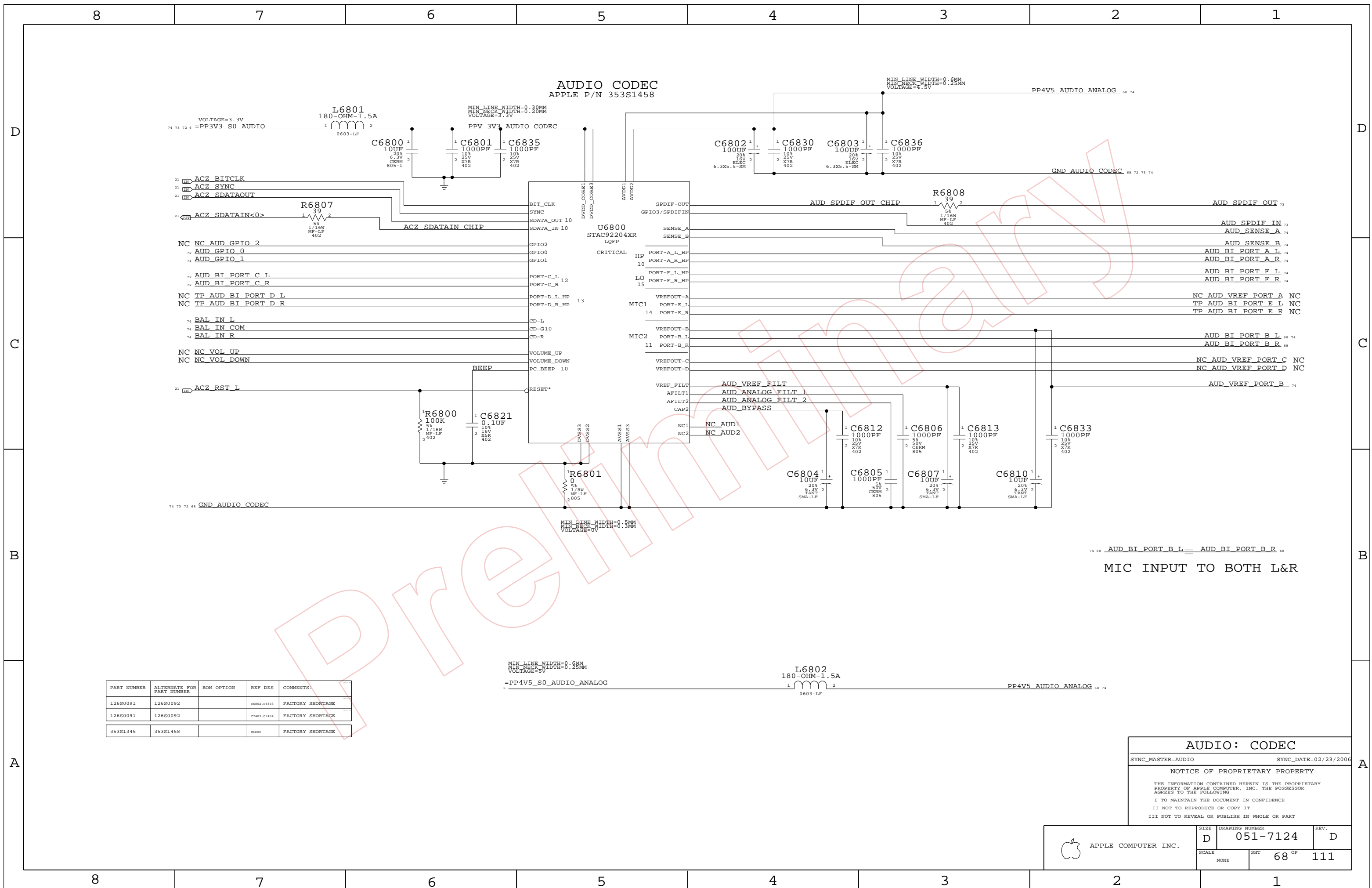
APPLE COMPUTER INC.	SIZE	DRAWING NUMBER	REV.
	D	051-7124	D
SCALE	SHT	67 OF	111
NONE			

D  
C  
B  
A

D  
C  
B  
A

8      7      6      5      4      3      2      1

8      7      6      5      4      3      2      1



PART NUMBER	ALTERNATE FOR PART NUMBER	BOM OPTION	REF DES	COMMENTS
126S0091	126S0092		C802,C803	FACTORY SHORTAGE
126S0091	126S0092		C7403,C7404	FACTORY SHORTAGE
353S1345	353S1458		U6800	FACTORY SHORTAGE

**AUDIO: CODEC**

SYNC\_MASTER=AUDIO      SYNC\_DATE=02/23/2006

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APPLE COMPUTER INC.	SIZE	DRAWING NUMBER	REV.
	D	051-7124	D
SCALE	SHT	68 OF	111
NONE			

**SPEAKER AMP**  
APPLE P/N 353S0680

NET\_SPACING\_TYPE=AUDIO  
MIN\_LINE\_WIDTH=0.6MM  
MIN\_NECK\_WIDTH=0.25MM  
VOLTAGE=12V

NET\_SPACING\_TYPE=AUDIO  
MIN\_LINE\_WIDTH=0.6MM  
MIN\_NECK\_WIDTH=0.25MM  
VOLTAGE=12V

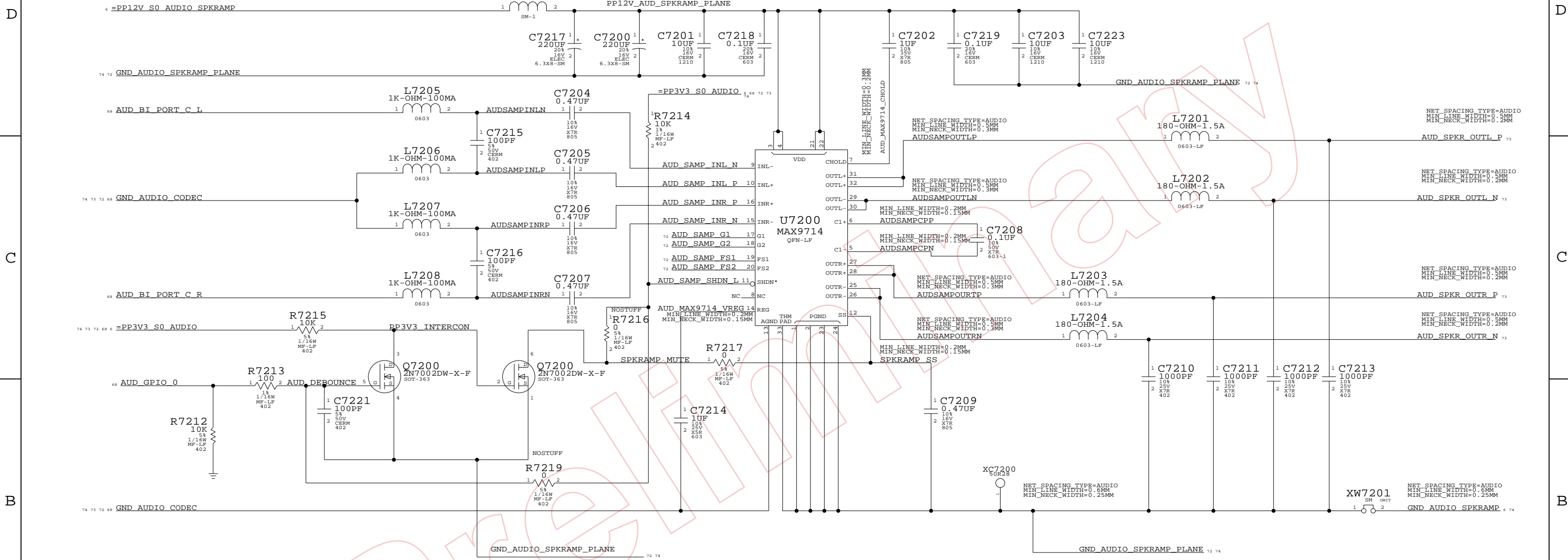
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MIN\_LINE\_WIDTH=0.6MM  
MIN\_NECK\_WIDTH=0.25MM

NET\_SPACING\_TYPE=AUDIO  
MIN\_LINE\_WIDTH=0.6MM  
MIN\_NECK\_WIDTH=0.25MM

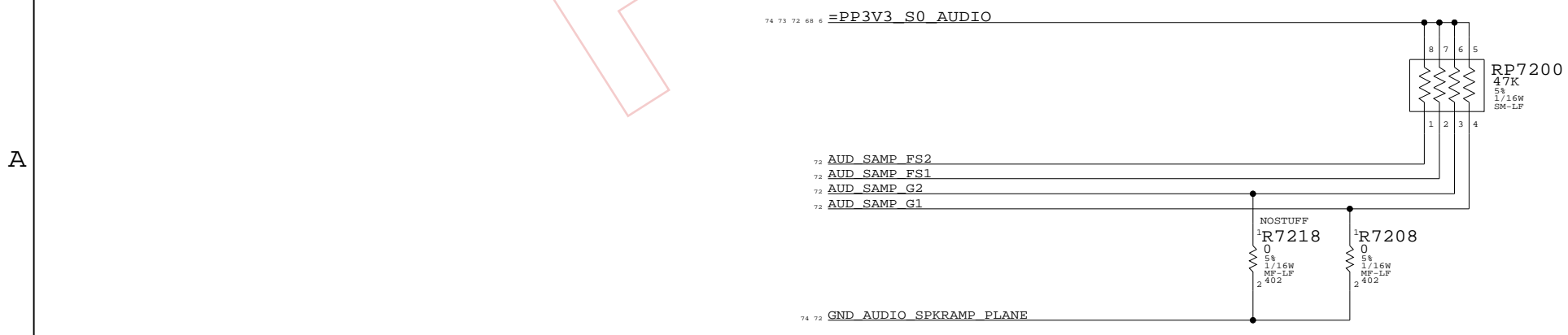
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MIN\_LINE\_WIDTH=0.6MM  
MIN\_NECK\_WIDTH=0.25MM

NET\_SPACING\_TYPE=AUDIO  
MIN\_LINE\_WIDTH=0.6MM  
MIN\_NECK\_WIDTH=0.25MM

NET\_SPACING\_TYPE=AUDIO  
MIN\_LINE\_WIDTH=0.6MM  
MIN\_NECK\_WIDTH=0.25MM



GAIN SETTINGS: +19DB  
MODULATION SETTING: LOW EMI  
GAIN AND SWITCHING FREQUENCY STUFF OPTIONS



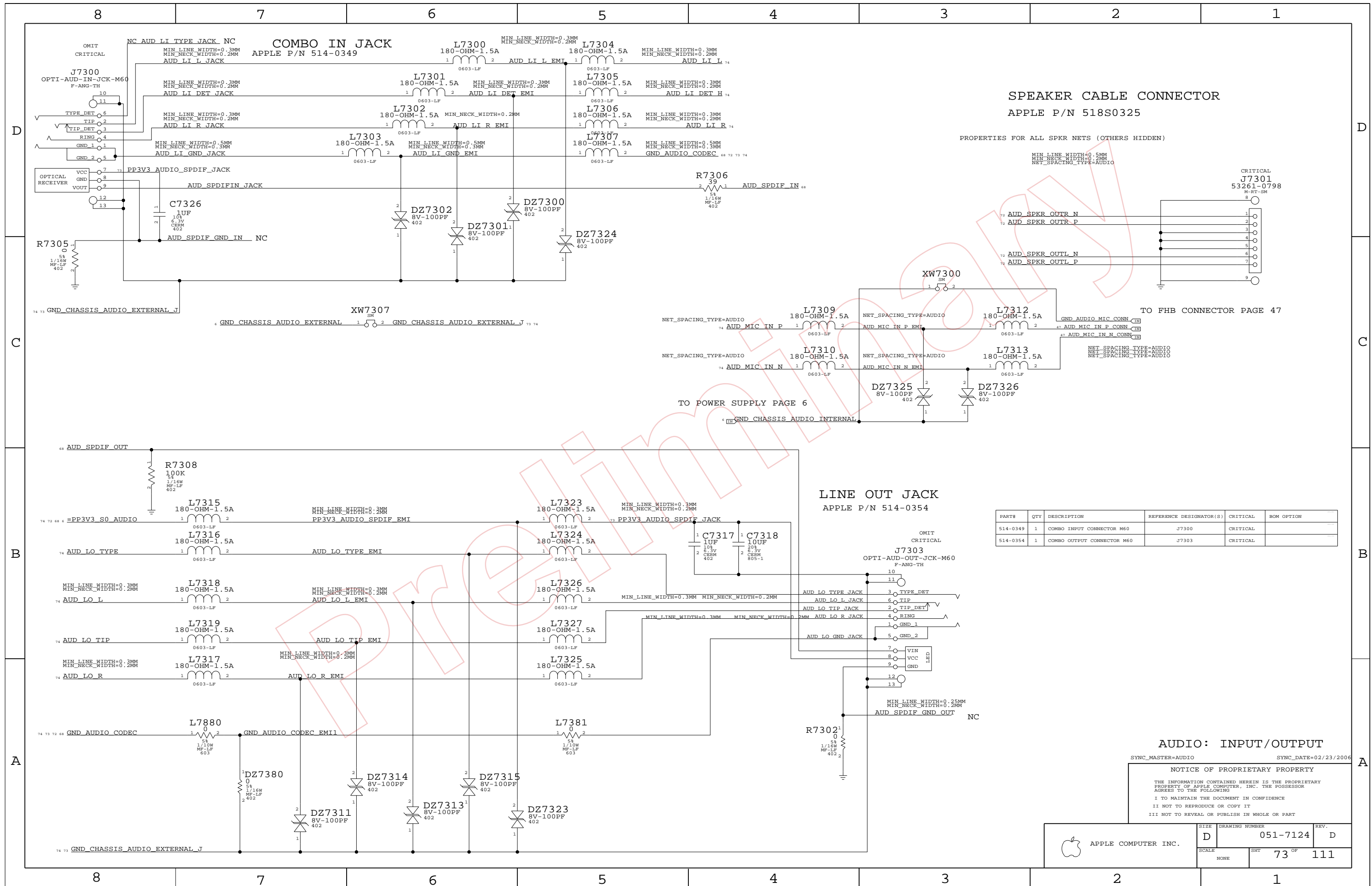
**AUDIO: SPEAKER AMP**

SYNC\_MASTER=FINO-SO SYNC\_DATE=04/28/2005

NOTICE OF PROPRIETARY PROPERTY

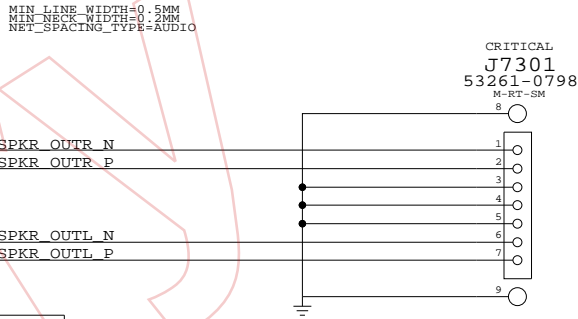
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APPLE COMPUTER INC.	SIZE	DRAWING NUMBER	REV.
	D	051-7124	D
SCALE	NONE	SHT	OF
		72	111

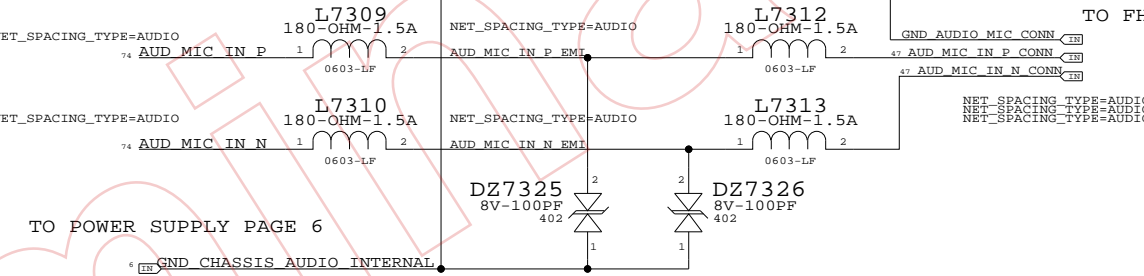


**SPEAKER CABLE CONNECTOR**  
APPLE P/N 518S0325

PROPERTIES FOR ALL SPKR NETS (OTHERS HIDDEN)



TO FHB CONNECTOR PAGE 47



TO POWER SUPPLY PAGE 6

**LINE OUT JACK**  
APPLE P/N 514-0354

PART#	QTY	DESCRIPTION	REFERENCE DESIGNATOR(S)	CRITICAL	BOM OPTION
514-0349	1	COMBO INPUT CONNECTOR M60	J7300	CRITICAL	
514-0354	1	COMBO OUTPUT CONNECTOR M60	J7303	CRITICAL	

**AUDIO: INPUT/OUTPUT**

SYNC\_MASTER=AUDIO SYNC\_DATE=02/23/2006

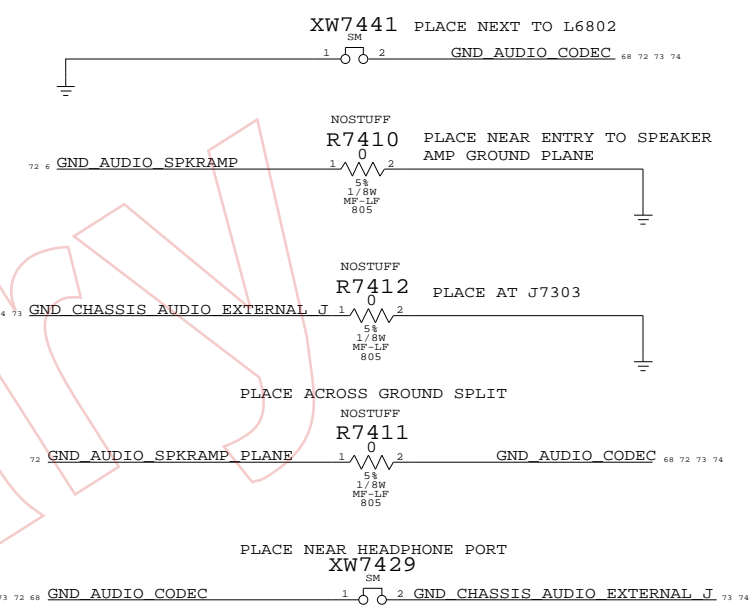
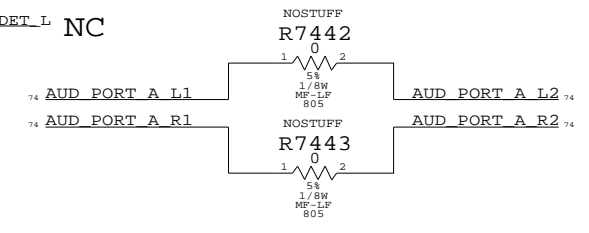
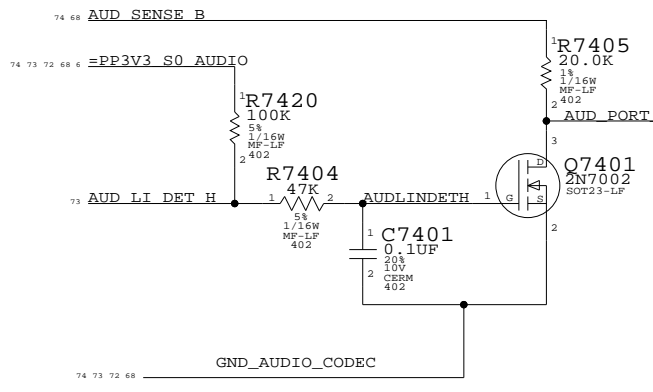
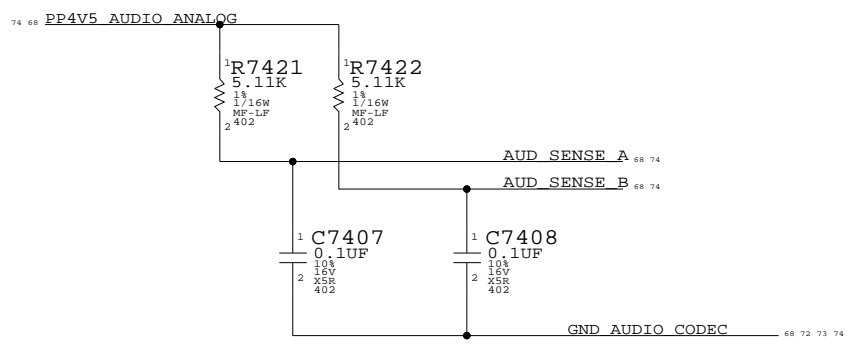
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APPLE COMPUTER INC.	SIZE	DRAWING NUMBER	REV.
	D	051-7124	D
SCALE	SHT	73 OF	111
NONE			

PORT F (LI) PLUG DETECT AUDIO GROUND RETURNS

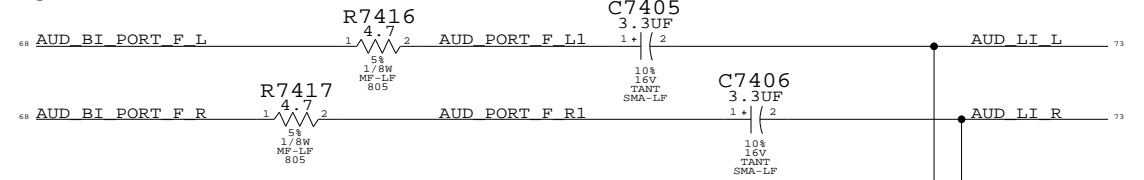
JACK SENSE PULL UPS (PLACE NEXT TO CODEC)



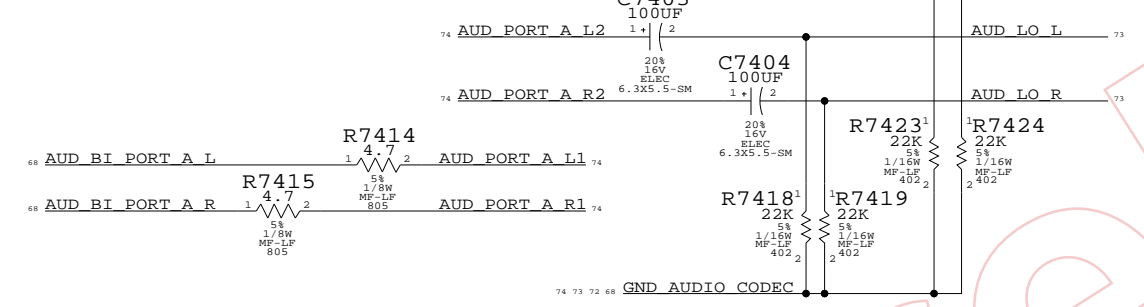
USED PORTS  
 PORT A HP  
 PORT B MIC IN VREF =80%  
 PORT C BI SPEAKERS  
 PORT F LI

UNUSED PORTS  
 PORT E DETECT DELEGATE  
 PORT D

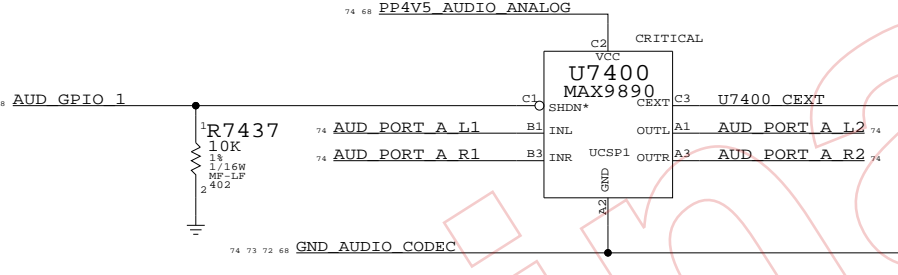
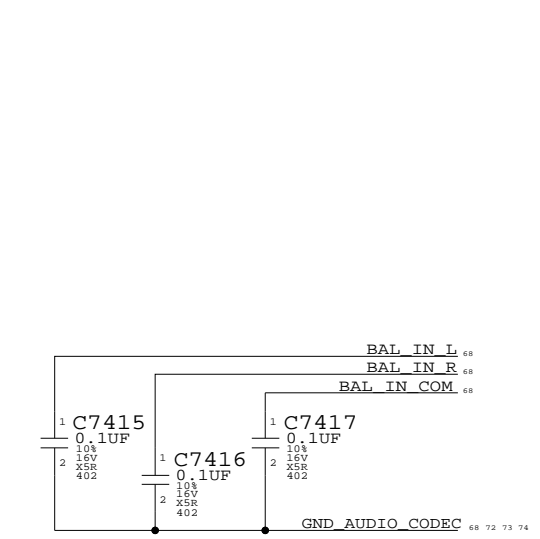
PORT F LI



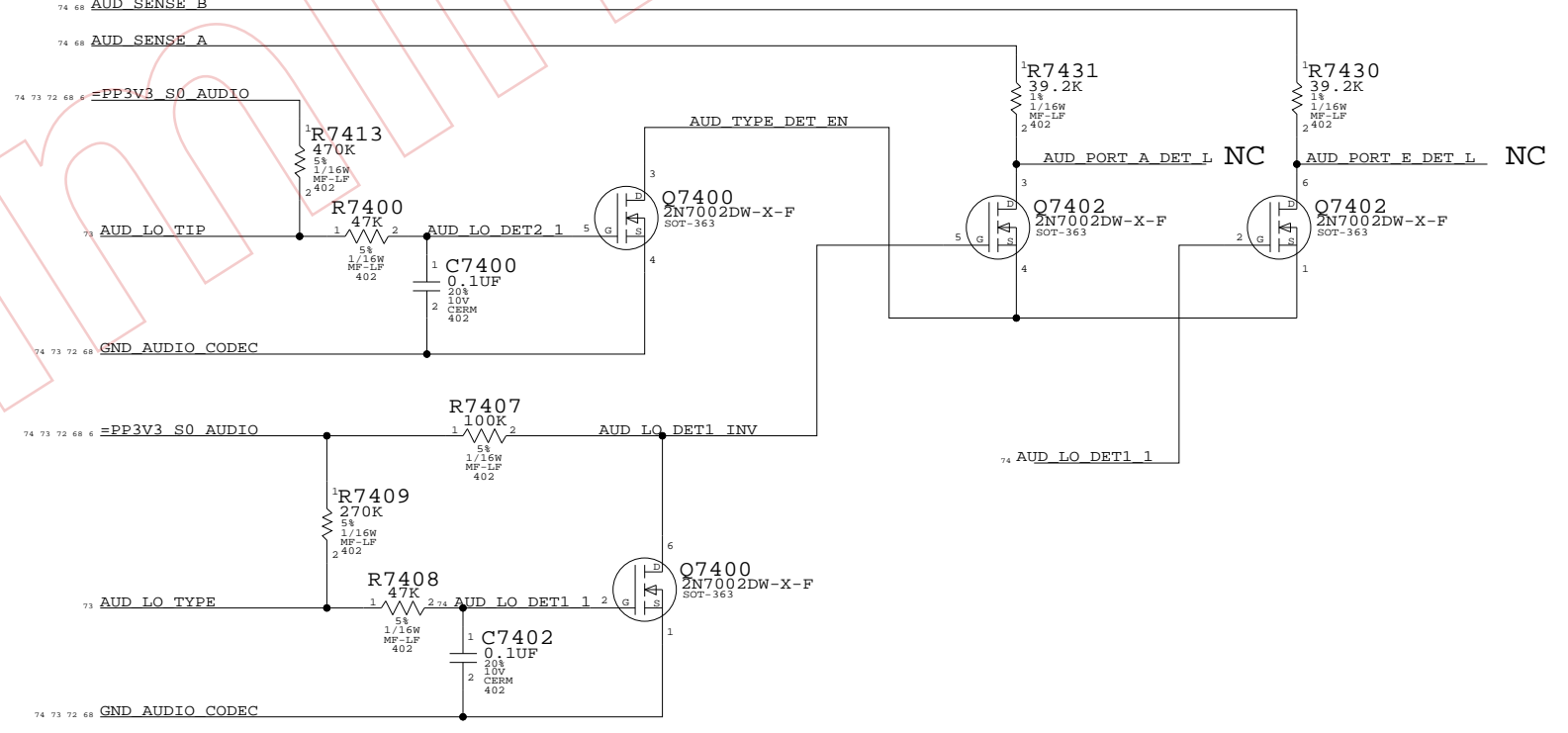
PORT A HP



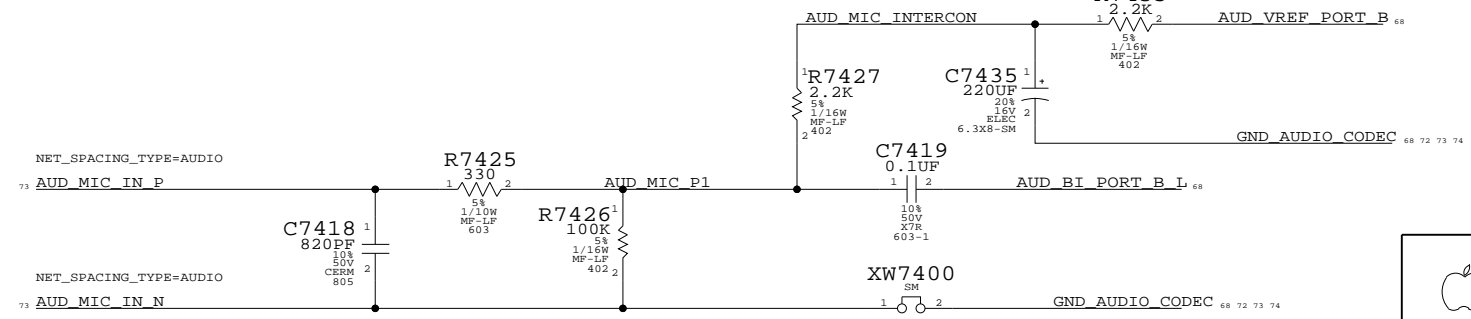
UNUSED PORT TERMINATION



PORT A/H (LO/DIG\_OUT) PLUG DETECT (E TELLS H TO COME ON)



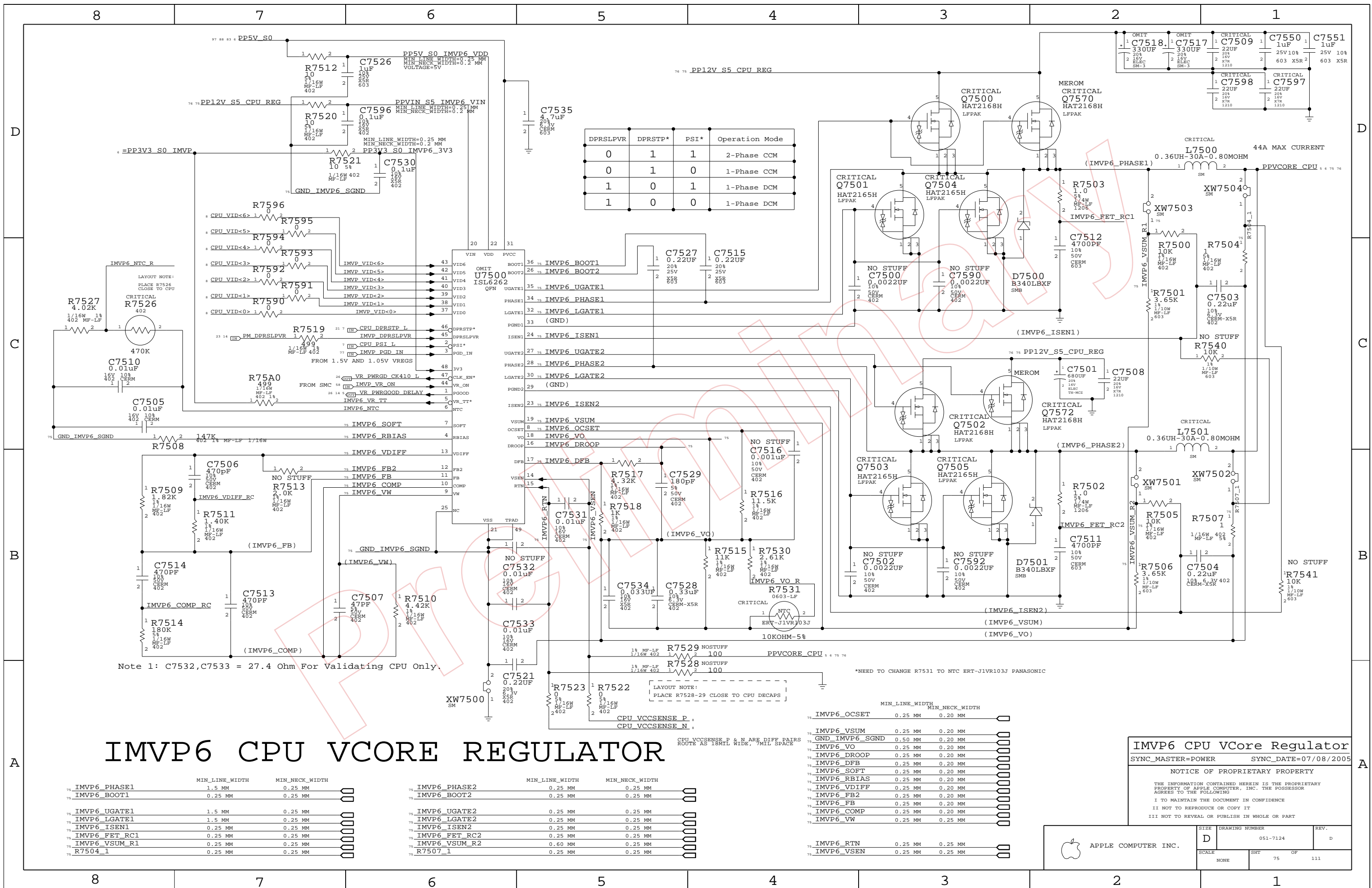
MICROPHONE IMPEDANCE MATCHING CIRCUIT



**AUDIO: JACK DETECT**  
 SYNC\_MASTER=AUDIO SYNC\_DATE=02/23/2006  
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	D	051-7124	D
SCALE	SHT	74 OF	111
NONE			





DPRSLPVR	DPRSTP*	PSI*	Operation Mode
0	1	1	2-Phase CCM
0	1	0	1-Phase CCM
1	0	1	1-Phase DCM
1	0	0	1-Phase DCM

IMVP6_PHASE1	IMVP6_PHASE2	IMVP6_VSUM	IMVP6_VO
NO STUFF	NO STUFF	NO STUFF	NO STUFF
C7500	C7590	C7512	C7516
0.0022UF	0.0022UF	4700PF	0.0001uF
10% 50V CERM 402	10% 50V CERM 402	10% 50V CERM 603	10% 50V CERM 402

# IMVP6 CPU VCore Regulator

Part	MIN_LINE_WIDTH	MIN_NECK_WIDTH
IMVP6_PHASE1	1.5 MM	0.25 MM
IMVP6_BOOT1	0.25 MM	0.25 MM
IMVP6_UGATE1	1.5 MM	0.25 MM
IMVP6_LGATE1	1.5 MM	0.25 MM
IMVP6_ISEN1	0.25 MM	0.25 MM
IMVP6_FET_RC1	0.25 MM	0.25 MM
IMVP6_VSUM_R1	0.25 MM	0.25 MM
R7504_1	0.25 MM	0.25 MM
IMVP6_PHASE2	0.25 MM	0.25 MM
IMVP6_BOOT2	0.25 MM	0.25 MM
IMVP6_UGATE2	0.25 MM	0.25 MM
IMVP6_LGATE2	0.25 MM	0.25 MM
IMVP6_ISEN2	0.25 MM	0.25 MM
IMVP6_FET_RC2	0.25 MM	0.25 MM
IMVP6_VSUM_R2	0.60 MM	0.25 MM
R7507_1	0.25 MM	0.25 MM
IMVP6_OCSET	0.25 MM	0.20 MM
IMVP6_VSUM	0.25 MM	0.20 MM
GND_IMVP6_SGND	0.50 MM	0.20 MM
IMVP6_VO	0.25 MM	0.20 MM
IMVP6_DROOP	0.25 MM	0.20 MM
IMVP6_DFB	0.25 MM	0.20 MM
IMVP6_SOFT	0.25 MM	0.20 MM
IMVP6_VDIFF	0.25 MM	0.20 MM
IMVP6_FB2	0.25 MM	0.20 MM
IMVP6_FB	0.25 MM	0.20 MM
IMVP6_COMP	0.25 MM	0.20 MM
IMVP6_VW	0.25 MM	0.25 MM
IMVP6_RTIN	0.25 MM	0.25 MM
IMVP6_VSEN	0.25 MM	0.25 MM

**IMVP6 CPU VCore Regulator**  
 SYNC\_MASTER=POWER SYNC\_DATE=07/08/2005

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SIZE	DRAWING NUMBER	REV.
D	051-7124	D
SCALE	SHEET	OF
NONE	75	111



APPLE COMPUTER INC.

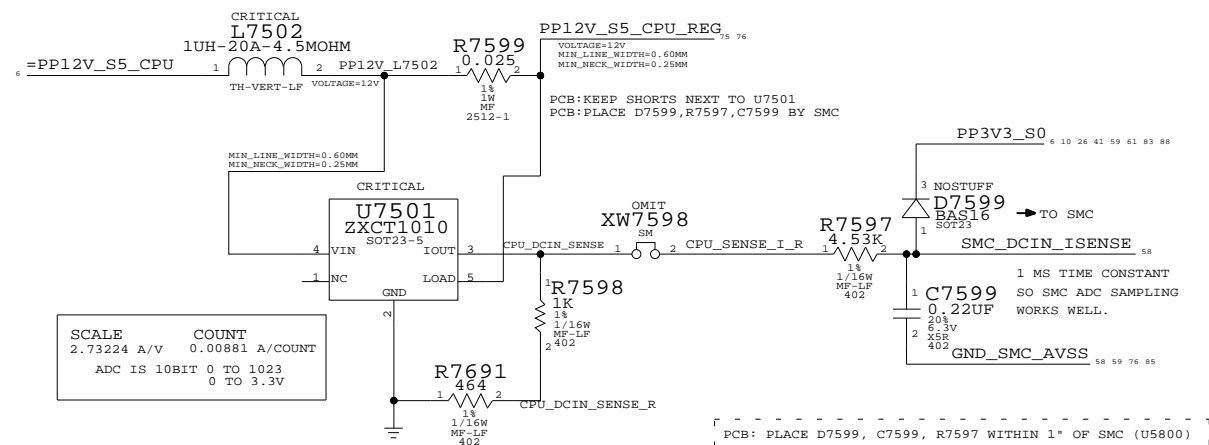
Note 1: C7532,C7533 = 27.4 Ohm For Validating CPU Only.

\*NEED TO CHANGE R7531 TO NTC ERT-J1VR103J PANASONIC

LAYOUT NOTE:  
PLACE R7528-29 CLOSE TO CPU DECAPS

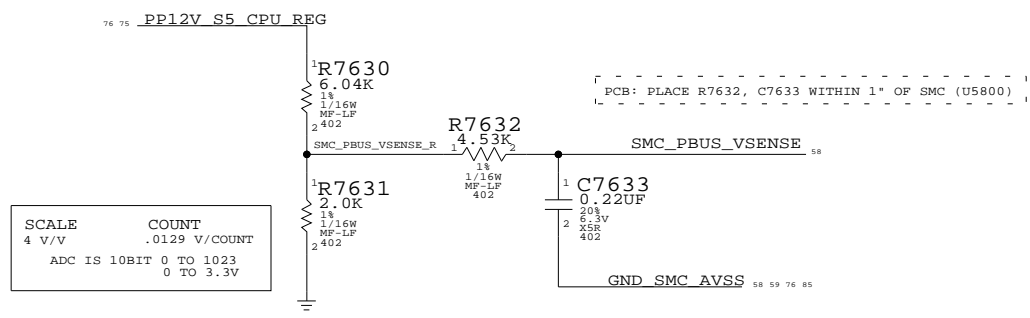
CPU VCCSENSE P & N ARE DIFF PAIRS  
ROUTE AS 18MIL WIDE, 7MIL SPACE

**PROCESSOR VCORE CURRENT SENSE**  
(USING 12V INPUT CURRENT TO DERIVE CPU CURRENT)



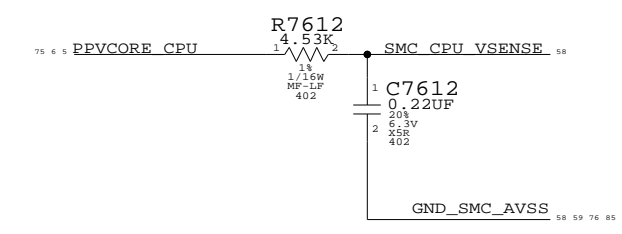
SCALE	COUNT
2.73224 A/V	0.00881 A/COUNT
ADC IS 10BIT 0 TO 1023	
0 TO 3.3V	

**PROCESSOR DCIN VOLTAGE SENSE**  
(SCALING 12V INPUT VOLTAGE TO SMC)



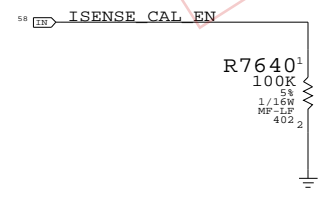
SCALE	COUNT
4 V/V	.0129 V/COUNT
ADC IS 10BIT 0 TO 1023	
0 TO 3.3V	

**PROCESSOR VCORE SENSE**

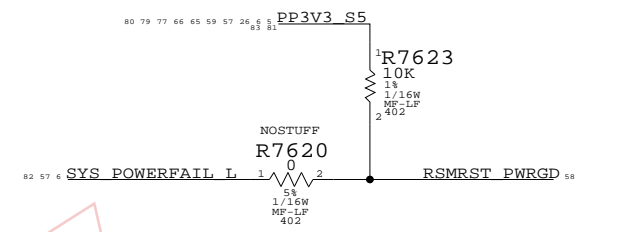


PCB: PLACE R7612, C7612 WITHIN 1" OF SMC (U5800)

**Current Sense Calibration Circuit**  
Switches in fixed load on power supplies to calibrate current sense circuits



**SMC PWRGD PULLUP**



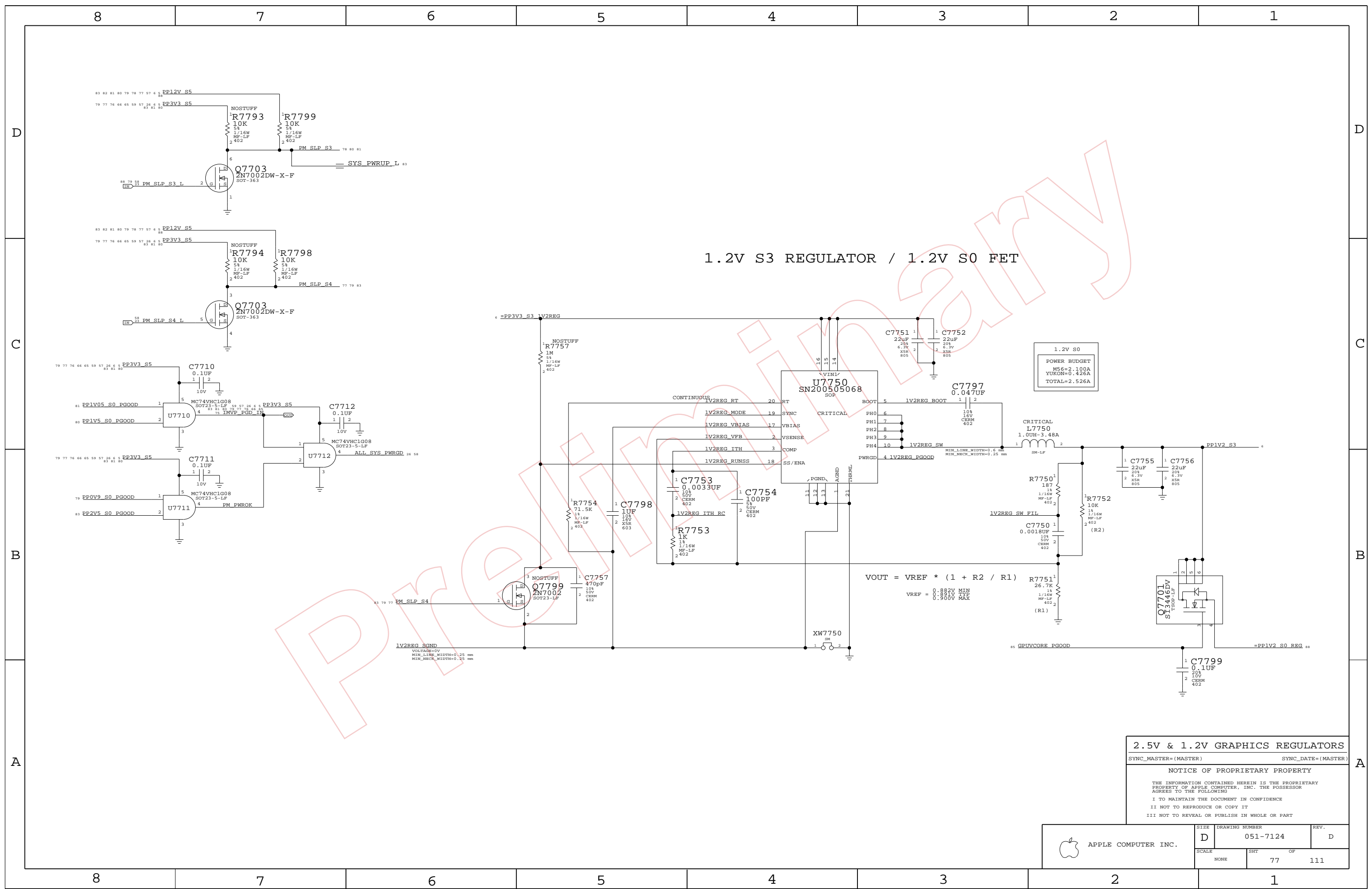
**CPU SENSE CIRCUITRIES**

SYNC\_MASTER=(MASTER) SYNC\_DATE=(MASTER)

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	D	051-7124	D
SCALE	SHT	76 OF	111
NONE			



1.2V S3 REGULATOR / 1.2V S0 FET

1.2V S0	
POWER BUDGET	
M56=	2.100A
YUKON=	0.426A
TOTAL=	2.526A

$$V_{OUT} = V_{REF} * (1 + R2 / R1)$$

$$V_{REF} = 0.82V \text{ MIN}$$

$$V_{REF} = 0.91V \text{ TYP}$$

$$V_{REF} = 0.90V \text{ MAX}$$

2.5V & 1.2V GRAPHICS REGULATORS

SYNC\_MASTER=(MASTER) SYNC\_DATE=(MASTER)

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APPLE COMPUTER INC.	SIZE	DRAWING NUMBER	REV.
	D	051-7124	D
SCALE	SHT	OF	
NONE	77	111	

D

D

C

C

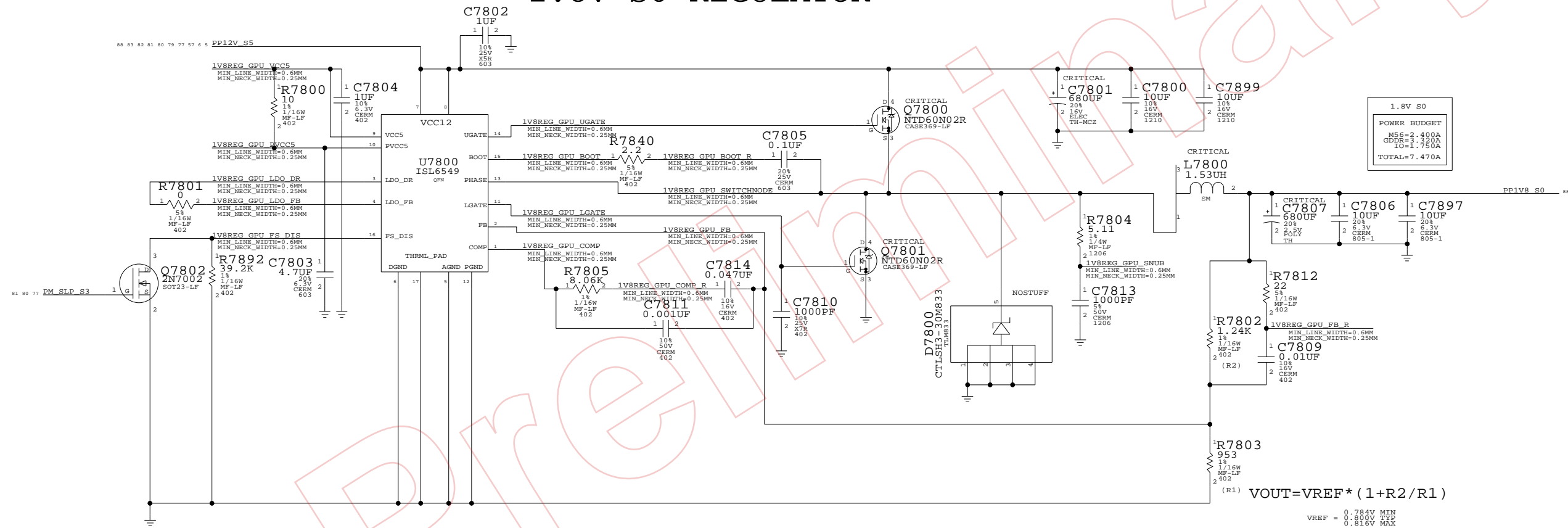
B

B

A

A

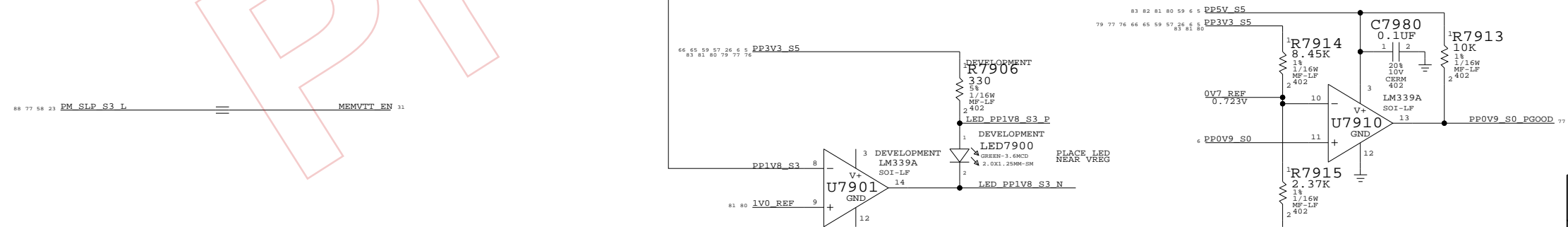
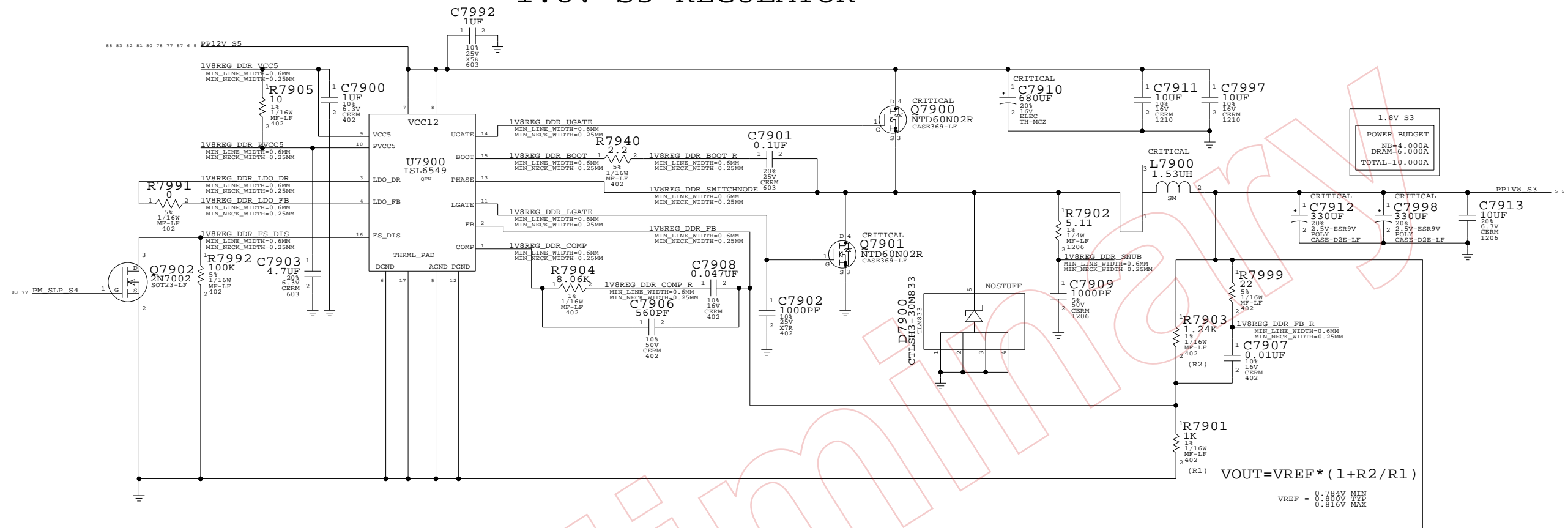
# 1.8V S0 REGULATOR



**1.8V GDDR REGULATOR**  
 SYNC\_MASTER=(MASTER) SYNC\_DATE=(MASTER)  
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APPLE COMPUTER INC.	SIZE	DRAWING NUMBER	REV.
	D	051-7124	D
SCALE	SHT	78 OF	111
NONE			

# 1.8V S3 REGULATOR

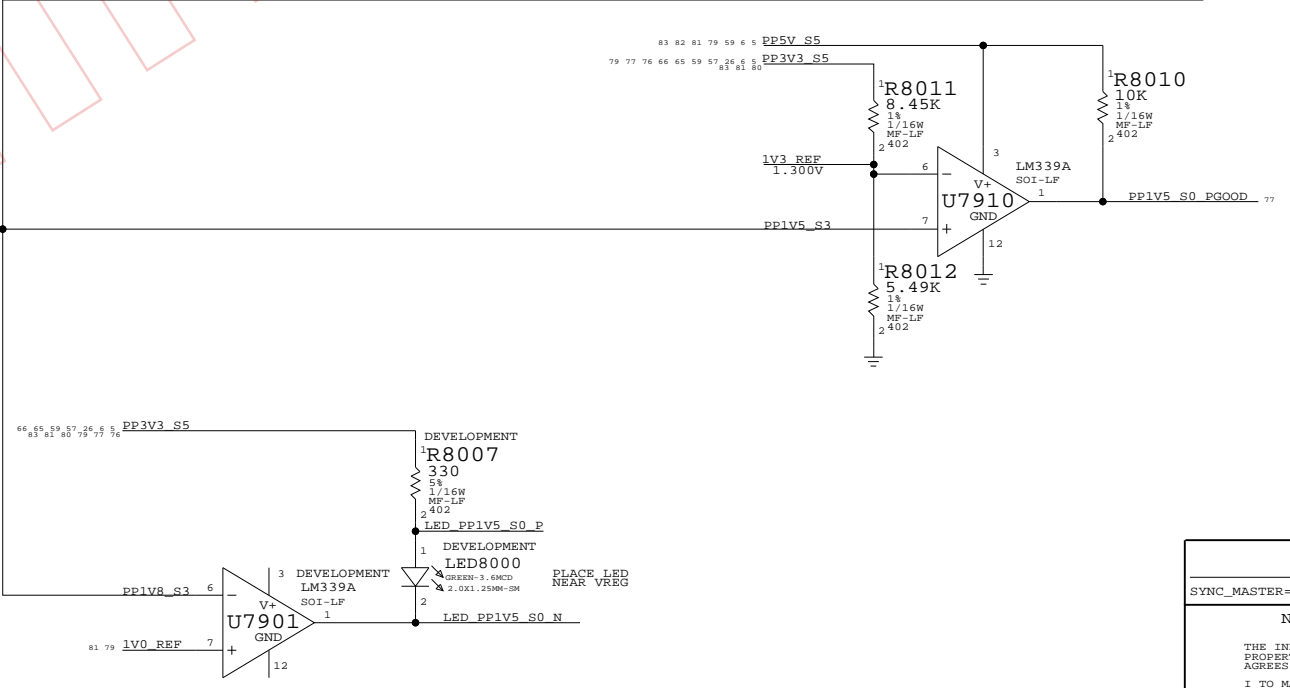
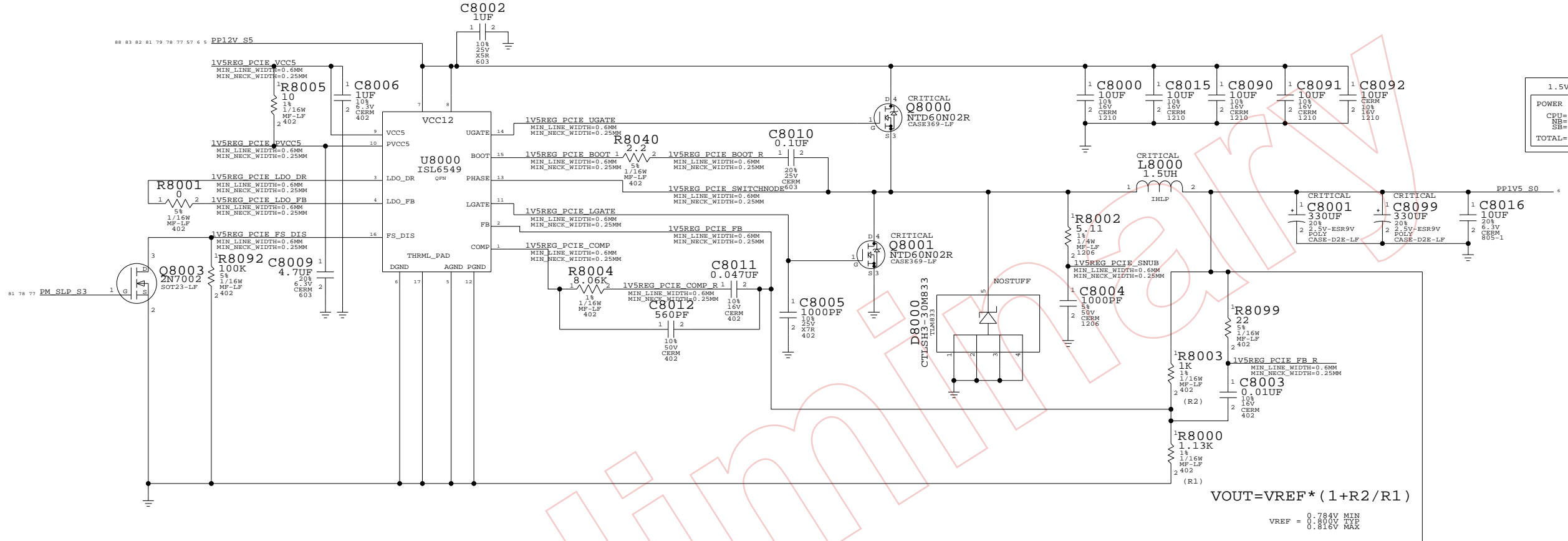


**1.8V Vreg**  
 SYNC\_MASTER=M23-PC SYNC\_DATE=04/12/2005

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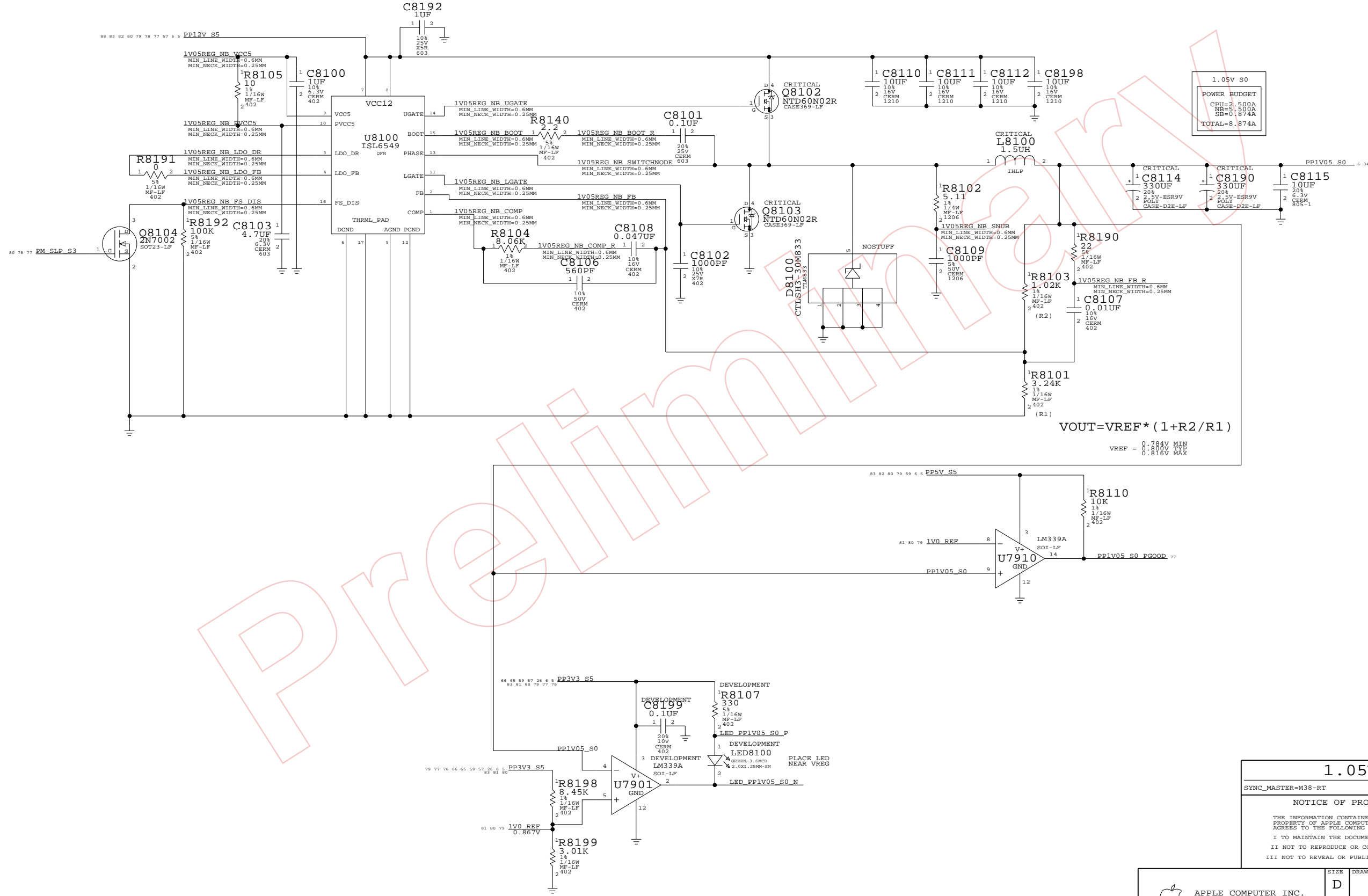
APPLE COMPUTER INC.	SIZE	DRAWING NUMBER	REV.
	D	051-7124	D
SCALE	SHT	79 OF	111
NONE			

# 1.5V S0 REGULATOR



APPLE COMPUTER INC.	SIZE	DRAWING NUMBER	REV.
	D	051-7124	D
SCALE	SHT	80 OF	111
NONE			

# 1.05V S0 REGULATOR



**1.05V VREG**

SYNC\_MASTER=M38-RT SYNC\_DATE=05/18/2005

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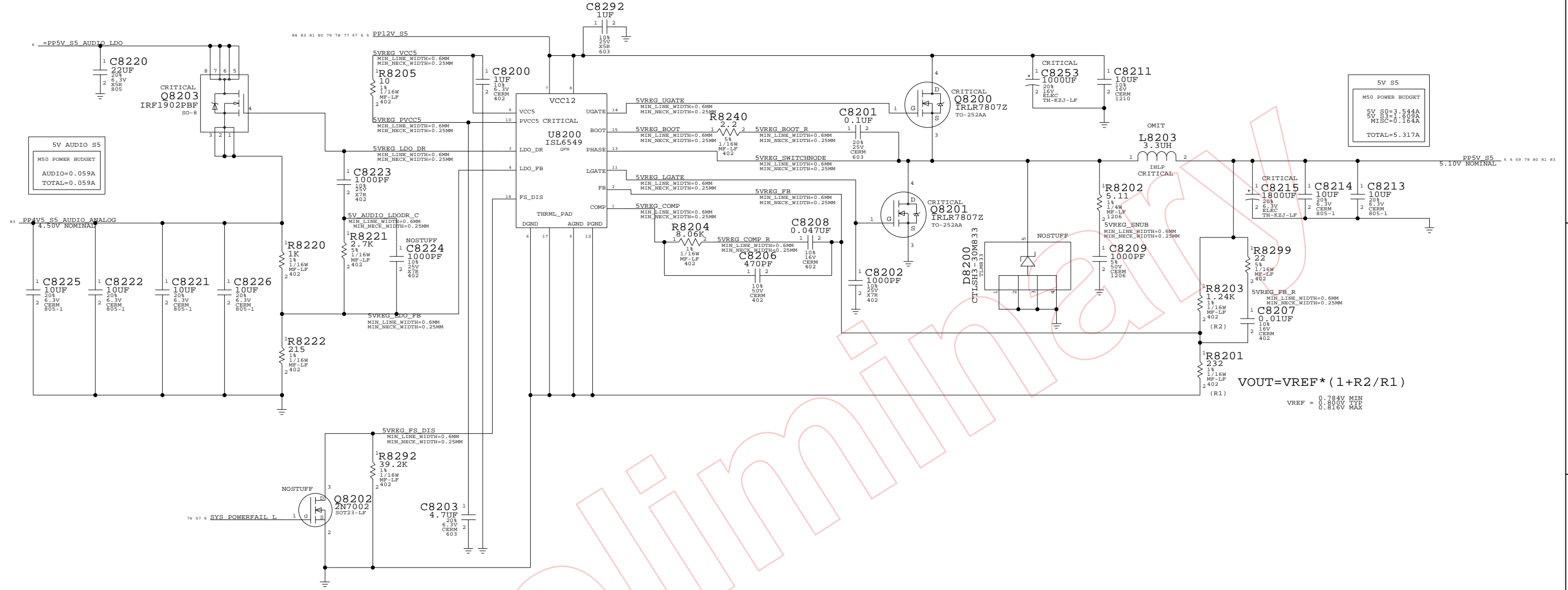
I TO MAINTAIN THE DOCUMENT IN CONFIDENCE

II NOT TO REPRODUCE OR COPY IT

III NOT TO REVEAL OR PUBLISH IN WHOLE OR PART

APPLE COMPUTER INC.	SIZE	DRAWING NUMBER	REV.
	D	051-7124	D
SCALE	SHT	81 OF	111
NONE			

# 5V S5 AND 5V AUDIO S5 REGULATOR



$$V_{OUT} = V_{REF} * (1 + R2/R1)$$

$V_{REF} = 0.784V \text{ MIN}$   
 $V_{REF} = 0.800V \text{ TYP}$   
 $V_{REF} = 0.816V \text{ MAX}$

**5V DC/DC 4.5V**

SYNC\_MASTER=(MASTER) SYNC\_DATE=(MASTER)

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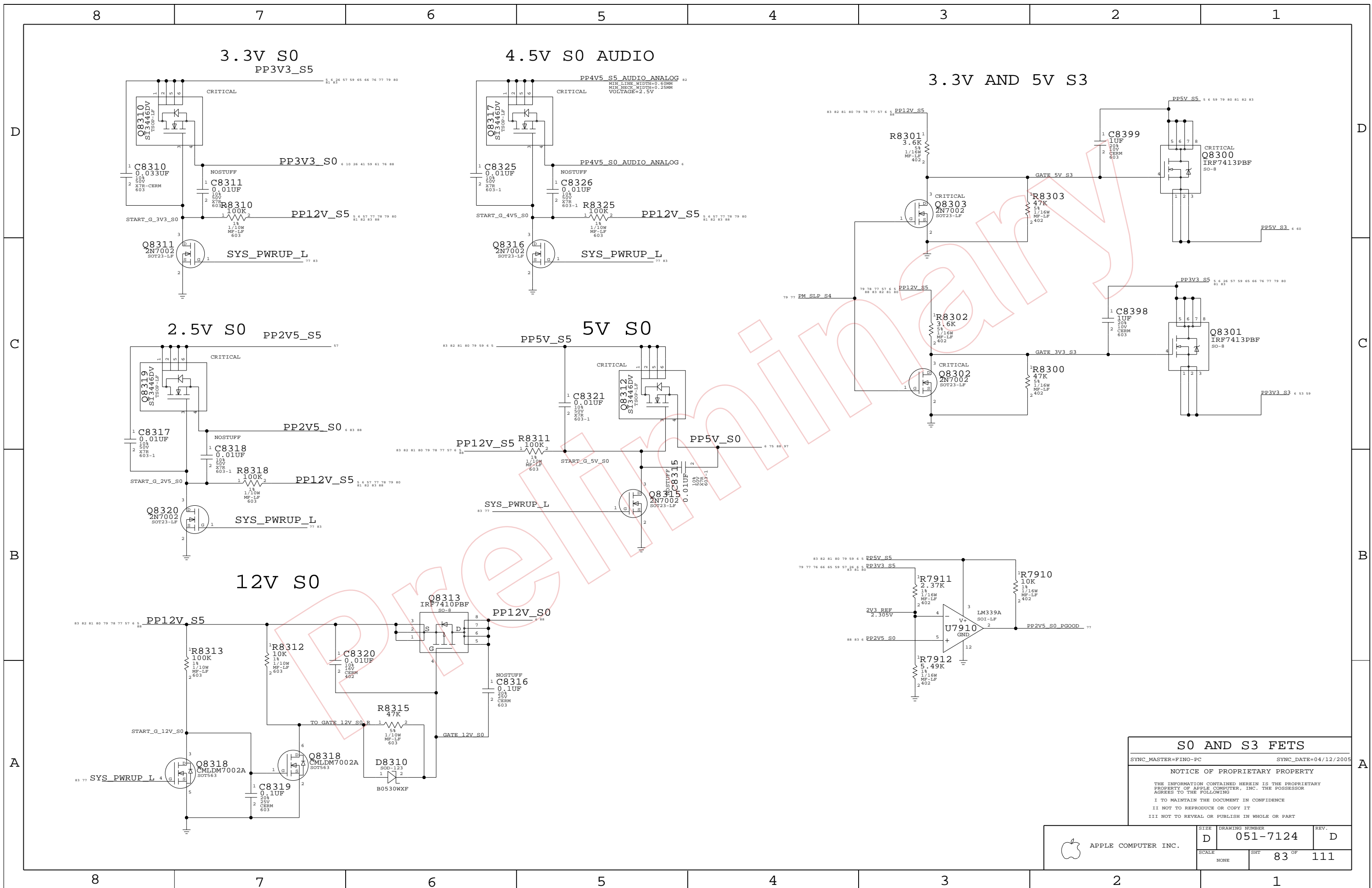
I TO MAINTAIN THE DOCUMENT IN CONFIDENCE

II NOT TO REPRODUCE OR COPY IT

III NOT TO REVEAL OR PUBLISH IN WHOLE OR PART

APPLE COMPUTER INC.	SIZE	DRAWING NUMBER	REV.
	D	051-7124	D
SCALE	SHT	82 OF	111
NONE			





**S0 AND S3 FETS**

SYNC\_MASTER=FINO-PC SYNC\_DATE=04/12/2005

**NOTICE OF PROPRIETARY PROPERTY**

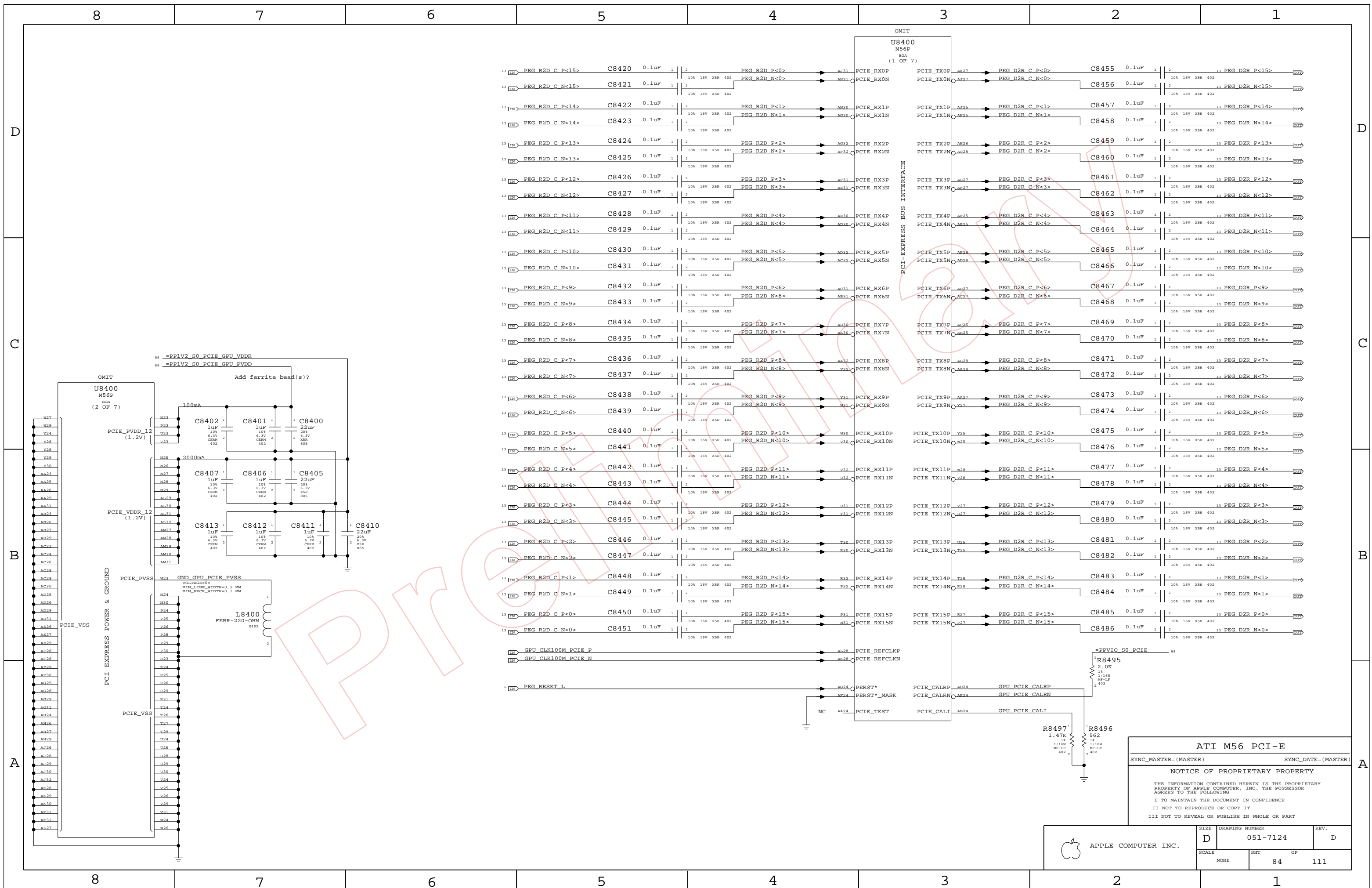
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APPLE COMPUTER INC.	SIZE <b>D</b>	DRAWING NUMBER <b>051-7124</b>	REV. <b>D</b>
	SCALE NONE	SHIT <b>83</b> OF <b>111</b>	



ATI M56 PCI-E

SYNC\_MASTER=(MASTER) SYNC\_DATE=(MASTER)

NOTICE OF PROPRIETARY PROPERTY

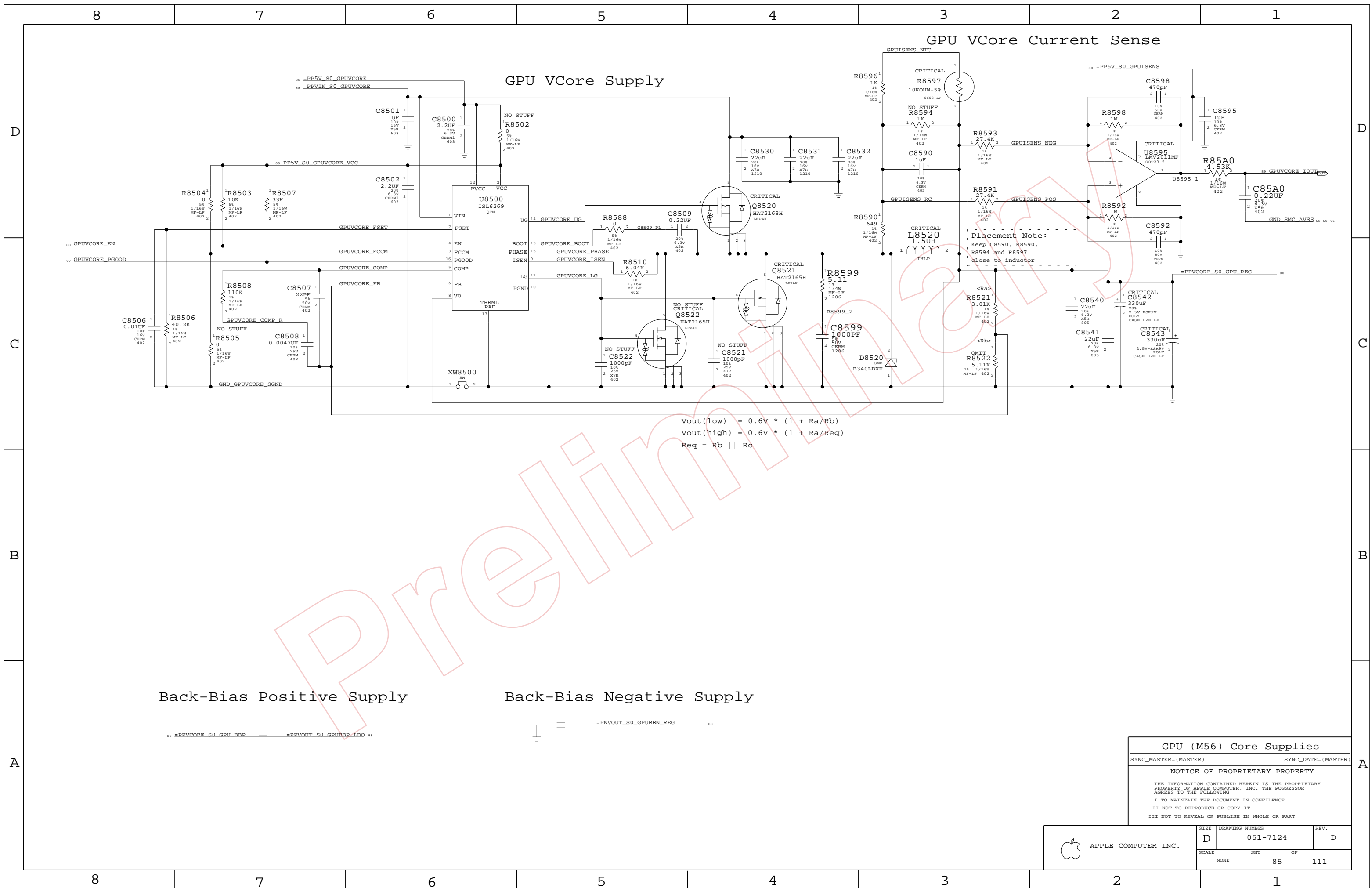
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APPLE COMPUTER INC.	SIZE	DRAWING NUMBER	REV.
	D	051-7124	D
SCALE	SHT	OF	
NONE	84		111



GPU VCore Supply

GPU VCore Current Sense

Back-Bias Positive Supply

Back-Bias Negative Supply

$$V_{out}(low) = 0.6V * (1 + R_a/R_b)$$

$$V_{out}(high) = 0.6V * (1 + R_a/R_{eq})$$

$$R_{eq} = R_b || R_c$$

Placement Note:  
Keep C8590, R8590,  
R8594 and R8597  
close to inductor

GPU (M56) Core Supplies  
 SYNC\_MASTER=(MASTER) SYNC\_DATE=(MASTER)  
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APPLE COMPUTER INC.	SIZE	DRAWING NUMBER	REV.
	D	051-7124	D
SCALE	SHT	OF	
NONE	85	111	

Page Notes

Power aliases required by this page:  
 - =PP1V5\_GPU\_VDD15  
 - =PP1VR1V3\_GPU\_VCORE

Signal aliases required by this page:  
 (NONE)

BOM options provided by this page:  
 (NONE)

8 7 6 5 4 3 2 1

D

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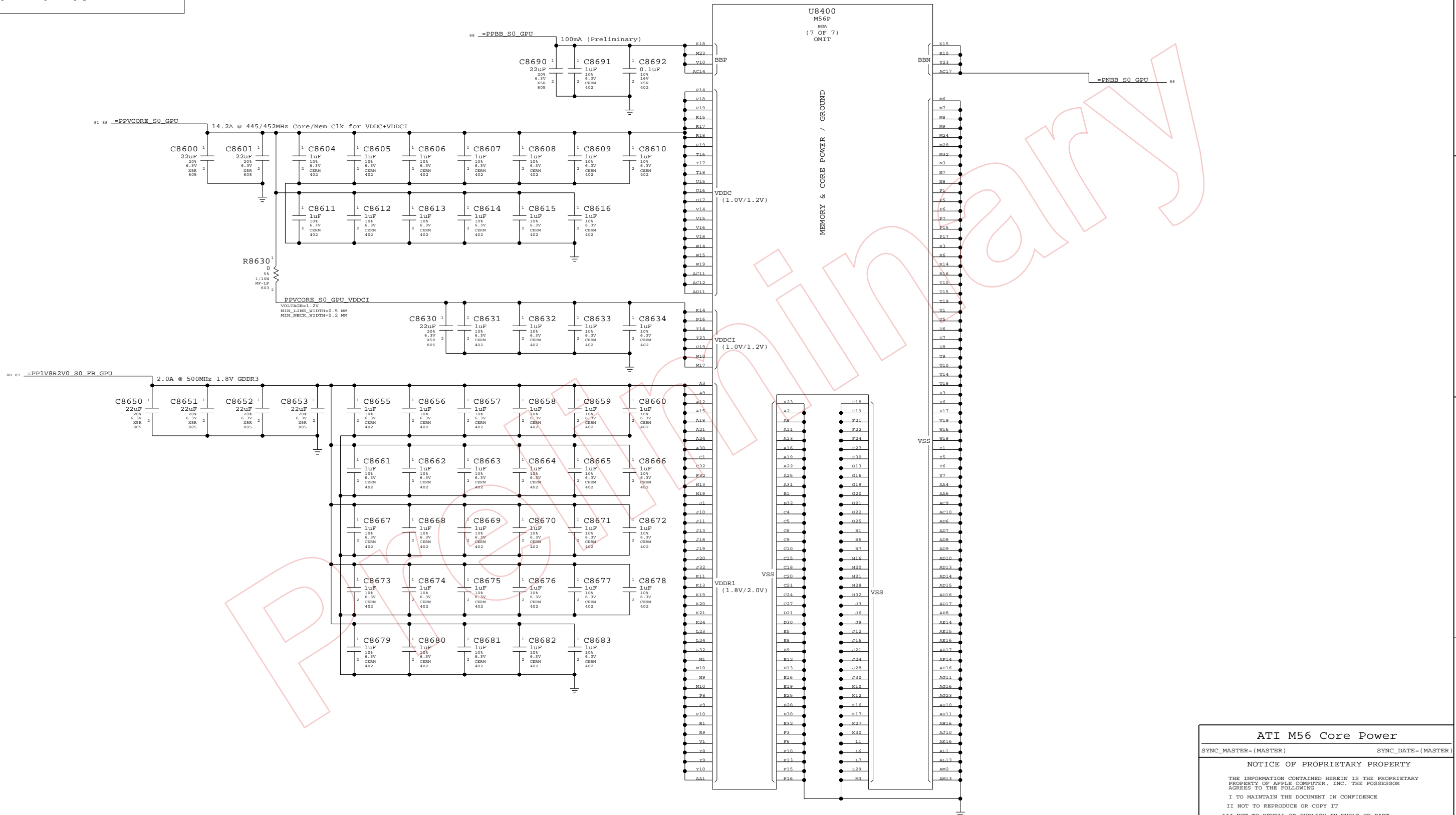
A

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ATI M56 Core Power

SYNC\_MASTER=(MASTER) SYNC\_DATE=(MASTER)

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II NOT TO REPRODUCE OR COPY IT

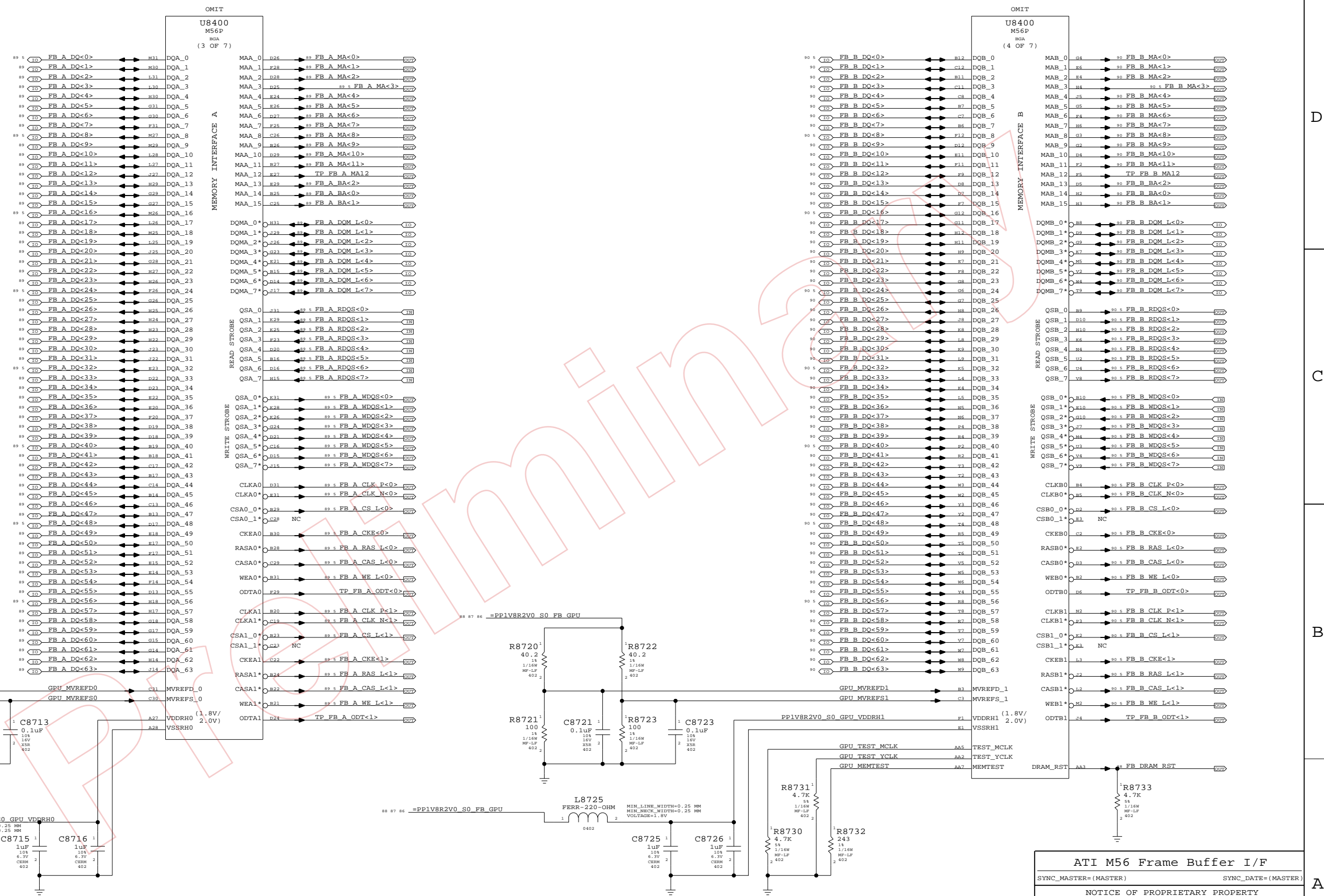
III NOT TO REVEAL OR PUBLISH IN WHOLE OR PART

APPLE COMPUTER INC.	SIZE	DRAWING NUMBER	REV.
	D	051-7124	D
SCALE	SHT	OF	
NONE	86	111	

8 7 6 5 4 3 2 1

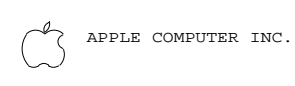
Page Notes

Power aliases required by this page:
- =PP1V8R2V0\_S0\_FB\_GPU
Signal aliases required by this page:
(NONE)
BOM options provided by this page:
(NONE)



ATI M56 Frame Buffer I/F
SYNC\_MASTER=(MASTER) SYNC\_DATE=(MASTER)
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Table with columns for SIZE, DRAWING NUMBER, REV., SCALE, SHEET, OF, and PART NUMBER. Values include D, 051-7124, D, NONE, 87, 111.



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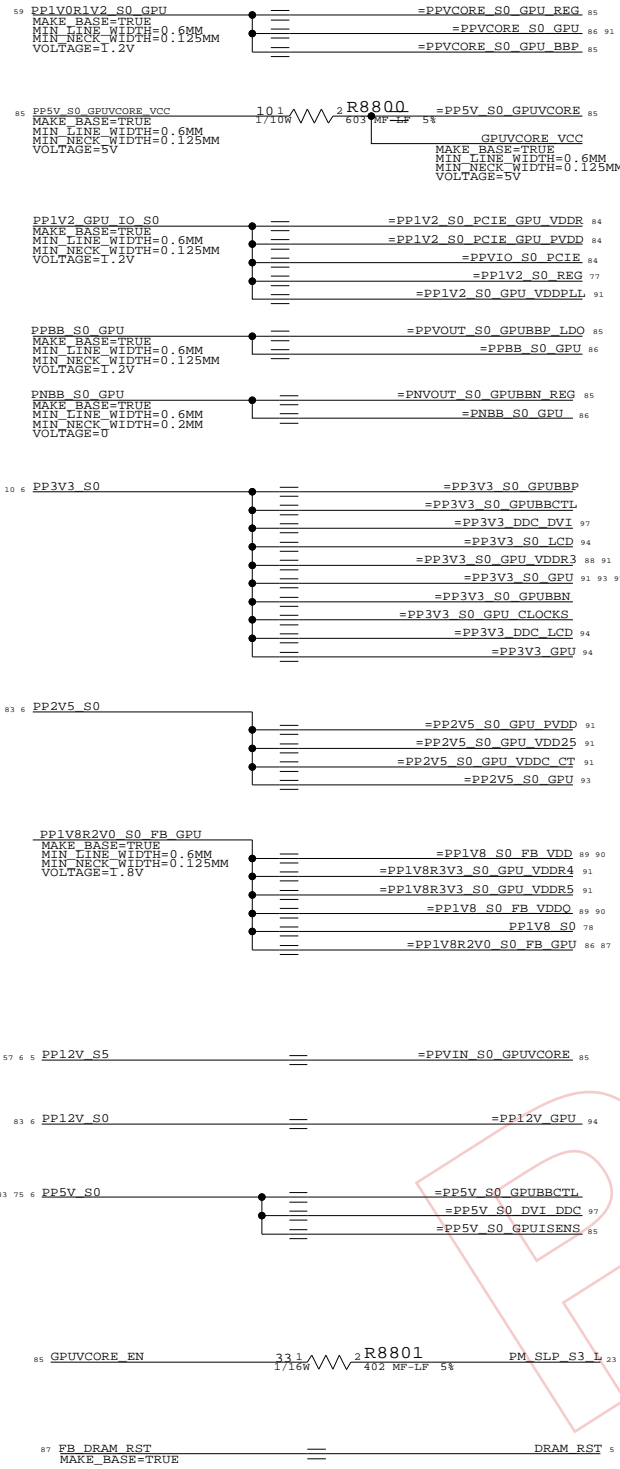
3

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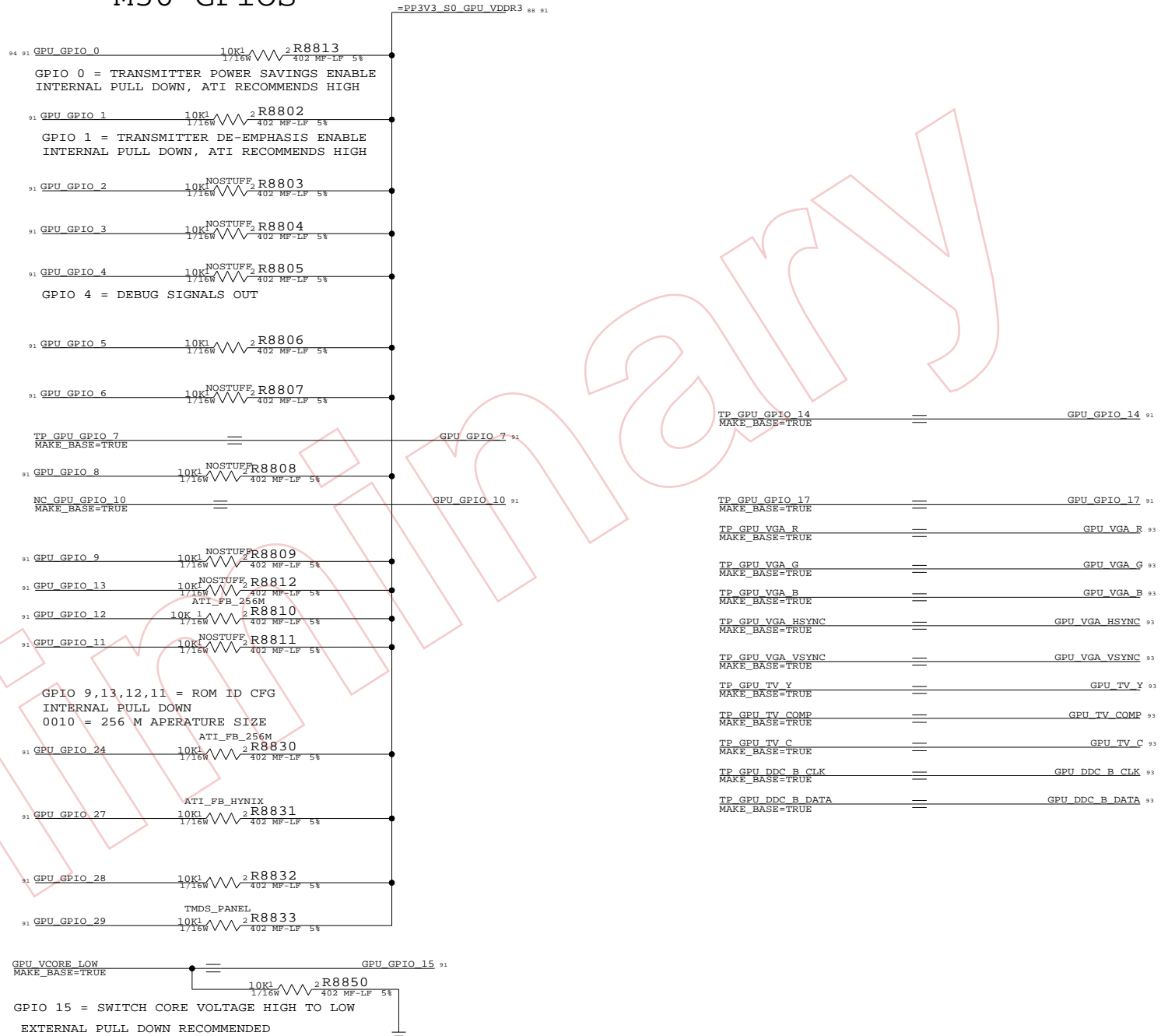
1

### "S0" GPU RAILS

ONLY ON IN RUN



### M56 GPIOs



### GPU MISC

D

D

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C

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B

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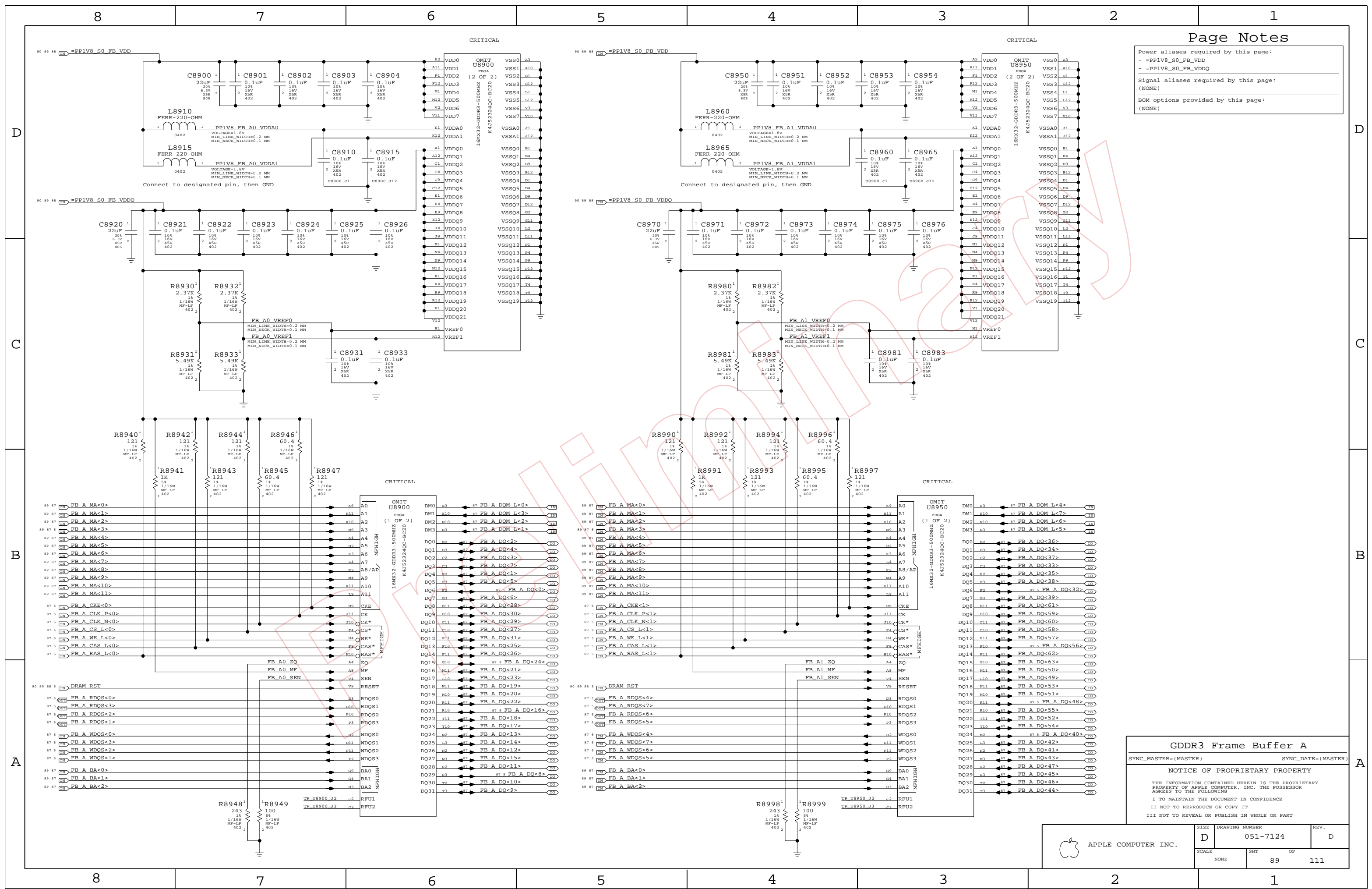
2

1

Power aliases required by this page:  
 - =PPIV8\_S0\_FB\_VDD  
 - =PPIV8\_S0\_FB\_VDDQ

Signal aliases required by this page:  
 (NONE)

BOM options provided by this page:  
 (NONE)



**GDDR3 Frame Buffer A**

SYNC\_MASTER=(MASTER)      SYNC\_DATE=(MASTER)

**NOTICE OF PROPRIETARY PROPERTY**

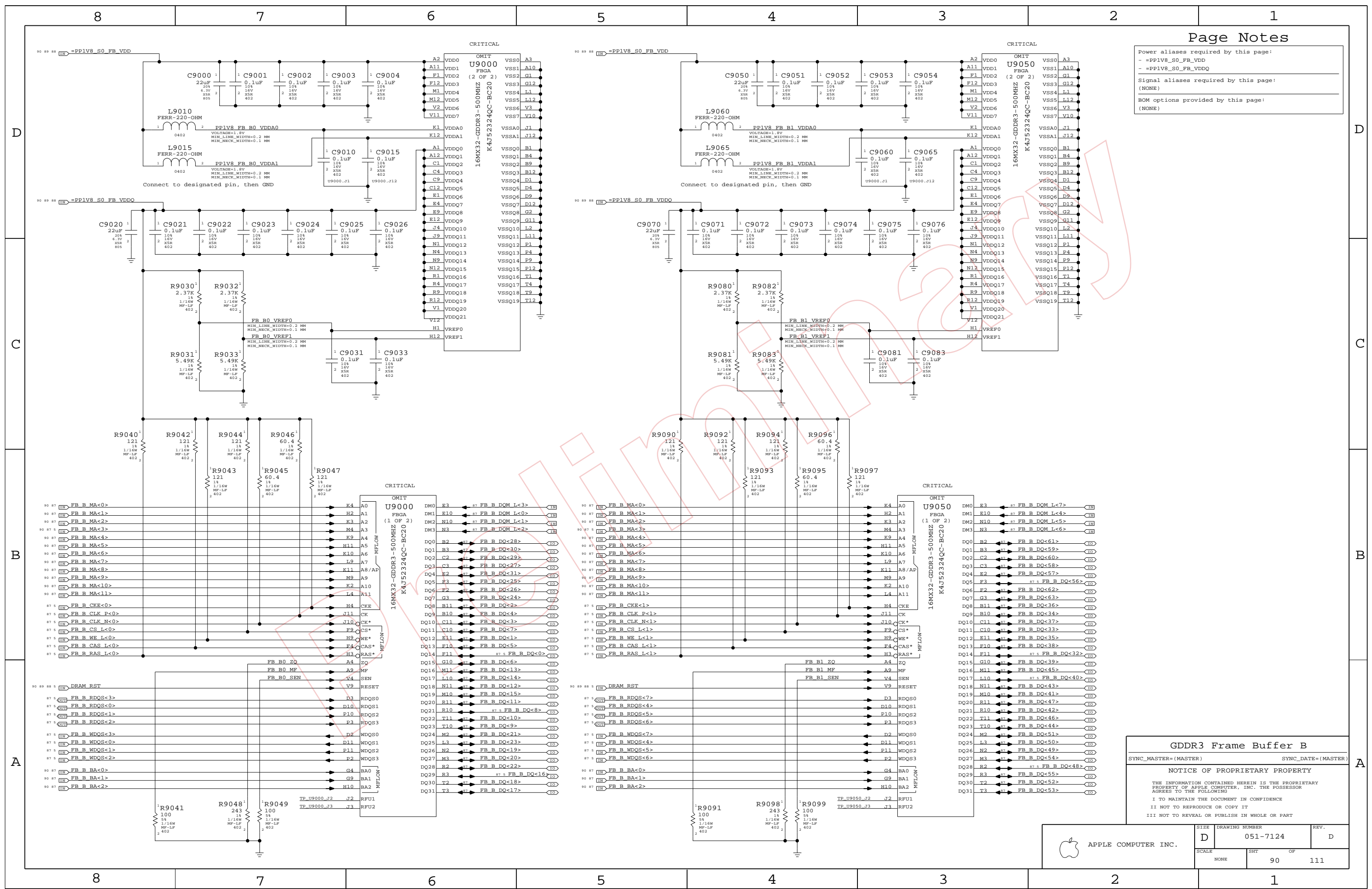
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Power aliases required by this page:  
 - =PPIV8\_S0\_FB\_VDD  
 - =PPIV8\_S0\_FB\_VDDQ

Signal aliases required by this page:  
 (NONE)

BOM options provided by this page:  
 (NONE)



**GDDR3 Frame Buffer B**

SYNC\_MASTER=(MASTER)      SYNC\_DATE=(MASTER)

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APPLE COMPUTER INC.	SIZE	DRAWING NUMBER	REV.
	D	051-7124	D
SCALE	SHT	OF	
NONE	90	111	



Page Notes

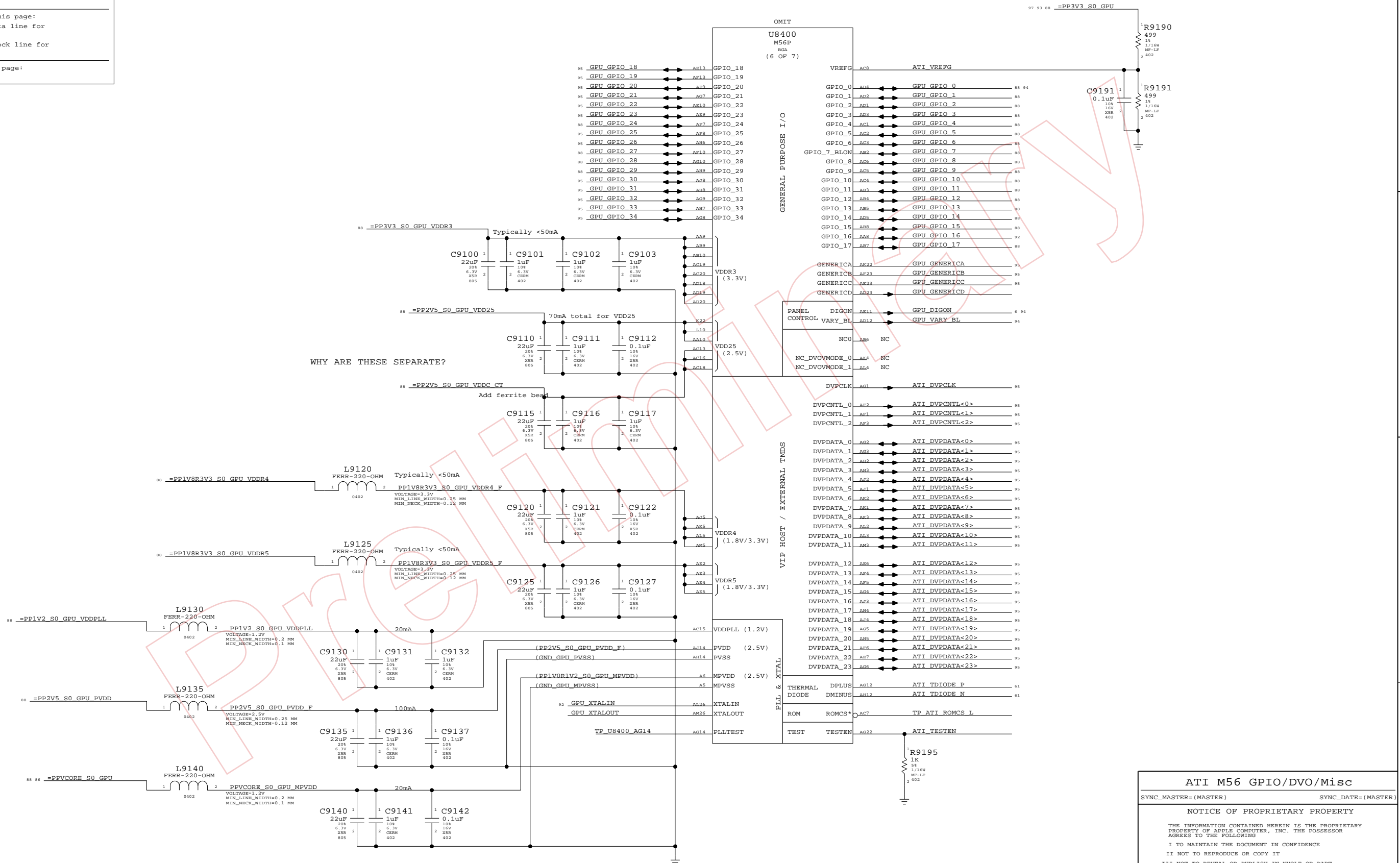
Power aliases required by this page:

- =PP3V3\_GPU\_GPIOS
- =PP2V5\_PVDD
- =PP1V8\_GPU\_LVDS\_PLL

Signal aliases required by this page:

- =I2C\_GPU\_TMDS\_SDA - I2C data line for external TMDS transmitters
- =I2C\_GPU\_TMDS\_SCL - I2C clock line for external TMDS transmitters

BOM options provided by this page:  
(NONE)



ATI M56 GPIO/DVO/Misc  
 SYNC\_MASTER=(MASTER) SYNC\_DATE=(MASTER)  
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APPLE COMPUTER INC.	SIZE	DRAWING NUMBER	REV.
	D	051-7124	D
SCALE	SHT	OF	
NONE	91	111	

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### Page Notes

Power aliases required by this page:

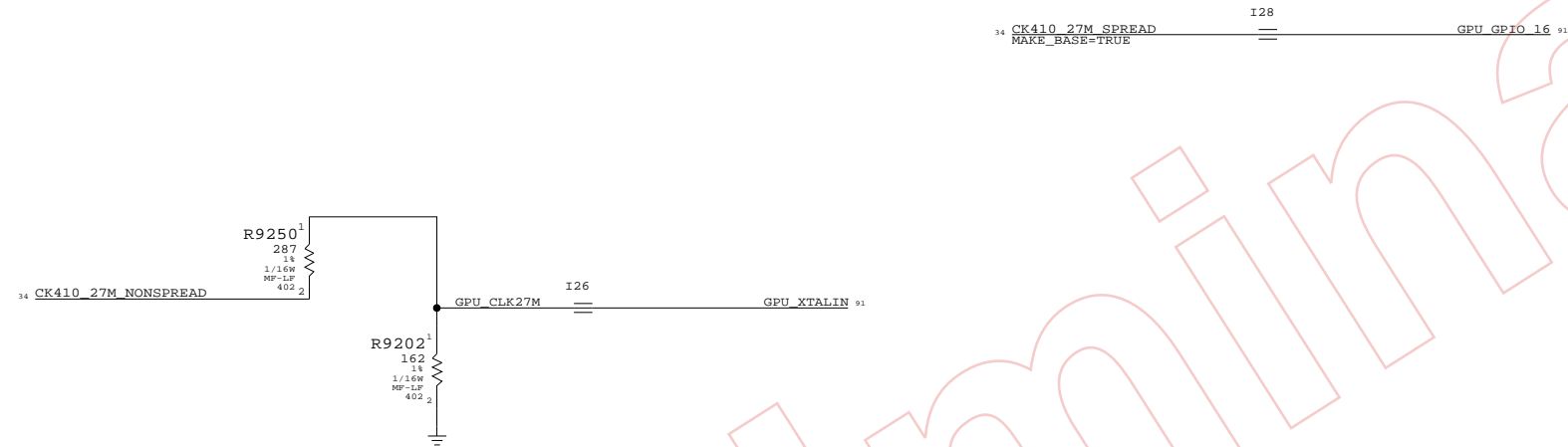
- =PP3V3\_GPU\_CLOCKS      - =PP3V3\_GPU\_PWRSEQ
- =PPVIN\_GPU\_LVDDR\_LDO    - =PP2V5\_GPU\_PWRSEQ
- =PP2V5\_GPU\_LVDDR\_LDO    - =PP1V8\_GPU\_PWRSEQ
- =PP1V5\_GPU\_PWRSEQ

Signal aliases required by this page:

(NONE)

BOM options provided by this page:

- GPU\_SS                      - GPU\_LVDDR\_2V8



Preliminary

### GPU CLOCKS

SYNC\_MASTER=BOZEMAN      SYNC\_DATE=05/21/2005

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APPLE COMPUTER INC.	SIZE	DRAWING NUMBER	REV.
	D	051-7124	D
SCALE	SHT	OF	
NONE	92	111	

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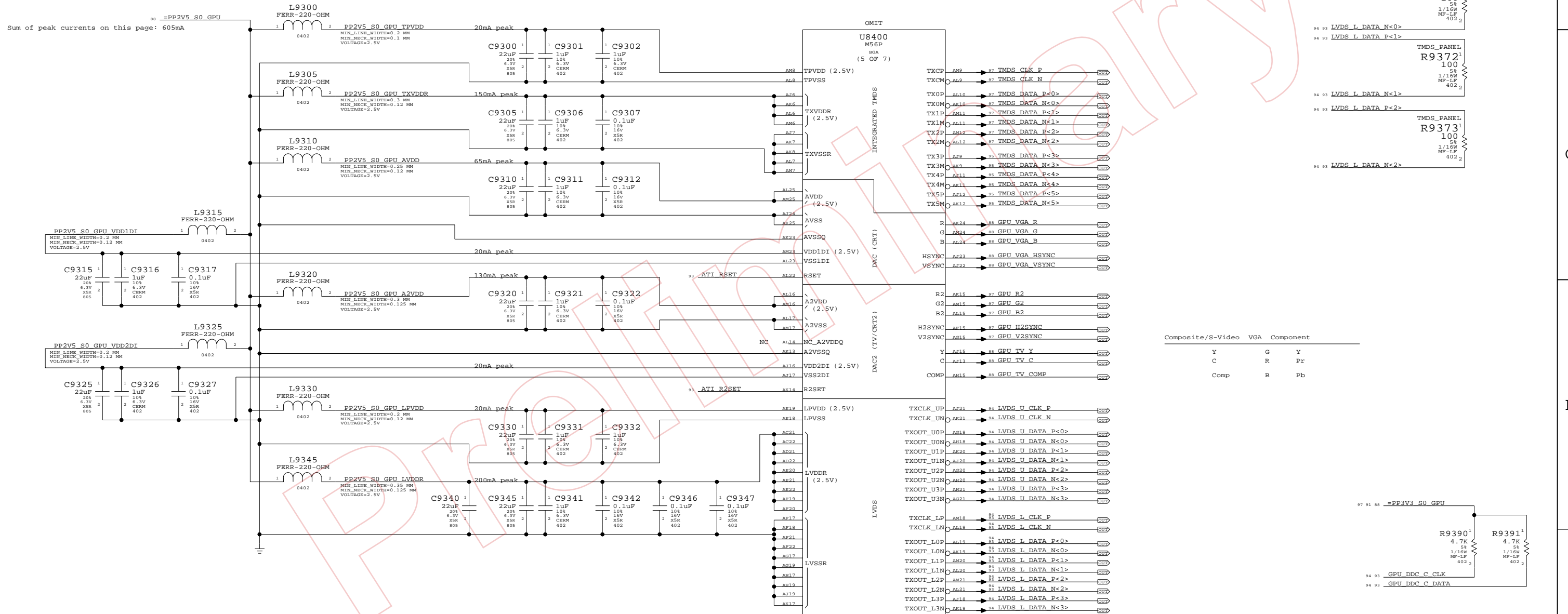
Page Notes

Power aliases required by this page:  
 - =PP2V5\_S0\_GPU  
 - =PP1V8R2V5\_S0\_GPU\_LVDDR

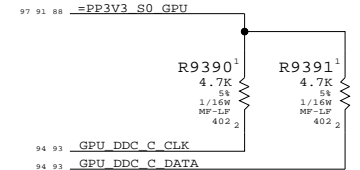
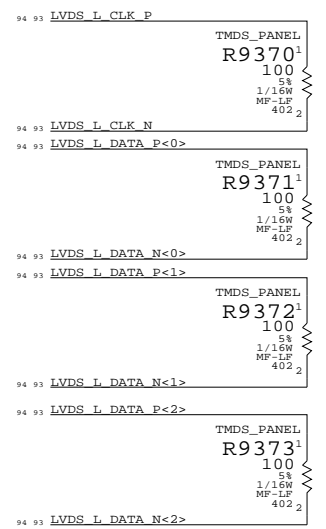
Signal aliases required by this page:  
 (NONE)

BOM options provided by this page:  
 (NONE)

TERMINATION FOR TMDS USAGE OF LVDS PINS  
 PLACE CLOSE TO GPU (U8400)



Composite/S-Video	VGA	Component
Y	G	Y
C	R	Pr
Comp	B	Pb



ATI M56 Video Interfaces

SYNC\_MASTER=(MASTER) SYNC\_DATE=(MASTER)

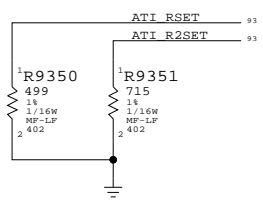
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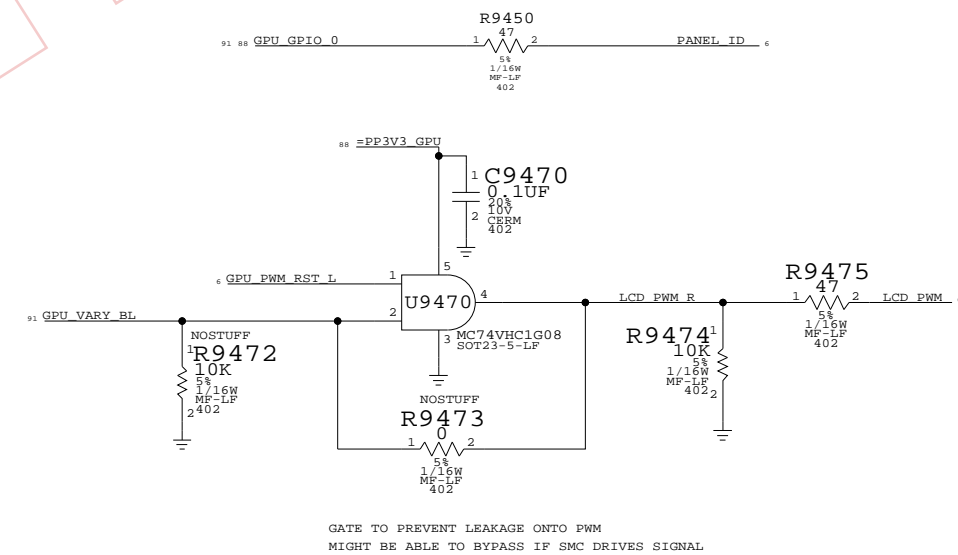
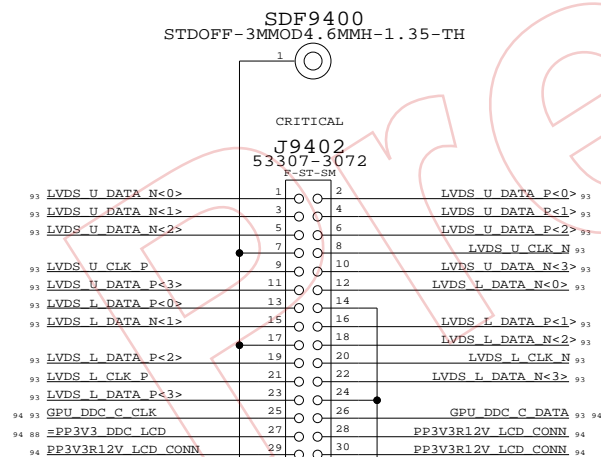
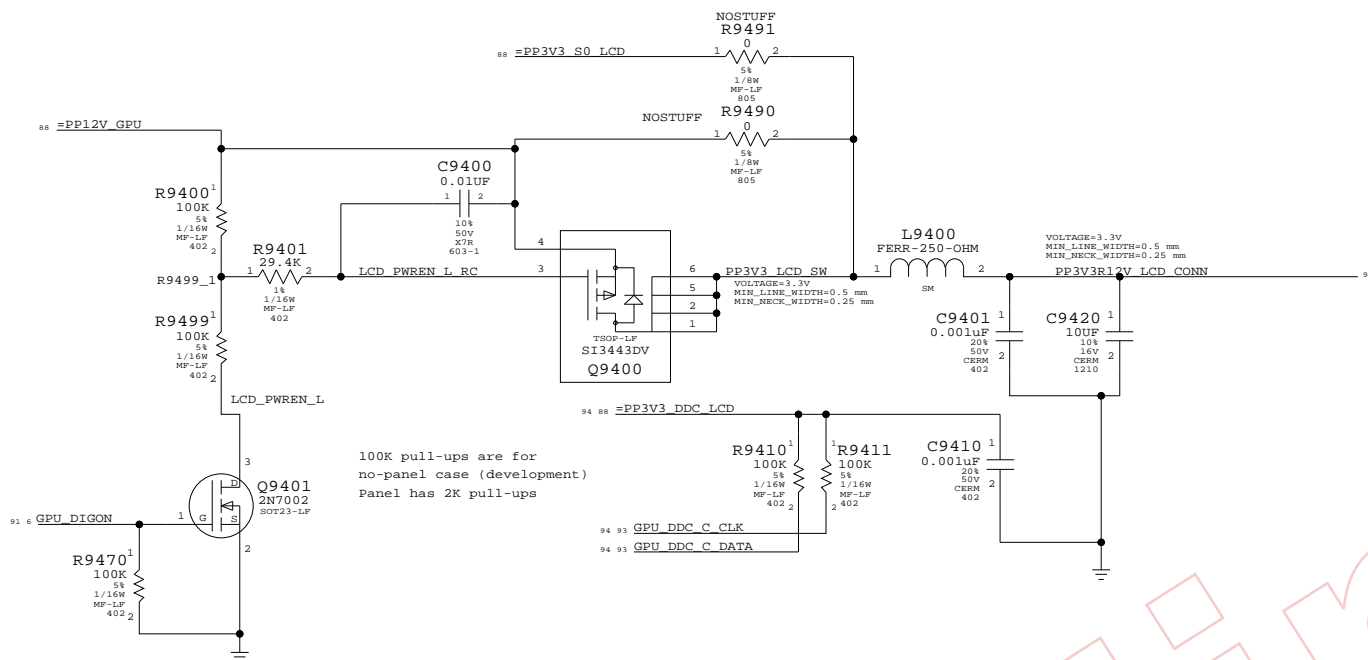
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III NOT TO REVEAL OR PUBLISH IN WHOLE OR PART



APPLE COMPUTER INC.	SCALE	SHT	OF	REV.
	NONE	93	111	D

# LCD (LVDS) INTERFACE



**Internal Display Conns**

SYNC\_MASTER=BOZEMAN      SYNC\_DATE=04/27/2005

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	D	051-7124	D
SCALE	SHT	OF	
NONE	94	111	

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D

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C

C

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### M56 TPS


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	D	051-7124	D
SCALE	SHT	OF	111
NONE	95		

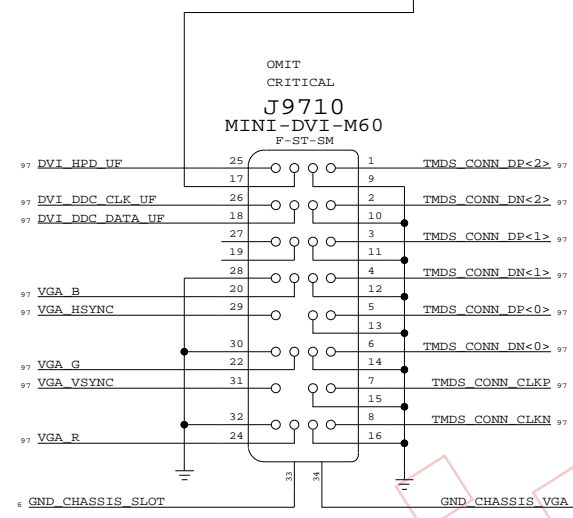
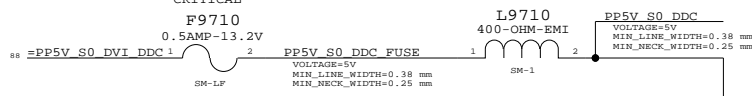
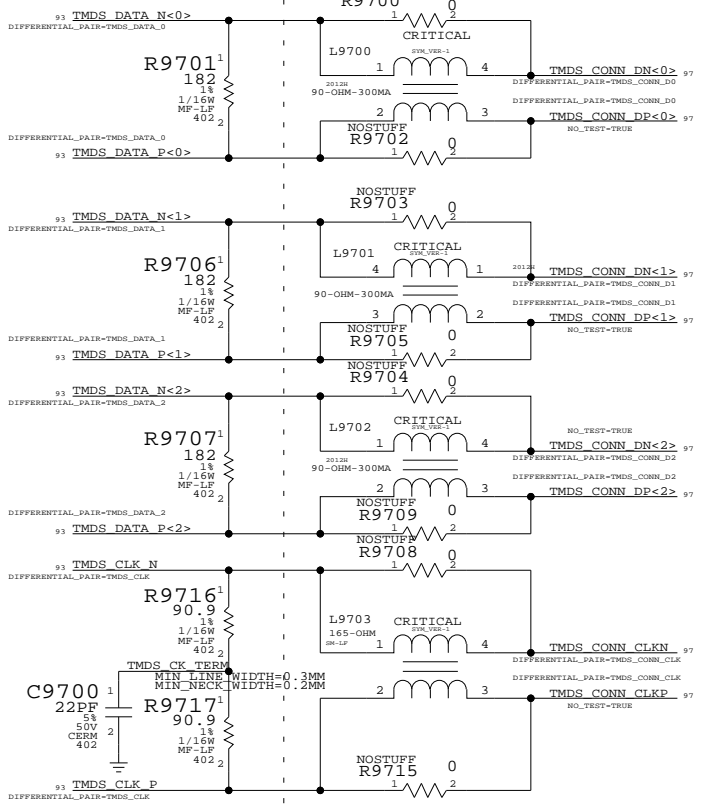
PLACE LEFT SIDE AS CLOSE TO GPU (U8400) AS POSSIBLE

PLACE FILTER CLOSE TO TMD5 CONNECTOR

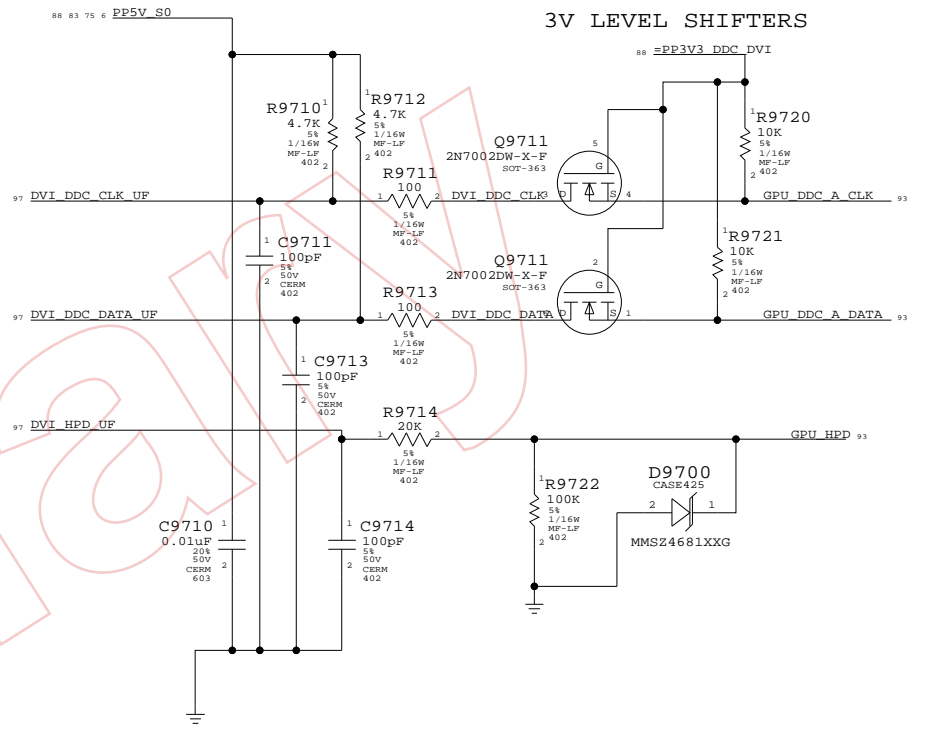
### DVI DDC CURRENT LIMIT DVI INTERFACE

(55mA requirement per DVI spec)

PART NUMBER	ALTERNATE FOR PART NUMBER	BOM OPTION	REF DES	COMMENTS
740S0044	740S0028		F9710	FUSE

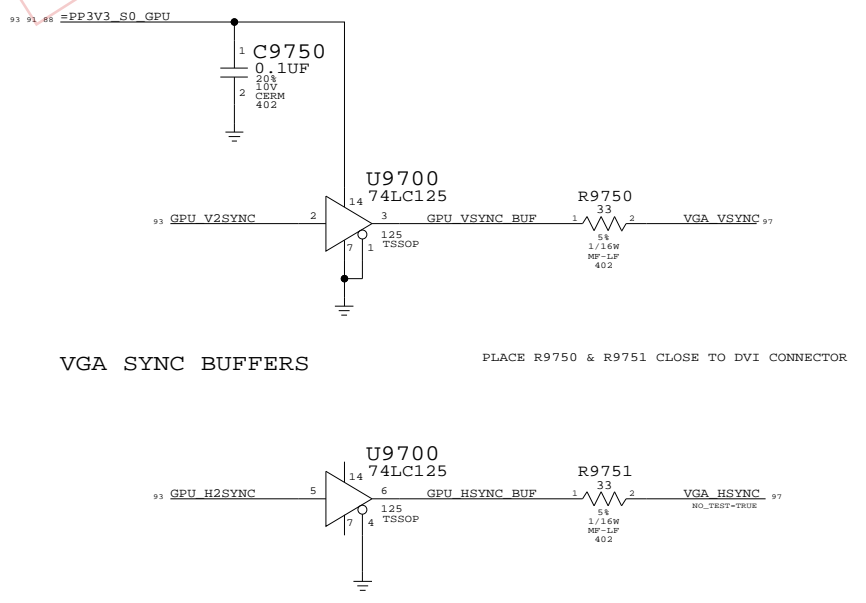
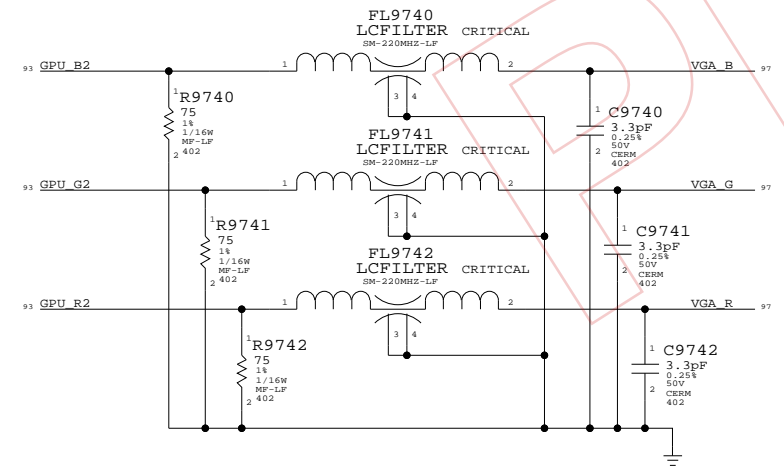


PART#	QTY	DESCRIPTION	REFERENCE DESIGNATOR(S)	BOM OPTION
514S0125	1	M39 MINI-DVI CONN	J9710	



### ANALOG FILTERING

PLACE CLOSE TO CONNECTOR



**External Display Conns**  
 SYNC\_MASTER=BOZEMAN SYNC\_DATE=04/14/2005

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APPLE COMPUTER INC.	SCALE	SHT	OF	REV.
	NONE	97	111	D

Table with 8 columns (headers 8-1) and multiple rows of data. Columns 2-4 contain signal names and values. Columns 5-8 contain signal names and values. The table is organized into sections labeled A, B, C, D on both sides.

D

C

B

A

D

C

B

A

	8	7	6	5	4	3	2	1	
	AUD_BI_PORT_C_R	AUD_BI_PORT_C_R - @m60_lib.M60	68C7 72C8	CK410_SRC3_N	CK410_SRC3_N - @m60_lib.M60	3384 34D3			
	AUD_BI_PORT_F_L	AUD_BI_PORT_F_L - @m60_lib.M60	68C1 74C8	CK410_SRC3_P	CK410_SRC3_P - @m60_lib.M60	3384 34D3			
	AUD_BI_PORT_F_R	AUD_BI_PORT_F_R - @m60_lib.M60	68C1 74C8	CK410_SRC4_N	CK410_SRC4_N - @m60_lib.M60	3384 34B6			
	AUD_BYPASS	AUD_BYPASS - @m60_lib.M60	68C4	CK410_SRC4_P	CK410_SRC4_P - @m60_lib.M60	3384 34B6			
	AUD_DEBOUNCE	AUD_DEBOUNCE - @m60_lib.M60	72B7	CK410_SRC5_N	CK410_SRC5_N - @m60_lib.M60	3384 34B6			
	AUD_GPTIO_0	AUD_GPTIO_0 - @m60_lib.M60	68C7 72B8	CK410_SRC5_P	CK410_SRC5_P - @m60_lib.M60	3384 34B6			
	AUD_GPTIO_1	AUD_GPTIO_1 - @m60_lib.M60	68C7 74C5	CK410_SRC6_N	CK410_SRC6_N - @m60_lib.M60	3384 34B6			
	AUD_LI_DET_EMI	AUD_LI_DET_EMI - @m60_lib.M60	73D6	CK410_SRC6_P	CK410_SRC6_P - @m60_lib.M60	3384 34B6			
	AUD_LI_DET_H	AUD_LI_DET_H - @m60_lib.M60	73D4 74D6	CK410_SRC7_N	CK410_SRC7_N - @m60_lib.M60	3384 34D3			
	AUD_LI_DET_JACK	AUD_LI_DET_JACK - @m60_lib.M60	73D8	CK410_SRC7_P	CK410_SRC7_P - @m60_lib.M60	3384 34D3			
	AUD_LI_GND_EMI	AUD_LI_GND_EMI - @m60_lib.M60	73D6	CK410_SRC8_N	CK410_SRC8_N - @m60_lib.M60	3384 34A6			
	AUD_LI_GND_JACK	AUD_LI_GND_JACK - @m60_lib.M60	73D8	CK410_SRC8_P	CK410_SRC8_P - @m60_lib.M60	3384 34A6			
	AUD_LI_L	AUD_LI_L - @m60_lib.M60	73D4 74C5	CK410_SRC8_N	CK410_SRC8_N - @m60_lib.M60	3384 34A6			
	AUD_LI_L_EMI	AUD_LI_L_EMI - @m60_lib.M60	73D6	CK410_SRC_CLKREQ1_L	CK410_SRC_CLKREQ1_L - @m60_lib.M60	3384 34D8			
	AUD_LI_L_JACK	AUD_LI_L_JACK - @m60_lib.M60	73D8	CK410_SRC_CLKREQ3_L	CK410_SRC_CLKREQ3_L - @m60_lib.M60	3384 34D8			
	AUD_LI_R	AUD_LI_R - @m60_lib.M60	73D4 74C5	CK410_SRC_CLKREQ6_L	CK410_SRC_CLKREQ6_L - @m60_lib.M60	3384 53C6			
	AUD_LI_R_EMI	AUD_LI_R_EMI - @m60_lib.M60	73D6	CK410_SRC_CLKREQ8_L	CK410_SRC_CLKREQ8_L - @m60_lib.M60	3384 34D8			
	AUD_LI_R_JACK	AUD_LI_R_JACK - @m60_lib.M60	73D8	CK410_USB48_FSA	CK410_USB48_FSA - @m60_lib.M60	3384 34C6			
	AUD_LO_DET1_L	AUD_LO_DET1_L - @m60_lib.M60	74A4 74B2	CK410_XTAL_IN	CK410_XTAL_IN - @m60_lib.M60	33C6			
	AUD_LO_DET1_INV	AUD_LO_DET1_INV - @m60_lib.M60	74B3	CK410_XTAL_OUT	CK410_XTAL_OUT - @m60_lib.M60	33C6			
	AUD_LO_DET2_1	AUD_LO_DET2_1 - @m60_lib.M60	74B4	CLK_NB_OK_L	CLK_NB_OK_L - @m60_lib.M60	14B6 33B4			
	AUD_LO_GND_JACK	AUD_LO_GND_JACK - @m60_lib.M60	73A4	CPU_A20M_L	CPU_A20M_L - @m60_lib.M60	5C8 7C7 21C4			
	AUD_LO_L	AUD_LO_L - @m60_lib.M60	73B8 74B5	CPU_BSEL<0>	CPU_BSEL<0> - @m60_lib.M60	7B4 34B8			
	AUD_LO_L_EMI	AUD_LO_L_EMI - @m60_lib.M60	73B7	CPU_BSEL<1>	CPU_BSEL<1> - @m60_lib.M60	7B4 34A8			
	AUD_LO_L_JACK	AUD_LO_L_JACK - @m60_lib.M60	73B4	CPU_BSEL<2>	CPU_BSEL<2> - @m60_lib.M60	7B4 34A8			
	AUD_LO_R	AUD_LO_R - @m60_lib.M60	73A8 74B5	CPU_COMP<0>	CPU_COMP<0> - @m60_lib.M60	7B2			
	AUD_LO_R_EMI	AUD_LO_R_EMI - @m60_lib.M60	73A7	CPU_COMP<1>	CPU_COMP<1> - @m60_lib.M60	7B2			
	AUD_LO_R_JACK	AUD_LO_R_JACK - @m60_lib.M60	73B4	CPU_COMP<2>	CPU_COMP<2> - @m60_lib.M60	7B2			
	AUD_LO_TIP	AUD_LO_TIP - @m60_lib.M60	73A8 74B5	CPU_DCIN_IACQ	CPU_DCIN_IACQ - @m60_lib.M60	7B2			
	AUD_LO_TIP_EMI	AUD_LO_TIP_EMI - @m60_lib.M60	73A7	CPU_DCIN_SENSE	CPU_DCIN_SENSE - @m60_lib.M60	76D7			
	AUD_LO_TIP_JACK	AUD_LO_TIP_JACK - @m60_lib.M60	73B4	CPU_DCIN_SENSE_R	CPU_DCIN_SENSE_R - @m60_lib.M60	76C7			
	AUD_LO_TYPE	AUD_LO_TYPE - @m60_lib.M60	73B8 74A5	CPU DPRSTP_L	CPU DPRSTP_L - @m60_lib.M60	7B3 21C4 75C6			
	AUD_LO_TYPE_EMI	AUD_LO_TYPE_EMI - @m60_lib.M60	73B7	CPU DPRSTP_R	CPU DPRSTP_R - @m60_lib.M60	7B3 21C4			
	AUD_LO_TYPE_JACK	AUD_LO_TYPE_JACK - @m60_lib.M60	73B4	CPU_DSPSL<1>	CPU_DSPSL<1> - @m60_lib.M60	7C7 21C2			
	AUD_MAX9714_CHOLD	AUD_MAX9714_CHOLD - @m60_lib.M60	72C4	CPU_FERR_L	CPU_FERR_L - @m60_lib.M60	7C7 21C2			
	AUD_MAX9714_VREG	AUD_MAX9714_VREG - @m60_lib.M60	72C5	CPU_GTLREF	CPU_GTLREF - @m60_lib.M60	5D4 7B4			
	AUD_MIC_INTERCON	AUD_MIC_INTERCON - @m60_lib.M60	74A4	CPU_HS_ZHE607	CPU_HS_ZHE607 - @m60_lib.M60	9D4			
	AUD_MIC_IN_M	AUD_MIC_IN_M - @m60_lib.M60	73A6 74A6	CPU_HS_ZHE608	CPU_HS_ZHE608 - @m60_lib.M60	9D3			
	AUD_MIC_IN_M_CONN	AUD_MIC_IN_M_CONN - @m60_lib.M60	47C2 73C2	CPU_HS_ZHE609	CPU_HS_ZHE609 - @m60_lib.M60	9D3			
	AUD_MIC_IN_M_EMI	AUD_MIC_IN_M_EMI - @m60_lib.M60	73C3	CPU_HS_ZHE610	CPU_HS_ZHE610 - @m60_lib.M60	9D3			
	AUD_MIC_IN_P	AUD_MIC_IN_P - @m60_lib.M60	73C4 74A6	CPU_IGNNE_L	CPU_IGNNE_L - @m60_lib.M60	5C8 7C7 21C4			
	AUD_MIC_IN_P_CONN	AUD_MIC_IN_P_CONN - @m60_lib.M60	47C2 73C2	CPU_INIT_L	CPU_INIT_L - @m60_lib.M60	5C8 7D6 21C4			
	AUD_MIC_IN_P_EMI	AUD_MIC_IN_P_EMI - @m60_lib.M60	73B4	CPU_INTR	CPU_INTR - @m60_lib.M60	5C8 7C7 21C4			
	AUD_MIC_P1	AUD_MIC_P1 - @m60_lib.M60	74A4	CPU_NMI	CPU_NMI - @m60_lib.M60	5C8 7C7 21C4			
	AUD_PORT_A_DET_L	AUD_PORT_A_DET_L - @m60_lib.M60	74B2	CPU_PROCHOT_L	CPU_PROCHOT_L - @m60_lib.M60	7C6 59A8 59C7			
	AUD_PORT_A_L1	AUD_PORT_A_L1 - @m60_lib.M60	74B7 74C4 74D4	CPU_PSI_L	CPU_PSI_L - @m60_lib.M60	7A3 75C6			
	AUD_PORT_A_L2	AUD_PORT_A_L2 - @m60_lib.M60	74B7 74C3 74D3	CPU_PWRGD	CPU_PWRGD - @m60_lib.M60	7B3 21C4			
	AUD_PORT_A_R1	AUD_PORT_A_R1 - @m60_lib.M60	74B7 74C4 74D4	CPU_RCIN_L	CPU_RCIN_L - @m60_lib.M60	21C4			
	AUD_PORT_A_R2	AUD_PORT_A_R2 - @m60_lib.M60	74B7 74C3 74D3	CPU_SCMI_L	CPU_SCMI_L - @m60_lib.M60	5C8 7C7 21C4			
	AUD_PORT_E_DET_L	AUD_PORT_E_DET_L - @m60_lib.M60	74B1	CPU_STPCLK_L	CPU_STPCLK_L - @m60_lib.M60	5C8 7C7 21C4			
	AUD_PORT_F_DET_L	AUD_PORT_F_DET_L - @m60_lib.M60	74D4	CPU_TEST1	CPU_TEST1 - @m60_lib.M60	7B4			
	AUD_PORT_F_L1	AUD_PORT_F_L1 - @m60_lib.M60	74C7	CPU_TEST2	CPU_TEST2 - @m60_lib.M60	7B4			
	AUD_PORT_F_R1	AUD_PORT_F_R1 - @m60_lib.M60	74C7	CPU_THERMD_EXT_N	CPU_THERMD_EXT_N - @m60_lib.M60	10B6			
	AUD_SAMP_FS1	AUD_SAMP_FS1 - @m60_lib.M60	72A6 72C5	CPU_THERMD_EXT_P	CPU_THERMD_EXT_P - @m60_lib.M60	10B6			
	AUD_SAMP_FS2	AUD_SAMP_FS2 - @m60_lib.M60	72A6 72C5	CPU_THERMD_N	CPU_THERMD_N - @m60_lib.M60	7C6 10C6			
	AUD_SAMP_G1	AUD_SAMP_G1 - @m60_lib.M60	72A6 72C5	CPU_THERMD_P	CPU_THERMD_P - @m60_lib.M60	7C6 10C6			
	AUD_SAMP_G2	AUD_SAMP_G2 - @m60_lib.M60	72A6 72C5	CPU_THERMTRIP_R	CPU_THERMTRIP_R - @m60_lib.M60	21C2			
	AUD_SAMP_INL_N	AUD_SAMP_INL_N - @m60_lib.M60	72C5	CPU_VCCSENSE_N	CPU_VCCSENSE_N - @m60_lib.M60	8B6 75A4			
	AUD_SAMP_INL_P	AUD_SAMP_INL_P - @m60_lib.M60	72C5	CPU_VID<0>	CPU_VID<0> - @m60_lib.M60	8B7 75C7			
	AUD_SAMP_INR_N	AUD_SAMP_INR_N - @m60_lib.M60	72C5	CPU_VID<1>	CPU_VID<1> - @m60_lib.M60	8B7 75C7			
	AUD_SAMP_INR_P	AUD_SAMP_INR_P - @m60_lib.M60	72C5	CPU_VID<2>	CPU_VID<2> - @m60_lib.M60	8B7 75C7			
	AUD_SAMP_SHDN_L	AUD_SAMP_SHDN_L - @m60_lib.M60	72C5	CPU_VID<3>	CPU_VID<3> - @m60_lib.M60	8B7 75C7			
	AUD_SENSE_A	AUD_SENSE_A - @m60_lib.M60	68C1 74C5 74D7	CPU_VID<4>	CPU_VID<4> - @m60_lib.M60	8B7 75C7			
	AUD_SENSE_B	AUD_SENSE_B - @m60_lib.M60	68C1 74C5 74D6 74D7	CPU_VID<5>	CPU_VID<5> - @m60_lib.M60	8B7 75C7			
	AUD_SPDIF_IN_JACK	AUD_SPDIF_IN_JACK - @m60_lib.M60	73D7	CPU_VID<6>	CPU_VID<6> - @m60_lib.M60	8B7 75D7			
	AUD_SPDIF_GND_IN	AUD_SPDIF_GND_IN - @m60_lib.M60	73D7	CPU_XDP_CLK_N	CPU_XDP_CLK_N - @m60_lib.M60	11B3 34B3			
	AUD_SPDIF_OUT	AUD_SPDIF_OUT - @m60_lib.M60	73A3	FSB_CLK_XDP_M	FSB_CLK_XDP_M - @m60_lib.M60	34C2 34C2			
	AUD_SPDIF_OUT_CHIP	AUD_SPDIF_OUT_CHIP - @m60_lib.M60	68D1 73D4	FSB_CLK_XDP_P	FSB_CLK_XDP_P - @m60_lib.M60	11B3 34B3			
	AUD_SPKR_OUTL_P	AUD_SPKR_OUTL_P - @m60_lib.M60	68D1 73B8	FSB_CLK_XDP_P	FSB_CLK_XDP_P - @m60_lib.M60	34B4 34C2			
	AUD_SPKR_OUTR_P	AUD_SPKR_OUTR_P - @m60_lib.M60	68D1 73B8	CRB_SV_DET	CRB_SV_DET - @m60_lib.M60	23B6 23C3			
	AUD_TPE_DET_EN	AUD_TPE_DET_EN - @m60_lib.M60	74B3	CRT_BLUE	CRT_BLUE - @m60_lib.M60	13B5 19D4			
	AUD_VREF_FLIT	AUD_VREF_FLIT - @m60_lib.M60	68C4	CRT_RED	CRT_RED - @m60_lib.M60	13B5 19D4			
	AUD_VREF_PORT_B	AUD_VREF_PORT_B - @m60_lib.M60	68C1 74A2	CRT_GREEN_L	CRT_GREEN_L - @m60_lib.M60	13B5 19D4			
	BAL_IN_COM	BAL_IN_COM - @m60_lib.M60	68C7 74A7	CRT_GREEN_P	CRT_GREEN_P - @m60_lib.M60	13B5 19D4			
	BAL_IN_L	BAL_IN_L - @m60_lib.M60	68C7 74A7	PP1V05_S0_NB_VCCA_CRTDAC	PP1V05_S0_NB_VCCA_CRTDAC - @m60_lib.M60	17D6 19D4			
	BAL_IN_R	BAL_IN_R - @m60_lib.M60	68C7 74A7	PP2V5_S0_NB_VCCA_CRTDAC	PP2V5_S0_NB_VCCA_CRTDAC - @m60_lib.M60	17D6 19D4			
	BAT_1	BAT_1 - @m60_lib.M60	26C8	PP1V05_S0 - @m60_lib.M60	PP1V05_S0 - @m60_lib.M60	6D6 34A8 34B8 34C7 81C1			
	BAT_2	BAT_2 - @m60_lib.M60	26C8	CRT_RED_L	CRT_RED_L - @m60_lib.M60	13B5 19D4			
	BEEP	BEEP - @m60_lib.M60	68C6	CRT_RED_P	CRT_RED_P - @m60_lib.M60	13B5 19D4			
	BIOS_REC	BIOS_REC - @m60_lib.M60	23A6 23C5	CRT_GREEN_L	CRT_GREEN_L - @m60_lib.M60	13B5 19D4			
	BOOT_LPC_SPI_L	BOOT_LPC_SPI_L - @m60_lib.M60	22B3 58C7 60C4	CRT_GREEN_P	CRT_GREEN_P - @m60_lib.M60	13B5 19D4			
	CK410_27M_NONSPREAD	CK410_27M_NONSPREAD - @m60_lib.M60	34A4 92C7	PP1V05_S0_NB_VTT	PP1V05_S0_NB_VTT - @m60_lib.M60	6D4 17D3 19A8 19D7			
	CK410_27M_SPREAD	CK410_27M_SPREAD - @m60_lib.M60	34A4 92C5	PP1V05_S0_CPU - @m60_lib.M60	PP1V05_S0_CPU - @m60_lib.M60	6D4 6D4 7B5 7B7 7D5 7D5			
	CK410_CLK14P3M_TIMER	CK410_CLK14P3M_TIMER - @m60_lib.M60	91C3 92C3	PP1V05_S0_CPU - @m60_lib.M60	PP1V05_S0_CPU - @m60_lib.M60	8C7 9C8 9C8 11B3 11C5			
	CK410_CPU0_N	CK410_CPU0_N - @m60_lib.M60	33C4 34B6	PP2V5_S0_NB_VCCA_CRTDAC	PP2V5_S0_NB_VCCA_CRTDAC - @m60_lib.M60	17D6 19D4			
	CK410_CPU0_P	CK410_CPU0_P - @m60_lib.M60	33C4 34B6	PP1V05_S0 - @m60_lib.M60	PP1V05_S0 - @m60_lib.M60	6D6 34A8 34B8 34C7 81C1			
	CK410_CPU1_P	CK410_CPU1_P - @m60_lib.M60	33C4 34B6	CRT_RED_L	CRT_RED_L - @m60_lib.M60	13B5 19D4			
	CK410_CPU2_I2P_SRC10_N	CK410_CPU2_I2P_SRC10_N - @m60_lib.M60	33C4 34B6	CRT_RED_P	CRT_RED_P - @m60_lib.M60	13B5 19D4			
	CK410_CPU2_I2P_SRC10_P	CK410_CPU2_I2P_SRC10_P - @m60_lib.M60	33C4 34B6	CRT_GREEN_L	CRT_GREEN_L - @m60_lib.M60	13B5 19D4			
	CK410_DOT96_27M_NONS	CK410_DOT96_27M_NONS - @m60_lib.M60	33A4 34A6	CRT_GREEN_P	CRT_GREEN_P - @m60_lib.M60	13B5 19D4			
	CK410_DOT96_27M_SPRE	CK410_DOT96_27M_SPRE - @m60_lib.M60	33A4 34A6	CRT_BLUE_L	CRT_BLUE_L - @m60_lib.M60	13B5 19D4			
	CK410_FSA	CK410_FSA - @m60_lib.M60	34B8 34C4	PP1V05_S0_NB - @m60_lib.M60	PP1V05_S0_NB - @m60_lib.M60	6D4 24D3 25D3			
	CK410_FSB_TEST_MODE	CK410_FSB_TEST_MODE - @m60_lib.M60	33C6 34A8	PP1V05_S0_NB - @m60_lib.M60	PP1V05_S0_NB - @m60_lib.M60	6D4 16C8 16D3 19B6 19D5			
	CK410_FPC	CK410_FPC - @m60_lib.M60	33B6 34D6	PP1V05_S0_NB_CPU - @m60_lib.M60	PP1V05_S0_NB_CPU - @m60_lib.M60	6D4 21C1 21C1 24C3 25C3			
	CK410_IREF	CK410_IREF - @m60_lib.M60	33B6	PP1V05_S0_NB_VTT	PP1V05_S0_NB_VTT - @m60_lib.M60	6D4 6D4 12A7 12B7 12C2			
	CK410_LVDS_N	CK410_LVDS_N - @m60_lib.M60	33B4 34A6	PP1V05_S0_CPU - @m60_lib.M60	PP1V05_S0_CPU - @m60_lib.M60	5D4 6D4 7B5 7B7 7D5 7D5			
	CK410_LVDS_P	CK410_LVDS_P - @m60_lib.M60	33B4 34A6	CRT_DDC_CLK	CRT_DDC_CLK - @m60_lib.M60	13B5 19C4			
	CK410_PC11_CLK	CK410_PC11_CLK - @m60_lib.M60	33B6 34C6	TP_CRT_DDC_CLK	TP_CRT_DDC_CLK - @m60_lib.M60	19C5			
	CK410_PC12_CLK	CK410_PC12_CLK - @m60_lib.M60	33B6 34C6	CRT_DDC_DATA	CRT_DDC_DATA - @m60_lib.M60	13B5 19C4			
	CK410_PC13_CLK	CK410_PC13_CLK - @m60_lib.M60	33B6 34C6	TP_CRT_DDC_DATA	TP_CRT_DDC_DATA - @m60_lib.M60	19C5			
	CK410_PC14_CLK	CK410_PC14_CLK - @m60_lib.M60	33B6 34C6	DEBUG_RST_L	DEBUG_RST_L - @m				







	8	7	6	5	4	3	2	1
D	<p>PCI_CLK_TPM PCI_CLK_TPM - @m60.lib.M60 3424 67C6</p> <p>PCI_CB_BE_L&lt;0&gt; PCI_CB_BE_L&lt;0&gt; - @m60.lib.M60 2286 44B5</p> <p>PCI_CB_BE_L&lt;1&gt; PCI_CB_BE_L&lt;1&gt; - @m60.lib.M60 2286 44B5</p> <p>PCI_CB_BE_L&lt;2&gt; PCI_CB_BE_L&lt;2&gt; - @m60.lib.M60 2286 44B5</p> <p>PCI_CB_BE_L&lt;3&gt; PCI_CB_BE_L&lt;3&gt; - @m60.lib.M60 2286 44B5</p> <p>PCI_DEVSEL_L PCI_DEVSEL_L - @m60.lib.M60 2286 26D2 44B5</p> <p>PCI_FRAME_L PCI_FRAME_L - @m60.lib.M60 2286 26D2 44B5</p> <p>PCI_GNT1_L PCI_GNT1_L - @m60.lib.M60 2286 44B5</p> <p>PCI_IDSEL PCI_IDSEL - @m60.lib.M60 44B5 84B5</p> <p>PCI_IRDY_L PCI_IRDY_L - @m60.lib.M60 2286 26D2 44B5</p> <p>PCI_LOCK_L PCI_LOCK_L - @m60.lib.M60 2286 26D2</p> <p>PCI_PAR PCI_PAR - @m60.lib.M60 2286 44B5</p> <p>PCI_PERR_L PCI_PERR_L - @m60.lib.M60 2286 26D2 44B5</p> <p>PCI_PME_FW_L PCI_PME_FW_L - @m60.lib.M60 2286 44B5</p> <p>PCI_REQ0_L PCI_REQ0_L - @m60.lib.M60 2286 26D2</p> <p>PCI_REQ1_L PCI_REQ1_L - @m60.lib.M60 2286 26D2 44B5</p> <p>PCI_REQ2_L PCI_REQ2_L - @m60.lib.M60 2286 26D2</p> <p>PCI_REQ3_L PCI_REQ3_L - @m60.lib.M60 44B5 84B5</p> <p>PCI_RST_FW_L PCI_RST_FW_L - @m60.lib.M60 2286 44A8</p> <p>PCI_RST_L PCI_RST_L - @m60.lib.M60 2286 26D2 44B5</p> <p>PCI_SERR_L PCI_SERR_L - @m60.lib.M60 2286 26D2 44B5</p> <p>PCI_STOP_L PCI_STOP_L - @m60.lib.M60 2286 26D2 44B5</p> <p>PCI_TRDY_L PCI_TRDY_L - @m60.lib.M60 2286 26D2 44B5</p> <p>PEG_COMP PEG_COMP - @m60.lib.M60 1303</p> <p>PEG_D2R_C_N&lt;0&gt; PEG_D2R_C_N&lt;0&gt; - @m60.lib.M60 8403</p> <p>PEG_D2R_C_N&lt;1&gt; PEG_D2R_C_N&lt;1&gt; - @m60.lib.M60 8403</p> <p>PEG_D2R_C_N&lt;2&gt; PEG_D2R_C_N&lt;2&gt; - @m60.lib.M60 8403</p> <p>PEG_D2R_C_N&lt;3&gt; PEG_D2R_C_N&lt;3&gt; - @m60.lib.M60 8403</p> <p>PEG_D2R_C_N&lt;4&gt; PEG_D2R_C_N&lt;4&gt; - @m60.lib.M60 8403</p> <p>PEG_D2R_C_N&lt;5&gt; PEG_D2R_C_N&lt;5&gt; - @m60.lib.M60 8403</p> <p>PEG_D2R_C_N&lt;6&gt; PEG_D2R_C_N&lt;6&gt; - @m60.lib.M60 8403</p> <p>PEG_D2R_C_N&lt;7&gt; PEG_D2R_C_N&lt;7&gt; - @m60.lib.M60 8403</p> <p>PEG_D2R_C_N&lt;8&gt; PEG_D2R_C_N&lt;8&gt; - 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@m60.lib.M60 8404</p> <p>PEG_R2D_M&lt;3&gt; PEG_R2D_M&lt;3&gt; - @m60.lib.M60 8404</p>	<p>PEG_R2D_N&lt;4&gt; PEG_R2D_N&lt;4&gt; - @m60.lib.M60 8404</p> <p>PEG_R2D_N&lt;5&gt; PEG_R2D_N&lt;5&gt; - @m60.lib.M60 8404</p> <p>PEG_R2D_N&lt;6&gt; PEG_R2D_N&lt;6&gt; - @m60.lib.M60 8404</p> <p>PEG_R2D_N&lt;7&gt; PEG_R2D_N&lt;7&gt; - @m60.lib.M60 8404</p> <p>PEG_R2D_N&lt;8&gt; PEG_R2D_N&lt;8&gt; - @m60.lib.M60 8404</p> <p>PEG_R2D_N&lt;9&gt; PEG_R2D_N&lt;9&gt; - @m60.lib.M60 8404</p> <p>PEG_R2D_N&lt;10&gt; PEG_R2D_N&lt;10&gt; - @m60.lib.M60 8484</p> <p>PEG_R2D_N&lt;11&gt; PEG_R2D_N&lt;11&gt; - @m60.lib.M60 8484</p> <p>PEG_R2D_N&lt;12&gt; PEG_R2D_N&lt;12&gt; - @m60.lib.M60 8484</p> <p>PEG_R2D_N&lt;13&gt; PEG_R2D_N&lt;13&gt; - @m60.lib.M60 8484</p> <p>PEG_R2D_N&lt;14&gt; PEG_R2D_N&lt;14&gt; - @m60.lib.M60 8484</p> <p>PEG_R2D_N&lt;15&gt; PEG_R2D_N&lt;15&gt; - @m60.lib.M60 8484</p> <p>PEG_R2D_P&lt;0&gt; PEG_R2D_P&lt;0&gt; - @m60.lib.M60 8404</p> <p>PEG_R2D_P&lt;1&gt; PEG_R2D_P&lt;1&gt; - @m60.lib.M60 8404</p> <p>PEG_R2D_P&lt;2&gt; PEG_R2D_P&lt;2&gt; - 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@m60.lib.M60 1486 23C5</p> <p>PM_CLKRUN_L PM_CLKRUN_L - @m60.lib.M60 588 23C8 44B5 58C5 60C4</p> <p>PM_DPRSFLVR PM_DPRSFLVR - @m60.lib.M60 1487 23C3 75C7</p> <p>PM_EXTSTS_L&lt;0&gt; PM_EXTSTS_L&lt;0&gt; - @m60.lib.M60 1487 58B7 59C5</p> <p>PM_LAN_ENABLE PM_LAN_ENABLE - @m60.lib.M60 23C3 58D7</p> <p>PM_PWRBTN_L PM_PWRBTN_L - @m60.lib.M60 23C3 58D7</p> <p>PM_PWROK PM_PWROK - @m60.lib.M60 77B7</p> <p>PM_RI_L PM_RI_L - @m60.lib.M60 2305</p> <p>PM_RSMRST_L PM_RSMRST_L - @m60.lib.M60 23C1 58D7</p> <p>PM_SB_PWROK PM_SB_PWROK - @m60.lib.M60 23C3 26D6</p> <p>PM_SLP_S3 PM_SLP_S3 - @m60.lib.M60 77D7 78B8 80C8 81C8</p> <p>SYS_PWRUP_L SYS_PWRUP_L - @m60.lib.M60 77D6 83A8 83B6 83B7 83C5</p> <p>PM_SLP_S3_L PM_SLP_S3_L - @m60.lib.M60 83C7</p> <p>MDMWTT_EN MDMWTT_EN - @m60.lib.M60 3185 79A6</p> <p>PM_SLP_S4 PM_SLP_S4 - @m60.lib.M60 77B6 77C7 79C8 83C4</p> <p>SATA_D2R_P SATA_D2R_P - @m60.lib.M60 23C3 58C5 77C8</p> <p>PM_SLP_S5_L PM_SLP_S5_L - @m60.lib.M60 23C3 58C5</p> <p>PM_STPCPU_P PM_STPCPU_P - @m60.lib.M60 23C8 33C4</p> <p>PM_STPPCI_L PM_STPPCI_L - @m60.lib.M60 23C5 58C5 60C1 67C6</p> <p>PM_SYSRST_L PM_SYSRST_L - @m60.lib.M60 588 23C5 26C3 58B7</p> <p>PM_THRMTRIP_L PM_THRMTRIP_L - @m60.lib.M60 70C 1486 21C2 59C7</p> <p>POWER_BUTTON_L POWER_BUTTON_L - @m60.lib.M60 501 59C8</p> <p>PF0V9_S0_PG00D PF0V9_S0_PG00D - @m60.lib.M60 77B8 79A2</p> <p>PF1V2_S0_GPU_VDDPLL PF1V2_S0_GPU_VDDPLL - @m60.lib.M60 9186</p> <p>PF1V05_S0_PG00D PF1V05_S0_PG00D - @m60.lib.M60 77C8 81B2</p> <p>PF1V5_S0_NB_3GPLL_F PF1V5_S0_NB_3GPLL_F - @m60.lib.M60 19A5</p> <p>PF1V5_S0_NB_VCC3G PF1V5_S0_NB_VCC3G - @m60.lib.M60 17D6 19A3</p> <p>PF1V5_S0_NB_VCCA_3GP PF1V5_S0_NB_VCCA_3GP - @m60.lib.M60 17D6 19A3</p> <p>PF1V5_S0_NB_VCCA_DPL PF1V5_S0_NB_VCCA_DPL - @m60.lib.M60 17C6 19C4</p> <p>TP_NB_VCCA_DPLLA TP_NB_VCCA_DPLLA - @m60.lib.M60 19C5</p> <p>TP_NB_VCCA_DPLLA TP_NB_VCCA_DPLLA - @m60.lib.M60 17C6 19C4</p> <p>PF1V5_S0_NB_VCCA_HPL PF1V5_S0_NB_VCCA_HPL - @m60.lib.M60 17C6 19C6</p> <p>PF1V5_S0_NB_VCCA_MPL PF1V5_S0_NB_VCCA_MPL - @m60.lib.M60 17C6 19C6</p> <p>PF1V5_S0_PG00D PF1V5_S0_PG00D - @m60.lib.M60 77C8 80B2</p> <p>PF1V5_S0_SB_R PF1V5_S0_SB_R - @m60.lib.M60 25A7</p> <p>PF1V5_S0_SB_VCC1_5B PF1V5_S0_SB_VCC1_5B - @m60.lib.M60 22C1 24D5 25B7</p> <p>PF1V5_S0_SB_VCCM1PLL PF1V5_S0_SB_VCCM1PLL - @m60.lib.M60 24B5 25A6</p> <p>PF1V8R2V0_S0_GPU_VDD PF1V8R2V0_S0_GPU_VDD - @m60.lib.M60 87A7</p> <p>RHO RHO - @m60.lib.M60 87B3</p> <p>PF1V8R2V0_S0_GPU_VDD PF1V8R2V0_S0_GPU_VDD - @m60.lib.M60 87B3</p> <p>PF1V8R3V3_S0_GPU_VDD PF1V8R3V3_S0_GPU_VDD - @m60.lib.M60 91B6</p> <p>PF1V8R3V3_S0_GPU_VDD PF1V8R3V3_S0_GPU_VDD - @m60.lib.M60 91B6</p> <p>PF1V8_FB_A0_VDDA0 PF1V8_FB_A0_VDDA0 - @m60.lib.M60 8907</p> <p>PF1V8_FB_A0_VDDA1 PF1V8_FB_A0_VDDA1 - @m60.lib.M60 8907</p> <p>PF1V8_FB_A1_VDDA0 PF1V8_FB_A1_VDDA0 - @m60.lib.M60 8904</p> <p>PF1V8_FB_A1_VDDA1 PF1V8_FB_A1_VDDA1 - @m60.lib.M60 8904</p> <p>PF1V8_FB_B0_VDDA0 PF1V8_FB_B0_VDDA0 - @m60.lib.M60 90D7</p> <p>PF1V8_FB_B0_VDDA1 PF1V8_FB_B0_VDDA1 - @m60.lib.M60 90D7</p> <p>PF1V8_FB_B1_VDDA0 PF1V8_FB_B1_VDDA0 - @m60.lib.M60 90D4</p> <p>PF1V8_FB_B1_VDDA1 PF1V8_FB_B1_VDDA1 - @m60.lib.M60 90D4</p> <p>PP2V5_ENET_CTAP PP2V5_ENET_CTAP - @m60.lib.M60 43D7</p> <p>PP2V5_S0_GPU_A2VDD PP2V5_S0_GPU_A2VDD - @m60.lib.M60 93B7</p> <p>PP2V5_S0_GPU_AVDD PP2V5_S0_GPU_AVDD - @m60.lib.M60 93C7</p> <p>PP2V5_S0_GPU_LPVD PP2V5_S0_GPU_LPVD - @m60.lib.M60 93B7</p> <p>PP2V5_S0_GPU_LVDDR PP2V5_S0_GPU_LVDDR - @m60.lib.M60 93B7</p> <p>PP2V5_S0_GPU_PVDD_F PP2V5_S0_GPU_PVDD_F - @m60.lib.M60 91A6</p> <p>PP2V5_S0_GPU_TPVD PP2V5_S0_GPU_TPVD - @m60.lib.M60 93C7</p> <p>PP2V5_S0_GPU_TXVDDR PP2V5_S0_GPU_TXVDDR - @m60.lib.M60 93C7</p> <p>PP2V5_S0_GPU_VDD1 PP2V5_S0_GPU_VDD1 - @m60.lib.M60 93D8</p> <p>PP2V5_S0_GPU_VDD2D1 PP2V5_S0_GPU_VDD2D1 - @m60.lib.M60 93B8</p> <p>PP2V5_S0_PG00D PP2V5_S0_PG00D - @m60.lib.M60 77B8 83C7</p> <p>PP2V5_S5 PP2V5_S5 - @m60.lib.M60 5708 83D7</p> <p>PP3V3R12V_LCD_CONN PP3V3R12V_LCD_CONN - @m60.lib.M60 94A6 94A6 94A7 94C5</p> <p>PP3V3_AUDIO_SPDIF_EM PP3V3_AUDIO_SPDIF_EM - @m60.lib.M60 73B7</p> <p>PP3V3_AUDIO_SPDIF_A CK PP3V3_AUDIO_SPDIF_A - @m60.lib.M60 73B5 73D8</p> <p>PP3V3_AVCC_SMC PP3V3_AVCC_SMC - @m60.lib.M60 58D3</p> <p>PP3V3_AVPREF_SMC PP3V3_AVPREF_SMC - @m60.lib.M60 59D2 59A3</p> <p>PP3V3_FW_ESD PP3V3_FW_ESD - @m60.lib.M60 46A5 46A6 46B5 46C5 46D5</p> <p>PP3V3_FW_ESD_F PP3V3_FW_ESD_F - @m60.lib.M60 46A7</p> <p>PP3V3_INTERCON PP3V3_INTERCON - @m60.lib.M60 72C7</p> <p>PP3V3_LCD_SW PP3V3_LCD_SW - @m60.lib.M60 94C6</p> <p>PP3V3_S0_CK410_VDD48 PP3V3_S0_CK410_VDD48 - @m60.lib.M60 33C5</p> <p>PP3V3_S0_CK410_VDDA PP3V3_S0_CK410_VDDA - @m60.lib.M60 33D6</p> <p>PP3V3_S0_CK410_VDD_C PU_SRC PP3V3_S0_CK410_VDD_C - @m60.lib.M60 33D6</p> <p>PP3V3_S0_CK410_VDD_P PP3V3_S0_CK410_VDD_P - @m60.lib.M60 33D5</p>	<p>CI CI - @m60.lib.M60 8404</p> <p>PP3V3_S0_CK410_VDD_R PP3V3_S0_CK410_VDD_REF - @m60.lib.M60 33C5</p> <p>EF EF - @m60.lib.M60 8404</p> <p>PP3V3_S0_IMVP6_3V3 PP3V3_S0_IMVP6_3V3 - @m60.lib.M60 75D6</p> <p>PP3V3_S5_FW_VDDA PP3V3_S5_FW_VDDA - @m60.lib.M60 44D5 45C6</p> <p>PP3V3_S5_SB_RTC PP3V3_S5_SB_RTC - @m60.lib.M60 5D2 21D6 24B3 25A3 26D7</p> <p>PP3V3_TM_3V3B PP3V3_TM_3V3B - @m60.lib.M60 59C5 67C4</p> <p>PP4V5_AUDIO_ANALOG PP4V5_AUDIO_ANALOG - @m60.lib.M60 68A2 68D2 74C4 74D8</p> <p>PP4V5_S5_AUDIO_ANALOG PP4V5_S5_AUDIO_ANALOG - @m60.lib.M60 82C8 83D5</p> <p>PP5V_BNDI_LE340 PP5V_BNDI_LE340 - @m60.lib.M60 47D3</p> <p>PP5V_S0_DDC PP5V_S0_DDC - @m60.lib.M60 97D4</p> <p>PP5V_S0_DDC_FUSE PP5V_S0_DDC_FUSE - @m60.lib.M60 97D5</p> <p>PP5V_S0_GPUVCORE_VCC PP5V_S0_GPUVCORE_VCC - @m60.lib.M60 80D7 88D8</p> <p>PP5V_S0_IMVP6_VDD PP5V_S0_IMVP6_VDD - @m60.lib.M60 75D6</p> <p>PP5V_S0_SB_V5REF PP5V_S0_SB_V5REF - @m60.lib.M60 24D5 25D7</p> <p>PP5V_S3_BNDI PP5V_S3_BNDI - @m60.lib.M60 47B2 47D1</p> <p>PP5V_S5_SB_V5REF_SUS PP5V_S5_SB_V5REF_SUS - @m60.lib.M60 47B2 47D1</p> <p>PP5V_USB2_PORT0 PP5V_USB2_PORT0 - @m60.lib.M60 47D7</p> <p>PP5V_USB2_PORT0_F PP5V_USB2_PORT0_F - @m60.lib.M60 47D5</p> <p>PP5V_USB2_PORT1 PP5V_USB2_PORT1 - @m60.lib.M60 47C7</p> <p>PP5V_USB2_PORT1_F PP5V_USB2_PORT1_F - @m60.lib.M60 47C5</p> <p>PP5V_USB2_PORT2 PP5V_USB2_PORT2 - @m60.lib.M60 47B7</p> <p>PP5V_USB2_PORT2_F PP5V_USB2_PORT2_F - @m60.lib.M60 47B5</p> <p>PP12V_AUD_SPKRAMP_PL PP12V_AUD_SPKRAMP_PLANE - @m60.lib.M60 72D5</p> <p>ANE ANE - @m60.lib.M60 76D7</p> <p>PP12V_17502 PP12V_17502 - @m60.lib.M60 76D7</p> <p>PP12V_S5_CPU_REG PP12V_S5_CPU_REG - @m60.lib.M60 76C3 75D4 75D7 76C8 76D6</p> <p>PPFM_PORT0_VP PPFM_PORT0_VP - @m60.lib.M60 46D2</p> <p>PPFM_PORT0_VP_FL PPFM_PORT0_VP_FL - @m60.lib.M60 46B2 46D1</p> <p>PPFM_PORTS_VP PPFM_PORTS_VP - @m60.lib.M60 46D3</p> <p>PPFM_PORT0_VP_FL PPFM_PORT0_VP_FL - @m60.lib.M60 46C2</p> <p>PPFM_PORT1_VP_FL PPFM_PORT1_VP_FL - @m60.lib.M60 46A2</p> <p>PPVOCORE_S0_GPU_MFVDD PPVOCORE_S0_GPU_MFVDD - @m60.lib.M60 91A6</p> <p>PPVOCORE_S0_GPU_VDDCI PPVOCORE_S0_GPU_VDDCI - @m60.lib.M60 87D6</p> <p>PPVIN_S5_IMVP6_VIN PPVIN_S5_IMVP6_VIN - @m60.lib.M60 75C7</p> <p>PPV_3V3_AUDIO_CODEC PPV_3V3_AUDIO_CODEC - @m60.lib.M60 42D6</p> <p>Q4201_3 Q4201_3 - @m60.lib.M60 60B7</p> <p>Q5950_1 Q5950_1 - @m60.lib.M60 60B7</p> <p>R6000_1 R6000_1 - @m60.lib.M60 60A6</p> <p>R6001_1 R6001_1 - @m60.lib.M60 60A6</p> <p>R6002_1 R6002_1 - @m60.lib.M60 60A6</p> <p>R6004_2 R6004_2 - @m60.lib.M60 60B6</p> <p>R6597_2 R6597_2 - @m60.lib.M60 65A6</p> <p>R7504_1 R7504_1 - @m60.lib.M60 75A8 75C1</p> <p>R7507_1 R7507_1 - @m60.lib.M60 75A6 75B1</p> <p>R859F_2 R859F_2 - @m60.lib.M60 84C8</p> <p>R9499_1 R9499_1 - @m60.lib.M60 94C8</p> <p>RSMRST_PWRGD RSMRST_PWRGD - @m60.lib.M60 58D7 76D1</p> <p>SATA_A_D2R_N SATA_A_D2R_N - @m60.lib.M60 21B6 38A6</p> <p>TP_SATA_A_D2R_N TP_SATA_A_D2R_N - @m60.lib.M60 38A5</p> <p>SATA_A_D2R_P SATA_A_D2R_P - @m60.lib.M60 21B6 38A6</p> <p>TP_SATA_A_D2R_P TP_SATA_A_D2R_P - @m60.lib.M60 38A5</p> <p>SATA_A_R2D_C_N SATA_A_R2D_C_N - @m60.lib.M60 21B6 38A6</p> <p>TP_SATA_A_R2D_N TP_SATA_A_R2D_N - @m60.lib.M60 38A5 38A6</p> <p>TP_SATA_R2D_P TP_SATA_R2D_P - @m60.lib.M60 38A5</p> <p>SATA_C_D2R_C_N SATA_C_D2R_C_N - @m60.lib.M60 38B8</p> <p>SATA_C_D2R_C_P SATA_C_D2R_C_P - @m60.lib.M60 38B8</p> <p>SATA_C_D2R_N SATA_C_D2R_N - @m60.lib.M60 21B6 38B6</p> <p>SATA_C_D2R_P SATA_C_D2R_P - @m60.lib.M60 21B6 38B6</p> <p>SATA_C_DET_L SATA_C_DET_L - @m60.lib.M60 23D2 38B5</p> <p>SATA_C_PWR_EN_L SATA_C_PWR_EN_L - @m60.lib.M60 23A3 23B3</p> <p>SATA_C_R2D_C_N SATA_C_R2D_C_N - @m60.lib.M60 21B6 38B6</p> <p>SATA_C_R2D_C_P SATA_C_R2D_C_P - @m60.lib.M60 21B6 38B6</p> <p>SATA_C_R2D_N SATA_C_R2D_N - @m60.lib.M60 38B6 38A6</p> <p>SATA_C_R2D_P SATA_C_R2D_P - @m60.lib.M60 38B8</p> <p>SATA_RBIAS_N SATA_RBIAS_N - @m60.lib.M60 21B6 38C7</p> <p>SATA_RBIAS_P SATA_RBIAS_P - @m60.lib.M60 38C7</p> <p>SATA_RBIAS_T SATA_RBIAS_T - @m60.lib.M60 21B6 38C7</p> <p>SATA_RBIAS SATA_RBIAS - @m60.lib.M60 38C7</p> <p>SB_A20GATE SB_A20GATE - @m60.lib.M60 21C4</p> <p>SB_ACZ_BITCLK SB_ACZ_BITCLK - @m60.lib.M60 21C6</p> <p>SB_ACZ_RST_L SB_ACZ_RST_L - @m60.lib.M60 21C6</p> <p>SB_ACZ_SDATAOUT SB_ACZ_SDATAOUT - @m60.lib.M60 21C6</p> <p>SB_ACZ_SYNC SB_ACZ_SYNC - @m60.lib.M60 21C6</p> <p>SB_CLK14P3M_TIMER SB_CLK14P3M_TIMER - @m60.lib.M60 588 23D3 34D4</p> <p>SB_CLK48M_USBCBTR SB_CLK48M_USBCBTR - @m60.lib.M60 588 23D3 34C4</p> <p>SB_CLK100M_DMI_N SB_CLK100M_DMI_N - @m60.lib.M60 588 22C2 34A4 34C2</p> <p>SB_CLK100M_DMI_P SB_CLK100M_DMI_P - @m60.lib.M60 588 22C2 34A4 34C2</p> <p>SB_CLK100M_SATA_N SB_CLK100M_SATA_N - @m60.lib.M60 58C 21B6 34B4 34C2</p> <p>SB_CLK100M_SATA_OE_L SB_CLK100M_SATA_OE_L - @m60.lib.M60 23C3 33B4</p> <p>SB_CLK100M_SATA_P SB_CLK100M_SATA_P - @m60.lib.M60 58C 21B6 34B4 34C2</p> <p>SB_CRT_TVOUT_MUX SB_CRT_TVOUT_MUX - @m60.lib.M60 22B5</p> <p>SB_GPI02 SB_GPI02 - @m60.lib.M60 22A6 26C2</p> <p>SB_GPI03 SB_GPI03 - @m60.lib.M60 </p>					



	8	7	6	5	4	3	2	1
D	Title: Cref Part Report	C2513 CAP_402	m60[25C6]	m60[41C4]	C4112 CAP_402	m60[41C4]	C5792 CAP_603	m60[57D5]
	Design: m60	C2514 CAP_402	m60[25C6]	m60[41C4]	C4113 CAP_402	m60[41C4]	C5797 CAP_1210	m60[57D2]
	Date: Jun 23 16:28:15 2006	C2515 CAP_402	m60[25B6]	m60[41B5]	C4115 CAP_402	m60[41B5]	C5798 CAP_1210	m60[57D2]
	C85A0 CAP_402	m60[85D1]	C2516 CAP_P_CASE-C2	m60[25D3]	C4116 CAP_402	m60[41B5]	C5799 CAP_1210	m60[57D3]
	C600 CAP_402	m60[6C7]	C2517 CAP_402	m60[25D6]	C4117 CAP_402	m60[41B2]	C5800 CAP_402	m60[59B8]
	C601 CAP_402	m60[6A3]	C2518 CAP_402	m60[25D4]	C4118 CAP_402	m60[41B2]	C5801 CAP_402	m60[59B8]
	C602 CAP_402	m60[6A3]	C2519 CAP_402	m60[25D3]	C4126 CAP_402	m60[41A8]	C5802 CAP_805	m60[58D3]
	C603 CAP_402	m60[6A3]	C2520 CAP_402	m60[25B6]	C4127 CAP_402	m60[41A8]	C5803 CAP_402	m60[58D2]
	C620 CAP_603	m60[6D6]	C2521 CAP_402	m60[25C3]	C4128 CAP_402	m60[41A8]	C5804 CAP_402	m60[58D2]
	C621 CAP_603	m60[6D6]	C2522 CAP_402	m60[25B3]	C4129 CAP_402	m60[41A8]	C5805 CAP_402	m60[58D2]
C	C622 CAP_805	m60[6D7]	C2523 CAP_402	m60[25B4]	C4130 CAP_402	m60[41A7]	C5806 CAP_402	m60[58D1]
	C623 CAP_805-2	m60[6D7]	C2524 CAP_603	m60[25B3]	C4131 CAP_402	m60[41A7]	C5807 CAP_402	m60[58D2]
	C624 CAP_1210	m60[6D8]	C2525 CAP_402	m60[25B3]	C4132 CAP_402	m60[41A7]	C5820 CAP_402	m60[58C3]
	C625 CAP_P_6_3X5.5-SM	m60[6D8]	C2526 CAP_402	m60[25A4]	C4133 CAP_402	m60[41A6]	C5900 CAP_402	m60[59D8]
	C0800 CAP_402	m60[8B5]	C2527 CAP_402	m60[25A3]	C4134 CAP_402	m60[41A6]	C5901 CAP_402	m60[59D8]
	C0901 CAP_603	m60[9B5]	C2528 CAP_402	m60[25A3]	C4135 CAP_402	m60[41A5]	C5902 CAP_402	m60[59B7]
	C900 CAP_805	m60[9B6]	C2529 CAP_402	m60[25A3]	C4136 CAP_402	m60[41A5]	C5903 CAP_402	m60[59A8]
	C901 CAP_805	m60[9B6]	C2530 CAP_402	m60[25A3]	C4137 CAP_402	m60[41A5]	C5919 CAP_402	m60[59B4]
	C902 CAP_805	m60[9A6]	C2531 CAP_402	m60[25D1]	C4138 CAP_402	m60[41A4]	C5940 CAP_402	m60[59A4]
	C903 CAP_805	m60[9A6]	C2532 CAP_402	m60[25C1]	C4139 CAP_402	m60[41A4]	C5941 CAP_402	m60[59A3]
B	C904 CAP_805	m60[9A6]	C2533 CAP_402	m60[25C1]	C4140 CAP_402	m60[41B3]	C5942 CAP_805-1	m60[59A3]
	C905 CAP_805	m60[9A6]	C2534 CAP_402	m60[25D1]	C4150 CAP_402	m60[41D5]	C5943 CAP_402	m60[59A5]
	C906 CAP_805	m60[9A6]	C2605 CAP_402	m60[26C7]	C4200 CAP_1210	m60[42D8]	C5951 CAP_402	m60[60B6]
	C907 CAP_805	m60[9A6]	C2607 CAP_402	m60[26D5]	C4201 CAP_402	m60[42D7]	C6000 CAP_402	m60[60D4]
	C908 CAP_805	m60[9B7]	C2608 CAP_402	m60[26D8]	C4202 CAP_1210	m60[42D7]	C6001 CAP_402	m60[60D4]
	C909 CAP_805	m60[9B5]	C2609 CAP_402	m60[26D8]	C4203 CAP_1206-1	m60[42D6]	C6002 CAP_402	m60[60D4]
	C910 CAP_805	m60[9B7]	C2610 CAP_402	m60[26C7]	C4204 CAP_402	m60[42D6]	C6003 CAP_402	m60[60D4]
	C911 CAP_805	m60[9B7]	C2611 CAP_805	m60[26B7]	C4205 CAP_1210	m60[42C5]	C6100 CAP_402	m60[61B5]
	C912 CAP_805	m60[9A7]	C2698 CAP_402	m60[26C4]	C4206 CAP_402	m60[42C5]	C6101 CAP_402	m60[61B5]
	C913 CAP_805	m60[9A7]	C2699 CAP_402	m60[26C5]	C4209 CAP_603	m60[42B7]	C6301 CAP_402	m60[63C2]
A	C914 CAP_805	m60[9A7]	C2800 CAP_402	m60[28D6]	C4210 CAP_402	m60[42B6]	C6308 CAP_402	m60[63C5]
	C915 CAP_805	m60[9A7]	C2801 CAP_603	m60[28B2]	C4300 CAP_402	m60[43D7]	C6309 CAP_402	m60[63C6]
	C916 CAP_805	m60[9A7]	C2802 CAP_603	m60[28B2]	C4301 CAP_402	m60[43D6]	C6311 CAP_402	m60[63C2]
	C917 CAP_805	m60[9A7]	C2803 CAP_603	m60[28B1]	C4304 CAP_402	m60[43C6]	C6312 CAP_402	m60[63D3]
	C918 CAP_805	m60[9A7]	C2804 CAP_603	m60[28B1]	C4305 CAP_402	m60[43B6]	C6500 CAP_603	m60[65D5]
	C919 CAP_805	m60[9A7]	C2810 CAP_402	m60[28B2]	C4401 CAP_402	m60[44D1]	C6501 CAP_805	m60[65D5]
	C920 CAP_805	m60[9A5]	C2811 CAP_402	m60[28B2]	C4402 CAP_402	m60[44C3]	C6502 CAP_805	m60[65B3]
	C921 CAP_805	m60[9A7]	C2812 CAP_402	m60[28B1]	C4410 CAP_402	m60[44D6]	C6503 CAP_805	m60[65B5]
	C922 CAP_805	m60[9A7]	C2813 CAP_402	m60[28B1]	C4412 CAP_402	m60[44D1]	C6504 CAP_P_6_3X11-TH-LF1	m60[65C4]
	C923 CAP_805	m60[9B7]	C2814 CAP_402	m60[28B2]	C4500 CAP_402	m60[45D4]	C6505 CAP_P_6_3X11-TH-LF1	m60[65B3]

	8			7			6			5			4			3			2			1		
D	C7516	CAP_402	m60[75B4]	C8310	CAP_603-1	m60[83D8]	C8631	CAP_402	m60[86C6]	C9122	CAP_402	m60[91B5]												
	C7517	CAP_P_SM-3	m60[75D2]	C8311	CAP_603-1	m60[83D7]	C8632	CAP_402	m60[86C5]	C9125	CAP_805	m60[91B5]												
	C7518	CAP_P_SM-3	m60[75D2]	C8315	CAP_603-1	m60[83B5]	C8633	CAP_402	m60[86C5]	C9126	CAP_402	m60[91B5]												
	C7521	CAP_402	m60[75A6]	C8316	CAP_603	m60[83A6]	C8634	CAP_402	m60[86C5]	C9127	CAP_402	m60[91B5]												
	C7526	CAP_603	m60[75D6]	C8317	CAP_603-1	m60[83B8]	C8650	CAP_805	m60[86B7]	C9130	CAP_805	m60[91A6]												
	C7527	CAP_603	m60[75C5]	C8318	CAP_603-1	m60[83B7]	C8651	CAP_805	m60[86B7]	C9131	CAP_402	m60[91A6]												
	C7528	CAP_402	m60[75B5]	C8319	CAP_603	m60[83A7]	C8652	CAP_805	m60[86B7]	C9132	CAP_402	m60[91A5]												
	C7529	CAP_402	m60[75B5]	C8320	CAP_402	m60[83A7]	C8653	CAP_805	m60[86B6]	C9135	CAP_805	m60[91A6]												
	C7530	CAP_402	m60[75B6]	C8321	CAP_603-1	m60[83C5]	C8655	CAP_402	m60[86B6]	C9136	CAP_402	m60[91A6]												
	C7531	CAP_402	m60[75B5]	C8325	CAP_603-1	m60[83D6]	C8656	CAP_402	m60[86B6]	C9137	CAP_402	m60[91A5]												
	C7532	CAP_402	m60[75B6]	C8326	CAP_603-1	m60[83D5]	C8657	CAP_402	m60[86B6]	C9140	CAP_805	m60[91A6]												
	C7533	CAP_402	m60[75B6]	C8398	CAP_603	m60[83C2]	C8658	CAP_402	m60[86B5]	C9141	CAP_402	m60[91A6]												
	C7534	CAP_402	m60[75B5]	C8399	CAP_603	m60[83D2]	C8659	CAP_402	m60[86B5]	C9142	CAP_402	m60[91A5]												
	C7535	CAP_603	m60[75D5]	C8400	CAP_805	m60[84C7]	C8660	CAP_402	m60[86B5]	C9191	CAP_402	m60[91D2]												
	C7550	CAP_603	m60[75D1]	C8401	CAP_402	m60[84C7]	C8661	CAP_402	m60[86B6]	C9300	CAP_805	m60[93C6]												
	C7551	CAP_603	m60[75D1]	C8402	CAP_402	m60[84C7]	C8662	CAP_402	m60[86B6]	C9301	CAP_402	m60[93C6]												
	C7590	CAP_402	m60[75C3]	C8405	CAP_805	m60[84B7]	C8663	CAP_402	m60[86B6]	C9302	CAP_402	m60[93C5]												
	C7592	CAP_402	m60[75B3]	C8406	CAP_402	m60[84B7]	C8664	CAP_402	m60[86B5]	C9305	CAP_805	m60[93C6]												
	C7596	CAP_402	m60[75D6]	C8407	CAP_402	m60[84B7]	C8665	CAP_402	m60[86B5]	C9306	CAP_402	m60[93C6]												
	C7597	CAP_1210	m60[75D1]	C8410	CAP_805	m60[84B6]	C8666	CAP_402	m60[86B5]	C9307	CAP_402	m60[93C5]												
	C7598	CAP_1210	m60[75D1]	C8411	CAP_402	m60[84B7]	C8667	CAP_402	m60[86B6]	C9310	CAP_805	m60[93C6]												
	C7599	CAP_402	m60[76D6]	C8412	CAP_402	m60[84B7]	C8668	CAP_402	m60[86B6]	C9311	CAP_402	m60[93C6]												
	C7612	CAP_402	m60[76B2]	C8413	CAP_402	m60[84B7]	C8669	CAP_402	m60[86B6]	C9312	CAP_402	m60[93C5]												
	C7633	CAP_402	m60[76C7]	C8420	CAP_402	m60[84D5]	C8670	CAP_402	m60[86B5]	C9315	CAP_805	m60[93B8]												
	C7710	CAP_402	m60[77C7]	C8421	CAP_402	m60[84D5]	C8671	CAP_402	m60[86B5]	C9316	CAP_402	m60[93B8]												
C7711	CAP_402	m60[77B7]	C8422	CAP_402	m60[84D5]	C8672	CAP_402	m60[86B5]	C9317	CAP_402	m60[93B7]													
C7712	CAP_402	m60[77C7]	C8423	CAP_402	m60[84D5]	C8673	CAP_402	m60[86B6]	C9320	CAP_805	m60[93B6]													
C7750	CAP_402	m60[77B2]	C8424	CAP_402	m60[84D5]	C8674	CAP_402	m60[86B5]	C9321	CAP_402	m60[93B6]													
C7751	CAP_805	m60[77C3]	C8425	CAP_402	m60[84D5]	C8675	CAP_402	m60[86B6]	C9322	CAP_402	m60[93B5]													
C7752	CAP_805	m60[77C3]	C8426	CAP_402	m60[84D5]	C8676	CAP_402	m60[86B5]	C9325	CAP_805	m60[93B8]													
C7753	CAP_402	m60[77B5]	C8427	CAP_402	m60[84D5]	C8677	CAP_402	m60[86B5]	C9326	CAP_402	m60[93B8]													
C7754	CAP_402	m60[77B4]	C8428	CAP_402	m60[84D5]	C8678	CAP_402	m60[86B5]	C9327	CAP_402	m60[93B7]													
C7755	CAP_805	m60[77B2]	C8429	CAP_402	m60[84C5]	C8679	CAP_402	m60[86A6]	C9330	CAP_805	m60[93B6]													
C7756	CAP_805	m60[77B2]	C8430	CAP_402	m60[84C5]	C8680	CAP_402	m60[86A6]	C9331	CAP_402	m60[93B6]													
C7757	CAP_402	m60[77B5]	C8431	CAP_402	m60[84C5]	C8681	CAP_402	m60[86A6]	C9332	CAP_402	m60[93B5]													
C7797	CAP_402	m60[77C3]	C8432	CAP_402	m60[84C5]	C8682	CAP_402	m60[86A5]	C9340	CAP_805	m60[93A6]													
C7798	CAP_603	m60[77B5]	C8433	CAP_402	m60[84C5]	C8683	CAP_402	m60[86A5]	C9341	CAP_402	m60[93A4]													
C7799	CAP_402	m60[77B2]	C8434	CAP_402	m60[84C5]	C8690	CAP_805	m60[86D5]	C9342	CAP_402	m60[93A5]													
C7800	CAP_1210	m60[78C3]	C8435	CAP_402	m60[84C5]	C8691	CAP_402	m60[86D5]	C9345	CAP_805	m60[93A6]													
C7801	CAP_P_TH-MC2	m60[78C4]	C8436	CAP_402	m60[84C5]	C8692	CAP_402	m60[86D5]	C9346	CAP_402	m60[93A5]													
C7802	CAP_603	m60[78C6]	C8437	CAP_402	m60[84C5]	C8711	CAP_402	m60[87B7]	C9347	CAP_402	m60[93A5]													
C7803	CAP_603	m60[78B7]	C8438	CAP_402	m60[84C5]	C8713	CAP_402	m60[87B7]	C9400	CAP_603-1	m60[94C7]													
C7804	CAP_402	m60[78C7]	C8439	CAP_402	m60[84C5]	C8715	CAP_402	m60[87A7]	C9401	CAP_402	m60[94C6]													
C7805	CAP_603	m60[78C5]	C8440	CAP_402	m60[84B5]	C8716	CAP_402	m60[87A6]	C9410	CAP_402	m60[94C6]													
C7806	CAP_805-1	m60[78B3]	C8441	CAP_402	m60[84B5]	C8721	CAP_402	m60[87B4]	C9420	CAP_1210	m60[94C5]													
C7807	CAP_P_TH	m60[78B3]	C8442	CAP_402	m60[84B5]	C8723	CAP_402	m60[87B4]	C9470	CAP_402	m60[94B2]													
C7808	CAP_402	m60[78B3]	C8443	CAP_402	m60[84B5]	C8725	CAP_402	m60[87A4]	C9700	CAP_402	m60[97C8]													
C7810	CAP_402	m60[78B5]	C8444	CAP_402	m60[84B5]	C8726	CAP_402	m60[87A3]	C9710	CAP_603	m60[97C3]													
C7811	CAP_402	m60[78B5]	C8445	CAP_402	m60[84B5]	C8900	CAP_805	m60[89D7]	C9711	CAP_402	m60[97D3]													
C7813	CAP_1206	m60[78B4]	C8446	CAP_402	m60[84B5]	C8901	CAP_402	m60[89D7]	C9713	CAP_402	m60[97C2]													
C7814	CAP_402	m60[78B5]	C8447	CAP_402	m60[84B5]	C8902	CAP_402	m60[89D7]	C9714	CAP_402	m60[97C2]													
C7897	CAP_805-1	m60[78B2]	C8448	CAP_402	m60[84B5]	C8903	CAP_402	m60[89D7]	C9740	CAP_402	m60[97A7]													
C7899	CAP_1210	m60[78C3]	C8449	CAP_402	m60[84B5]	C8904	CAP_402	m60[89D6]	C9741	CAP_402	m60[97A6]													
C7900	CAP_402	m60[79D6]	C8450	CAP_402	m60[84B5]	C8910	CAP_402	m60[89D7]	C9742	CAP_402	m60[97A6]													
C7901	CAP_603	m60[79D5]	C8451	CAP_402	m60[84B5]	C8915	CAP_402	m60[89D6]	C9750	CAP_402	m60[97B4]													
C7902	CAP_402	m60[79C5]	C8455	CAP_402	m60[84D2]	C8920	CAP_805	m60[89C6]	D2500	DIODE_SCHOT_SOT23	m60[25C8]													
C7903	CAP_603	m60[79C7]	C8456	CAP_402	m60[84D2]	C8921	CAP_402	m60[89C6]	D2501	DIODE_SCHOT_SOT23	m60[25C8]													
C7906	CAP_402	m60[79C5]	C8457	CAP_402	m60[84D2]	C8922	CAP_402	m60[89C7]	D2600	DIODE_SCHOT_SOT23	m60[26D8]													
C7907	CAP_402	m60[79C3]	C8458	CAP_402	m60[84D2]	C8923	CAP_402	m60[89C7]	D2601	DIODE_SCHOT_SOT23	m60[26C8]													
C7908	CAP_402	m60[79C5]	C8459	CAP_402	m60[84D2]	C8924	CAP_402	m60[89C7]	D4600	DIODE_SMC	m60[46D5]													
C7909	CAP_1206	m60[79C3]	C8460	CAP_402	m60[84D2]	C8925	CAP_402	m60[89C7]	D4690	ZENER_SOT23	m60[46A6]													
C7910	CAP_P_TH-MC2	m60[79D4]	C8461	CAP_402	m60[84D2]	C8926	CAP_402	m60[89C6]	D4700	DIODE_SCHOT_3P_A_SC-	m60[47C5]													
C7911	CAP_1210	m60[79D3]	C8462	CAP_402	m60[84D2]	C8931	CAP_402	m60[89C7]	75															
C7912	CAP_P_CASE-D2E-LF	m60[79C2]	C8463	CAP_402	m60[84D2]	C8933	CAP_402	m60[89C6]	D4701	DIODE_SCHOT_3P_A_SC-	m60[47B5]													
C7913	CAP_1206	m60[79C2]	C8464	CAP_402	m60[84C2]	C8950	CAP_805	m60[89D4]	75															
C7980	CAP_402	m60[79A3]	C8465	CAP_402	m60[84C2]	C8951	CAP_402	m60[89D4]	D4702	DIODE_SCHOT_3P_A_SC-	m60[47A5]													
C7992	CAP_603	m60[79B6]	C8466	CAP_402	m60[84C2]	C8952	CAP_402	m60[89D4]	75															
C7997	CAP_1210	m60[79D3]	C8467	CAP_402	m60[84C2]	C8953	CAP_402	m60[89D3]	D5700	DIODE_SCHOT_5P_TLM83	m60[57C4]													
C7998	CAP_P_CASE-D2E-LF	m60[79C2]	C8468	CAP_402	m60[84C2]	C8954	CAP_402	m60[89D3]	3															
C8000	CAP_1210	m60[80D3]	C8469	CAP_402	m60[84C2]	C8960	CAP_402	m60[89D3]	D6500	DIODE_SOT23	m60[65C4]													
C8001	CAP_P_CASE-D2E-LF	m60[80C2]	C8470	CAP_402	m60[84C2]	C8965	CAP_402	m60[89D3]	D6501	DIODE_SOT23	m60[65B4]													
C8002	CAP_603	m60[80D6]	C8471	CAP_402	m60[84C2]	C8970	CAP_805	m60[89C5]	D6502	DIODE_SCHOT_SMB	m60[65C4]													
C8003	CAP_402	m60[80C3]	C8472	CAP_402	m60[84C2]	C8971	CAP_402	m60[89C4]	D6503	DIODE_SCHOT_SMB	m60[65B4]													
C8004	CAP_1206	m60[80C3]	C8473	CAP_402	m60[84C2]	C8972	CAP_402	m60[89C4]	D6600	DIODE_SOT23	m60[66C4]													
C8005	CAP_402	m60[80C4]	C8474	CAP_402	m60[84C2]	C8973	CAP_402	m60[89C4]	D6601	DIODE_SCHOT_SMB	m60[66C3]													
C8006	CAP_402	m60[80D6]	C8475	CAP_402	m60[84B2]	C8974	CAP_402	m60[89C4]	D7500	DIODE_SCHOT_SMB	m60[75C3]													
C8009	CAP_603	m60[80C6]	C8476	CAP_402	m60[84B2]	C8975	CAP_402	m60[89C3]	D7501	DIODE_SCHOT_SMB	m60[75B2]													
C8010	CAP_603	m60[80C4]	C8477	CAP_402	m60[84B2]	C8976	CAP_402	m60[89C3]	D7599	DIODE_SOT23	m60[76D6]													
C8011	CAP_402	m60[80C5]	C8478	CAP_402	m60[84B2]	C8981	CAP_402	m60[89C3]	D7800	DIODE_SCHOT_5P_TLM83	m60[78B4]													
C8012	CAP_402	m60[80C5]	C8479	CAP_402	m60[84B2]	C8983	CAP_402	m60[89C3]	3															
C8015	CAP_1210	m60[80D3]	C8480	CAP_402	m60[84B2]	C9000	CAP_805	m60[90D7]	D7900	DIODE_SCHOT_5P_TLM83	m60[79C4]													
C8016	CAP_805-1	m60[80C2]	C8481	CAP_402	m60[84B2]	C9001	CAP_402	m60[90D7]	3															
C8090	CAP_1210	m60[80D3]	C8482	CAP_402	m60[84B2]	C9002	CAP_402	m60[90D7]	D8000	DIODE_SCHOT_5P_TLM83	m60[80C4]													
C8091	CAP_1210	m60[80D2]	C8483	CAP_402	m60[84B2]	C9003	CAP_402	m60[90D7]	3															
C8092	CAP_1210	m60[80D2]	C8484	CAP_402	m60[84B2]	C9004	CAP_402	m60[90D6]	D8100	DIODE_SCHOT_5P_TLM83	m60[81C4]													
C8099	CAP_P_CASE-D2E-LF	m60[80C2]	C8485	CAP_402	m60[84B2]	C9010	CAP_402	m60[90D7]	3															
C8100	CAP_402	m60[81D6]	C8486	CAP_402	m60[84B2]	C9015	CAP_402	m60[90D6]	D8200	DIODE_SCHOT_5P_TLM83	m60[82C3]													
C8101	CAP_603	m60[81C5]	C8500	CAP_603	m60[85D6]	C9020	CAP_805	m60[90C8]	3															
C8102	CAP_402	m60[81C5]	C8501	CAP_603	m60[85D6]	C9021	CAP_402	m60[90C8]	D8310	DIODE_SCHOT_SOD-123	m60[83A6]													
C8103	CAP_603	m60[81C7]	C8502	CAP_603	m60[85D6]	C9022	CAP_402	m60[90C7]	D8520	DIODE_SCHOT_SMB	m60[85C3]													
C8106	CAP_402	m60[81C5]	C8506	CAP_402	m60[85C8]	C9023	CAP_402	m60																



	8	7	6	5	4	3	2	1
D	Q8300 TRA_IRF7413_SO-8 m60[83D2]	R2303 RES_402 m60[23D3]	R3446 RES_402 m60[34B1]	R4508 RES_402 m60[45C3]	R5809 RES_402 m60[58C2]			
	Q8301 TRA_IRF7413_SO-8 m60[83C2]	R2305 RES_402 m60[23D3]	R3451 RES_402 m60[34C4]	R4511 RES_402 m60[45C4]	R5815 RES_402 m60[58B3]			
	Q8302 TRA_2N7002_SOT23-LF m60[83C3]	R2306 RES_402 m60[23B7]	R3452 RES_402 m60[34B7]	R4512 RES_402 m60[45B3]	R5817 RES_402 m60[58B3]			
	Q8303 TRA_2N7002_SOT23-LF m60[83D3]	R2307 RES_402 m60[23A7]	R3453 RES_402 m60[34B8]	R4513 RES_402 m60[45B3]	R5818 RES_402 m60[58B3]			
	Q8310 TRA_S13446DV_TSOP-LF m60[83D8]	R2308 RES_402 m60[23B7]	R3454 RES_402 m60[34B7]	R4514 RES_402 m60[45B3]	R5819 RES_402 m60[58B3]			
	Q8311 TRA_2N7002_SOT23-LF m60[83C7]	R2309 RES_402 m60[23A7]	R3455 RES_402 m60[34B8]	R4515 RES_402 m60[45B3]	R5821 RES_402 m60[58B3]			
	Q8312 TRA_S13446DV_TSOP-LF m60[83C5]	R2310 RES_402 m60[23A7]	R3456 RES_402 m60[34B7]	R4516 RES_402 m60[45B3]	R5822 RES_402 m60[58B3]			
	Q8313 TRA_IRF7410_SO-8 m60[83B6]	R2311 RES_402 m60[23A7]	R3457 RES_402 m60[34B7]	R4517 RES_402 m60[45B3]	R5823 RES_402 m60[58B3]			
	Q8315 TRA_2N7002_SOT23-LF m60[83B5]	R2313 RES_402 m60[23A7]	R3458 RES_402 m60[34B7]	R4518 RES_402 m60[45B3]	R5824 RES_402 m60[58B3]			
	Q8316 TRA_2N7002_SOT23-LF m60[83C5]	R2314 RES_402 m60[23A7]	R3459 RES_402 m60[34A7]	R4519 RES_402 m60[45A7]	R5825 RES_402 m60[58B3]			
	Q8317 TRA_S13446DV_TSOP-LF m60[83D5]	R2316 RES_402 m60[23D7]	R3460 RES_402 m60[34A7]	R4520 RES_402 m60[45A7]	R5826 RES_402 m60[58B3]			
	Q8318 TRA_DUAL_2N7002A_SOT m60[83A8 83A7] 563	R2317 RES_402 m60[23D7]	R3461 RES_402 m60[34A7]	R4521 RES_402 m60[45A7]	R5827 RES_402 m60[58C5]			
	Q8319 TRA_S13446DV_TSOP-LF m60[83C8]	R2318 RES_402 m60[23D7]	R3462 RES_402 m60[34A8]	R4522 RES_402 m60[45A8]	R5828 RES_402 m60[58B3]			
	Q8320 TRA_2N7002_SOT23-LF m60[83B7]	R2319 RES_402 m60[23D2]	R3463 RES_402 m60[34A7]	R4523 RES_402 m60[45A7]	R5829 RES_402 m60[58C3]			
	Q8520 TRA_HAT2168H_LFFPAK m60[85D4]	R2320 RES_402 m60[23D7]	R3470 RES_402 m60[34A5]	R4530 RES_402 m60[45A5]	R5830 RES_402 m60[58C3]			
	Q8521 TRA_HAT2168H_LFFPAK m60[85C4]	R2323 RES_402 m60[23D5]	R3471 RES_402 m60[34A5]	R4531 RES_402 m60[45A5]	R5831 RES_402 m60[58C3]			
	Q8522 TRA_HAT2165H_LFFPAK m60[85C5]	R2326 RES_402 m60[23D6]	R3485 RES_402 m60[34D1]	R4585 RES_402 m60[45D1]	R5832 RES_402 m60[58C3]			
	Q9400 TRA_S13443DV_TSOP-LF m60[94C7]	R2327 RES_402 m60[23D6]	R3486 RES_402 m60[34D1]	R4586 RES_402 m60[45D1]	R5833 RES_402 m60[58C5]			
	Q9401 TRA_2N7002_SOT23-LF m60[94C8]	R2343 RES_402 m60[23D1]	R3487 RES_402 m60[34D1]	R4587 RES_402 m60[45D1]	R5834 RES_402 m60[58C5]			
	Q9711 TRA_2N7002DW_SOT-363 m60[97D2 97C2]	R2388 RES_402 m60[23A3]	R3488 RES_402 m60[34D1]	R4588 RES_402 m60[45D1]	R5899 RES_402 m60[58D3]			
	R75A0 RES_402 m60[75C7]	R2389 RES_402 m60[38D5]	R3489 RES_402 m60[34D2]	R4589 RES_402 m60[45D2]	R5900 RES_402 m60[58D7]			
	R85A0 RES_402 m60[85D1]	R2390 RES_402 m60[23B3]	R3490 RES_402 m60[34D2]	R4590 RES_402 m60[45D2]	R5903 RES_402 m60[58D2]			
	R600 RES_402 m60[6A7]	R2395 RES_402 m60[23D7]	R3491 RES_402 m60[34D2]	R4591 RES_402 m60[45D2]	R5904 RES_402 m60[58D2]			
	R602 RES_402 m60[6A8]	R2396 RES_402 m60[23D6]	R3492 RES_402 m60[34D2]	R4592 RES_402 m60[45D2]	R5905 RES_402 m60[58D2]			
	R603 RES_402 m60[6B1]	R2397 RES_402 m60[23D6]	R3493 RES_402 m60[34D7]	R4593 RES_402 m60[45D2]	R5906 RES_402 m60[58D2]			
	R605 RES_402 m60[6A5]	R2398 RES_402 m60[23D8]	R3494 RES_402 m60[34D7]	R4594 RES_402 m60[45D7]	R5907 RES_402 m60[58B7]			
	R611 RES_402 m60[6B7]	R2399 RES_402 m60[23C1]	R3495 RES_402 m60[34D7]	R4595 RES_402 m60[45D7]	R5910 RES_402 m60[58D2]			
	R612 RES_402 m60[6B7]	R2500 RES_402 m60[25A8]	R3496 RES_402 m60[34C5]	R4596 RES_402 m60[45C5]	R5911 RES_402 m60[58D3]			
	R614 RES_402 m60[6B7]	R2501 RES_402 m60[25C8]	R3497 RES_402 m60[34D4]	R4597 RES_402 m60[45D4]	R5912 RES_402 m60[58D2]			
	R615 RES_402 m60[6B7]	R2502 RES_402 m60[25D8]	R3498 RES_402 m60[34D5]	R4598 RES_402 m60[45D5]	R5913 RES_402 m60[58D2]			
	R616 RES_402 m60[6A7]	R2600 RES_402 m60[26C7]	R3499 RES_402 m60[34D5]	R4599 RES_402 m60[45D5]	R5914 RES_402 m60[58D2]			
	R617 RES_402 m60[6A7]	R2606 RES_402 m60[26C7]	R3824 RES_402 m60[38D2]	R4915 RES_402 m60[49D2]	R5915 RES_402 m60[58D2]			
	R618 RES_402 m60[6C7]	R2607 RES_402 m60[26C8]	R3851 RES_402 m60[38D3]	R4916 RES_402 m60[49C2]	R5916 RES_402 m60[58C2]			
	R619 RES_402 m60[6B7]	R2609 RES_402 m60[26D7]	R3852 RES_402 m60[38D2]	R4917 RES_402 m60[49C2]	R5917 RES_402 m60[58C2]			
	R0701 RES_402 m60[70C]	R2611 RES_402 m60[26D5]	R3853 RES_402 m60[38D2]	R4918 RES_402 m60[49C2]	R5919 RES_402 m60[58A4]			
	R0702 RES_402 m60[70C]	R2612 RES_402 m60[26D5]	R3857 RES_402 m60[38B3]	R4919 RES_402 m60[49C2]	R5920 RES_402 m60[58B5]			
	R0703 RES_402 m60[70C]	R2622 RES_402 m60[26D4]	R3858 RES_402 m60[38B3]	R4920 RES_402 m60[49C2]	R5921 RES_402 m60[58B5]			
	R0704 RES_402 m60[70C]	R2623 RES_402 m60[26D2]	R3859 RES_402 m60[38B7]	R4921 RES_402 m60[49C2]	R5922 RES_402 m60[58B5]			
	R0705 RES_402 m60[7B4]	R2624 RES_402 m60[26D2]	R3897 RES_402 m60[38B7]	R4922 RES_402 m60[49C2]	R5923 RES_402 m60[58B5]			
	R0706 RES_402 m60[7B5]	R2625 RES_402 m60[26D2]	R3899 RES_402 m60[38B5]	R4923 RES_402 m60[49C2]	R5924 RES_402 m60[58B5]			
	R0707 RES_402 m60[7A4]	R2626 RES_402 m60[26D2]	R4101 RES_402 m60[41D7]	R4924 RES_402 m60[49C2]	R5930 RES_402 m60[58B6]			
	R0712 RES_402 m60[7A3]	R2627 RES_402 m60[26D2]	R4102 RES_402 m60[41C7]	R4925 RES_402 m60[49C2]	R5931 RES_402 m60[58B6]			
	R0716 RES_402 m60[7B1]	R2628 RES_402 m60[26D2]	R4103 RES_402 m60[41C2]	R4926 RES_402 m60[49C2]	R5932 RES_402 m60[58A7]			
	R0717 RES_402 m60[7B1]	R2629 RES_402 m60[26D2]	R4104 RES_402 m60[41C2]	R4927 RES_402 m60[49C2]	R5933 RES_402 m60[58A7]			
	R0718 RES_402 m60[7B1]	R2630 RES_402 m60[26D2]	R4105 RES_402 m60[41C2]	R4928 RES_402 m60[49C2]	R5934 RES_402 m60[58A6]			
	R0719 RES_402 m60[7B1]	R2631 RES_402 m60[26D2]	R4106 RES_402 m60[41C2]	R4929 RES_402 m60[49C2]	R5935 RES_402 m60[58A6]			
	R0720 RES_402 m60[7B7]	R2632 RES_402 m60[26D2]	R4107 RES_402 m60[41B2]	R4930 RES_402 m60[49C2]	R5940 RES_402 m60[58A5]			
	R0721 RES_402 m60[7B7]	R2633 RES_402 m60[26D2]	R4118 RES_402 m60[41B2]	R4931 RES_402 m60[49C2]	R5941 RES_402 m60[58A5]			
	R0722 RES_402 m60[7A7]	R2634 RES_402 m60[26D2]	R4119 RES_402 m60[41B2]	R4932 RES_402 m60[49C2]	R5942 RES_402 m60[58A4]			
	R0730 RES_402 m60[7A4]	R2636 RES_402 m60[26D2]	R4120 RES_402 m60[41B2]	R4933 RES_402 m60[49C2]	R5943 RES_402 m60[58A4]			
	R0802 RES_402 m60[8B7]	R2637 RES_402 m60[26D2]	R4122 RES_402 m60[41A3]	R4934 RES_402 m60[49C2]	R5950 RES_402 m60[60A7]			
	R0803 RES_402 m60[8A7]	R2638 RES_402 m60[26D2]	R4123 RES_402 m60[41A2]	R4935 RES_402 m60[49C2]	R5951 RES_402 m60[60B7]			
	R1000 RES_402 m60[10D3]	R2639 RES_402 m60[26D2]	R4130 RES_402 m60[41C4]	R4936 RES_402 m60[49C2]	R5952 RES_402 m60[60B6]			
	R1001 RES_402 m60[10D3]	R2640 RES_402 m60[26C2]	R4131 RES_402 m60[41C4]	R4937 RES_402 m60[49C2]	R5953 RES_402 m60[60B7]			
	R1002 RES_402 m60[10C6]	R2641 RES_402 m60[26C2]	R4150 RES_402 m60[41C8]	R4938 RES_402 m60[49C2]	R5954 RES_402 m60[60B7]			
	R1005 RES_402 m60[10D3]	R2642 RES_402 m60[26C2]	R4151 RES_402 m60[41D7]	R4939 RES_402 m60[49C2]	R5955 RES_402 m60[60B7]			
	R1017 RES_402 m60[10C6]	R2643 RES_402 m60[26C2]	R4202 RES_402 m60[42D5]	R4940 RES_402 m60[49C2]	R5956 RES_402 m60[60A6]			
	R1018 RES_402 m60[10B6]	R2650 RES_402 m60[26C4]	R4300 RES_402 m60[43D7]	R4941 RES_402 m60[49C2]	R6000 RES_402 m60[60A6]			
	R1019 RES_402 m60[10B6]	R2651 RES_402 m60[26C1]	R4350 RES_402 m60[43C7]	R4942 RES_402 m60[49C2]	R6001 RES_402 m60[60A6]			
	R1100 RES_402 m60[11B5]	R2696 RES_402 m60[26B4]	R4351 RES_402 m60[43C7]	R4943 RES_402 m60[49C2]	R6002 RES_402 m60[60A6]			
	R1109 RES_402 m60[11B5]	R2697 RES_402 m60[26C3]	R4352 RES_402 m60[43C7]	R4944 RES_402 m60[49C2]	R6003 RES_402 m60[60A6]			
	R1101 RES_402 m60[11C5]	R2698 RES_402 m60[26C5]	R4353 RES_402 m60[43C7]	R4945 RES_402 m60[49C2]	R6004 RES_402 m60[60B6]			
	R1102 RES_402 m60[11B4]	R2699 RES_402 m60[26C5]	R4354 RES_402 m60[43C7]	R4946 RES_402 m60[49C2]	R6005 RES_402 m60[60B5]			
	R1103 RES_402 m60[11C5]	R2718 RES_402 m60[27B7]	R4355 RES_402 m60[43C7]	R4947 RES_402 m60[49C2]	R6006 RES_402 m60[60A6]			
	R1104 RES_402 m60[11B5]	R2719 RES_402 m60[27B7]	R4356 RES_402 m60[43C7]	R4948 RES_402 m60[49C2]	R6007 RES_402 m60[60A6]			
	R1106 RES_402 m60[11A3]	R2750 RES_402 m60[27C7]	R4357 RES_402 m60[43B7]	R4949 RES_402 m60[49C2]	R6008 RES_402 m60[60A6]			
	R1210 RES_402 m60[12C3]	R2751 RES_402 m60[27C7]	R4402 RES_402 m60[44B3]	R4950 RES_402 m60[49C2]	R6100 RES_402 m60[61C5]			
	R1211 RES_402 m60[12C3]	R2800 RES_402 m60[28C7]	R4403 RES_402 m60[44B5]	R4951 RES_402 m60[49C2]	R6101 RES_402 m60[61C5]			
	R1220 RES_402 m60[12B7]	R2801 RES_402 m60[28C7]	R4407 RES_402 m60[44A8]	R4952 RES_402 m60[49C2]	R6102 RES_402 m60[61C5]			
	R1221 RES_402 m60[12B7]	R2900 RES_402 m60[29A3]	R4409 RES_402 m60[44B3]	R4953 RES_402 m60[49C2]	R6301 RES_402 m60[63D4]			
	R1225 RES_402 m60[12B7]	R3001 RES_402 m60[30D4]	R4410 RES_402 m60[44D2]	R4954 RES_402 m60[49C2]	R6302 RES_402 m60[63D4]			
	R1226 RES_402 m60[12B7]	R3009 RES_402 m60[30D4]	R4411 RES_402 m60[44D6]	R4955 RES_402 m60[49C2]	R6303 RES_402 m60[63C2]			
	R1230 RES_402 m60[12A7]	R3011 RES_402 m60[30C4]	R4412 RES_402 m60[44C1]	R4956 RES_402 m60[49C2]	R6306 RES_402 m60[63C2]			
	R1231 RES_402 m60[12A7]	R3025 RES_402 m60[30C4]	R4413 RES_402 m60[44C3]	R4957 RES_402 m60[49C2]	R6307 RES_402 m60[63C5]			
	R1235 RES_402 m60[12A7]	R3035 RES_402 m60[30B4]	R4414 RES_402 m60[44C3]	R4958 RES_402 m60[49C2]	R6309 RES_402 m60[63C5]			
	R1236 RES_402 m60[12A7]	R3100 RES_402 m60[31C5]	R4415 RES_402 m60[44A5]	R4959 RES_402 m60[49C2]	R6399 RES_402 m60[63D2]			
	R1310 RES_402 m60[13D3]	R3101 RES_402 m60[31C5]	R4416 RES_402 m60[44A5]	R4960 RES_402 m60[49C2]	R6500 RES_402 m60[65A7]			
	R1410 RES_402 m60[14C3]	R3300 RES_402 m60[33B6]	R4450 RES_402 m60[44B3]	R4961 RES_402 m60[49C2]	R6501 RES_402 m60[65A7]			
	R1411 RES_402 m60[14C3]	R3301 RES_402 m60[33B7]	R4451 RES_402 m60[44B3]	R4962 RES_402 m60[49C2]	R6502 RES_1206 m60[65D6]			
	R1420 RES_402 m60[14B6]	R3302 RES_402 m60[33B7]	R4452 RES_402 m60[44B3]	R4963 RES_402 m60[49C2]	R6503 RES_805 m60[65D5]			
	R1430 RES_402 m60[14B6]	R3303 RES_402 m60[33D4]	R4453 RES_402 m60[44B3]	R4964 RES_402 m60[49C2]	R6504 RES_805 m60[65C5]			
	R1440 RES_402 m60[14D6]	R3304 RES_402 m60[33C4]	R4454 RES_402 m60[44B3]	R4965 RES_402 m60[49C2]	R6505 RES_805 m60[65D5]			
	R1441 RES_402 m60[14D6]	R3304 RES_402 m60[33C7]	R4455 RES_402 m60[44B3]	R4966 RES_402 m60[49C2]	R6506 RES_402 m60[65D6]			
	R1975 RES_402 m60[19A4]	R3400 RES_402 m60[34C5]	R4650 RES_402 m60[46C8]	R4967 RES_402 m60[49C2]	R6507 RES_805 m60[65B5]			
	R1980 RES_402 m60[19B7]	R3401 RES_402 m60[34B5]	R4651 RES_402 m60[46C7]	R4968 RES_402 m60[49C2]	R6508 RES_805 m60[65B5]			
	R1981 RES_402 m60[19B7]	R3402 RES_402 m60[34B5]						





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ZH526	HOLE_VIA	m60[5B1]
ZH527	HOLE_VIA	m60[5B1]
ZH528	HOLE_VIA	m60[5B1]
ZH529	HOLE_VIA	m60[5B1]
ZH601	MTGHOLE	m60[6A3]
ZH602	MTGHOLE	m60[6A3]
ZH603	MTGHOLE	m60[6A3]
ZH606	MTGHOLE	m60[6A1]
ZH607	MTGHOLE	m60[9D4]
ZH608	MTGHOLE	m60[9D3]
ZH609	MTGHOLE	m60[9D2]
ZH610	MTGHOLE	m60[9D2]

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