

System Block Diagram

SYNC_MASTER=DEREK

SYNC_DATE=1/19/2007

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	D	051-7228	27
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NONE		2	118

PROTO REVIEW - 11/09/06

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NOTE: All page numbers are .csa, not PDF. See page 1 for .csa -> PDF mapping.

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27		
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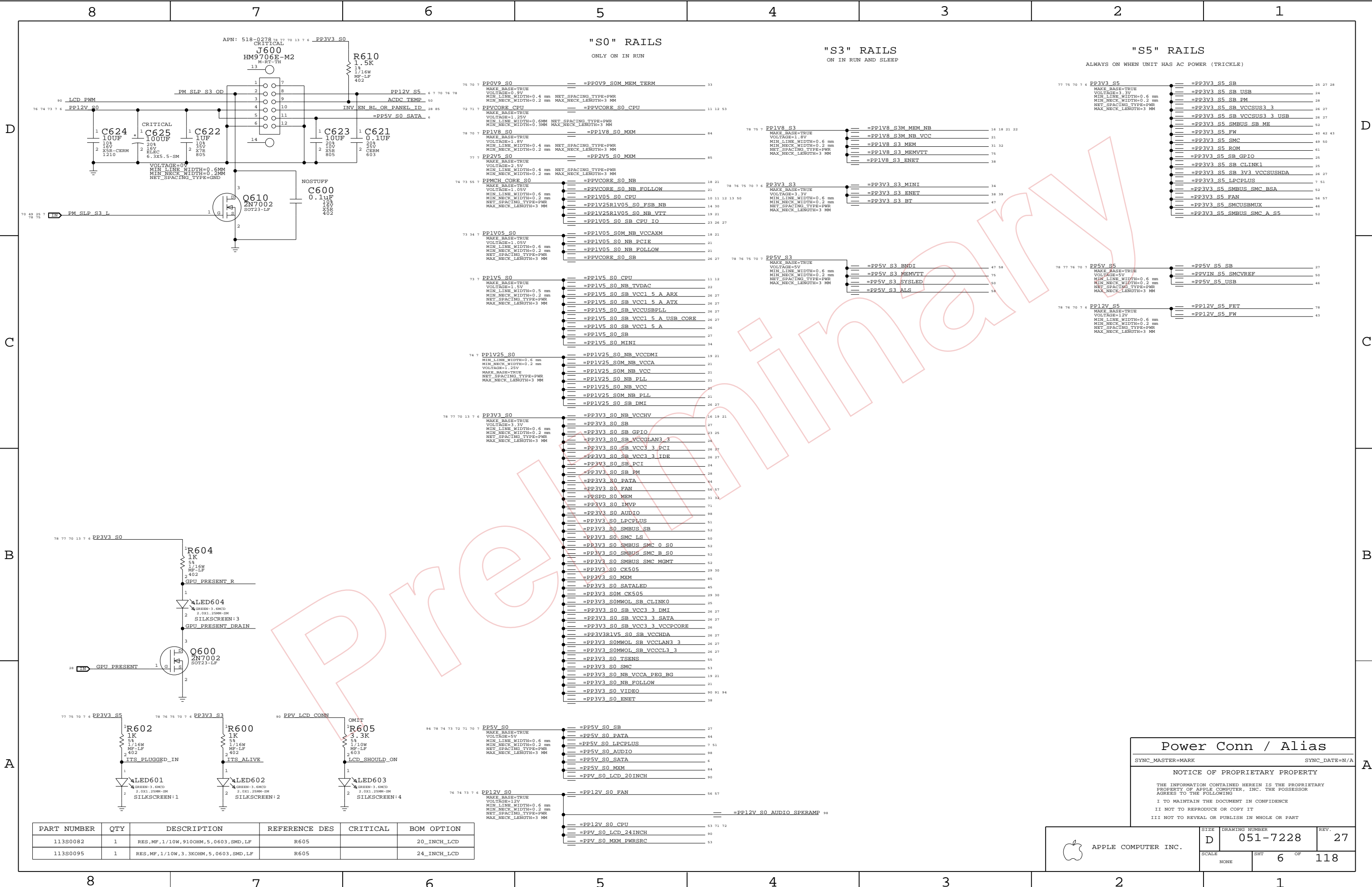
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SIZE	DRAWING NUMBER
D	051

REV.

SCALE	
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SHT	OF
5	118



PART NUMBER	QTY	DESCRIPTION	REFERENCE DES	CRITICAL	BOM OPTION
113S0082	1	RES, MF, 1/10W, 9100HM, 5, 0603, SMD, LF	R605		20_INCH_LCD
113S0095	1	RES, MF, 1/10W, 3, 30KOHM, 5, 0603, SMD, LF	R605		24_INCH_LCD

Power Conn / Alias

SYNC_MASTER=MARK

SYNC_DATE=N/A

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SCALE
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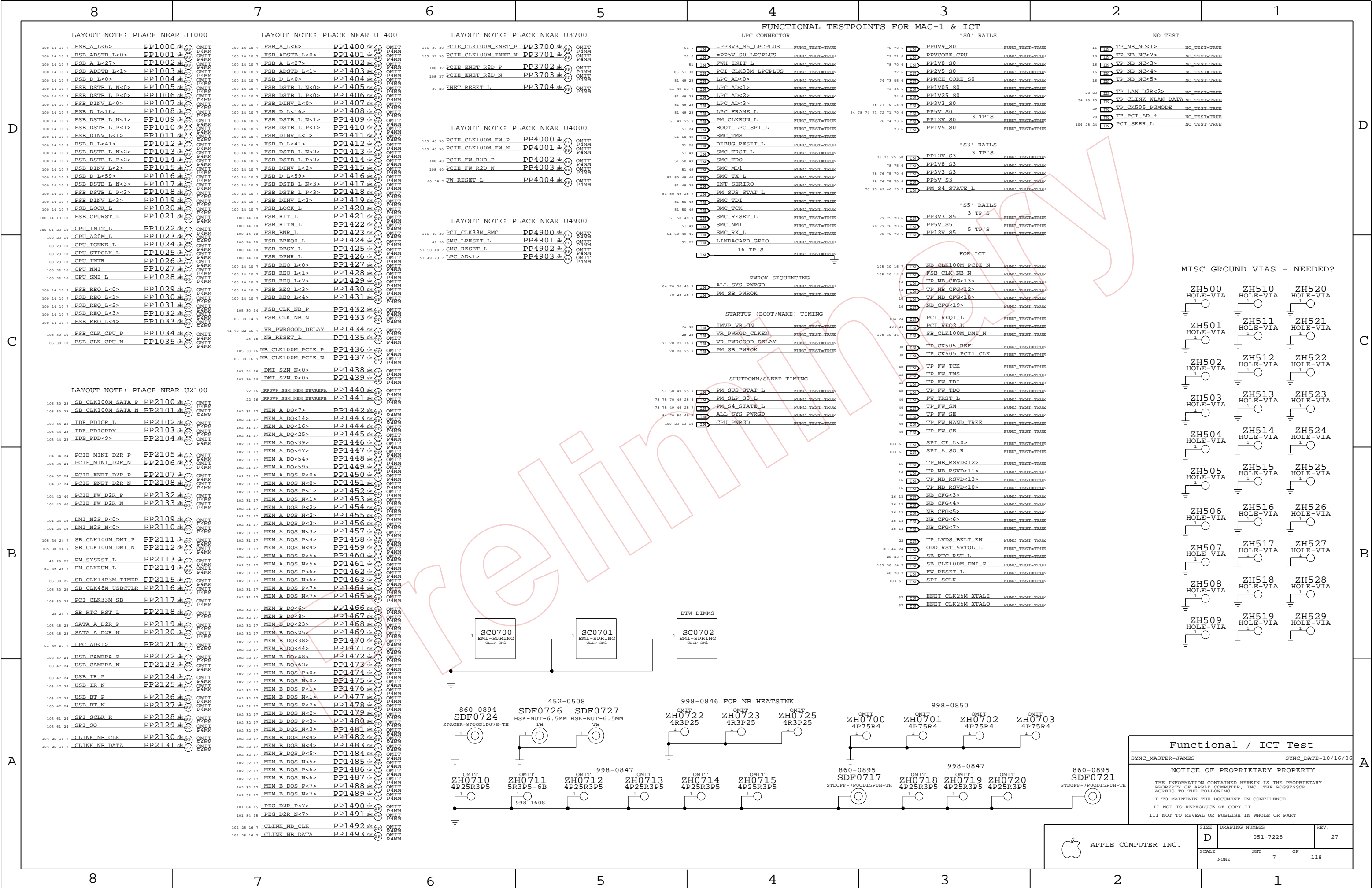
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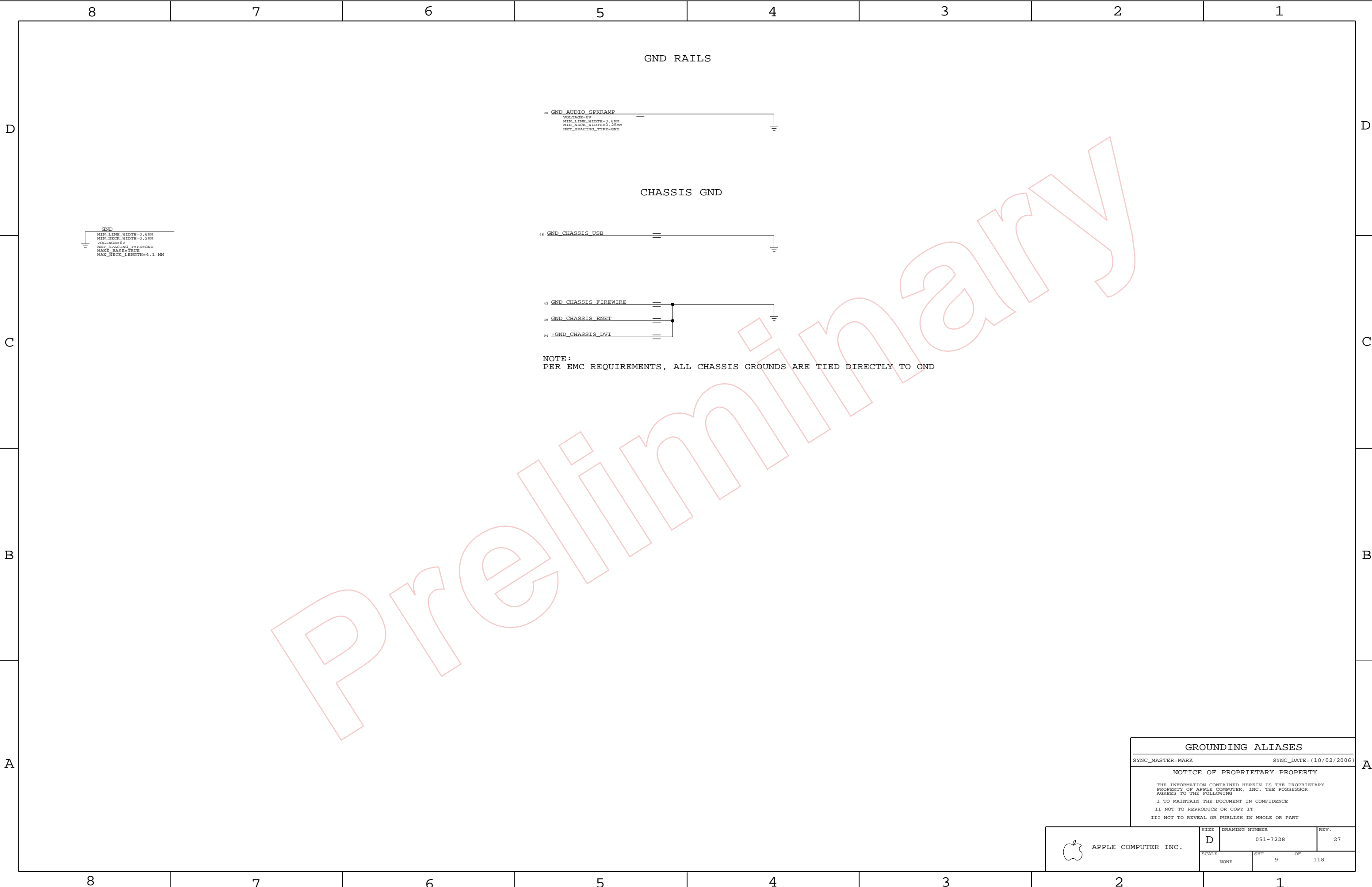
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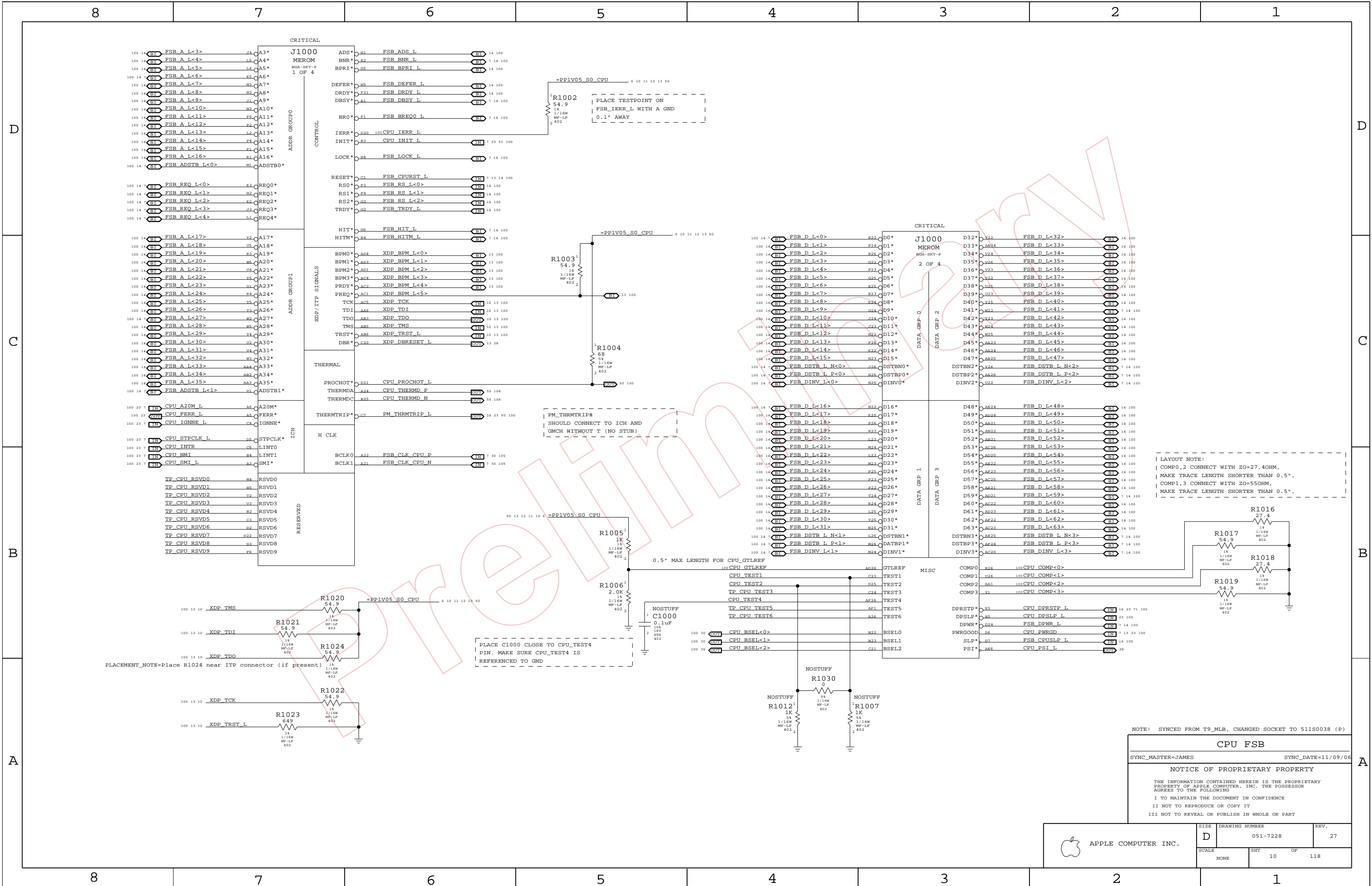
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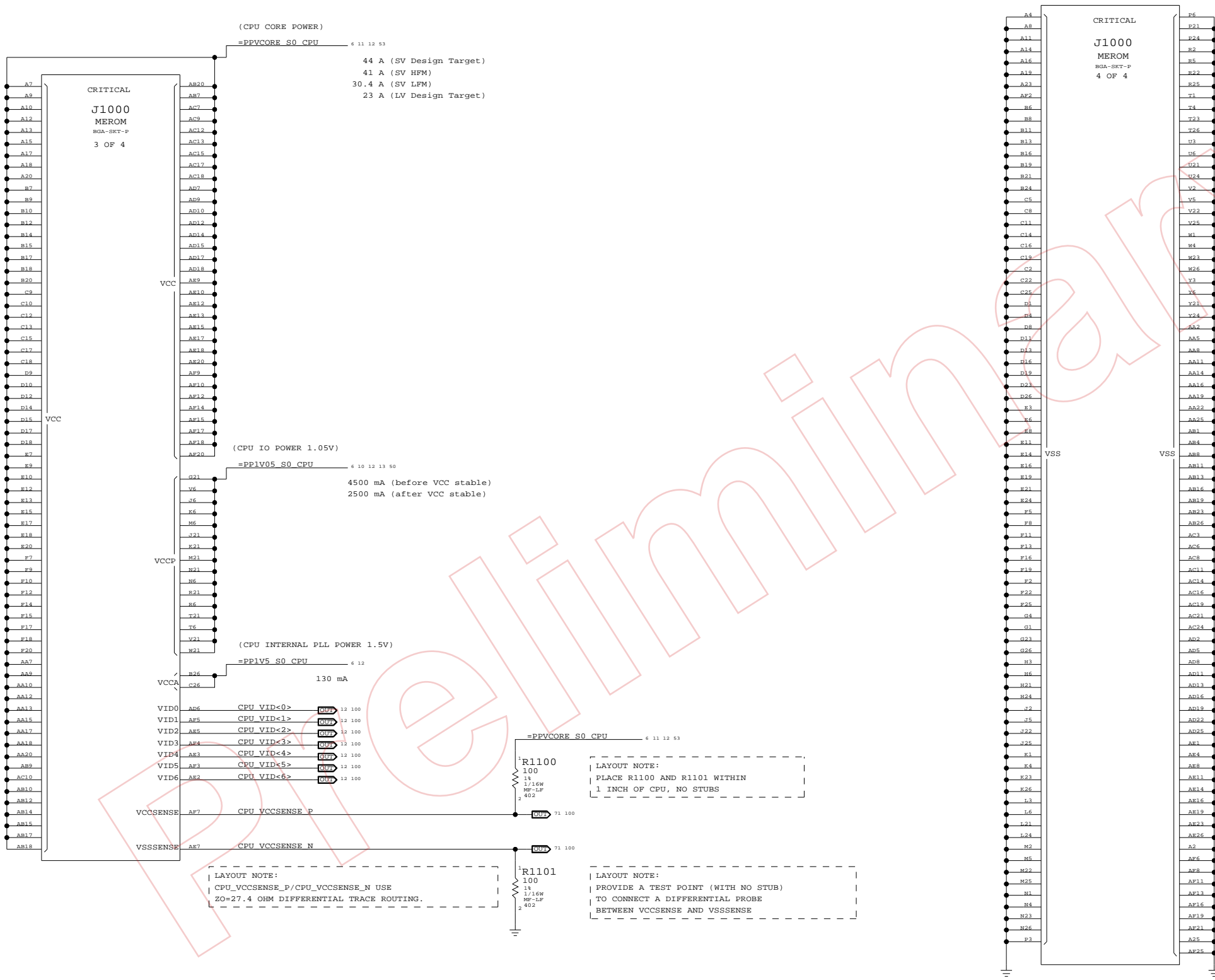
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NOTE: SYNCED FROM T9_MLB, CHANGED SOCKET TO 511S0038 (P)

CPU Power & Ground

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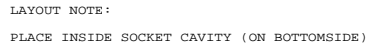
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CPU VCORE HF AND BULK DECOUPLING

6X 220UF. 32X 22UF 0805



NOTE: CHANGED TO X5R CAPS TO MATCH PREVIOUS IMACS AND FOR C4

LAYOUT NOTE:

PLACE INSIDE SOCKET CAVITY (ON BOTTOMSIDE)

LAYOUT NOTE:

PLACE NEAR SOCKET NORTH SIDE (ON TOPSIDE)

LAYOUT NOTE:

PLACE NEAR SOCKET SOUTH SIDE (ON TOPSIDE)

LAYOUT NOTE:

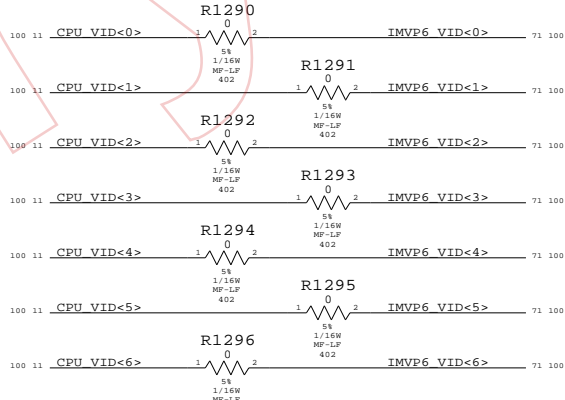
PLACE ON BOTTOMSIDE

LAYOUT NOTE:

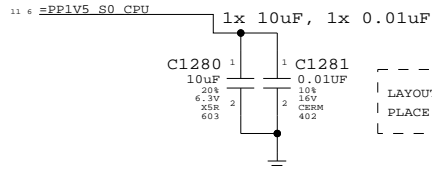
PLACE ON BOTTOMSIDE

CPU VCORE VID CONNECTIONS

Resistors to allow for override of CPU VID

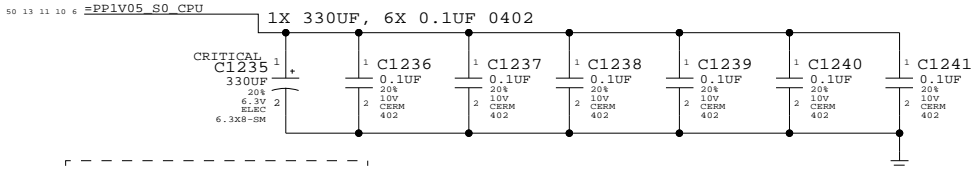


VCCA (CPU AVdd) DECOUPLING



LAYOUT NOTE:

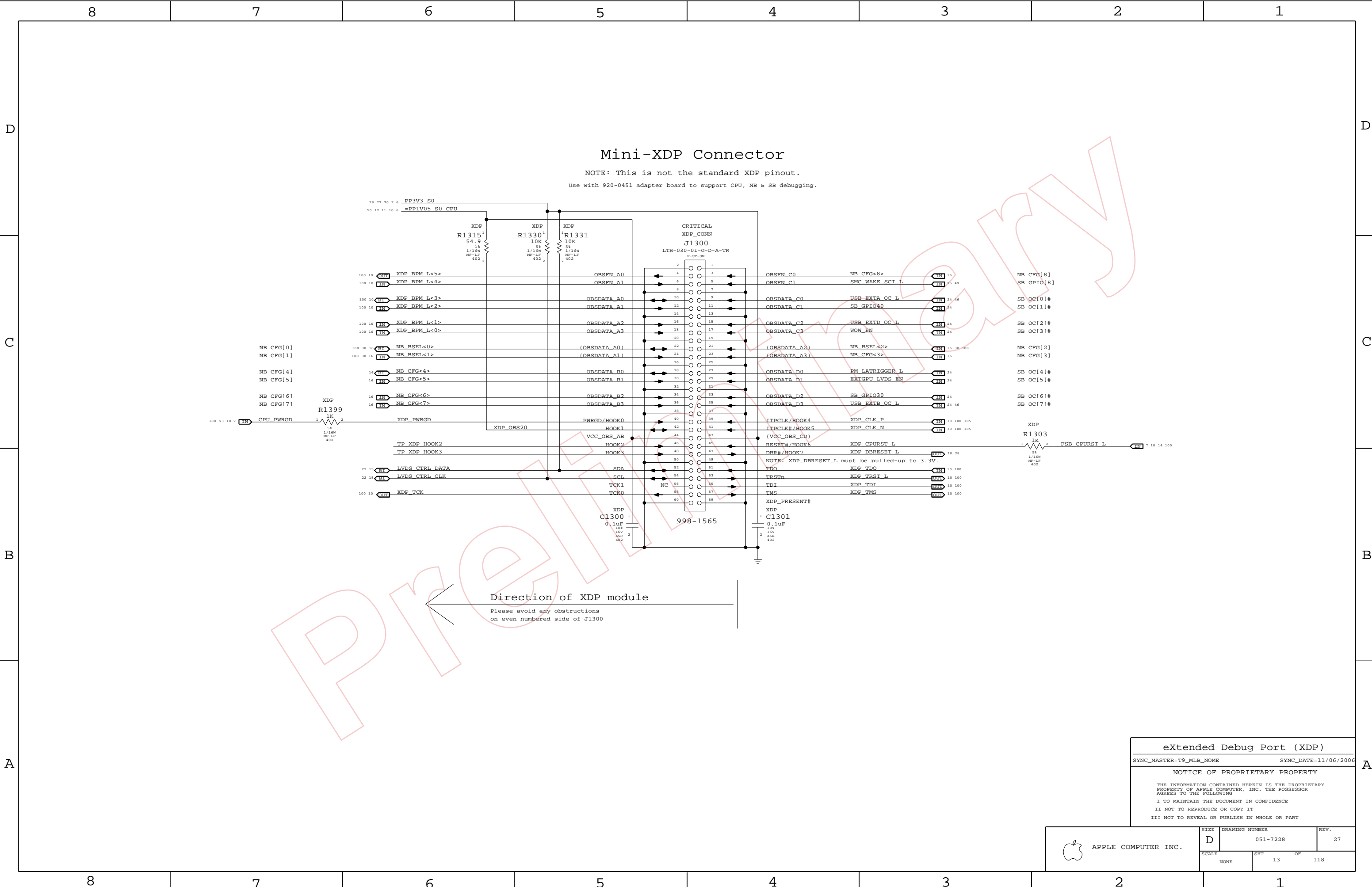
VCCP (CPU I/O) DECOUPLING



LAYOUT NOTE:

CPU Decoupling & VID			
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eXtended Debug Port (XDP)

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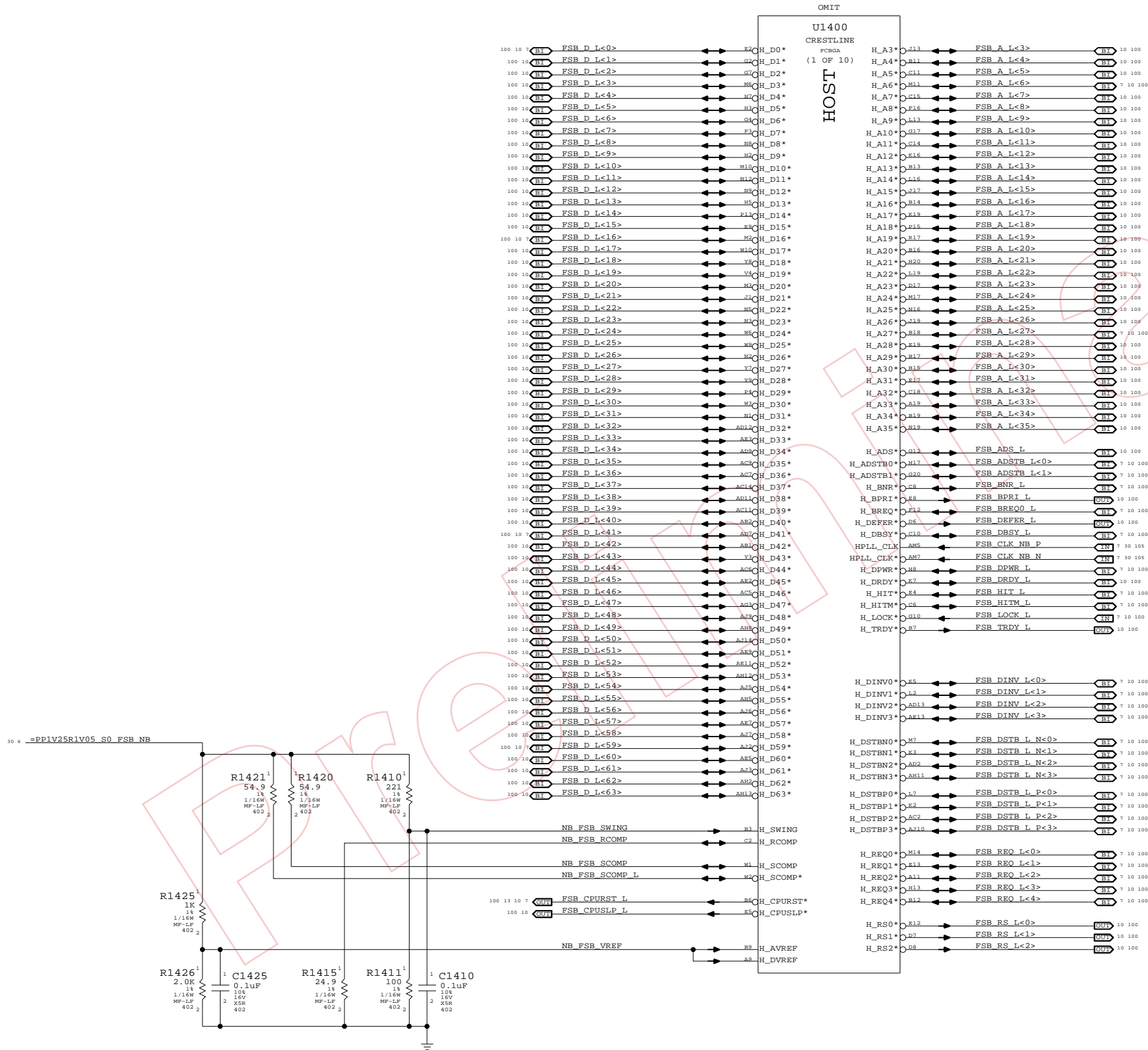
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NB CPU Interface	
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LVDS Disable

Can leave all signals NC if LVDS is not implemented.
Tie VCC_TX_LVDS 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 / CRT Enable

Tie TVx_DAC and TVx_RTN to GND. Must power all TVDAC rails. VCCA_TVx_DAC and VCCA_DAC_BG can share filtering with VCCA_CRT_DAC.

CRT Disable / TV-Out Enable

Tie R/R#/G/G#/B/B#, HSYNC and VSYNC to GND. All CRT/TVDAC rails must be powered. All rails must be filtered except for VCCA_CRT.

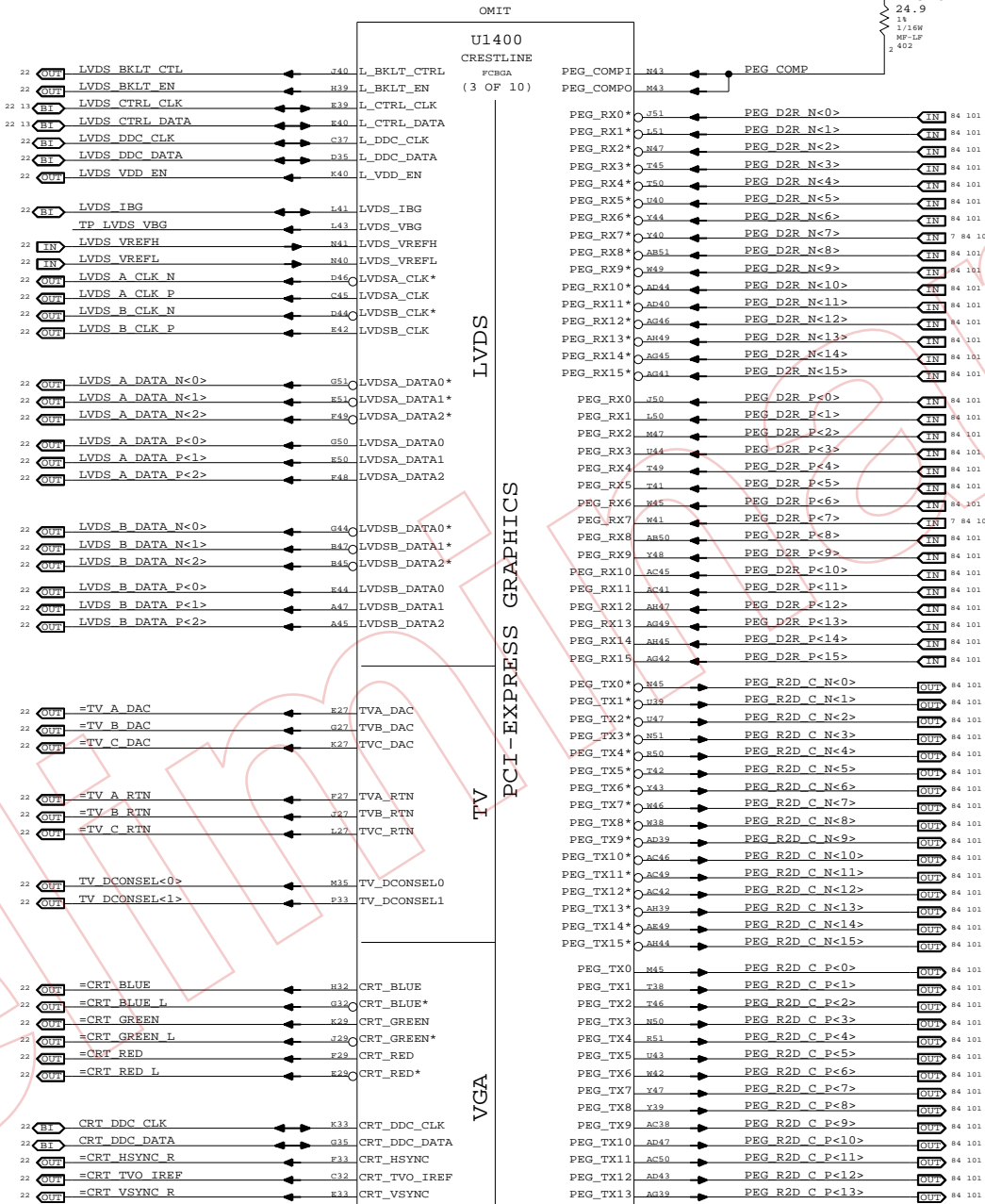
CRT & TV-Out Disable

Tie TVx_DAC, TVx_RTN, R/R#/G/G#/B/B#, HSYNC, VSYNC and CRT_TVO_IREF to GND.
Can tie the following rails to GND:
VCCA_CRT_DAC, VCCA_DAC_BG, VCCA_TVx_DAC, VCCD_CRT, VCCD_QDAC and VCC_SYNC.

NOTE: Must keep VDDC_TVDAC powered and filtered at all times!

Internal Graphics Disable

Follow instructions for LVDS and CRT & TV-Out Disable above.
Can also tie CRT_DDC_*, L_CTRL_*, L_DDC_*, SDVO_CTRL_* and TV_DCONSELx to GND.
Tie DPLL_REF_CLK and DPLL_REF_SSCLK to GND.
Tie DPLL_REF_CLK* and DPLL_REF_SSCLK* to VCC (VCore).
Tie VCCA_DPLL and VCCA_DPLLB to VCC (VCore).
Tie VCC_AXG and VCC_AXG_NCTF to GND.
Leave GFX_VID<3..0> and GFX_VR_EN as NC.



NB PEG / Video Interfaces

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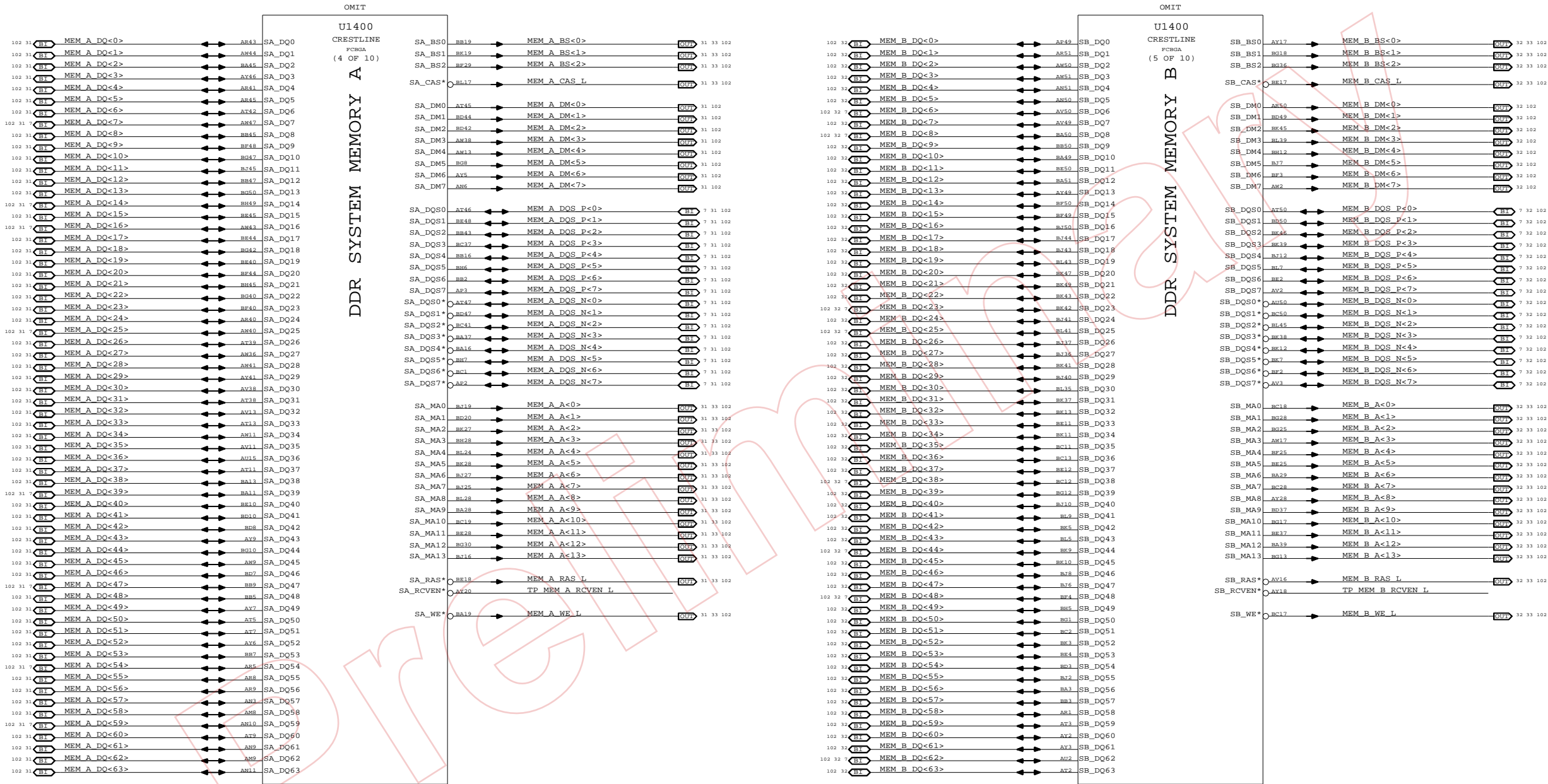
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NB DDR2 Interfaces

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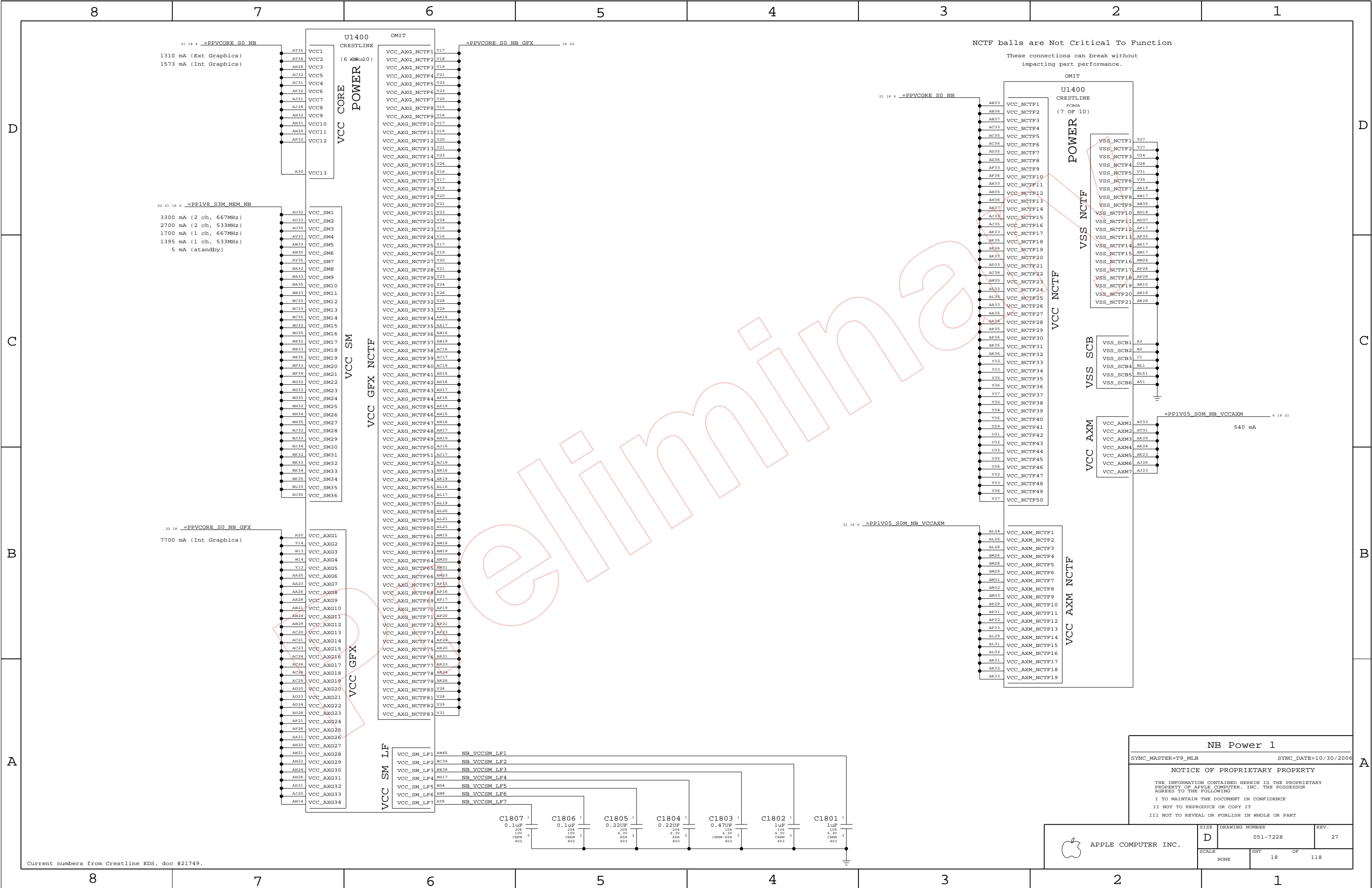
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NB Power 1

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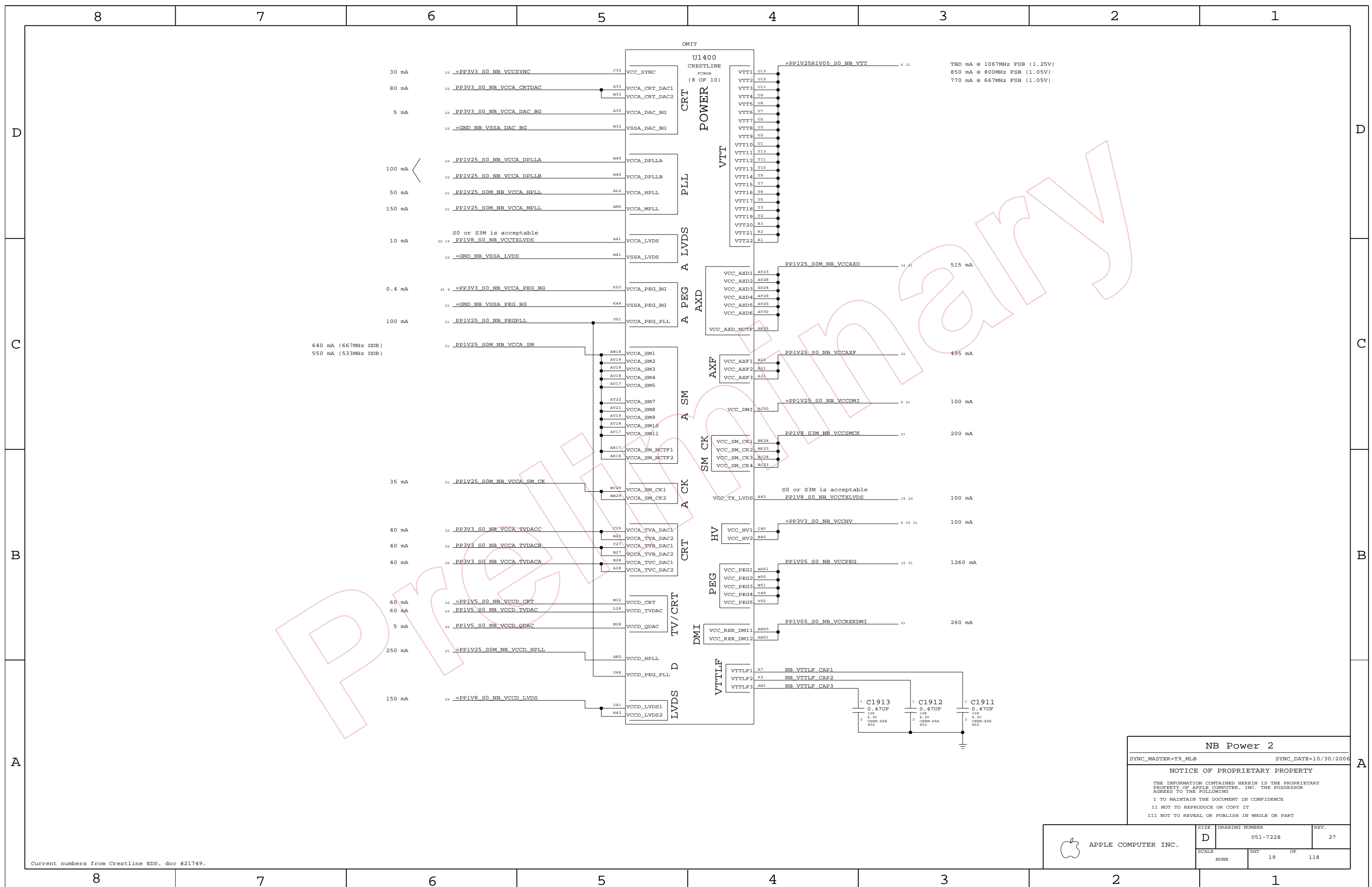
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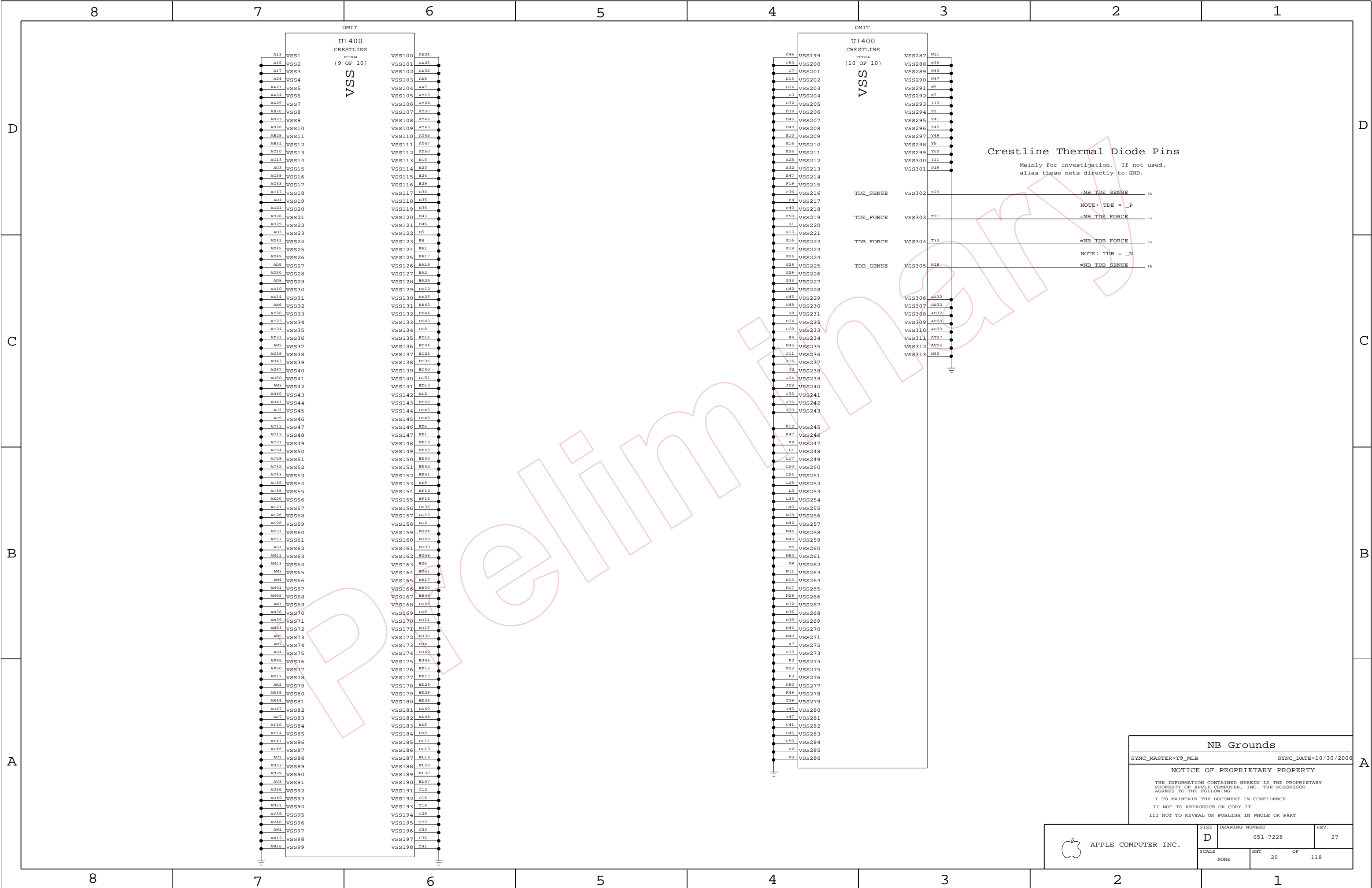
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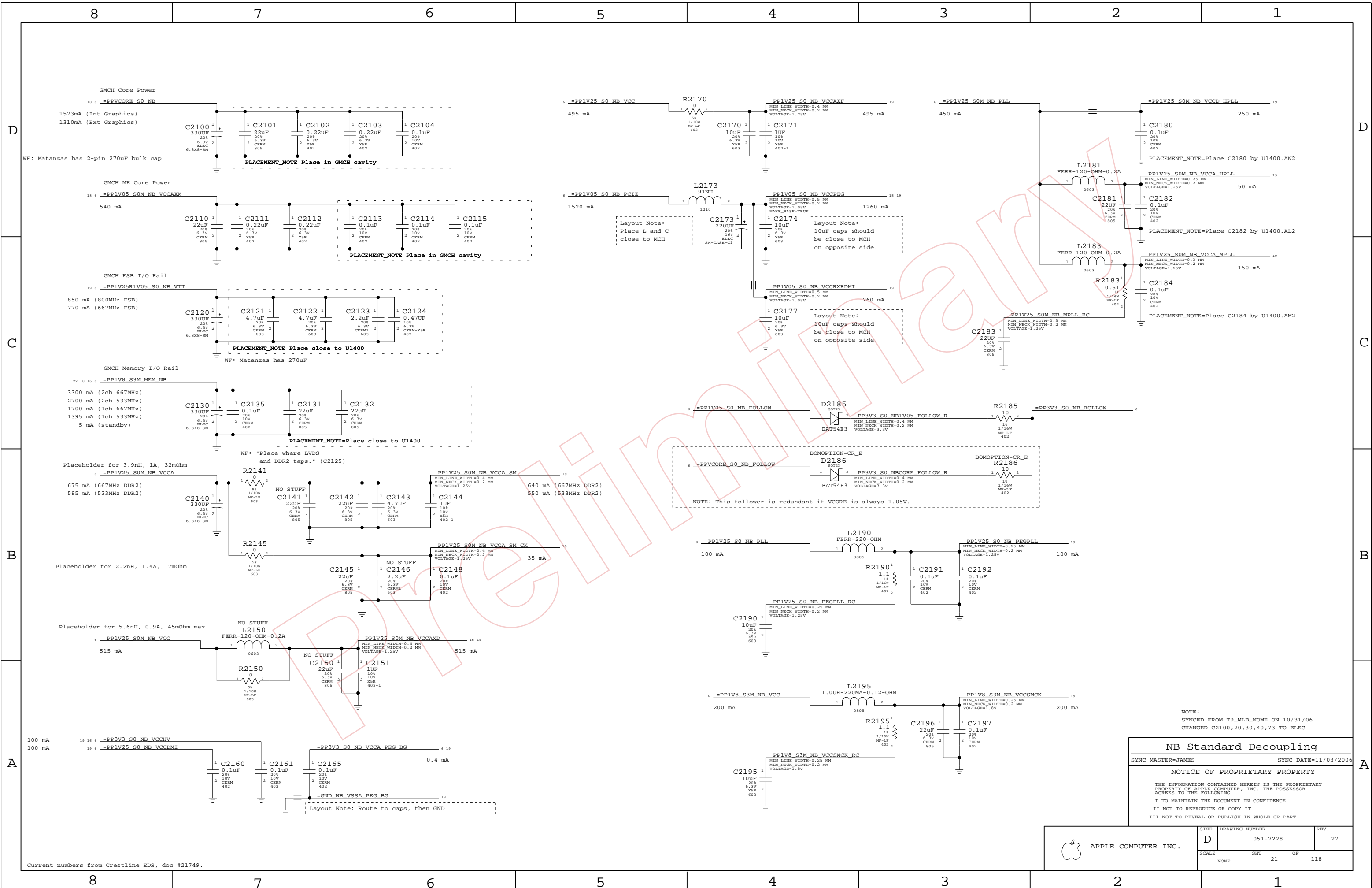
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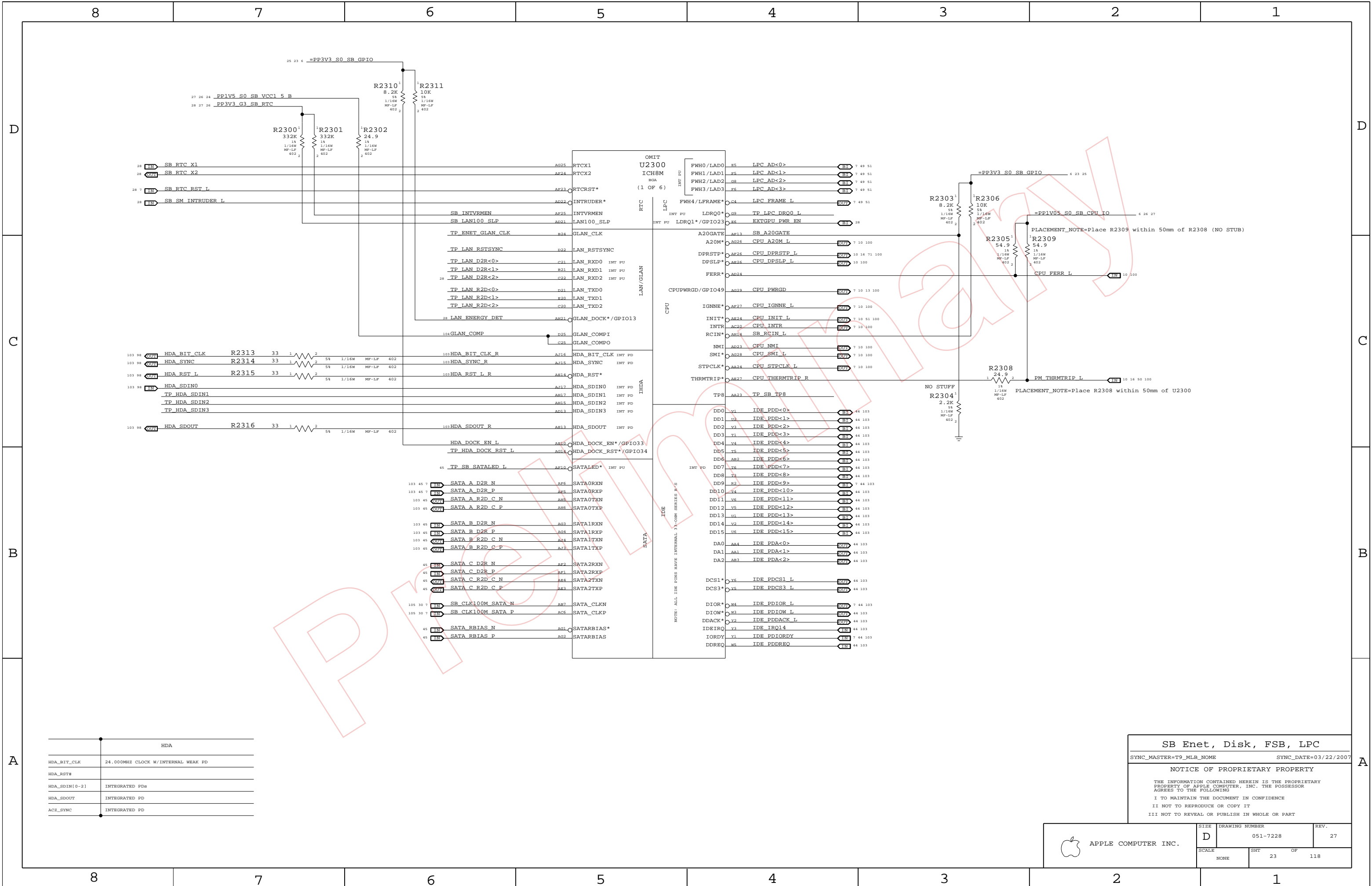
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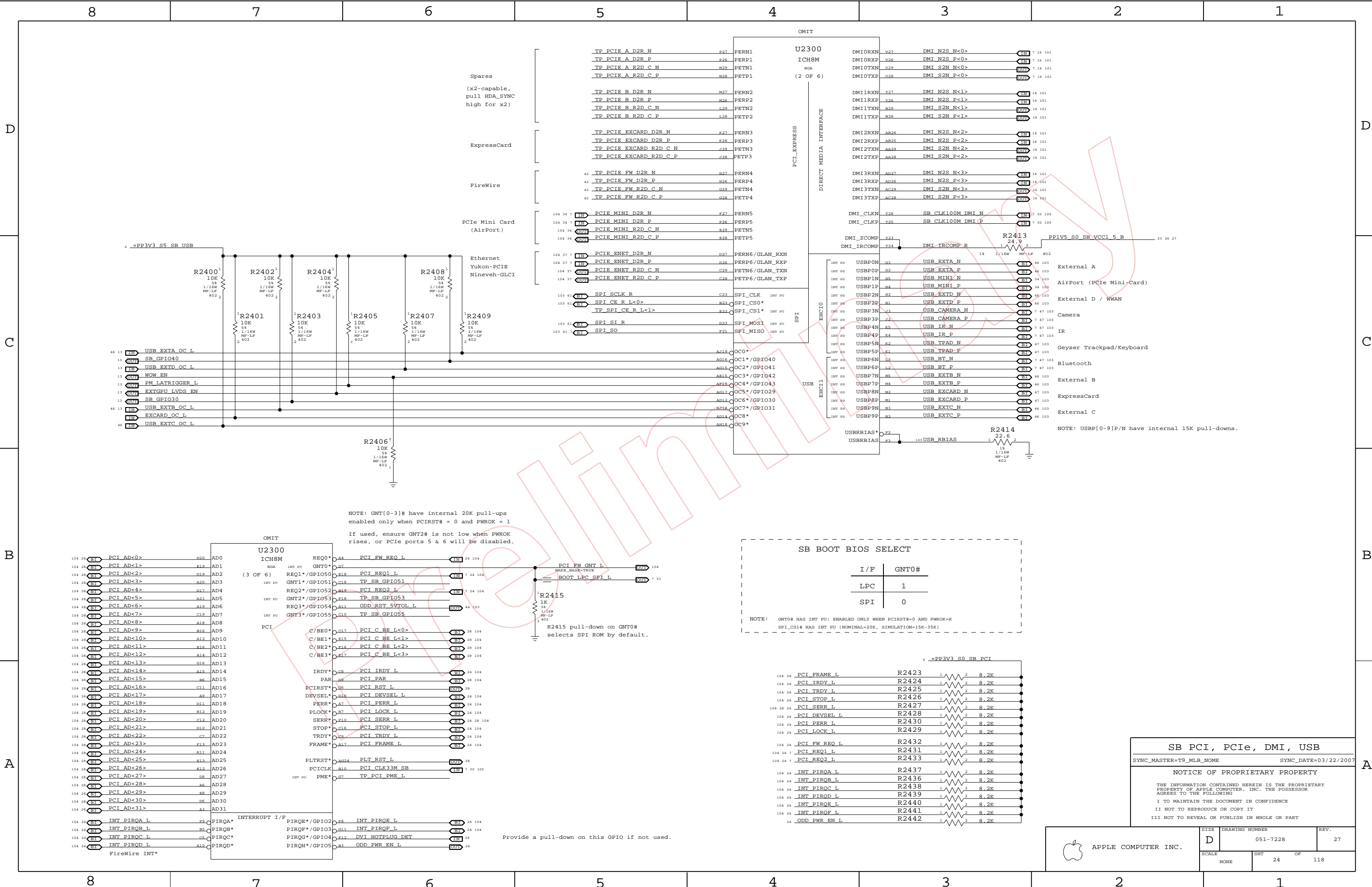




HDA	
HDA_BIT_CLK	24.000MHZ CLOCK W/INTERNAL WEAK PD
HDA_RST#	
HDA_SDIN[0-2]	INTEGRATED PDS
HDA_SDOUT	INTEGRATED PD
AC2_SYNC	INTEGRATED PD

SB Enet, Disk, FSB, LPC	
SYNC_MASTER=TS_MLB_NAME	SYNC_DATE=03/22/2007
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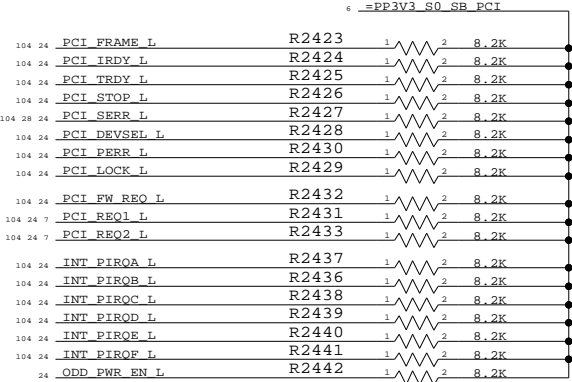
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NONE		23	118



NOTE: GNT[0-3]# have internal 20K pull-ups enabled only when PCIRST# = 0 and PWROK = 1
If used, ensure GNT2# is not low when PWROK rises, or PCIe ports 5 & 6 will be disabled.

SB BOOT BIOS SELECT		
I/F	GNT0#	
LPC	1	
SPI	0	

NOTE: GNT0# HAS INT PU; ENABLED ONLY WHEN PCIRST# = 0 AND PWROK = H
SPI_CS# HAS INT PU (NOMINAL = 20K, SIMULATION = 15K-35K)



SB PCI, PCIe, DMI, USB

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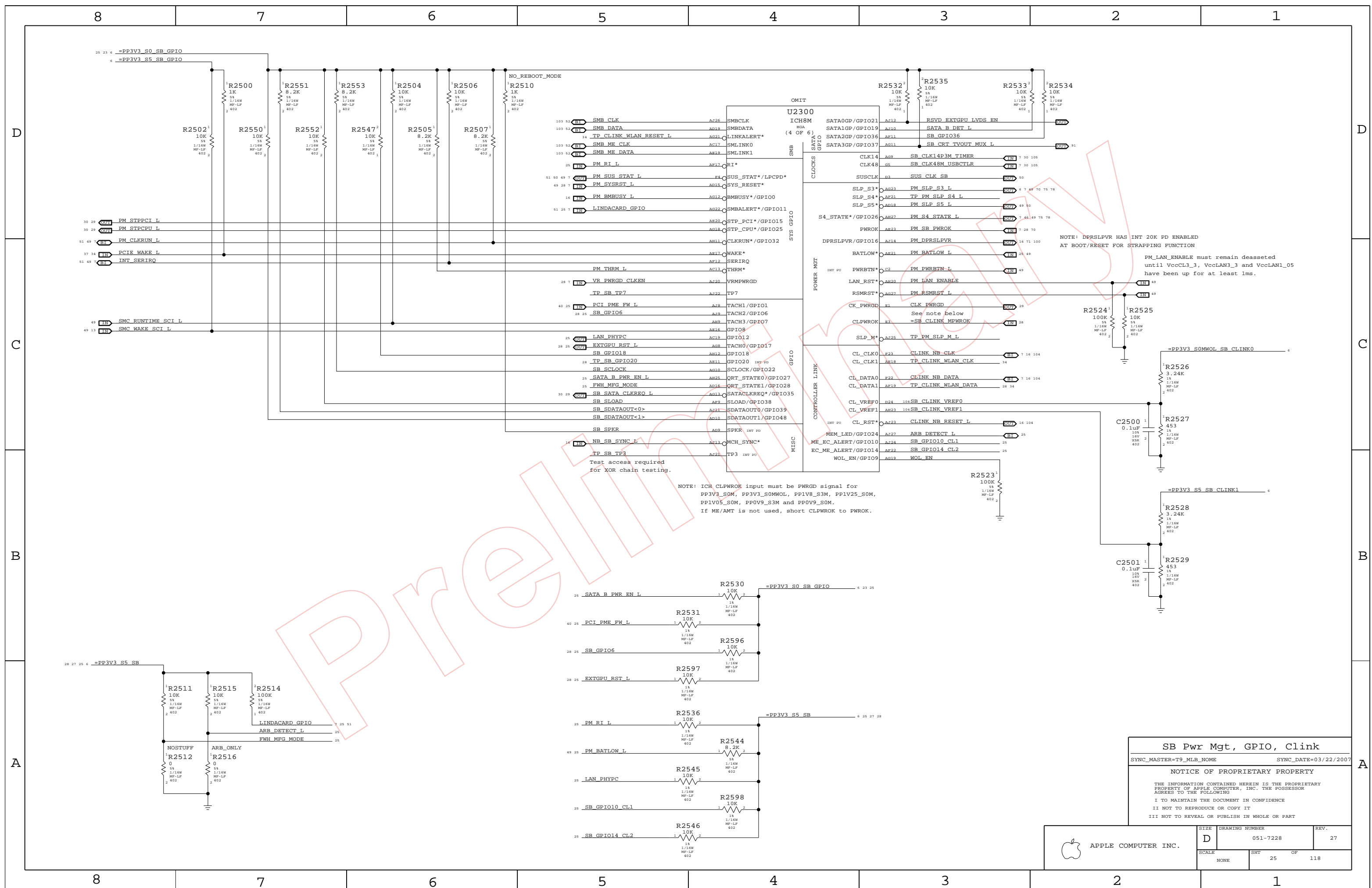
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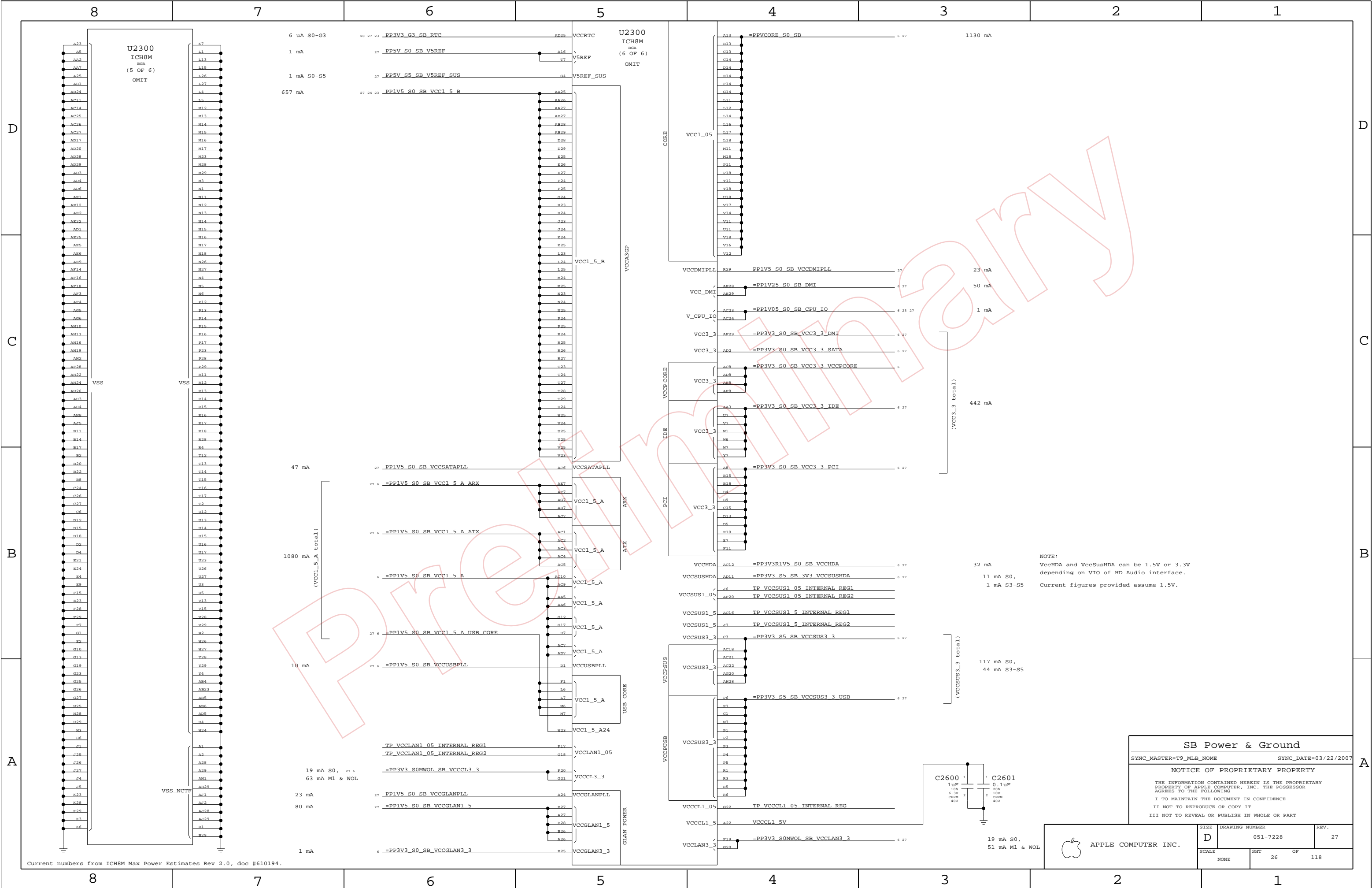
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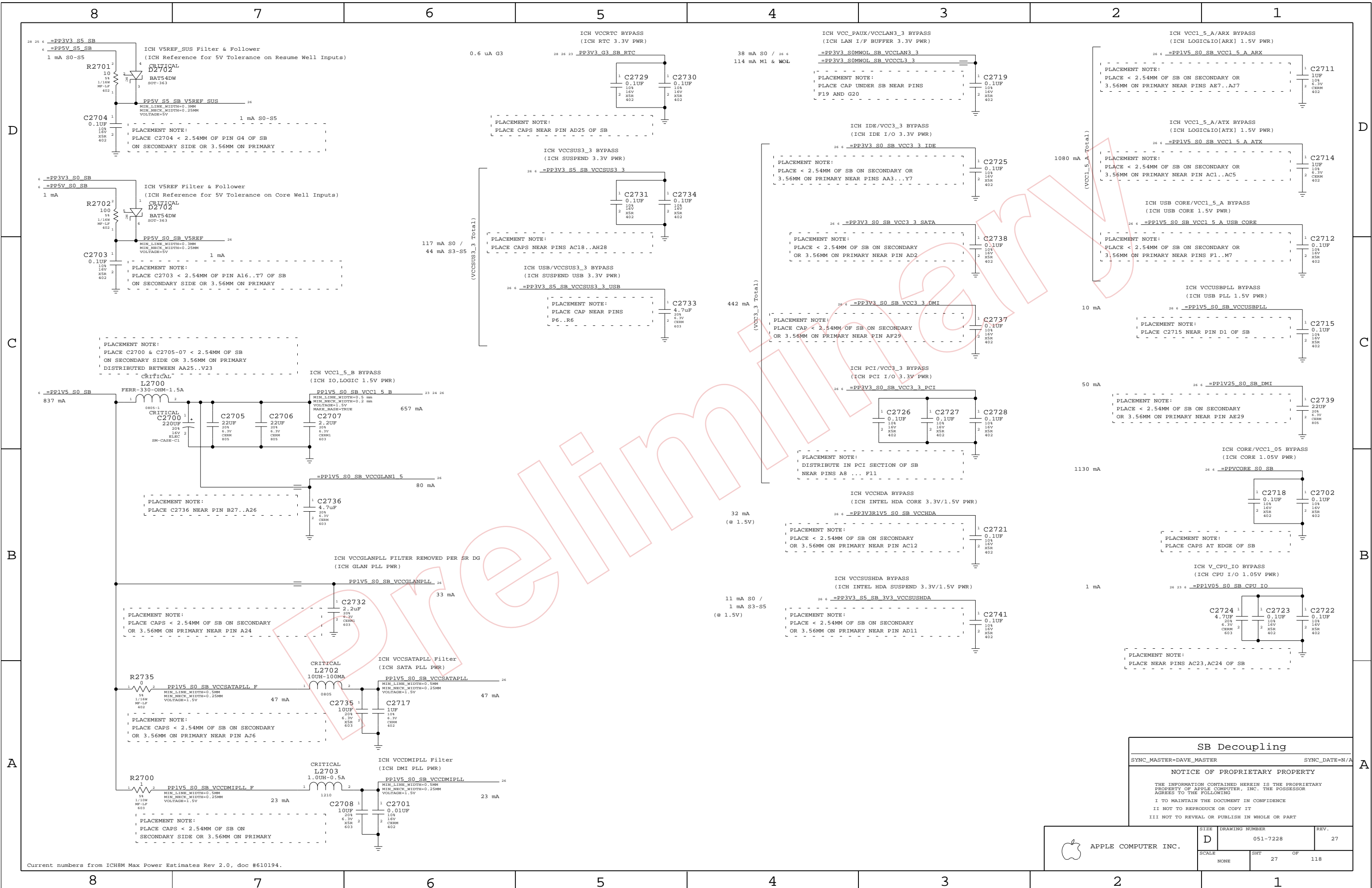
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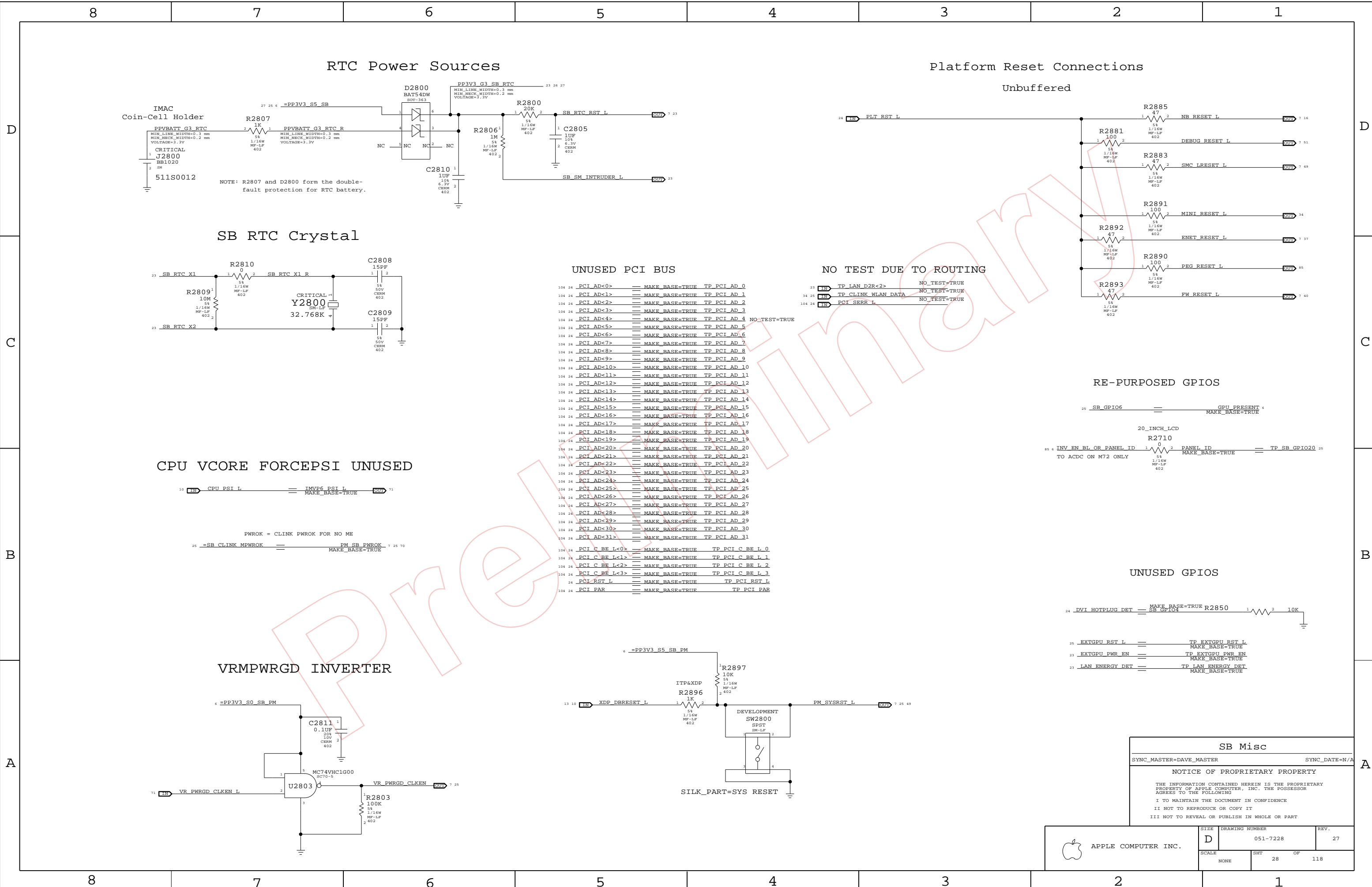
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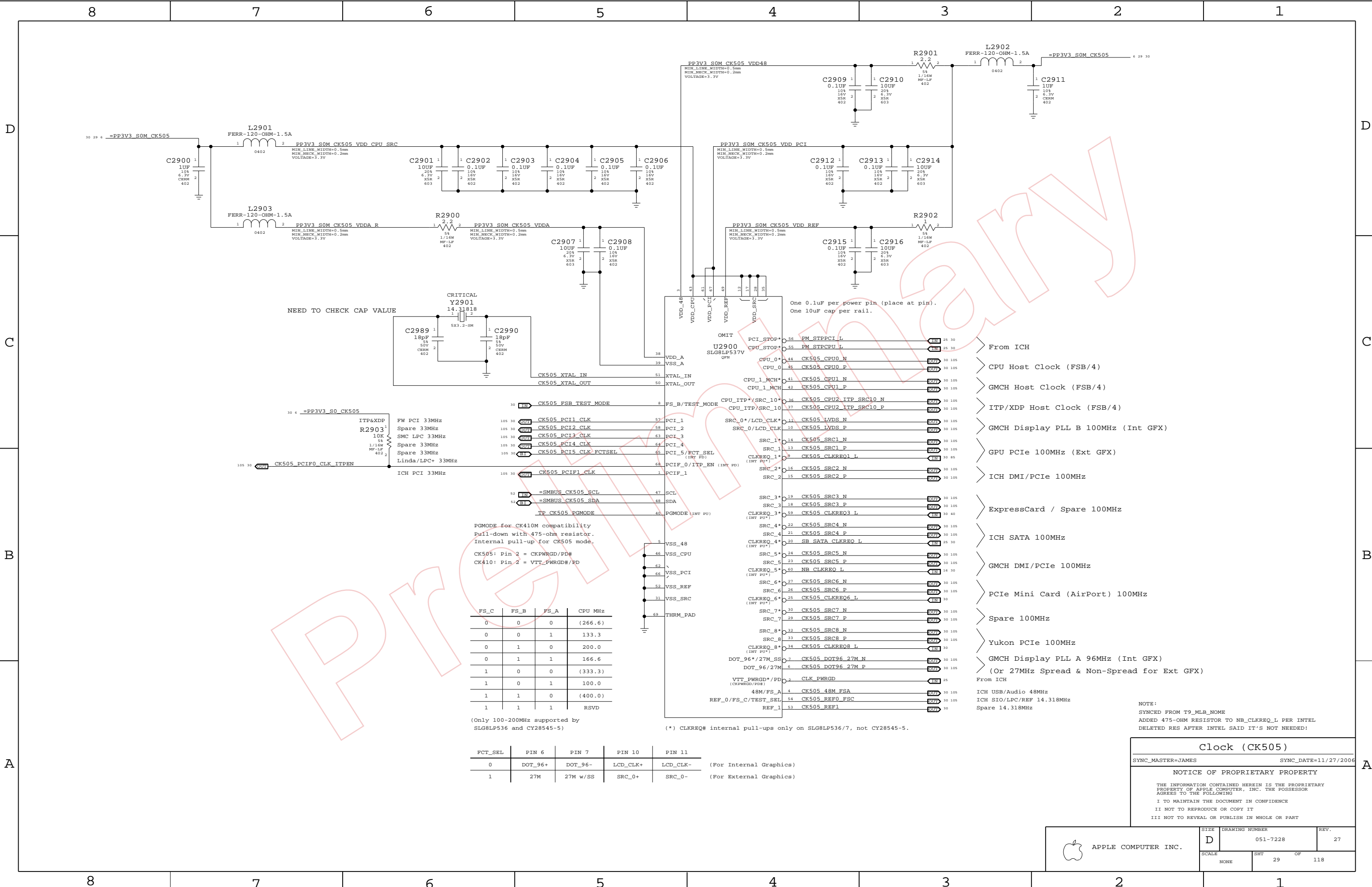
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FS_C	FS_B	FS_A	CPU MHz
0	0	0	(266.6)
0	0	1	133.3
0	1	0	200.0
0	1	1	166.6
1	0	0	(333.3)
1	0	1	100.0
1	1	0	(400.0)
1	1	1	RSVD

(Only 100-200MHz supported by SLG8LP536 and CY28545-5)

FCT_SEL	PIN 6	PIN 7	PIN 10	PIN 11
0	DOT_96+	DOT_96-	LCD_CLK+	LCD_CLK-
1	27M	27M w/SS	SRC_0+	SRC_0-

(For Internal Graphics)
(For External Graphics)

- > From ICH
 - > CPU Host Clock (FSB/4)
 - > GMCH Host Clock (FSB/4)
 - > ITP/XDP Host Clock (FSB/4)
 - > GMCH Display PLL B 100MHz (Int GFX)
 - > GPU PCIe 100MHz (Ext GFX)
 - > ICH DMI/PCIe 100MHz
 - > ExpressCard / Spare 100MHz
 - > ICH SATA 100MHz
 - > GMCH DMI/PCIe 100MHz
 - > PCIe Mini Card (AirPort) 100MHz
 - > Spare 100MHz
 - > Yukon PCIe 100MHz
 - > GMCH Display PLL A 96MHz (Int GFX)
 - > (Or 27MHz Spread & Non-Spread for Ext GFX)
- From ICH
- ICH USB/Audio 48MHz
- ICH SIO/LPC/REF 14.318MHz
- Spare 14.318MHz

NOTE:
SYNCED FROM T9_MLB_NAME
ADDED 475-OHM RESISTOR TO NB_CLKREQ_L PER INTEL
DELETED RES AFTER INTEL SAID IT'S NOT NEEDED!

Clock (CK505)

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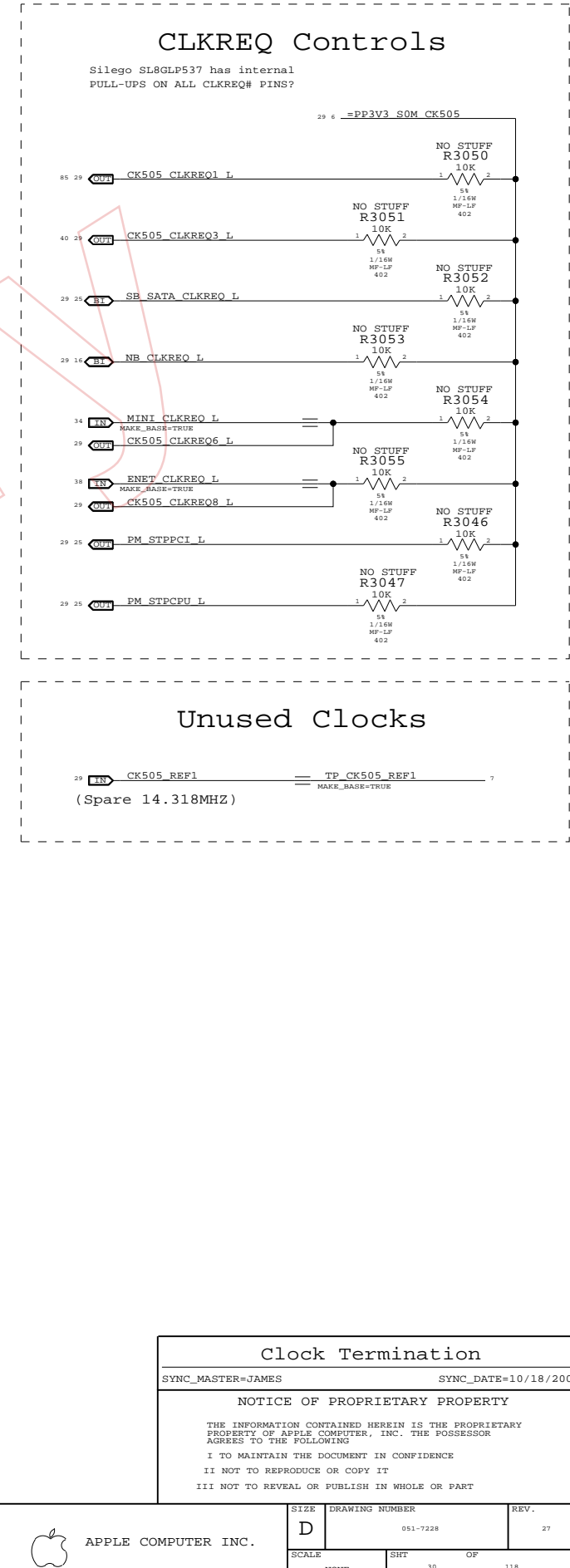
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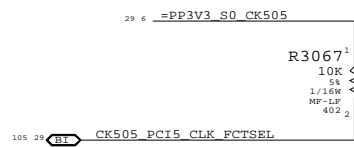
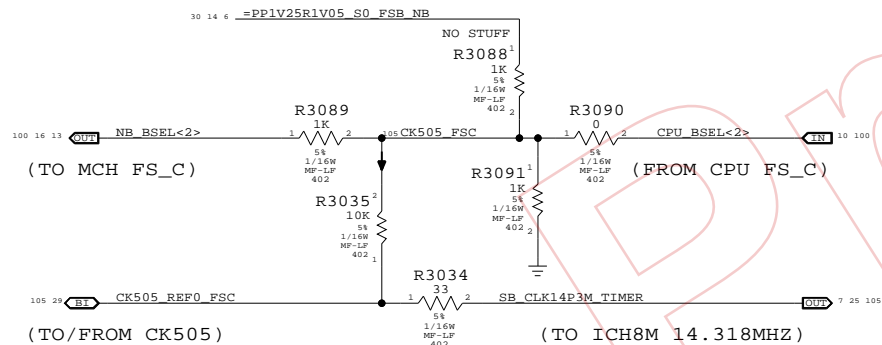
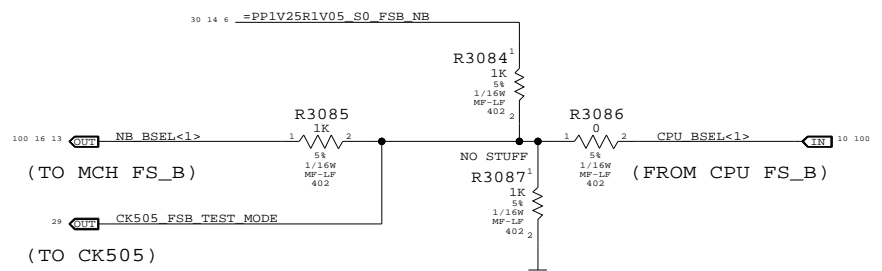
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(Note: HOST/SRC/GFX clock termination kept on T9 for Cypress CY28545-5 compatibility)



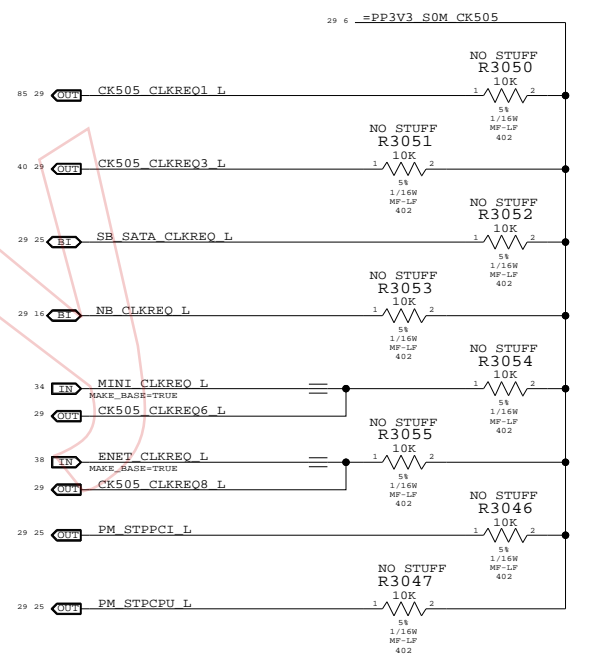
FCT_SEL (GFX clock select)

[illegible]

FS_C	FS_B	FS_A	CPU MHz
0	0	0	(266.6)
0	0	1	133.3
0	1	0	200.0
0	1	1	166.6
1	0	0	(333.3)
1	0	1	100.0
1	1	0	(400.0)
1	1	1	RSVD

NO STUFF R3082, R3086 & R3090
for manual CPU clk frequency.

Silego SL8GLP537 has internal
PULL-UPS ON ALL CLKREQ# PINS?



```
29 IN CK505 REF1 == TP_CK505_REF1
== MAKE_BASE=TRUE
(Spare 14.318MHZ)
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SIZE D	DRAWING NUMBER 051-7228	REV. 27
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Power aliases required by this page:

- =PP1V8_S3_MEM
- =PP0V9_S3_MEM_VREF
- =PPSPD_S0_MEM (2.5V - 3.3V)

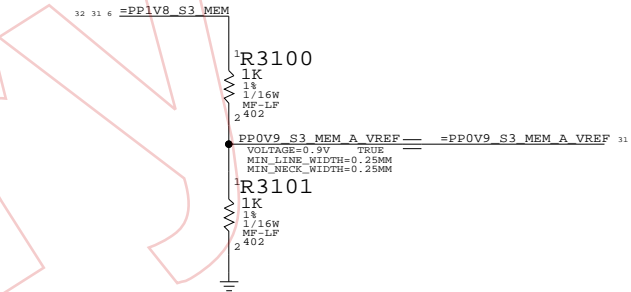
Signal aliases required by this page:

- =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.



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12 31 6 =P1V8_S3_MEM



The diagram shows a 12V8 S3 memory chip with internal capacitors C3100 through C3123. The capacitors are arranged in a grid-like structure. The first row contains C3100 (10UF, 20%, X5R, 6.3V) and C3101 (10UF, 20%, X5R, 6.3V). The second row contains C3110 (1UF, 10%, CERM, 6.3V), C3111 (1UF, 10%, CERM, 6.3V), C3112 (1UF, 10%, CERM, 6.3V), and C3113 (1UF, 10%, CERM, 6.3V). The third row contains C3114 (1UF, 10%, CERM, 6.3V), C3115 (1UF, 10%, CERM, 6.3V), C3116 (1UF, 10%, CERM, 6.3V), and C3117 (1UF, 10%, CERM, 6.3V). The fourth row contains C3118 (1UF, 10%, CERM, 6.3V), C3119 (1UF, 10%, CERM, 6.3V), C3120 (1UF, 10%, CERM, 6.3V), and C3121 (1UF, 10%, CERM, 6.3V). The fifth row contains C3122 (1UF, 10%, CERM, 6.3V) and C3123 (1UF, 10%, CERM, 6.3V). The capacitors are connected to a common ground line at the bottom.


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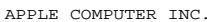
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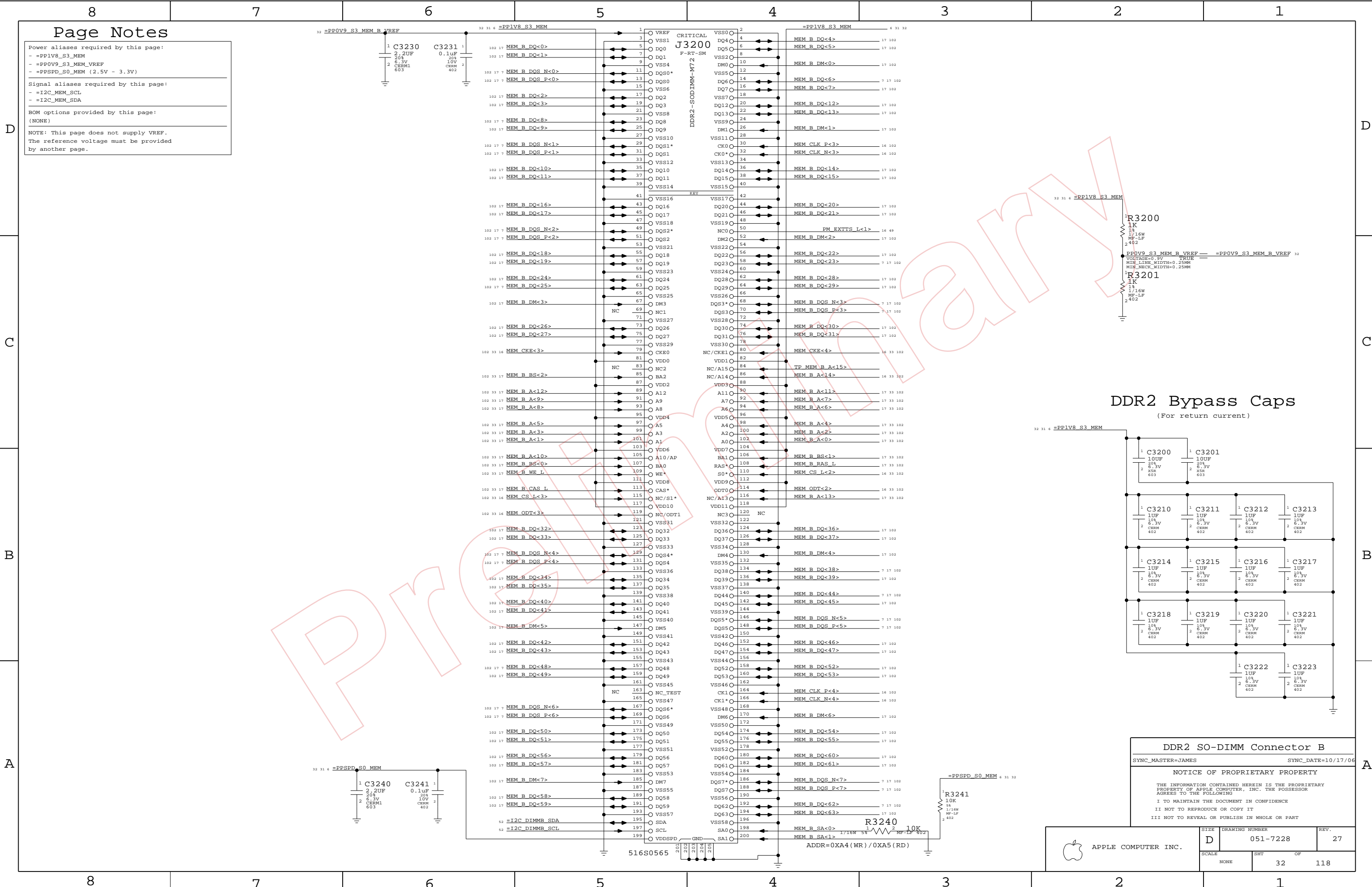
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Page Notes

Power aliases required by this page:

- =PP1V8_S3_MEM
- =PP0V9_S3_MEM_VREF
- =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.

DDR2 Bypass Caps

(For return current)

DDR2 SO-DIMM Connector B

SYNC_MASTER=JAMES

SYNC_DATE=10/17/06

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D

DRAWING NUMBER

051-7228

SCALE

NONE

SHT

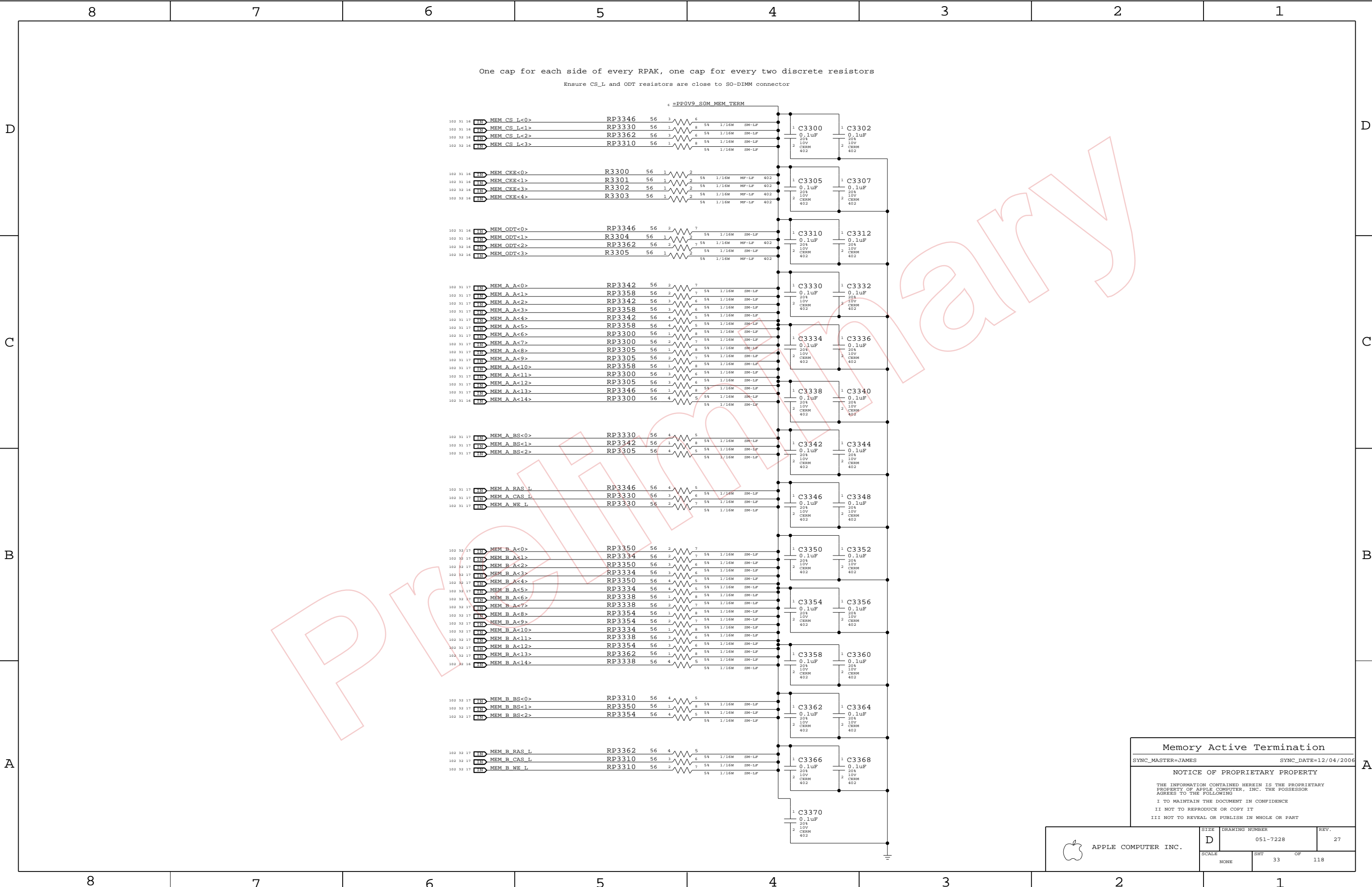
OF

32

REV.

27

118



Memory Active Termination

SYNC_MASTER=JAMES SYNC_DATE=12/04/2006

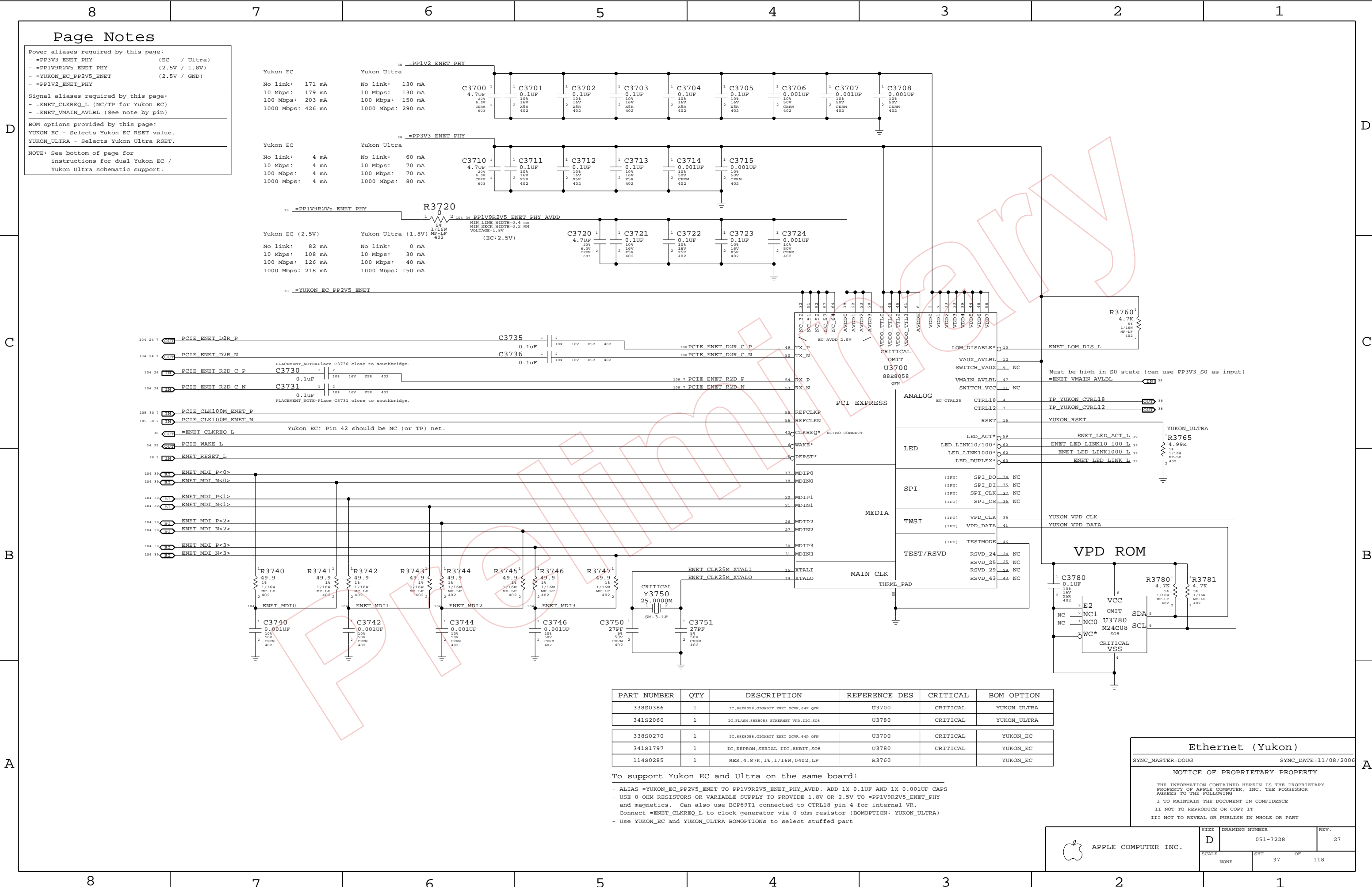
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Page Notes

Power aliases required by this page:
- =PP3V3_ENET_PHY (EC / Ultra)
- =PP1V9R2V5_ENET_PHY (2.5V / 1.8V)
- =YUKON_EC_PP2V5_ENET (2.5V / GND)
- =PP1V2_ENET_PHY

Signal aliases required by this page:
- =ENET_CLKREQ_L (NC/TP for Yukon EC)
- =ENET_VMAIN_AVLBLE (See note by pin)

BOM options provided by this page:
YUKON_EC - Selects Yukon EC RSET value.
YUKON_ULTRA - Selects Yukon Ultra RSET.

NOTE: See bottom of page for instructions for dual Yukon EC / Yukon Ultra schematic support.

PART NUMBER	QTY	DESCRIPTION	REFERENCE DES	CRITICAL	BOM OPTION
338S0386	1	IC,88E8058,GIGABIT ENET XCVR,64P QFN	U3700	CRITICAL	YUKON_ULTRA
341S2060	1	IC,FLASH,88E8058 ETHERNET VPD,IIC,S08	U3780	CRITICAL	YUKON_ULTRA
338S0270	1	IC,88E8058,GIGABIT ENET XCVR,64P QFN	U3700	CRITICAL	YUKON_EC
341S1797	1	IC,EEPROM,SERIAL IIC,8KBIT,S08	U3780	CRITICAL	YUKON_EC
114S0285	1	RES,4.87K,1%,1/16W,0402,LF	R3760		YUKON_EC

To support Yukon EC and Ultra on the same board:

- ALIAS =YUKON_EC_PP2V5_ENET TO PP1V9R2V5_ENET_PHY_AVDD, ADD 1X 0.1uF AND 1X 0.001uF CAPS
- USE 0-OHM RESISTORS OR VARIABLE SUPPLY TO PROVIDE 1.8V OR 2.5V TO =PP1V9R2V5_ENET_PHY and magnetics. Can also use BCP69T1 connected to CTRL18 pin 4 for internal VR.
- Connect =ENET_CLKREQ_L to clock generator via 0-ohm resistor (BOMOPTION: YUKON_ULTRA)
- Use YUKON_EC and YUKON_ULTRA BOMOPTIONS to select stuffed part

Ethernet (Yukon)

SYNC_MASTER=DOUG SYNC_DATE=11/08/2006

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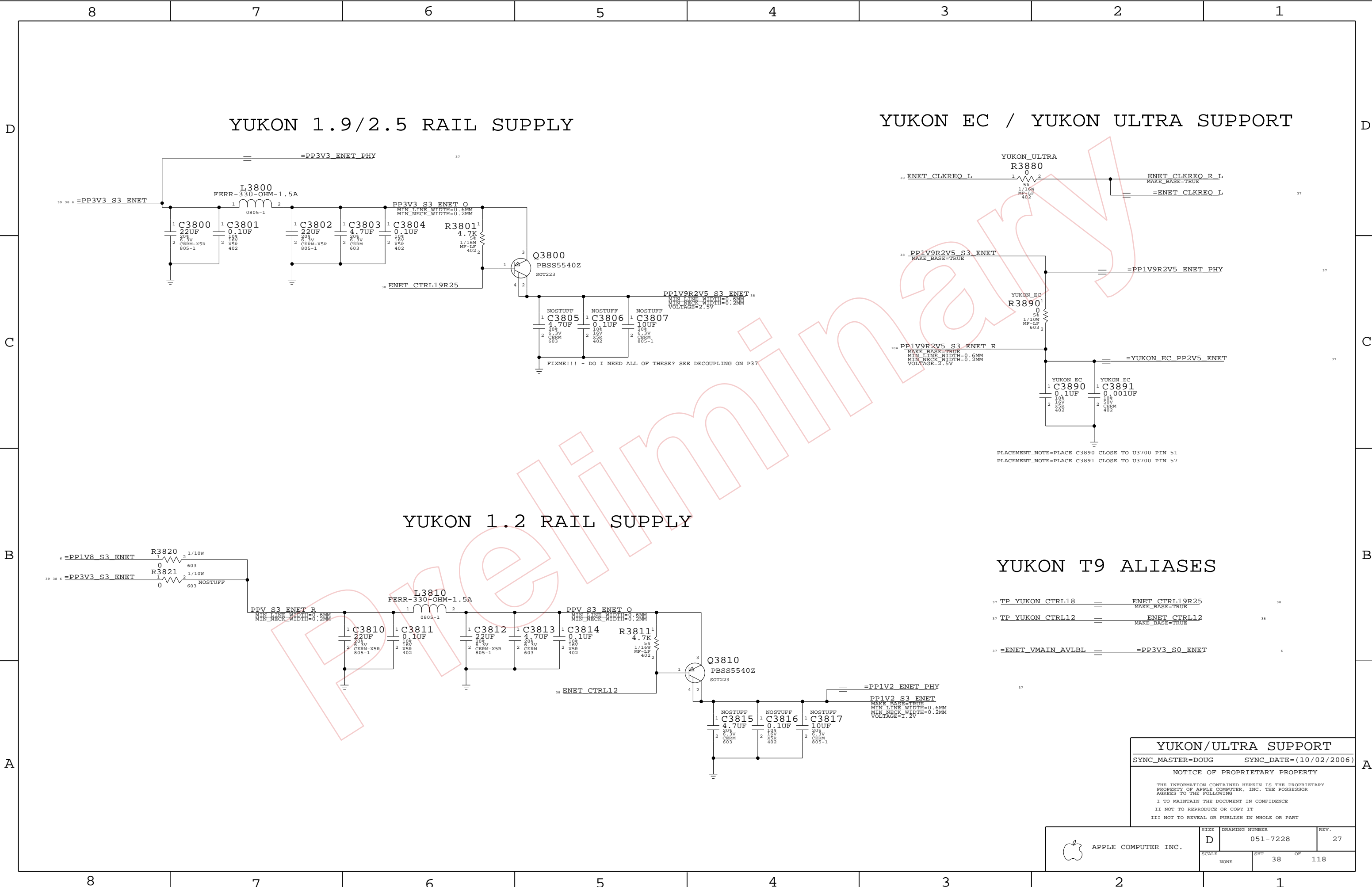
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APPLE COMPUTER INC.

SIZE D DRAWING NUMBER 051-7228 REV. 27

SCALE NONE SHT 37 OF 118



YUKON T9 ALIASES

TP YUKON_CTRL18 = ENET_CTRL19R25
TP YUKON_CTRL12 = ENET_CTRL12
=ENET_VMAIN_AVLBL = =PP3V3_S0_ENET

YUKON/ULTRA SUPPORT

SYNC_MASTER=DOUG SYNC_DATE=(10/02/2006)

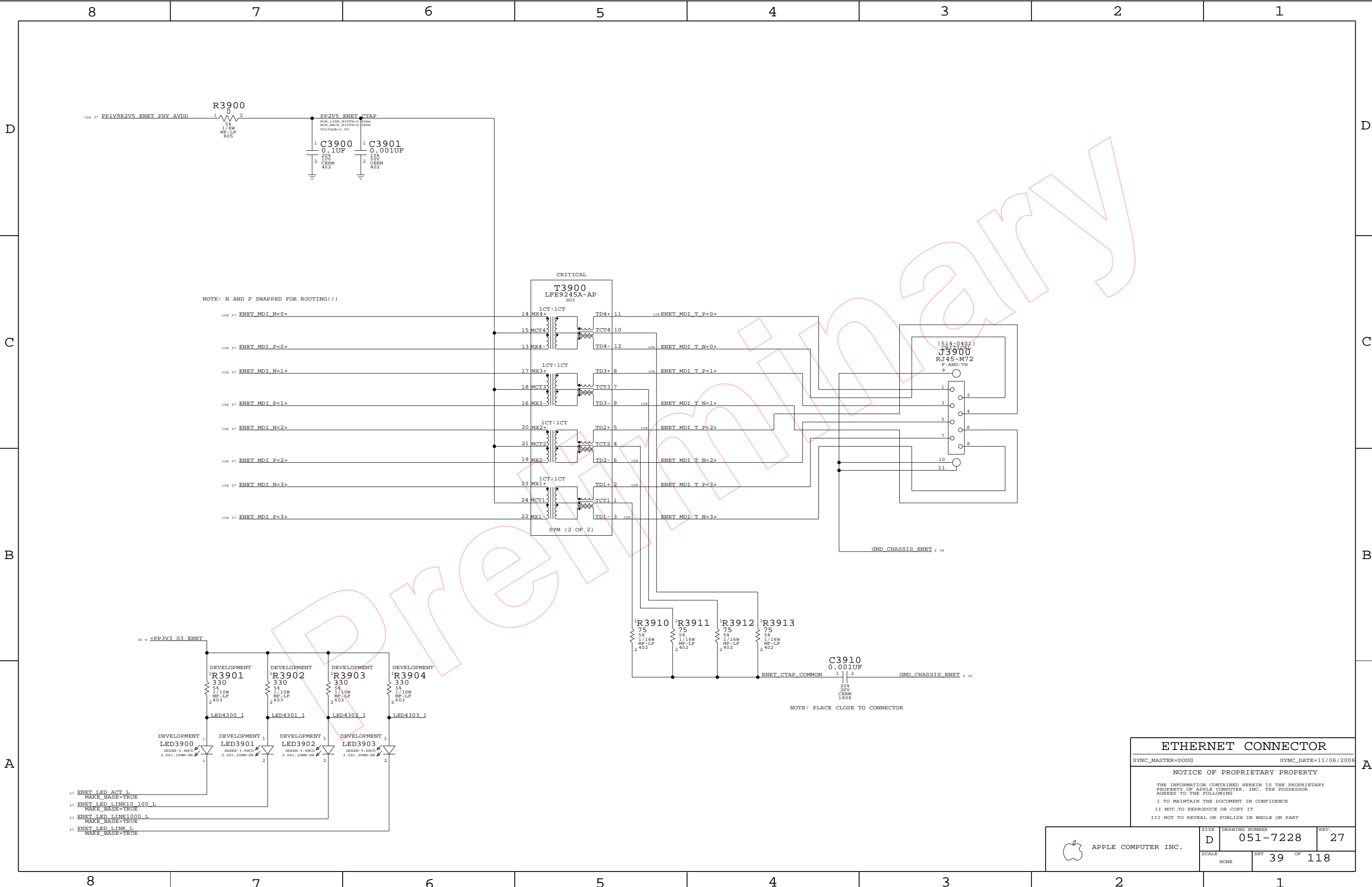
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SIZE	DRAWING NUMBER	REV.
D	051-7228	27
SCALE	SHT	OF
NONE	38	118



ETHERNET CONNECTOR

SYNC_MASTER=DOUG

SYNC_DATE=11/06/2006

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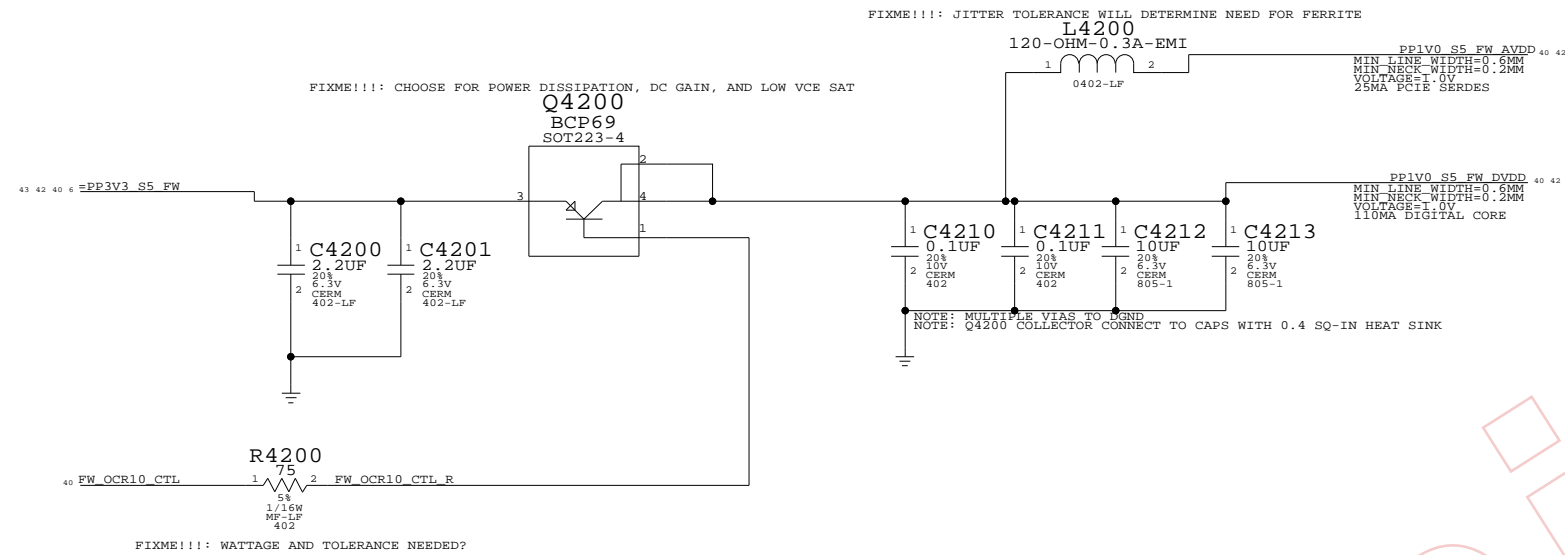
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	D	051-7228	27
SCALE		SHT	OF
NONE		39	118

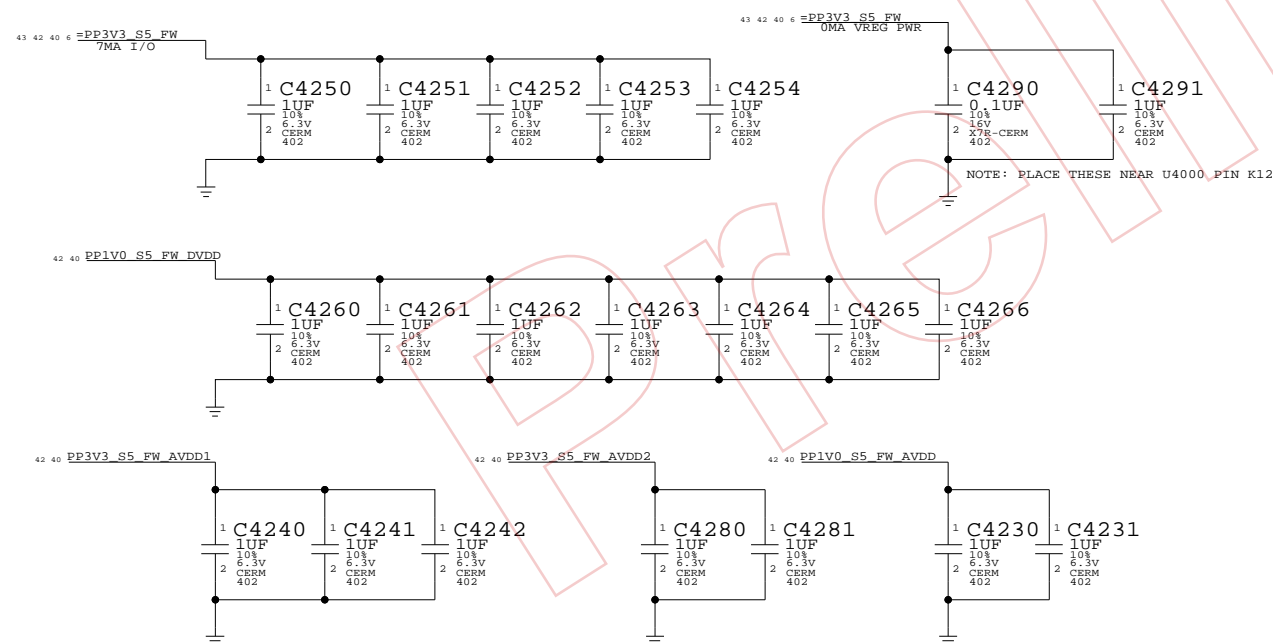


FW643 1.0V GENERATION

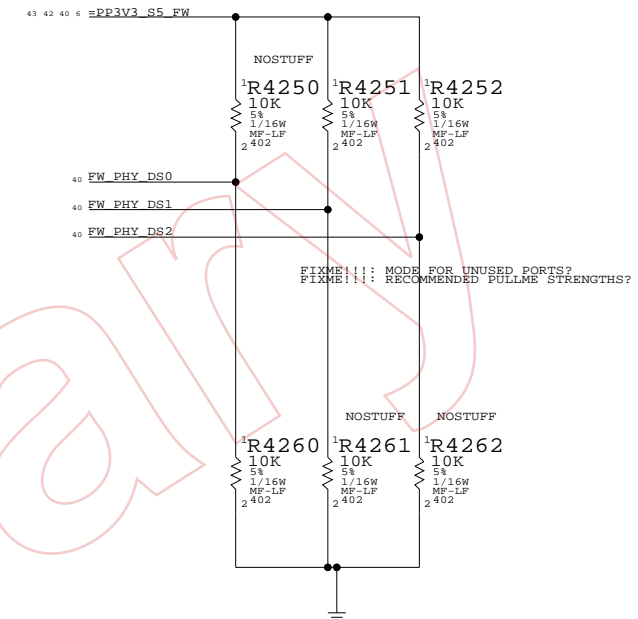


FW643 DECOUPLING

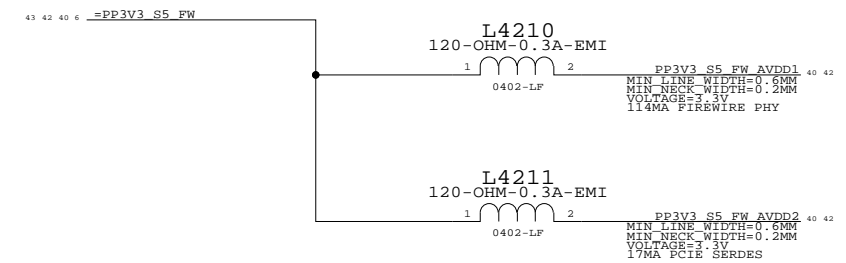
NOTE: PLACE 1 CAP CLOSE TO EACH POWER PIN ON U4000



1394 PHY DATA/STROBE OPTIONS



FW 3.3V FILTERING



FW PCIE ALIASES

24	<u>TP_PCIE_FW_R2D_C_N</u>	<u>==</u>	<u>PCIE_FW_R2D_C_N</u>	40 104
			MAKE_BASE=TRUE	
24	<u>TP_PCIE_FW_R2D_C_P</u>	<u>==</u>	<u>PCIE_FW_R2D_C_P</u>	40 104
			MAKE_BASE=TRUE	
104 40 7	<u>PCIE_FW_D2R_N</u>	<u>==</u>	<u>TP_PCIE_FW_D2R_N</u>	24
	MAKE_BASE=TRUE			
104 40 7	<u>PCIE_FW_D2R_P</u>	<u>==</u>	<u>TP_PCIE_FW_D2R_P</u>	24
	MAKE_BASE=TRUE			

FW: 1394B MISC

SYNC_MASTER=DOUG	SYNC_DATE=10/10/2006
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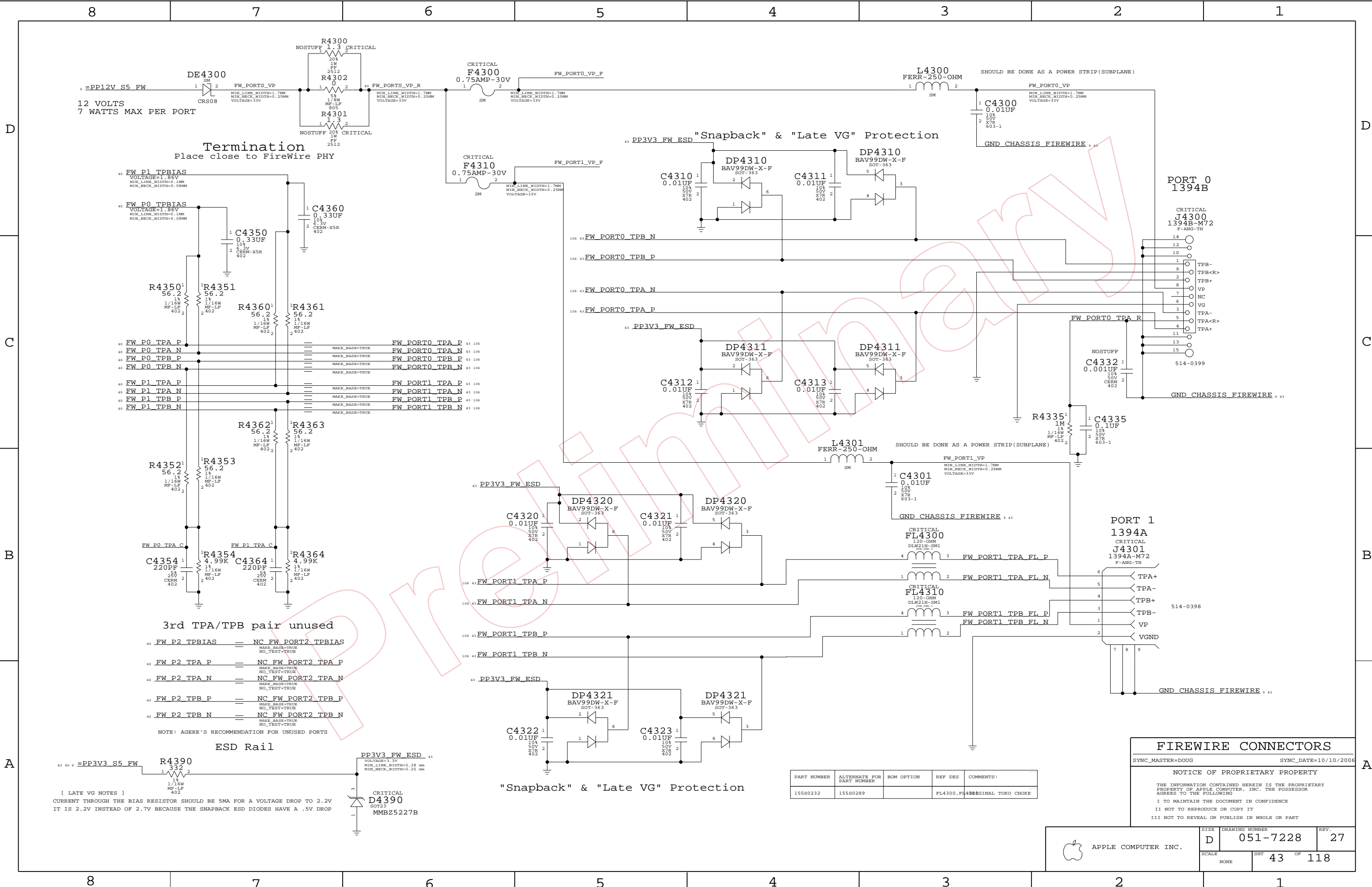
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APPLE COMPUTER INC.

SIZE D	DRAWING NUMBER 051-7228	REV. 27
SCALE NONE	SHT 42	OF 118



PART NUMBER	ALTERNATE FOR PART NUMBER	BOM OPTION	REF DES	COMMENTS
155S0232	155S0289		FL4300, 43	ORIGINAL TOKO CHOKE

FIREWIRE CONNECTORS

SYNC_MASTER=DOUG

SYNC_DATE=10/10/2006

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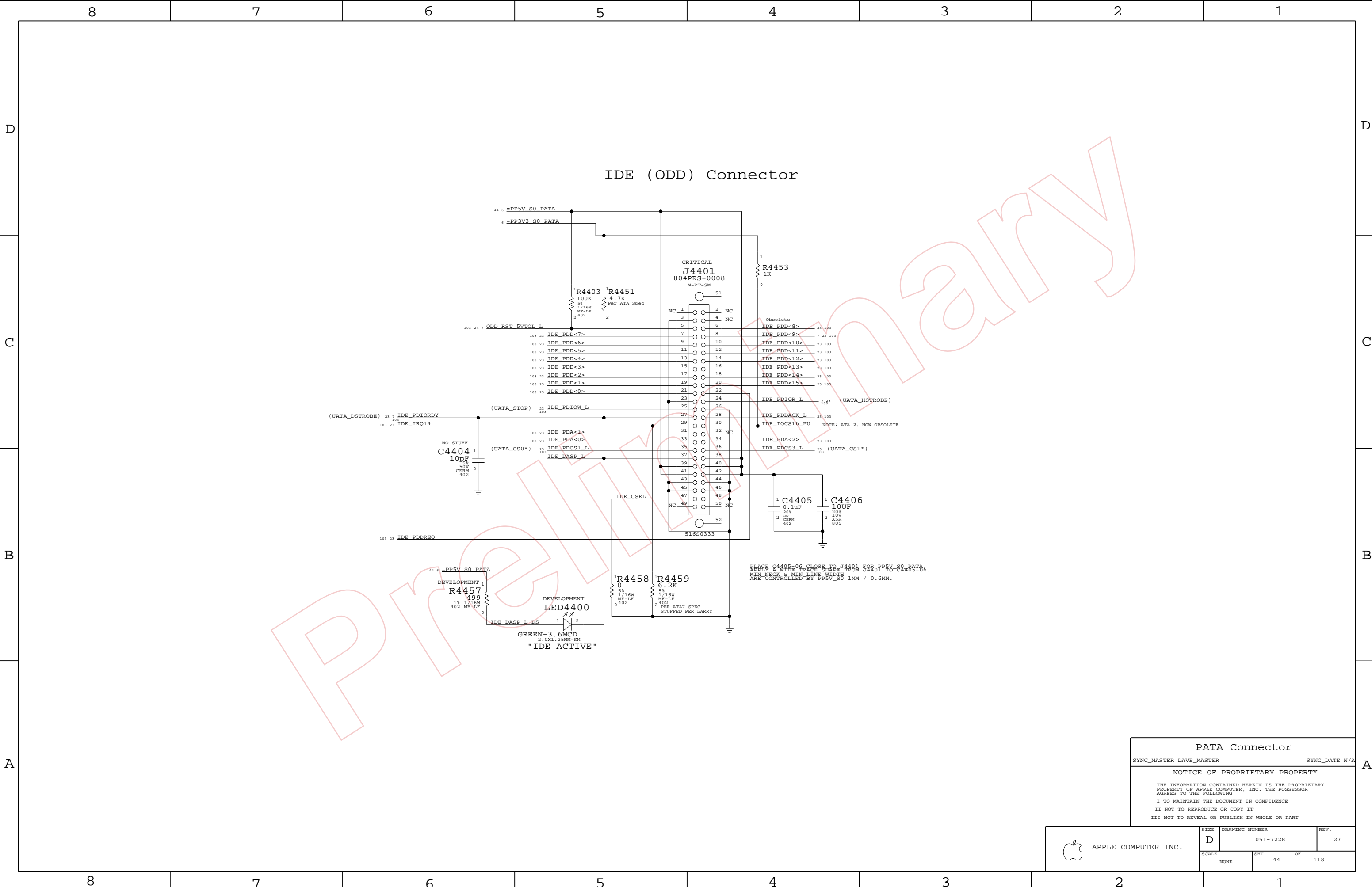
SCALE: NONE

SIZE: D

DRAWING NUMBER: 051-7228

SHT: 43 OF 118

REV: 27



PATA Connector

SYNC_MASTER=DAVE_MASTER SYNC_DATE=N/A

NOTICE OF PROPRIETARY PROPERTY

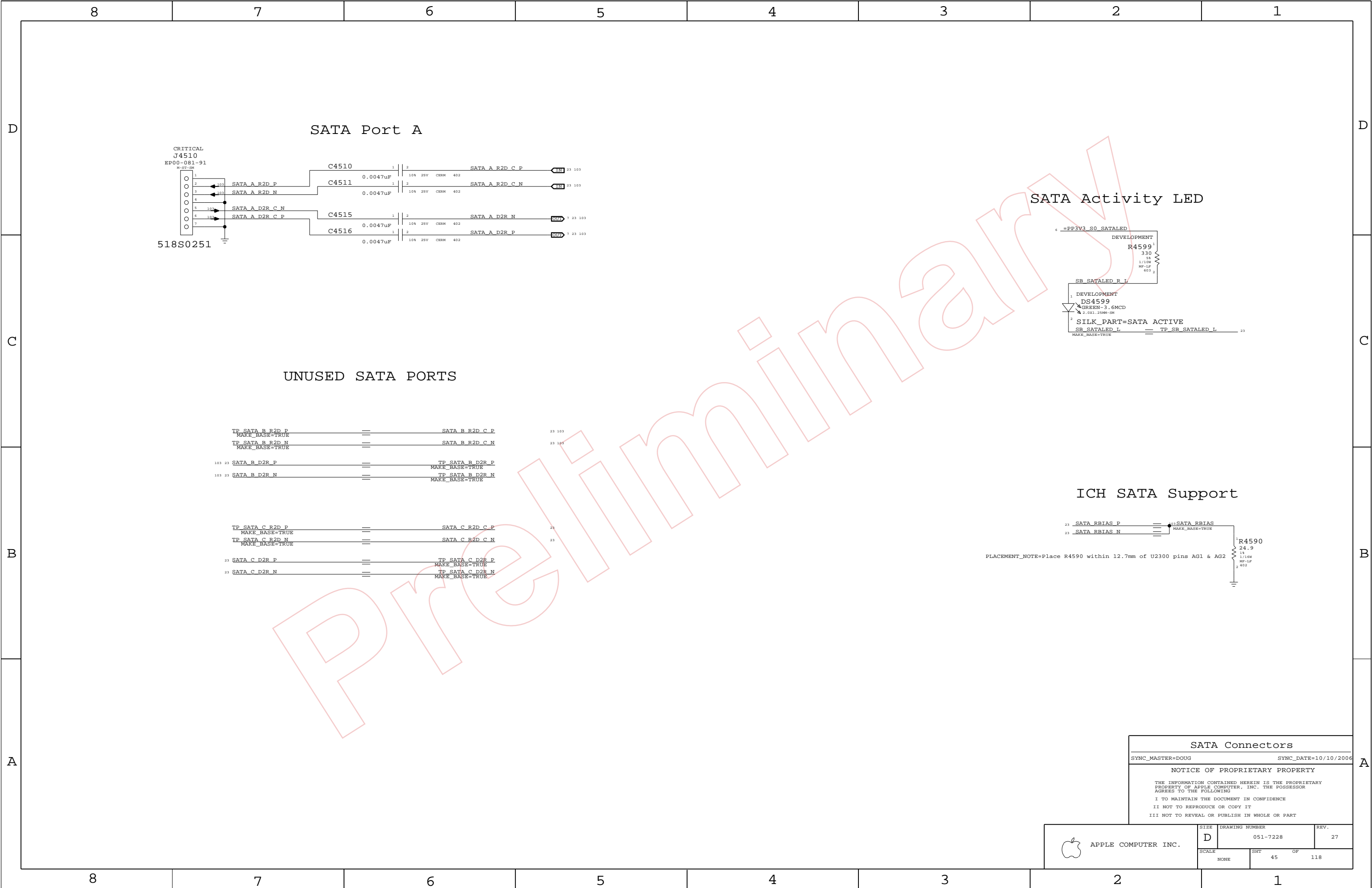
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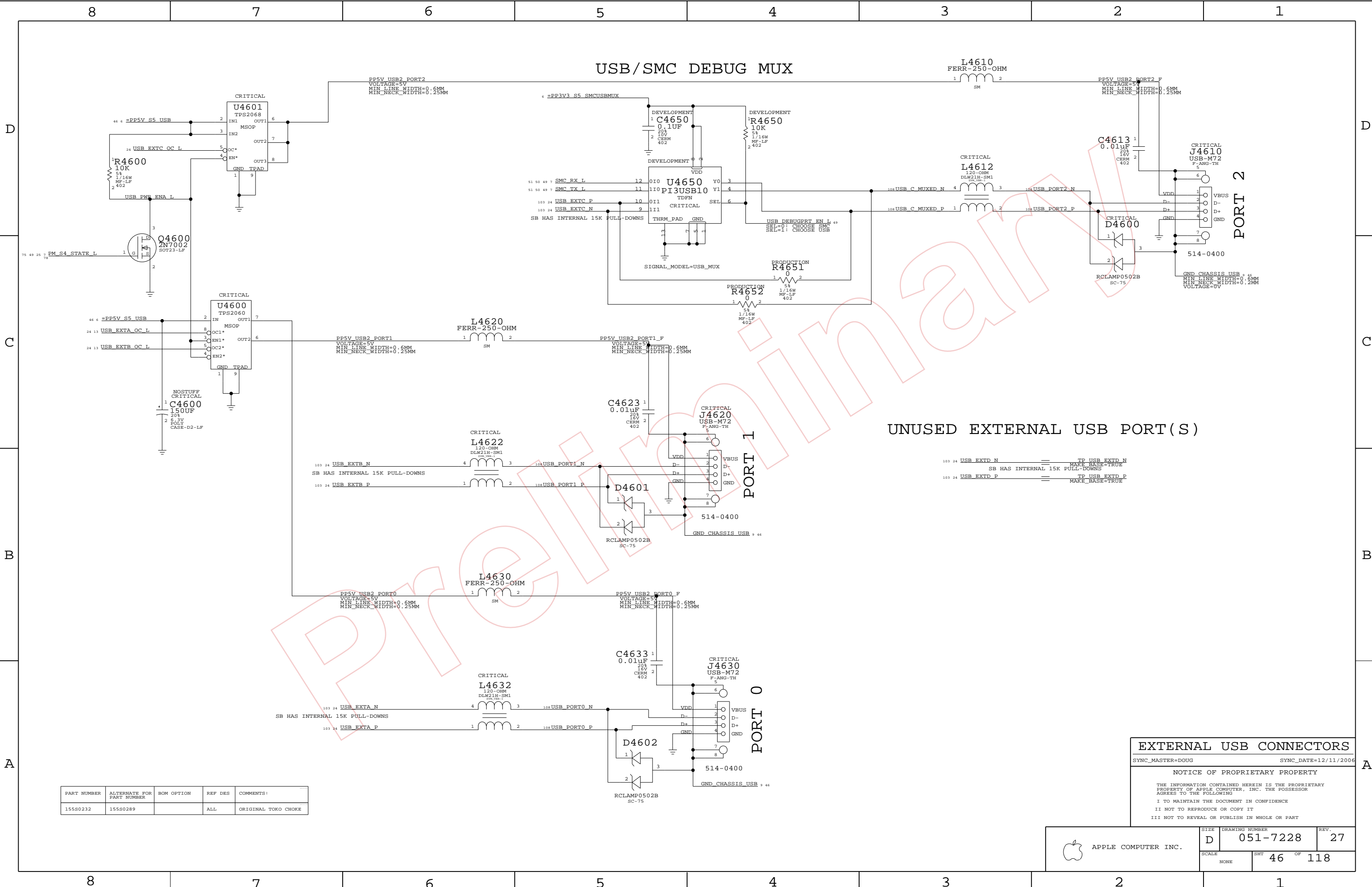
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APPLE COMPUTER INC.	SIZE D	DRAWING NUMBER 051-7228	REV. 27
	SCALE NONE	SHT 44	OF 118





PART NUMBER	ALTERNATE FOR PART NUMBER	BOM OPTION	REF DES	COMMENTS:
155S0232	155S0289		ALL	ORIGINAL TORO CHOKE

EXTERNAL USB CONNECTORS

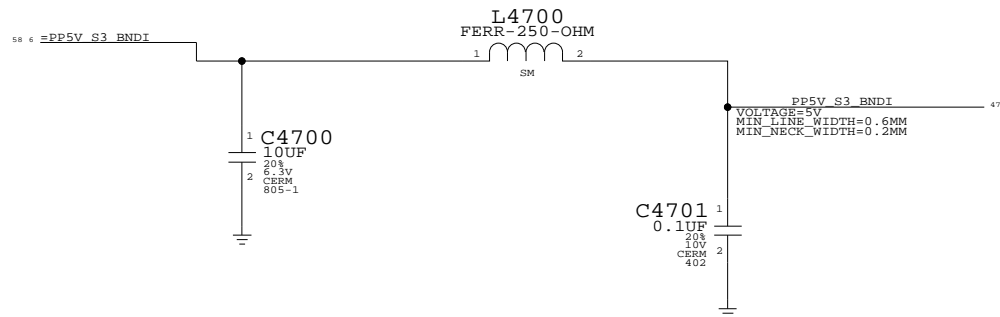
SYNC_MASTER=DOUG SYNC_DATE=12/11/2006

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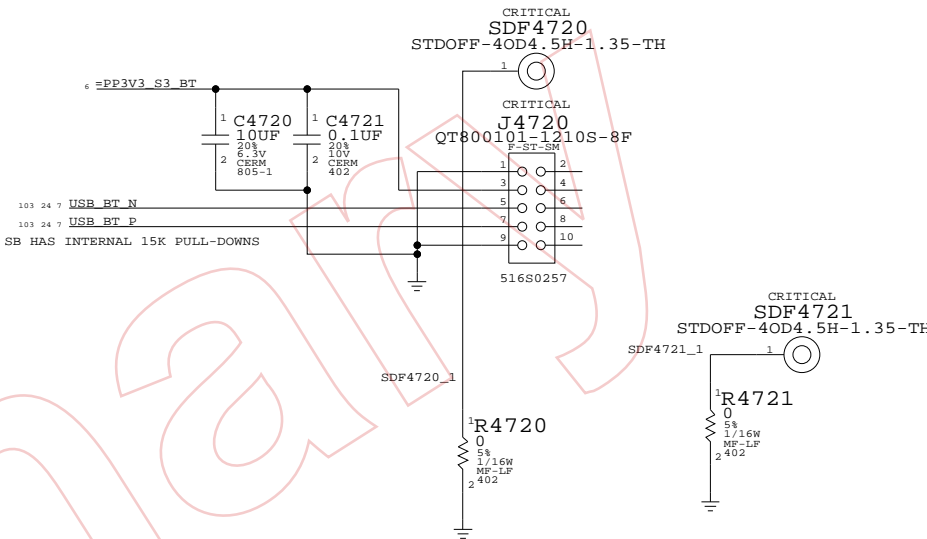
APPLE COMPUTER INC.	SIZE	DRAWING NUMBER	REV.
	D	051-7228	27
SCALE		SHT	OF
NONE		46	118

CAMERA POWER FILTERING

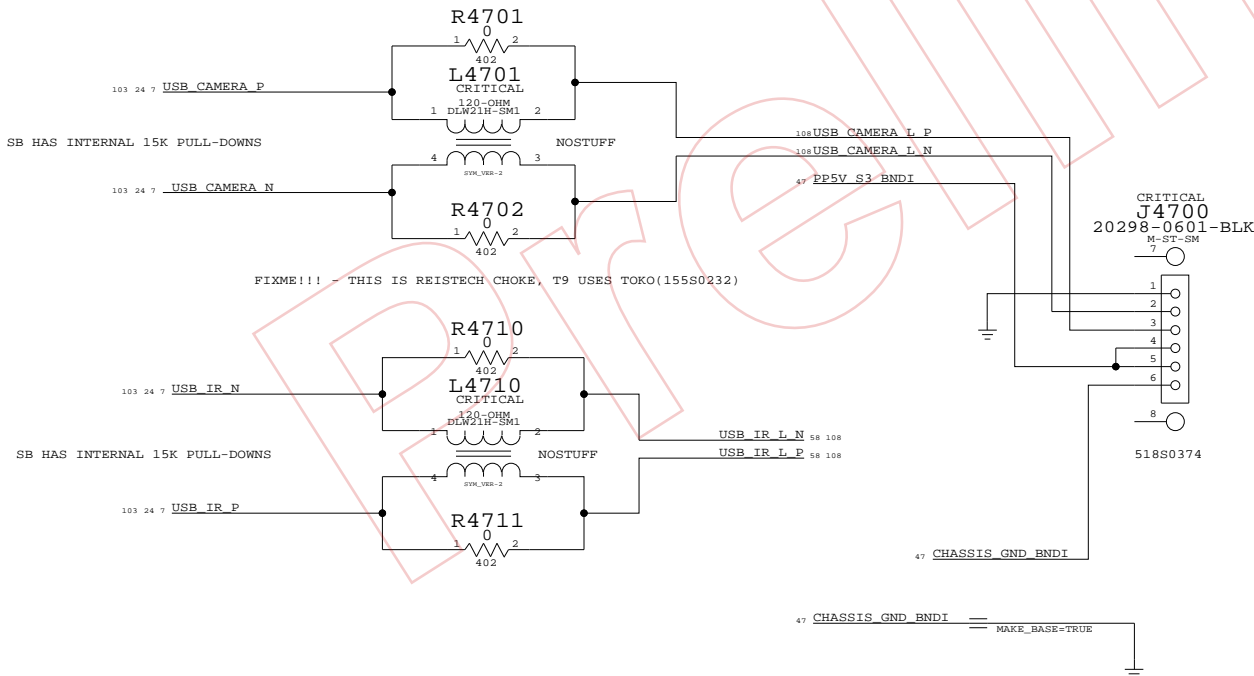


LAYOUT NOTE:
PLACE C4700, C4701 & L4700
NEAR J4700 PINS 4 AND 5 IN THE
ORDER LISTED, AND NOT ON
BOTH SIDES OF THE PIN.

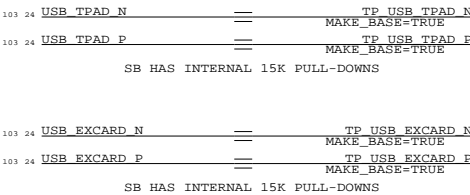
M13D (Bluetooth) Connector



CAMERA CONNECTOR



UNUSED INTERNAL USB PORTS



Internal USB Connections

SYNC_MASTER=M78_MLB SYNC_DATE=12/15/2006

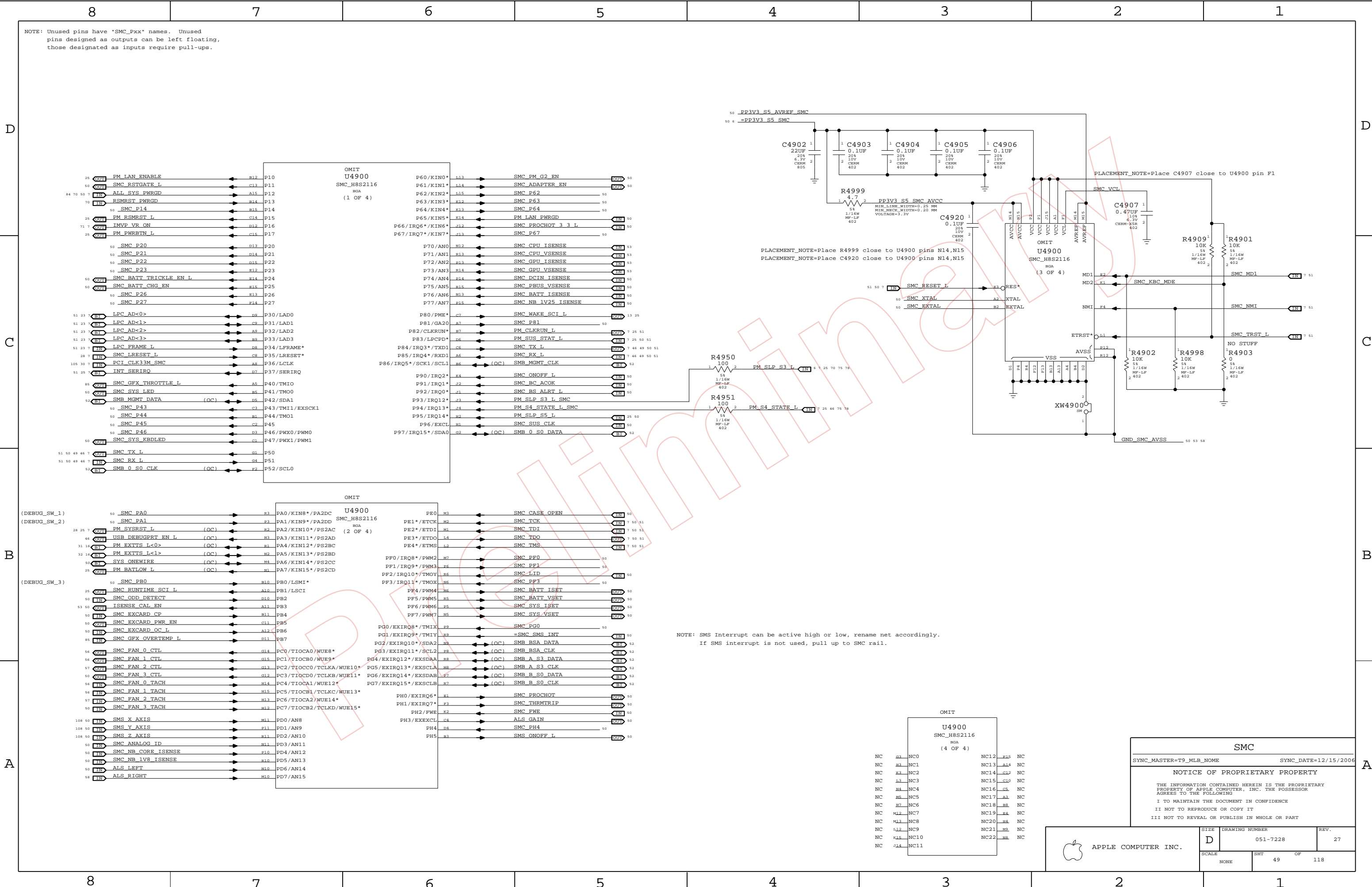
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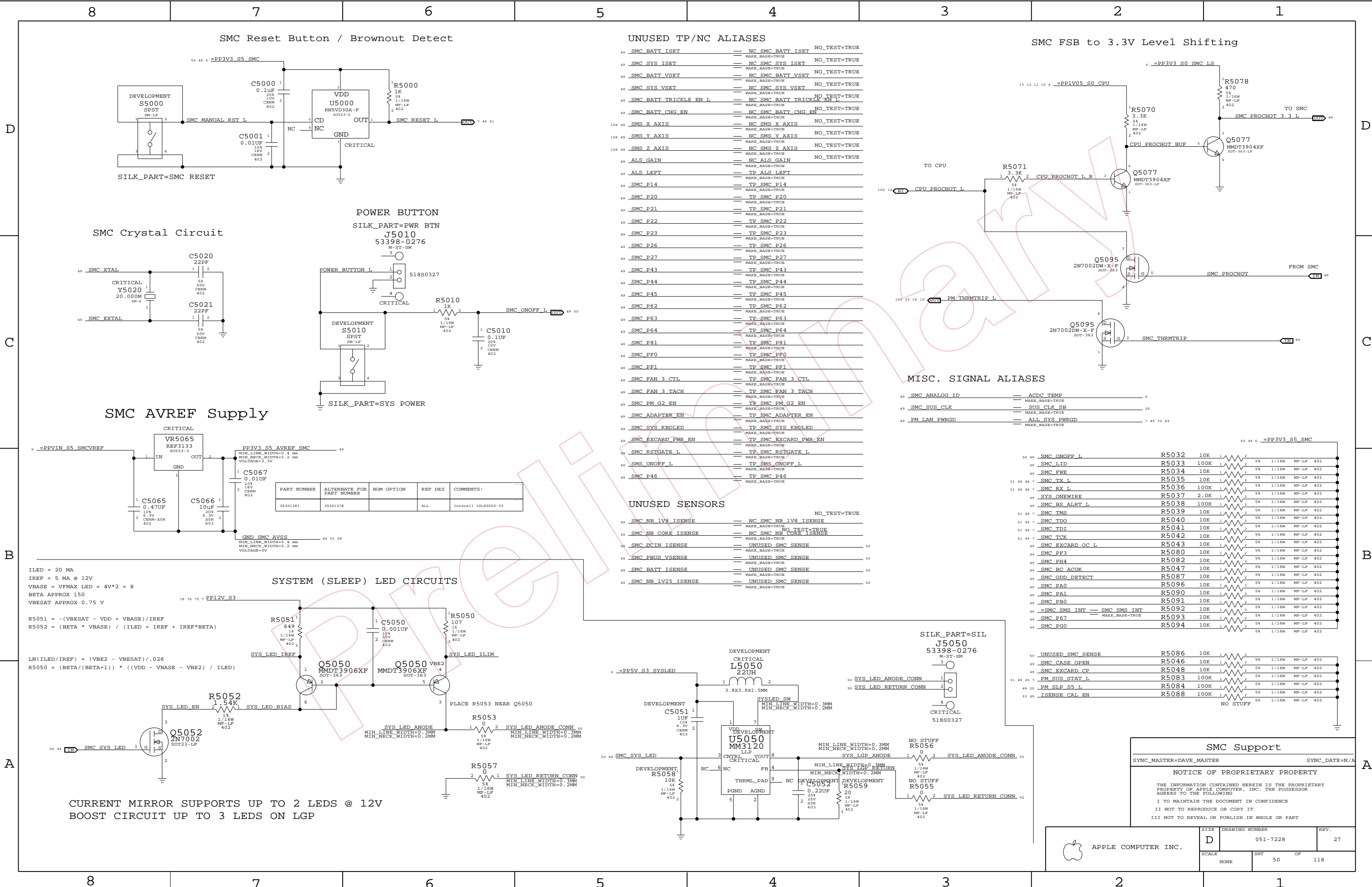
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APPLE COMPUTER INC.

SIZE	DRAWING NUMBER	REV.
D	051-7228	27
SCALE	SHT	OF
NONE	47	118





D

C

B

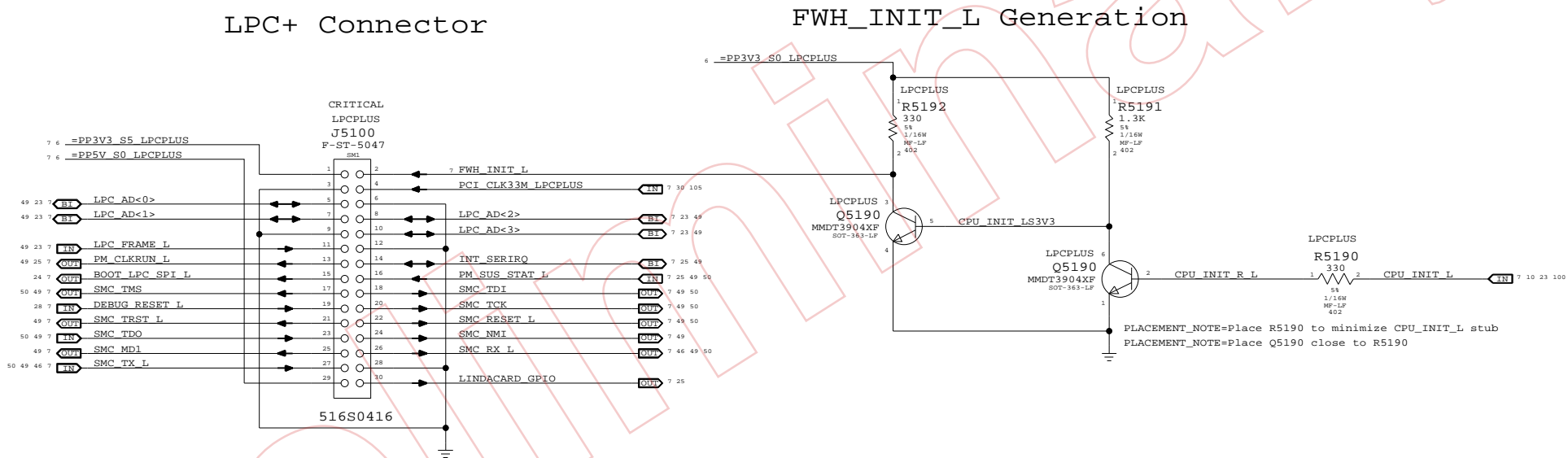
A

D

C

B

A



LPC+ Debug Connector

SYNC_MASTER=T9_MLB_NOME SYNC_DATE=03/22/2007

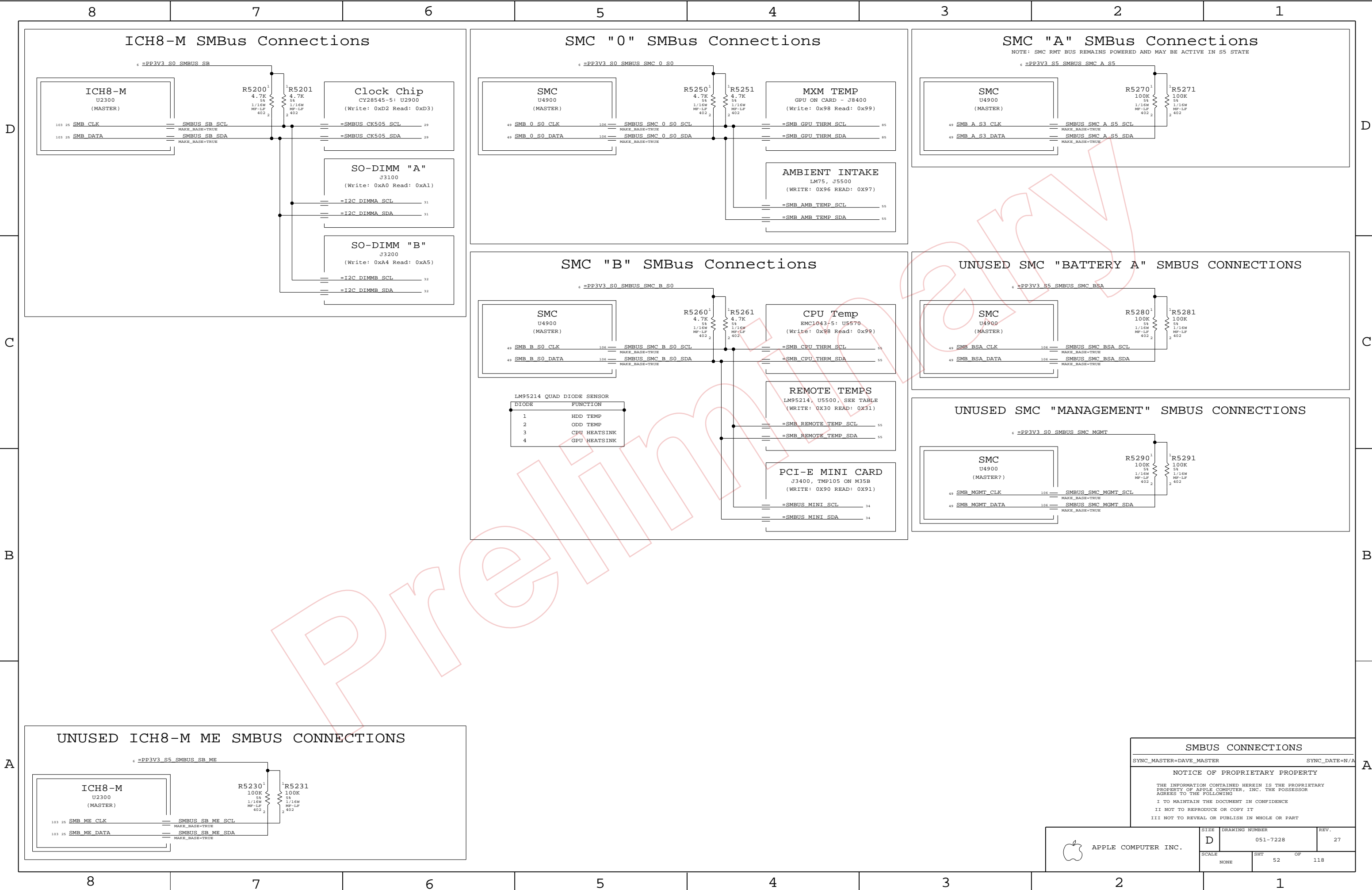
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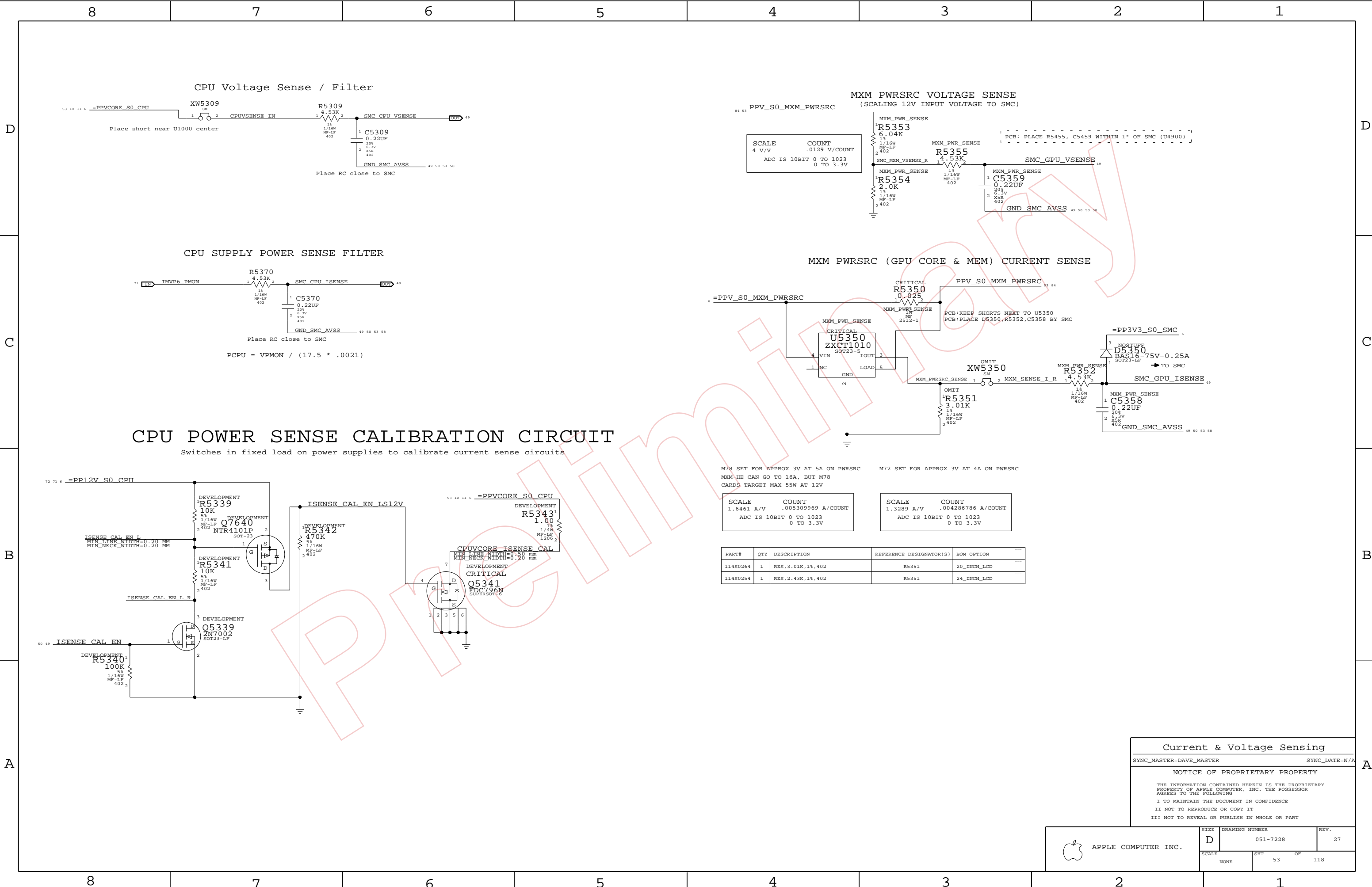
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SIZE	DRAWING NUMBER	REV.
D	051-7228	27
SCALE	SHT	OF
NONE	51	118





CPU POWER SENSE CALIBRATION CIRCUIT

Switches in fixed load on power supplies to calibrate current sense circuits

M78 SET FOR APPROX 3V AT 5A ON PWRSRC
MXM-HE CAN GO TO 16A, BUT M78
CARDS TARGET MAX 55W AT 12V

SCALE	COUNT
1.6461 A/V	.005309969 A/COUNT
ADC IS 10BIT 0 TO 1023	0 TO 3.3V

PART#	QTY	DESCRIPTION	REFERENCE DESIGNATOR(S)	BCM OPTION
114S0264	1	RES,3.01K,1%,402	R5351	20_INCH_LCD
114S0254	1	RES,2.43K,1%,402	R5351	24_INCH_LCD

Current & Voltage Sensing

SYNC_MASTER=DAVE_MASTER SYNC_DATE=N/A

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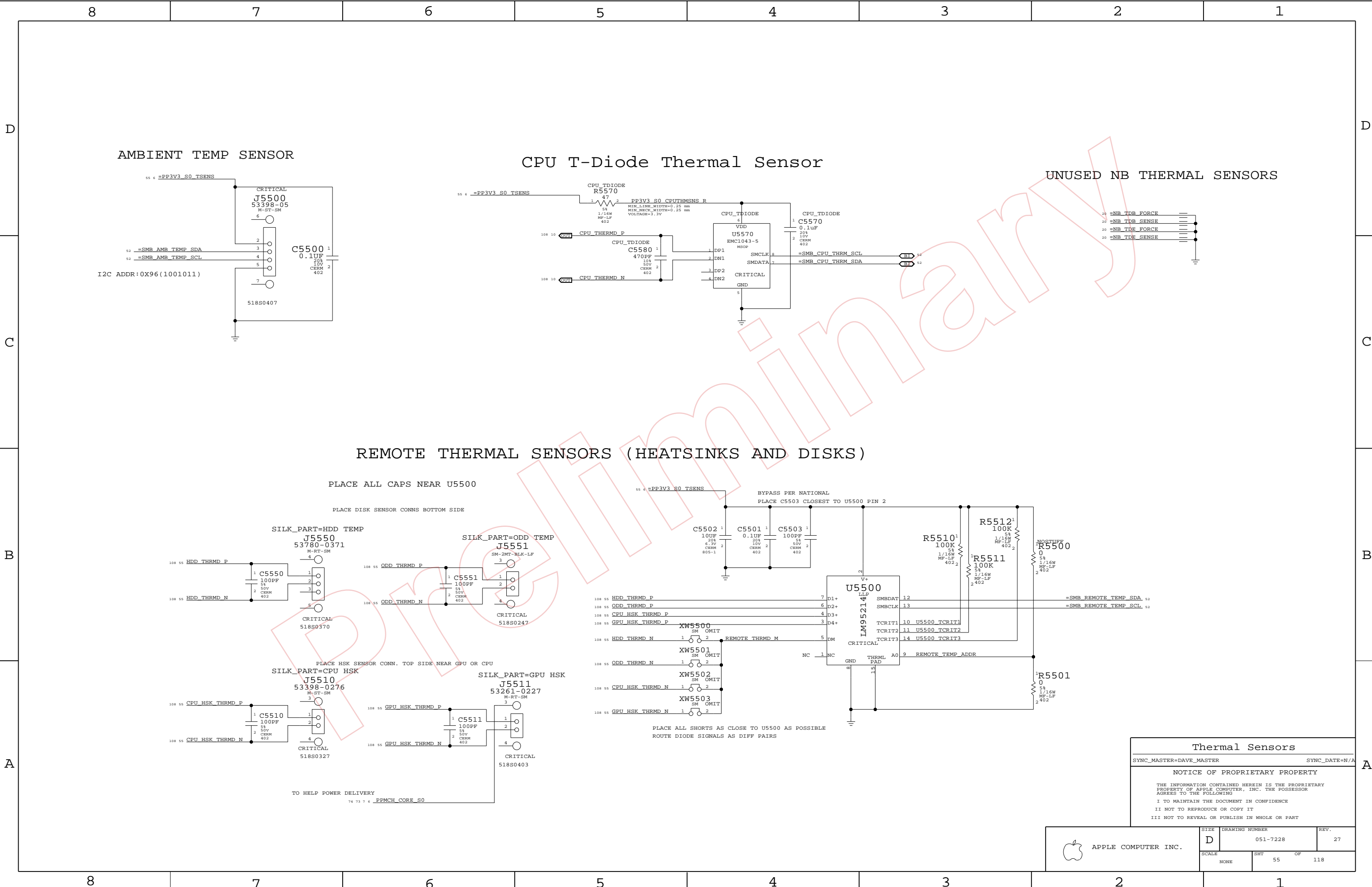
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	D	051-7228	27
SCALE	NONE	SHT	53 OF 118



Thermal Sensors

SYNC_MASTER=DAVE_MASTER SYNC_DATE=N/A

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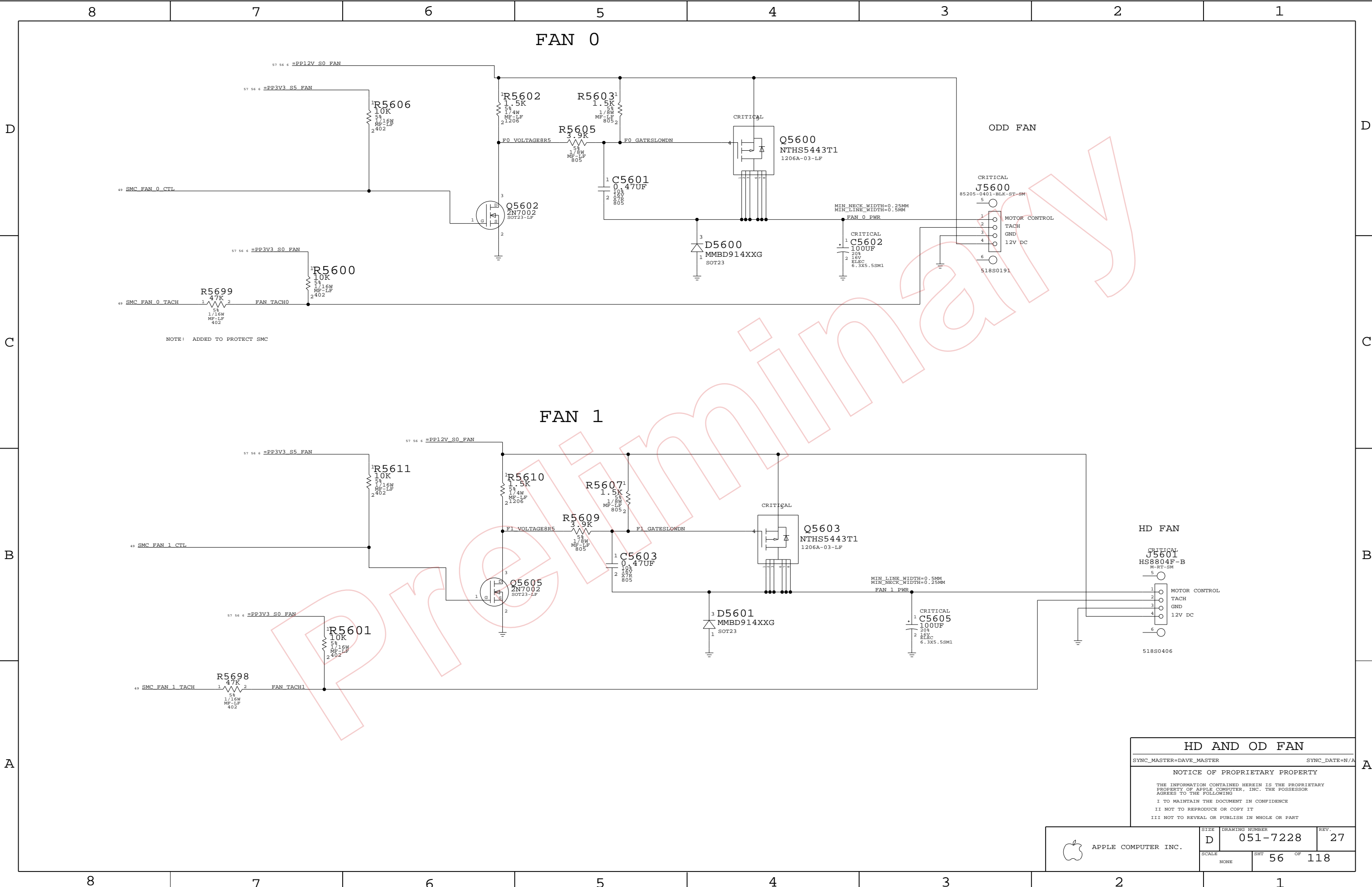
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	D	051-7228	27
SCALE		SHT	OF
NONE		55	118



HD AND OD FAN

SYNC_MASTER=DAVE_MASTER SYNC_DATE=N/A

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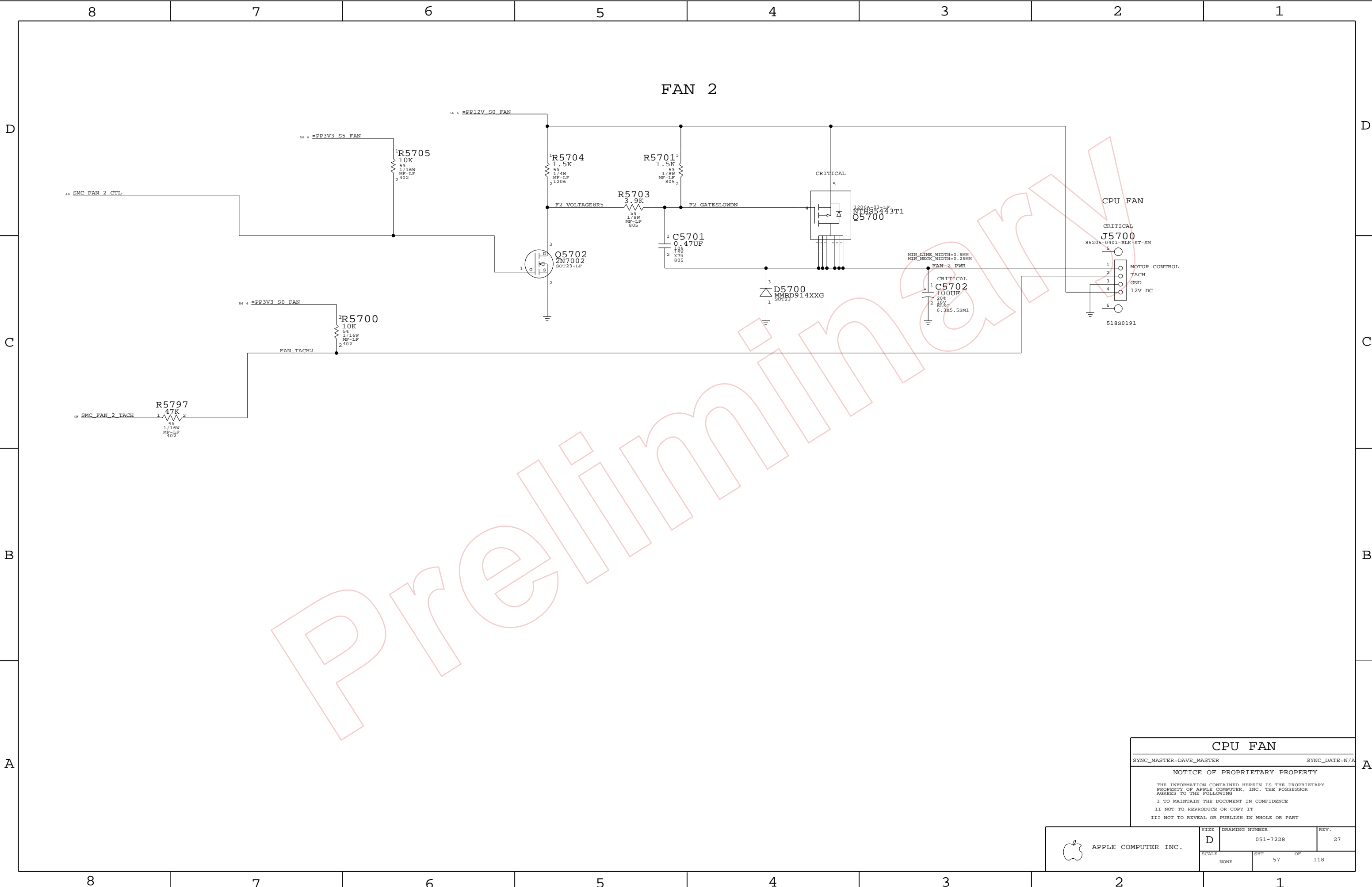
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	D	051-7228	27
SCALE		SHT	OF
NONE		56	118



CPU FAN

SYNC_MASTER=DAVE_MASTER SYNC_DATE=N/A

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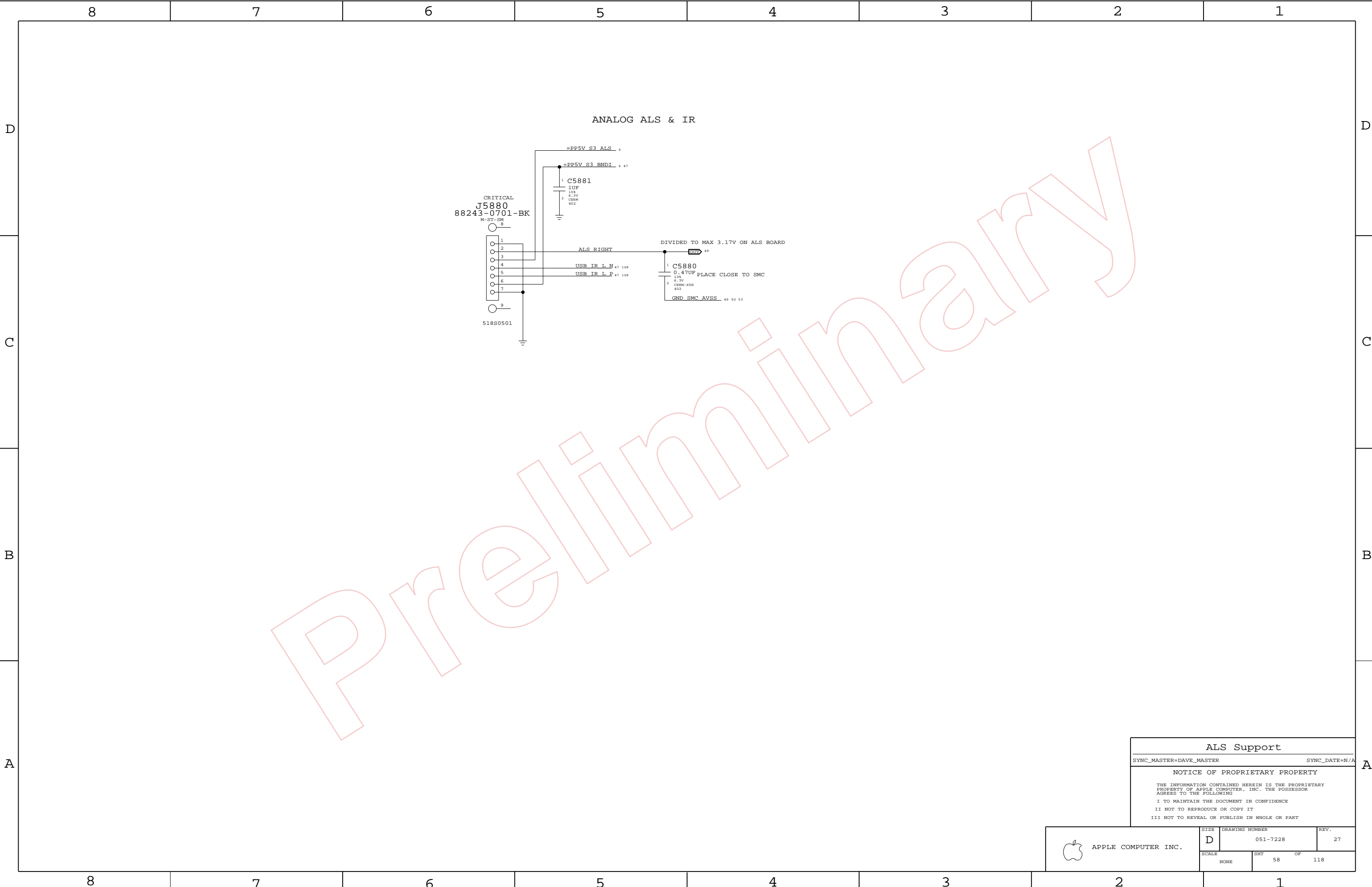
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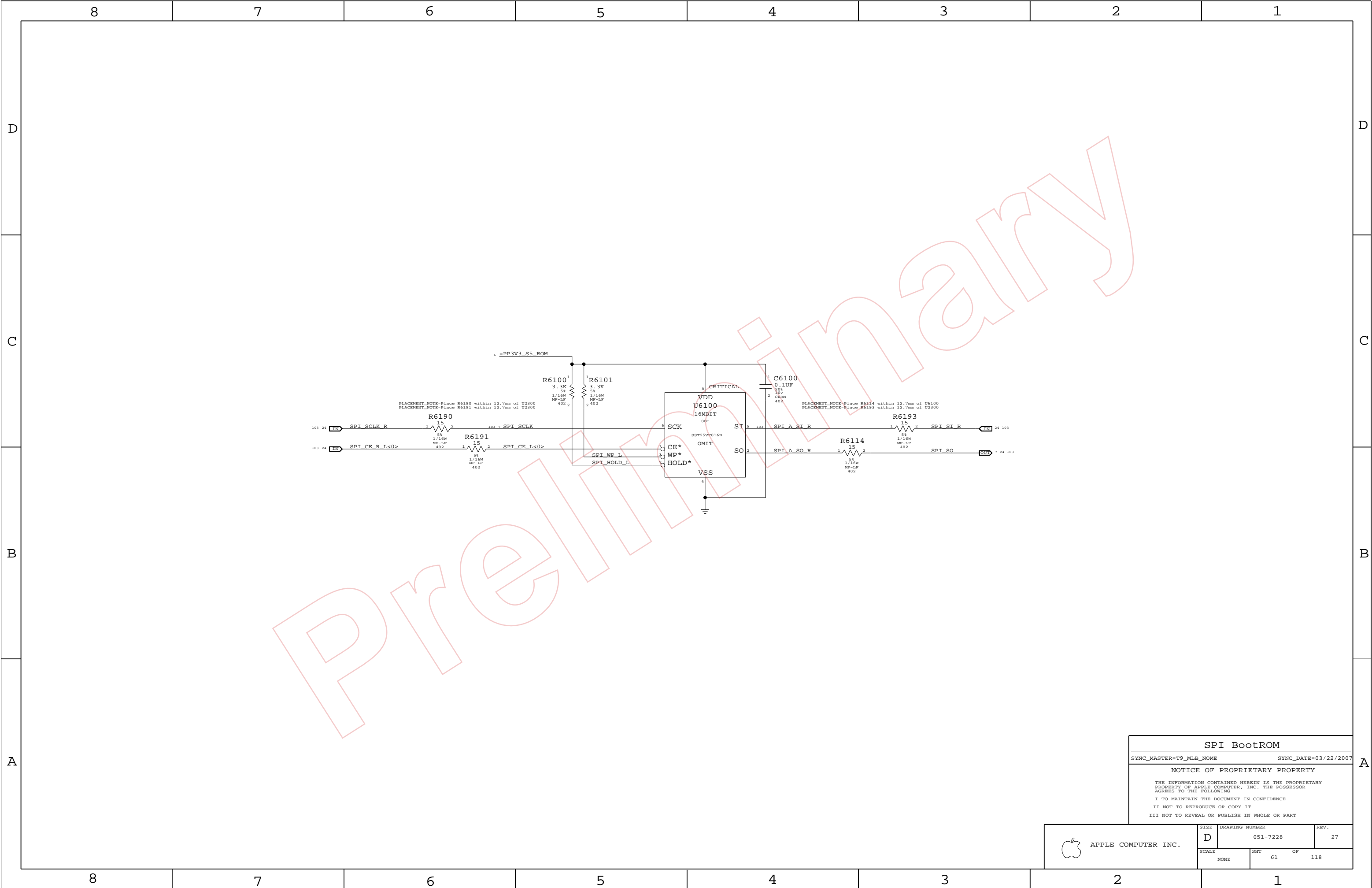
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	D	051-7228	27
SCALE		SHT	OF
NONE		57	118




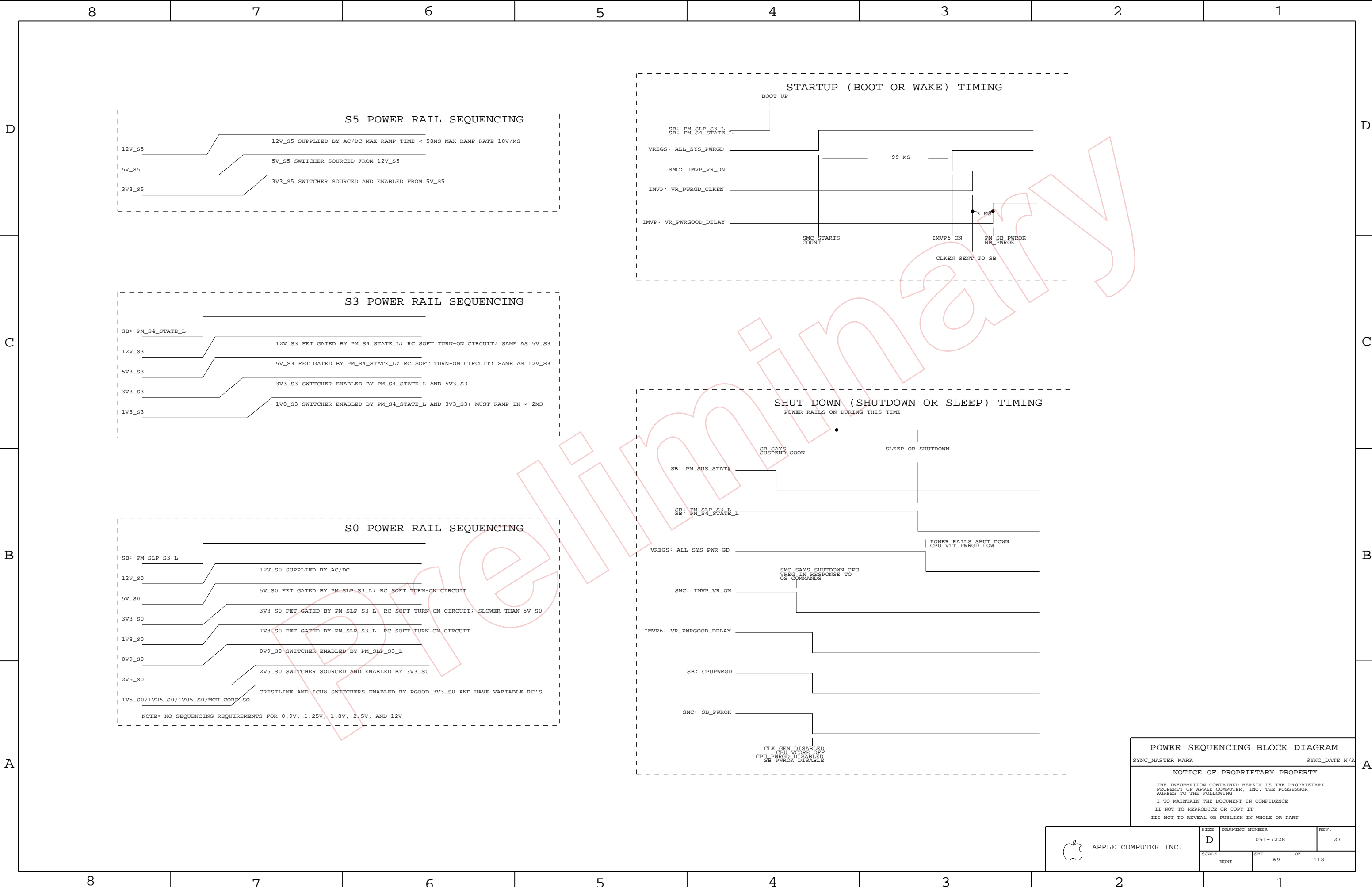
ALS Support	
SYNC_MASTER=DAVE_MASTER	SYNC_DATE=N/A
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	SCALE NONE	SHT 58	OF 118



SPI BootROM	
SYNC_MASTER=T9_MLB_NAME	SYNC_DATE=03/22/2007
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	SCALE NONE	SHT 61	OF 118



POWER SEQUENCING BLOCK DIAGRAM

SYNC_MASTER=MARK

SYNC_DATE=N/A

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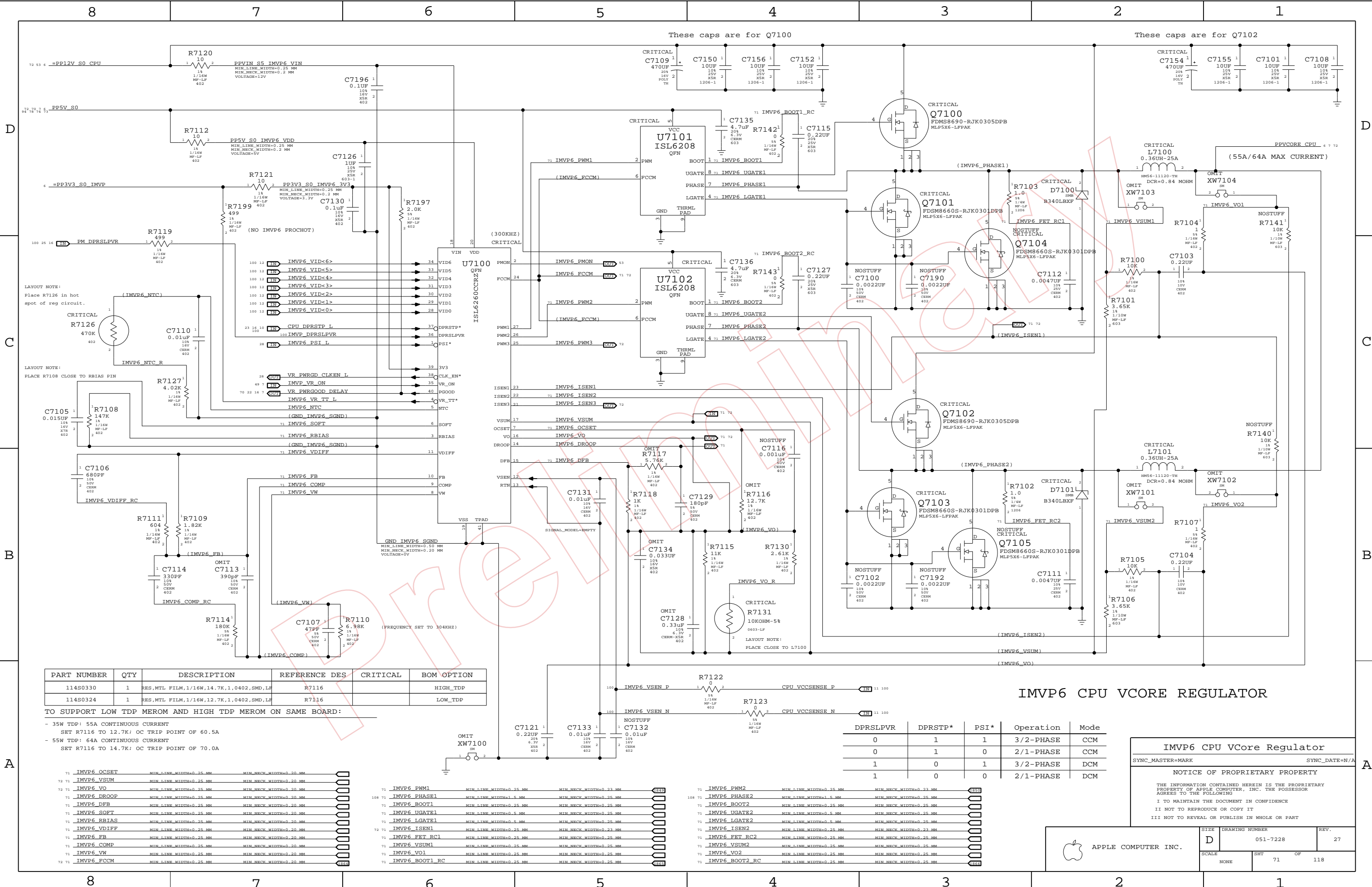
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	D	051-7228	27
SCALE		SHT	OF
NONE		69	118



PART NUMBER	QTY	DESCRIPTION	REFERENCE DES	CRITICAL	BOM OPTION
114S0330	1	RES,MTL FILM,1/16W,14.7K,1,0402,SMD,LF	R7116		HIGH_TDP
114S0324	1	RES,MTL FILM,1/16W,12.7K,1,0402,SMD,LF	R7116		LOW_TDP

TO SUPPORT LOW TDP MEROM AND HIGH TDP MEROM ON SAME BOARD:

- 35W TDP: 55A CONTINUOUS CURRENT
SET R7116 TO 12.7K; OC TRIP POINT OF 60.5A
- 55W TDP: 64A CONTINUOUS CURRENT
SET R7116 TO 14.7K; OC TRIP POINT OF 70.0A

DPRSLPVR	DPRSTP*	PSI*	Operation	Mode
0	1	1	3/2-PHASE	CCM
0	1	0	2/1-PHASE	CCM
1	0	1	3/2-PHASE	DCM
1	0	0	2/1-PHASE	DCM

IMVP6 CPU VCore Regulator

SYNC_MASTER=MARK

SYNC_DATE=N/A

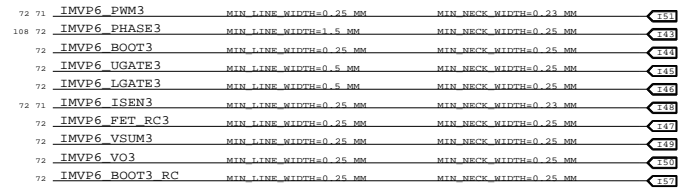
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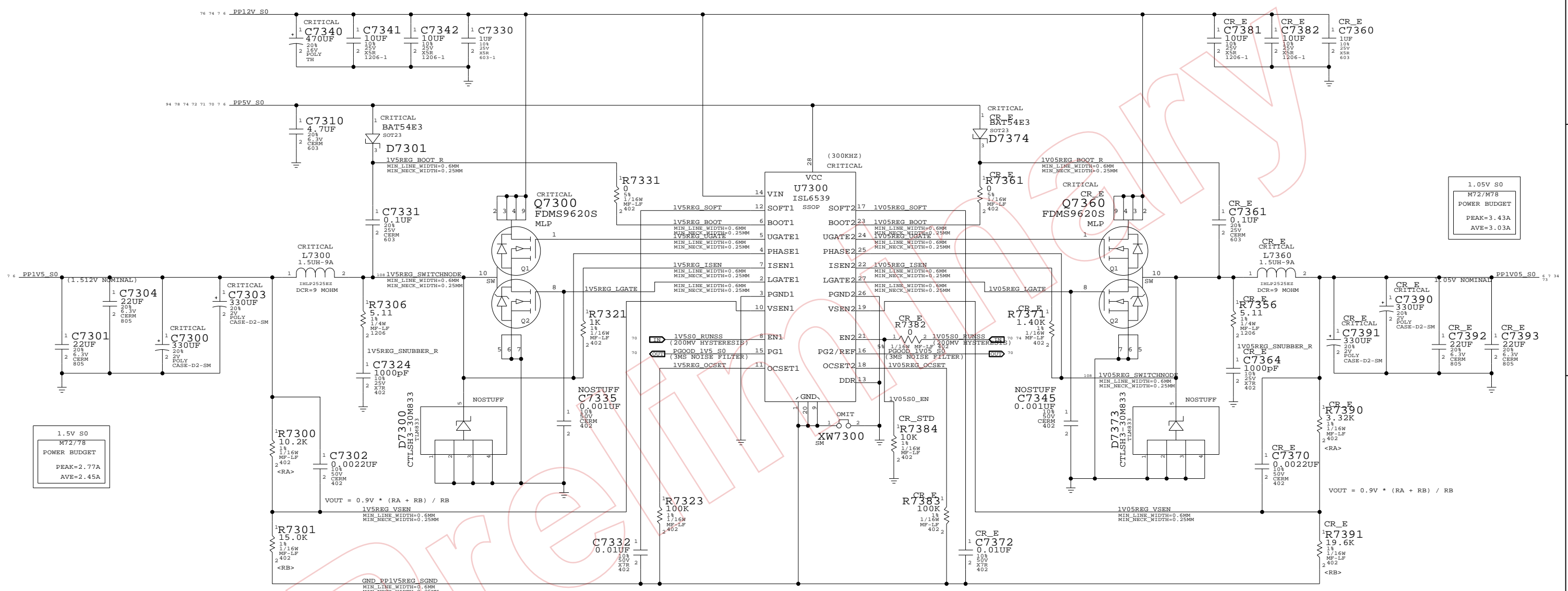
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	D	051-7228		27
	SCALE	SHT	OF	
	NONE	72	118	

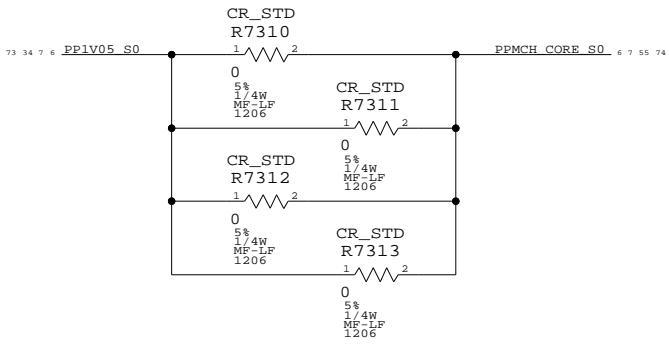
1.5V S0 & 1.05V SO RAILS



1.5V S0
M72/78
POWER BUDGET
PEAK=2.77A
AVE=2.45A

1.05V S0
M72/M78
POWER BUDGET
PEAK=3.43A
AVE=3.03A

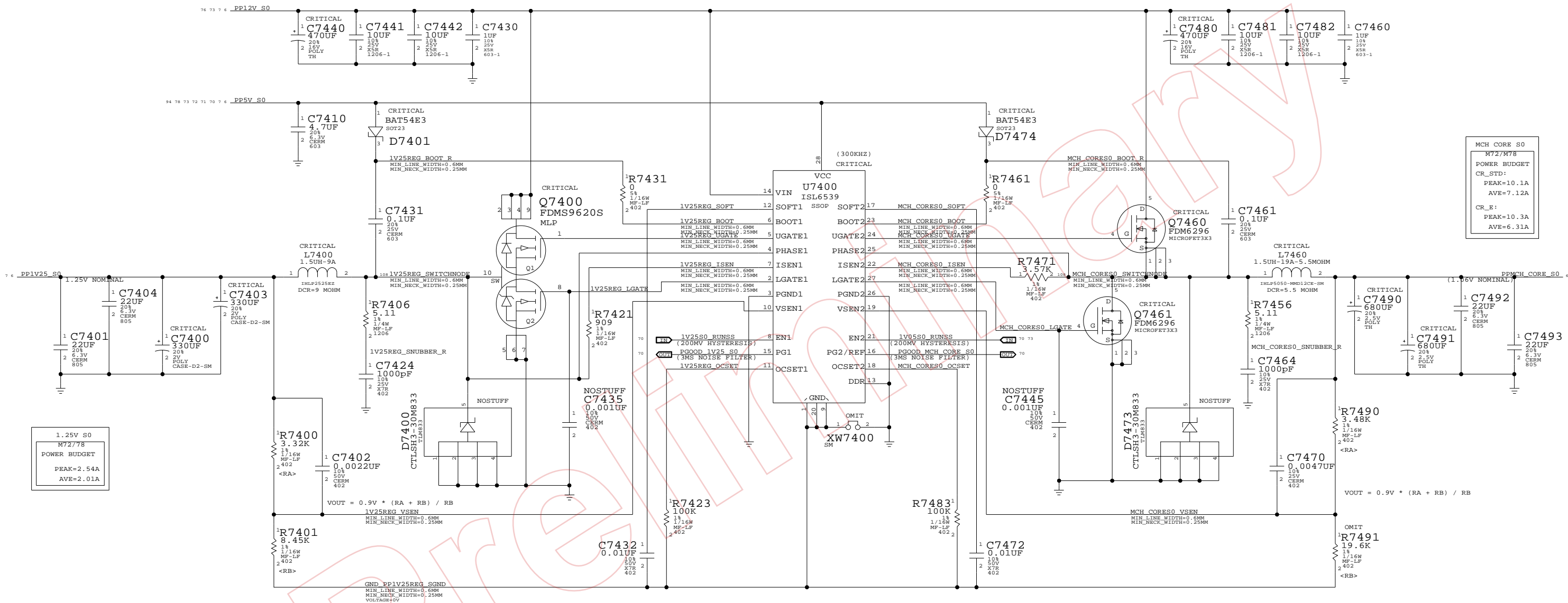
PLANE SHORTING RESISTORS



1.5V / 1.05V SUPPLIES
SYNC_MASTER=MARK SYNC_DATE=N/A
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APPLE COMPUTER INC.	SIZE D	DRAWING NUMBER 051-7228	REV. 27
	SCALE NONE	SHT 73 OF 118	

1.25V S0 & MCH CORE RAILS



PART NUMBER	QTY	DESCRIPTION	REFERENCE DES	CRITICAL	BOM OPTION
114S0342	1	RES,MTL FILM,1/16W,19.6K,1,0402,SMD,LF	R7491		CR_STD
114S0309	1	RES,MTL FILM,1/16W,8.66K,1,0402,SMD,LF	R7491		CR_E

1.25V / MCH CORE SUPPLIES

SYNC_MASTER=MARK SYNC_DATE=N/A

NOTICE OF PROPRIETARY PROPERTY

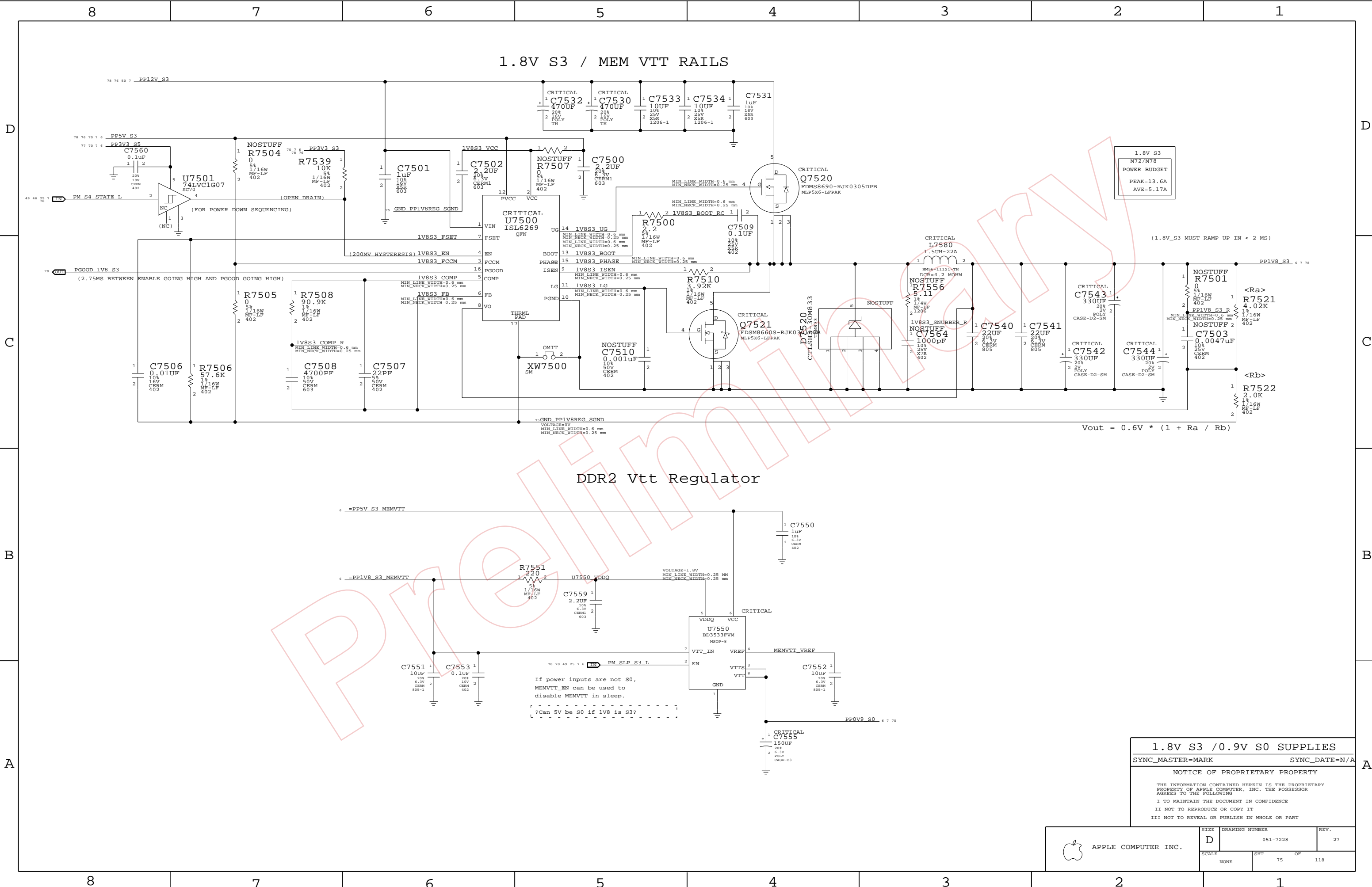
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	D	051-7228	27
SCALE	NONE	SHT	74 OF 118



1.8V S3
M72/M78
POWER BUDGET
PEAK=13.6A
AVE=5.17A

(1.8V_S3 MUST RAMP UP IN < 2 MS)

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

DDR2 Vtt Regulator

If power inputs are not S0,
MEMVTT_EN can be used to
disable MEMVTT in sleep.
?Can 5V be S0 if 1V8 is S3?

1.8V S3 / 0.9V S0 SUPPLIES

SYNC_MASTER=MARK

SYNC_DATE=N/A

NOTICE OF PROPRIETARY PROPERTY

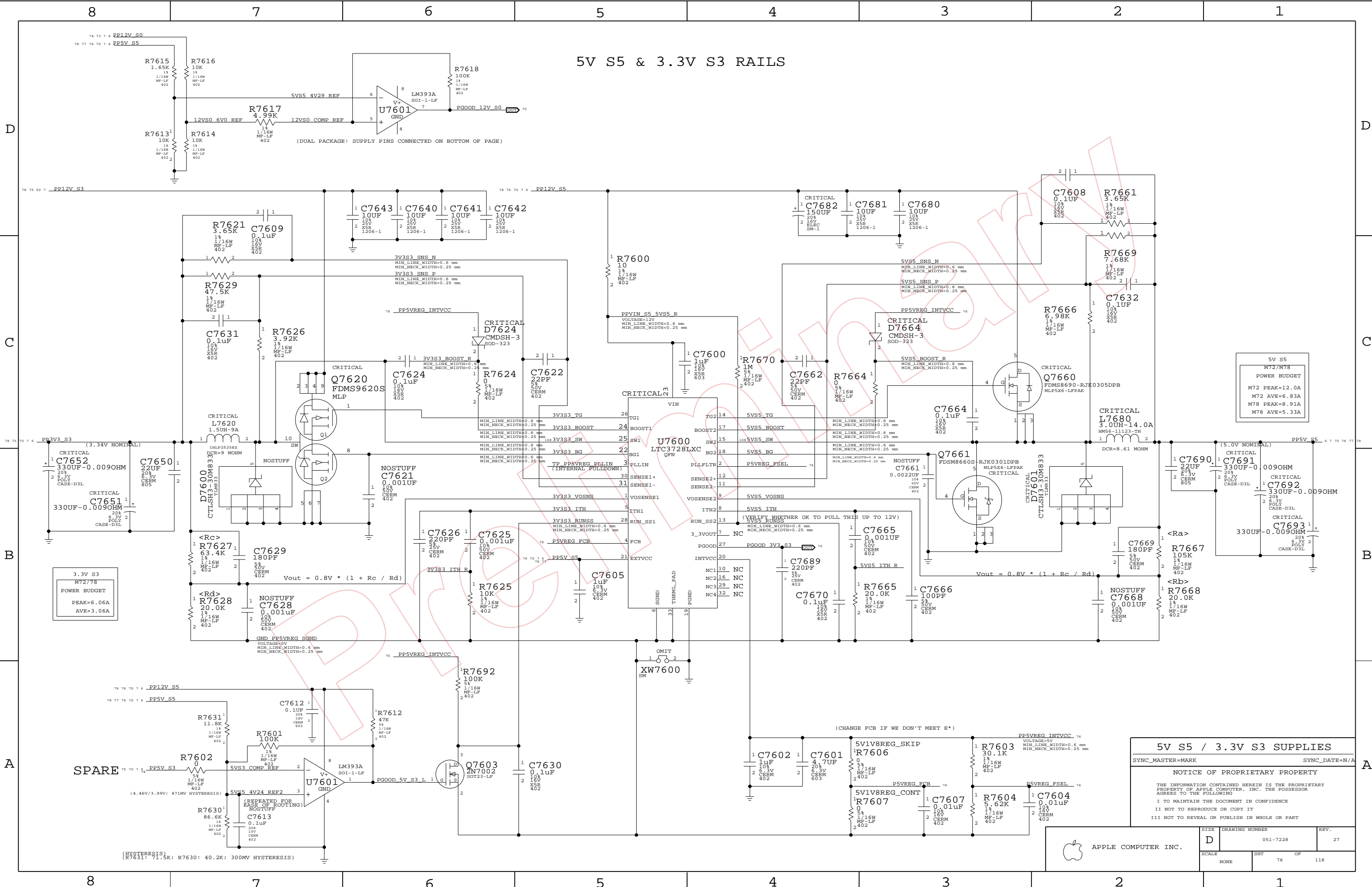
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	D	051-7228	27
SCALE		SHT	OF
NONE		75	118



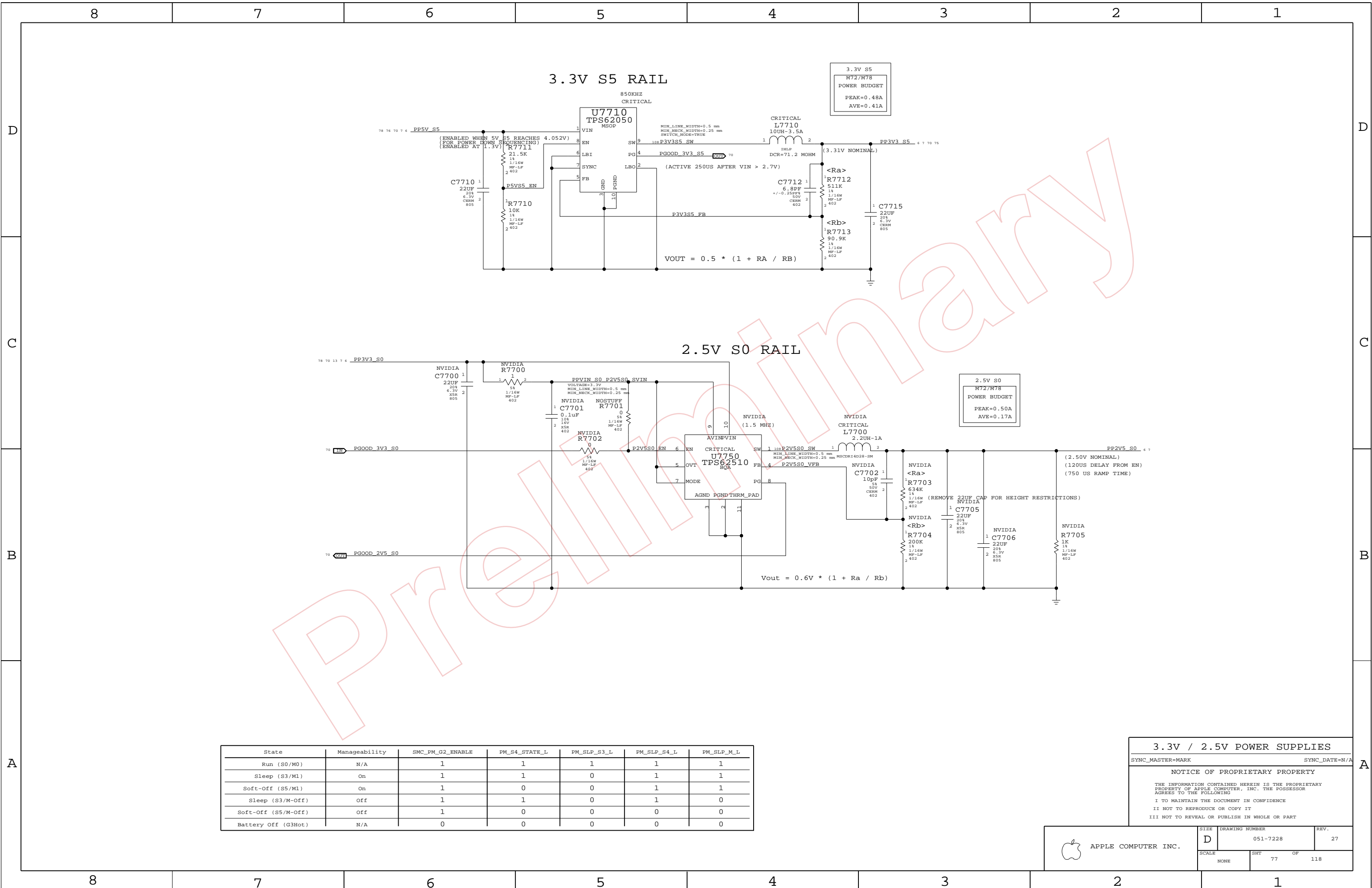
5V S5 & 3.3V S3 RAILS

5V S5
M72/M78
POWER BUDGET
M72 PEAK=12.0A
M72 AVE=6.83A
M78 PEAK=8.91A
M78 AVE=5.33A

3.3V S3
M72/M78
POWER BUDGET
PEAK=6.06A
AVE=3.06A

5V S5 / 3.3V S3 SUPPLIES	
SYNC_MASTER=MARK	SYNC_DATE=N/A
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APPLE COMPUTER INC.	SIZE	DRAWING NUMBER	REV.
	D	051-7228	27
SCALE	NONE	SHT	76 OF 118



State	Manageability	SMC_PM_G2_ENABLE	PM_S4_STATE_L	PM_SLP_S3_L	PM_SLP_S4_L	PM_SLP_M_L
Run (S0/M0)	N/A	1	1	1	1	1
Sleep (S3/M1)	On	1	1	0	1	1
Soft-Off (S5/M1)	On	1	0	0	1	1
Sleep (S3/M-Off)	Off	1	1	0	1	0
Soft-Off (S5/M-Off)	Off	1	0	0	0	0
Battery Off (G3Hot)	N/A	0	0	0	0	0

3.3V / 2.5V POWER SUPPLIES

SYNC_MASTER=MARK

SYNC_DATE=N/A

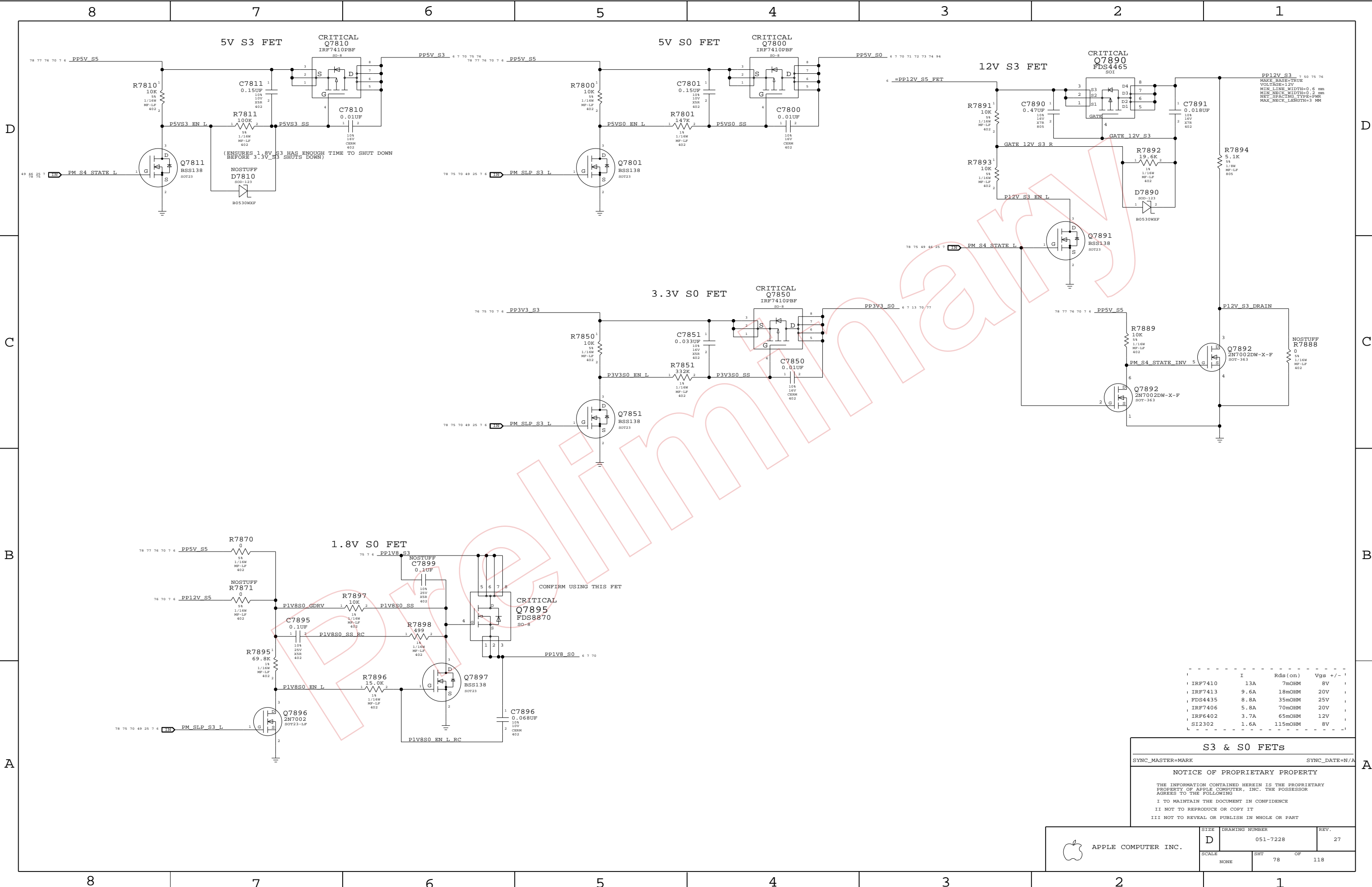
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	I	Rds (on)	Vgs +/-
IRF7410	13A	7mOHM	8V
IRF7413	9.6A	18mOHM	20V
FDS4435	8.8A	35mOHM	25V
IRF7406	5.8A	70mOHM	20V
IRF6402	3.7A	65mOHM	12V
SI2302	1.6A	115mOHM	8V

S3 & S0 FETs

SYNC_MASTER=MARK SYNC_DATE=N/A

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	D	051-7228	27
SCALE		SHT	OF
NONE		78	118

Page Notes

Power aliases required by this page:
- =PP12V_S0_MXM
- =PP5V_S0_MXM
- =PP1V8_S0_MXM

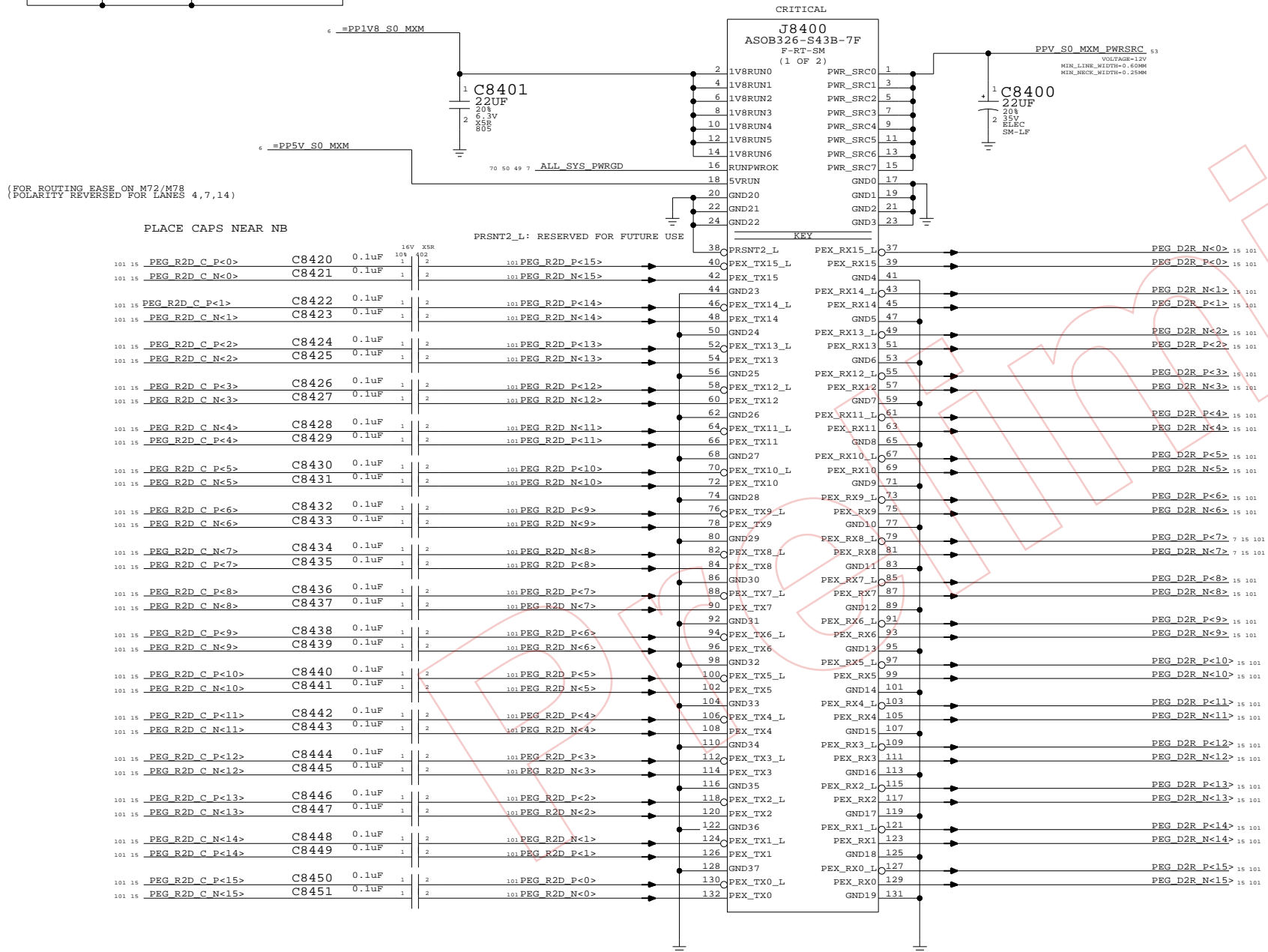
Signal aliases required by this page:
(NONE)

BOM options provided by this page:
(NONE)

Note: PCI-E Lanes are reversed to untangle routes
Need to stuff config strap using BOM option NBCFG_PEG_REVERSE
Polarity is also inverted (Tx+ goes to Rx-) to untangle routes

MXM SPEC POWER REQUIREMENTS
(NOT NECESSARILY THE SAME FOR EVERY MODULE)

VOLTAGE	CURRENT	POWER
3V3	1.5 A	4.95 W
5V	0.5 A	2.5 W
2V5	0.5 A	1.25 W
1V8	3.5 A	6.3 W
PWR (12V)	UP TO 4 A	PLATFORM DEPENDENT



MXM PCI-E & PWR

SYNC_MASTER=M78_MLB SYNC_DATE=11/01/2006

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APPLE COMPUTER INC.

SIZE D DRAWING NUMBER 051-7228 REV. 27

SCALE NONE SHT 84 OF 118

Power aliases required by this page:

- PP3V3_S0_MXM
- PP2V5_S0_MXM

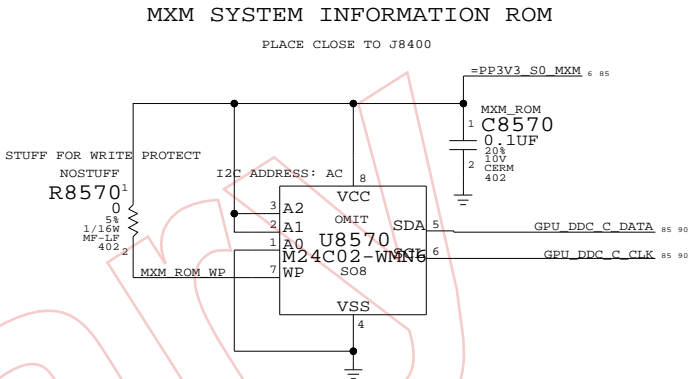
Signal aliases required by this page:

- SMB_GPU_THRM_DATA
- SMB_GPU_THRM_CLK

BOM options provided by this page:

24_INCH_LCD

MMX SPEC POWER REQUIREMENTS		
(NOT NECESSARILY THE SAME FOR EVERY MODULE)		
VOLTAGE	CURRENT	POWER
3V3	1.5 A	4.95 W
5V	0.5 A	2.5 W
2V5	0.5 A	1.25 W
1V8	3.5 A	6.3 W
PWR (12V)	UP TO 4 A	PLATFORM DEPENDENT



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MXM I/O
SYNC_MASTER=M78_MLB
SYNC_DATE=11/01/2006

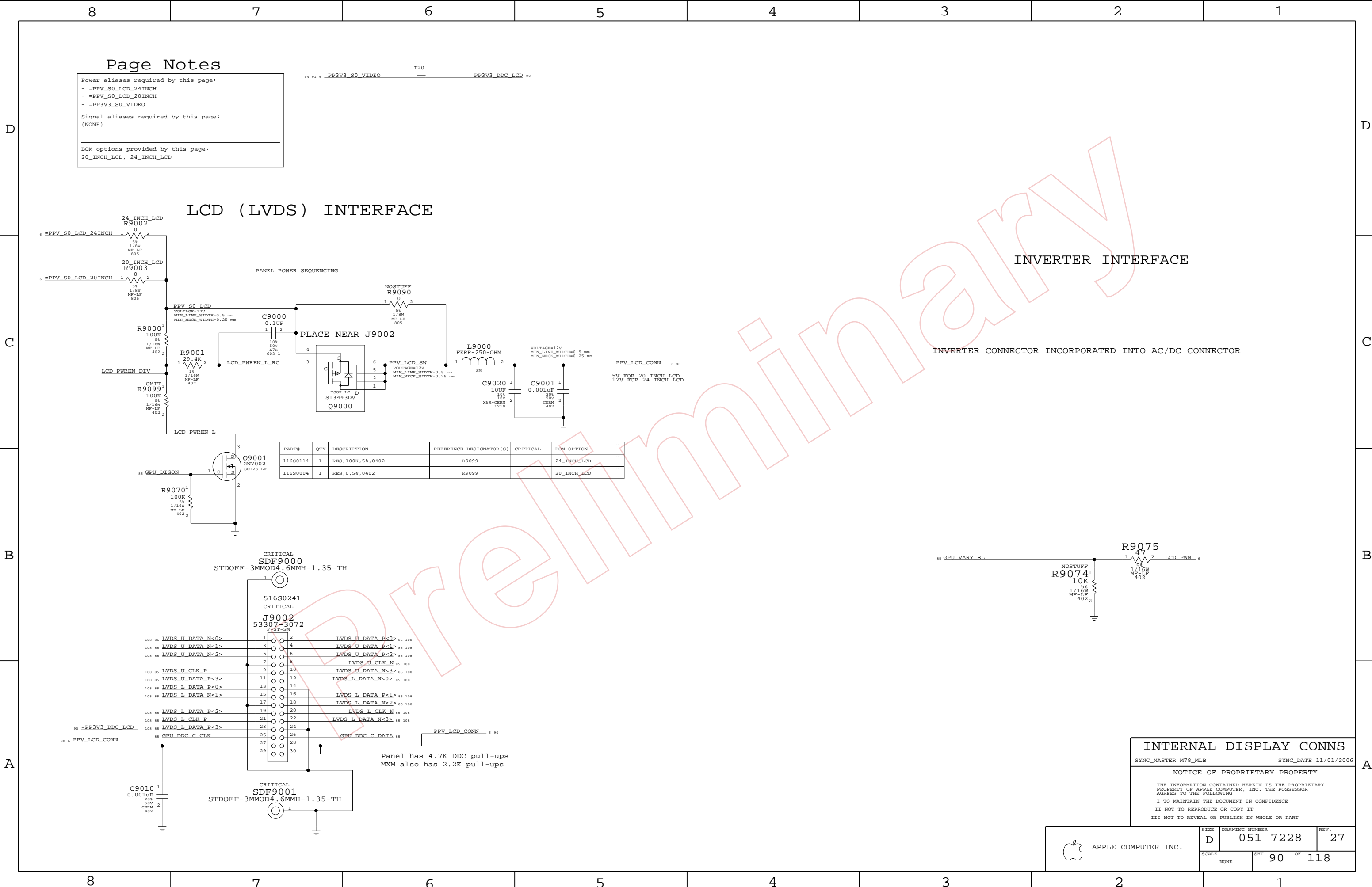
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 APPLE COMPUTER INC.	SIZE	DRAWING NUMBER	REV.
	D	051-7228	27
	SCALE	SHT	OF
	NONE	85	118



Page Notes

Power aliases required by this page:
- =PPV_S0_LCD_24INCH
- =PPV_S0_LCD_20INCH
- =PP3V3_S0_VIDEO

Signal aliases required by this page:
(NONE)

BOM options provided by this page:
20_INCH_LCD, 24_INCH_LCD

LCD (LVDS) INTERFACE

INVERTER INTERFACE

INVERTER CONNECTOR INCORPORATED INTO AC/DC CONNECTOR

PART#	QTY	DESCRIPTION	REFERENCE DESIGNATOR(S)	CRITICAL	BOM OPTION
116S0114	1	RES,100K,5%,0402	R9099		24_INCH_LCD
116S0004	1	RES,0,5%,0402	R9099		20_INCH_LCD

INTERNAL DISPLAY CONNS

SYNC_MASTER=M78_MLB SYNC_DATE=11/01/2006

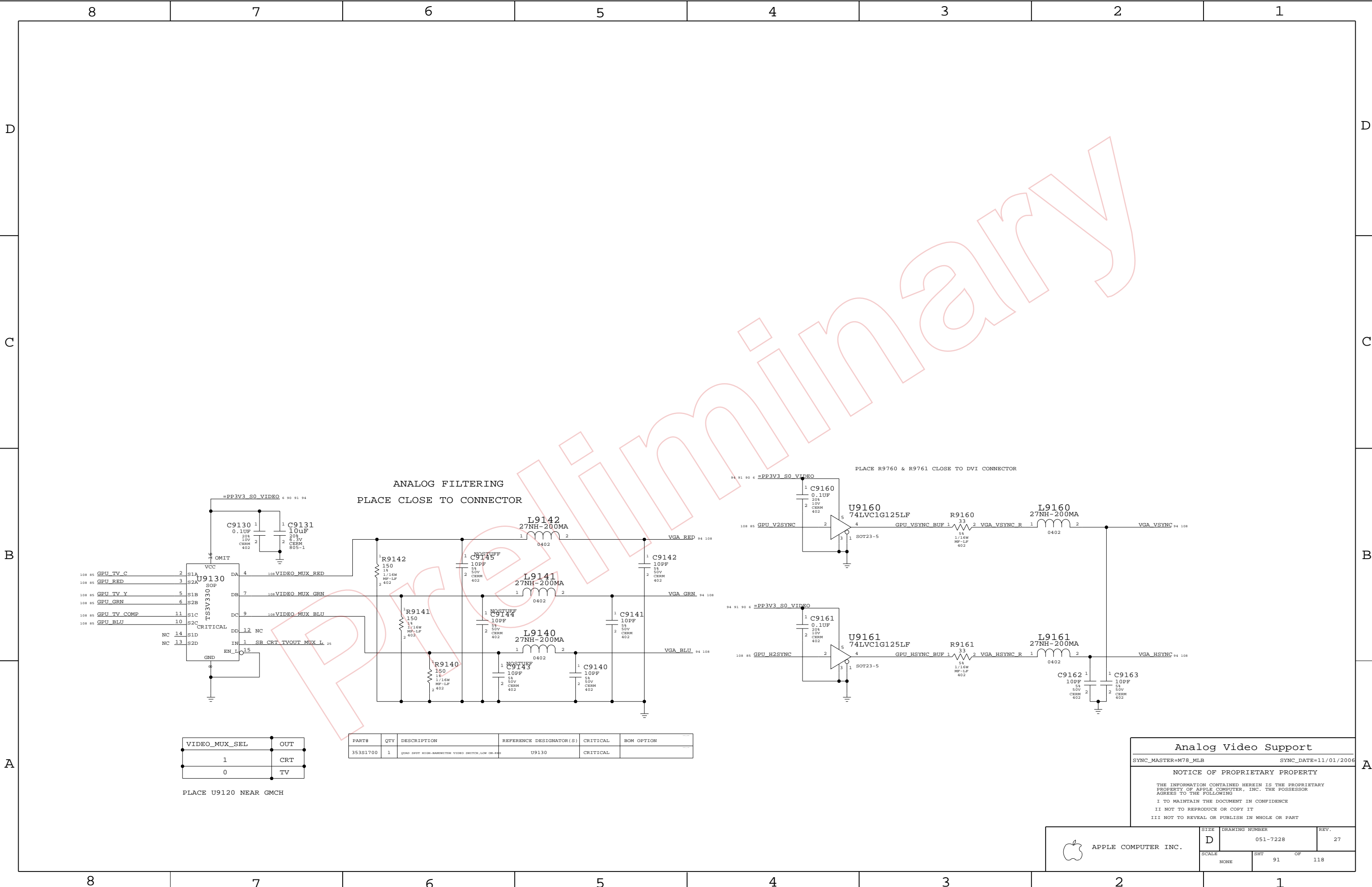
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APPLE COMPUTER INC.

SIZE	DRAWING NUMBER	REV.
D	051-7228	27
SCALE	SHT	OF
NONE	90	118



VIDEO_MUX_SEL	OUT
1	CRT
0	TV

PLACE U9120 NEAR GMCH

PART#	QTY	DESCRIPTION	REFERENCE DESIGNATOR(S)	CRITICAL	BOM OPTION
353S1700	1	QUAD SPOT HIGH-BANDWIDTH VIDEO SWITCH, LOW ON-RES	U9130	CRITICAL	

Analog Video Support

SYNC_MASTER=M78_MLB

SYNC_DATE=11/01/2006

NOTICE OF PROPRIETARY PROPERTY

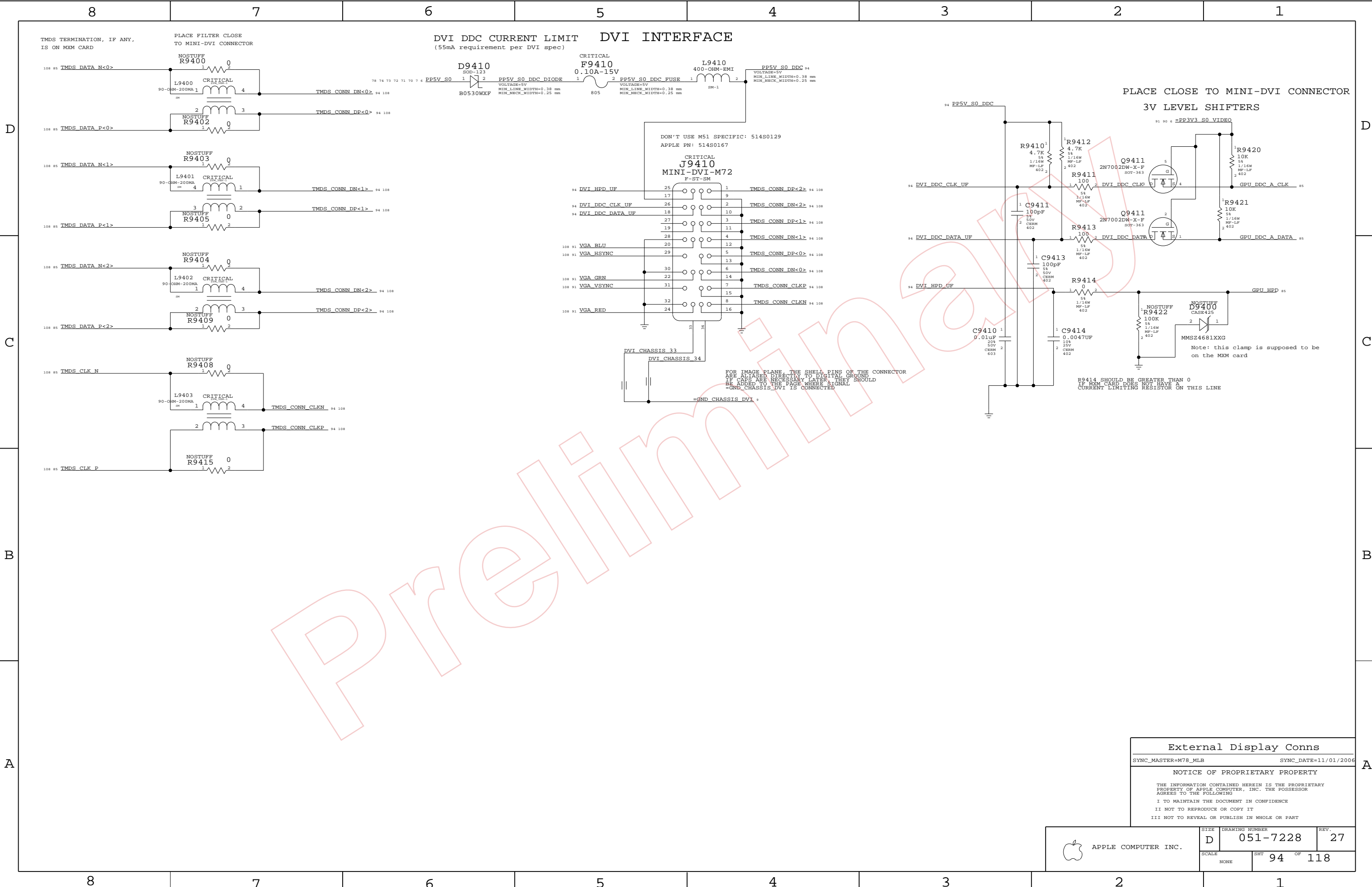
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	D	051-7228	27
SCALE		SHT	OF
NONE		91	118



External Display Conns

SYNC_MASTER=M78_MLB SYNC_DATE=11/01/2006

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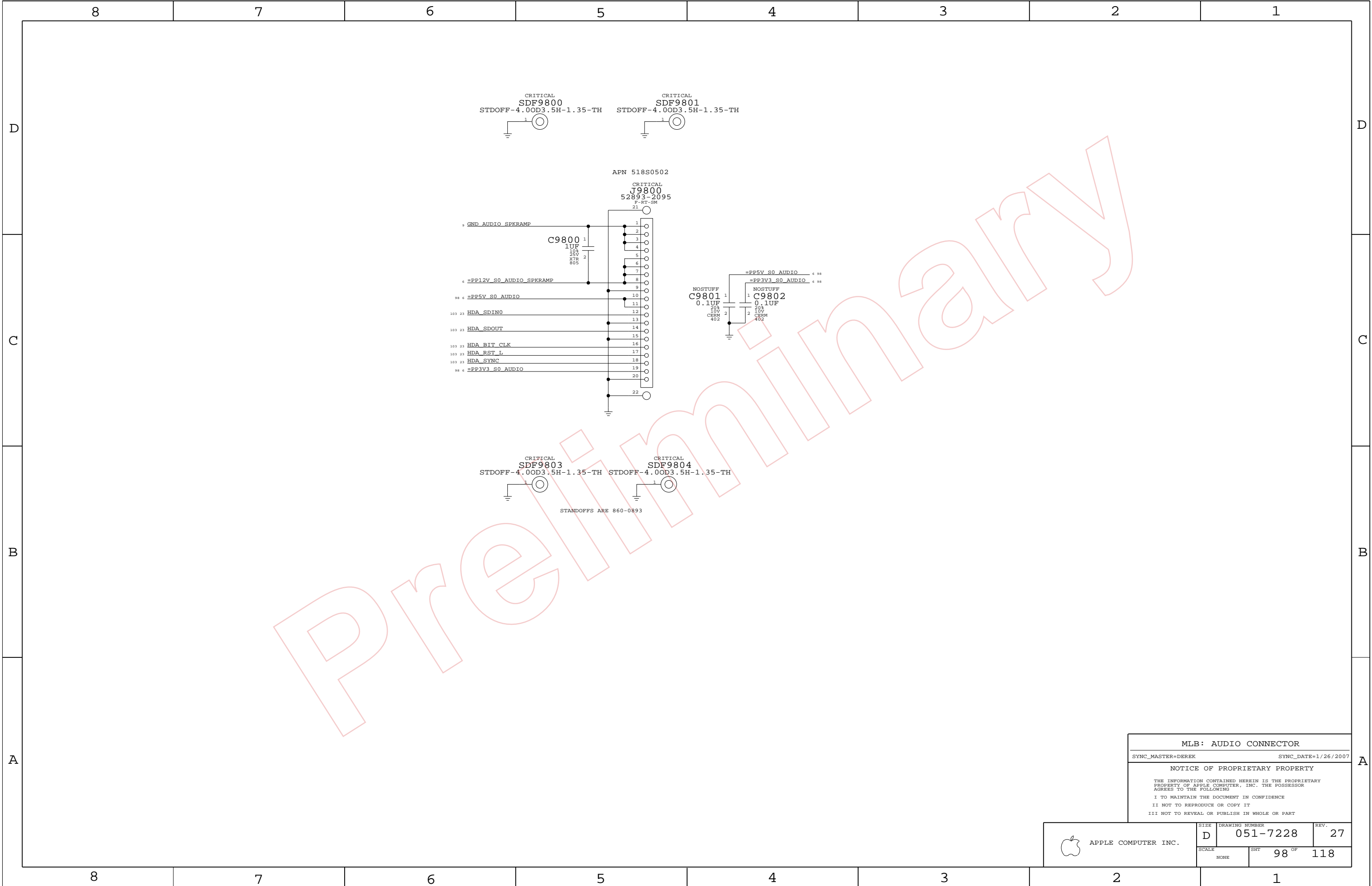
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	D	051-7228	27
SCALE		SHT	OF
NONE		94	118



D

C

B

A

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4D

C

B

A



SIZE	DRAWING NUMBER	REV.
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D	051-7228
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D		
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SCALE	SHT	OF
	102	118

NONE	102	118
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PCI Bus Constraints

NET_PHYSICAL_TYPE	AREA_TYPE	PHYSICAL_RULE_SET
PCI_55S	*	55_OHM_SE

NET_SPACING_TYPE1	NET_SPACING_TYPE2	AREA_TYPE	SPACING_RULE_SET
PCI	*	*	STANDARD

CHANGED TO 0.1MM SPACING AS THERE ARE NO PCI DEVICES

SOURCE: Santa Rosa Platform DG, Rev 1.0 (#21112), Sections 10.18.1 & 10.19

Controller Link (AMT) Constraints

NET_PHYSICAL_TYPE	AREA_TYPE	PHYSICAL_RULE_SET
CLINK_55S	*	55_OHM_SE

NET_SPACING_TYPE1	NET_SPACING_TYPE2	AREA_TYPE	SPACING_RULE_SET
CLINK	*	*	SPACING_0.18MM
CLINK_VREF	*	*	SPACING_0.3MM

PHYSICAL_RULE_SET	LAYER	ALLOW ROUTE ON LAYER?	MINIMUM LINE WIDTH	MINIMUM NECK WIDTH	MAXIMUM NECK LENGTH	DIFFPAIR PRIMARY GAP	DIFFPAIR NECK GAP
CLINK_12MIL	*	=STANDARD	0.3 MM	0.125 MM	7.5 MM	=STANDARD	=STANDARD

SOURCE: Santa Rosa Platform DG, Rev 1.0 (#21112), Sections 10.27.1.5-7, 10.29 & 10.30

Ethernet (Yukon) Constraints

NET_PHYSICAL_TYPE	AREA_TYPE	PHYSICAL_RULE_SET
ENET_100D	*	100_OHM_DIFF

NET_SPACING_TYPE1	NET_SPACING_TYPE2	AREA_TYPE	SPACING_RULE_SET
ENET_MDI	*	*	SPACING_0.5MM
ENET_MDI	ENET_MDI_TERM	*	SPACING_0.2MM

SOURCE: Based on Santa Rosa Platform DG, Rev 1.0 (#21112), Sections 10.27.1.5-7, 10.29 & 10.30

ELECTRICAL_CONSTRAINT_SET	PHYSICAL	SPACING	NET_TYPE
[]	PCT_56R	PCT	PCI AD<18..0>
[]	PCT_56R	PCT	PCI AD<19>
[]	PCT_56R	PCT	PCI AD<20>
[]	PCT_56R	PCT	PCI AD<31..21>
[]	PCT_56R	PCT	PCI PAR
[]	PCT_56R	PCT	PCI C BE L<3..0>
[]	PCT_56R	PCT	PCI IRDY L
[]	PCT_56R	PCT	PCI DEVSEL L
[]	PCT_56R	PCT	PCI PERR L
[]	PCT_56R	PCT	PCI LOCK L
[]	PCT_56R	PCT	PCI SERR L
[]	PCT_56R	PCT	PCI STOP L
[]	PCT_56R	PCT	PCI TRDY L
[]	PCT_56R	PCT	PCI FRAME L
[]	PCT_56R	PCT	PCI FW REQ L
[]	PCT_56R	PCT	PCI FW GNT L
[]	PCT_56R	PCT	PCI REQ1 L
[]	PCT_56R	PCT	PCI GNT1 L
[]	PCT_56R	PCT	PCI REQ2 L
[]	PCT_56R	PCT	PCI GNT2 L
[]	PCT_56R	PCT	INT PIROA_L
[]	PCT_56R	PCT	INT PIROB_L
[]	PCT_56R	PCT	INT PIROC_L
[]	PCT_56R	PCT	INT PIROD_L
[]	PCT_56R	PCT	INT PIROE_L
[]	PCT_56R	PCT	INT PIROF_L
[]	PCIE_A_R2D	PCIE_100D	PCIE MINI R2D_C_P
[]	PCIE_A_D2R	PCIE_100D	PCIE MINI R2D_C_N
[]	PCIE_B_R2D	PCIE_100D	PCIE MINI D2R_P
[]	PCIE_B_D2R	PCIE_100D	PCIE ENET R2D_C_P
[]	PCIE_B_R2D	PCIE_100D	PCIE ENET R2D_C_N
[]	PCIE_B_D2R	PCIE_100D	PCIE ENET D2R_P
[]	PCIE_B_R2D	PCIE_100D	PCIE ENET D2R_N
[]	PCIE_B_D2R	PCIE_100D	PCIE FW R2D_C_P
[]	PCIE_B_D2R	PCIE_100D	PCIE FW R2D_C_N
[]	PCIE_B_D2R	PCIE_100D	PCIE FW D2R_P
[]	PCIE_B_D2R	PCIE_100D	PCIE FW D2R_N
[]	GLAN_COMP		GLAN COMP
[]	CLINK_NB	CLINK_56R	CLINK_NB_CLK
[]	CLINK_NB	CLINK_56R	CLINK_NB_DATA
[]	CLINK_NB_RESET_L	CLINK_56R	CLINK_NB_RESET_L
[]	NB_CLINK_VREF	CLINK_12MIL	NB CLINK VREF
[]	SB_CLINK_VREF0	CLINK_12MIL	SB CLINK VREF0
[]	SB_CLINK_VREF1	CLINK_12MIL	SB CLINK VREF1
[]	DWR		PPIV9R2V5_S3 ENET PHY AVDD
[]	PWR		PPIV9R2V5_S3 ENET R
[]	ENET_MDI_TERM		ENET MDI0
[]	ENET_MDI_TERM		ENET MDI1
[]	ENET_MDI_TERM		ENET MDI2
[]	ENET_MDI_TERM		ENET MDI3
[]	ENET_MDI0	ENET_100D	ENET MDI_P<0>
[]	ENET_MDI1	ENET_100D	ENET MDI_N<0>
[]	ENET_MDI1	ENET_100D	ENET MDI_P<1>
[]	ENET_MDI1	ENET_100D	ENET MDI_N<1>
[]	ENET_MDI2	ENET_100D	ENET MDI_P<2>
[]	ENET_MDI2	ENET_100D	ENET MDI_N<2>
[]	ENET_MDI3	ENET_100D	ENET MDI_P<3>
[]	ENET_MDI3	ENET_100D	ENET MDI_N<3>

SB Constraints (2 of 2)

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SYNC_MASTER=(MASTER)
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SYNC_DATE=(10/02/2006)	7
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APPLE COMPUTER INC.

SIZE
D

051-7228

EV.

27

SCALE	
	NONE

SHT

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NONE

104

118

8		7		6		5		4		3		2		1						
Clock Signal Constraints																				
NET_PHYSICAL_TYPE			AREA_TYPE			PHYSICAL_RULE_SET			NET_SPACING_TYPE1			NET_SPACING_TYPE2			AREA_TYPE			SPACING_RULE_SET		
CLK_FSB_100D			*			100_OHM_DIFF			CLK_FSB			*			*			CLK_SPACING_0.6MM		
CLK_PCIE_100D			*			100_OHM_DIFF			CLK_PCIE			*			*			CLK_SPACING_0.5MM		
CLK_MED_55S			*			55_OHM_SE			CLK_MED			*			*			CLK_SPACING_0.5MM		
SOURCE: Santa Rosa Platform DG, Rev 1.0 (#21112), Sections 14.1 - 14.6																				
Clock Net Properties																				
ELECTRICAL_CONSTRAINT_SET																				
NET_TYPE																				
PHYSICAL																				
SPACING																				
CK505_CPU																				
CK505_CPU																				
CK505_NB																				
CK505_NB																				
CK505_ITP																				
CK505_ITP																				
CK505_PCIF0																				
CK505_PCIF1																				
CK505_PCIF1																				
CK505_PCT3																				
CK505_PCT3																				
CK505_PCT5																				
CK505_PCT5																				
(CPU_BSEL0)																				
(CPU_BSEL2)																				
CK505_SRC1																				
CK505_SRC1																				
CK505_SRC2																				
CK505_SRC2																				
CK505_SRC3																				
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(CK505_NB)																				
(CK505_ITP)																				
(CK505_ITP)																				
(CK505_PCIF0)																				
(CK505_PCIF1)																				
(CK505_PCT2)																				
(CK505_PCT3)																				
(CPU_BSEL0)																				
(CPU_BSEL2)																				
(CPU_BSEL0)																				
(CPU_BSEL2)																				
(CK505_SRC1)																				
(CK505_SRC1)																				
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(CK505_SRC5)																				
(CK505_SRC6)																				
(CK505_SRC6)																				
(CK505_SRC8)																				
(CK505_SRC8)																				
FSB_CLK_CPU_P																				
FSB_CLK_CPU_N																				
FSB_CLK_NB_P																				
FSB_CLK_NB_N																				
XDP_CLK_P																				
XDP_CLK_N																				
PCI_CLK33M_LPCPLUS																				
PCI_CLK33M_SB																				
PCI_CLK33M_TPM																				
PCI_CLK33M_SMC																				
CK505_PCI4 is project-specific																				
CK505_PCI5 is project-specific																				
SB_CLK48M_USBCCLR																				
SB_CLK14P3M_TIMER																				
CK505_FSA																				
CK505_FSC																				
GPU_CLK100M_PCIE_P																				
GPU_CLK100M_PCIE_N																				
SB_CLK100M_DMI_P																				
SB_CLK100M_DMI_N																				
PCIE_CLK100M_FW_P																				
PCIE_CLK100M_FW_N																				
SB_CLK100M_SATA_P																				
SB_CLK100M_SATA_N																				
NB_CLK100M_PCIE_P																				
NB_CLK100M_PCIE_N																				
PCIE_CLK100M_MINI_P																				
PCIE_CLK100M_MINI_N																				
PCIE_CLK100M_ENET_P																				
PCIE_CLK100M_ENET_N																				

APPLE COMPUTER INC.

SIZE

D

SCALE

NONE

DRAWING NUMBER

051-7228

SHT

105

OF

118

REV.

27

Clock Constraints

SYNC_MASTER=T9_MLB

SYNC_DATE=09/27/2006

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6

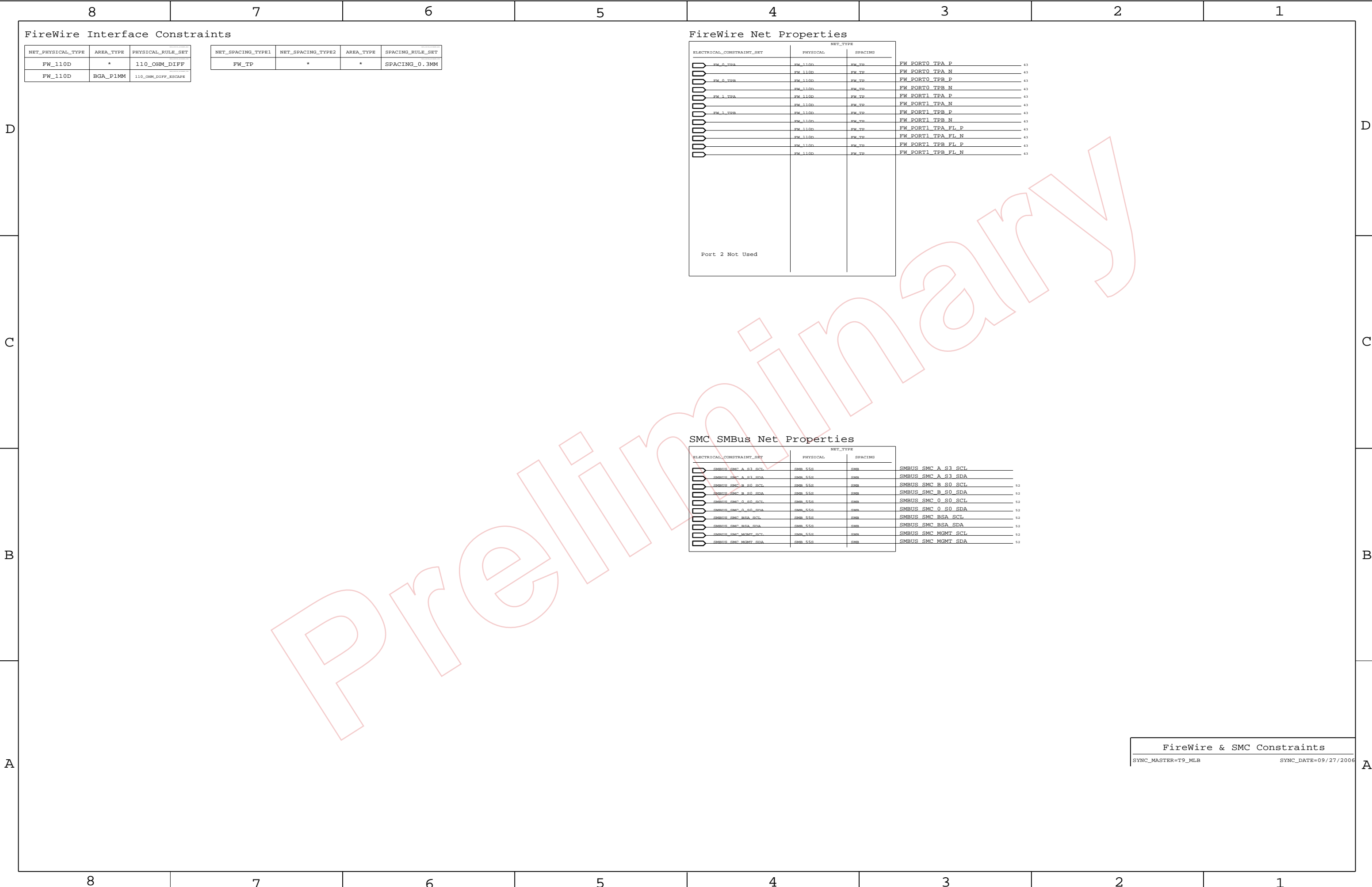
5

4

3

2

1



[illegible]

	8	7	6	5	4	3	2	1
D	M72/M78 BOARD-SPECIFIC SPACING & PHYSICAL CONSTRAINTS							
	BOARD LAYERS				BOARD AREAS		BOARD UNITS (MIL OR MM)	ALLEGRO VERSION
	TOP, ISL2, ISL3, ISL4, ISL5, ISL6, ISL7, BOTTOM				NO_TYPE, BGA_P1MM		MM	15.5.1
	PHYSICAL_RULE_SET	LAYER	ALLOW ROUTE ON LAYER?	MINIMUM LINE WIDTH	MINIMUM NECK WIDTH	MAXIMUM NECK LENGTH	DIFFPAIR PRIMARY GAP	DIFFPAIR NECK GAP
	DEFAULT	*	Y	=55_OHM_SE	=55_OHM_SE	4 MM	0 MM	0 MM
	STANDARD	*	Y	=DEFAULT	=DEFAULT	12.7 MM	=DEFAULT	=DEFAULT
	DEFAULT	TOP, BOTTOM	Y	=55_OHM_SE	0.100 MM	3 MM	0 MM	0 MM
	PHYSICAL_RULE_SET	LAYER	ALLOW ROUTE ON LAYER?	MINIMUM LINE WIDTH	MINIMUM NECK WIDTH	MAXIMUM NECK LENGTH	DIFFPAIR PRIMARY GAP	DIFFPAIR NECK GAP
	55_OHM_SE	TOP, BOTTOM	Y	0.125 MM	0.125 MM			
	55_OHM_SE	*	Y	0.100 MM	0.100 MM	=STANDARD	=STANDARD	=STANDARD
C	PHYSICAL_RULE_SET	LAYER	ALLOW ROUTE ON LAYER?	MINIMUM LINE WIDTH	MINIMUM NECK WIDTH	MAXIMUM NECK LENGTH	DIFFPAIR PRIMARY GAP	DIFFPAIR NECK GAP
	40_OHM_SE	TOP, BOTTOM	Y	0.225 MM	0.225 MM			
	40_OHM_SE	*	Y	0.185 MM	0.185 MM	=STANDARD	=STANDARD	=STANDARD
	PHYSICAL_RULE_SET	LAYER	ALLOW ROUTE ON LAYER?	MINIMUM LINE WIDTH	MINIMUM NECK WIDTH	MAXIMUM NECK LENGTH	DIFFPAIR PRIMARY GAP	DIFFPAIR NECK GAP
	45_OHM_SE	TOP, BOTTOM	Y	0.185 MM	0.185 MM			
	45_OHM_SE	*	Y	0.150 MM	0.150 MM	=STANDARD	=STANDARD	=STANDARD
	PHYSICAL_RULE_SET	LAYER	ALLOW ROUTE ON LAYER?	MINIMUM LINE WIDTH	MINIMUM NECK WIDTH	MAXIMUM NECK LENGTH	DIFFPAIR PRIMARY GAP	DIFFPAIR NECK GAP
	27P4_OHM_SE	TOP, BOTTOM	Y	0.340 MM	0.340 MM			
	27P4_OHM_SE	*	Y	0.265 MM	0.265 MM	=STANDARD	=STANDARD	=STANDARD
	PHYSICAL_RULE_SET	LAYER	ALLOW ROUTE ON LAYER?	MINIMUM LINE WIDTH	MINIMUM NECK WIDTH	MAXIMUM NECK LENGTH	DIFFPAIR PRIMARY GAP	DIFFPAIR NECK GAP
B	70_OHM_DIFF	*	N	=STANDARD	=STANDARD	=STANDARD	=STANDARD	=STANDARD
	70_OHM_DIFF	ISL3, ISL6	Y	0.180 MM	0.180 MM		0.120 MM	0.120 MM
	70_OHM_DIFF	TOP, BOTTOM	Y	0.215 MM	0.215 MM		0.125 MM	0.125 MM
	PHYSICAL_RULE_SET	LAYER	ALLOW ROUTE ON LAYER?	MINIMUM LINE WIDTH	MINIMUM NECK WIDTH	MAXIMUM NECK LENGTH	DIFFPAIR PRIMARY GAP	DIFFPAIR NECK GAP
	85_OHM_DIFF	*	N	=STANDARD	=STANDARD	=STANDARD	=STANDARD	=STANDARD
	85_OHM_DIFF	ISL3, ISL6	Y	0.120 MM	0.120 MM		0.130 MM	0.130 MM
	85_OHM_DIFF	TOP, BOTTOM	Y	0.145 MM	0.145 MM		0.125 MM	0.125 MM
	PHYSICAL_RULE_SET	LAYER	ALLOW ROUTE ON LAYER?	MINIMUM LINE WIDTH	MINIMUM NECK WIDTH	MAXIMUM NECK LENGTH	DIFFPAIR PRIMARY GAP	DIFFPAIR NECK GAP
	90_OHM_DIFF	*	N	=STANDARD	=STANDARD	=STANDARD	=STANDARD	=STANDARD
	90_OHM_DIFF	ISL3, ISL6	Y	0.125 MM	0.125 MM		0.200 MM	0.200 MM
A	90_OHM_DIFF	TOP, BOTTOM	Y	0.145 MM	0.145 MM		0.175 MM	0.175 MM
	PHYSICAL_RULE_SET	LAYER	ALLOW ROUTE ON LAYER?	MINIMUM LINE WIDTH	MINIMUM NECK WIDTH	MAXIMUM NECK LENGTH	DIFFPAIR PRIMARY GAP	DIFFPAIR NECK GAP
	100_OHM_DIFF	*	N	=STANDARD	=STANDARD	=STANDARD	=STANDARD	=STANDARD
	100_OHM_DIFF	ISL3, ISL6	Y	0.095 MM	0.095 MM		0.205 MM	0.205 MM
	100_OHM_DIFF	TOP, BOTTOM	Y	0.115 MM	0.115 MM		0.180 MM	0.180 MM
	PHYSICAL_RULE_SET	LAYER	ALLOW ROUTE ON LAYER?	MINIMUM LINE WIDTH	MINIMUM NECK WIDTH	MAXIMUM NECK LENGTH	DIFFPAIR PRIMARY GAP	DIFFPAIR NECK GAP
	110_OHM_DIFF	*	N	=STANDARD	=STANDARD	=STANDARD	=STANDARD	=STANDARD
	110_OHM_DIFF	ISL3, ISL6	Y	0.085 MM	0.085 MM		0.330 MM	0.330 MM
	110_OHM_DIFF	TOP, BOTTOM	Y	0.105 MM	0.100 MM		0.280 MM	0.280 MM
	PHYSICAL_RULE_SET	LAYER	ALLOW ROUTE ON LAYER?	MINIMUM LINE WIDTH	MINIMUM NECK WIDTH	MAXIMUM NECK LENGTH	DIFFPAIR PRIMARY GAP	DIFFPAIR NECK GAP
	1:1_DIFFPAIR	*	Y	=STANDARD	=STANDARD	=STANDARD	0.1 MM	0.1 MM
	SPACING_RULE_SET	LAYER	LINE-TO-LINE SPACING	WEIGHT	NET_SPACING_TYPE1	NET_SPACING_TYPE2	AREA_TYPE	SPACING_RULE_SET
	DEFAULT	*	0.1 MM	?	*	*	BGA_P1MM	BGA_P1MM
	STANDARD	*	=DEFAULT	?	MEM_CLK	*	BGA_P1MM	BGA_P2MM
	BGA_P1MM	*	=DEFAULT	?	CLK_PSB	*	BGA_P1MM	BGA_P2MM
	BGA_P2MM	*	=DEFAULT	?	CLK_PCIE	*	BGA_P1MM	BGA_P2MM
	BGA_P3MM	*	=DEFAULT	?	CLK_MED	*	BGA_P1MM	BGA_P2MM
	SPACING_RULE_SET	LAYER	LINE-TO-LINE SPACING	WEIGHT	FSB_DSTB	FSB_DSTB	BGA_P1MM	BGA_P3MM
	SPACING_0.15MM	*	0.15 MM	?	SPACING_RULE_SET	LAYER	LINE-TO-LINE SPACING	WEIGHT
	SPACING_0.18MM	*	0.18 MM	?	CLK_SPACING_0.5MM	*	0.5 MM	?
	SPACING_0.2MM	*	0.2 MM	?	CLK_SPACING_0.6MM	*	0.6 MM	?
	SPACING_0.25MM	*	0.25 MM	?	CLK_SPACING_0.5MM	TOP, BOTTOM	0.2 MM	?
	SPACING_0.3MM	*	0.3 MM	?	CLK_SPACING_0.6MM	TOP, BOTTOM	0.2 MM	?
	SPACING_0.4MM	*	0.4 MM	?				
	SPACING_0.5MM	*	0.5 MM	?				
	SPACING_0.6MM	*	0.6 MM	?				
	SWITCHNODE	*	0.6 MM	1000				
	SWITCHNODE	TOP, BOTTOM	0.2 MM	1000				
	8	7	6	5	4	3	2	1


PHYSICAL_RULE_SET	LAYER	ALLOW ROUTE ON LAYER?	MINIMUM LINE WIDTH	MINIMUM NECK WIDTH	MAXIMUM NECK LENGTH	DIFFPAIR PRIMARY GAP	DIFFPAIR NECK GAP
110_OHM_DIFF_ESCAPE	*	N	=STANDARD	=STANDARD	=STANDARD	=STANDARD	=STANDARD
110_OHM_DIFF_ESCAPE	TOP, BOTTOM	Y	0.105 MM	0.100 MM		0.250 MM	0.250 MM
110_OHM_DIFF_ESCAPE	ISL3, ISL6	Y	0.085 MM	0.085 MM		0.330 MM	0.330 MM

PHYSICAL_RULE_SET	LAYER	ALLOW ROUTE ON LAYER?	MINIMUM LINE WIDTH	MINIMUM NECK WIDTH	MAXIMUM NECK LENGTH	DIFFPAIR PRIMARY GAP	DIFFPAIR NECK GAP
50_OHM_SE	TOP, BOTTOM	Y	0.15 MM	0.15 MM			
50_OHM_SE	*	Y	0.120 MM	0.120 MM	=STANDARD	=STANDARD	=STANDARD

PHYSICAL_RULE_SET	LAYER	LINE-TO-LINE SPACING	WEIGHT
SPACING_0.5MM	*	0.5 MM	?
CLK_SPACING_0.5MM	TOP, BOTTOM	0.2 MM	?

PHYSICAL_RULE_SET	LAYER	LINE-TO-LINE SPACING	WEIGHT
CLK_SPACING_0.5MM	*	0.5 MM	?
CLK_SPACING_0.6MM	TOP, BOTTOM	0.2 MM	?

SIZE	DRAWING NUMBER	REV.
D	051-7228	27
SCALE	SHT	OF
NONE	109	118

APPLE COMPUTER INC.

M72/M78 RULE DEFINITIONS

SYNC_MASTER=T9_MLB

SYNC_DATE=09/27/2006

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D	Title: Baaset Report Design: m72 Date: Mar 23 10:23:45 2007			Base nets and synonyms for m72_lib.M72(=m72_lib.m72(sch_1))			Base Signal			Synonyms			Location([Zone][dir])					
	0V9S0_COMP_REF			0V9S0_COMP_REF - @m72_lib.M72			70C6			1V05REG_BOOT			1V05REG_BOOT - @m72_lib.M72			73C4		
	1V05REG_BOOT_R			1V05REG_BOOT_R - @m72_lib.M72			73C3			1V05REG_ISEN			1V05REG_ISEN - @m72_lib.M72			73C4		
	1V05REG_LGATE			1V05REG_LGATE - @m72_lib.M72			73C3			1V05REG_OCSET			1V05REG_OCSET - @m72_lib.M72			73B4		
	1V05REG_SNUBBER_R			1V05REG_SNUBBER_R - @m72_lib.M72			73C2			1V05REG_SOFT			1V05REG_SOFT - @m72_lib.M72			73C4		
	1V05REG_SWITCHNODE			1V05REG_SWITCHNODE - @m72_lib.M72			73B3 108D1			1V05REG_UGATE			1V05REG_UGATE - @m72_lib.M72			73C4		
	1V05REG_VSEN			1V05REG_VSEN - @m72_lib.M72			73B3			1V05S0_EN			1V05S0_EN - @m72_lib.M72			73B4		
	1V05S0_RUNSS			1V05S0_RUNSS - @m72_lib.M72			70C5 73C3 74C3			1V05S0_RUNSS_BUF			1V05S0_RUNSS_BUF - @m72_lib.M72			70C6		
	1V5REG_BOOT			1V5REG_BOOT - @m72_lib.M72			73C5			1V5REG_BOOT_R			1V5REG_BOOT_R - @m72_lib.M72			73C6		
	1V5REG_ISEN			1V5REG_ISEN - @m72_lib.M72			73C5			1V5REG_LGATE			1V5REG_LGATE - @m72_lib.M72			73C5		
C	1V5REG_OCSET			1V5REG_OCSET - @m72_lib.M72			73B5			1V5REG_SNUBBER_R			1V5REG_SNUBBER_R - @m72_lib.M72			73B7		
	1V5REG_SOFT			1V5REG_SOFT - @m72_lib.M72			73C5			1V5REG_SWITCHNODE			1V5REG_SWITCHNODE - @m72_lib.M72			73C6 108D1		
	1V5REG_UGATE			1V5REG_UGATE - @m72_lib.M72			73C5			1V5REG_VSEN			1V5REG_VSEN - @m72_lib.M72			73B7		
	1V5S0_RUNSS			1V5S0_RUNSS - @m72_lib.M72			70A5 73C5			1V5S0_RUNSS_BUF			1V5S0_RUNSS_BUF - @m72_lib.M72			70A6		
	1V8S0_COMP_REF			1V8S0_COMP_REF - @m72_lib.M72			70D6			1V8S3_BOOT			1V8S3_BOOT - @m72_lib.M72			75C5		
	1V8S3_BOOT_RC			1V8S3_BOOT_RC - @m72_lib.M72			75D5			1V8S3_COMP			1V8S3_COMP - @m72_lib.M72			75C6		
	1V8S3_COMP_R			1V8S3_COMP_R - @m72_lib.M72			75C6			1V8S3_EN			1V8S3_EN - @m72_lib.M72			75C6		
	1V8S3_FB			1V8S3_FB - @m72_lib.M72			75C6			1V8S3_FCCM			1V8S3_FCCM - @m72_lib.M72			75C6		
	1V8S3_FSET			1V8S3_FSET - @m72_lib.M72			75C6			1V8S3_ISEN			1V8S3_ISEN - @m72_lib.M72			75C5		
	1V8S3_ISEN			1V8S3_ISEN - @m72_lib.M72			75C5			1V8S3_LG			1V8S3_LG - @m72_lib.M72			75C5		
B	1V8S3_PHASE			1V8S3_PHASE - @m72_lib.M72			75C5 108D1			1V8S3_SNUBBER_R			1V8S3_SNUBBER_R - @m72_lib.M72			75C3		
	1V8S3_UG			1V8S3_UG - @m72_lib.M72			75C5			1V8S3_VCC			1V8S3_VCC - @m72_lib.M72			75D6		
	1V25REG_BOOT			1V25REG_BOOT - @m72_lib.M72			74C5			1V25REG_BOOT_R			1V25REG_BOOT_R - @m72_lib.M72			74C6		
	1V25REG_BOOT_R			1V25REG_BOOT_R - @m72_lib.M72			74C6			1V25REG_ISEN			1V25REG_ISEN - @m72_lib.M72			74C5		
	1V25REG_LGATE			1V25REG_LGATE - @m72_lib.M72			74C5			1V25REG_OCSET			1V25REG_OCSET - @m72_lib.M72			74B5		
	1V25REG_SNUBBER_R			1V25REG_SNUBBER_R - @m72_lib.M72			74B7			1V25REG_SOFT			1V25REG_SOFT - @m72_lib.M72			74C5		
	1V25REG_SWITCHNODE			1V25REG_SWITCHNODE - @m72_lib.M72			74C6 108D1			1V25REG_UGATE			1V25REG_UGATE - @m72_lib.M72			74C5		
	1V25REG_VSEN			1V25REG_VSEN - @m72_lib.M72			74B7			1V25S0_RUNSS			1V25S0_RUNSS - @m72_lib.M72			70B5 74C5		
	1V25S0_RUNSS_BUF			1V25S0_RUNSS_BUF - @m72_lib.M72			70B6			3V3S0_COMP_REF			3V3S0_COMP_REF - @m72_lib.M72			70D6		
	3V3S3_BG			3V3S3_BG - @m72_lib.M72			76B5			3V3S3_BOOST			3V3S3_BOOST - @m72_lib.M72			76B5		
A	3V3S3_BOOST_R			3V3S3_BOOST_R - @m72_lib.M72			76C6			3V3S3_ITH			3V3S3_ITH - @m72_lib.M72			76B5		
	3V3S3_ITH_R			3V3S3_ITH_R - @m72_lib.M72			76B6			3V3S3_RUNSS			3V3S3_RUNSS - @m72_lib.M72			76B5		
	3V3S3_RUNSS_N			3V3S3_RUNSS_N - @m72_lib.M72			76C6			3V3S3_SNS_P			3V3S3_SNS_P - @m72_lib.M72			76C5 108D1		
	3V3S3_SNS_P			3V3S3_SNS_P - @m72_lib.M72			76C5			3V3S3_SW			3V3S3_SW - @m72_lib.M72			76B5		
	3V3S3_TG			3V3S3_TG - @m72_lib.M72			76B5			3V3S3_VOSNS			3V3S3_VOSNS - @m72_lib.M72			76B5		
	3V80_COMP_REF			3V80_COMP_REF - @m72_lib.M72			70C6			3V83_COMP_REF			3V83_COMP_REF - @m72_lib.M72			76A7		
	3V83_COMP_REF			3V83_COMP_REF - @m72_lib.M72			70C6			3V83_0V76_REF			3V83_0V76_REF - @m72_lib.M72			70C6		
	3V83_1V53_REF			3V83_1V53_REF - @m72_lib.M72			70D6			3V83_2V80_REF			3V83_2V80_REF - @m72_lib.M72			70D6		
	3V83_4V24_REF1			3V83_4V24_REF1 - @m72_lib.M72			70D6			3V83_4V24_REF2			3V83_4V24_REF2 - @m72_lib.M72			76A7		
	3V83_4V29_REF			3V83_4V29_REF - @m72_lib.M72			76D7			3V83_5V55_BG			3V83_5V55_BG - @m72_lib.M72			76B4		

[illegible]

	8	7	6	5	4	3	2	1
	<div>ODD_THRMD_N ODD_THRMD_P P1V8S0_EN_L P1V8S0_EN_L_RC P1V8S0_GDRV P1V8S0_SS P1V8S0_SS_RC P2V5S0_EN_L P2V5S0_SW P2V5S0_VFB P3V3S0_EN_L P3V3S0_SS P3V3S5_FB P3V3S5_SW P5V8S0_PCB P5V8S0_PSEL P5V8S0_EN_L P5V8S0_SS P5V83_EN_L P5V83_SS P5V85_EN P12V_S3_DRAIN P12V_S3_EN_L PANEL_ID PCI_E_NNET_D2R_C_N PCI_E_NNET_D2R_C_P PCI_E_NNET_D2R_N PCI_E_NNET_D2R_P PCI_E_NNET_R2D_C_N PCI_E_NNET_R2D_C_P PCI_E_NNET_R2D_N PCI_E_NNET_R2D_P PCI_E_FW_D2R_C_N PCI_E_FW_D2R_P PCI_E_FW_R2D_C_N PCI_E_FW_R2D_C_P PCI_E_FW_R2D_N PCI_E_FW_R2D_P PCI_E_MINI_D2R_P PCI_E_MINI_R2D_C_N PCI_E_MINI_R2D_C_P PCI_E_MINI_R2D_N PCI_E_MINI_R2D_P PCI_E_WAKE_L PCI_AD<0> PCI_AD<18..0> PCI_AD<1> PCI_AD<2> PCI_AD<3> PCI_AD<4> PCI_AD<5> PCI_AD<6> PCI_AD<7> PCI_AD<8> PCI_AD<9> PCI_AD<10> PCI_AD<11> PCI_AD<12> PCI_AD<13> PCI_AD<14> PCI_AD<15> PCI_AD<16> PCI_AD<17> PCI_AD<18> PCI_AD<19> PCI_AD<20> PCI_AD<21> PCI_AD<31..21> PCI_AD<22> PCI_AD<23> PCI_AD<24> PCI_AD<25> PCI_AD<26> PCI_AD<27> PCI_AD<27> PCI_AD<28> PCI_AD<29> PCI_AD<30> PCI_AD<31> PCI_CLK33M_LPCPLUS PCI_CLK33M_SB PCI_CLK33M_SMC PCI_CLK33M_TPM</div>	<div>ODD_THRMD_N - @m72_1ib.M72 ODD_THRMD_P - @m72_1ib.M72 P1V8S0_EN_L - @m72_1ib.M72 P1V8S0_EN_L_RC - @m72_1ib.M72 P1V8S0_GDRV - @m72_1ib.M72 P1V8S0_SS - @m72_1ib.M72 P1V8S0_SS_RC - @m72_1ib.M72 P2V5S0_EN_L - @m72_1ib.M72 P2V5S0_SW - @m72_1ib.M72 P2V5S0_VFB - @m72_1ib.M72 P3V3S0_EN_L - @m72_1ib.M72 P3V3S0_SS - @m72_1ib.M72 P3V3S5_FB - @m72_1ib.M72 P3V3S5_SW - @m72_1ib.M72 P5V8S0_PCB - @m72_1ib.M72 P5V8S0_PSEL - @m72_1ib.M72 P5V8S0_EN_L - @m72_1ib.M72 P5V8S0_SS - @m72_1ib.M72 P5V83_EN_L - @m72_1ib.M72 P5V83_SS - @m72_1ib.M72 P5V85_EN - @m72_1ib.M72 P12V_S3_DRAIN - @m72_1ib.M72 P12V_S3_EN_L - @m72_1ib.M72 PANEL_ID - @m72_1ib.M72 TP_SB_GPI020 - @m72_1ib.M72 PCI_E_NNET_D2R_C_N - @m72_1ib.M72 PCI_E_NNET_D2R_C_P - @m72_1ib.M72 PCI_E_NNET_D2R_N - @m72_1ib.M72 PCI_E_NNET_D2R_P - @m72_1ib.M72 PCI_E_NNET_R2D_C_N - @m72_1ib.M72 PCI_E_NNET_R2D_C_P - @m72_1ib.M72 PCI_E_NNET_R2D_N - @m72_1ib.M72 PCI_E_NNET_R2D_P - @m72_1ib.M72 PCI_E_FW_D2R_C_N - @m72_1ib.M72 PCI_E_FW_D2R_P - @m72_1ib.M72 PCI_E_FW_R2D_C_N - @m72_1ib.M72 PCI_E_FW_R2D_C_P - @m72_1ib.M72 PCI_E_FW_R2D_N - @m72_1ib.M72 PCI_E_FW_R2D_P - @m72_1ib.M72 PCI_E_MINI_D2R_P - @m72_1ib.M72 PCI_E_MINI_R2D_C_N - @m72_1ib.M72 PCI_E_MINI_R2D_C_P - @m72_1ib.M72 PCI_E_MINI_R2D_N - @m72_1ib.M72 PCI_E_MINI_R2D_P - @m72_1ib.M72 PCI_E_WAKE_L - @m72_1ib.M72 PCI_AD<0> - @m72_1ib.M72 TP_PCI_AD_0 - @m72_1ib.M72 PCI_AD<18..0> - @m72_1ib.M72 TP_PCI_AD_18 - @m72_1ib.M72 PCI_AD<1> - @m72_1ib.M72 TP_PCI_AD_1 - @m72_1ib.M72 PCI_AD<2> - @m72_1ib.M72 TP_PCI_AD_2 - @m72_1ib.M72 PCI_AD<3> - @m72_1ib.M72 TP_PCI_AD_3 - @m72_1ib.M72 PCI_AD<4> - @m72_1ib.M72 TP_PCI_AD_4 - @m72_1ib.M72 PCI_AD<5> - @m72_1ib.M72 TP_PCI_AD_5 - @m72_1ib.M72 PCI_AD<6> - @m72_1ib.M72 TP_PCI_AD_6 - @m72_1ib.M72 PCI_AD<7> - @m72_1ib.M72 TP_PCI_AD_7 - @m72_1ib.M72 PCI_AD<8> - @m72_1ib.M72 TP_PCI_AD_8 - @m72_1ib.M72 PCI_AD<9> - @m72_1ib.M72 TP_PCI_AD_9 - @m72_1ib.M72 PCI_AD<10> - @m72_1ib.M72 TP_PCI_AD_10 - @m72_1ib.M72 PCI_AD<11> - @m72_1ib.M72 TP_PCI_AD_11 - @m72_1ib.M72 PCI_AD<12> - @m72_1ib.M72 TP_PCI_AD_12 - @m72_1ib.M72 PCI_AD<13> - @m72_1ib.M72 TP_PCI_AD_13 - @m72_1ib.M72 PCI_AD<14> - @m72_1ib.M72 TP_PCI_AD_14 - @m72_1ib.M72 PCI_AD<15> - @m72_1ib.M72 TP_PCI_AD_15 - @m72_1ib.M72 PCI_AD<16> - @m72_1ib.M72 TP_PCI_AD_16 - @m72_1ib.M72 PCI_AD<17> - @m72_1ib.M72 TP_PCI_AD_17 - @m72_1ib.M72 PCI_AD<18> - @m72_1ib.M72 TP_PCI_AD_18 - @m72_1ib.M72 PCI_AD<19> - @m72_1ib.M72 TP_PCI_AD_19 - @m72_1ib.M72 PCI_AD<20> - @m72_1ib.M72 TP_PCI_AD_20 - @m72_1ib.M72 PCI_AD<21> - @m72_1ib.M72 TP_PCI_AD_21 - @m72_1ib.M72 PCI_AD<31..21> - @m72_1ib.M72 TP_PCI_AD_31 - @m72_1ib.M72 PCI_AD<22> - @m72_1ib.M72 TP_PCI_AD_22 - @m72_1ib.M72 PCI_AD<23> - @m72_1ib.M72 TP_PCI_AD_23 - @m72_1ib.M72 PCI_AD<24> - @m72_1ib.M72 TP_PCI_AD_24 - @m72_1ib.M72 PCI_AD<25> - @m72_1ib.M72 TP_PCI_AD_25 - @m72_1ib.M72 PCI_AD<26> - @m72_1ib.M72 TP_PCI_AD_26 - @m72_1ib.M72 PCI_AD<27> - @m72_1ib.M72 TP_PCI_AD_27 - @m72_1ib.M72 PCI_AD<28> - @m72_1ib.M72 TP_PCI_AD_28 - @m72_1ib.M72 PCI_AD<29> - @m72_1ib.M72 TP_PCI_AD_29 - @m72_1ib.M72 PCI_AD<30> - @m72_1ib.M72 TP_PCI_AD_30 - @m72_1ib.M72 PCI_AD<31> - @m72_1ib.M72 TP_PCI_AD_31 - @m72_1ib.M72 PCI_CLK33M_LPCPLUS - @m72_1ib.M72 PCI_CLK33M_SB - @m72_1ib.M72 PCI_CLK33M_SMC - @m72_1ib.M72 PCI_CLK33M_TPM - @m72_1ib.M72</div>	<div>55A5 55B6 108A3 55B5 55B6 108A3 78A7 78A6 78B7 78B6 78B7 77B5 77B4 108D1 77B4 78C5 78C4 77D5 77D5 108D1 76A3 76B5 76A2 76B4 78D5 78D4 78D8 78D7 77D6 78C1 78D3 28B2 25C5 28B1 37C4 108C3 37C4 108C3 78B 24C5 37C8 104C3 78B 24C5 37C8 104C3 24C5 37C8 104C3 24C5 37C8 104C3 7D6 37C4 108C3 7D6 37C4 108C3 40C3 108C3 40C3 108C3 78B 40C2 42A3 104C3 24D5 42A1 78B 40C2 42A3 104C3 24D5 42A1 40C1 42A1 104C3 24D5 42A3 40C1 42A1 104C3 24D5 42A3 7D6 40C3 108C3 7D6 40C3 108C3 78B 24D5 34C8 104C3 78B 24C5 34C8 104C3 24C5 34B8 104C3 24C5 34B8 104C3 34B6 108C3 34B6 108B3 25C8 34C6 37B8 24B8 28C5 28C4 104D3 28B4 28B4 28C5 28C4 28</div>					

8			7			6			5			4			3			2			1					
D	Title: Cref Part Report Design: m72 Date: Mar 23 10:23:45 2007																									
	C600	CAP_402	m72[6D7]	C2191	CAP_402	m72[21B3]	C3342	CAP_402	m72[33B4]	C4404	CAP_402	m72[44B6]	C				B				A					
	C621	CAP_603	m72[6D6]	C2192	CAP_402	m72[21B3]	C3344	CAP_402	m72[33B4]	C4405	CAP_402	m72[44B4]														
	C622	CAP_805	m72[6D7]	C2195	CAP_603	m72[21A4]	C3346	CAP_402	m72[33B4]	C4406	CAP_805	m72[44B4]														
	C623	CAP_805	m72[6D7]	C2196	CAP_805	m72[21A3]	C3348	CAP_402	m72[33B4]	C4510	CAP_402	m72[45D6]														
	C624	CAP_1210	m72[6D8]	C2197	CAP_402	m72[21A3]	C3350	CAP_402	m72[33B4]	C4511	CAP_402	m72[45D6]														
	C625	CAP_P_6_3X5.5-SM	m72[6D8]	C2200	CAP_402	m72[22B2]	C3352	CAP_402	m72[33B4]	C4515	CAP_402	m72[45C6]														
	C1000	CAP_402	m72[10B5]	C2201	FILTER_3P_A_NFM18	m72[22B2]	C3354	CAP_402	m72[33B4]	C4516	CAP_402	m72[45C6]														
	C1200	CAP_805	m72[12D7]	C2213	CAP_603	m72[22B2]	C3356	CAP_402	m72[33B4]	C4600	CAP_P_CASE-D2-LF	m72[46C8]														
	C1201	CAP_805	m72[12D6]	C2500	CAP_402	m72[25C2]	C3358	CAP_402	m72[33A4]	C4613	CAP_402	m72[46D2]														
C1202	CAP_805	m72[12D6]	C2501	CAP_402	m72[25B2]	C3360	CAP_402	m72[33A4]	C4623	CAP_402	m72[46C5]															
C	C1203	CAP_805	m72[12D6]	C2600	CAP_402	m72[26A3]	C3362	CAP_402	m72[33A4]	C4633	CAP_402	m72[46A5]	A				A				A					
	C1204	CAP_805	m72[12D6]	C2601	CAP_402	m72[26A3]	C3364	CAP_402	m72[33A4]	C4650	CAP_402	m72[46D5]														
	C1205	CAP_805	m72[12D5]	C2700	CAP_P_SM-CASE-C1	m72[27C7]	C3366	CAP_402	m72[33A4]	C4700	CAP_805-1	m72[47D7]														
	C1206	CAP_805	m72[12D5]	C2701	CAP_402	m72[27A6]	C3368	CAP_402	m72[33A4]	C4701	CAP_402	m72[47D6]														
	C1207	CAP_805	m72[12D5]	C2702	CAP_402	m72[27B1]	C3370	CAP_402	m72[33A4]	C4720	CAP_805-1	m72[47D3]														
	C1208	CAP_805	m72[12D4]	C2703	CAP_402	m72[27C8]	C3400	CAP_402	m72[34C3]	C4721	CAP_402	m72[47D3]														
	C1209	CAP_805	m72[12D4]	C2704	CAP_402	m72[27D8]	C3401	CAP_603	m72[34C3]	C4902	CAP_805	m72[49D4]														
	C1210	CAP_805	m72[12C7]	C2705	CAP_805	m72[27C7]	C3410	CAP_402	m72[34C3]	C4903	CAP_402	m72[49D4]														
	C1211	CAP_805	m72[12C6]	C2706	CAP_805	m72[27C7]	C3420	CAP_402	m72[34C3]	C4904	CAP_402	m72[49D3]														
	C1212	CAP_805	m72[12C6]	C2707	CAP_603	m72[27C7]	C3421	CAP_603	m72[34C3]	C4905	CAP_402	m72[49D3]														
B	C1213	CAP_805	m72[12C6]	C2708	CAP_603	m72[27A6]	C3430	CAP_402	m72[34B7]	C4906	CAP_402	m72[49D3]	A				A				A					
	C1214	CAP_805	m72[12C6]	C2711	CAP_402	m72[27D1]	C3431	CAP_402	m72[34B7]	C4907	CAP_402	m72[49D2]														
	C1215	CAP_805	m72[12C5]	C2712	CAP_402	m72[27C1]	C3700	CAP_603	m72[37D6]	C4920	CAP_402	m72[49C3]														
	C1216	CAP_805	m72[12C5]	C2714	CAP_402	m72[27D1]	C3701	CAP_402	m72[37D6]	C5000	CAP_402	m72[50D7]														
	C1217	CAP_805	m72[12C5]	C2715	CAP_402	m72[27C1]	C3702	CAP_402	m72[37D5]	C5001	CAP_402	m72[50D7]														
	C1218	CAP_805	m72[12C4]	C2717	CAP_402	m72[27A6]	C3703	CAP_402	m72[37D5]	C5010	CAP_402	m72[50C6]														
	C1219	CAP_805	m72[12C4]	C2718	CAP_402	m72[27B1]	C3704	CAP_402	m72[37D5]	C5020	CAP_402	m72[50C7]														
	C1220	CAP_805	m72[12C7]	C2719	CAP_402	m72[27D3]	C3705	CAP_402	m72[37D4]	C5021	CAP_402	m72[50C7]														
	C1221	CAP_805	m72[12C6]	C2721	CAP_402	m72[27B3]	C3706	CAP_402	m72[37D4]	C5050	CAP_402	m72[50B6]														
	C1222	CAP_805	m72[12C5]	C2722	CAP_402	m72[27B1]	C3707	CAP_402	m72[37D4]	C5051	CAP_402	m72[50A4]														
A	C1223	CAP_805	m72[12C6]	C2723	CAP_402	m72[27B1]	C3708	CAP_402	m72[37D3]	C5052	CAP_603	m72[50A4]	A				A				A					
	C1224	CAP_805	m72[12C6]	C2724	CAP_603	m72[27B1]	C3710	CAP_603	m72[37D6]	C5065	CAP_402	m72[50B8]														
	C1225	CAP_805	m72[12C5]	C2725	CAP_402	m72[27D3]	C3711	CAP_402	m72[37D6]	C5066	CAP_603	m72[50B7]														
	C1226	CAP_805	m72[12B7]	C2726	CAP_402	m72[27C3]	C3712	CAP_402	m72[37D5]	C5067	CAP_402	m72[50B7]														
	C1227	CAP_805	m72[12B6]	C2727	CAP_402	m72[27C3]	C3713	CAP_402	m72[37D5]	C5309	CAP_402	m72[53D6]														
	C1228	CAP_805	m72[12B6]	C2728	CAP_402	m72[27C3]	C3714	CAP_402	m72[37D5]	C5358	CAP_402	m72[53C2]														
	C1229	CAP_805	m72[12B6]	C2729	CAP_402	m72[27D5]	C3715	CAP_402	m72[37D4]	C5375	CAP_402	m72[53D5]														
	C1230	CAP_805	m72[12B6]	C2730	CAP_402	m72[27D5]	C3720	CAP_603	m72[37C5]	C5376	CAP_402	m72[53C7]														
	C1231	CAP_805	m72[12B5]	C2731	CAP_402	m72[27D5]	C3721	CAP_402	m72[37C5]	C5500	CAP_402	m72[55C7]														
	C1235	CAP_P_6_3X8-SM	m72[12A3]	C2732	CAP_603	m72[27B7]	C3722	CAP_402	m72[37C5]	C5501	CAP_402	m72[55B4]														

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D	C7332	CAP_402	m72[73B5]	C7810	CAP_402	m72[78D6]	F4310	FUSE_SM	m72[43D6]	LED602	LED_2_0X1.25MM-SM	m72[6A7]	C	C7335	CAP_402	m72[73B6]	C7811	CAP_402	m72[78D7]	F9410	FUSE_R05	m72[94D5]	LED603	LED_2_0X1.25MM-SM	m72[6A6]	B	C7340	CAP_P_TH	m72[73D7]	C7850	CAP_402	m72[78C4]	FL4300	FILTER_4P_DLW21H-SM1	m72[43B3]	LED604	LED_2_0X1.25MM-SM	m72[6B7]	A	C7341	CAP_1206-1	m72[73D7]	C7851	CAP_402	m72[78C4]	FL4310	FILTER_4P_DLW21H-SM1	m72[43B3]	LED3900	LED_2_0X1.25MM-SM	m72[39A7]	D	C7342	CAP_1206-1	m72[73D6]	C7890	CAP_805	m72[78D2]	J600	CON_M12RT_D2MT_TH1_M	m72[6D7]	LED3901	LED_2_0X1.25MM-SM	m72[39A7]	C	C7345	CAP_402	m72[73B3]	C7891	CAP_402	m72[78D2]	J1000	MEMOM_BGA-SKT-P	m72[10C3 10D7]	LED3902	LED_2_0X1.25MM-SM	m72[39A6]	B	C7360	CAP_603	m72[73D2]	C7895	CAP_402	m72[78B7]	J1000	MEMOM_BGA-SKT-P	m72[11D3 11D7]	LED4400	LED_2_0X1.25MM-SM	m72[44B5]	A	C7361	CAP_603	m72[73C2]	C7896	CAP_402	m72[78A6]	J1300	CON_F60ST_D_SMI_F-ST	m72[13C4]	PP1000	PROBEPOINT_SM	m72[7D7]	D	C7364	CAP_402	m72[73B2]	C7899	CAP_402	m72[78B6]	J2800	BATTERY_2P_SM	m72[28D8]	PP1001	PROBEPOINT_SM	m72[7D7]	C	C7370	CAP_402	m72[73B2]	C8400	CAP_P_SM-LF	m72[84C5]	J3100	CON_F200RT_DDR2DIMM_	m72[31D5]	PP1002	PROBEPOINT_SM	m72[7D7]	B	C7372	CAP_402	m72[73B4]	C8401	CAP_805	m72[84C7]	J3100	SMT_SM_F-RT-SM	m72[31D5]	PP1003	PROBEPOINT_SM	m72[7D7]	A	C7381	CAP_1206-1	m72[73D2]	C8420	CAP_402	m72[84C7]	J3200	CON_F200RT_DDR2DIMM_	m72[32D5]	PP1004	PROBEPOINT_SM	m72[7D7]	D	C7382	CAP_1206-1	m72[73D2]	C8421	CAP_402	m72[84C7]	J3400	SMT_SM_F-RT-SM	m72[34C5]	PP1005	PROBEPOINT_SM	m72[7D7]	C	C7390	CAP_P_CASE-D2-SM	m72[73C1]	C8422	CAP_402	m72[84C7]	J3900	CON_RJ45_8ANG_D3MT_T	m72[39C3]	PP1006	PROBEPOINT_SM	m72[7D7]	B	C7391	CAP_P_CASE-D2-SM	m72[73C2]	C8423	CAP_402	m72[84C7]	J4300	CON_F9ANG_1394B_D6MT	m72[43C2]	PP1007	PROBEPOINT_SM	m72[7D7]	A	C7392	CAP_805	m72[73C1]	C8424	CAP_402	m72[84B7]	J4301	_TH_F-ANG-TH	m72[43B2]	PP1008	PROBEPOINT_SM	m72[7D7]	D	C7393	CAP_805	m72[73C1]	C8425	CAP_402	m72[84B7]	J4401	CON_F6ANG_S3MT_1394A	m72[43B2]	PP1009	PROBEPOINT_SM	m72[7D7]	C	C7400	CAP_P_CASE-D2-SM	m72[74C8]	C8426	CAP_402	m72[84B7]	J4401	_TH_F-ANG-TH	m72[43B2]	PP1010	PROBEPOINT_SM	m72[7D7]	B	C7401	CAP_805	m72[74C8]	C8427	CAP_402	m72[84B7]	J4401	CON_M50RT_D2MT_SM_M-	m72[44C4]	PP1011	PROBEPOINT_SM	m72[7D7]	A	C7402	CAP_402	m72[74B7]	C8428	CAP_402	m72[84B7]	J4510	RT-SM	m72[44C4]	PP1012	PROBEPOINT_SM	m72[7D7]	D	C7403	CAP_P_CASE-D2-SM	m72[74C7]	C8429	CAP_402	m72[84B7]	J4510	CON_M50RT_D2MT_SM_M-	m72[44C4]	PP1013	PROBEPOINT_SM	m72[7D7]	C	C7404	CAP_805	m72[74C8]	C8430	CAP_402	m72[84B7]	J4510	CON_M50RT_D2MT_SM_M-	m72[44C4]	PP1014	PROBEPOINT_SM	m72[7D7]	B	C7410	CAP_603	m72[74C7]	C8431	CAP_402	m72[84B7]	J4510	CON_M50RT_D2MT_SM_M-	m72[44C4]	PP1015	PROBEPOINT_SM	m72[7D7]	A	C7424	CAP_402	m72[74B7]	C8432	CAP_402	m72[84B7]	J4510	CON_M50RT_D2MT_SM_M-	m72[44C4]	PP1016	PROBEPOINT_SM	m72[7D7]	D	C7430	CAP_603-1	m72[74D6]	C8433	CAP_402	m72[84B7]	J4510	CON_M50RT_D2MT_SM_M-	m72[44C4]	PP1017	PROBEPOINT_SM	m72[7D7]	C	C7431	CAP_603	m72[74C6]	C8434	CAP_402	m72[84B7]	J4510	CON_M50RT_D2MT_SM_M-	m72[44C4]	PP1018	PROBEPOINT_SM	m72[7D7]	B	C7432	CAP_402	m72[74B5]	C8435	CAP_402	m72[84B7]	J4510	CON_M50RT_D2MT_SM_M-	m72[44C4]	PP1019	PROBEPOINT_SM	m72[7D7]	A	C7435	CAP_402	m72[74B6]	C8436	CAP_402	m72[84B7]	J4510	CON_M50RT_D2MT_SM_M-	m72[44C4]	PP1020	PROBEPOINT_SM	m72[7D7]	D	C7440	CAP_P_TH	m72[74D7]	C8437	CAP_402	m72[84B7]	J4510	CON_M50RT_D2MT_SM_M-	m72[44C4]	PP1021	PROBEPOINT_SM	m72[7D7]	C	C7441	CAP_1206-1	m72[74D7]	C8438	CAP_402	m72[84B7]	J4510	CON_M50RT_D2MT_SM_M-	m72[44C4]	PP1022	PROBEPOINT_SM	m72[7D7]	B	C7442	CAP_1206-1	m72[74D6]	C8439	CAP_402	m72[84B7]	J4510	CON_M50RT_D2MT_SM_M-	m72[44C4]	PP1023	PROBEPOINT_SM	m72[7D7]	A	C7445	CAP_402	m72[74B3]	C8440	CAP_402	m72[84B7]	J4510	CON_M50RT_D2MT_SM_M-	m72[44C4]	PP1024	PROBEPOINT_SM	m72[7D7]	D	C7460	CAP_603-1	m72[74D2]	C8441	CAP_402	m72[84A7]	J4510	CON_M50RT_D2MT_SM_M-	m72[44C4]	PP1025	PROBEPOINT_SM	m72[7D7]	C	C7461	CAP_603	m72[74C2]	C8442	CAP_402	m72[84A7]	J4510	CON_M50RT_D2MT_SM_M-	m72[44C4]	PP1026	PROBEPOINT_SM	m72[7D7]	B	C7464	CAP_402	m72[74B2]	C8443	CAP_402	m72[84A7]	J4510	CON_M50RT_D2MT_SM_M-	m72[44C4]	PP1027	PROBEPOINT_SM	m72[7D7]	A	C7470	CAP_402	m72[74B2]	C8444	CAP_402	m72[84A7]	J4510	CON_M50RT_D2MT_SM_M-	m72[44C4]	PP1028	PROBEPOINT_SM	m72[7D7]	D	C7472	CAP_402	m72[74B4]	C8445	CAP_402	m72[84A7]	J4510	CON_M50RT_D2MT_SM_M-	m72[44C4]	PP1029	PROBEPOINT_SM	m72[7D7]	C	C7480	CAP_P_TH	m72[74D3]	C8446	CAP_402	m72[84A7]	J4510	CON_M50RT_D2MT_SM_M-	m72[44C4]	PP1030	PROBEPOINT_SM	m72[7D7]	B	C7481	CAP_1206-1	m72[74D2]	C8447	CAP_402	m72[84A7]	J4510	CON_M50RT_D2MT_SM_M-	m72[44C4]	PP1031	PROBEPOINT_SM	m72[7D7]	A	C7482	CAP_1206-1	m72[74D2]	C8448	CAP_402	m72[84A7]	J4510	CON_M50RT_D2MT_SM_M-	m72[44C4]	PP1032	PROBEPOINT_SM	m72[7D7]	D	C7490	CAP_P_TH	m72[74C2]	C8449	CAP_402	m72[84A7]	J4510	CON_M50RT_D2MT_SM_M-	m72[44C4]	PP1033	PROBEPOINT_SM	m72[7D7]	C	C7491	CAP_P_TH	m72[74C1]	C8450	CAP_402	m72[84A7]	J4510	CON_M50RT_D2MT_SM_M-	m72[44C4]	PP1034	PROBEPOINT_SM	m72[7D7]	B	C7492	CAP_805	m72[74C1]	C8500	CAP_805	m72[85A5]	J5500	CON_M5ST_S2MT_SM_PN1	m72[55C7]	PP1035	PROBEPOINT_SM	m72[7D7]	A	C7493	CAP_805	m72[74C1]	C8500	CAP_805	m72[85A5]	J5510	CON_M5ST_S2MT_SM_PN1	m72[55C7]	PP1036	PROBEPOINT_SM	m72[7D7]	D	C7500	CAP_603	m72[75D6]	C9000	CAP_603-1	m72[90C7]	J5510	CON_M5ST_S2MT_SM_PN1	m72[55C7]	PP1037	PROBEPOINT_SM	m72[7D7]	C	C7502	CAP_603	m72[75D6]	C9001	CAP_402	m72[90C5]	J5511	CON_M2RT_S2MT_SM_M-R	m72[55A5]	PP1038	PROBEPOINT_SM	m72[7D7]	B	C7503	CAP_402	m72[75C2]	C9010	CAP_402	m72[90A8]	J5550	CON_M3RT_S2MT_SM_M-R	m72[55B7]	PP1039	PROBEPOINT_SM	m72[7D7]	A	C7506	CAP_402	m72[75C8]	C9020	CAP_1210	m72[90C5]	J5551	CON_2RTSM_125_SM-2MT	m72[55B6]	PP1040	PROBEPOINT_SM	m72[7D7]	D	C7507	CAP_402	m72[75C6]	C9130	CAP_402	m72[91B7]	J5600	CON_2RTSM_125_SM-2MT	m72[55B6]	PP1041	PROBEPOINT_SM	m72[7D7]	C	C7508	CAP_603	m72[75C7]	C9131	CAP_805-1	m72[91B7]	J5600	CON_2RTSM_125_SM-2MT	m72[55B6]	PP1042	PROBEPOINT_SM	m72[7D7]	B	C7509	CAP_402	m72[75D4]	C9140	CAP_402	m72[91A5]	J5600	CON_2RTSM_125_SM-2MT	m72[55B6]	PP1043	PROBEPOINT_SM	m72[7D7]	A	C7510	CAP_402	m72[75C5]	C9141	CAP_402	m72[91B5]	J5600	CON_2RTSM_125_SM-2MT	m72[55B6]	PP1044	PROBEPOINT_SM	m72[7D7]	D	C7530	CAP_P_TH	m72[75D5]	C9142	CAP_402	m72[91B5]	J5600	CON_2RTSM_125_SM-2MT	m72[55B6]	PP1045	PROBEPOINT_SM	m72[7D7]	C	C7531	CAP_603	m72[75D4]	C9143	CAP_402	m72[91A5]	J5600	CON_2RTSM_125_SM-2MT	m72[55B6]	PP1046	PROBEPOINT_SM	m72[7D7]	B	C7532	CAP_P_TH	m72[75D5]	C9144	CAP_402	m72[91B6]	J5600	CON_2RTSM_125_SM-2MT	m72[55B6]	PP1047	PROBEPOINT_SM	m72[7D7]	A	C7533	CAP_1206-1	m72[75D5]	C9145	CAP_402	m72[91B6]	J5600	CON_2RTSM_125_SM-2MT	m72[55B6]	PP1048	PROBEPOINT_SM	m72[7D7]	D	C7534	CAP_1206-1	m72[75D4]	C9160	CAP_402	m72[91B4]	J5600	CON_2RTSM_125_SM-2MT	m72[55B6]	PP1049	PROBEPOINT_SM	m72[7D7]	C	C7540	CAP_805	m72[75C3]	C9161	CAP_402	m72[91A2]	J5600	CON_2RTSM_125_SM-2MT	m72[55B6]	PP1050	PROBEPOINT_SM	m72[7D7]	B	C7541	CAP_805	m72[75C3]	C9162	CAP_402	m72[91A2]	J5600	CON_2RTSM_125_SM-2MT	m72[55B6]	PP1051	PROBEPOINT_SM	m72[7D7]	A	C7542	CAP_P_CASE-D2-SM	m72[75C2]	C9163	CAP_402	m72[91A2]	J5600	CON_2RTSM_125_SM-2MT	m72[55B6]	PP1052	PROBEPOINT_SM	m72[7D7]	D	C7543	CAP_P_CASE-D2-SM	m72[75C2]	C9

8			7			6			5			4			3			2			1		
D	PP1480	PROBEPOINT_SM	m72[7A6]																				
	PP1481	PROBEPOINT_SM	m72[7A6]																				
	PP1482	PROBEPOINT_SM	m72[7A6]																				
	PP1483	PROBEPOINT_SM	m72[7A6]																				
	PP1484	PROBEPOINT_SM	m72[7A6]																				
	PP1485	PROBEPOINT_SM	m72[7A6]																				
	PP1486	PROBEPOINT_SM	m72[7A6]																				
	PP1487	PROBEPOINT_SM	m72[7A6]																				
	PP1488	PROBEPOINT_SM	m72[7A6]																				
	PP1489	PROBEPOINT_SM	m72[7A6]																				
C	PP1490	PROBEPOINT_SM	m72[7A6]																				
	PP1491	PROBEPOINT_SM	m72[7A6]																				
	PP1492	PROBEPOINT_SM	m72[7A6]																				
	PP1493	PROBEPOINT_SM	m72[7A6]																				
	PP2100	PROBEPOINT_SM	m72[7C7]																				
	PP2101	PROBEPOINT_SM	m72[7C7]																				
	PP2102	PROBEPOINT_SM	m72[7C7]																				
	PP2103	PROBEPOINT_SM	m72[7B7]																				
	PP2104	PROBEPOINT_SM	m72[7B7]																				
	PP2105	PROBEPOINT_SM	m72[7B7]																				
B	PP2106	PROBEPOINT_SM	m72[7B7]																				
	PP2107	PROBEPOINT_SM	m72[7B7]																				
	PP2108	PROBEPOINT_SM	m72[7B7]																				
	PP2109	PROBEPOINT_SM	m72[7B7]																				
	PP2110	PROBEPOINT_SM	m72[7B7]																				
	PP2111	PROBEPOINT_SM	m72[7B7]																				
	PP2112	PROBEPOINT_SM	m72[7B7]																				
	PP2113	PROBEPOINT_SM	m72[7B7]																				
	PP2114	PROBEPOINT_SM	m72[7B7]																				
	PP2115	PROBEPOINT_SM	m72[7B7]																				
A	PP2116	PROBEPOINT_SM	m72[7B7]																				
	PP2117	PROBEPOINT_SM	m72[7B7]																				
	PP2118	PROBEPOINT_SM	m72[7B7]																				
	PP2119	PROBEPOINT_SM	m72[7B7]																				
	PP2120	PROBEPOINT_SM	m72[7B7]																				
	PP2121	PROBEPOINT_SM	m72[7A7]																				
	PP2122	PROBEPOINT_SM	m72[7A7]																				
	PP2123	PROBEPOINT_SM	m72[7A7]																				
	PP2124	PROBEPOINT_SM	m72[7A7]																				
	PP2125	PROBEPOINT_SM	m72[7A7]																				
	PP2126	PROBEPOINT_SM	m72[7A7]																				
	PP2127	PROBEPOINT_SM	m72[7A7]																				
	PP2128	PROBEPOINT_SM	m72[7A7]																				
	PP2129	PROBEPOINT_SM	m72[7A7]																				
	PP2130	PROBEPOINT_SM	m72[7A7]																				
	PP2131	PROBEPOINT_SM	m72[7A7]																				
	PP2132	PROBEPOINT_SM	m72[7B7]																				
	PP2133	PROBEPOINT_SM	m72[7B7]																				
	PP3700	PROBEPOINT_SM	m72[7D5]																				
	PP3701	PROBEPOINT_SM	m72[7D5]																				
	PP3702	PROBEPOINT_SM	m72[7D5]																				
	PP3703	PROBEPOINT_SM	m72[7D5]																				
	PP3704	PROBEPOINT_SM	m72[7D5]																				
	PP4000	PROBEPOINT_SM	m72[7D5]																				
	PP4001	PROBEPOINT_SM	m72[7D5]																				
	PP4002	PROBEPOINT_SM	m72[7D5]																				
	PP4003	PROBEPOINT_SM	m72[7D5]																				
	PP4004	PROBEPOINT_SM	m72[7D5]																				
	PP4900	PROBEPOINT_SM	m72[7C5]																				
	PP4901	PROBEPOINT_SM	m72[7C5]																				
	PP4902	PROBEPOINT_SM	m72[7C5]																				
	PP4903	PROBEPOINT_SM	m72[7C5]																				
	Q600	TRA_2N7002_SOT23-LF	m72[6A8]																				
	Q610	TRA_2N70																					

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D	R5086	RES_402	m72[50A1]	R7117	RES_402	m72[71B5]	R7897	RES_402	m72[78B6]	U7710	TPS62050_MSOP	m72[77D5]	C	R5087	RES_402	m72[50B1]	R7118	RES_402	m72[71B5]	R7898	RES_402	m72[78B6]	U7750	TPS62510_BQA	m72[77B4]	B	R5088	RES_402	m72[50A1]	R7119	RES_402	m72[71C8]	R7899	RES_402	m72[85C7]	U8570	EEPROM_M24C02_S08	m72[85D2]	A	R5090	RES_402	m72[50B1]	R7120	RES_402	m72[71D7]	R8501	RES_402	m72[85C5]	U9130	VIDEO_TS3V330_SOP	m72[91B7]	A	R5091	RES_402	m72[50B1]	R7121	RES_402	m72[71D7]	R8502	RES_402	m72[85C7]	U9160	74LVC1G125LF_SOT23-5	m72[91B4]	A	R5092	RES_402	m72[50B1]	R7122	RES_402	m72[71A4]	R8503	RES_402	m72[85A4]	U9161	74LVC1G125LF_SOT23-5	m72[91A4]	A	R5093	RES_402	m72[50B1]	R7123	RES_402	m72[71A4]	R8505	RES_402	m72[85B4]	VR5065	VREF_REF3133_SOT23-3	m72[50B8]	A	R5094	RES_402	m72[50B1]	R7126	THERMISTEER_402	m72[71C8]	R8570	RES_402	m72[85D3]	XW4900	SHORT_SM	m72[49C2]	A	R5096	RES_402	m72[50B1]	R7127	RES_402	m72[71C7]	R9000	RES_402	m72[90C8]	XW5309	SHORT_SM	m72[53D7]	A	R5190	RES_402	m72[51B2]	R7130	RES_402	m72[71B4]	R9001	RES_402	m72[90C7]	XW5350	SHORT_SM	m72[53C3]	A	R5191	RES_402	m72[51C3]	R7131	THERMISTEER_0603-LF	m72[71B4]	R9002	RES_805	m72[90C8]	XW5500	SHORT_SM	m72[55A4]	A	R5192	RES_402	m72[51C4]	R7140	RES_603	m72[71B1]	R9003	RES_805	m72[90C8]	XW5501	SHORT_SM	m72[55A4]	A	R5200	RES_402	m72[52D7]	R7141	RES_603	m72[71C1]	R9070	RES_402	m72[90B7]	XW5502	SHORT_SM	m72[55A4]	A	R5201	RES_402	m72[52D7]	R7142	RES_402	m72[71D4]	R9074	RES_402	m72[90B2]	XW5503	SHORT_SM	m72[55A4]	A	R5230	RES_402	m72[52A7]	R7143	RES_402	m72[71C4]	R9075	RES_402	m72[90B2]	XW7100	SHORT_SM	m72[71A6]	A	R5231	RES_402	m72[52A7]	R7197	RES_402	m72[71D6]	R9090	RES_805	m72[90C6]	XW7101	SHORT_SM	m72[71B2]	A	R5250	RES_402	m72[52D4]	R7199	RES_402	m72[71C7]	R9099	RES_402	m72[90C8]	XW7102	SHORT_SM	m72[71B1]	A	R5251	RES_402	m72[52D4]	R7200	RES_402	m72[72C3]	R9140	RES_402	m72[91A6]	XW7103	SHORT_SM	m72[71D2]	A	R5260	RES_402	m72[52C4]	R7201	RES_603	m72[72B3]	R9141	RES_402	m72[91B6]	XW7104	SHORT_SM	m72[71D1]	A	R5261	RES_402	m72[52C4]	R7203	RES_1206	m72[72C3]	R9142	RES_402	m72[91B6]	XW7203	SHORT_SM	m72[72C3]	A	R5270	RES_402	m72[52D2]	R7204	RES_402	m72[72C2]	R9160	RES_402	m72[91B3]	XW7204	SHORT_SM	m72[72C2]	A	R5271	RES_402	m72[52D2]	R7241	RES_603	m72[72C2]	R9161	RES_402	m72[91A3]	XW7300	SHORT_SM	m72[73B4]	A	R5280	RES_402	m72[52C2]	R7250	RES_402	m72[72C5]	R9400	RES_402	m72[94D7]	XW7400	SHORT_SM	m72[74B4]	A	R5281	RES_402	m72[52C2]	R7300	RES_402	m72[73B7]	R9402	RES_402	m72[94D7]	XW7500	SHORT_SM	m72[75C5]	A	R5290	RES_402	m72[52B2]	R7301	RES_402	m72[73B7]	R9403	RES_402	m72[94D7]	XW7600	SHORT_SM	m72[76A5]	A	R5291	RES_402	m72[52B2]	R7306	RES_1206	m72[73C7]	R9404	RES_402	m72[94C7]	Y2800	CRYSTAL_4PIN_SM-LF	m72[28C7]	A	R5309	RES_402	m72[53D7]	R7310	RES_1206	m72[73A3]	R9405	RES_402	m72[94C7]	Y2901	CRYSTAL_5X3_2-5SM	m72[29C6]	A	R5339	RES_402	m72[53B7]	R7311	RES_1206	m72[73A3]	R9408	RES_402	m72[94C7]	Y3750	CRYSTAL_3M-3-LF	m72[37B5]	A	R5340	RES_402	m72[53A8]	R7312	RES_1206	m72[73A3]	R9409	RES_402	m72[94C7]	Y4000	CRYSTAL_HC49-USMD	m72[40B7]	A	R5341	RES_402	m72[53B7]	R7313	RES_1206	m72[73A3]	R9410	RES_402	m72[94D2]	Y5020	CRYSTAL_SM-4	m72[50C8]	A	R5342	RES_402	m72[53B7]	R7321	RES_402	m72[73C5]	R9411	RES_402	m72[94D2]	ZH500	HOLE_VIA	m72[7C1]	A	R5343	RES_1206	m72[53B5]	R7323	RES_402	m72[73B5]	R9412	RES_402	m72[94D2]	ZH501	HOLE_VIA	m72[7C1]	A	R5350	RES_2512-1	m72[53C3]	R7331	RES_402	m72[73C5]	R9413	RES_402	m72[94C2]	ZH502	HOLE_VIA	m72[7C1]	A	R5351	RES_402	m72[53C3]	R7356	RES_1206	m72[73C2]	R9414	RES_402	m72[94C2]	ZH503	HOLE_VIA	m72[7C1]	A	R5352	RES_402	m72[53C2]	R7361	RES_402	m72[73C3]	R9415	RES_402	m72[94B7]	ZH504	HOLE_VIA	m72[7B1]	A	R5353	RES_402	m72[53D3]	R7371	RES_402	m72[73C3]	R9420	RES_402	m72[94D1]	ZH505	HOLE_VIA	m72[7B1]	A	R5354	RES_402	m72[53D3]	R7382	RES_402	m72[73C4]	R9421	RES_402	m72[94D1]	ZH506	HOLE_VIA	m72[7B1]	A	R5355	RES_402	m72[53D3]	R7383	RES_402	m72[73B4]	R9422	RES_402	m72[94C2]	ZH507	HOLE_VIA	m72[7B1]	A	R5370	RES_402	m72[53C7]	R7384	RES_402	m72[73B4]	RP3300	RP4K4P_SM-LF	m72[33C4 33C4 33C4 33C4]	ZH508	HOLE_VIA	m72[7B1]	A	R5500	RES_402	m72[55B2]	R7390	RES_402	m72[73B2]	RP3305	RP4K4P_SM-LF	m72[33B4 33C4 33C4 33C4]	ZH509	HOLE_VIA	m72[7B1]	A	R5501	RES_402	m72[55A2]	R7391	RES_402	m72[73B2]	RP3310	RP4K4P_SM-LF	m72[33D4 33A4 33A4 33A4]	ZH510	HOLE_VIA	m72[7C1]	A	R5510	RES_402	m72[55B3]	R7400	RES_402	m72[74B7]	RP3330	RP4K4P_SM-LF	m72[33D4 33B4 33B4 33B4]	ZH511	HOLE_VIA	m72[7C1]	A	R5511	RES_402	m72[55B3]	R7401	RES_402	m72[74B7]	RP3334	RP4K4P_SM-LF	m72[33B4 33B4 33B4 33B4]	ZH512	HOLE_VIA	m72[7C1]	A	R5512	RES_402	m72[55B3]	R7406	RES_1206	m72[74C7]	RP3338	RP4K4P_SM-LF	m72[33A4 33B4 33B4 33A4]	ZH513	HOLE_VIA	m72[7C1]	A	R5570	RES_402	m72[55D5]	R7421	RES_402	m72[74C5]	RP3342	RP4K4P_SM-LF	m72[33B4 33C4 33C4 33C4]	ZH514	HOLE_VIA	m72[7B1]	A	R5600	RES_402	m72[56C7]	R7423	RES_402	m72[74B5]	RP3346	RP4K4P_SM-LF	m72[33D4 33C4 33B4 33C4]	ZH515	HOLE_VIA	m72[7B1]	A	R5601	RES_402	m72[56A7]	R7431	RES_402	m72[74C5]	RP3350	RP4K4P_SM-LF	m72[33B4 33A4 33B4 33B4]	ZH516	HOLE_VIA	m72[7B1]	A	R5602	RES_1206	m72[56D6]	R7456	RES_1206	m72[74C2]	RP3354	RP4K4P_SM-LF	m72[33B4 33A4 33A4 33B4]	ZH517	HOLE_VIA	m72[7B1]	A	R5603	RES_805	m72[56D5]	R7461	RES_402	m72[74C4]	RP3358	RP4K4P_SM-LF	m72[33C4 33C4 33C4 33C4]	ZH518	HOLE_VIA	m72[7B1]	A	R5605	RES_805	m72[56D5]	R7471	RES_402	m72[74C3]	RP3362	RP4K4P_SM-LF	m72[33A4 33C4 33D4 33A4]	ZH519	HOLE_VIA	m72[7B1]	A	R5606	RES_402	m72[56D6]	R7483	RES_402	m72[74B4]	S5000	SWI_TACT_4SM_EVQPH_S	m72[50D8]	ZH520	HOLE_VIA	m72[7C1]	A	R5607	RES_805	m72[56B5]	R7490	RES_402	m72[74B2]	M-LF	ZH521	HOLE_VIA	m72[7C1]	A	R5609	RES_805	m72[56B5]	R7491	RES_402	m72[74B2]	S5010	SWI_TACT_4SM_EVQPH_S	m72[50C7]	ZH522	HOLE_VIA	m72[7C1]	A	R5610	RES_1206	m72[56B6]	R7500	RES_402	m72[75D5]	M-LF	ZH523	HOLE_VIA	m72[7C1]	A	R5611	RES_402	m72[56B6]	R7501	RES_402	m72[75C2]	SC0700	SPRING_CLIP_1P_EMI_C	m72[7B6]	ZH524	HOLE_VIA	m72[7B1]	A	R5698	RES_402	m72[56A7]	R7504	RES_402	m72[75D7]	LIP-SM1	LIP-SM1	ZH525	HOLE_VIA	m72[7B1]	A	R5699	RES_402	m72[56C7]	R7505	RES_402	m72[75C7