

8

7

6

5

4

3

2

1

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.

M42B

MLB

NO_LDO

SCHEMATIC

3/22/2007

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RC-RAY CHANG

MK-MARC KLINGELHOFFER

LT-LAWRENCE TAN

LD-LINDA DUNN

DIMENSIONS ARE IN MILLIMETERS


XX ± _____

X.XX ± _____

X.XXX ± _____

ANGLES ± _____

DO NOT SCALE DRAWING



THIRD ANGLE PROJECTION

METRIC

DRAFTER

ENG APPD

QA APPD

RELEASE

DESIGN CK

MFG APPD

DESIGNER

SCALE


SIZE

D

MATERIAL/FINISH

NOTED AS

APPLICABLE

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TITLE

SCHEM,MLB NO_LDO,M42B

DRAWING NUMBER

051-7374

REV.

A

SHT

1

OF

79

8

7

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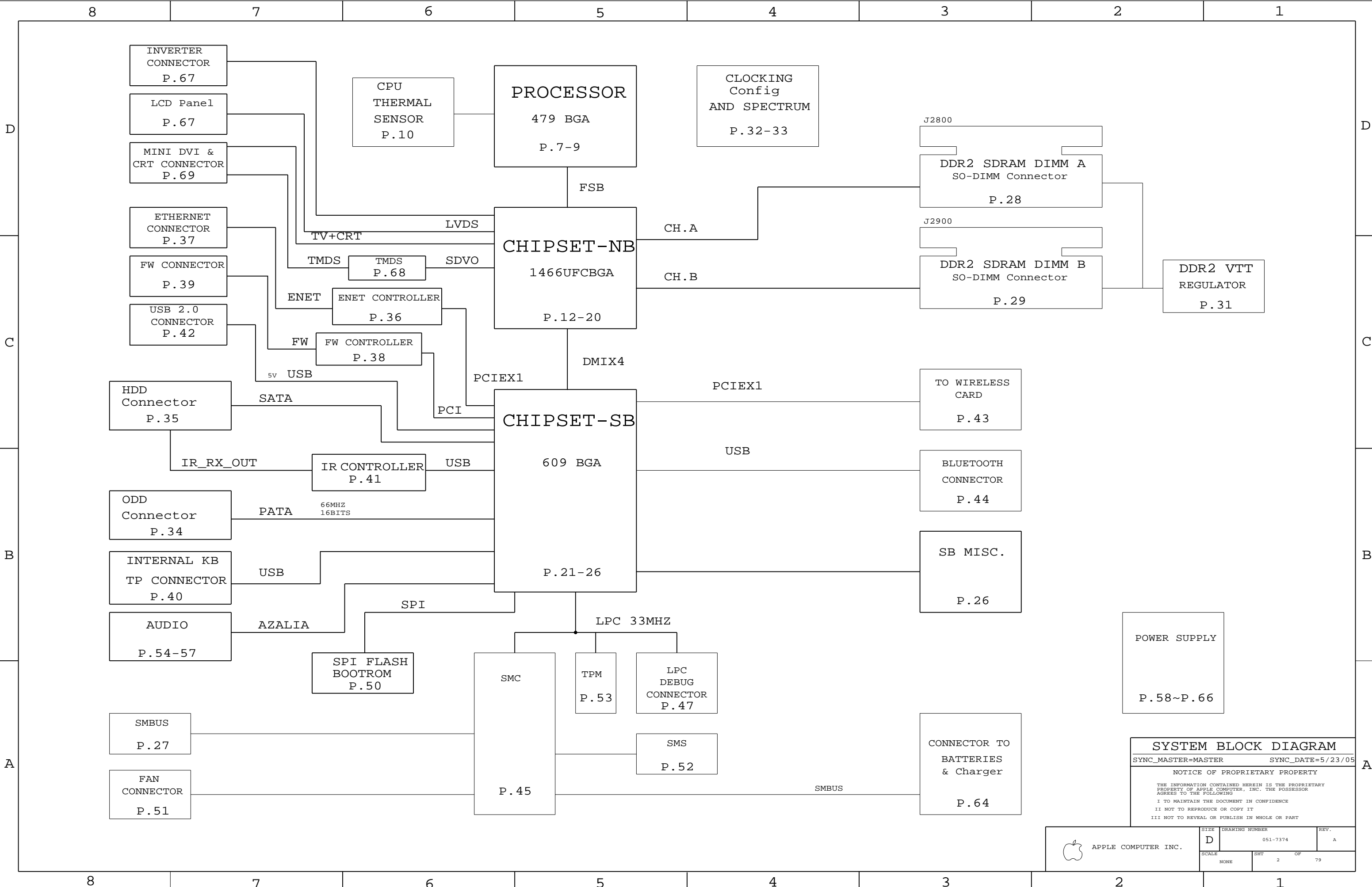
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2

1

Schematic / PCB #'s

PART#	QTY	DESCRIPTION	REFERENCE DESIGNATOR(S)	BOM OPTION
051-7374	1	SCHEM,M42B,MLB NO_LDO	SCH	
820-1889	1	PCBF,M42,MLB NO_LDO	PCB	



SYSTEM BLOCK DIAGRAM

SYNC_MASTER=MASTER

SYNC_DATE=5/23/05

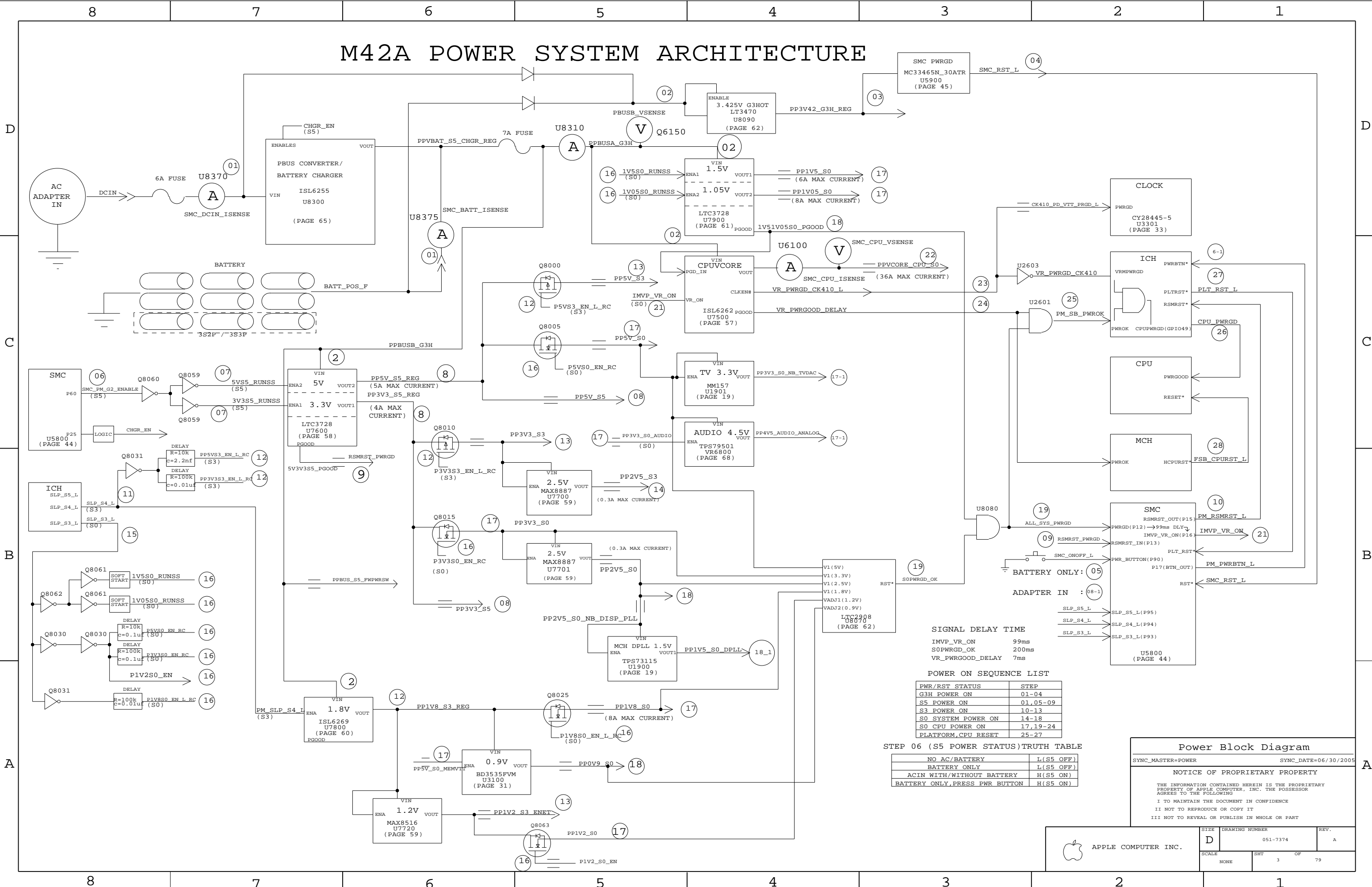
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SIGNAL DELAY TIME

IMVP_VR_ON	99ms
S0PWRGD_OK	200ms
VR_PWRGOOD_DELAY	7ms

POWER ON SEQUENCE LIST

PWR/RST STATUS	STEP
G3H POWER ON	01-04
S5 POWER ON	01,05-09
S3 POWER ON	10-13
S0 SYSTEM POWER ON	14-18
S0 CPU POWER ON	17,19-24
PLATFORM,CPU RESET	25-27

STEP 06 (S5 POWER STATUS) TRUTH TABLE

NO AC/BATTERY	L(S5 OFF)
BATTERY ONLY	L(S5 OFF)
ACIN WITH/WITHOUT BATTERY	H(S5 ON)
BATTERY ONLY,PRESS PWR BUTTON	H(S5 ON)

Power Block Diagram

SYNC_MASTER=POWER SYNC_DATE=06/30/2005

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SIZE	D	DRAWING NUMBER	051-7374	REV.	A
SCALE	NONE	SHT	3	OF	79

Functional Test Points

Power Supply NO_TESTS

NO_TEST		
58A3	IMVP6_RBFIAS	58A4 58B7
58A4	IMVP6_COMP	58A4 58B7
5955	5VS5_RUNSS	59B4 63C7
5956	1V5S0_RUNSS	62B5 63B7
5957	1V8S3_COMP	61B6
5959	1V8S3_FSET	61C6
5959	TRUE 3V3S5_COMP	
5959	TRUE 3V3S5_FSET	
5959	TRUE 1V0S50_COMP	
5959	TRUE 1V0S50_FSET	
5959	TRUE P3V42G3H_FB	63D2

CLOCK NO_TESTS

NO_TEST			
8330	TRUE	CK410 CPU0 N	3204 3305
8331	TRUE	CK410 CPU0 P	3204 3305
8332	TRUE	CK410 CPU1 N	3204 3305
8333	TRUE	CK410 CPU1 P	3204 3305
8334	TRUE	CK410 CPU2 ITP_SRC10 N	3204 3305
8335	TRUE	CK410 CPU2 ITP_SRC10 P	3204 3305
8336	TRUE	CK410 DOT96 27M N	3204 3305
8337	TRUE	CK410 DOT96 27M P	3204 3305
8338	TRUE	CK410 LVDS N	3204 3305
8339	TRUE	CK410 LVDS P	3204 3305
8340	TRUE	CK410 PC14 CLK SPN	3204 3305
8341	TRUE	CK410 PCIF1 CLK	3206 3308
8342	TRUE	CK410 SRC1 N SPN	683
8343	TRUE	CK410 SRC1 P SPN	683
8344	TRUE	CK410 SRC2 N	3204 3305
8345	TRUE	CK410 SRC2 P	3204 3305
8346	TRUE	CK410 SRC3 N SPN	683
8347	TRUE	CK410 SRC3 P SPN	683
8348	TRUE	CK410 SRC4 N	3204 3305
8349	TRUE	CK410 SRC4 P	3204 3305
8350	TRUE	CK410 SRC5 N	3204 3305
8351	TRUE	CK410 SRC5 P	3204 3305
8352	TRUE	CK410 SRC6 N	3204 3305
8353	TRUE	CK410 SRC6 P	3204 3305
8354	TRUE	CK410 SRC7 N SPN	683
8355	TRUE	CK410 SRC7 P SPN	683
8356	TRUE	CK410 SRC8 N	3204 3305
8357	TRUE	CK410 SRC8 P	3204 3305
8358	TRUE	CK410 SRC CLKREQ1 L SPN	683
8359	TRUE	CK410 SRC CLKREQ3 L SPN	683
8360	TRUE	CK410 SRC CLKREQ8 L	3204 3305

```
FIREWARE NO_TESTS
```

NO_TEST	
1919	TRUE FW B TPA N SPN
1920	TRUE FW B TPA P SPN
1921	TRUE FW B TPBIAS SPN
1922	TRUE FW B TPB N SPN
1923	TRUE FW B TPB P SPN
1924	TRUE FW C TPA N SPN
1925	TRUE FW C TPA P SPN
1926	TRUE FW C TPBIAS SPN
1927	TRUE FW C TPB N SPN
1928	TRUE FW C TPB P SPN

LVDS NO_TESTS

NO_TEST		
8200	TRUE	LVDS_B_CLK_N_SPN
8201	TRUE	LVDS_B_CLK_P_SPN
8202	TRUE	LVDS_B_DATA_N0_SPN
8203	TRUE	LVDS_B_DATA_N1_SPN
8204	TRUE	LVDS_B_DATA_N2_SPN
8205	TRUE	LVDS_B_DATA_P1_SPN
8206	TRUE	LVDS_B_DATA_P2_SPN

ETHERNET NO_TESTS

NO_TEST			
P210	TRUE	ENET MDI TRAN	P<2>
P211	TRUE	ENET MDI TRAN	N<2>
P212	TRUE	ENET MDI TRAN	P<3>

NO_TEST		
7210	TRUE	SMC FAN 3 TACH 45B8 46C3
7220	TRUE	ALS LEFT 45A8 46C3

Fan Connectors

FUNC_TEST		
TRUE	=PP5V S0 FAN RT	5104 6401
TRUE	FAN RT PWM	5183
TRUE	FAN RT TACH	5103
TRUE	=PP3V3 S0 FAN RT	5104 6404
TRUE	SMC FAN 1 CTL	4588 5186
TRUE	SMC FAN 1 TACH	4588 5104

LPC+ Debug Connector

FUNC_TEST			
FAIL	TRUE	=PP3V42 G3H LPCPLUS	4706 6401
FAIL	TRUE	=PP5V S0 LPCPLUS	4706 6403
FAIL	TRUE	LPC AD<0>	21D4 45D8 4706 5306
FAIL	TRUE	LPC AD<1>	21D4 45D8 4706 5306
FAIL	TRUE	LPC FRAME L	21C5 45C8 4706 5306
FAIL	TRUE	PM CLKRUN L	23C8 38A5 4505 4706
FAIL	TRUE	BOOT LPC SPI L	22B3 45C8 4706
FAIL	TRUE	SMC RST	45A5 46C6 4706
FAIL	TRUE	DEBUG TMS L	36B1 4706
FAIL	TRUE	SMC TRST L	45C1 4706
FAIL	TRUE	SMC TDO	45C1 4706
FAIL	TRUE	SMC MD1	45C5 46C6 4786
FAIL	TRUE	SMC TX L	45C2 4786
FAIL	TRUE	FWH INIT L	46B2 21C4 47A5
FAIL	TRUE	PCI CLK PORT80 LPC	33D6 47C5
FAIL	TRUE	LPC AD<2>	21D4 45D8 4706 5306
FAIL	TRUE	LPC AD<3>	21D4 45D8 4706 5306
FAIL	TRUE	INT SERIRQ	23C8 45C8 4706 5306
FAIL	TRUE	PM_SUS_STAT L	23C5 45D5 46D3 47C5
FAIL	TRUE	SMC TDI	45C1 46C6 47C5
FAIL	TRUE	SMC TCK	45C1 46C6 47C5
FAIL	TRUE	SMC RST L	45C1 46D7 47C5
FAIL	TRUE	SMC NMI	45C1 4785
FAIL	TRUE	SMC RX L	45C8 46B2 46D6 4785
FAIL	TRUE	SV SET UP	2386 23C3 4785

Other Func Test Points

```

FUNC_TEST
TRUE =PP1V05 S0 REG

```

Address	Value	Register Name
0182	TRUE	SMBUS_SMC_MLB_SCL
0183	TRUE	SMBUS_SMC_MLB_SDA

```

FIREWIRE_FUNC_TEST
1850  TRUE      PFW_SWITCH      3904
SLEEP_LED_FUNC_TEST
1850  TRUE      SYS_LED_ANODE   35C5 46A3

```

SMC_FUNC_TEST			
8150	TRUE	SMC LID	40C4 45B5 46C6 65AB
8150	TRUE	SMC MANUAL_RST_L	46D8
8150	TRUE	SMC_CPU_VSENSE	45D5 48B1

Power Supply FUNC_TEST		
HW00	TRUE	ALL SYS PWRGPD 26A5 45D8 63B1
HW01	TRUE	PPVCORE CPU_S0
HW02	TRUE	PP1V05_S0 6407
HW03	TRUE	PP1V5_S0 6407
HW04	TRUE	PP1V8_S0 6407
HW05	TRUE	PP2V5_S0 64B7
HW06	TRUE	PP3V3_S0 64B7
HW07	TRUE	PP5V_S0 64D4
HW08	TRUE	PP1V2_S3 64C4
HW09	TRUE	PP1V8_S3 64C4
HW10	TRUE	PP2V5_S3 64C4
HW11	TRUE	PP3V3_S3 64B4
HW12	TRUE	PP5V_S3 64B4
HW13	TRUE	PP3V3_S5 64A4
HW14	TRUE	PP5V_S5 64D1
HW15	TRUE	PP3V42_G3H
HW16	TRUE	PPBUSA_G3H 64C1
HW17	TRUE	PPBUSB_G3H 64C1
HW18	TRUE	PP18V5_G3H 64D7
HW19	TRUE	PP0V9_S0

Battery Digital Connector

FUNC_TEST			
64	TRUE	SMC_BS_ALRT_L	45C5 46C6 65A2
65	TRUE	SMBUS_BATT_SCL_F	65B6
66	TRUE	SMBUS_BATT_SDA_F	65A6
67	TRUE	BATT_IN	
68	TRUE	BATT_POS	65A6
69	TRUE	BATT_NEG	65A6

Audio FUNC_TEST

PS	TRUE	PP5V_S0_AUDIO_PWR	
PS	TRUE	PP5V_S0_AUDIO	
PS	TRUE	GND_AUDIO_PWR	6482
PS	TRUE	GND_AUDIO_CODEC	6482
PS	TRUE	ACZ_SDATAIN<0>	21C7 54D7
PS	TRUE	ACZ_SDATAOUT	21C7 54D7
PS	TRUE	ACZ_BITCLK	21C7 54D7
PS	TRUE	ACZ_RST_L	21C7 54C7 57C3
PS	TRUE	ACZ_SYNC	21C7 54D7

Battery FUNC_TEST

PS0	TRUE	SMC BATT ISET	45B5 66B7
PS1	TRUE	SMC BATT CHG EN	45D8 46B6 66A4
PS2	TRUE	SMC BC ACOK	45C5 46B6 65C3 46E7 66A3
PS3	TRUE	SMC PS ON	30C5 45D5 46B3 65C3
PS4	TRUE	SMC BATT TRICKLE EN L	45D8 46B6 66A3
PS5	TRUE	SYS ONEWIRE	45B8 46D6 65C8

USB_FUNC_TEST

44	TRUE	TP USBP E
47	TRUE	TP USBN E
46	TRUE	TP USBP F
48	TRUE	TP USBN F

DC-JACK_FUNC_TEST

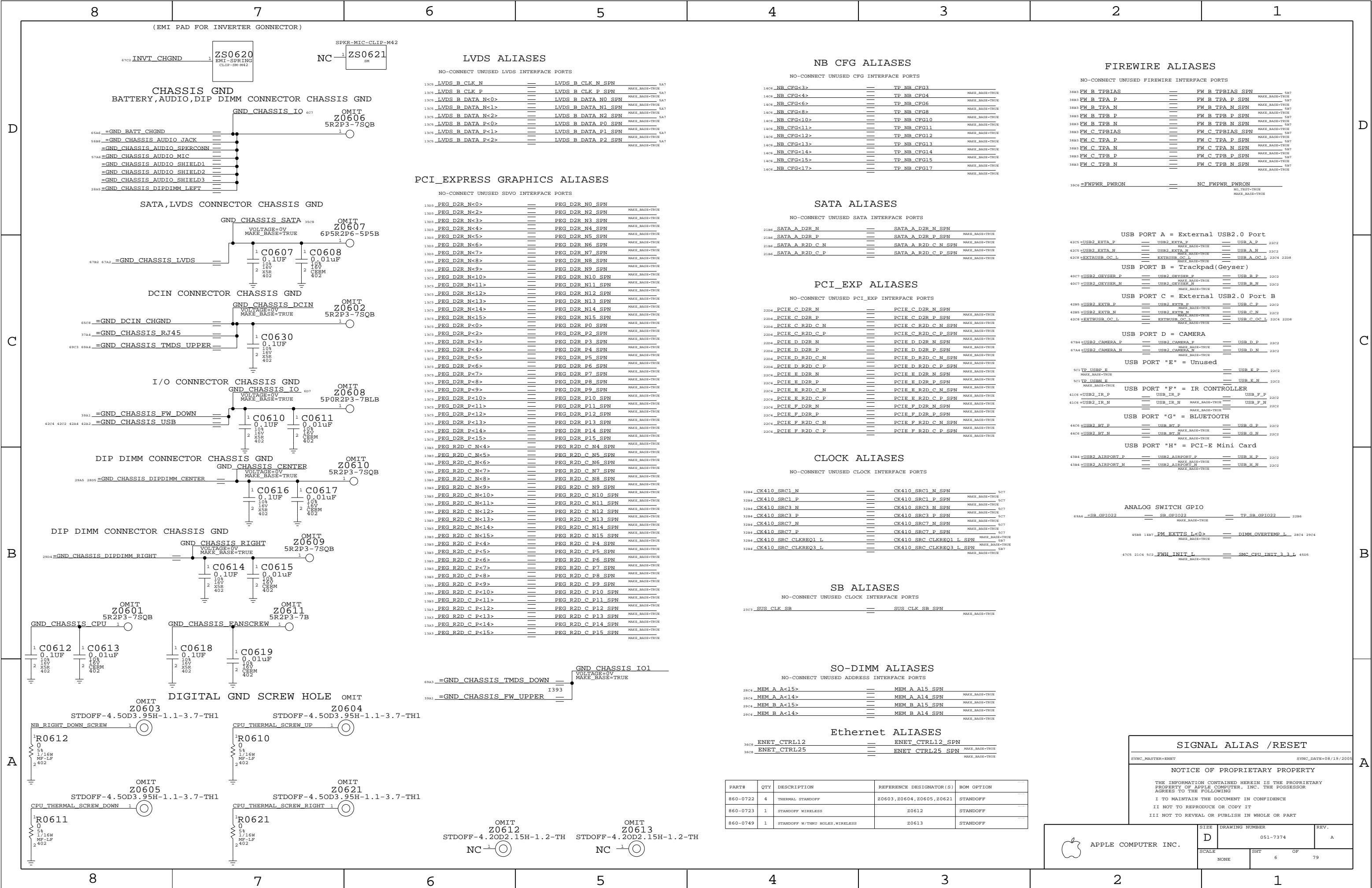
157	TRUE	ACIN_ENABLE_GATE	65C3
-----	------	------------------	------

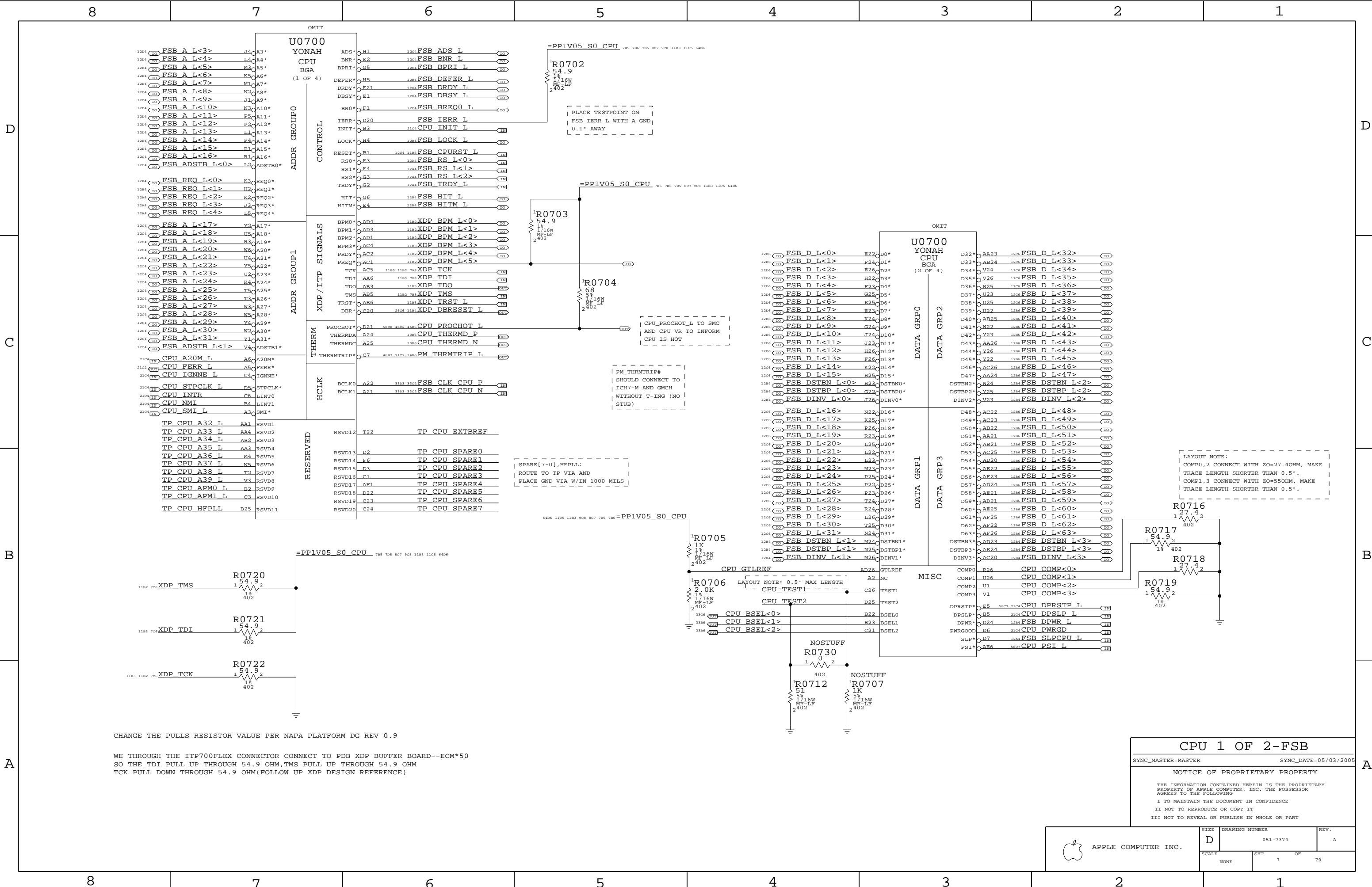
Battery charger FUNC_TEST

TRUE PPVBAT_G3H_CHGR_OUT 66B5 66C2

INVERTER CONNECTOR FUNC_TEST

160	TRUE	PPBUS_ALL_INV_CONN	67D
159	TRUE	INV_GND	67D
161	TRUE	PP5V_INV_F	67D
162	TRUE	INV_BKLIGHT_PWM_L	67D





CHANGE THE PULLS RESISTOR VALUE PER NAPA PLATFORM DG REV 0.9

WE THROUGH THE ITP700FLEX CONNECTOR CONNECT TO PDB XDP BUFFER BOARD--ECM*50
SO THE TDI PULL UP THROUGH 54.9 OHM,TMS PULL UP THROUGH 54.9 OHM
TCK PULL DOWN THROUGH 54.9 OHM(FOLLOW UP XDP DESIGN REFERENCE)

CPU 1 OF 2-FSB

SYNC_MASTER=MASTER SYNC_DATE=05/03/2005

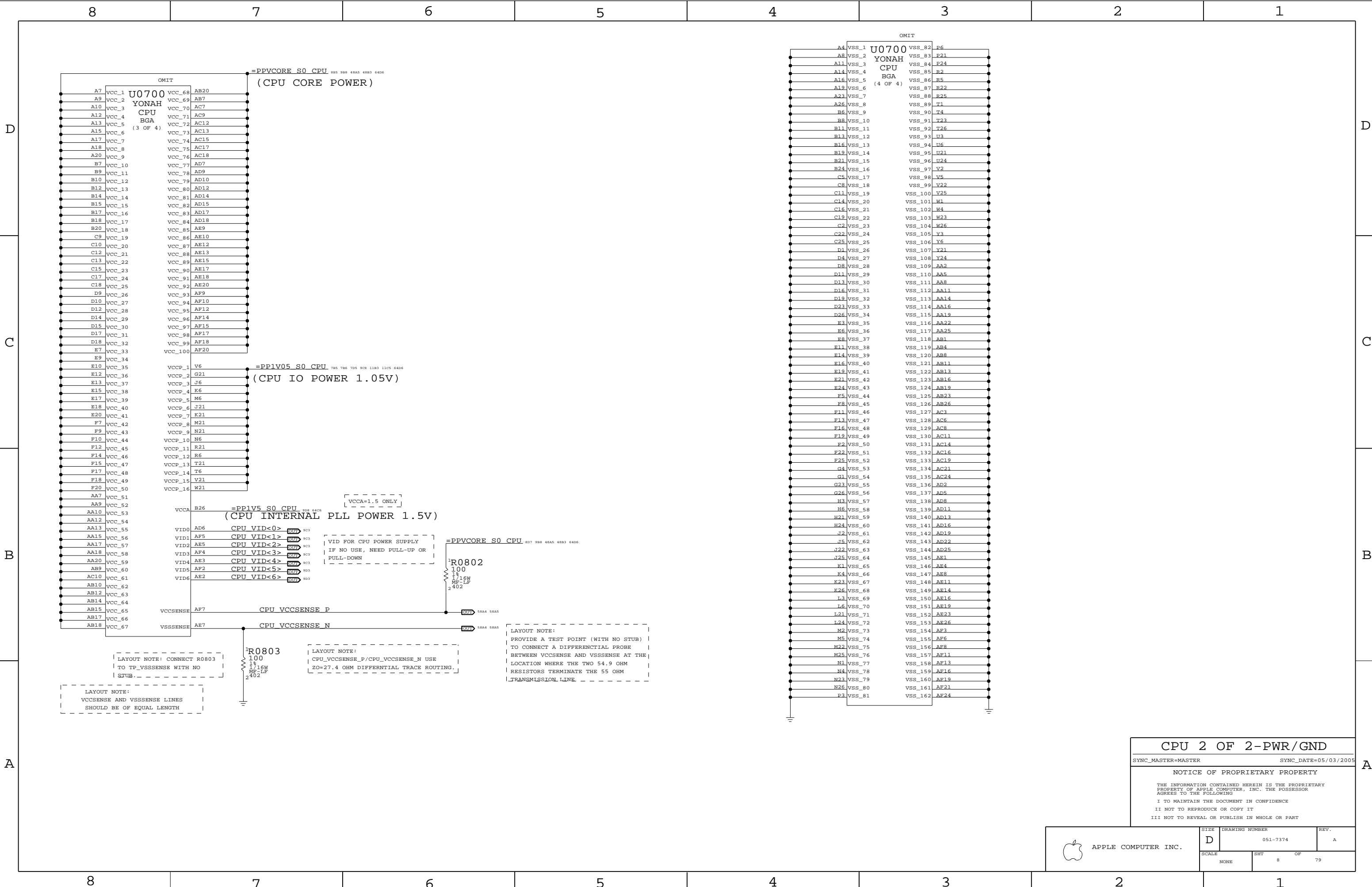
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SIZE	DRAWING NUMBER	REV.
D	051-7374	A
SCALE	SHT	OF
NONE	7	79



CPU 2 OF 2-PWR/GND

SYNC_MASTER=MASTER

SYNC_DATE=05/03/2005

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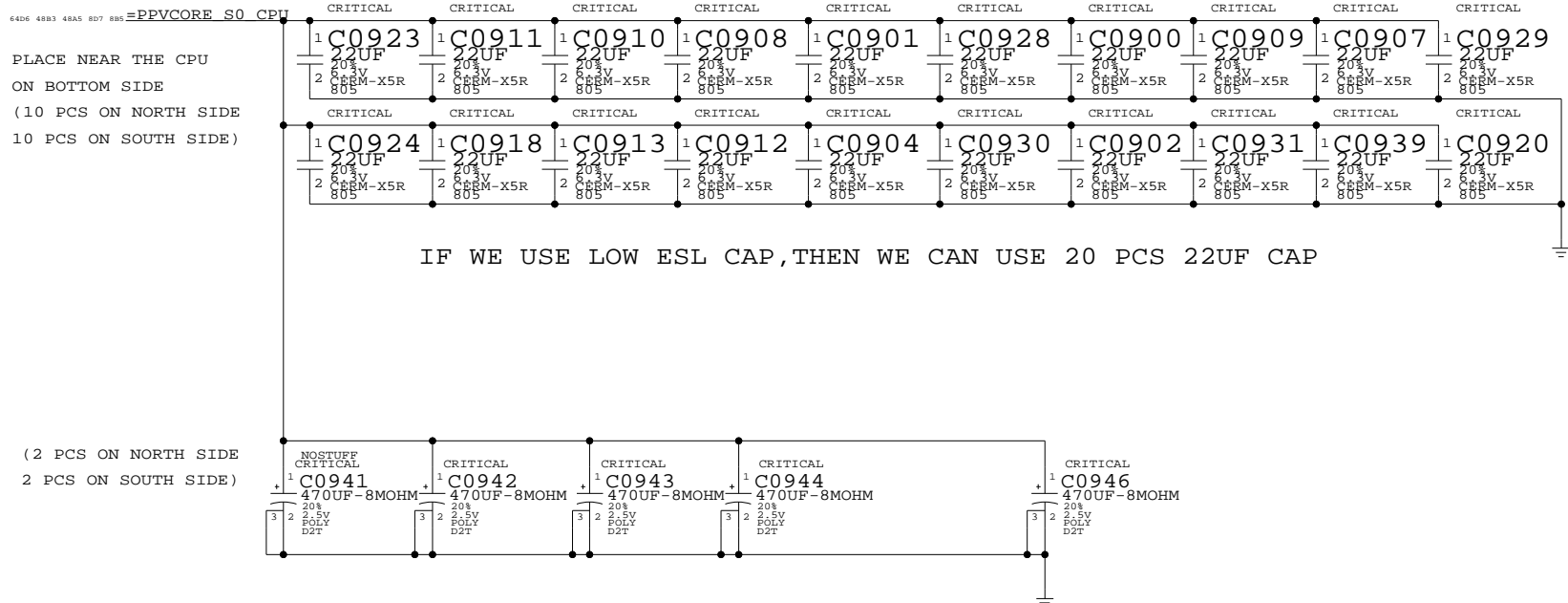
III NOT TO REVEAL OR PUBLISH IN WHOLE OR PART

APPLE COMPUTER INC.	SIZE	DRAWING NUMBER	REV.
	D	051-7374	A
SCALE		SHT	OF
NONE		8	79

D

B

A



D



B

AUNIT: V

# ALL PROCESSOR DEFAULT VCORE FOR INITIAL POWER UP IS 1.2V	
# TWO PROCESSORS AT THE SAME FREQUENCY MAY HAVE DIFFERENT SETTING	
# WITH THE VID RANGE(VCORE VOLTAGE)!	
# REFER TO YONAH PROCESSOR EMTS REV 1.0	CPU DECAPS & VI
# VCCHFM: VCORE AT HIGHEST FREQUENCY MODE	
# VCCLFM: VCORE AT LOWEST FREQUENCY MODE	

```

CPU DECAPS & VID<>

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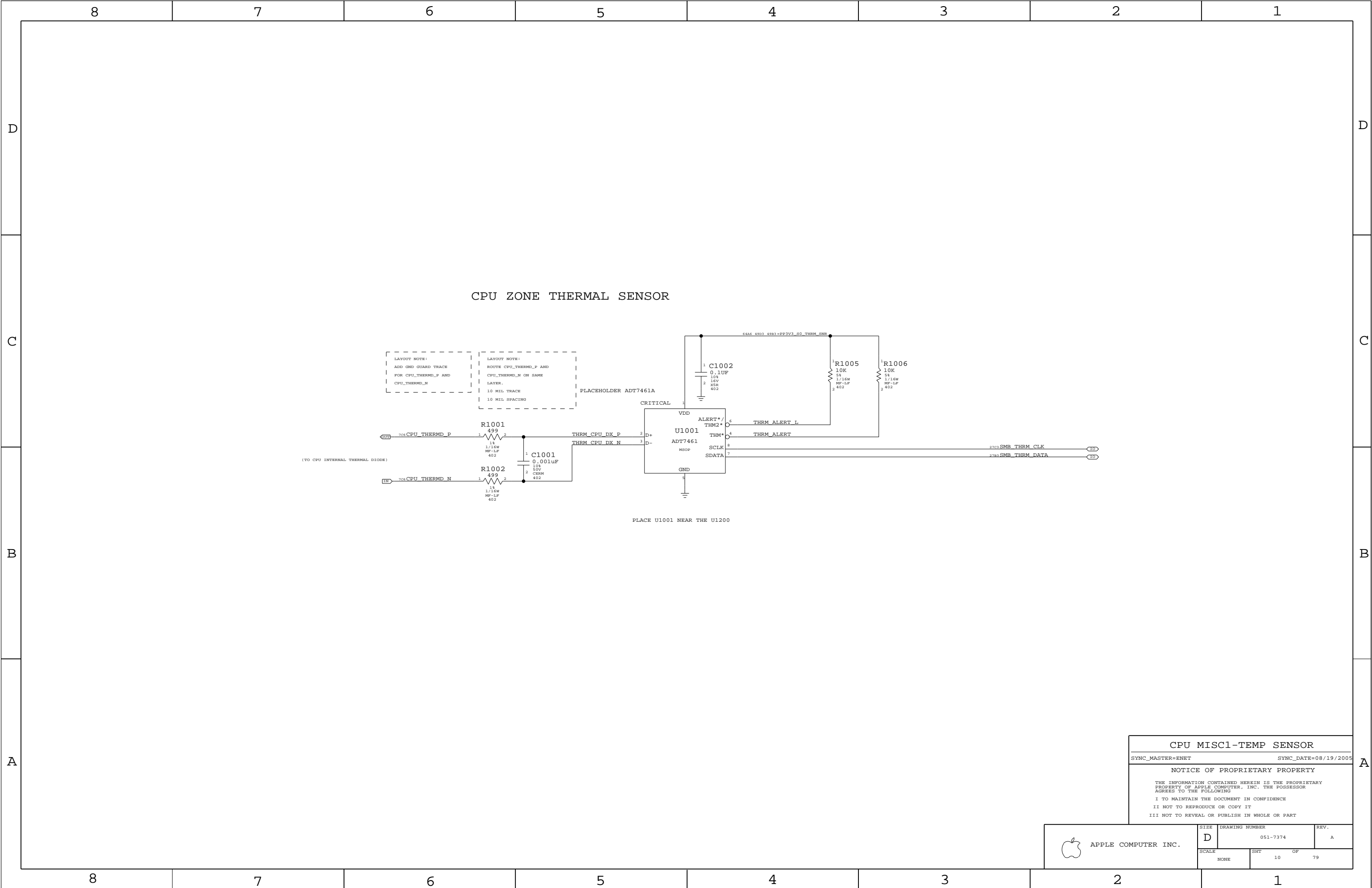
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APPLE COMPUTER INC.

SIZE D	DRAWING NUMBER 051-7374	REV. A
SCALE NONE	SHT 9	OF 79



PLACE U1001 NEAR THE U1200

CPU MISC1-TEMP SENSOR

SYNC_MASTER=ENET

SYNC_DATE=08/19/2005

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APPLE COMPUTER INC.

SCALE
NONE

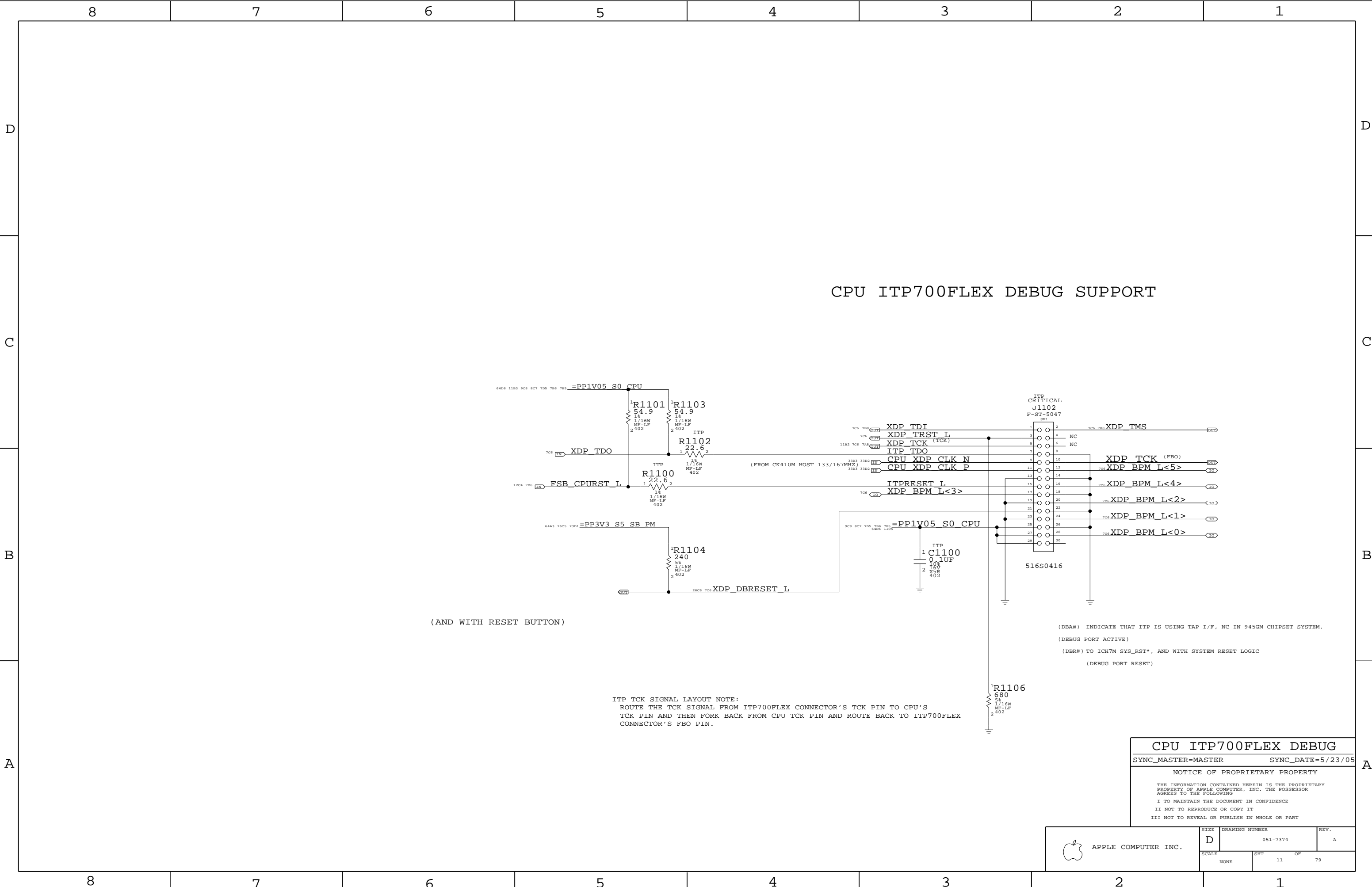
SIZE
D

DRAWING NUMBER
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D

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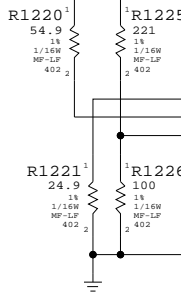
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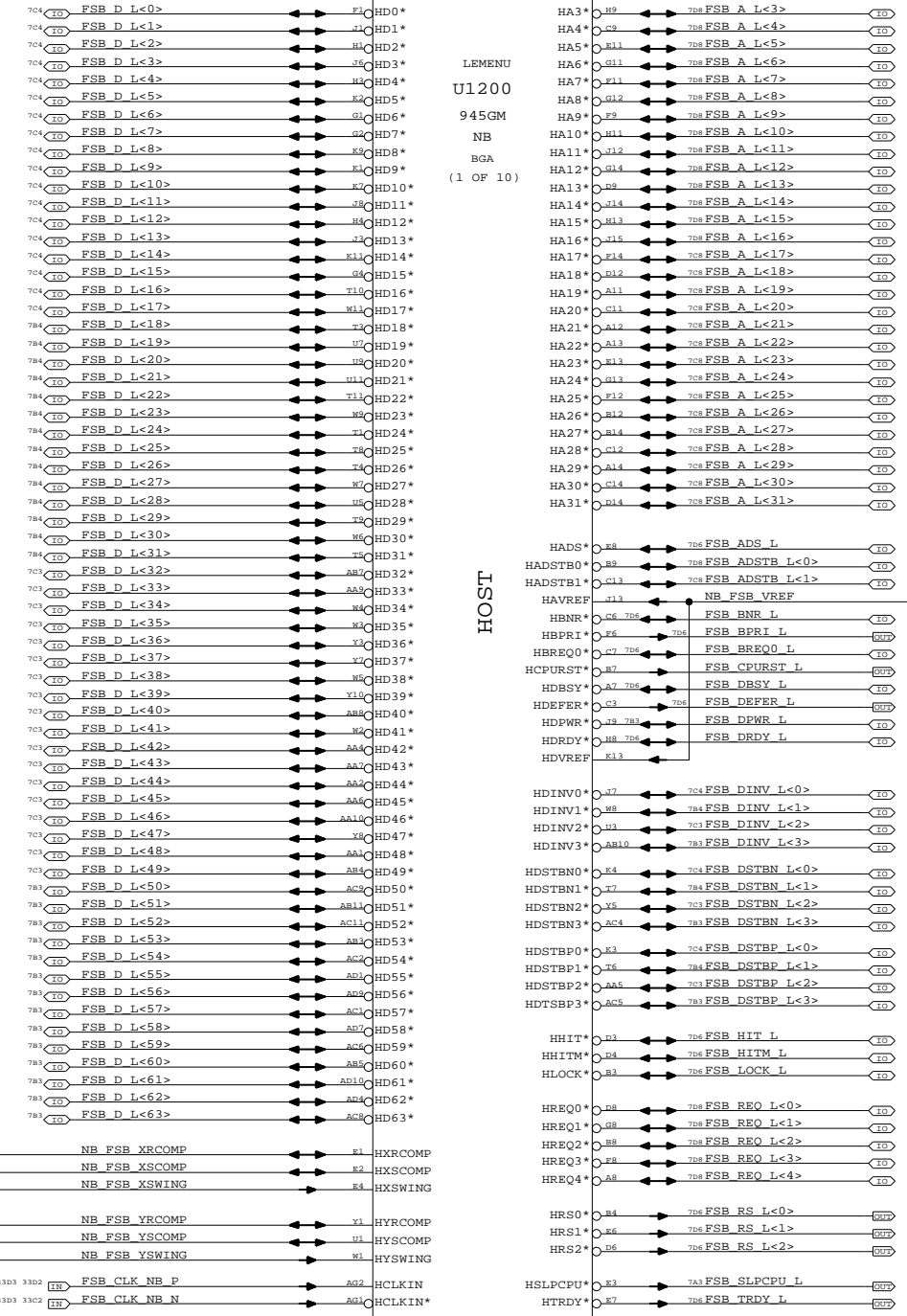
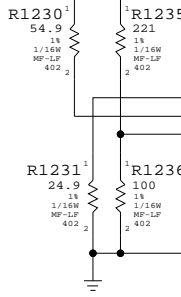
B

A

6406 3308 3307 3388 1907 1202 12A7 =PP1V05_S0_FSB_NB



6406 3308 3307 3388 1907 1202 12B7 =PP1V05_S0_FSB_NB



NB CPU Interface

SYNC_MASTER=NB SYNC_DATE=07/25/2005

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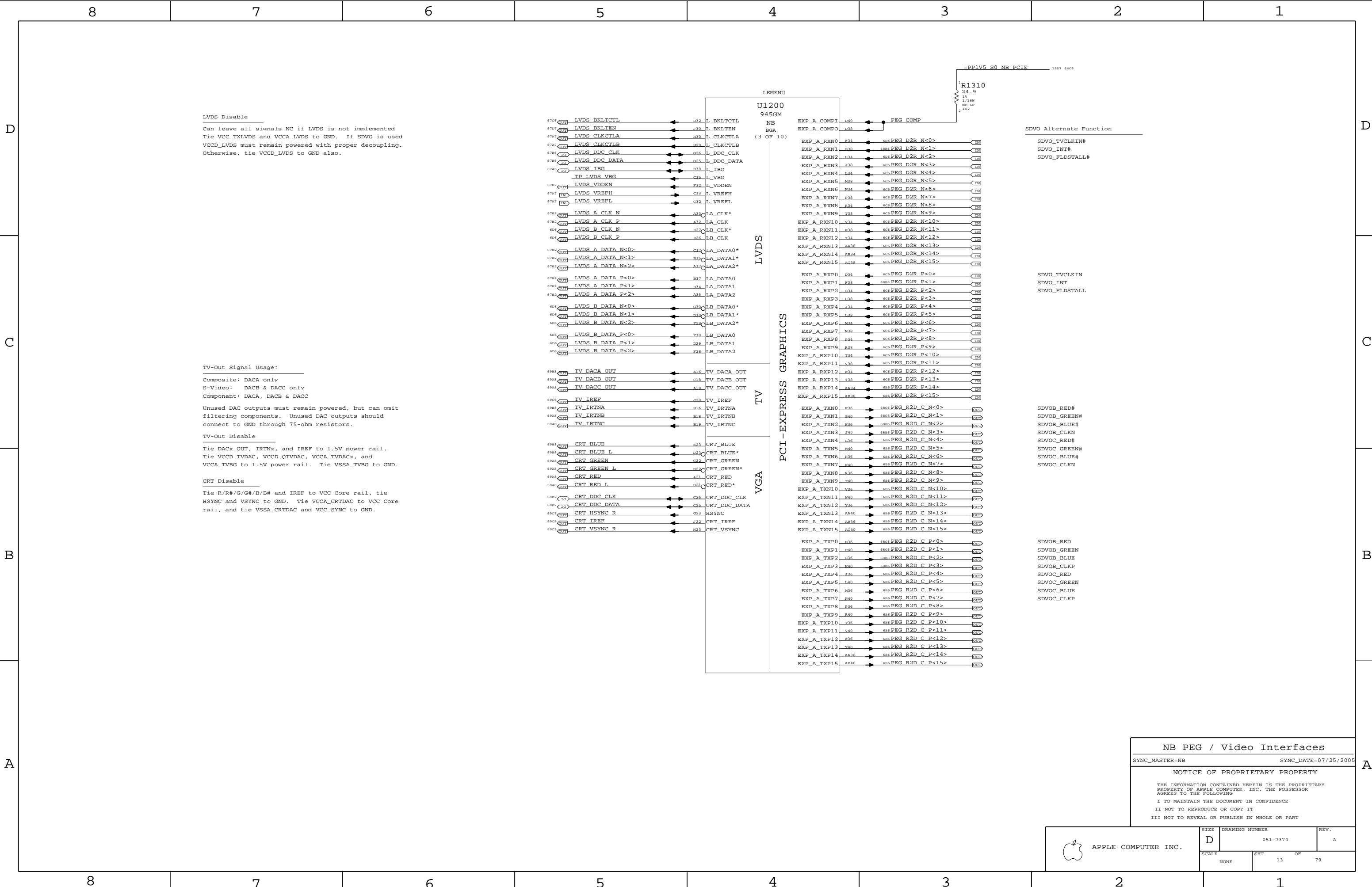
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	D	051-7374	A
SCALE	SHT	OF	79
NONE	12		



NB PEG / Video Interfaces

SYNC_MASTER=NB

SYNC_DATE=07/25/2005


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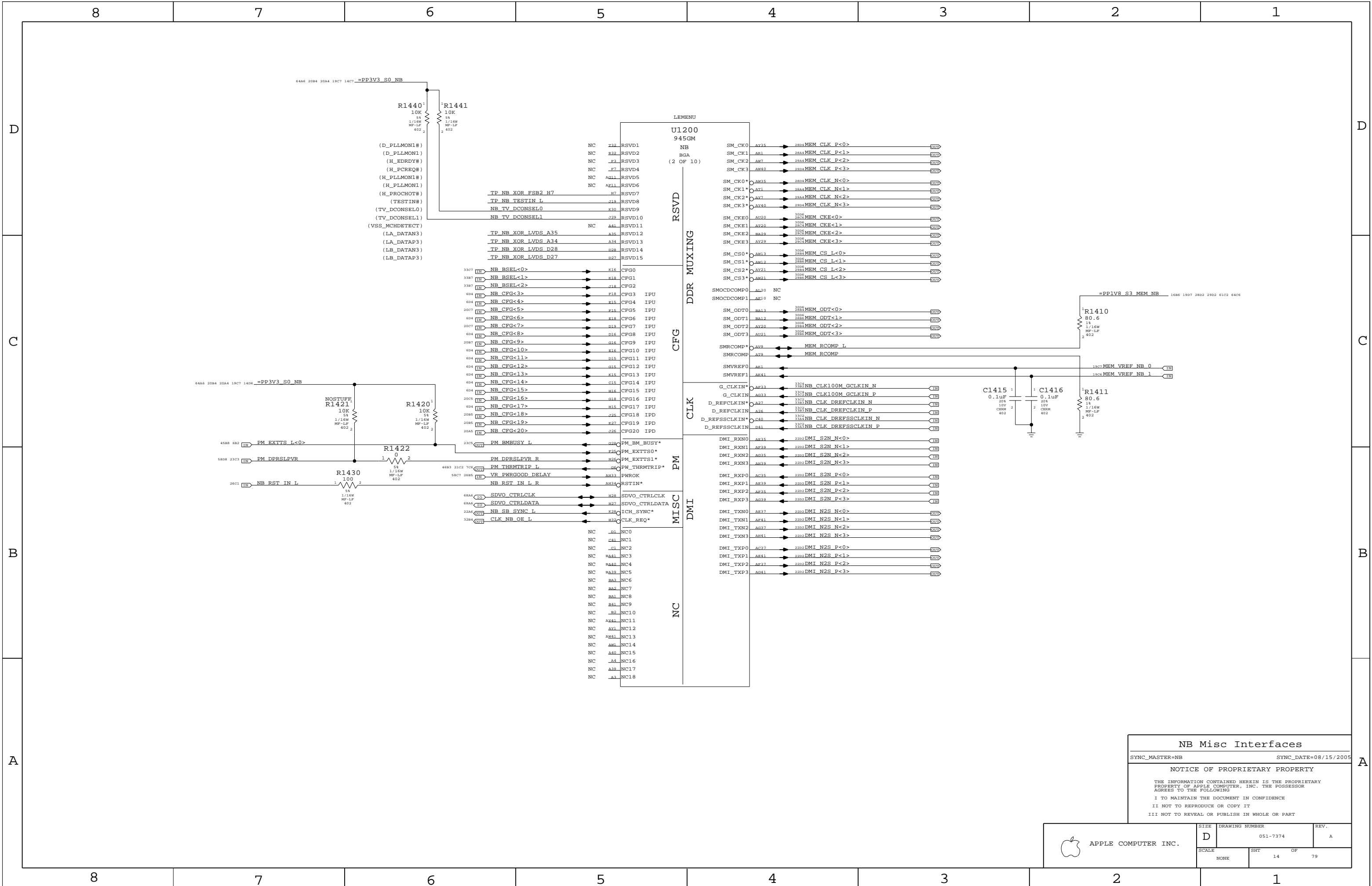
DRAWING NUMBER
051-7374

REV.
A

SCALE
NONE

SHT
13

OF
79



NB Misc Interfaces

SYNC_MASTER=NB

SYNC_DATE=08/15/2005

NOTICE OF PROPRIETARY PROPERTY

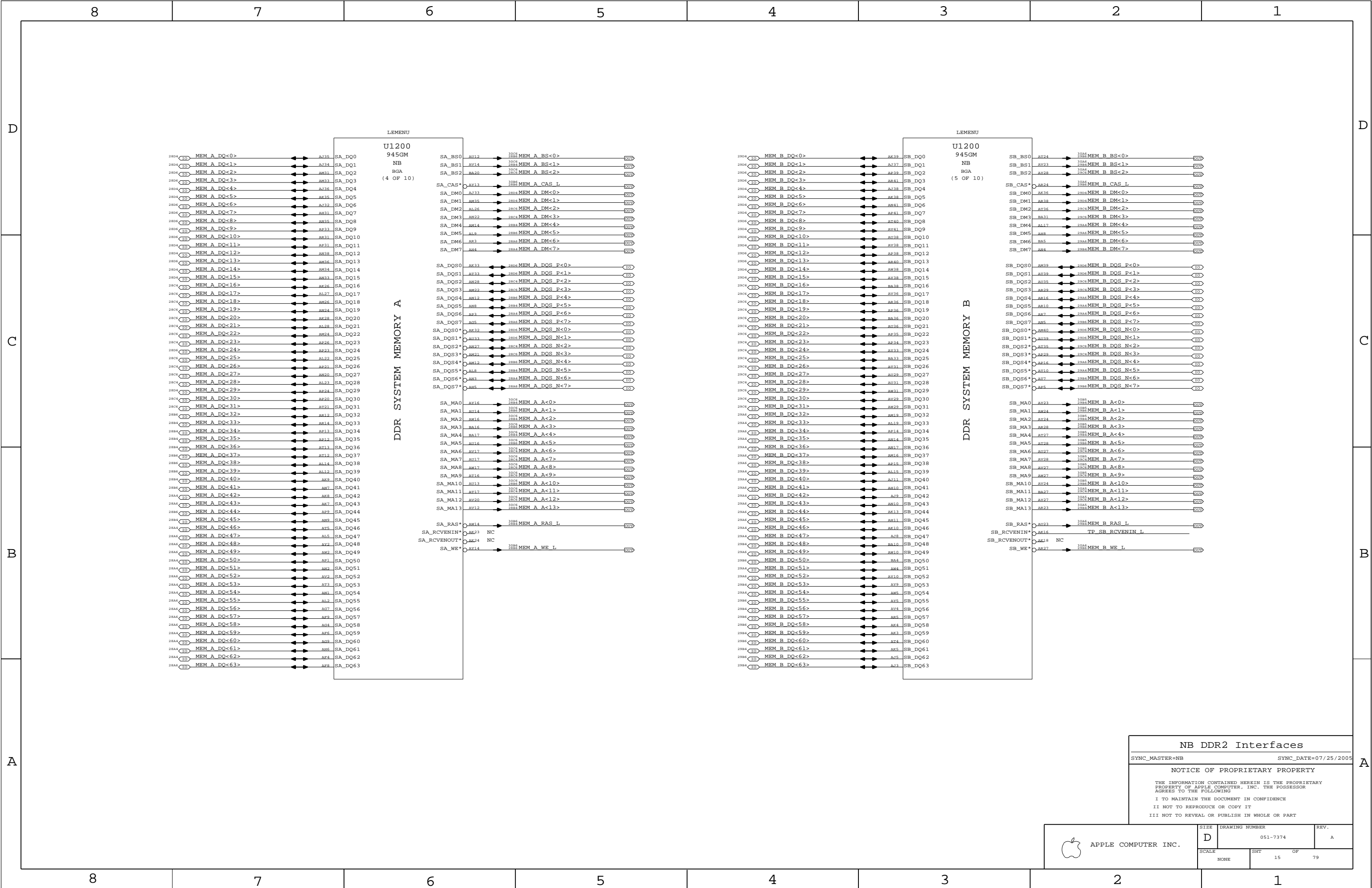
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SCALE		SHT	OF	
NONE		14	79	



NB DDR2 Interfaces

SYNC_MASTER=NB SYNC_DATE=07/25/2005

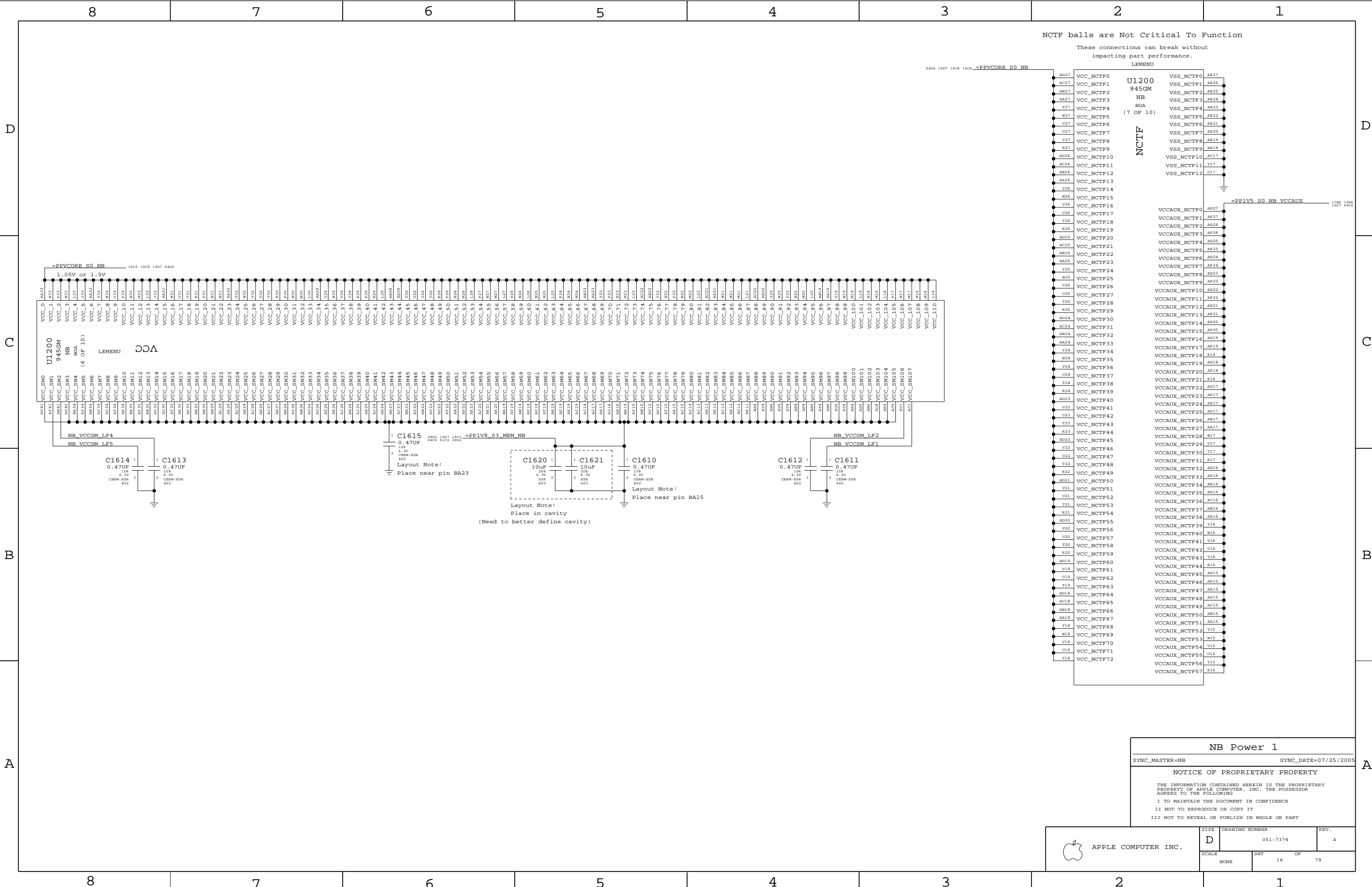
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NB Power 1

SYNC_MASTER=NB

SYNC_DATE=07/25/2005

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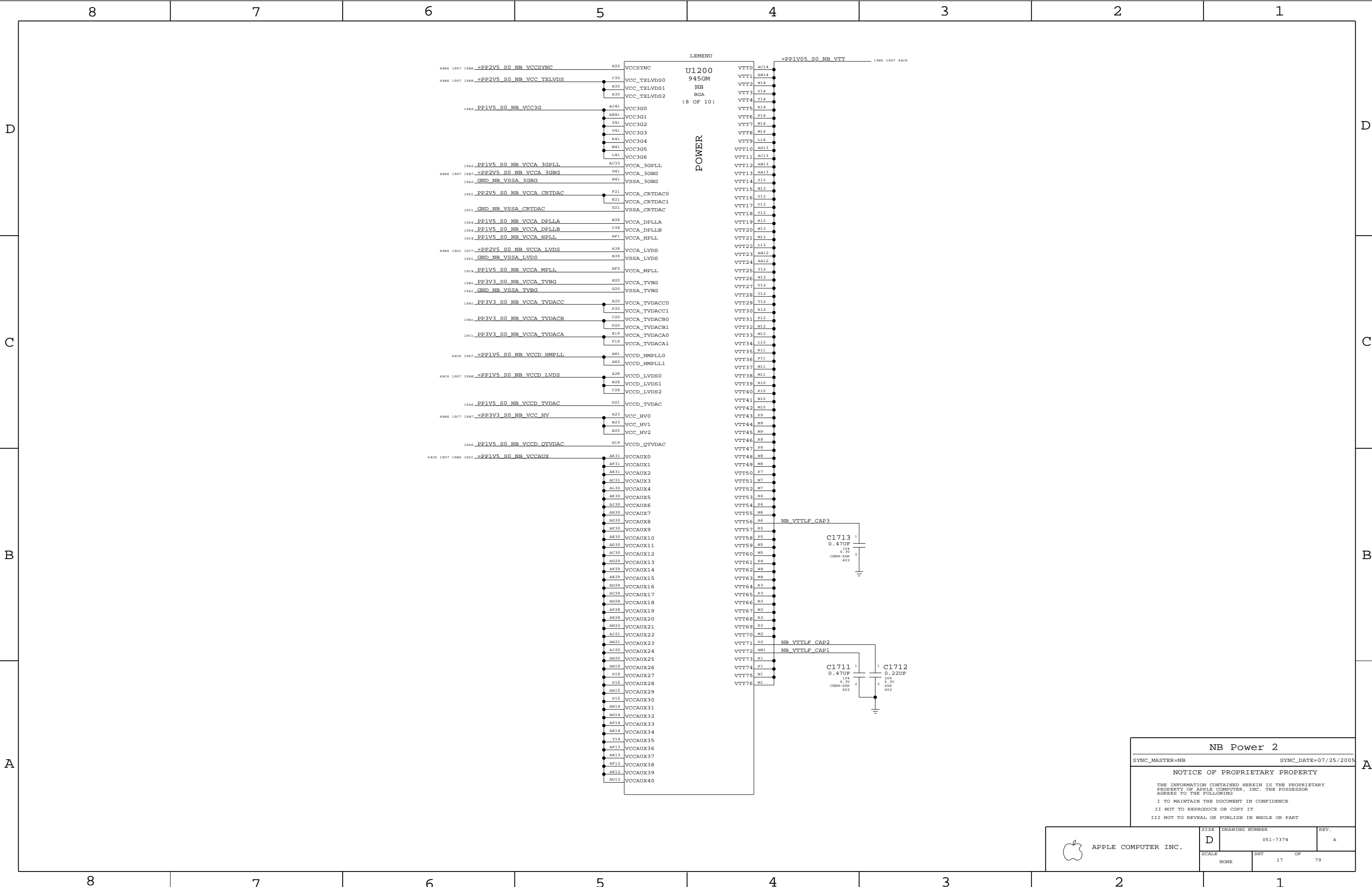
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SCALE	SHT OF		
	NONE	16	79



NB Power 2

SYNC_MASTER=NB

SYNC_DATE=07/25/2005

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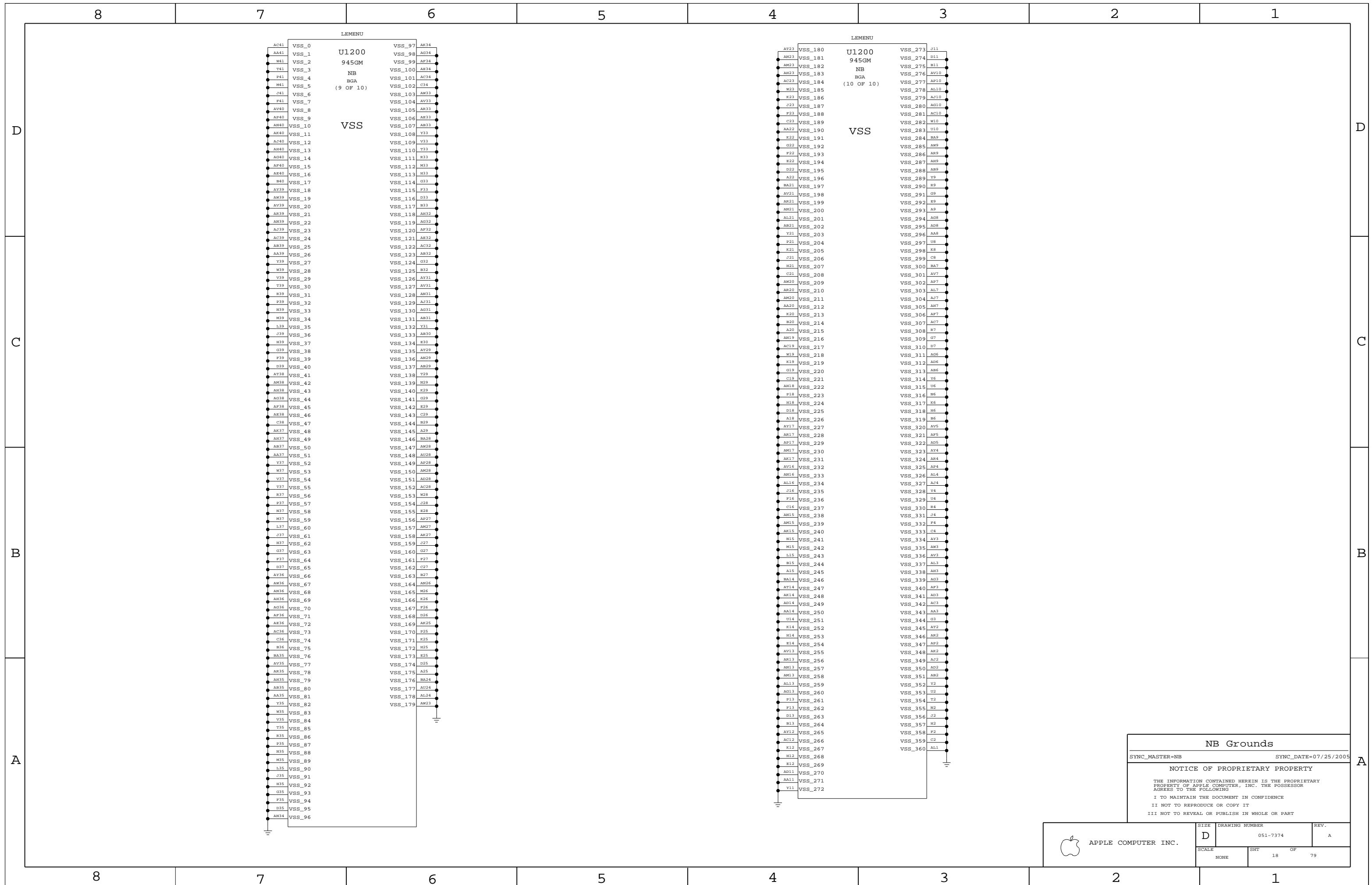
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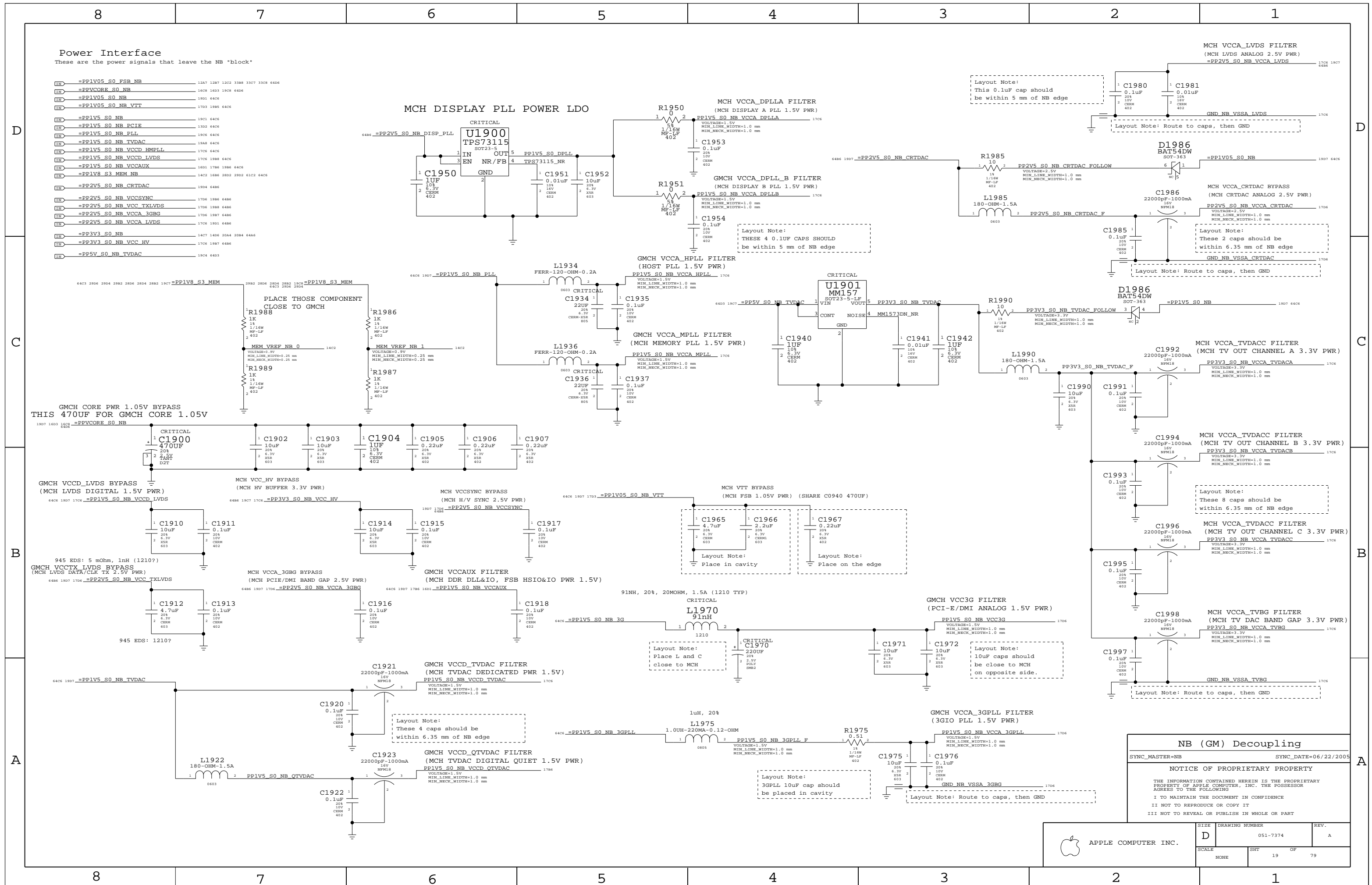
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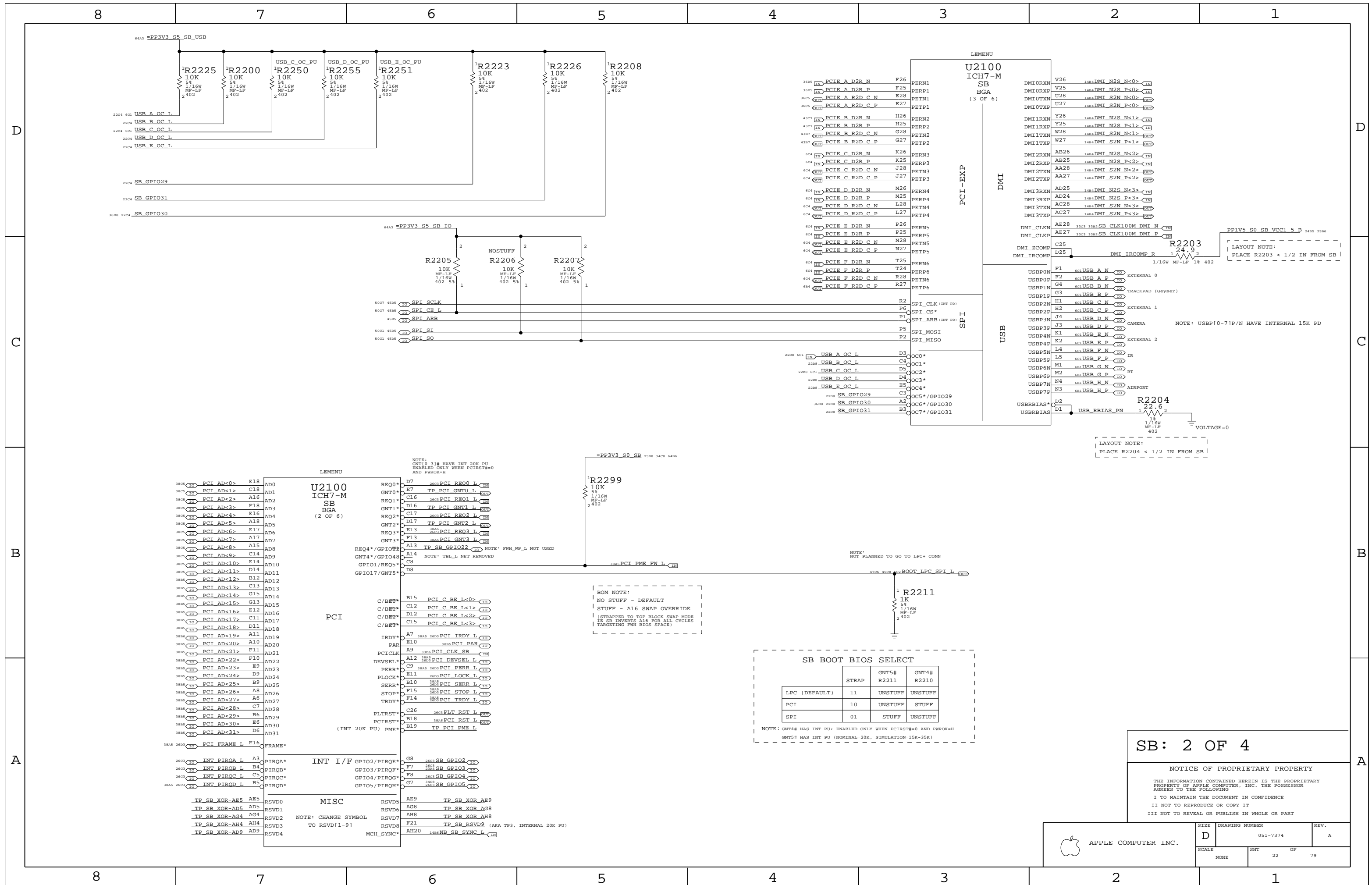
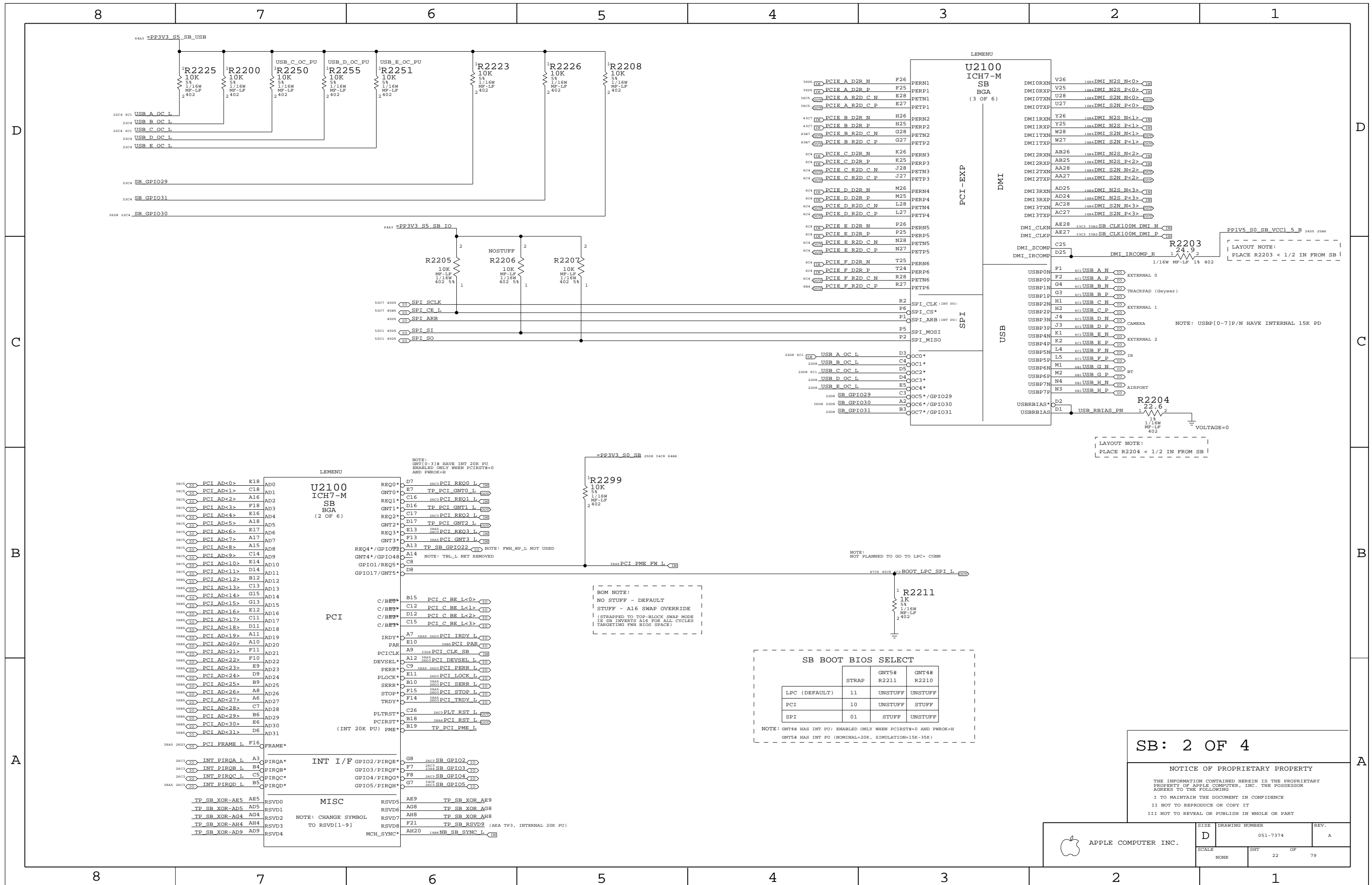
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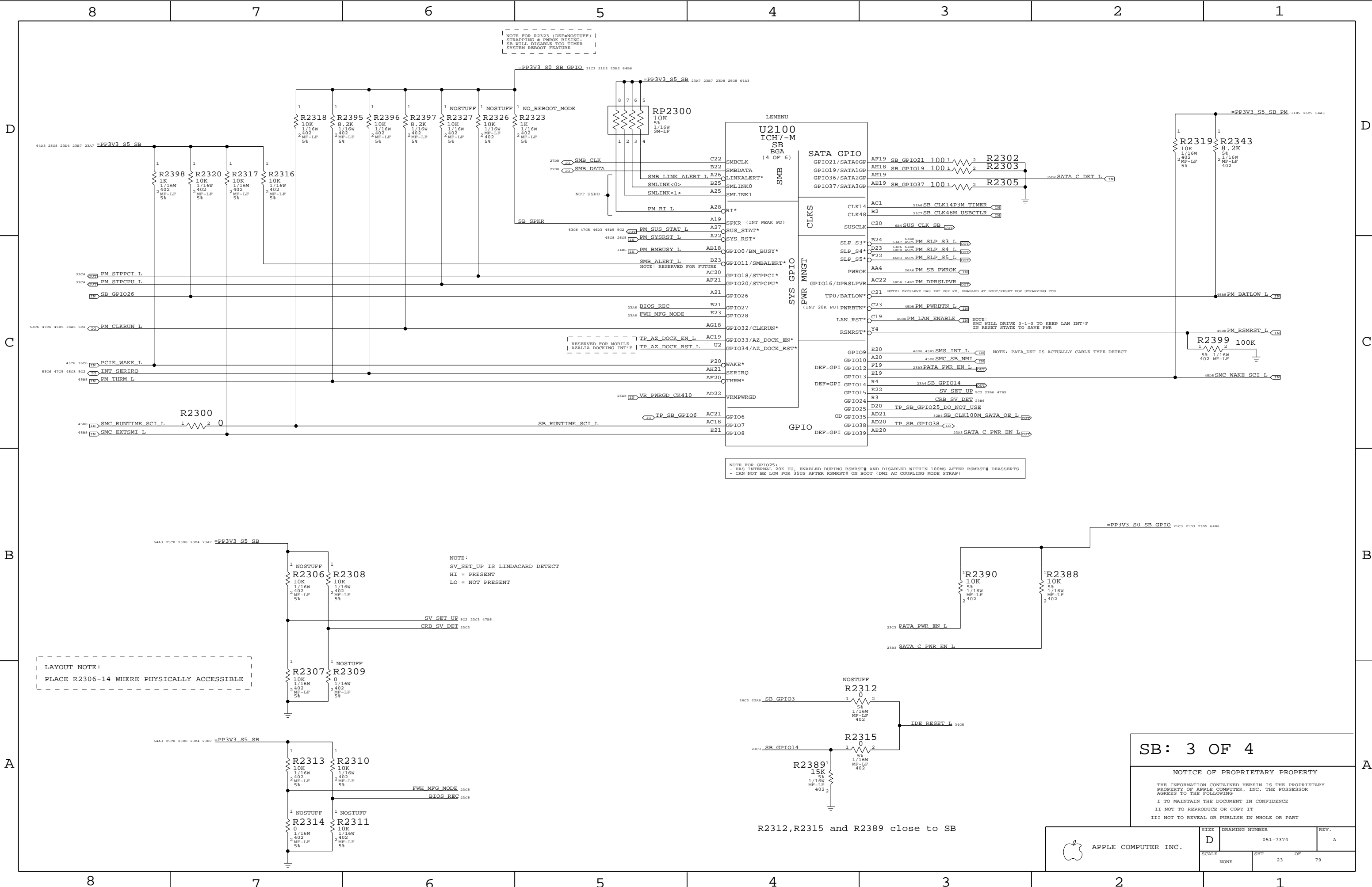
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	D	051-7374	A
	SCALE	SHT	OF
NONE		17	79





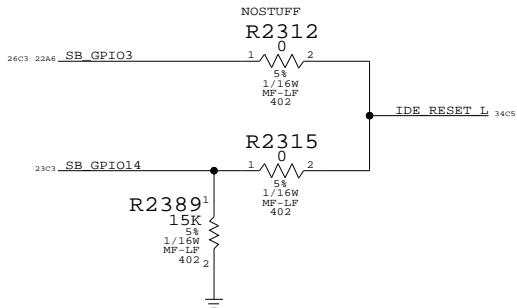




NOTE FOR GPIO25:
- HAS INTERNAL 20K PU, ENABLED DURING RSMRST# AND DISABLED WITHIN 100MS AFTER RSMRST# DEASSERTS
- CAN NOT BE LOW FOR 35US AFTER RSMRST# ON BOOT (DMI AC COUPLING MODE STRAP)

NOTE:
SV_SET_UP IS LINDACARD DETECT
HI = PRESENT
LO = NOT PRESENT

LAYOUT NOTE:
PLACE R2306-14 WHERE PHYSICALLY ACCESSIBLE



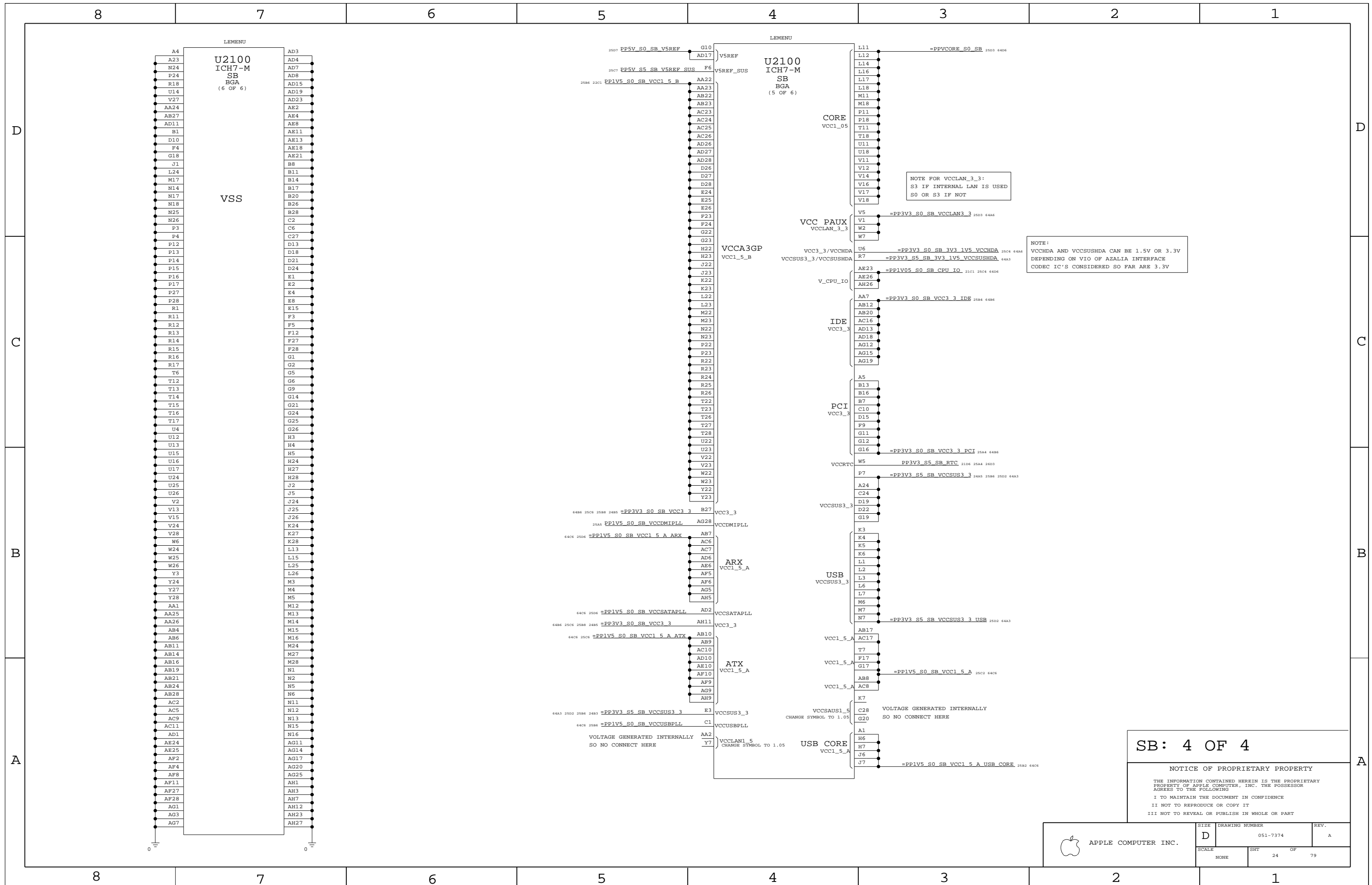
R2312,R2315 and R2389 close to SB

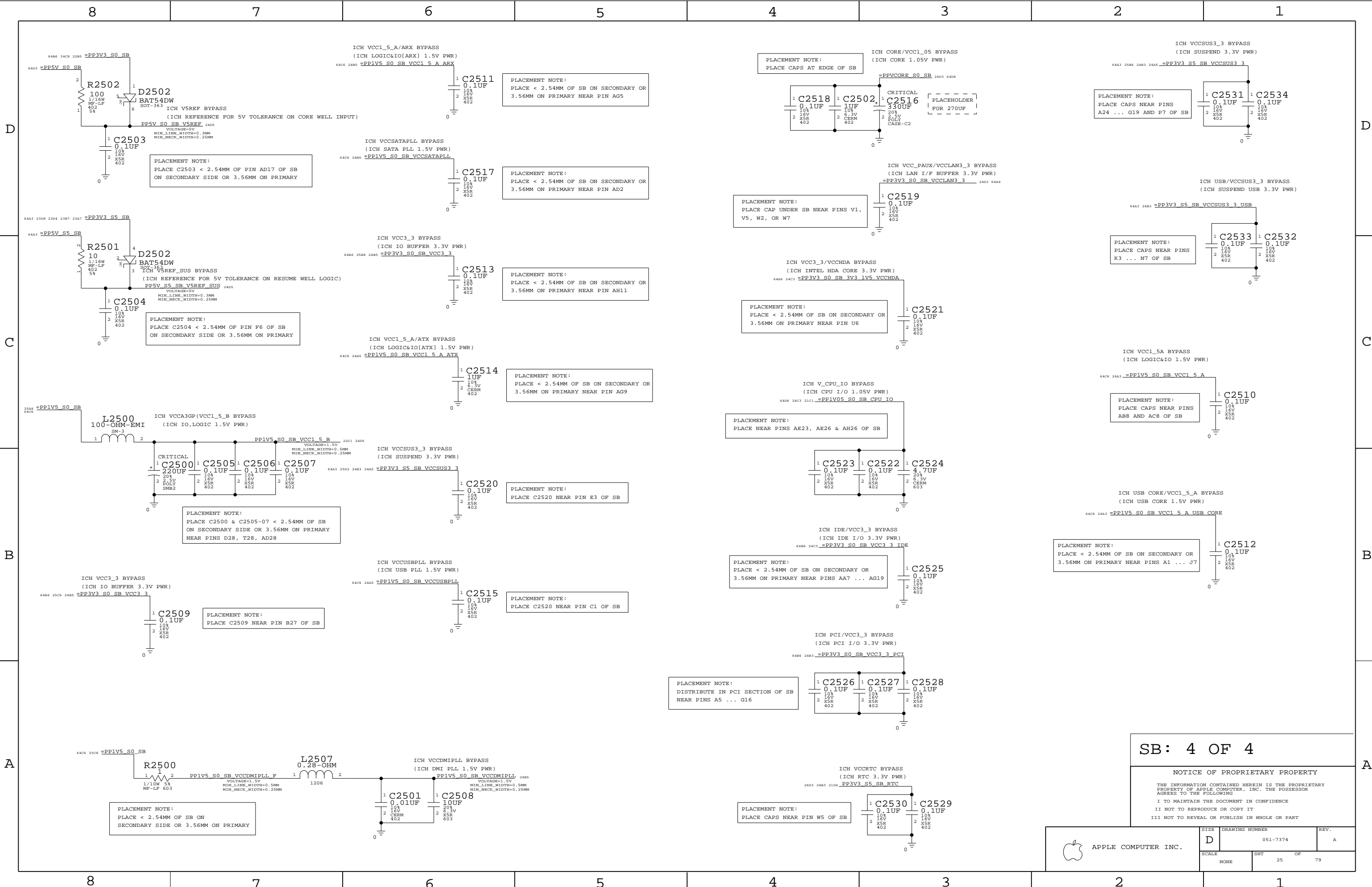
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SB: 4 OF 4

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SIZE	DRAWING NUMBER	REV.
D	051-7374	A
SCALE	SHT	OF
NONE	25	79

D

C

B

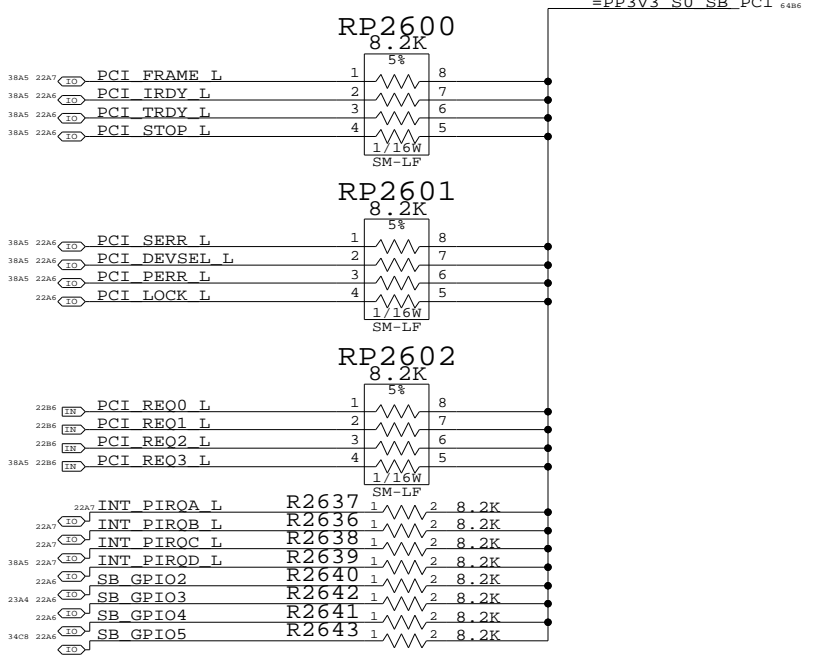
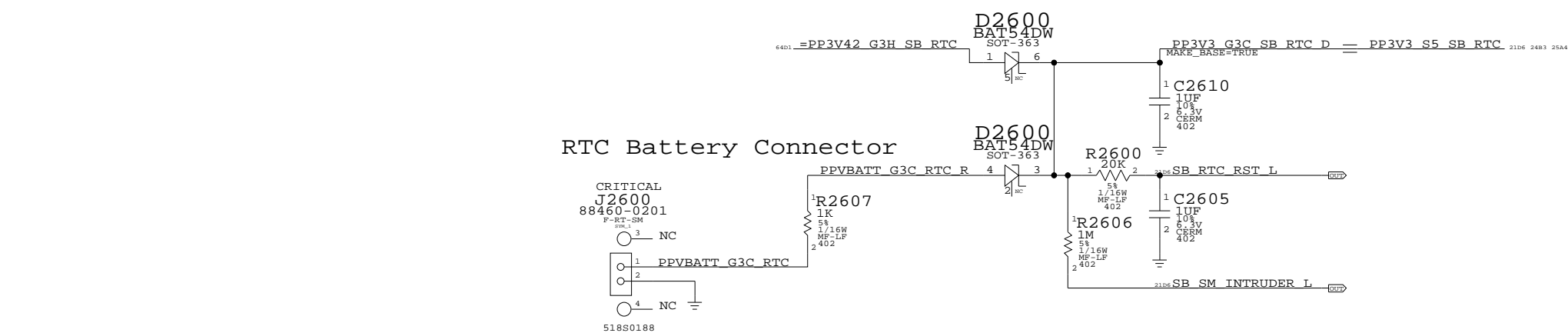
A

D

C

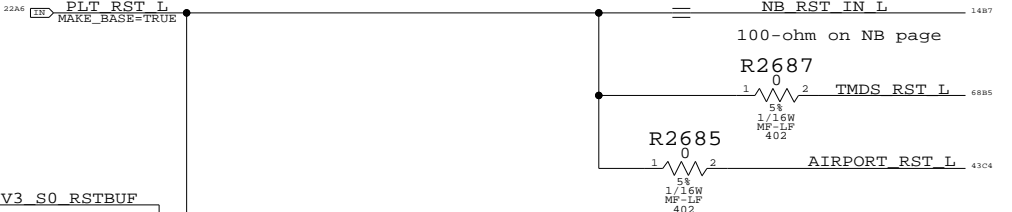
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A

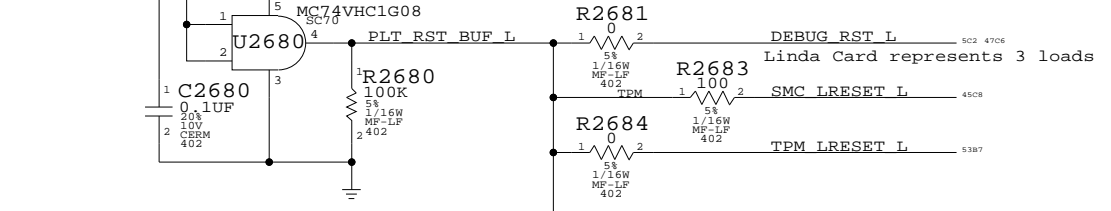


Platform Reset Connections

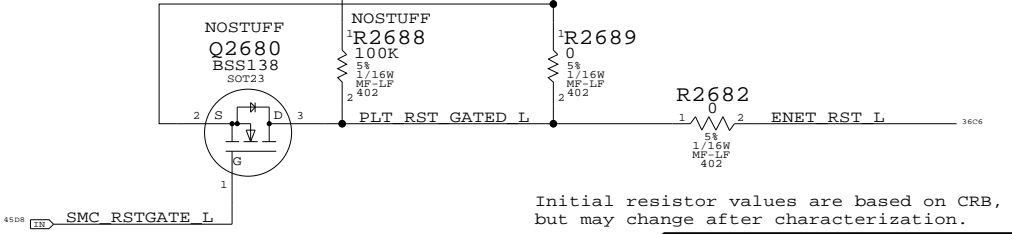
Unbuffered



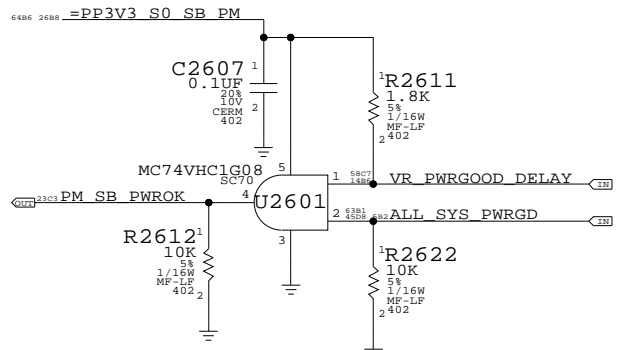
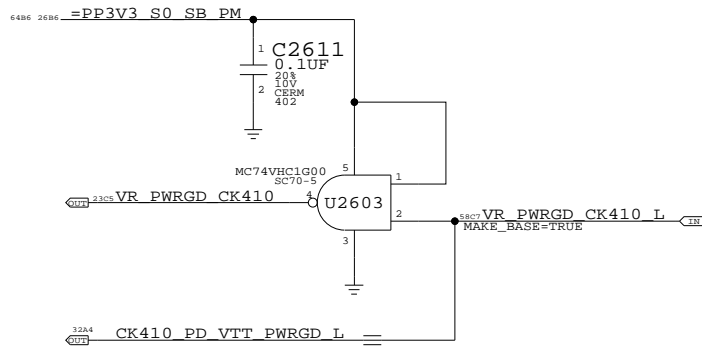
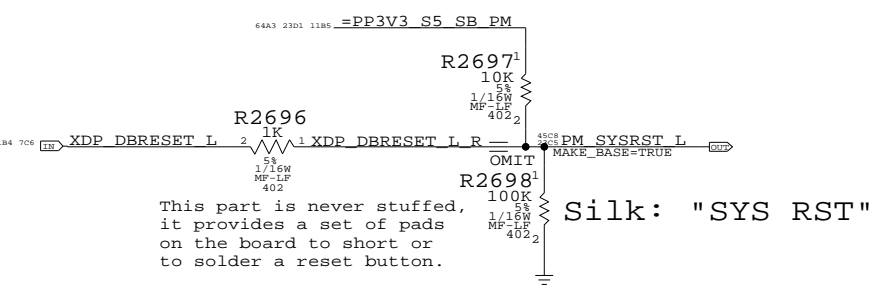
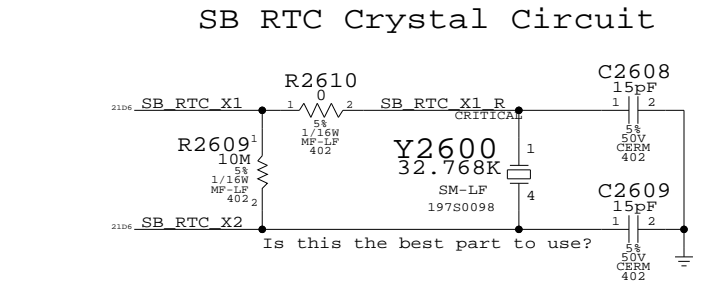
Buffered



Gated

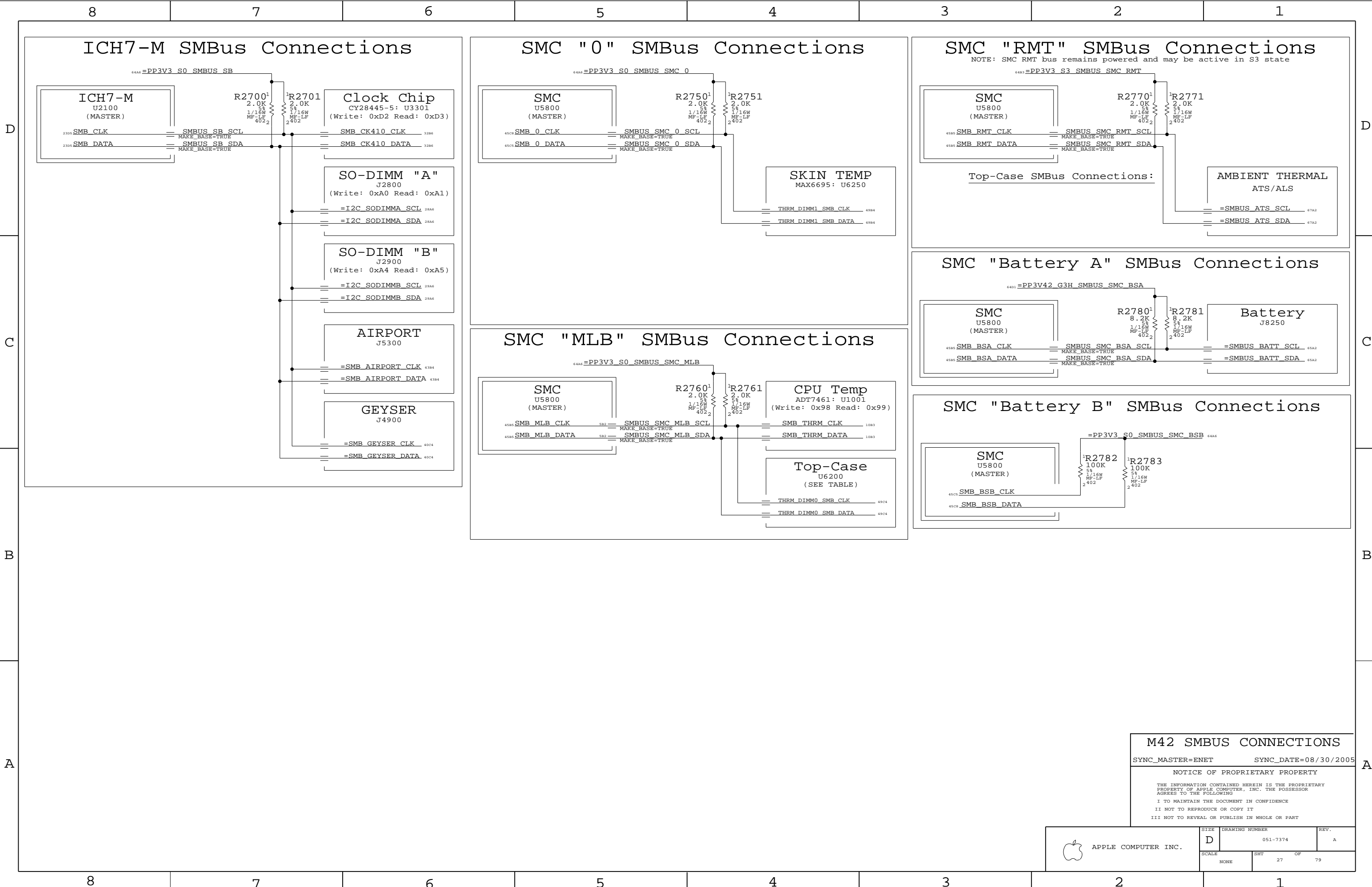


Initial resistor values are based on CRB, but may change after characterization.



SB Misc		
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	SCALE NONE	SHT 26	OF 79



M42 SMBUS CONNECTIONS

SYNC_MASTER=ENET

SYNC_DATE=08/30/2005

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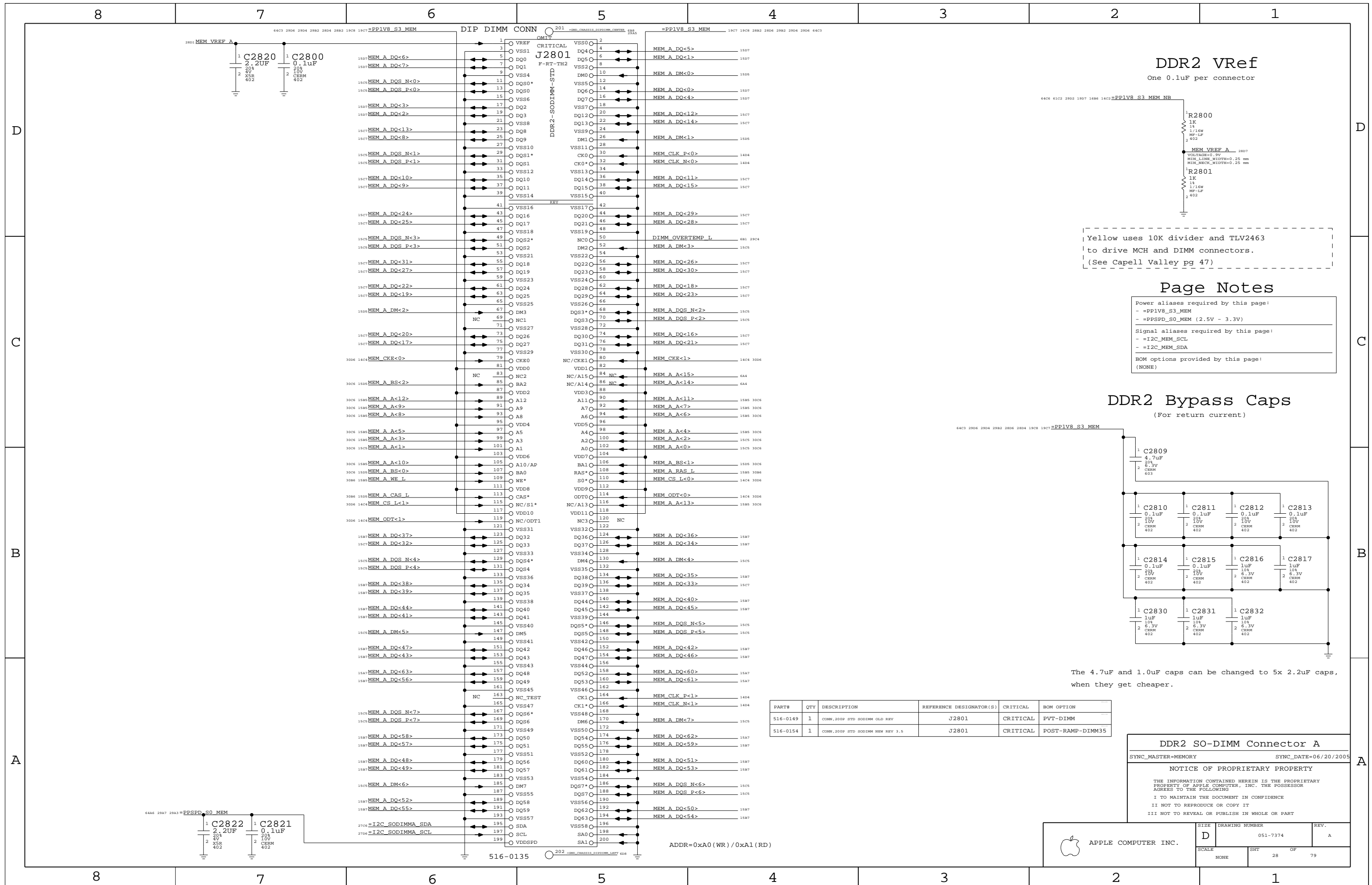
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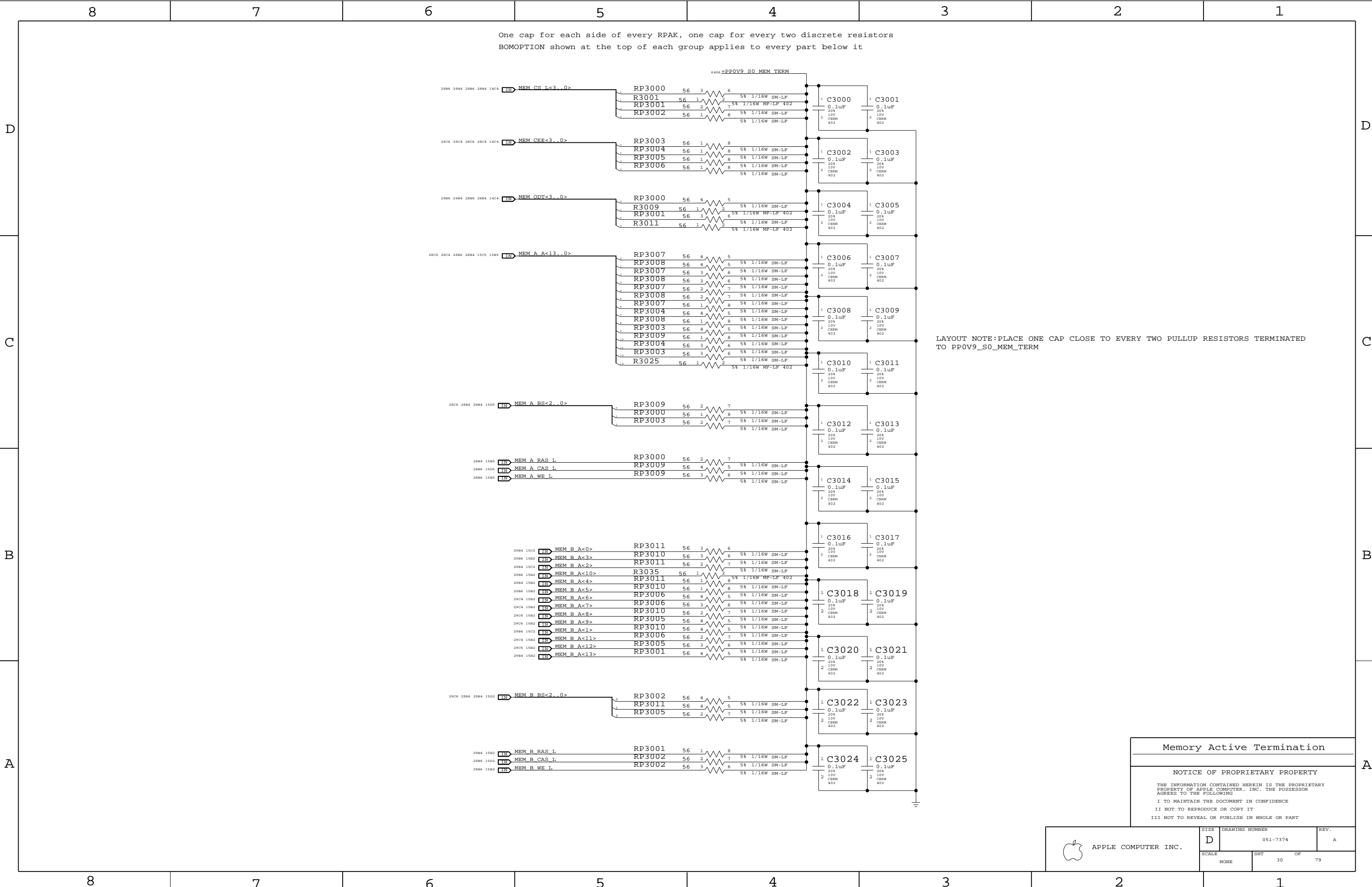
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Memory Active Termination

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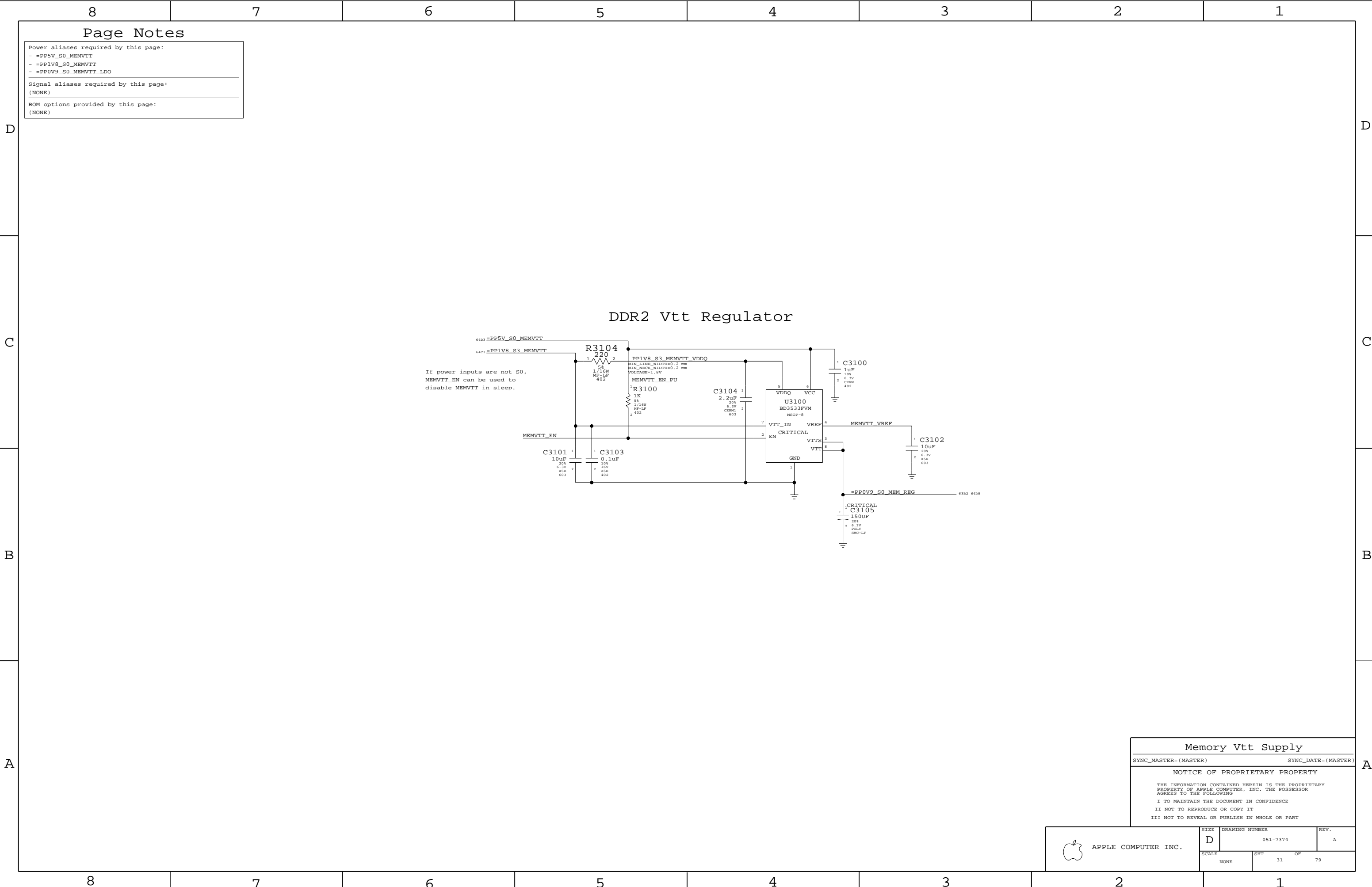
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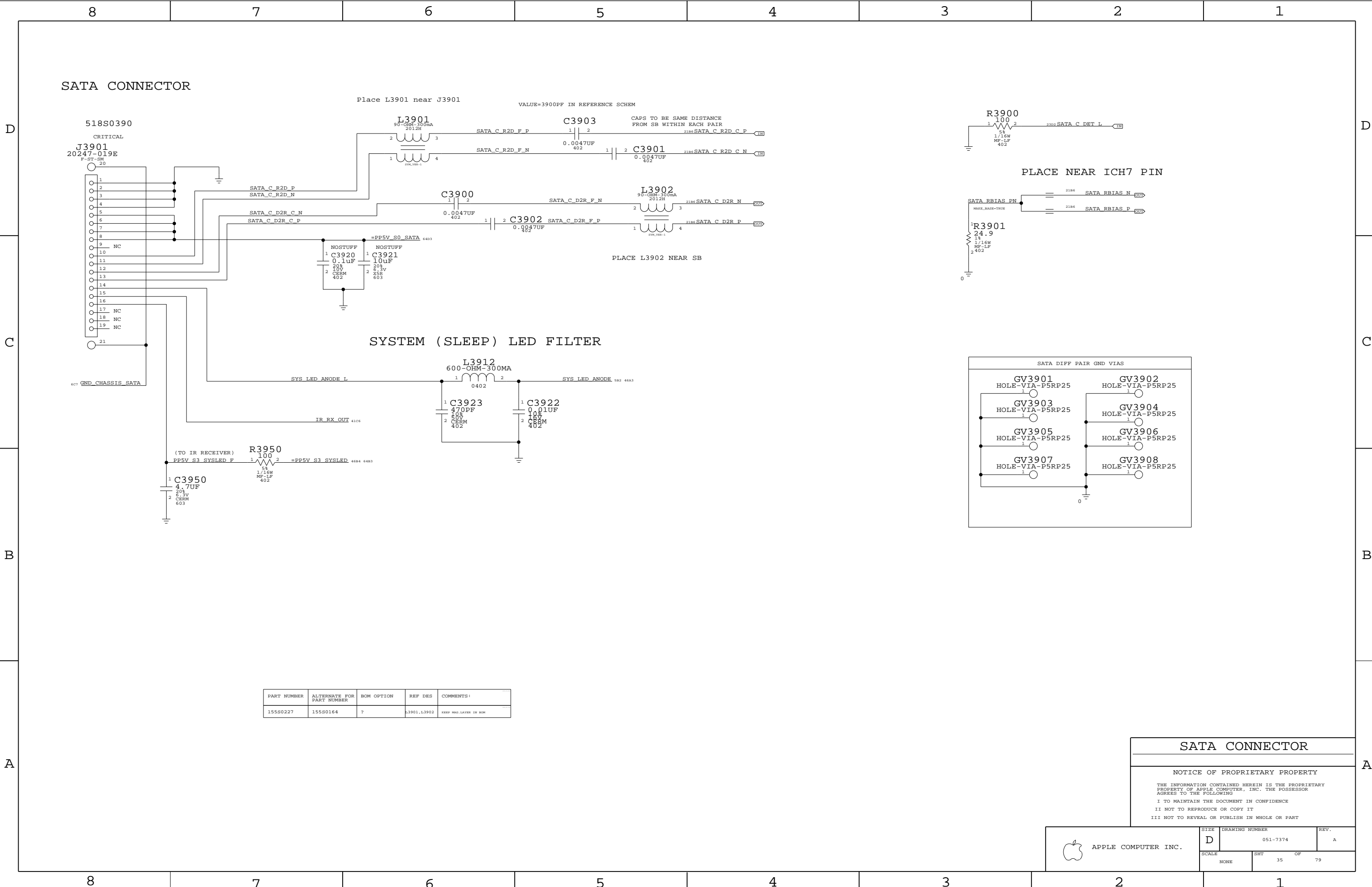
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SIZE	DRAWING NUMBER	REV.
D	051-7374	A
SCALE	SHT	OF
NONE	30	79





PART NUMBER	ALTERNATE FOR PART NUMBER	BOM OPTION	REF DES	COMMENTS:
155S0227	155S0164	?	L3901, L3902	KEEP MAG LAYER IN BOM

SATA CONNECTOR

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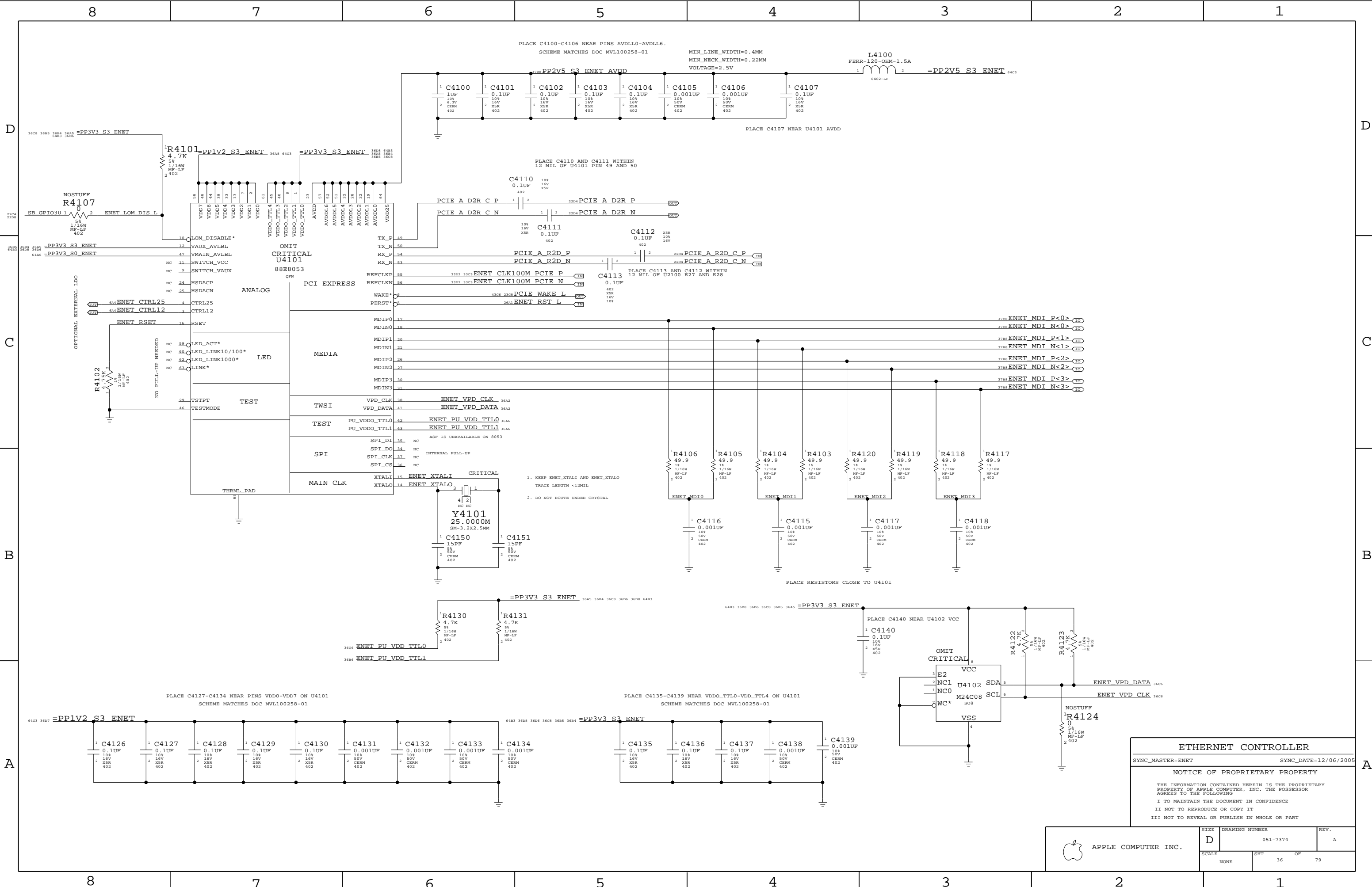
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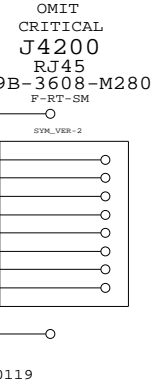
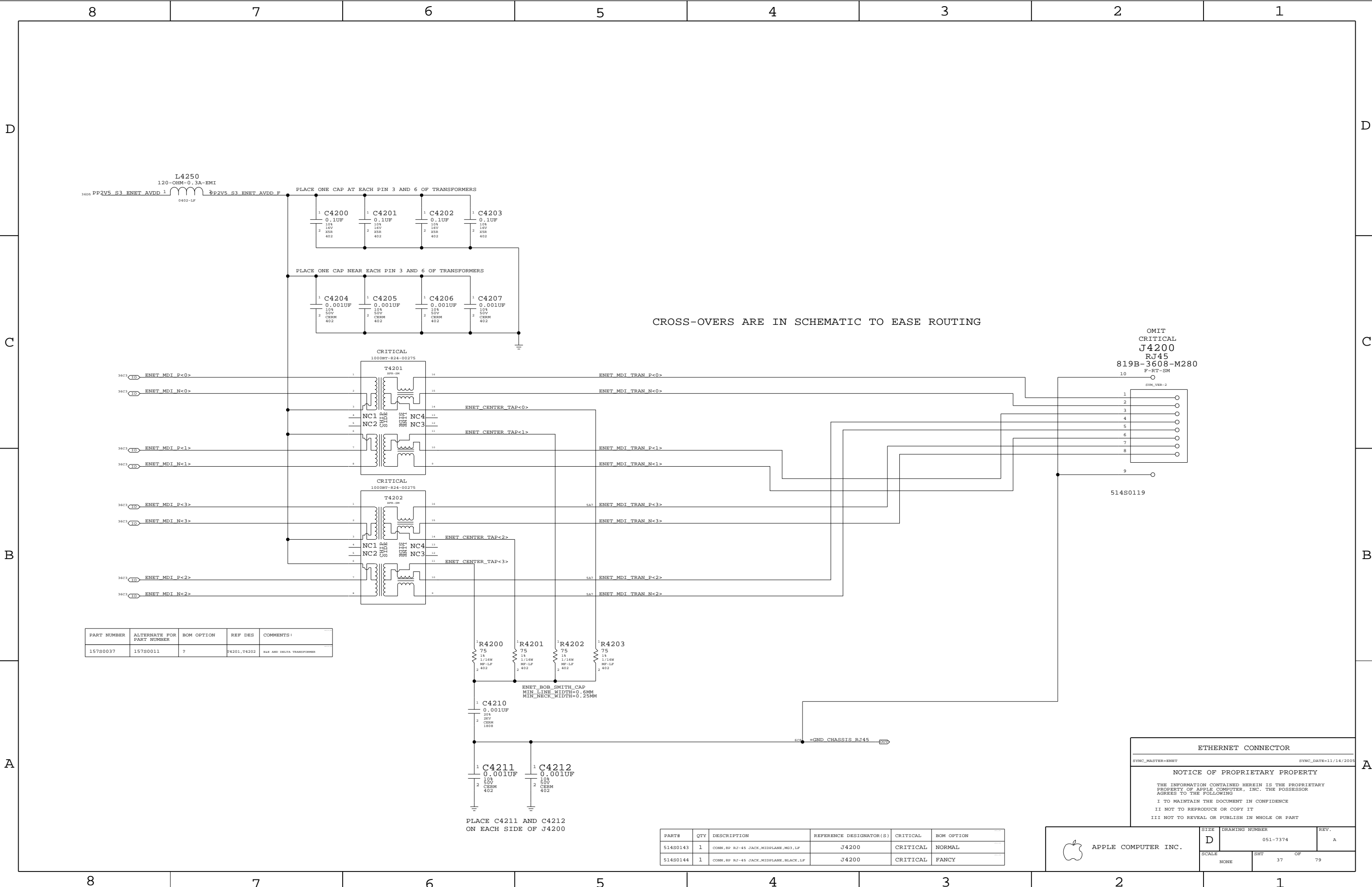
APPLE COMPUTER INC.

SIZE	D	DRAWING NUMBER	051-7374	REV.	A
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ETHERNET CONTROLLER	
SYNC_MASTER=ENET	SYNC_DATE=12/06/2005
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	D	051-7374	A
SCALE		SHT	OF
NONE		36	79




PART NUMBER	ALTERNATE FOR PART NUMBER	BOM OPTION	REF DES	COMMENTS:
157S0037	157S0011	?	T4201,T4202	SEE AMD DELTA TRANSFORMER

PLACE C4211 AND C4212
ON EACH SIDE OF J4200

PART#	QTY	DESCRIPTION	REFERENCE DESIGNATOR(S)	CRITICAL	BOM OPTION
514S0143	1	CONN, SP RJ-45 JACK,MIDPLANE,M33,LF	J4200	CRITICAL	NORMAL
514S0144	1	CONN, SP RJ-45 JACK,MIDPLANE,BLACK,LF	J4200	CRITICAL	FANCY

ETHERNET CONNECTOR		
SYNC_MASTER=ENET SYNC_DATE=11/14/2005		
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	SCALE NONE	SHT 37	OF 79

PAGE NOTES

INPUT
=PP3V3_S0_FW - 3.3V POWER FOR FIREWIRE (MOBILE: OFF DURING SLEEP)
=PP3V3_S0_PCI - 3.3V POWER FOR PCI FIREWIRE (MOBILE: OFF DURING SLEEP)
PCI_GNT3_L - PCI GRANT FROM SB
PCI_CLK_FW - NEED TO REFERENCE TO ALIAS PAGE
PCI_RST_L - PCI RESET FROM SB
FW_PC0 - FIREWIRE POWER CLASS IDENTIFIER

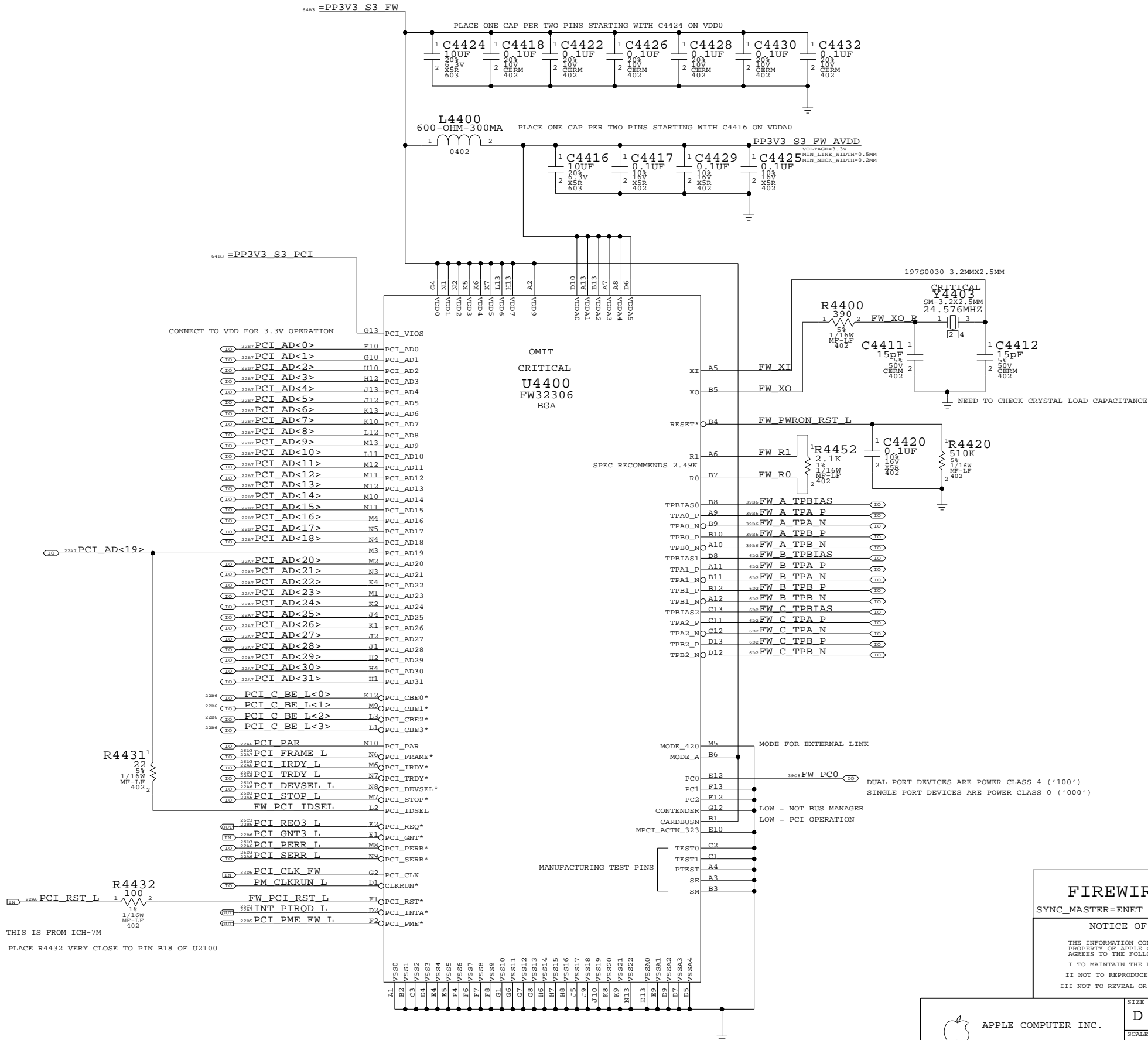
INPUT/OUTPUT
PCI_AD<0..31>, PCI_C_BE_L<0..3>, PCI_FRAME_L, PCI_IRDY_L, PCI_TRDY_L,
PCI_DEVSEL_L, PCI_STOP_L, PCI_PAR, PCI_PERR_L, PCI_SERR_L
FW_A_TPA_P/N, FW_A_TPB_P/N, FW_A_TPBIAS - PORT 0 FIREWIRE DIFF PAIRS
FW_B_TPA_P/N, FW_B_TPB_P/N, FW_B_TPBIAS - PORT 1 FIREWIRE DIFF PAIRS
FW_C_TPA_P/N, FW_C_TPB_P/N, FW_C_TPBIAS - PORT 2 FIREWIRE DIFF PAIRS

OUTPUT
PCI_REQ3_L - PCI REQUEST TO SB
PM_CLKRUN_L - CLOCK-RUN PCI PROTOCOL
INT_PIRQD_L - INTERRUPT TO SB
PCI_PME_FW_L - DEDICATED PME FOR FIREWIRE (SB GPIO1)

PAGE HISTORY

5/19/2005 - FIRST REVISION OF PAGE
6/20/2005 - BGA VERSION OF FW323-06 ADDED
6/21/2005 - CHANGED INT* TO INT_PIRQD_L (PER ARCHITECTURAL DEFINITION)
6/21/2005 - CHANGED PCI_ID TO AD19 (PER ARCHITECTURAL DEFINITION)
6/21/2005 - CHANGED REQ/GNT TO REQ3/GNT3 (PER ARCHITECTURAL DEFINITION)
6/22/2005 - ADDED 510K PULL-DOWN ON RST* AND REMOVED CONNECTION TO PLT_RST_L
6/22/2005 - CHANGED CLK_PME DIFF PAIR NAMES TO BE RE-USE COMPLIANT
6/22/2005 - REMOVED CONSTRAINT SETS AS THEY WILL BE MANAGED ON BOARD SIDE
6/22/2005 - REMOVED C4421 - REDUNDANT
6/22/2005 - BRING OUT PC0 CONNECTION TO BE CONNECTED ON PORT PAGE
7/26/2005 - CONNECTED PIN E10 TO GND

MOBILE TURNS OFF CONTROLLER POWER DURING SLEEP
0.001A DURING SLEEP



FIREWIRE CONTROLLER

SYNC_MASTER=ENET SYNC_DATE=08/30/2005

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SIZE D DRAWING NUMBER 051-7374 REV. A

SCALE NONE SHT 38 OF 79

Page Notes

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INPUT:
=PPBUS_FW - PORT POWER
=PP3V3_S5_FW - DIGITAL POWER
=GND_CHASSIS_FW_PORT0 - CHASSIS GROUND
=FWPWR_PWRON - ADDITIONAL POWER CONTROL

```

INPUT/OUTPUT :

FW_TPA0_P/N,FW_TPB0_P/N,FW_TPBIAS0 - FIREWIRE DIFF PAIRS

OUTPUT :

FW_PC0 - POWER CLASS IDENTIFIER (SINGLE PORT - TIE LOW)

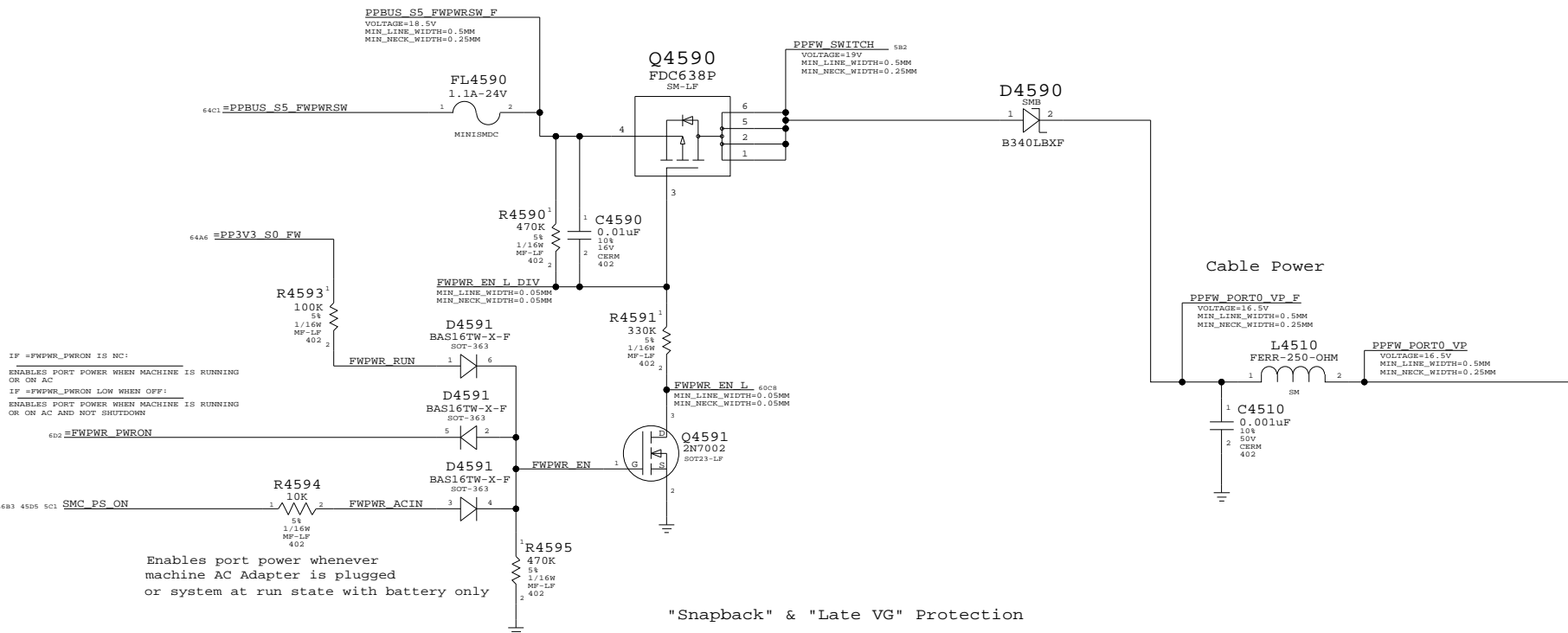
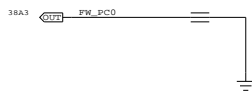
PAGE HISTORY

6/19/05 - INITIAL REVISION
6/22/05 - CHANGED DIFF PAIR NAMES TO MATCH REUSE
6/22/05 - REMOVED CONSTRAINTS BECAUSE USING ALLEGRO CONST MANAGER
7/6/05 - CORRECTED FW_PCU SIGNAL NAME TO CORRECT
7/26/05 - UPDATED LATE-VG POWER RAIL CIRCUIT FROM M1
7/26/05 - CHANGED CONNECTOR PORT NAMING TO PORT0
7/26/05 - CHANGED TO 514-DRIVE LOW-POWER MODE CONNECTOR
7/26/05 - REMOVED R4520 - IT HASN'T BEEN STUFFED FOR MANY PRODUCTS
7/26/05 - CHANGED FL4590 TO 1.1A VERSION
7/26/05 - UPDATED ETHERNET LOW-POWER MODE CIRCUIT
7/26/05 - UPDATED SIGNAL NAMES FOR FW PORT POWER ENABLE

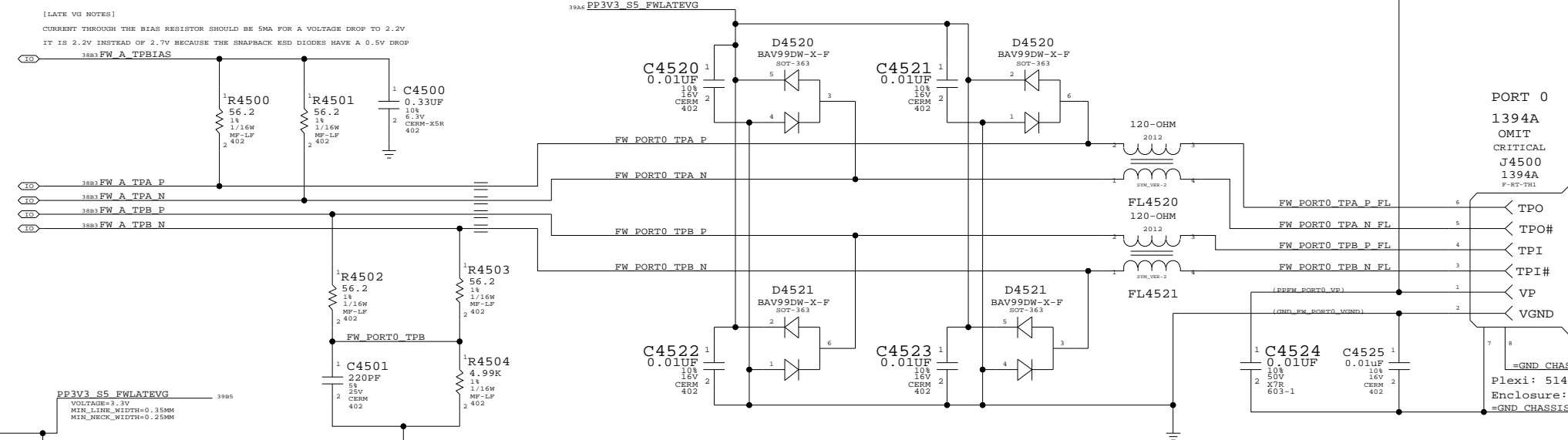
1394b implementation based on Apple
FireWire Design Guide (FWDG 0.6, 5/14/03)

PORT POWER CLASS

```
0 FOR SINGLE PORT
1 FOR DUAL PORT
```



"Snapback" & "Late VG" Protection



PART#	QTY	DESCRIPTION	REFERENCE DESIGNATOR(S)	CRITICAL	BOM OPTION
514-0359	1	CONN, 6P 1394A RCPT,MIDPLANE,M23,1F	J4500	CRITICAL	NORMAL
514-0316	1	CONN, 6P 1394A RCPT,MIDPLANE,BLACK,1F	J4500	CRITICAL	FANCY

FIREWIRE PORT

SYNC_MASTER=ENET SYNC_DATE=11/16/2009

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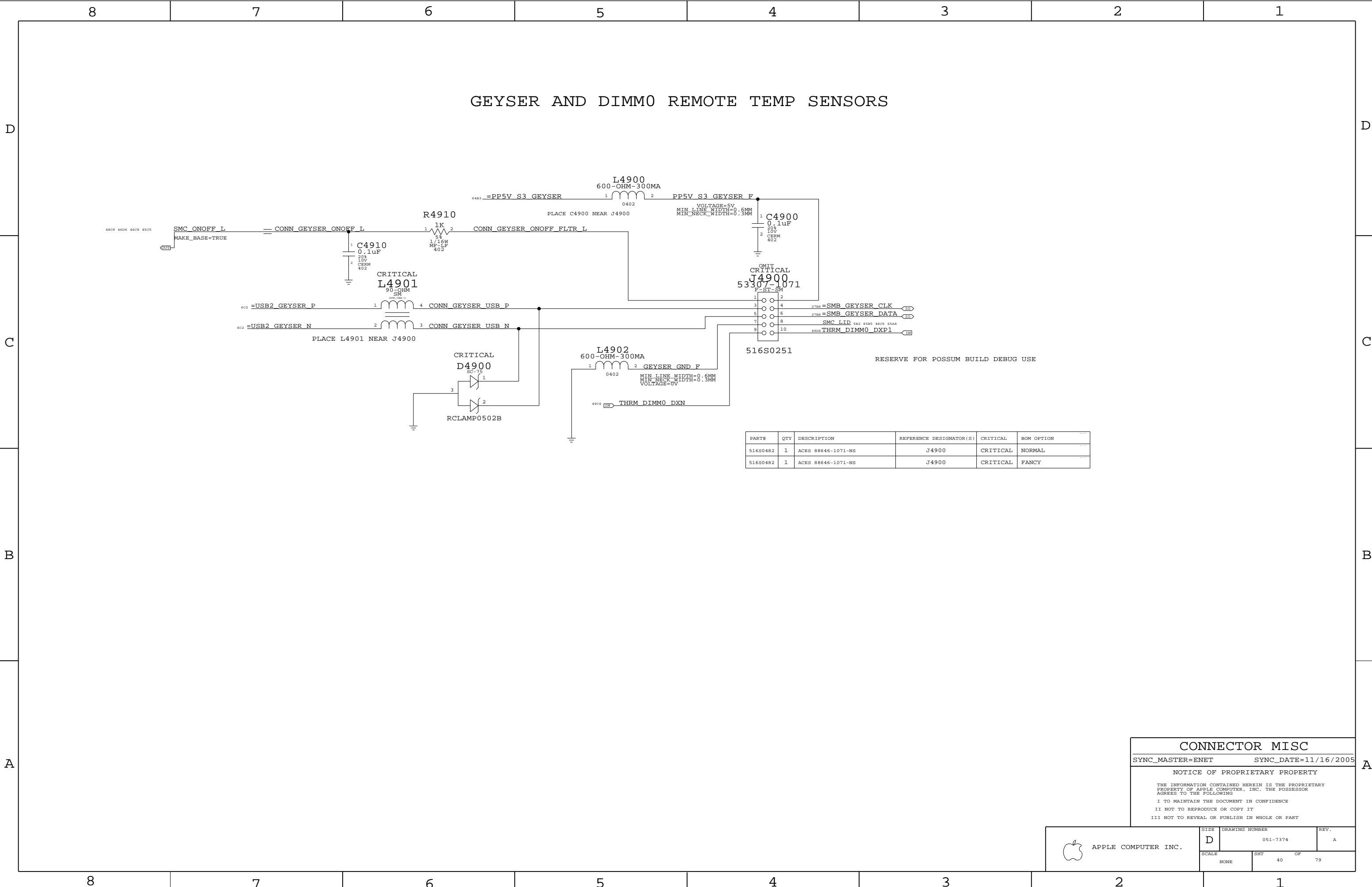
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SIZE	DRAWING NUMBER	REV.
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SCALE	SHT	OF
	39	79



CONNECTOR MISC

SYNC_MASTER=ENET

SYNC_DATE=11/16/2005

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SCALE
NONE

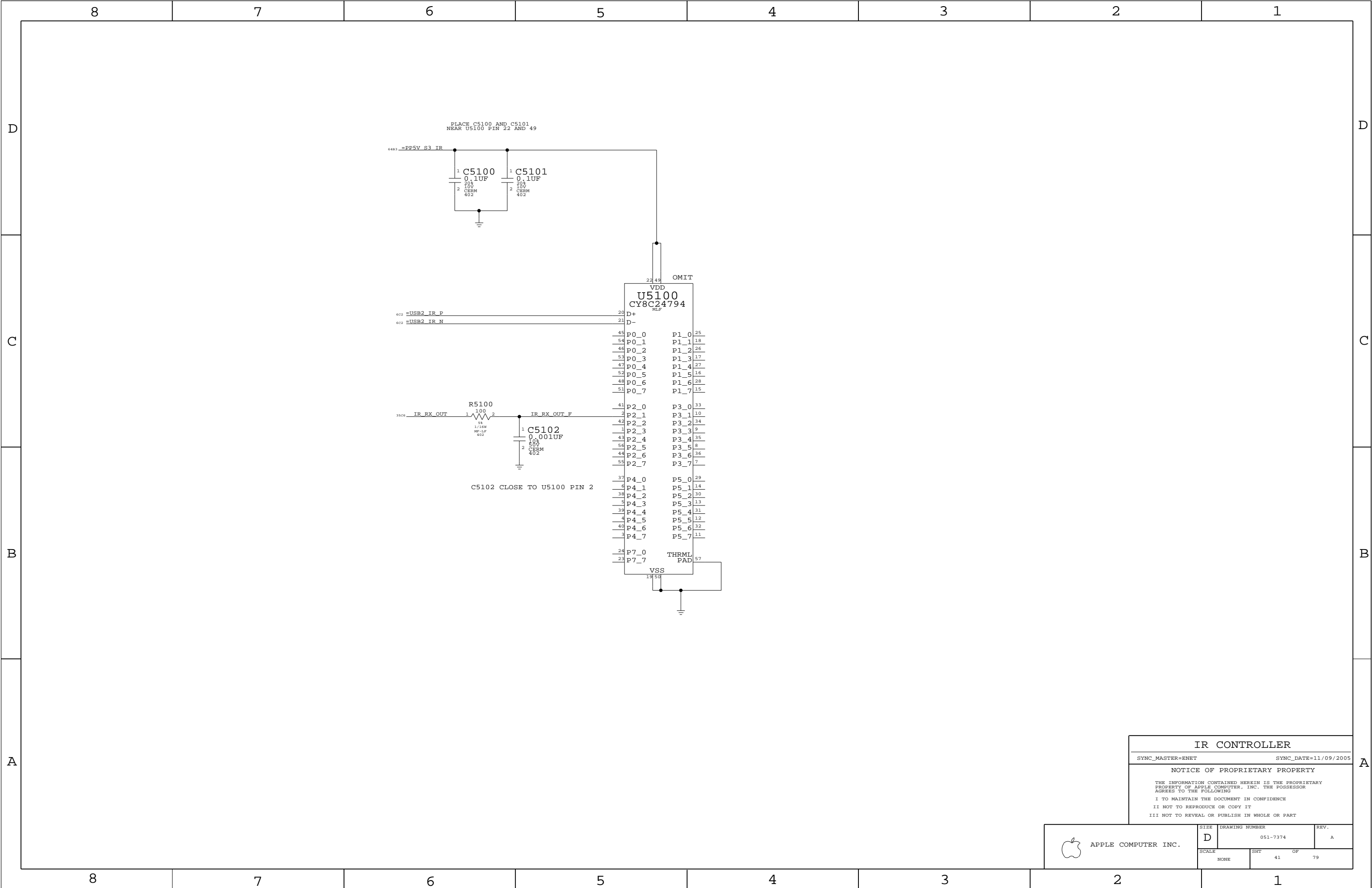
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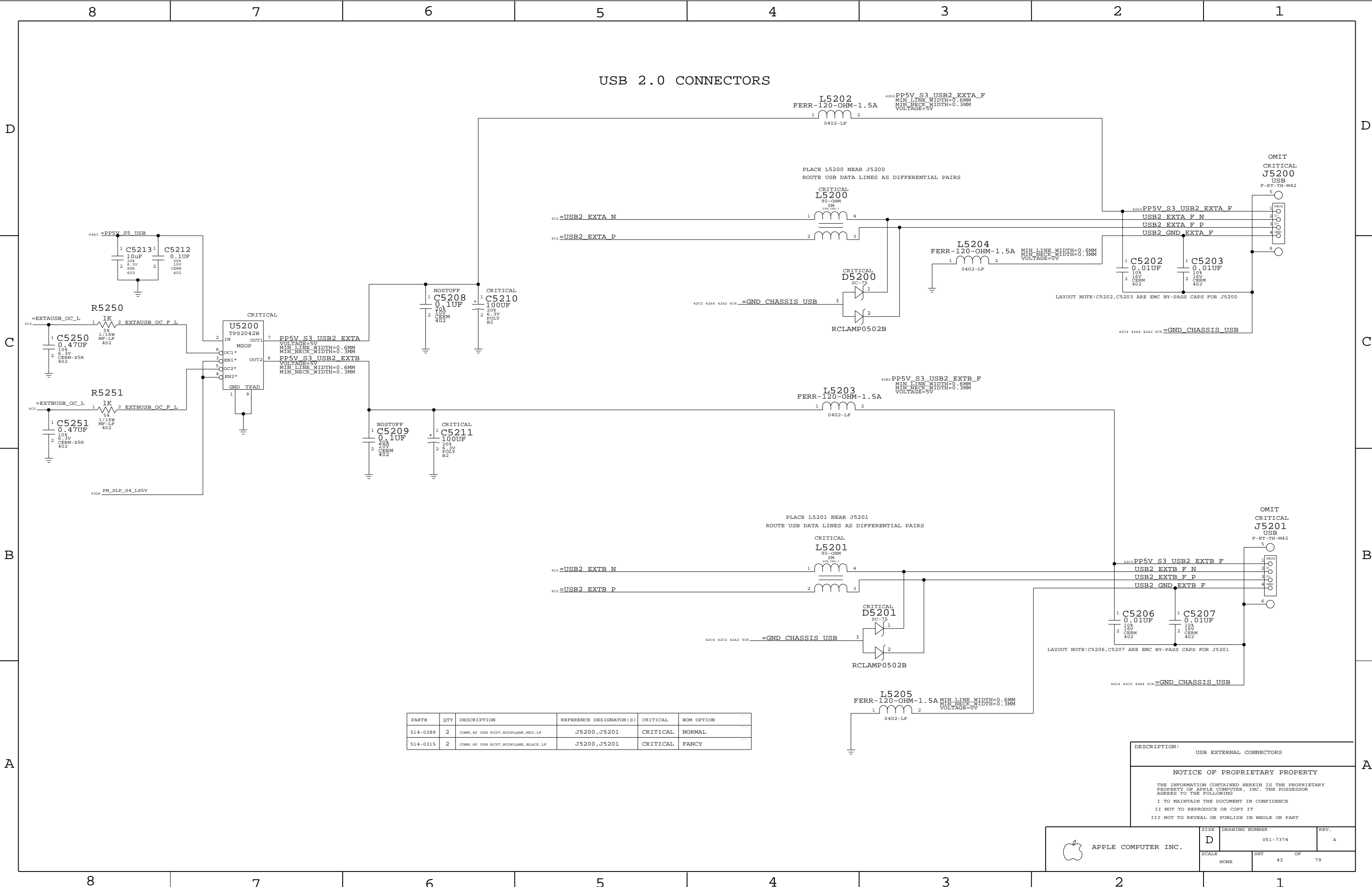
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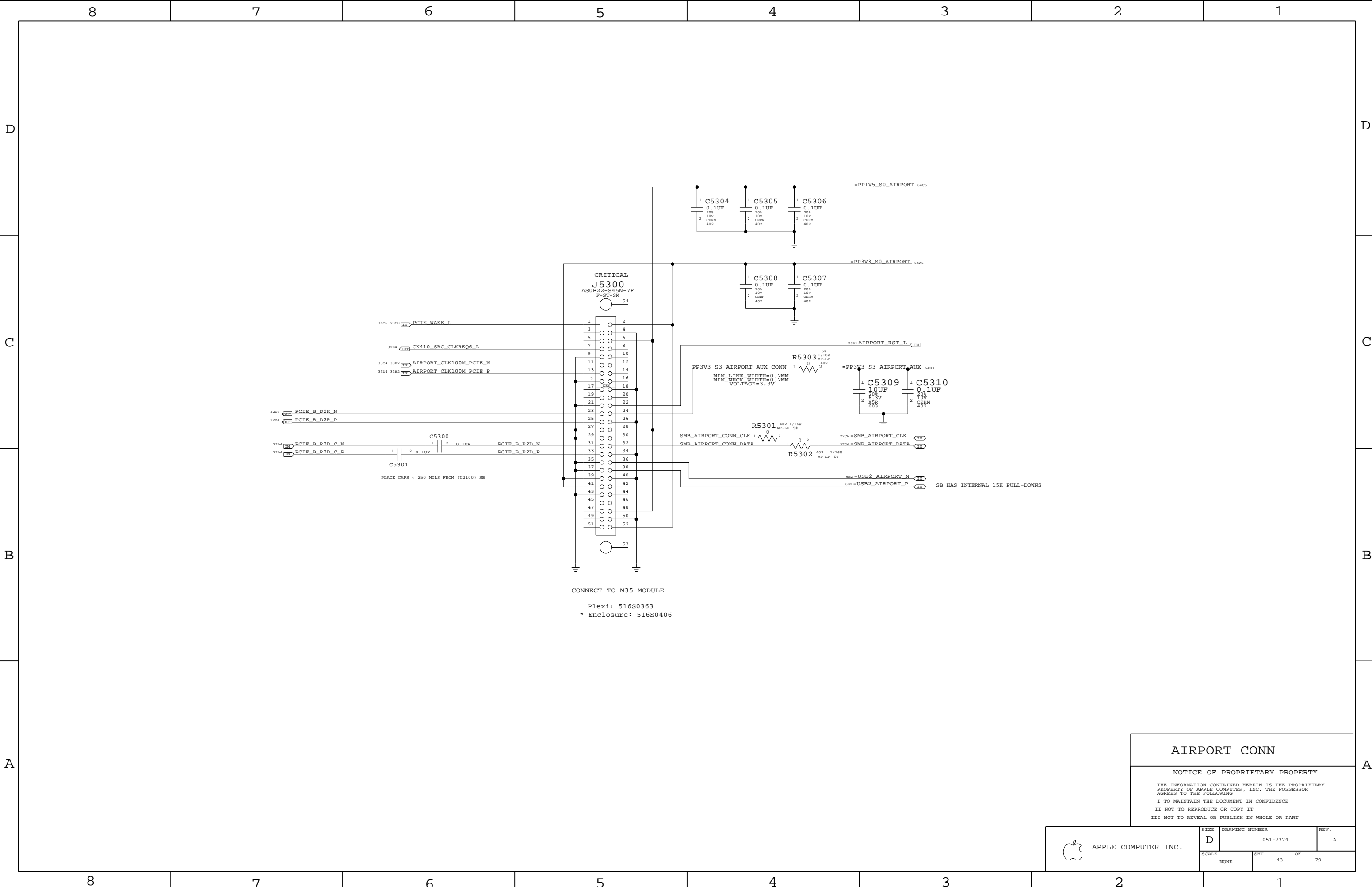
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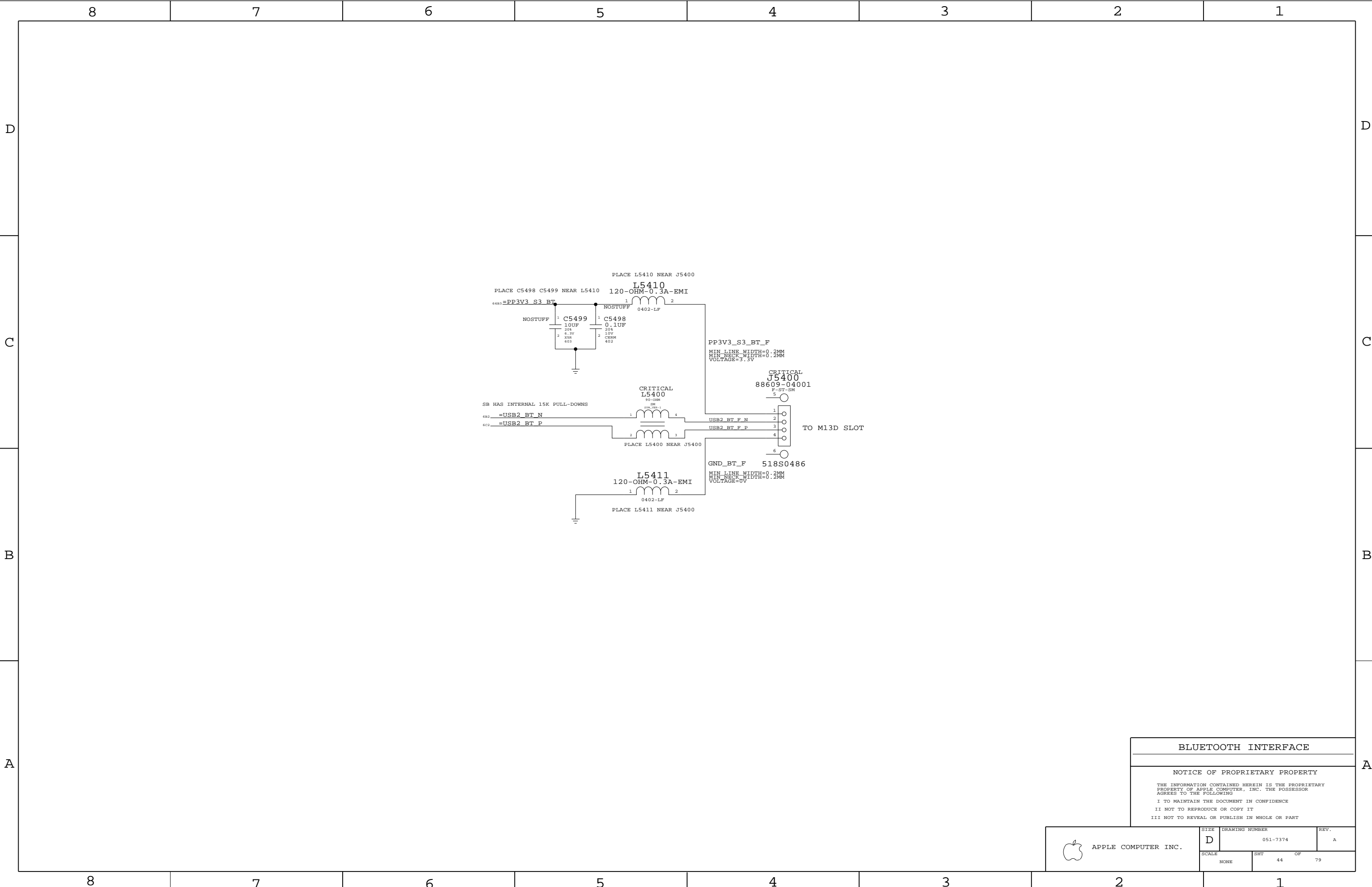
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NONE	43	79



BLUETOOTH INTERFACE


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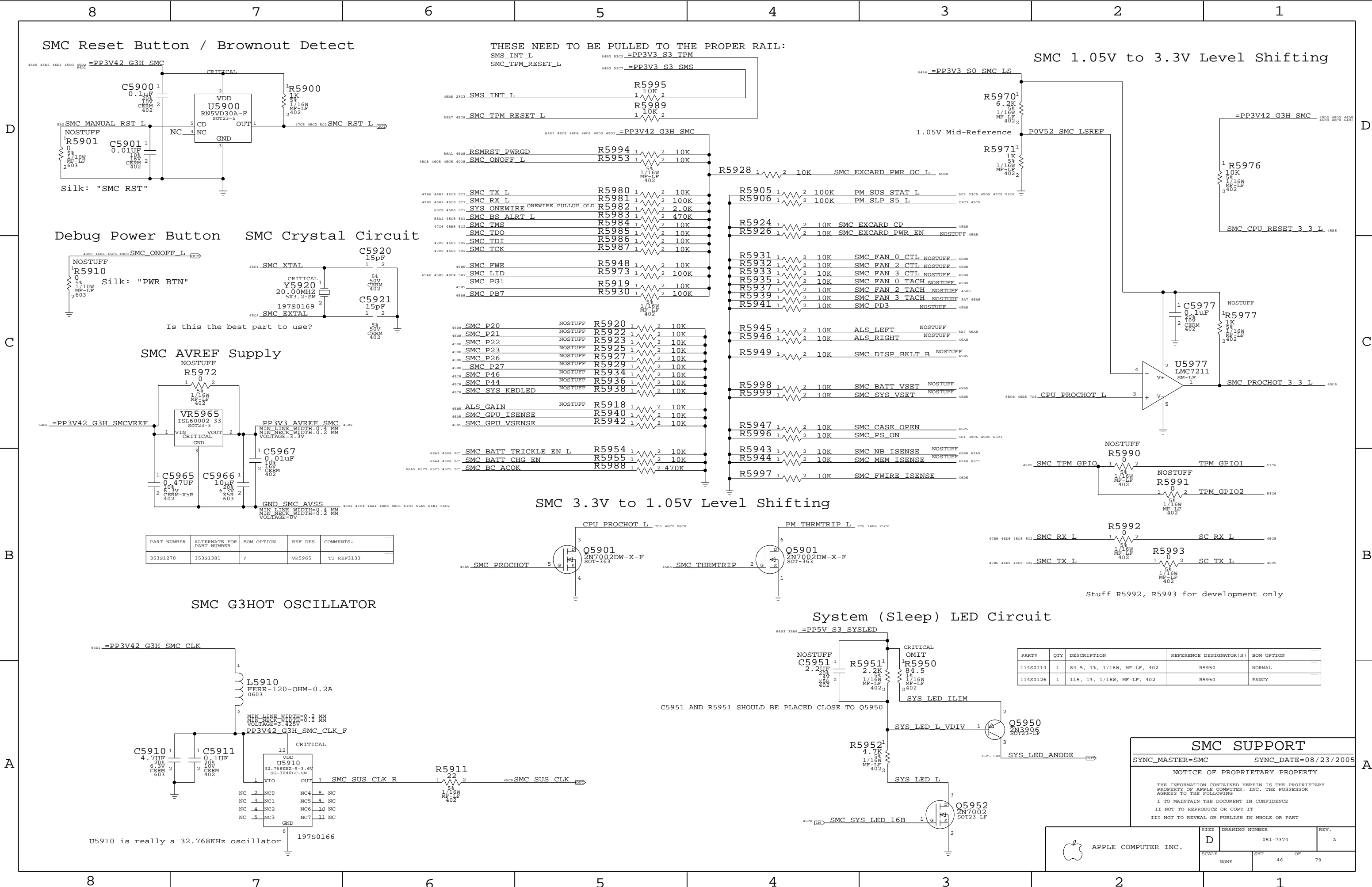
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SCALE	NONE	SHT	44	OF	79

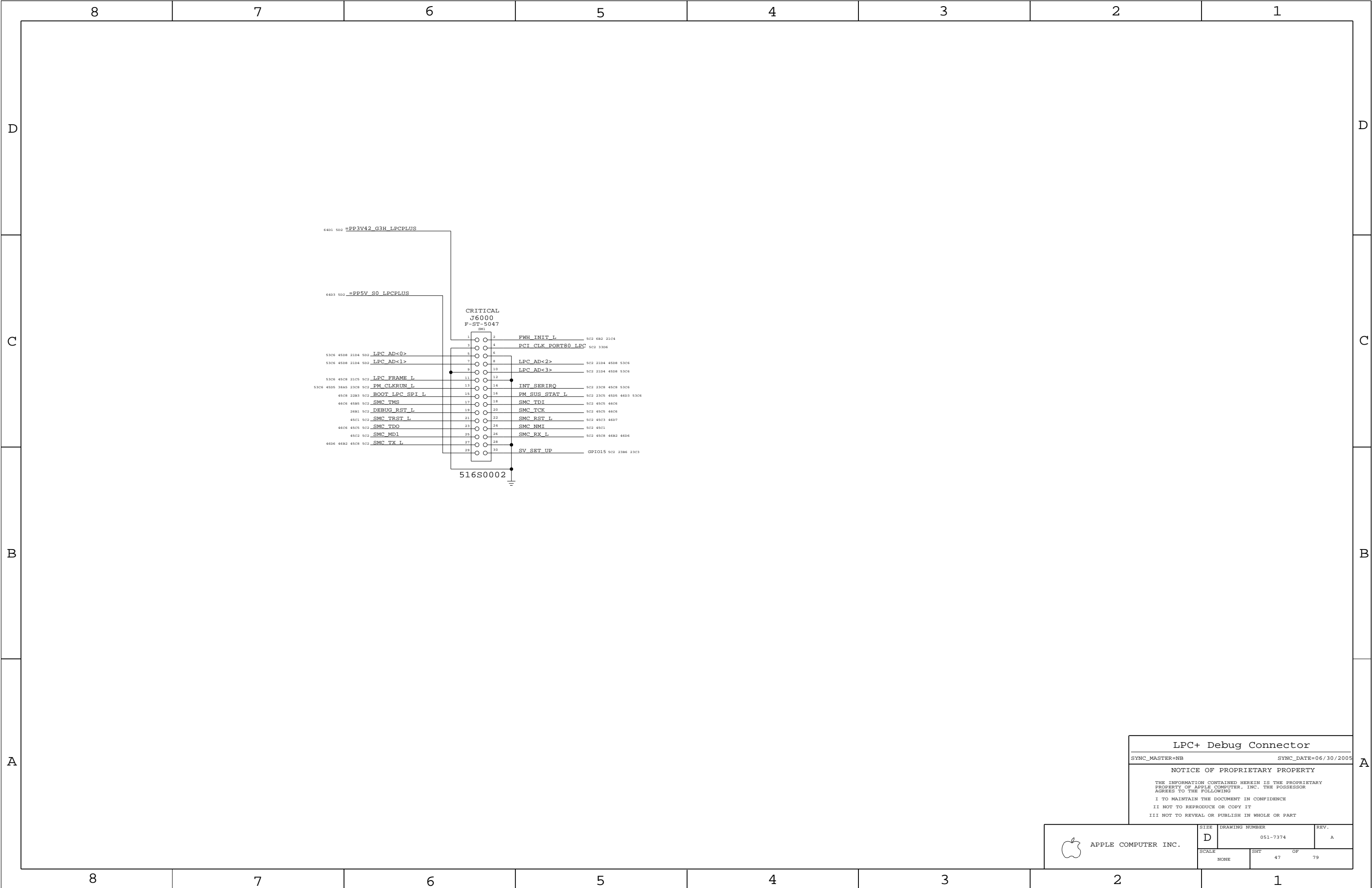


PART NUMBER	ALTERNATE FOR PART NUMBER	BOM OPTION	REF DES	COMMENTS:
353S1278	353S1381	?	VR5965	TI REF3133

PART#	QTY	DESCRIPTION	REFERENCE DESIGNATOR(S)	BOM OPTION
114S0114	1	84.5, 1%, 1/16W, MF-LF, 402	R5950	NORMAL
114S0126	1	115, 1%, 1/16W, MF-LF, 402	R5950	FANCY

SMC SUPPORT	
SYNC_MASTER=SMC	SYNC_DATE=08/23/2005
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APPLE COMPUTER INC.	SIZE	DRAWING NUMBER	REV.
	D	051-7374	A
SCALE		SHT	OF
NONE		46	79



LPC+ Debug Connector

SYNC_MASTER=NB

SYNC_DATE=06/30/2005

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APPLE COMPUTER INC.

SIZE

D

DRAWING NUMBER

051-7374

REV.

A

SCALE

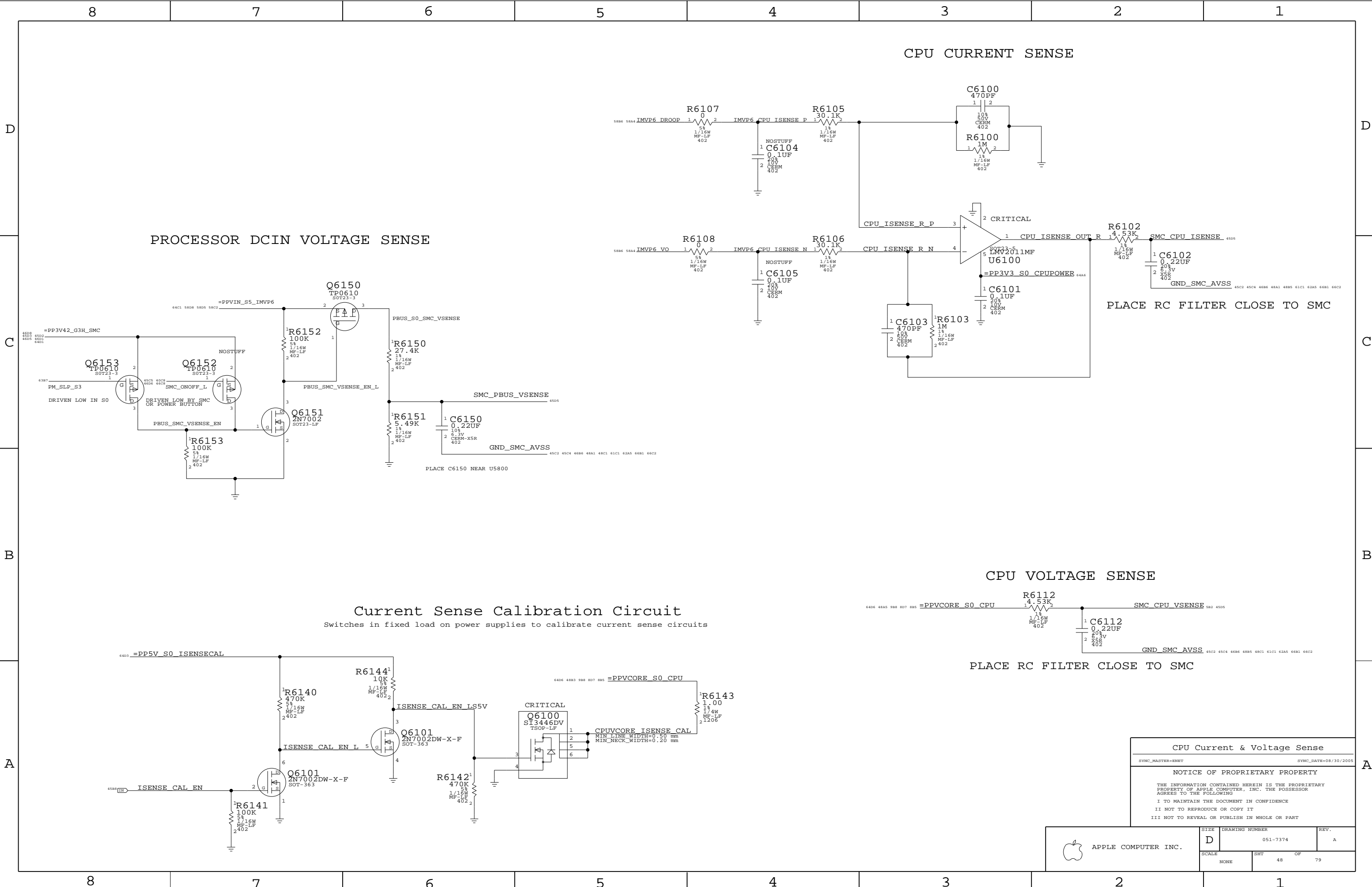
NONE

SHT

47

OF

79



PROCESSOR DCIN VOLTAGE SENSE

CPU CURRENT SENSE

PLACE RC FILTER CLOSE TO SMC

CPU VOLTAGE SENSE

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

PLACE RC FILTER CLOSE TO SMC

CPU Current & Voltage Sense		
SYNC_MASTER=ENET	SYNC_DATE=08/30/2005	
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APPLE COMPUTER INC.	SIZE D	DRAWING NUMBER 051-7374	REV. A
	SCALE NONE	SHT 48	OF 79

ADDITIONAL NOISE FILTERING

R6203

THRM DIMM0 3V3 UNFILTERED

1 47 2

18k

1/16W

MF-LF

402

=PP3V3 S0 THRM SNR

10C4 49B3 6A66

1 2

C6202

0.1uF

10V

55R

402

PLACE NEXT TO C6202 U6200 PIN 1

CRITICAL

VCC

U6200

MAX6695AUB

UMAX1

2 DXP1

3 DXN

4 DXP2

9 27B1 THRM_DIMM0 SMB_DATA TO

7 27B3 THRM_DIMM0 SMB_CLK TO

8 NC

5 NC

10 NC

OT1*

OT2*

GND

PLACE U6200 NEAR U1200

40C4

THRM DIMM0 DXP1

IF A SENSOR INPUT IS UNUSED STUFF
THE CORRESPONDING RESISTOR

1 R6200

0 5% 1/16W MF-LF 402

1 C6200

0.0022uF

10V

50V

CERM

402

NOSTUFF

40C5

THRM DIMM0 DXN

IF B SENSOR INPUT IS UNUSED STUFF
THE CORRESPONDING RESISTOR

1 R6201

0 5% 1/16W MF-LF 402

1 C6201

0.0022uF

10V

50V

CERM

402

NOSTUFF

CRITICAL

J6250

BM02B-ACHKS-GAN-TF-LF-SN-M

M-RT-SM

3

1

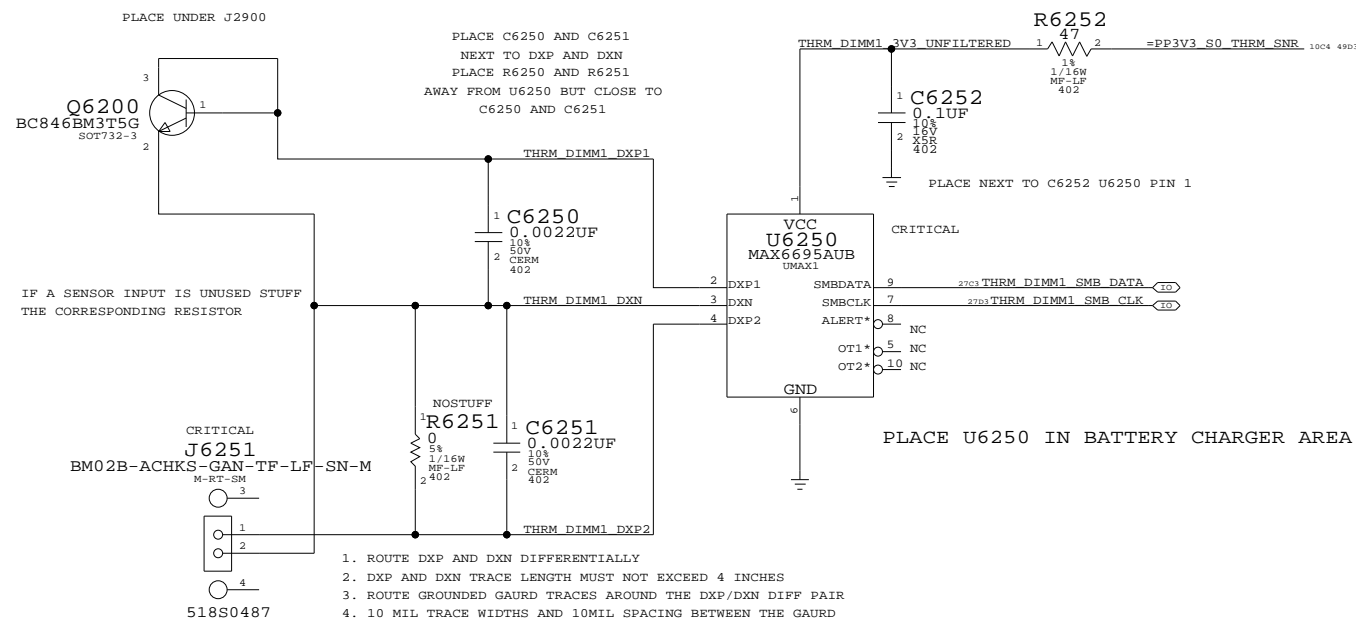
2

4

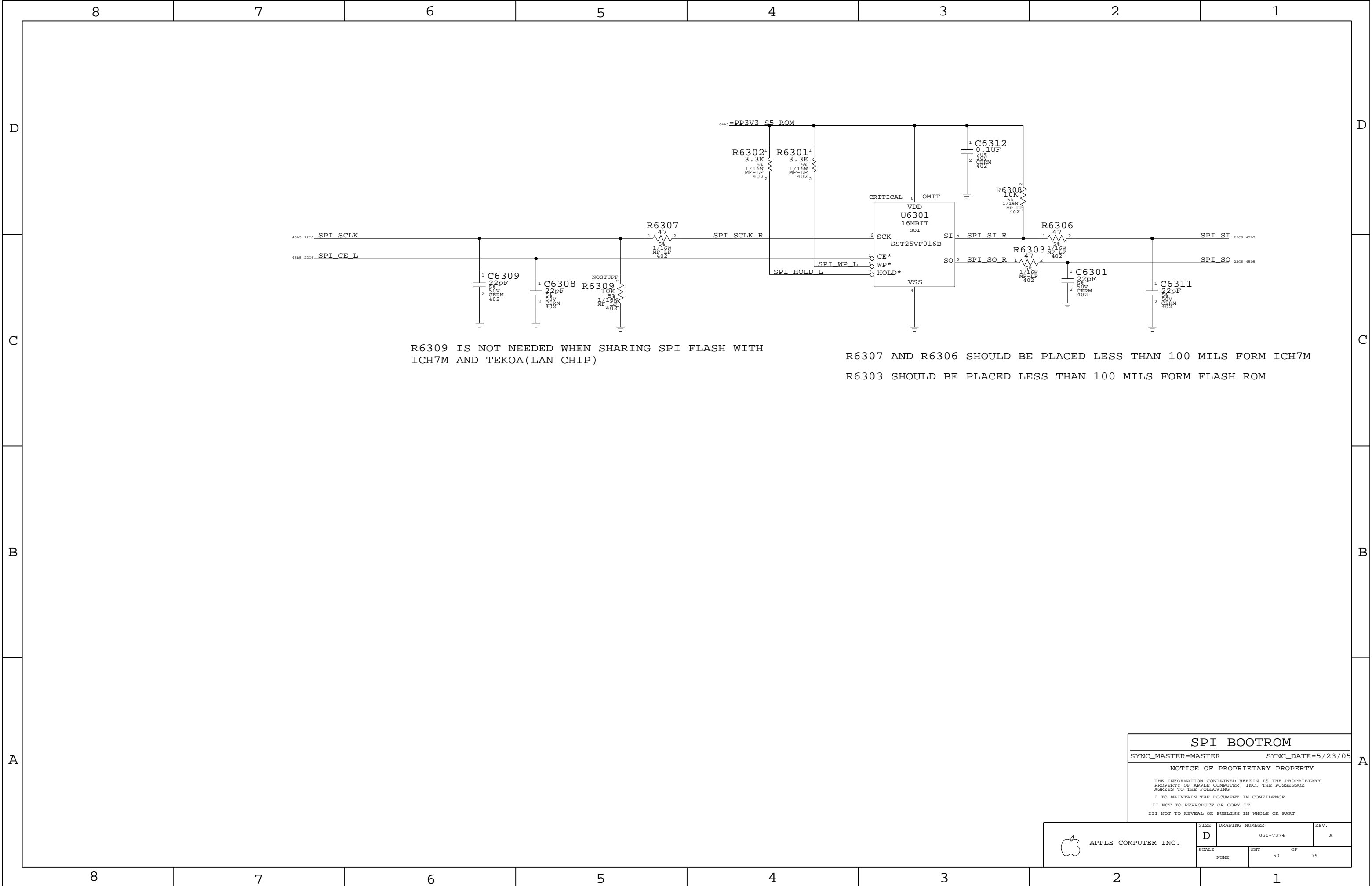
1. ROUTE DXP AND DXN DIFFERENTIALLY
2. DXP AND DXN TRACE LENGTH MUST NOT EXCEED 4 INCHES
3. ROUTE GROUNDED GAURD TRACES AROUND THE DXP/DXN DIFF PAIR
4. 10 MIL TRACE WIDTHS AND 10MIL SPACING BETWEEN THE GAURD

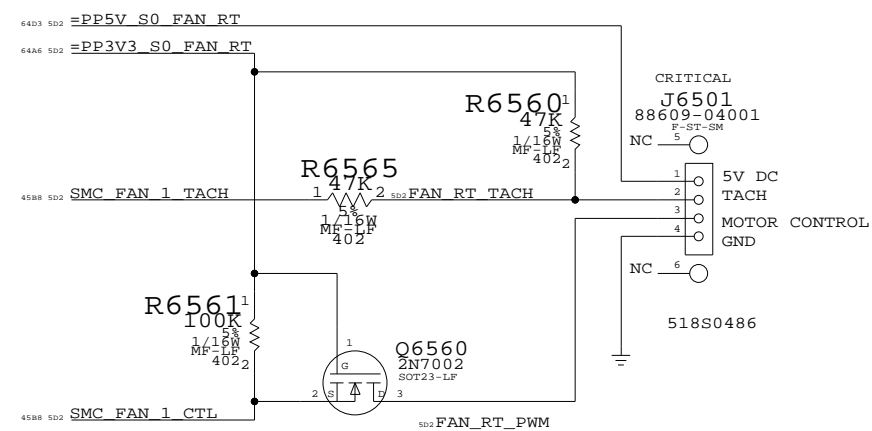
518S0487

DIMM1 TEMPERATURE ZONE



TEMPERATURE SENSE	
SYNC_MASTER=ENT	SYNC_DATE=11/09/2005
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Fan

SYNC_MASTER=ENET	SYNC_DATE=11/10/2005
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APPLE COMPUTER INC.

SIZE
D

SCALE	NONE
-------	------

SCALE	SHT	OF
NONE	51	

A

D

C

B

A

DCBA

SYNC_MASTER=SMC

SYNC_DATE=08/23/2005

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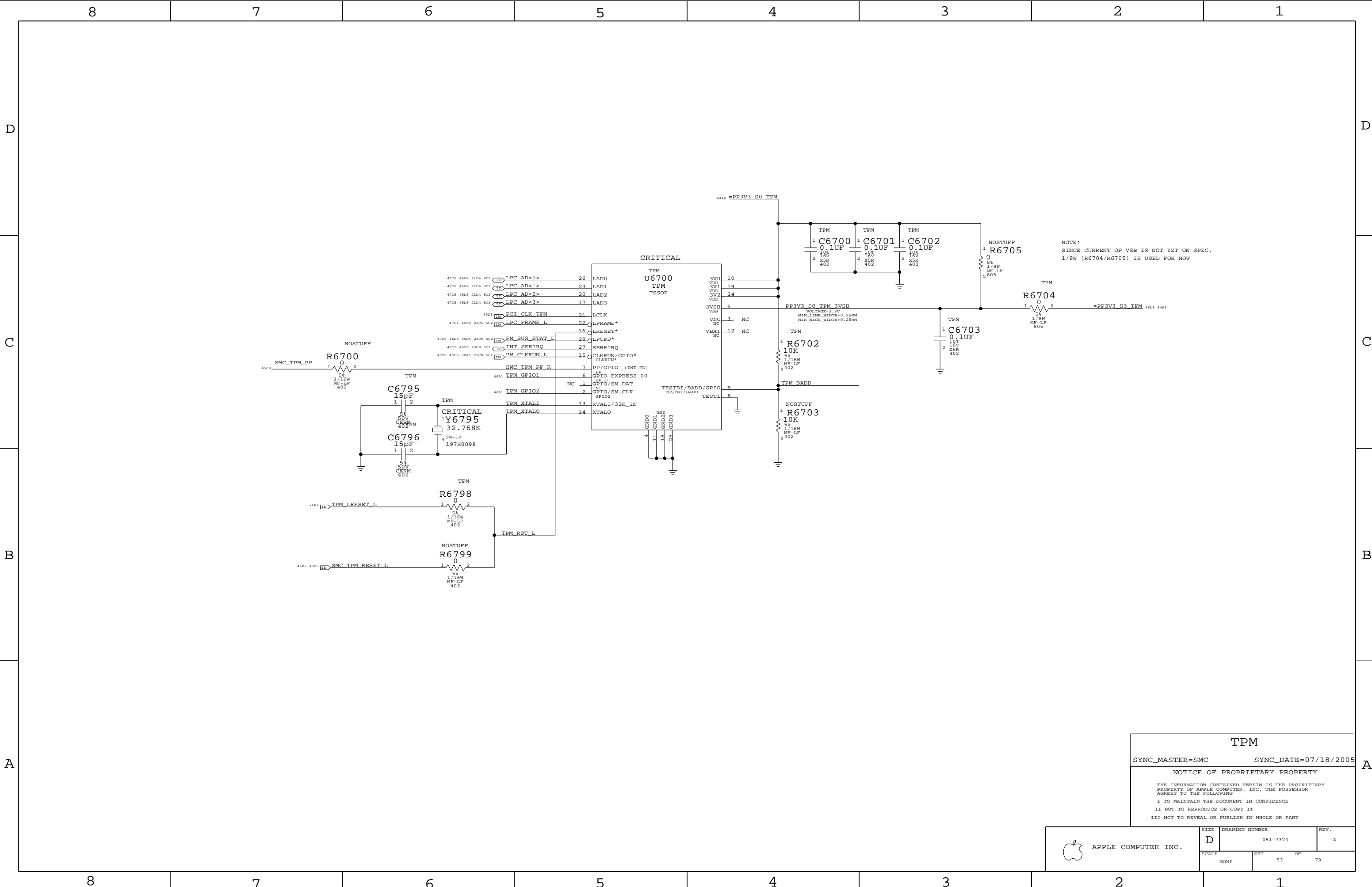
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SIZE D	DRAWING NUMBER 051-7374	REV. A
SCALE NONE	SHT 52	OF 79



TPM

SYNC_MASTER=SMC SYNC_DATE=07/18/2005

NOTICE OF PROPRIETARY PROPERTY

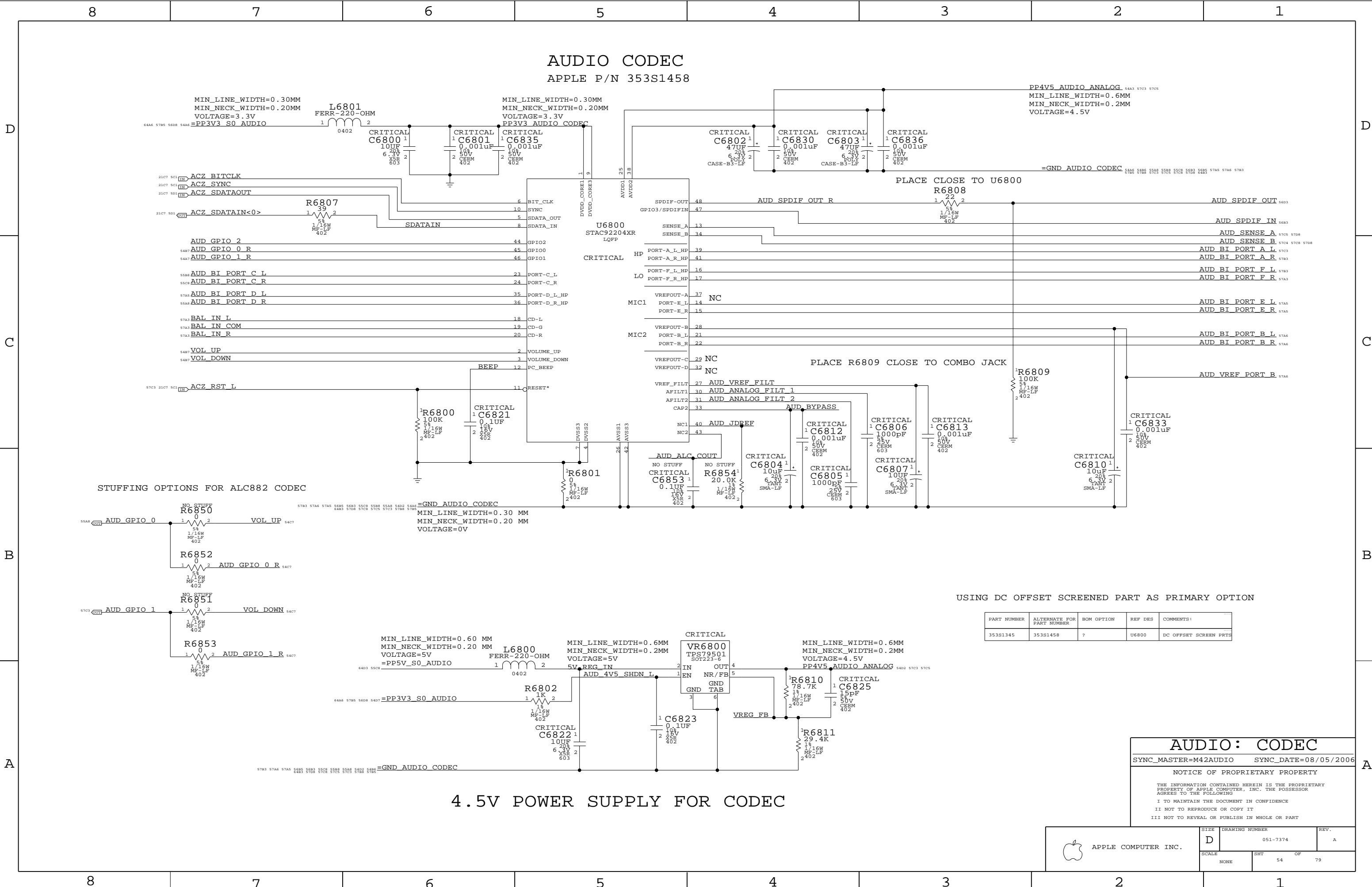
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APPLE COMPUTER INC.	SIZE D	DRAWING NUMBER 051-7374	REV. A
	SCALE NONE	SHT 53	OF 79



AUDIO CODEC
APPLE P/N 353S1458

4.5V POWER SUPPLY FOR CODEC

USING DC OFFSET SCREENED PART AS PRIMARY OPTION

PART NUMBER	ALTERNATE FOR PART NUMBER	BOM OPTION	REF DES	COMMENTS:
353S1345	353S1458	?	U6800	DC OFFSET SCREEN PRTS

AUDIO: CODEC

SYNC_MASTER=M42AUDIO SYNC_DATE=08/05/2006

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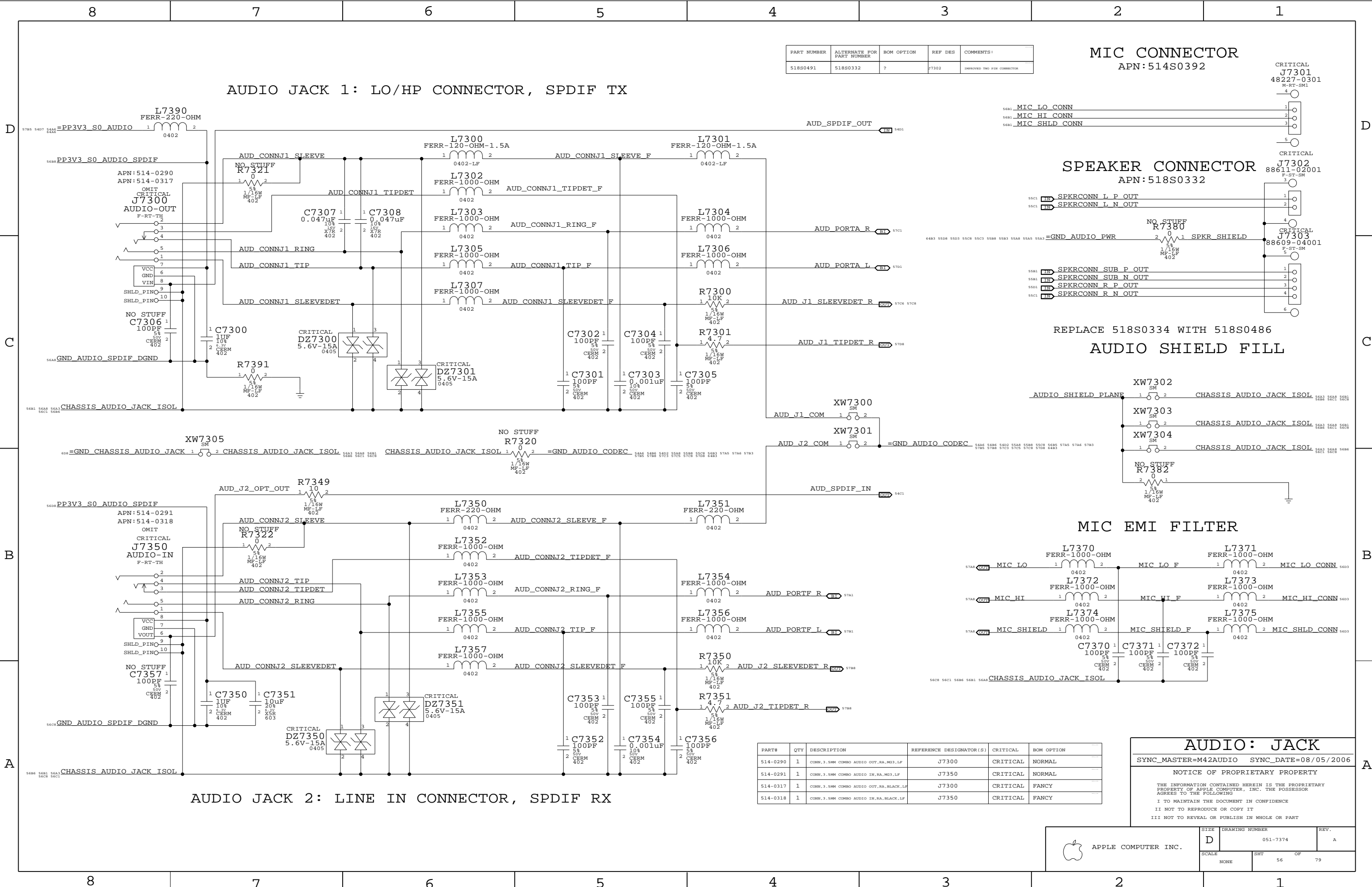
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APPLE COMPUTER INC.

SIZE D DRAWING NUMBER 051-7374 REV. A

SCALE NONE SHT 54 OF 79



PART NUMBER	ALTERNATE FOR PART NUMBER	BOM OPTION	REF DES	COMMENTS:
518S0491	518S0332	?	J7302	IMPROVED TWO PIN CONNECTOR

MIC CONNECTOR
APN:514S0392

CRITICAL
J7301
48227-0301
M-RT-SM1
4

56B1 MIC LO CONN
56B1 MIC HI CONN
56B1 MIC SHLD CONN

CRITICAL
J7302
88611-02001
F-ST-SM
3

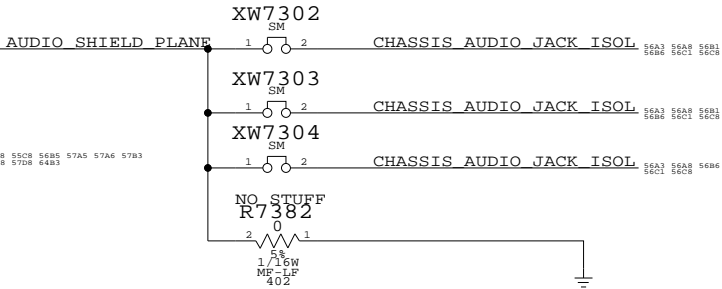
SPEAKER CONNECTOR
APN:518S0332

55C1 SPKRCONN L P OUT
55C1 SPKRCONN L N OUT

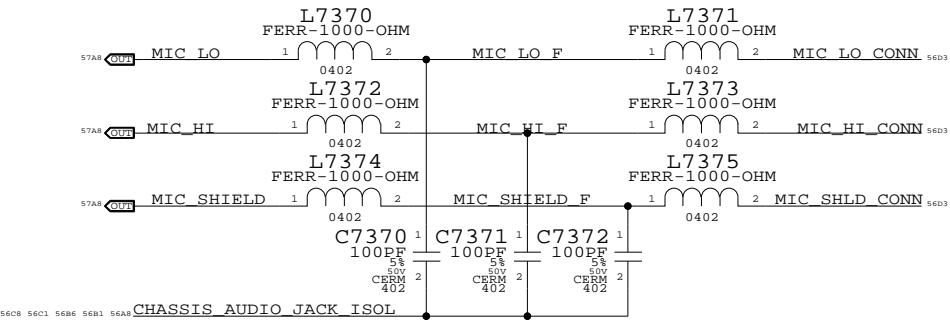
CRITICAL
J7303
88609-04001
F-ST-SM
5

55B1 SPKRCONN SUB P OUT
55B1 SPKRCONN SUB N OUT
55B1 SPKRCONN R P OUT
55C1 SPKRCONN R N OUT

REPLACE 518S0334 WITH 518S0486
AUDIO SHIELD FILL



MIC EMI FILTER



PART#	QTY	DESCRIPTION	REFERENCE DESIGNATOR(S)	CRITICAL	BOM OPTION
514-0290	1	CONN,3.5MM COMBO AUDIO OUT,RA,MG3,LF	J7300	CRITICAL	NORMAL
514-0291	1	CONN,3.5MM COMBO AUDIO IN,RA,MG3,LF	J7350	CRITICAL	NORMAL
514-0317	1	CONN,3.5MM COMBO AUDIO OUT,RA,BLACK,LF	J7300	CRITICAL	FANCY
514-0318	1	CONN,3.5MM COMBO AUDIO IN,RA,BLACK,LF	J7350	CRITICAL	FANCY

AUDIO: JACK

SYNC_MASTER=M42AUDIO SYNC_DATE=08/05/2006

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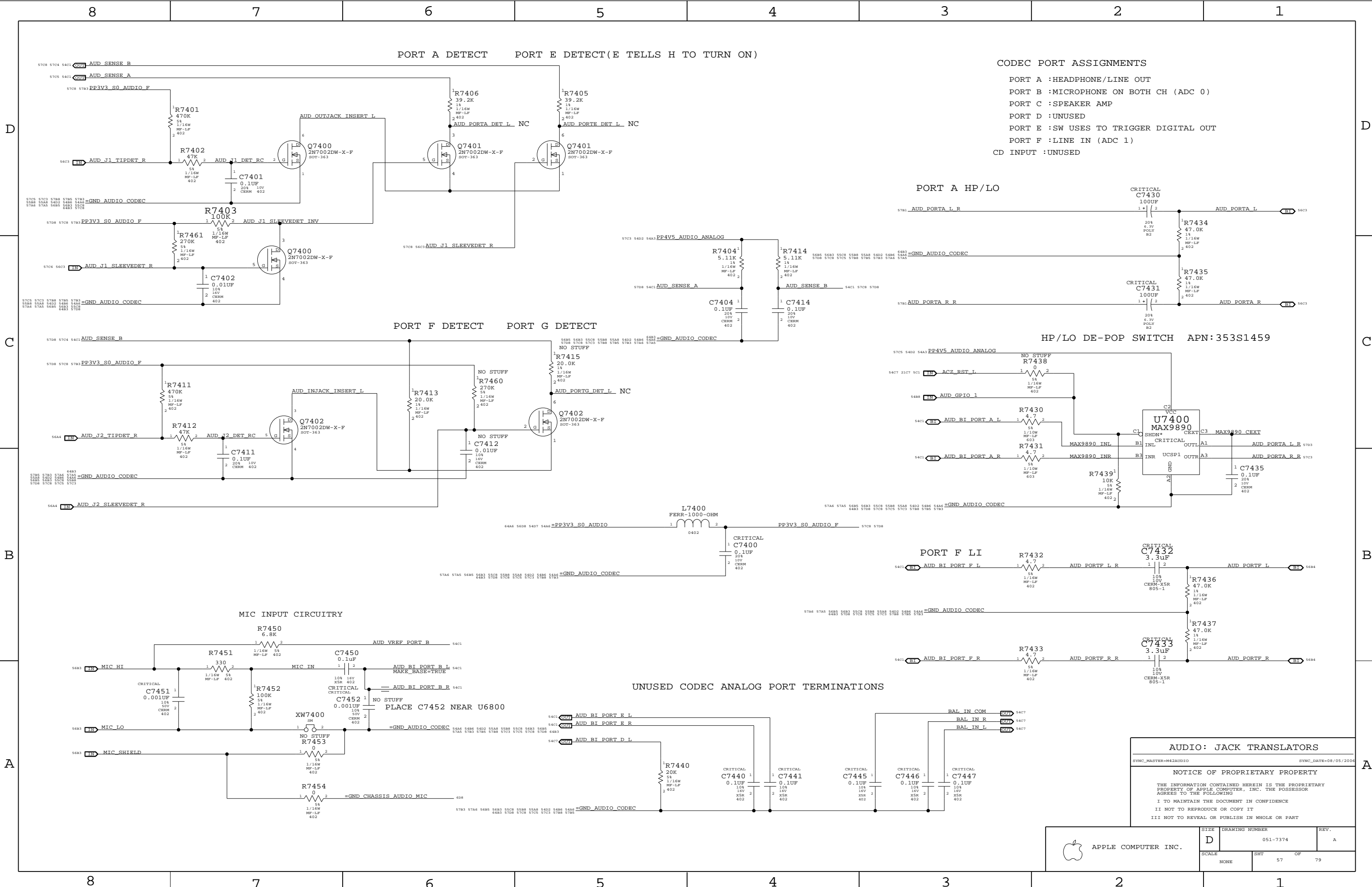
II NOT TO REPRODUCE OR COPY IT

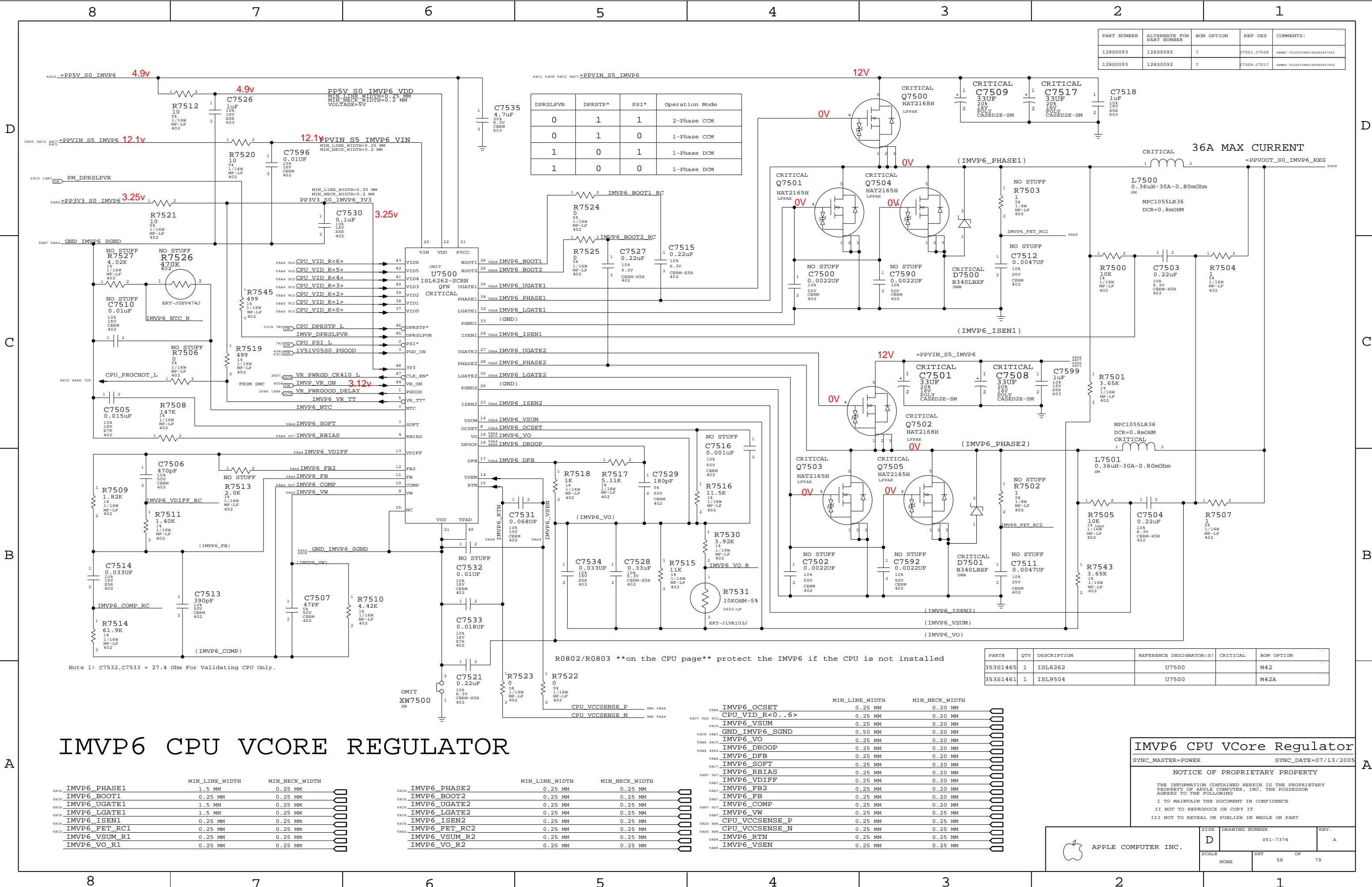
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APPLE COMPUTER INC.

SIZE	DRAWING NUMBER	REV.
D	051-7374	A
SCALE	SHT	OF
NONE	56	79





PART NUMBER	ALTERNATE FOR PART NUMBER	BOM OPTION	REF DES	COMMENTS:
128S0093	128S0092	?	C7501_C7508	EXHIBIT T520V3360M516ATE0457650
128S0093	128S0092	?	C7509_C7517	EXHIBIT T520V3360M516ATE0457650

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

PART#	QTY	DESCRIPTION	REFERENCE DESIGNATOR(S)	CRITICAL	BOM OPTION
353S1465	1	ISL6262	U7500		M42
353S1461	1	ISL9504	U7500		M42A

IMVP6 CPU VCore REGULATOR

	MIN_LINE_WIDTH	MIN_NECK_WIDTH	
5886 IMVP6_PHASE1	1.5 MM	0.25 MM	□□
5886 IMVP6_BOOT1	0.25 MM	0.25 MM	□□
5886 IMVP6_UGATE1	1.5 MM	0.25 MM	□□
5886 IMVP6_LGATE1	1.5 MM	0.25 MM	□□
5886 IMVP6_ISEN1	0.25 MM	0.25 MM	□□
5886 IMVP6_FET_RC1	0.25 MM	0.25 MM	□□
5886 IMVP6_VSUM_R1	0.25 MM	0.25 MM	□□
5886 IMVP6_VO_R1	0.25 MM	0.25 MM	□□

	MIN_LINE_WIDTH	MIN_NECK_WIDTH	
5886 IMVP6_PHASE2	0.25 MM	0.25 MM	□□
5886 IMVP6_BOOT2	0.25 MM	0.25 MM	□□
5886 IMVP6_UGATE2	0.25 MM	0.25 MM	□□
5886 IMVP6_LGATE2	0.25 MM	0.25 MM	□□
5886 IMVP6_ISEN2	0.25 MM	0.25 MM	□□
5886 IMVP6_FET_RC2	0.25 MM	0.25 MM	□□
5886 IMVP6_VSUM_R2	0.25 MM	0.25 MM	□□
5886 IMVP6_VO_R2	0.25 MM	0.25 MM	□□

	MIN_LINE_WIDTH	MIN_NECK_WIDTH	
5886 IMVP6_OCSET	0.25 MM	0.20 MM	□□
5886 CPU_VID_R<0..6>	0.25 MM	0.20 MM	□□
5886 IMVP6_VSUM	0.25 MM	0.20 MM	□□
5886 GND_IMVP6_SGND	0.50 MM	0.20 MM	□□
5886 IMVP6_VO	0.25 MM	0.20 MM	□□
5886 IMVP6_DROOP	0.25 MM	0.20 MM	□□
5886 IMVP6_DFB	0.25 MM	0.20 MM	□□
5886 IMVP6_SOFT	0.25 MM	0.20 MM	□□
5886 IMVP6_RBIAS	0.25 MM	0.20 MM	□□
5886 IMVP6_VDIFF	0.25 MM	0.20 MM	□□
5886 IMVP6_FB2	0.25 MM	0.20 MM	□□
5886 IMVP6_FB	0.25 MM	0.20 MM	□□
5886 IMVP6_COMP	0.25 MM	0.20 MM	□□
5886 IMVP6_VW	0.25 MM	0.25 MM	□□
5886 CPU_VCCSENSE_P	0.25 MM	0.25 MM	□□
5886 CPU_VCCSENSE_N	0.25 MM	0.25 MM	□□
5886 IMVP6_RTN	0.25 MM	0.25 MM	□□
5886 IMVP6_VSEN	0.25 MM	0.25 MM	□□

IMVP6 CPU VCore Regulator

SYNC_MASTER=POWER SYNC_DATE=07/13/2005

NOTICE OF PROPRIETARY PROPERTY

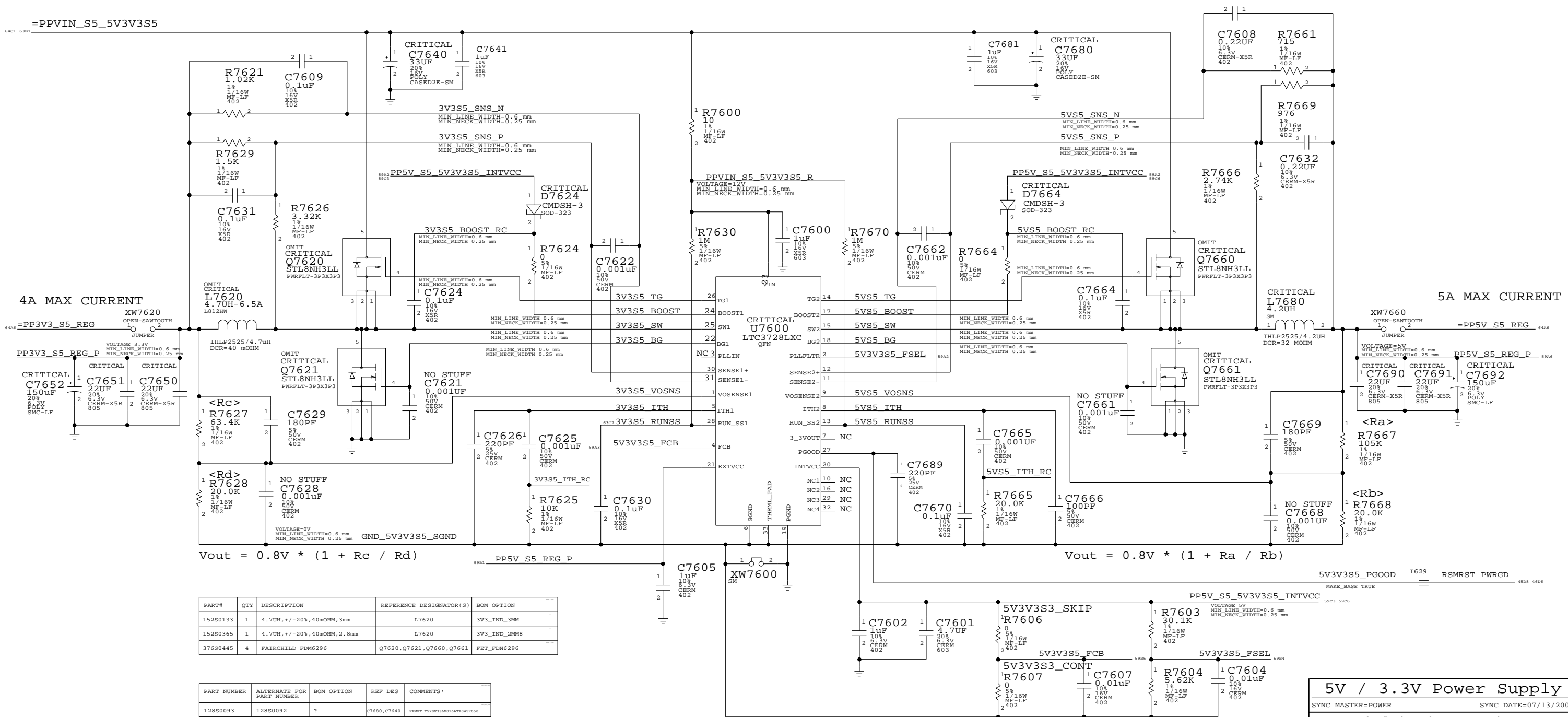
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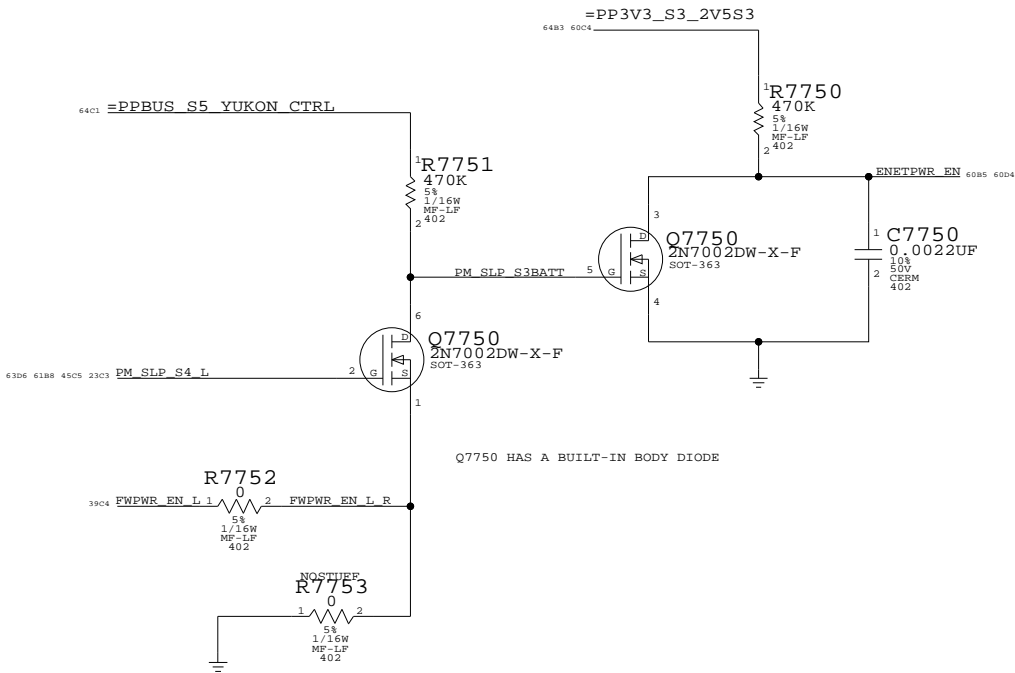
APPLE COMPUTER INC.

SIZE	DRAWING NUMBER	REV.
D	051-7374	A
SCALE	SHT	OF
NONE	58	79

5V/3.3V POWER SUPPLY



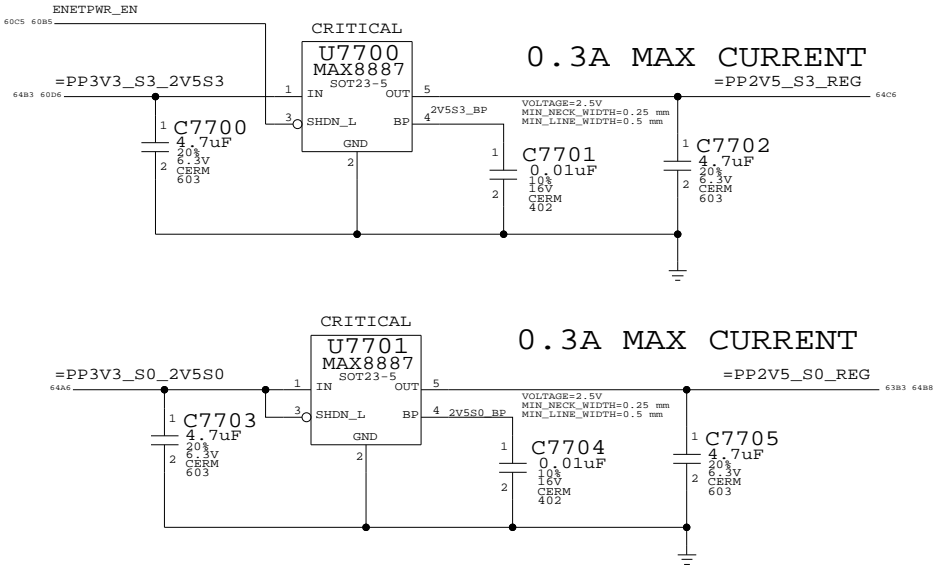
YUKON POWER CONTROL



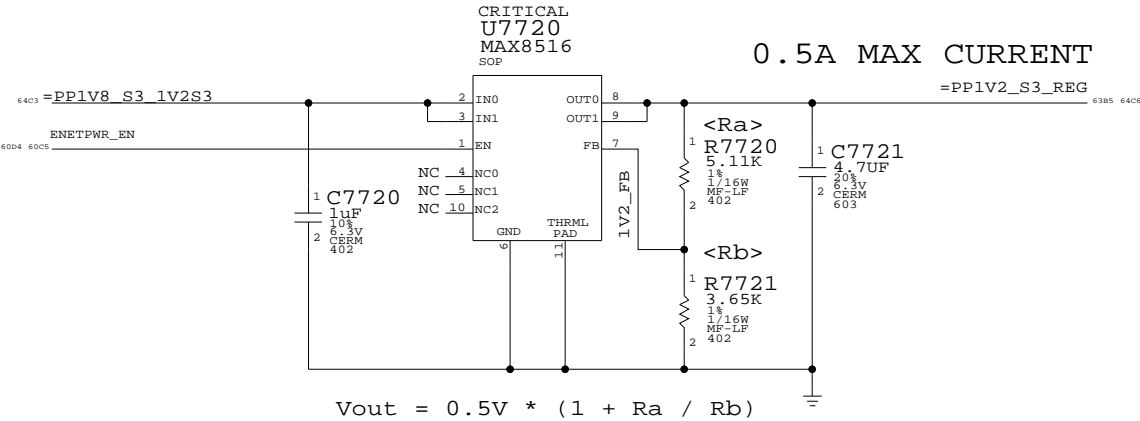
NAME	PM_SLP_S4_L	FWPWR_EN_L	PM_SLP_S3BATT	ENETPWR_EN
LOGIC	S3 S0	~S0 ~SMC_PS_ON		POWER YUKON
S3 ON BATTERY	TRUE (3.3V)	TRUE (PBUS 12.6V)	TRUE (PBUS 12.6V)	FALSE (0V)
S0 OR S3 ON AC	TRUE (3.3V)	FALSE (0V)	FALSE (0V)	TRUE (3.3V)
S5 ON AC	FALSE (0V)	TRUE (PBUS 12.6V)	TRUE (PBUS 12.6V)	FALSE (0V)
S5 ON BATT	FALSE (0V)	FALSE (0V)	TRUE (PBUS 12.6V)	FALSE (0V)

NOTE: IF CHANGE TO STUFFING R7753 THEN ENETPWR_EN IS BUFFERED PM_SLP_S4_L

2.5V REGULATORS



1.2V REGULATOR



2.5V/1.2V Regulator

SYNC_MASTER=ENET

SYNC_DATE=12/06/2005

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SIZE D

DRAWING NUMBER 051-7374

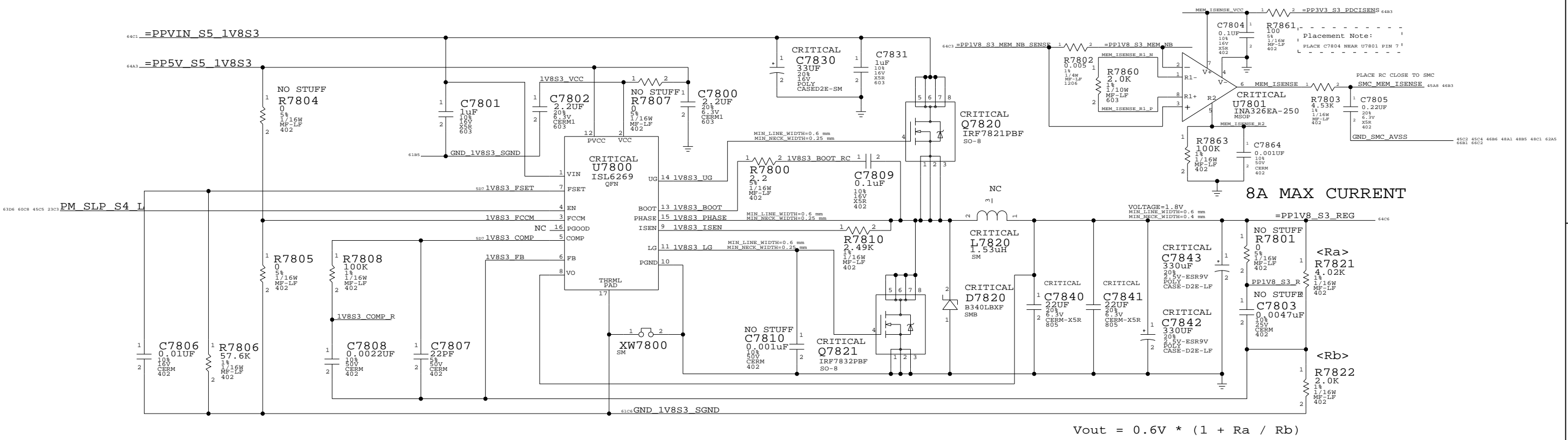
REV. A

SCALE NONE

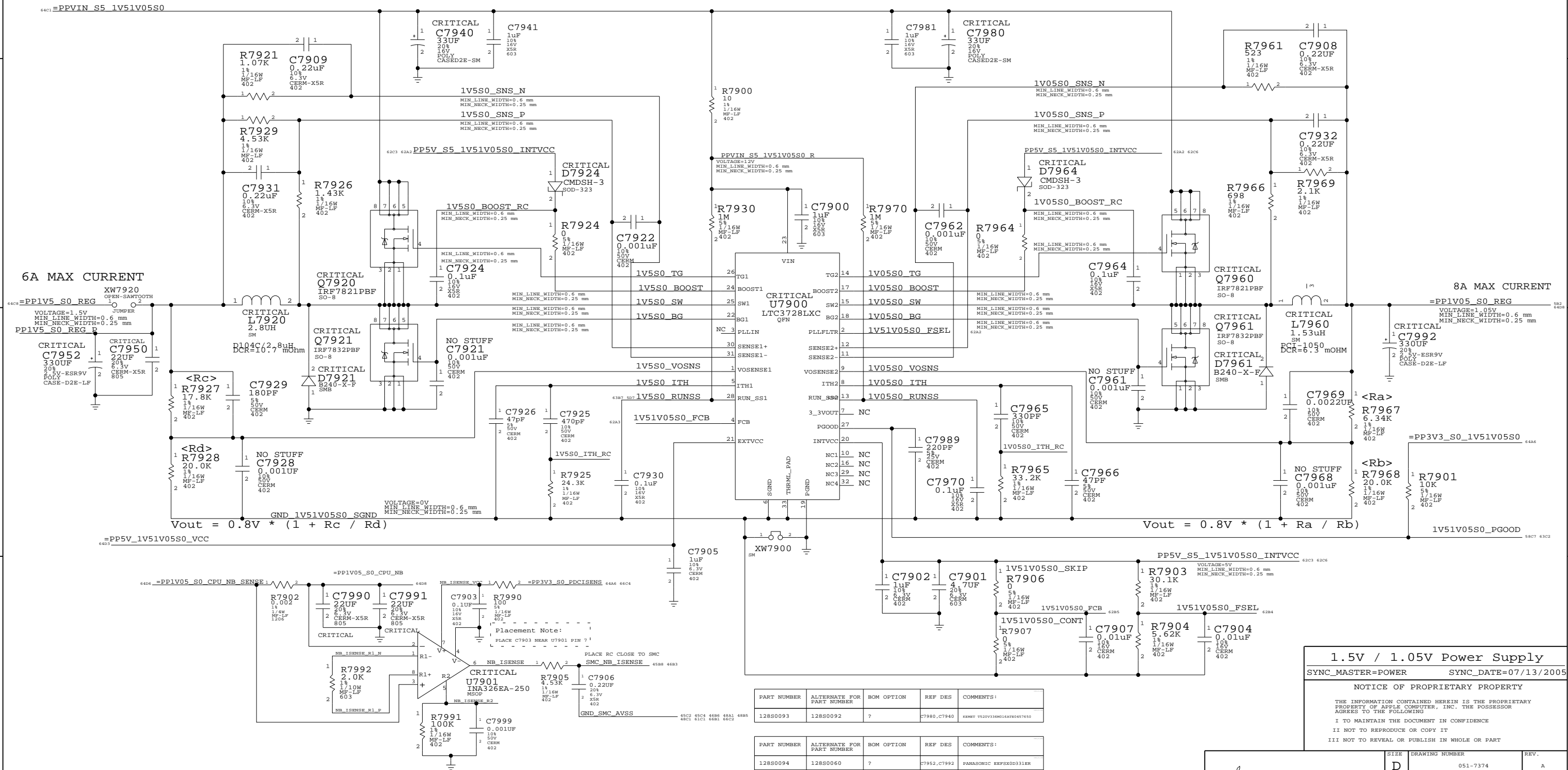
SHT 60

OF 79

1.8V POWER SUPPLY



1.5V/1.05V POWER SUPPLY



PART NUMBER	ALTERNATE FOR PART NUMBER	BOM OPTION	REF DES	COMMENTS:
128S0094	128S0060	?	C7952,C7992	PANASONIC EFPSX0D331ER
128S0095	128S0060	?	C7952,C7992	PANASONIC EFPSX0D331XE

PART NUMBER	ALTERNATE FOR PART NUMBER	BOM OPTION	REF DES	COMMENTS:
128S0094	128S0060	?	C7952,C7992	PANASONIC EFPSX0D331ER
128S0095	128S0060	?	C7952,C7992	PANASONIC EFPSX0D331XE

1.5V / 1.05V Power Supply

SYNC_MASTER=POWER SYNC_DATE=07/13/2005

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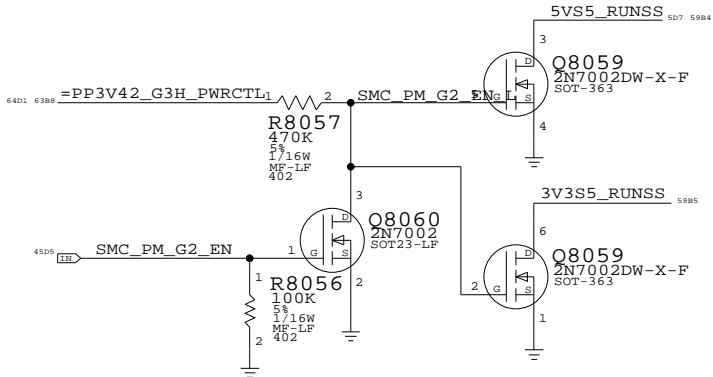
SIZE D	DRAWING NUMBER 051-7374	REV. A
SCALE NONE	SHT 62	OF 79

POWER CONTROL SIGNALS

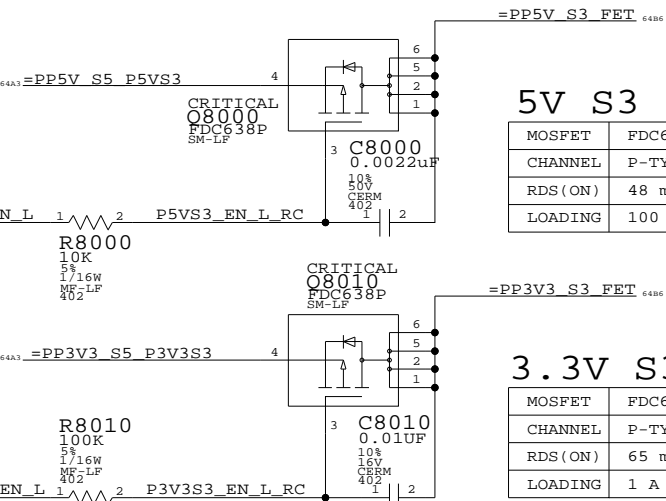
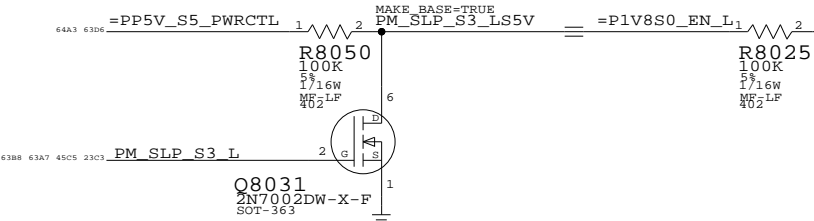
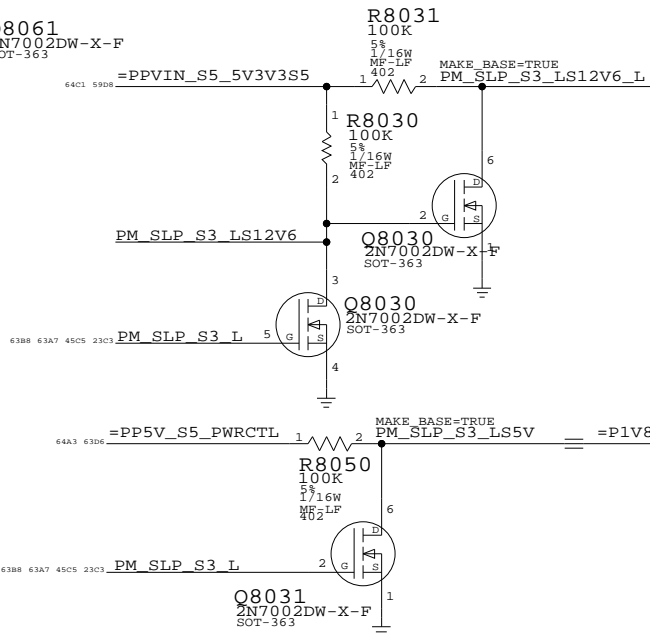
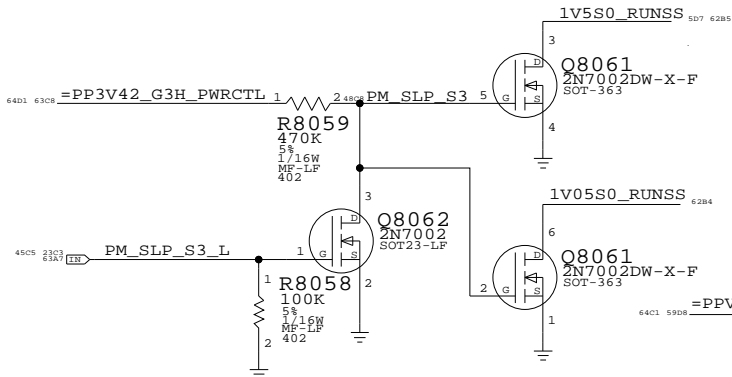
These rails are monitored by LTC2908

State	SMC_PM_G2_ENABLE	PM_SLP_S4_L	PM_SLP_S3_L
Run (S0)	1	1	1
Sleep (S3)	1	1	0
Soft-Off (S5)	1	0	0
Battery Off (G3Hot)	0	0	0

5V/3.3V S5 RUN/SS CONTROL

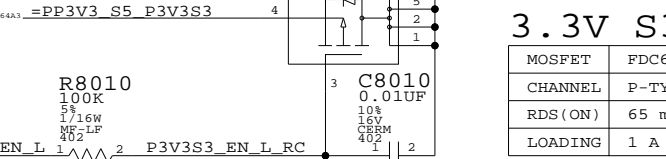


1.5V/1.05V S0 RUN/SS CONTROL



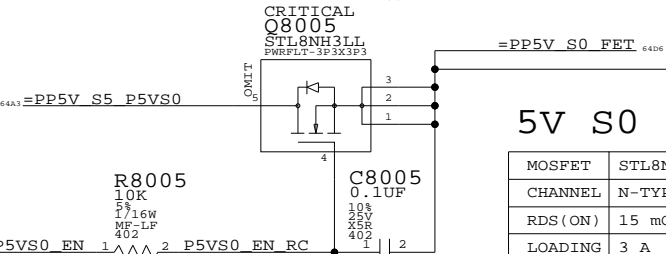
5V S3 FET

MOSFET	FDC638P
CHANNEL	P-TYPE
RDS(ON)	48 mOhm @4.5V
LOADING	100 mA



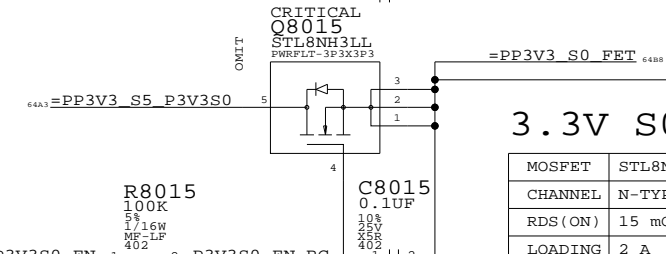
3.3V S3 FET

MOSFET	FDC638P
CHANNEL	P-TYPE
RDS(ON)	65 mOhm @2.5V
LOADING	1 A



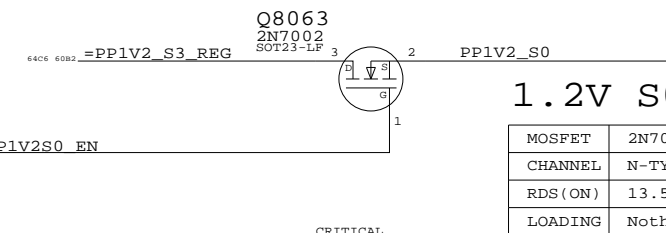
5V S0 FET

MOSFET	STL8NH3LL
CHANNEL	N-TYPE
RDS(ON)	15 mOhm @10V
LOADING	3 A



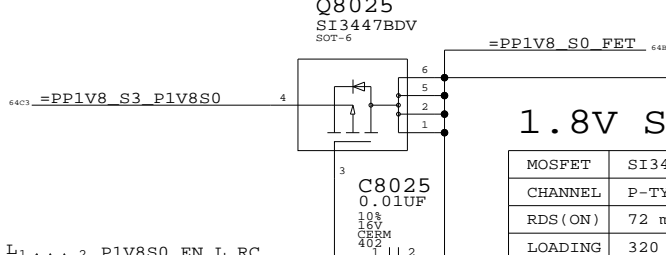
3.3V S0 FET

MOSFET	STL8NH3LL
CHANNEL	N-TYPE
RDS(ON)	15 mOhm @10V
LOADING	2 A



1.2V S0 FET

MOSFET	2N7002
CHANNEL	N-TYPE
RDS(ON)	13.5 Ohm
LOADING	Nothing

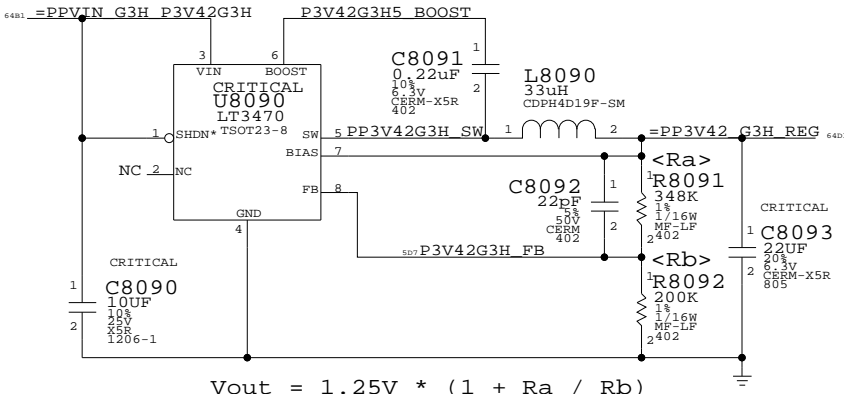


1.8V S0 FET

MOSFET	SI3447BDV
CHANNEL	P-TYPE
RDS(ON)	72 mOhm @1.8V
LOADING	320 mA

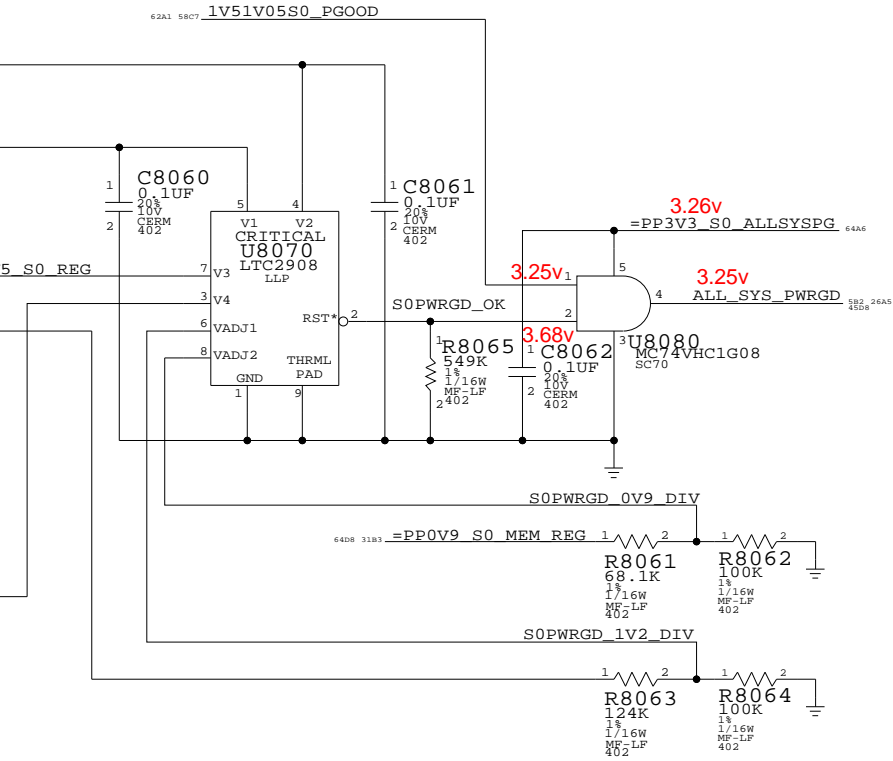
3.425V "G3Hot" SUPPLY

Supply needs to guarantee 3.31V delivered to SMC VRef generator



$$V_{out} = 1.25V * (1 + R_a / R_b)$$

ALL SYSTEM PWRGD CIRCUIT



S3/S0 FETS, G3H SUPPLY

SYNC_MASTER=ENET SYNC_DATE=08/30/2005

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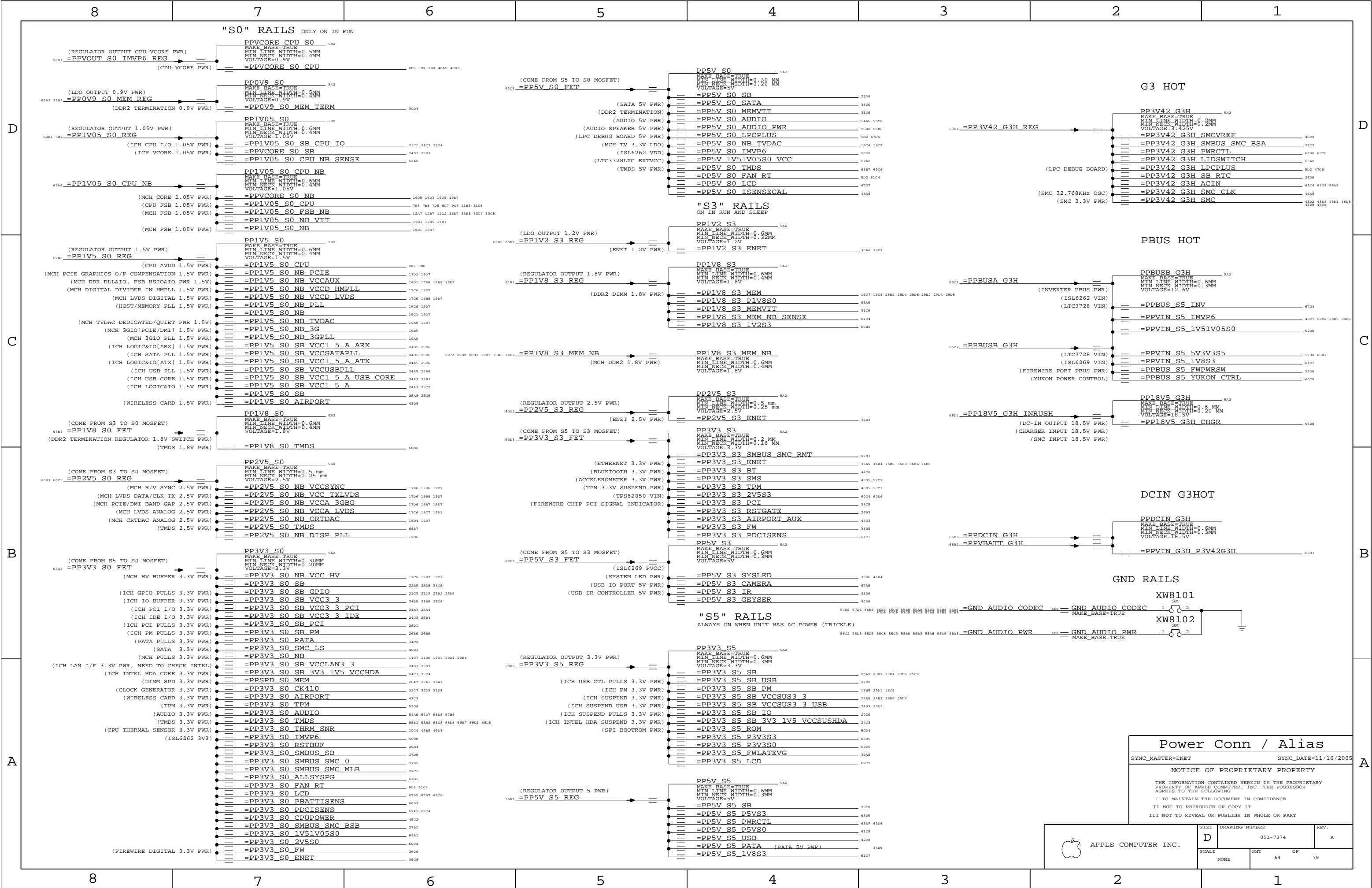


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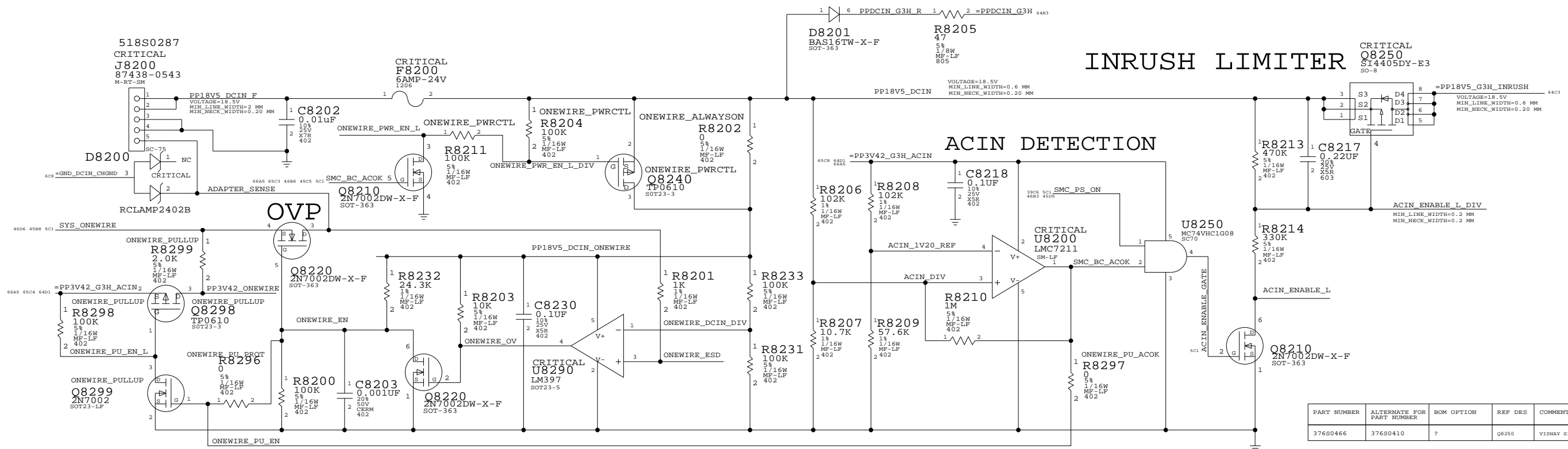
SIZE	DRAWING NUMBER	REV.
D	051-7374	A
SCALE	SHT	OF
NONE	63	79

PART#	QTY	DESCRIPTION	REFERENCE DESIGNATOR(S)	BOM OPTION
376S0445	2	FAIRCHILD FDM6296	Q8005,Q8015	FET_FDM6296

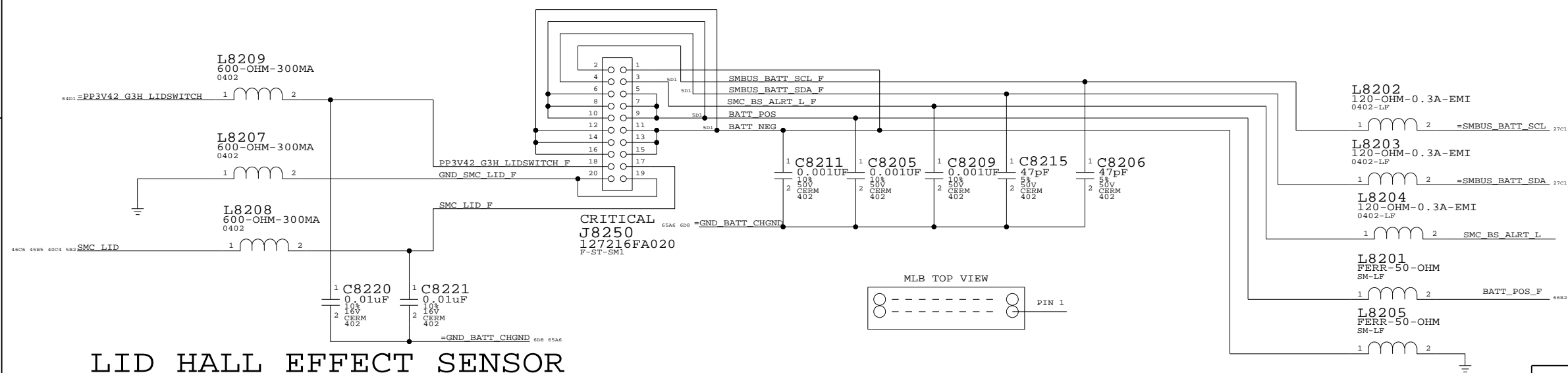
PART NUMBER	ALTERNATE FOR PART NUMBER	BOM OPTION	REF DES	COMMENTS:
376S0448	376S0445	?	Q8005,Q8015	VISHAY SI7806ADN



DC-JACK INTERFACE



BATTERY INTERFACE



LID HALL EFFECT SENSOR

PART NUMBER	ALTERNATE FOR PART NUMBER	BOM OPTION	REF DES	COMMENTS:
376S0466	376S0410	?	Q8250	VISHAY SI4413ADY

DC-In & Battery Connectors

SYNC_MASTER=POWER	SYNC_DATE=07/13/2005	7
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SIZE	DRAWING NUMBER	REV.
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D	051-7374	A
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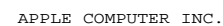
b		

SCALE	SHT	OF
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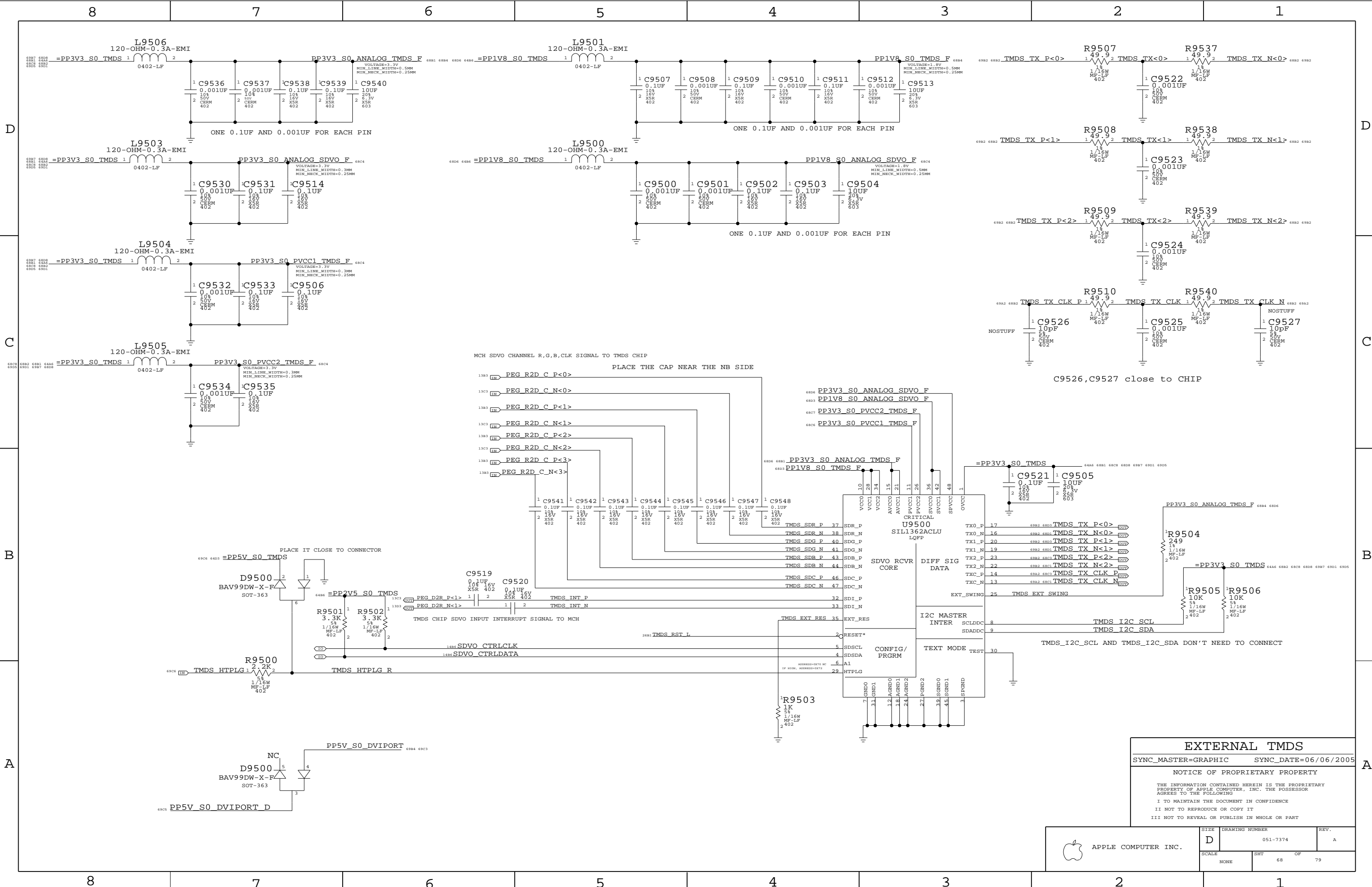
D

B

B

A

A



8				7				6				5				4				3				2				1									
D		Title: Basenet Report		5VS5_SW		5VS5_SW - @mlb_noldo_lib.MLB_NOLDO		59B4		=PP1V05_S0_NB -		19D1 19D7 64C6		=PP1V05_S0_NB_VCCSYNC -		17D6 19B6 19D7 64B6		=PP3V3_S0_FAN_RT		=PP2V5_S0_NB_VCCSYNC -		17D6 19B6 19D7 64B6				=PP2V5_S0_NB_VCCA_LVDS -		17C6 19C7 19D1 64B6									
		Design: mlb_noldo		5VS5_TG		5VS5_TG - @mlb_noldo_lib.MLB_NOLDO		59C4		=PP1V05_S0_CPU_NB -		62A6 64D8		=PP1V05_S0_NB_VCCA_LVDS -		17D6 19B7 19D7 64B6				=PP2V5_S0_NB_VCCA_3GBG -		17D6 19B7 19D7 64B6				=PP2V5_S0_NB_VCCA_3GBG -		17D6 19B7 19D7 64B6									
		Date: Mar 22 15:44:50 2007		5VS5_VOSNS		5VS5_VOSNS - @mlb_noldo_lib.MLB_NOLDO		59B4		=PP1V05_S0_CPU_NB_SENSE -		62A8 64D6		=PP1V05_S0_NB_VCCA_3GBG -		19D6 64B6				=PP2V5_S0_NB_VCCA_3GBG -		5D2 51C4 64A6				=PP2V5_S0_NB_VCCA_3GBG -		19D6 64B6									
		Base nets and synonyms for mlb_noldo_lib.MLB_NOLDO(@mlb_noldo_lib.mlb_noldo(sch_1))		5V_REG_IN		5V_REG_IN - @mlb_noldo_lib.MLB_NOLDO		54A5		=PP1V05_S0_REG -		21C1 21C1 24C3 25C4 64D6		=PP1V05_S0_NB_ENET -		36C8 64A6				=PP1V05_S0_NB_ENET -		36C8 64A6				=PP1V05_S0_NB_ENET -		36C8 64A6									
		Base Signal Synonyms		=EXTBUSB_OC_L		=EXTBUSB_OC_L - @mlb_noldo_lib.MLB_NOLDO		6C2 42C8		=PP1V05_S0_CPU_NB_SENSE -		62A8 64D6		=PP1V05_S0_NB_ENET -		36C8 64A6				=PP1V05_S0_NB_ENET -		36C8 64A6				=PP1V05_S0_NB_ENET -		36C8 64A6									
		Iv2_FB		Iv2_FB - @mlb_noldo_lib.MLB_NOLDO		60A3		6C1 22C4 22D8		=PP1V05_S0_CPU_NB_SENSE -		62A8 64D6		=PP1V05_S0_NB_ENET -		36C8 64A6				=PP1V05_S0_NB_ENET -		36C8 64A6				=PP1V05_S0_NB_ENET -		36C8 64A6									
		Iv05S0_BG		Iv05S0_BG - @mlb_noldo_lib.MLB_NOLDO		62B4		6C2		=PP1V05_S0_CPU_NB_SENSE -		62A8 64D6		=PP1V05_S0_NB_ENET -		36C8 64A6				=PP1V05_S0_NB_ENET -		36C8 64A6				=PP1V05_S0_NB_ENET -		36C8 64A6									
		Iv05S0_BOOST		Iv05S0_BOOST - @mlb_noldo_lib.MLB_NOLDO		62B4		6D2 39C6		=PP1V05_S0_CPU_NB_SENSE -		62A8 64D6		=PP1V05_S0_NB_ENET -		36C8 64A6				=PP1V05_S0_NB_ENET -		36C8 64A6				=PP1V05_S0_NB_ENET -		36C8 64A6									
		Iv05S0_BOOST_RC		Iv05S0_BOOST_RC - @mlb_noldo_lib.MLB_NOLDO		62C3		6D1		=PP1V05_S0_CPU_NB_SENSE -		62A8 64D6		=PP1V05_S0_NB_ENET -		36C8 64A6				=PP1V05_S0_NB_ENET -		36C8 64A6				=PP1V05_S0_NB_ENET -		36C8 64A6									
		Iv05S0_COMP		Iv05S0_COMP - @mlb_noldo_lib.MLB_NOLDO		5D7		6D8 65A6 65A6		=PP1V05_S0_CPU_NB_SENSE -		62A8 64D6		=PP1V05_S0_NB_ENET -		36C8 64A6				=PP1V05_S0_NB_ENET -		36C8 64A6				=PP1V05_S0_NB_ENET -		36C8 64A6									
C																																					

[illegible]

8			7			6			5			4			3			2			1		
D	CHGR_UGATE	CHGR_UGATE - @m1b_nolddo_1ib.MLB_NOLDDO	66C5			CLK_NB_OE_L	@m1b_nolddo_1ib.MLB_NOLDDO CLK_NB_OE_L -	14B6 32B4				CRT_DDC_DATA	CRT_DDC_DATA - @m1b_nolddo_1ib.MLB_NOLDDO	13B5 69D7		ENET_PU_VDD_TTL1	ENET_PU_VDD_TTL1 - @m1b_nolddo_1ib.MLB_NOLDDO	36A6 36B6					
	CHGR_VADJ	CHGR_VADJ - @m1b_nolddo_1ib.MLB_NOLDDO	66B6 66C6			CONN_GEYSER_ONOFF_FL	CONN_GEYSER_ONOFF_FLTR_L - TR_L	40C6				CRT_GREEN	CRT_GREEN - @m1b_nolddo_1ib.MLB_NOLDDO	13B5 69A8		ENET_RSET	ENET_RSET - @m1b_nolddo_1ib.MLB_NOLDDO	36C8					
	CHGR_VCOMP	CHGR_VCOMP - @m1b_nolddo_1ib.MLB_NOLDDO	66C6			CONN_GEYSER_USB_N	CONN_GEYSER_USB_N -	40C6				CRT_HSYNC_LS	CRT_HSYNC_LS - @m1b_nolddo_1ib.MLB_NOLDDO	69C2		ENET_RST_L	ENET_RST_L - @m1b_nolddo_1ib.MLB_NOLDDO	26A1 36C6					
	CHGR_VCOMP_CC	CHGR_VCOMP_CC - @m1b_nolddo_1ib.MLB_NOLDDO	66C7			CONN_GEYSER_USB_P	CONN_GEYSER_USB_P -	40C6				CRT_HSYNC_LS_R	CRT_HSYNC_LS_R - @m1b_nolddo_1ib.MLB_NOLDDO	69C3		ENET_VPD_CLK	ENET_VPD_CLK - @m1b_nolddo_1ib.MLB_NOLDDO	36A2 36C6					
	CHGR_VCOMP_RC	CHGR_VCOMP_RC - @m1b_nolddo_1ib.MLB_NOLDDO	66C7			CPUVCORE_ISENSE_CAL	CPUVCORE_ISENSE_CAL -	48A5				CRT_HSYNC_R	CRT_HSYNC_R - @m1b_nolddo_1ib.MLB_NOLDDO	13B5 69C3		ENET_VPD_DATA	ENET_VPD_DATA - @m1b_nolddo_1ib.MLB_NOLDDO	36A2 36C6					
	CHGR_VDD	CHGR_VDD - @m1b_nolddo_1ib.MLB_NOLDDO	66B6 66D6			CPU_A20M_L	@m1b_nolddo_1ib.MLB_NOLDDO CPU_A20M_L -	7C8 21C4				CRT_IREF	CRT_IREF - @m1b_nolddo_1ib.MLB_NOLDDO	13B5 69C8		ENET_XTALI	ENET_XTALI - @m1b_nolddo_1ib.MLB_NOLDDO	36B6					
	CHGR_VDDP	CHGR_VDDP - @m1b_nolddo_1ib.MLB_NOLDDO	66C5			CPU_BSEL<0>	@m1b_nolddo_1ib.MLB_NOLDDO CPU_BSEL<0> -	7B4 33C6				CRT_RED	CRT_RED - @m1b_nolddo_1ib.MLB_NOLDDO	13B5 69A8		ENET_XTALO	ENET_XTALO - @m1b_nolddo_1ib.MLB_NOLDDO	36B6					
	CHGR_VREF	CHGR_VREF - @m1b_nolddo_1ib.MLB_NOLDDO	66B6			CPU_BSEL<1>	@m1b_nolddo_1ib.MLB_NOLDDO CPU_BSEL<1> -	7B4 33B6				CRT_VSYNC_LS	CRT_VSYNC_LS - @m1b_nolddo_1ib.MLB_NOLDDO	69C2		EXTAUSB_OC_F_L	EXTAUSB_OC_F_L - @m1b_nolddo_1ib.MLB_NOLDDO	42C8					
	CK410_CLK14P3M_TIMER	CK410_CLK14P3M_TIMER - @m1b_nolddo_1ib.MLB_NOLDDO	32A4 33B8			CPU_BSEL<2>	@m1b_nolddo_1ib.MLB_NOLDDO CPU_BSEL<2> -	7B4 33B6				CRT_VSYNC_LS_R	CRT_VSYNC_LS_R - @m1b_nolddo_1ib.MLB_NOLDDO	69C3		EXTBUSB_OC_F_L	EXTBUSB_OC_F_L - @m1b_nolddo_1ib.MLB_NOLDDO	42C8					
	CK410_CPU0_N	CK410_CPU0_N - @m1b_nolddo_1ib.MLB_NOLDDO	5C7 32C4 33D5			CPU_BSEL<R<0>	@m1b_nolddo_1ib.MLB_NOLDDO CPU_BSEL_R<0> -	33C7				DCIN_ISENSE	DCIN_ISENSE - @m1b_nolddo_1ib.MLB_NOLDDO	66C3		EXT_COMPVID_B	EXT_COMPVID_B - @m1b_nolddo_1ib.MLB_NOLDDO	69B6					
C	CK410_CPU0_P	CK410_CPU0_P - @m1b_nolddo_1ib.MLB_NOLDDO	5C7 32C4 33D5			CPU_BSEL_R<1>	@m1b_nolddo_1ib.MLB_NOLDDO CPU_BSEL_R<1> -	33B7				DEBUG_RST_L	DEBUG_RST_L - @m1b_nolddo_1ib.MLB_NOLDDO	5C2 26B1 47C6		EXT_C_R	EXT_C_R - @m1b_nolddo_1ib.MLB_NOLDDO	69A6					
	CK410_CPU1_N	CK410_CPU1_N - @m1b_nolddo_1ib.MLB_NOLDDO	5C7 32C4 33D5			CPU_BSEL_R<2>	@m1b_nolddo_1ib.MLB_NOLDDO CPU_BSEL_R<2> -	33B7				DMI_IRCOMP_R	DMI_IRCOMP_R - @m1b_nolddo_1ib.MLB_NOLDDO	22C2		EXT_Y_G	EXT_Y_G - @m1b_nolddo_1ib.MLB_NOLDDO	69A6					
	CK410_CPU1_P	CK410_CPU1_P - @m1b_nolddo_1ib.MLB_NOLDDO	5C7 32C4 33D5			CPU_COMP<0>	@m1b_nolddo_1ib.MLB_NOLDDO CPU_COMP<0> -	7B3				DMI_N2S_N<0>	DMI_N2S_N<0> - @m1b_nolddo_1ib.MLB_NOLDDO	14B4 22D2		FAN_RT_PWM	FAN_RT_PWM - @m1b_nolddo_1ib.MLB_NOLDDO	5D2 51B3					
	CK410_CPU2_I2P_SRC10	CK410_CPU2_I2P_SRC10_N - @m1b_nolddo_1ib.MLB_NOLDDO	5C7 32C4 33D5			CPU_COMP<1>	@m1b_nolddo_1ib.MLB_NOLDDO CPU_COMP<1> -	7B3				DMI_N2S_N<1>	DMI_N2S_N<1> - @m1b_nolddo_1ib.MLB_NOLDDO	14B4 22D2		FAN_RT_TACH	FAN_RT_TACH - @m1b_nolddo_1ib.MLB_NOLDDO	5D2 51C3					
	CK410_CPU2_I2P_SRC10_P	CK410_CPU2_I2P_SRC10_P - @m1b_nolddo_1ib.MLB_NOLDDO	5C7 32C4 33D5			CPU_COMP<2>	@m1b_nolddo_1ib.MLB_NOLDDO CPU_COMP<2> -	7B3				DMI_N2S_N<2>	DMI_N2S_N<2> - @m1b_nolddo_1ib.MLB_NOLDDO	14B4 22D2		FSB_ADSTB_L<0>	FSB_ADSTB_L<0> - @m1b_nolddo_1ib.MLB_NOLDDO	7D8 12C4					
	CK410_DOT96_27M_N	CK410_DOT96_27M_N - @m1b_nolddo_1ib.MLB_NOLDDO	5C7 32A4 33B5			CPU_COMP<3>	@m1b_nolddo_1ib.MLB_NOLDDO CPU_COMP<3> -	7B3				DMI_N2S_N<3>	DMI_N2S_N<3> - @m1b_nolddo_1ib.MLB_NOLDDO	14B4 22D2		FSB_ADSTB_L<1>	FSB_ADSTB_L<1> - @m1b_nolddo_1ib.MLB_NOLDDO	7C8 12C4					
	CK410_DOT96_27M_P	CK410_DOT96_27M_P - @m1b_nolddo_1ib.MLB_NOLDDO	5C7 32A4 33B5			CPU_DPRSTP_L	CPU_DPRSTP_L - @m1b_nolddo_1ib.MLB_NOLDDO	7B3 21C4 58C7				DMI_N2S_P<0>	DMI_N2S_P<0> - @m1b_nolddo_1ib.MLB_NOLDDO	14B4 22D2		FSB_ADS_L	FSB_ADS_L - @m1b_nolddo_1ib.MLB_NOLDDO	7D6 12C4					
	CK410_FSB_TEST_MODE	CK410_FSB_TEST_MODE - @m1b_nolddo_1ib.MLB_NOLDDO	32C6 33B8			CPU_DPSLP_L	CPU_DPSLP_L - @m1b_nolddo_1ib.MLB_NOLDDO	7B3 21C4				DMI_N2S_P<1>											

8				7				6				5				4				3				2				1									
D	FSB_DSTBN_L<1>	FSB_DSTBN_L<1> - @mlb_noldo_lib.MLB_NOLDO	7B4 12B4	FSB_D_L<55>	FSB_D_L<55> - @mlb_noldo_lib.MLB_NOLDO	7B3 12B6	FW_PORT0_TPA_N_FL	@mlb_noldo_lib.MLB_NOLDO	39B2	IMVP6_COMP_RC	IMVP6_COMP_RC - @mlb_noldo_lib.MLB_NOLDO	58B8	D	FSB_DSTBN_L<2>	FSB_DSTBN_L<2> - @mlb_noldo_lib.MLB_NOLDO	7C3 12B4	FSB_D_L<56>	FSB_D_L<56> - @mlb_noldo_lib.MLB_NOLDO	7B3 12B6	FW_PORT0_TPA_P_FL	@mlb_noldo_lib.MLB_NOLDO	39B2	IMVP6_CPU_ISENSE_N	IMVP6_CPU_ISENSE_N - @mlb_noldo_lib.MLB_NOLDO	48C4	FSB_DSTBN_L<3>	FSB_DSTBN_L<3> - @mlb_noldo_lib.MLB_NOLDO	7B3 12B4	FSB_D_L<57>	FSB_D_L<57> - @mlb_noldo_lib.MLB_NOLDO	7B3 12B6	FW_PORT0_TPB	@mlb_noldo_lib.MLB_NOLDO	39A5	IMVP6_CPU_ISENSE_P	IMVP6_CPU_ISENSE_P - @mlb_noldo_lib.MLB_NOLDO	48D4
	FSB_DSTBP_L<0>	FSB_DSTBP_L<0> - @mlb_noldo_lib.MLB_NOLDO	7C4 12B4	FSB_D_L<58>	FSB_D_L<58> - @mlb_noldo_lib.MLB_NOLDO	7B3 12B6	FW_PORT0_TPB_N_FL	@mlb_noldo_lib.MLB_NOLDO	39B2	IMVP6_DFB	IMVP6_DFB - @mlb_noldo_lib.MLB_NOLDO	58A4 58B6		FSB_DSTBP_L<1>	FSB_DSTBP_L<1> - @mlb_noldo_lib.MLB_NOLDO	7B4 12B4	FSB_D_L<59>	FSB_D_L<59> - @mlb_noldo_lib.MLB_NOLDO	7B3 12B6	FW_PORT0_TPB_P_FL	@mlb_noldo_lib.MLB_NOLDO	39B2	IMVP6_DROOP	IMVP6_DROOP - @mlb_noldo_lib.MLB_NOLDO	48D5 58A4 58B6	FSB_DSTBP_L<2>	FSB_DSTBP_L<2> - @mlb_noldo_lib.MLB_NOLDO	7C3 12B4	FSB_D_L<60>	FSB_D_L<60> - @mlb_noldo_lib.MLB_NOLDO	7B3 12B6	FW_FWRON_RST_L	@mlb_noldo_lib.MLB_NOLDO	38C3	IMVP6_FB	IMVP6_FB - @mlb_noldo_lib.MLB_NOLDO	58A4 58B7
	FSB_DSTBP_L<3>	FSB_DSTBP_L<3> - @mlb_noldo_lib.MLB_NOLDO	7B3 12B4	FSB_D_L<61>	FSB_D_L<61> - @mlb_noldo_lib.MLB_NOLDO	7B3 12B6	FW_R0	@mlb_noldo_lib.MLB_NOLDO	38B3	IMVP6_FET_RC1	IMVP6_FET_RC1 - @mlb_noldo_lib.MLB_NOLDO	58A8 58C2		FSB_DSTBP_L<4>	FSB_DSTBP_L<4> - @mlb_noldo_lib.MLB_NOLDO	7B3 12B4	FSB_D_L<62>	FSB_D_L<62> - @mlb_noldo_lib.MLB_NOLDO	7B3 12B6	FW_R1	@mlb_noldo_lib.MLB_NOLDO	38C3	IMVP6_FET_RC2	IMVP6_FET_RC2 - @mlb_noldo_lib.MLB_NOLDO	58A6 58B2	FSB_D_L<0>	FSB_D_L<0> - @mlb_noldo_lib.MLB_NOLDO	7C4 12D6	FSB_D_L<63>	FSB_D_L<63> - @mlb_noldo_lib.MLB_NOLDO	7B3 12B6	FW_R1	@mlb_noldo_lib.MLB_NOLDO	38C3	IMVP6_ISEN1	IMVP6_ISEN1 - @mlb_noldo_lib.MLB_NOLDO	58A8 58C6
	FSB_D_L<1>	FSB_D_L<1> - @mlb_noldo_lib.MLB_NOLDO	7C4 12D6	FSB_D_L<64>	FSB_D_L<64> - @mlb_noldo_lib.MLB_NOLDO	7B3 12B6	FW_XI	@mlb_noldo_lib.MLB_NOLDO	38C3	IMVP6_ISEN2	IMVP6_ISEN2 - @mlb_noldo_lib.MLB_NOLDO	58A6 58C6		FSB_D_L<2>	FSB_D_L<2> - @mlb_noldo_lib.MLB_NOLDO	7C4 12D6	FSB_D_L<65>	FSB_D_L<65> - @mlb_noldo_lib.MLB_NOLDO	7D6 12B4	FW_X0	@mlb_noldo_lib.MLB_NOLDO	38C3	IMVP6_NTC	IMVP6_NTC - @mlb_noldo_lib.MLB_NOLDO	58C7	FSB_D_L<3>	FSB_D_L<3> - @mlb_noldo_lib.MLB_NOLDO	7C4 12D6	FSB_D_L<66>	FSB_D_L<66> - @mlb_noldo_lib.MLB_NOLDO	7C4 12D6	FW_X0_R	@mlb_noldo_lib.MLB_NOLDO	38C3	IMVP6_OCSET	IMVP6_OCSET - @mlb_noldo_lib.MLB_NOLDO	58A4 58B6
	FSB_D_L<4>	FSB_D_L<4> - @mlb_noldo_lib.MLB_NOLDO	7C4 12D6	FSB_HITM_L	FSB_HITM_L - @mlb_noldo_lib.MLB_NOLDO	7D6 12B4	FW_X0_R	@mlb_noldo_lib.MLB_NOLDO	38C3	IMVP6_PHASE1	IMVP6_PHASE1 - @mlb_noldo_lib.MLB_NOLDO	58A8 58C6		FSB_D_L<5>	FSB_D_L<5> - @mlb_noldo_lib.MLB_NOLDO	7C4 12D6	FSB_HIT_L	FSB_HIT_L - @mlb_noldo_lib.MLB_NOLDO	7D6 12B4	FW_X0_R	@mlb_noldo_lib.MLB_NOLDO	38C3	IMVP6_PHASE2	IMVP6_PHASE2 - @mlb_noldo_lib.MLB_NOLDO	58A6 58C6	FSB_D_L<6>	FSB_D_L<6> - @mlb_noldo_lib.MLB_NOLDO	7C4 12D6	FSB_IERR_L	FSB_IERR_L - @mlb_noldo_lib.MLB_NOLDO	7D6 12B4	FW_X0_R	@mlb_noldo_lib.MLB_NOLDO	38C3	IMVP6_RBIA5	IMVP6_RBIA5 - @mlb_noldo_lib.MLB_NOLDO	5D7 58A4 58B7
	FSB_D_L<7>	FSB_D_L<7> - @mlb_noldo_lib.MLB_NOLDO	7C4 12D6	FSB_IERR_L	FSB_IERR_L - @mlb_noldo_lib.MLB_NOLDO	7D6 12B4	GND_1V51V05S0_SGND	@mlb_noldo_lib.MLB_NOLDO	62B7	IMVP6_RTIN	IMVP6_RTIN - @mlb_noldo_lib.MLB_NOLDO	58A4 58B6		FSB_D_L<8>	FSB_D_L<8> - @mlb_noldo_lib.MLB_NOLDO	7C4 12D6	FSB_LOCK_L	FSB_LOCK_L - @mlb_noldo_lib.MLB_NOLDO	7D6 12B4	GND_5V3V3S5_SGND	@mlb_noldo_lib.MLB_NOLDO	59B7	IMVP6_SOFT	IMVP6_SOFT - @mlb_noldo_lib.MLB_NOLDO	58A4 58C7	FSB_D_L<9>	FSB_D_L<9> - @mlb_noldo_lib.MLB_NOLDO	7C4 12D6	FSB_REQ_L<0>	FSB_REQ_L<0> - @mlb_noldo_lib.MLB_NOLDO	7D8 12B4	GND_AUDIO_CODEC	@mlb_noldo_lib.MLB_NOLDO	5D1 64B2	IMVP6_UGATE1	IMVP6_UGATE1 - @mlb_noldo_lib.MLB_NOLDO	58A8 58C6
	FSB_D_L<10>	FSB_D_L<10> - @mlb_noldo_lib.MLB_NOLDO	7C4 12D6	FSB_REQ_L<1>	FSB_REQ_L<1> - @mlb_noldo_lib.MLB_NOLDO	7D8 12A4	GND_AUDIO_PWR	@mlb_noldo_lib.MLB_NOLDO	55A3 55A5 55A8 55B3 55B3 55B8 55C3 55C3 55C8 55D3 55D8 56C2 64B3 56A8 56C8	IMVP6_UGATE2	IMVP6_UGATE2 - @mlb_noldo_lib.MLB_NOLDO	58A6 58C6		FSB_D_L<11>	FSB_D_L<11> - @mlb_noldo_lib.MLB_NOLDO	7C4 12D6	FSB_REQ_L<2>	FSB_REQ_L<2> - @mlb_noldo_lib.MLB_NOLDO	7D8 12A4	GND_BT_F	@mlb_noldo_lib.MLB_NOLDO	44B4	IMVP6_VO	IMVP6_VO - @mlb_noldo_lib.MLB_NOLDO	48C5 58A4 58B6	FSB_D_L<12>	FSB_D_L<12> - @mlb_noldo_lib.MLB_NOLDO	7C4 12D6	FSB_REQ_L<3>	FSB_REQ_L<3> - @mlb_noldo_lib.MLB_NOLDO	7D8 12A4	GND_CHASSIS_CPU	@mlb_noldo_lib.MLB_NOLDO	6B8	IMVP6_VO_R	IMVP6_VO_R - @mlb_noldo_lib.MLB_NOLDO	58B4
	FSB_D_L<13>	FSB_D_L<13> - @mlb_noldo_lib.MLB_NOLDO	7C4 12C6	FSB_REQ_L<4>	FSB_REQ_L<4> - @mlb_noldo_lib.MLB_NOLDO	7D8 12A4	GPU_CRT_DDC_CLK	@mlb_noldo_lib.MLB_NOLDO	69B6 69D5	IMVP6_VO_R1	IMVP6_VO_R1 - @mlb_noldo_lib.MLB_NOLDO	58A8		FSB_D_L<14>	FSB_D_L<14> - @mlb_noldo_lib.MLB_NOLDO	7C4 12C6	FSB_REQ_L<5>	FSB_REQ_L<5> - @mlb_noldo_lib.MLB_NOLDO	7D8 12A4	GPU_CRT_DDC_DATA	@mlb_noldo_lib.MLB_NOLDO	69B6 69D5	IMVP6_VO_R2	IMVP6_VO_R2 - @mlb_noldo_lib.MLB_NOLDO	58A6	FSB_D_L<15>	FSB_D_L<15> - @mlb_noldo_lib.MLB_NOLDO	7C4 12C6	FSB_RS_L<0>	FSB_RS_L<0> - @mlb_noldo_lib.MLB_NOLDO	7D6 12A4	IDE_CSEL_PD	@mlb_noldo_lib.MLB_NOLDO	34B4	IMVP6_VO_R2	IMVP6_VO_R2 - @mlb_noldo_lib.MLB_NOLDO	58C7
	FSB_D_L<16>	FSB_D_L<16> - @mlb_noldo_lib.MLB_NOLDO	7C4 12C6	FSB_RS_L<1>	FSB_RS_L<1> - @mlb_noldo_lib.MLB_NOLDO	7D6 12A4	IDE_IRQ14	@mlb_noldo_lib.MLB_NOLDO	21B6 34B6	IMVP6_VSEN	IMVP6_VSEN - @mlb_noldo_lib.MLB_NOLDO	58A4 58B5		FSB_D_L<17>	FSB_D_L<17> - @mlb_noldo_lib.MLB_NOLDO	7C4 12C6	FSB_RS_L<2>	FSB_RS_L<2> - @mlb_noldo_lib.MLB_NOLDO	7D6 12A4	IDE_IRQ14	@mlb_noldo_lib.MLB_NOLDO	21B6 34B6	IMVP6_VSUM	IMVP6_VSUM - @mlb_noldo_lib.MLB_NOLDO	58A4 58C6	FSB_D_L<18>	FSB_D_L<18> - @mlb_noldo_lib.MLB_NOLDO	7B4 12C6	FSB_RS_L<3>	FSB_RS_L<3> - @mlb_noldo_lib.MLB_NOLDO	7D6 12A4	IDE_PDA<0>	@mlb_noldo_lib.MLB_NOLDO	21B5 34B5	IMVP6_VSUM_R1	IMVP6_VSUM_R1 - @mlb_noldo_lib.MLB_NOLDO	58A8
	FSB_D_L<19>	FSB_D_L<19> - @mlb_noldo_lib.MLB_NOLDO	7B4 12C6	FSB_RS_L<4>	FSB_RS_L<4> - @mlb_noldo_lib.MLB_NOLDO	7D6 12A4	IDE_PDA<1>	@mlb_noldo_lib.MLB_NOLDO	21B5 34B5	IMVP6_VSUM_R2	IMVP6_VSUM_R2 - @mlb_noldo_lib.MLB_NOLDO	58A6		FSB_D_L<20>	FSB_D_L<20> - @mlb_noldo_lib.MLB_NOLDO	7B4 12C6	FSB_RS_L<5>	FSB_RS_L<5> - @mlb_noldo_lib.MLB_NOLDO	7D6 12A4	IDE_PDA<2>	@mlb_noldo_lib.MLB_NOLDO	21B5 34B3	IMVP6_VM	IMVP6_VM - @mlb_noldo_lib.MLB_NOLDO	58A4 58B7	FSB_D_L<21>	FSB_D_L<21> - @mlb_noldo_lib.MLB_NOLDO	7B4 12C6	FSB_RS_L<6>	FSB_RS_L<6> - @mlb_noldo_lib.MLB_NOLDO	7C4 12C6	IDE_PDA<3>	@mlb_noldo_lib.MLB_NOLDO				

8			7			6			5			4			3			2			1																																																																																																																																																																																																																																																																																																																																																															
D	MEM_B_DQS_N<2>	@mlb_noldo_lib.MLB_NOLDO MEM_B_DQS_N<2> - @mlb_noldo_lib.MLB_NOLDO	15C2 29C6	NB_CFG<3>	NB_CFG<3> - @mlb_noldo_lib.MLB_NOLDO	6D4 14C6	ONEWIRE_DCIN_DIV	ONEWIRE_DCIN_DIV - @mlb_noldo_lib.MLB_NOLDO	65C5	PCIE_F_R2D_C_N	PCIE_F_R2D_C_N - @mlb_noldo_lib.MLB_NOLDO	6C4 22C4	C	MEM_B_DQS_N<3>	@mlb_noldo_lib.MLB_NOLDO MEM_B_DQS_N<3> - @mlb_noldo_lib.MLB_NOLDO	15C2 29C4	NB_CFG<4>	NB_CFG<4> - @mlb_noldo_lib.MLB_NOLDO	6D4 14C6	ONEWIRE_EN	ONEWIRE_EN - @mlb_noldo_lib.MLB_NOLDO	65C7	PCIE_F_R2D_C_P	PCIE_F_R2D_C_P - @mlb_noldo_lib.MLB_NOLDO	6C3	B	MEM_B_DQS_N<4>	@mlb_noldo_lib.MLB_NOLDO MEM_B_DQS_N<4> - @mlb_noldo_lib.MLB_NOLDO	15C2 29A6	NB_CFG<5>	NB_CFG<5> - @mlb_noldo_lib.MLB_NOLDO	14C6 20C7	ONEWIRE_ESD	ONEWIRE_ESD - @mlb_noldo_lib.MLB_NOLDO	65C5	PCIE_WAKE_L	PCIE_WAKE_L - @mlb_noldo_lib.MLB_NOLDO	23C8 36C6 43C6	A	MEM_B_DQS_N<5>	@mlb_noldo_lib.MLB_NOLDO MEM_B_DQS_N<5> - @mlb_noldo_lib.MLB_NOLDO	15C2 29A4	NB_CFG<6>	NB_CFG<6> - @mlb_noldo_lib.MLB_NOLDO	6D4 14C6	ONEWIRE_OV	ONEWIRE_OV - @mlb_noldo_lib.MLB_NOLDO	65C6	PCI_AD<0>	PCI_AD<0> - @mlb_noldo_lib.MLB_NOLDO	22B7 38C5	MEM_B_DQS_N<6>	@mlb_noldo_lib.MLB_NOLDO MEM_B_DQS_N<6> - @mlb_noldo_lib.MLB_NOLDO	15C2 29B4	NB_CFG<7>	NB_CFG<7> - @mlb_noldo_lib.MLB_NOLDO	14C6 20C7	ONEWIRE_PU_EN	ONEWIRE_PU_EN - @mlb_noldo_lib.MLB_NOLDO	65B7	PCI_AD<1>	PCI_AD<1> - @mlb_noldo_lib.MLB_NOLDO	22B7 38C5	MEM_B_DQS_N<7>	@mlb_noldo_lib.MLB_NOLDO MEM_B_DQS_N<7> - @mlb_noldo_lib.MLB_NOLDO	15C2 29B6	NB_CFG<8>	NB_CFG<8> - @mlb_noldo_lib.MLB_NOLDO	6D4 14C6	ONEWIRE_PU_EN_L	ONEWIRE_PU_EN_L - @mlb_noldo_lib.MLB_NOLDO	65C8	PCI_AD<2>	PCI_AD<2> - @mlb_noldo_lib.MLB_NOLDO	22B7 38C5	MEM_B_DQS_P<0>	@mlb_noldo_lib.MLB_NOLDO MEM_B_DQS_P<0> - @mlb_noldo_lib.MLB_NOLDO	15C2 29D6	NB_CFG<9>	NB_CFG<9> - @mlb_noldo_lib.MLB_NOLDO	14C6 20B7	ONEWIRE_PWR_EN_L	ONEWIRE_PWR_EN_L - @mlb_noldo_lib.MLB_NOLDO	65C7	PCI_AD<3>	PCI_AD<3> - @mlb_noldo_lib.MLB_NOLDO	22B7 38C5	MEM_B_DQS_P<1>	@mlb_noldo_lib.MLB_NOLDO MEM_B_DQS_P<1> - @mlb_noldo_lib.MLB_NOLDO	15C2 29D6	NB_CFG<10>	NB_CFG<10> - @mlb_noldo_lib.MLB_NOLDO	6D4 14C6	ONEWIRE_PWR_EN_L_DIV	ONEWIRE_PWR_EN_L_DIV - @mlb_noldo_lib.MLB_NOLDO	65C6	PCI_AD<4>	PCI_AD<4> - @mlb_noldo_lib.MLB_NOLDO	22B7 38C5	MEM_B_DQS_P<2>	@mlb_noldo_lib.MLB_NOLDO MEM_B_DQS_P<2> - @mlb_noldo_lib.MLB_NOLDO	15C2 29C6	NB_CFG<11>	NB_CFG<11> - @mlb_noldo_lib.MLB_NOLDO	6D4 14C6	POV52_SMC_LSREF	POV52_SMC_LSREF - @mlb_noldo_lib.MLB_NOLDO	46D3	PCI_AD<5>	PCI_AD<5> - @mlb_noldo_lib.MLB_NOLDO	22B7 38C5	MEM_B_DQS_P<3>	@mlb_noldo_lib.MLB_NOLDO MEM_B_DQS_P<3> - @mlb_noldo_lib.MLB_NOLDO	15C2 29C4	TP_NB_CFG8	TP_NB_CFG8 - @mlb_noldo_lib.MLB_NOLDO	6D3	P1V8S0_EN_L_RC	P1V8S0_EN_L_RC - @mlb_noldo_lib.MLB_NOLDO	63A5	PCI_AD<6>	PCI_AD<6> - @mlb_noldo_lib.MLB_NOLDO	22B7 38C5	MEM_B_DQS_P<4>	@mlb_noldo_lib.MLB_NOLDO MEM_B_DQS_P<4> - @mlb_noldo_lib.MLB_NOLDO	15C2 29A6	NB_CFG<12>	NB_CFG<12> - @mlb_noldo_lib.MLB_NOLDO	6D4 14C6	P3V3S0_EN_RC	P3V3S0_EN_RC - @mlb_noldo_lib.MLB_NOLDO	63B5	PCI_AD<7>	PCI_AD<7> - @mlb_noldo_lib.MLB_NOLDO	22B7 38C5	MEM_B_DQS_P<5>	@mlb_noldo_lib.MLB_NOLDO MEM_B_DQS_P<5> - @mlb_noldo_lib.MLB_NOLDO	15C2 29A4	TP_NB_CFG9	TP_NB_CFG9 - @mlb_noldo_lib.MLB_NOLDO	6D3	P3V3S3_EN_L_RC	P3V3S3_EN_L_RC - @mlb_noldo_lib.MLB_NOLDO	63C5	PCI_AD<8>	PCI_AD<8> - @mlb_noldo_lib.MLB_NOLDO	22B7 38C5	MEM_B_DQS_P<6>	@mlb_noldo_lib.MLB_NOLDO MEM_B_DQS_P<6> - @mlb_noldo_lib.MLB_NOLDO	15C2 29A4	TP_NB_CFG10	TP_NB_CFG10 - @mlb_noldo_lib.MLB_NOLDO	6D3	P3V42G3H5_BOOST	P3V42G3H5_BOOST - @mlb_noldo_lib.MLB_NOLDO	63D2	PCI_AD<9>	PCI_AD<9> - @mlb_noldo_lib.MLB_NOLDO	22B7 38C5	MEM_B_DQS_P<7>	@mlb_noldo_lib.MLB_NOLDO MEM_B_DQS_P<7> - @mlb_noldo_lib.MLB_NOLDO	15C2 29B6	NB_CFG<13>	NB_CFG<13> - @mlb_noldo_lib.MLB_NOLDO	6D4 14C6	P3V42G3H_FB	P3V42G3H_FB - @mlb_noldo_lib.MLB_NOLDO	5D7 63D2	PCI_AD<10>	PCI_AD<10> - @mlb_noldo_lib.MLB_NOLDO	22B7 38C5	MEM_B_RAS_L	@mlb_noldo_lib.MLB_NOLDO MEM_B_RAS_L - @mlb_noldo_lib.MLB_NOLDO	15B2 29B4 30A6	NB_CFG<14>	NB_CFG<14> - @mlb_noldo_lib.MLB_NOLDO	6D4 14C6	P5VS0_EN_RC	P5VS0_EN_RC - @mlb_noldo_lib.MLB_NOLDO	63C5	PCI_AD<11>	PCI_AD<11> - @mlb_noldo_lib.MLB_NOLDO	22B7 38C5	MEM_B_WE_L	@mlb_noldo_lib.MLB_NOLDO MEM_B_WE_L - @mlb_noldo_lib.MLB_NOLDO	15B2 29B6 30A6	NB_CFG<15>	NB_CFG<15> - @mlb_noldo_lib.MLB_NOLDO	6D4 14C6	P5VS3_EN_L_RC	P5VS3_EN_L_RC - @mlb_noldo_lib.MLB_NOLDO	63D5	PCI_AD<12>	PCI_AD<12> - @mlb_noldo_lib.MLB_NOLDO	22B7 38C5	MEM_CKE<0>	@mlb_noldo_lib.MLB_NOLDO MEM_CKE<0> - @mlb_noldo_lib.MLB_NOLDO	14C4 28C6	TP_NB_CFG11	TP_NB_CFG11 - @mlb_noldo_lib.MLB_NOLDO	6D3	PATA_PWR_EN_L	PATA_PWR_EN_L - @mlb_noldo_lib.MLB_NOLDO	23B3 23C3	PCI_AD<13>	PCI_AD<13> - @mlb_noldo_lib.MLB_NOLDO	22B7 38B5	MEM_CKE<3..0>	@mlb_noldo_lib.MLB_NOLDO MEM_CKE<3..0> - @mlb_noldo_lib.MLB_NOLDO	30D6	NB_CFG<16>	NB_CFG<16> - @mlb_noldo_lib.MLB_NOLDO	14C6 20C5	PBUS_S0_SMC_VSENSE	PBUS_S0_SMC_VSENSE - @mlb_noldo_lib.MLB_NOLDO	48C6	PCI_AD<14>	PCI_AD<14> - @mlb_noldo_lib.MLB_NOLDO	22B7 38B5	MEM_CKE<1>	@mlb_noldo_lib.MLB_NOLDO MEM_CKE<1> - @mlb_noldo_lib.MLB_NOLDO	14C4 28C4	NB_CFG<17>	NB_CFG<17> - @mlb_noldo_lib.MLB_NOLDO	6D4 14C6	PBUS_SMC_VSENSE_EN	PBUS_SMC_VSENSE_EN - @mlb_noldo_lib.MLB_NOLDO	48C8	PCI_AD<15>	PCI_AD<15> - @mlb_noldo_lib.MLB_NOLDO	22B7 38B5	MEM_CKE<2>	@mlb_noldo_lib.MLB_NOLDO MEM_CKE<2> - @mlb_noldo_lib.MLB_NOLDO	14C4 29C6	NB_CFG<18>	NB_CFG<18> - @mlb_noldo_lib.MLB_NOLDO	14C6 20B5	PCIE_A_D2R_C_N	PCIE_A_D2R_C_N - @mlb_noldo_lib.MLB_NOLDO	36D6	PCI_AD<16>	PCI_AD<16> - @mlb_noldo_lib.MLB_NOLDO	22B7 38B5	MEM_CKE<3>	@mlb_noldo_lib.MLB_NOLDO MEM_CKE<3> - @mlb_noldo_lib.MLB_NOLDO	14C4 29C4	NB_CFG<19>	NB_CFG<19> - @mlb_noldo_lib.MLB_NOLDO	14C6 20B5	PCIE_A_D2R_C_P	PCIE_A_D2R_C_P - @mlb_noldo_lib.MLB_NOLDO	36D6	PCI_AD<17>	PCI_AD<17> - @mlb_noldo_lib.MLB_NOLDO	22B7 38B5	MEM_CLK_N<0>	@mlb_noldo_lib.MLB_NOLDO MEM_CLK_N<0> - @mlb_noldo_lib.MLB_NOLDO	14D4 28D4	NB_CFG<20>	NB_CFG<20> - @mlb_noldo_lib.MLB_NOLDO	14B6 20A5	PCIE_A_D2R_N	PCIE_A_D2R_N - @mlb_noldo_lib.MLB_NOLDO	22D4 43C7	PCI_AD<18>	PCI_AD<18> - @mlb_noldo_lib.MLB_NOLDO	22B7 38B5	MEM_CLK_N<1>	@mlb_noldo_lib.MLB_NOLDO MEM_CLK_N<1> - @mlb_noldo_lib.MLB_NOLDO	14D4 28A4	NB_CLK100M_GCLKIN_N	NB_CLK100M_GCLKIN_N - @mlb_noldo_lib.MLB_NOLDO	14C4 33B2 33C4	PCIE_A_R2D_C_N	PCIE_A_R2D_C_N - @mlb_noldo_lib.MLB_NOLDO	22D4 36C5	PCI_AD<19>	PCI_AD<19> - @mlb_noldo_lib.MLB_NOLDO	22A7 38B6	MEM_CLK_N<2>	@mlb_noldo_lib.MLB_NOLDO MEM_CLK_N<2> - @mlb_noldo_lib.MLB_NOLDO	14D4 29A4	NB_CLK100M_GCLKIN_P	NB_CLK100M_GCLKIN_P - @mlb_noldo_lib.MLB_NOLDO	14C4 33C2 33C4	PCIE_A_R2D_C_P	PCIE_A_R2D_C_P - @mlb_noldo_lib.MLB_NOLDO	22D4 36C5	PCI_AD<20>	PCI_AD<20> - @mlb_noldo_lib.MLB_NOLDO	22A7 38B5	MEM_CLK_N<3>	@mlb_noldo_lib.MLB_NOLDO MEM_CLK_N<3> - @mlb_noldo_lib.MLB_NOLDO	14D4 29D4	NB_CLK_DREFCLKIN_N	NB_CLK_DREFCLKIN_N - @mlb_noldo_lib.MLB_NOLDO	14C4 33B3 33C2	PCIE_B_D2R_N	PCIE_B_D2R_N - @mlb_noldo_lib.MLB_NOLDO	22D4 43C7	PCI_AD<21>	PCI_AD<21> - @mlb_noldo_lib.MLB_NOLDO	22A7 38B5	MEM_CLK_P<0>	@mlb_noldo_lib.MLB_NOLDO MEM_CLK_P<0> - @mlb_noldo_lib.MLB_NOLDO	14D4 28D4	NB_CLK_DREFCLKIN_P	NB_CLK_DREFCLKIN_P - @mlb_noldo_lib.MLB_NOLDO	14C4 33B3 33C2	PCIE_B_D2R_P	PCIE_B_D2R_P - @mlb_noldo_lib.MLB_NOLDO	22D4 43B7	PCI_AD<22>	PCI_AD<22> - @mlb_noldo_lib.MLB_NOLDO	22A7 38B5	MEM_CLK_P<1>	@mlb_noldo_lib.MLB_NOLDO MEM_CLK_P<1> - @mlb_noldo_lib.MLB_NOLDO	14D4 28A4	NB_CLK_DREFSSCLKIN_N	NB_CLK_DREFSSCLKIN_N - @mlb_noldo_lib.MLB_NOLDO	14C4 33A4 33C2	PCIE_B_R2D_C_N	PCIE_B_R2D_C_N - @mlb_noldo_lib.MLB_NOLDO	22D4 43B7	PCI_AD<23>	PCI_AD<23> - @mlb_noldo_lib.MLB_NOLDO	22A7 38B5	MEM_CLK_P<2>	@mlb_noldo_lib.MLB_NOLDO MEM_CLK_P<2> - @mlb_noldo_lib.MLB_NOLDO	14D4 29A4	NB_CLK_DREFSSCLKIN_P	NB_CLK_DREFSSCLKIN_P - @mlb_noldo_lib.MLB_NOLDO	14B4 33A3 33C2	PCIE_B_R2D_C_P	PCIE_B_R2D_C_P - @mlb_noldo_lib.MLB_NOLDO	22D4 43B7	PCI_AD<24>	PCI_AD<24> - @mlb_noldo_lib.MLB_NOLDO	22A7 38B5	MEM_CLK_P<3>	@mlb_noldo_lib.MLB_NOLDO MEM_CLK_P<3> - @mlb_noldo_lib.MLB_NOLDO	14D4 29D4	NB_FSB_VREF	NB_FSB_VREF - @mlb_noldo_lib.MLB_NOLDO	12C4	PCIE_B_R2D_N	PCIE_B_R2D_N - @mlb_noldo_lib.MLB_NOLDO	43B6	PCI_AD<25>	PCI_AD<25> - @mlb_noldo_lib.MLB_NOLDO	22A7 38B5	MEM_CS_L<0>	@mlb_noldo_lib.MLB_NOLDO MEM_CS_L<0> - @mlb_noldo_lib.MLB_NOLDO	14C4 28B4	NB_FSB_VREF	NB_FSB_VREF - @mlb_noldo_lib.MLB_NOLDO	12C4	PCIE_B_R2D_P	PCIE_B_R2D_P - @mlb_noldo_lib.MLB_NOLDO	43B6	PCI_AD<26>	PCI_AD<26> - @mlb_noldo_lib.MLB_NOLDO	22A7 38B5	MEM_CS_L<3..0>	@mlb_noldo_lib.MLB_NOLDO MEM_CS_L<3..0> - @mlb_noldo_lib.MLB_NOLDO	30D6	NB_FSB_XRCOMP	NB_FSB_XRCOMP - @mlb_noldo_lib.MLB_NOLDO	12A6	PCIE_C_D2R_N	PCIE_C_D2R_N - @mlb_noldo_lib.MLB_NOLDO	6C4 2

8				7				6				5				4				3				2				1			
D	PEG_D2R_N<0>	PEG_D2R_N<0> - @mlb_noldo_lib.MLB_NOLDO	6D6 13D3	PEG_D2R_N0_SPN -	6D5			PEG_R2D_C_N<0>	PEG_R2D_C_N<0> - @mlb_noldo_lib.MLB_NOLDO	13C3 68C6		PM_CLKRUN_L	PM_CLKRUN_L - @mlb_noldo_lib.MLB_NOLDO	5C2 23C8 38A5 45D5 47C6 53C6																	
	PEG_D2R_N<1>	PEG_D2R_N<1> - @mlb_noldo_lib.MLB_NOLDO	13D3 68B6	PEG_D2R_N1_SPN -				PEG_R2D_C_N<1>	PEG_R2D_C_N<1> - @mlb_noldo_lib.MLB_NOLDO	13C3 68C6		PM_DPRS_L_PVR	PM_DPRS_L_PVR - @mlb_noldo_lib.MLB_NOLDO	14B7 23C3 58D8																	
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	PEG_D2R_N<3>	PEG_D2R_N<3> - @mlb_noldo_lib.MLB_NOLDO	6D5	PEG_D2R_N3_SPN -				PEG_R2D_C_N<3>	PEG_R2D_C_N<3> - @mlb_noldo_lib.MLB_NOLDO	13B3 68B6		PM_EXTTTS_L<0>	PM_EXTTTS_L<0> - @mlb_noldo_lib.MLB_NOLDO	6B2 14B7 45B8																	
	PEG_D2R_N<4>	PEG_D2R_N<4> - @mlb_noldo_lib.MLB_NOLDO	6C6 13D3	PEG_D2R_N4_SPN -				PEG_R2D_C_N<4>	PEG_R2D_C_N<4> - @mlb_noldo_lib.MLB_NOLDO	6B6 13B3		PM_LAN_ENABLE	PM_LAN_ENABLE - @mlb_noldo_lib.MLB_NOLDO	6B1 28C4 29C4																	
	PEG_D2R_N<5>	PEG_D2R_N<5> - @mlb_noldo_lib.MLB_NOLDO	6C5	PEG_D2R_N5_SPN -				PEG_R2D_C_N<5>	PEG_R2D_C_N<5> - @mlb_noldo_lib.MLB_NOLDO	6B5		PM_PWRBTN_L	PM_PWRBTN_L - @mlb_noldo_lib.MLB_NOLDO	23C3 45D8																	
	PEG_D2R_N<6>	PEG_D2R_N<6> - @mlb_noldo_lib.MLB_NOLDO	6C6 13D3	PEG_D2R_N6_SPN -				PEG_R2D_C_N<6>	PEG_R2D_C_N<6> - @mlb_noldo_lib.MLB_NOLDO	6B6 13B3		PM_RI_L	PM_RI_L - @mlb_noldo_lib.MLB_NOLDO	23C3 45D8																	
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	PEG_D2R_N<9>	PEG_D2R_N<9> - @mlb_noldo_lib.MLB_NOLDO	6C5	PEG_D2R_N9_SPN -				PEG_R2D_C_N<9>	PEG_R2D_C_N<9> - @mlb_noldo_lib.MLB_NOLDO	6B5		PM_SLP_S3	PM_SLP_S3 - @mlb_noldo_lib.MLB_NOLDO	48C8 63B7																	
C	PEG_D2R_N<10>	PEG_D2R_N<10> - @mlb_noldo_lib.MLB_NOLDO	6C6 13C3	PEG_D2R_N10_SPN -				PEG_R2D_C_N<10>	PEG_R2D_C_N<10> - @mlb_noldo_lib.MLB_NOLDO	6B6 13B3		PM_SLP_S3BATT	PM_SLP_S3BATT - @mlb_noldo_lib.MLB_NOLDO	60C7																	
	PEG_D2R_N<11>	PEG_D2R_N<11> - @mlb_noldo_lib.MLB_NOLDO	6C5	PEG_D2R_N11_SPN -				PEG_R2D_C_N<11>	PEG_R2D_C_N<11> - @mlb_noldo_lib.MLB_NOLDO	6B5		PM_SLP_S3_L	PM_SLP_S3_L - @mlb_noldo_lib.MLB_NOLDO	23C3 45C5 63A7 63A7 63B8																	
	PEG_D2R_N<12>	PEG_D2R_N<12> - @mlb_noldo_lib.MLB_NOLDO	6C6 13C3	PEG_D2R_N12_SPN -				PEG_R2D_C_N<12>	PEG_R2D_C_N<12> - @mlb_noldo_lib.MLB_NOLDO	6B6 13B3		PM_SLP_S3_LS12V6	PM_SLP_S3_LS12V6 - @mlb_noldo_lib.MLB_NOLDO	63B7																	
	PEG_D2R_N<13>	PEG_D2R_N<13> - @mlb_noldo_lib.MLB_NOLDO	6C5	PEG_D2R_N13_SPN -				PEG_R2D_C_N<13>	PEG_R2D_C_N<13> - @mlb_noldo_lib.MLB_NOLDO	6B5		PM_SLP_S4_L	PM_SLP_S4_L - @mlb_noldo_lib.MLB_NOLDO	23C3 45C5 60C8 61B8 63D6																	
	PEG_D2R_N<14>	PEG_D2R_N<14> - @mlb_noldo_lib.MLB_NOLDO	6C6 13C3	PEG_D2R_N14_SPN -				PEG_R2D_C_N<14>	PEG_R2D_C_N<14> - @mlb_noldo_lib.MLB_NOLDO	6B6 13B3		PM_SLP_S5_L	PM_SLP_S5_L - @mlb_noldo_lib.MLB_NOLDO	23C3 45C5 46D3																	
	PEG_D2R_N<15>	PEG_D2R_N<15> - @mlb_noldo_lib.MLB_NOLDO	6C5	PEG_D2R_N15_SPN -				PEG_R2D_C_N<15>	PEG_R2D_C_N<15> - @mlb_noldo_lib.MLB_NOLDO	6B5		PM_STPCPU_L	PM_STPCPU_L - @mlb_noldo_lib.MLB_NOLDO	23C8 32C4																	
	PEG_D2R_P<0>	PEG_D2R_P<0> - @mlb_noldo_lib.MLB_NOLDO	6C6 13C3	PEG_D2R_P0_SPN -				PEG_R2D_C_N<16>	PEG_R2D_C_N<16> - @mlb_noldo_lib.MLB_NOLDO	6B6 13B3		PM_STPPCI_L	PM_STPPCI_L - @mlb_noldo_lib.MLB_NOLDO	23C8 32C4																	
	PEG_D2R_P<1>	PEG_D2R_P<1> - @mlb_noldo_lib.MLB_NOLDO	6C5	PEG_D2R_P1_SPN -				PEG_R2D_C_N<17>	PEG_R2D_C_N<17> - @mlb_noldo_lib.MLB_NOLDO	6B5		PM_SUS_STAT_L	PM_SUS_STAT_L - @mlb_noldo_lib.MLB_NOLDO	5C2 23C5 45D5 46D3 47C5 53C6																	
	PEG_D2R_P<2>	PEG_D2R_P<2> - @mlb_noldo_lib.MLB_NOLDO	6C6 13C3	PEG_D2R_P2_SPN -				PEG_R2D_C_N<18>	PEG_R2D_C_N<18> - @mlb_noldo_lib.MLB_NOLDO	6B6 13B3		PM_SYSRST_L	PM_SYSRST_L - @mlb_noldo_lib.MLB_NOLDO	23C5 26C5 45C8																	
	PEG_D2R_P<3>	PEG_D2R_P<3> - @mlb_noldo_lib.MLB_NOLDO	6C5	PEG_D2R_P3_SPN -				PEG_R2D_C_N<19>	PEG_R2D_C_N<19> - @mlb_noldo_lib.MLB_NOLDO	6B5		PM_THRMTRIP_L	PM_THRMTRIP_L - @mlb_noldo_lib.MLB_NOLDO	26C6																	
	PEG_D2R_P<4>	PEG_D2R_P<4> - @mlb_noldo_lib.MLB_NOLDO	6C6 13C3	PEG_D2R_P4_SPN -				PEG_R2D_C_N<20>	PEG_R2D_C_N<20> - @mlb_noldo_lib.MLB_NOLDO	6B6 13B3		PM_THRM_L	PM_THRM_L - @mlb_noldo_lib.MLB_NOLDO	7C6 14B6 21C2 46B3																	
B	PEG_D2R_P<5>	PEG_D2R_P<5> - @mlb_noldo_lib.MLB_NOLDO	6C5	PEG_D2R_P5_SPN -				PEG_R2D_C_N<21>	PEG_R2D_C_N<21> - @mlb_noldo_lib.MLB_NOLDO	6B5		PF0V9_S0	PF0V9_S0 - @mlb_noldo_lib.MLB_NOLDO	23C8 45B8																	
	PEG_D2R_P<6>	PEG_D2R_P<6> - @mlb_noldo_lib.MLB_NOLDO	6C6 13C3	PEG_D2R_P6_SPN -				PEG_R2D_C_N<22>	PEG_R2D_C_N<22> - @mlb_noldo_lib.MLB_NOLDO	6B6 13B3		PF0V9_S0_MEM_TERM</																			

[illegible]

8		7		6		5		4		3		2		1	
D	USB_A_OC_L	=USB2_EXTN_N -	6C2 42C5												
		@mlb_noldo_lib.MLB_NOLDO													
		USB2_EXTN_N -	6C2												
		@mlb_noldo_lib.MLB_NOLDO													
		=USB2_EXTN_N -	6C2 42C5												
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		USB_A_OC_L -	6C1 22C4 22D8												
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		=EXTAUSB_OC_L -	6C2 42C8												
		@mlb_noldo_lib.MLB_NOLDO													
USB_A_P	EXTAUSB_OC_L	EXTAUSB_OC_L -	6C2												
		@mlb_noldo_lib.MLB_NOLDO													
		=EXTAUSB_OC_L -	6C2 42C8												
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		USB_A_P - @mlb_noldo_lib.MLB_NOLDO	6C1 22C2												
		=USB2_EXTN_P -	6C2 42C5												
		@mlb_noldo_lib.MLB_NOLDO													
		USB2_EXTN_P -	6C2												
		@mlb_noldo_lib.MLB_NOLDO													
		=USB2_EXTN_P -	6C2 42C5												
USB_B_N	USB_B_N	=USB2_EXTN_P -	6C2 42C5												
		@mlb_noldo_lib.MLB_NOLDO													
		USB_B_N - @mlb_noldo_lib.MLB_NOLDO	6C1 22C2												
		=USB2_GEYSER_N -	6C2 40C7												
		@mlb_noldo_lib.MLB_NOLDO													
		USB2_GEYSER_N -	6C2												
		@mlb_noldo_lib.MLB_NOLDO													
		=USB2_GEYSER_N -	6C2 40C7												
		@mlb_noldo_lib.MLB_NOLDO													
		USB_B_OC_L	22C4 22D8												
USB_B_P	USB_B_P	USB_B_OC_L -	22C4 22D8												
		@mlb_noldo_lib.MLB_NOLDO													
		USB_B_P - @mlb_noldo_lib.MLB_NOLDO	6C1 22C2												
		=USB2_GEYSER_P -	6C2 40C7												
		@mlb_noldo_lib.MLB_NOLDO													
		USB2_GEYSER_P -	6C2												
		@mlb_noldo_lib.MLB_NOLDO													
		=USB2_GEYSER_P -	6C2 40C7												
		@mlb_noldo_lib.MLB_NOLDO													
		USB_C_N	6C1 22C2												
USB_C_P	USB_C_P	USB_C_N - @mlb_noldo_lib.MLB_NOLDO	6C1 22C2												
		=USB2_EXTN_N -	6C2 42B5												
		@mlb_noldo_lib.MLB_NOLDO													
		USB2_EXTN_N -	6C2												
		@mlb_noldo_lib.MLB_NOLDO													
		=USB2_EXTN_N -	6C2 42B5												
		@mlb_noldo_lib.MLB_NOLDO													
		USB_C_P - @mlb_noldo_lib.MLB_NOLDO	6C1 22C2												
		=USB2_EXTN_P -	6C2 42B5												
		@mlb_noldo_lib.MLB_NOLDO													
USB_D_OC_L	USB_D_OC_L	USB2_EXTN_P -	6C2												
		@mlb_noldo_lib.MLB_NOLDO													
		USB2_EXTN_P -	6C2 42B5												
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		=USB2_EXTN_P -	6C2 42B5												
		@mlb_noldo_lib.MLB_NOLDO													
		USB_D_OC_L -	22C4 22D8												
		@mlb_noldo_lib.MLB_NOLDO													
		USB_E_N	6C1 22C2												
		TP_USBN_E -	5C1 6C2												
USB_E_OC_L	USB_E_OC_L	@mlb_noldo_lib.MLB_NOLDO													
		USB_E_OC_L -	22C4 22D8												
		@mlb_noldo_lib.MLB_NOLDO													
		USB_E_P - @mlb_noldo_lib.MLB_NOLDO	6C1 22C2												
		TP_USBP_E -	5C1 6C2												
		@mlb_noldo_lib.MLB_NOLDO													
		USB_F_N	6C1 22C2												
		=USB2_IR_N -	6C2 41C6												
		@mlb_noldo_lib.MLB_NOLDO													
		USB_IR_N - @mlb_noldo_lib.MLB_NOLDO	6C2												
USB_F_P	USB_F_P	=USB2_IR_N -	6C2 41C6												
		@mlb_noldo_lib.MLB_NOLDO													
		USB_F_P - @mlb_noldo_lib.MLB_NOLDO	6C1 22C2												
		=USB2_IR_P -	6C2 41C6												
		@mlb_noldo_lib.MLB_NOLDO													
		USB_IR_P - @mlb_noldo_lib.MLB_NOLDO	6C2												
		=USB2_IR_P -	6C2 41C6												
		@mlb_noldo_lib.MLB_NOLDO													
		USB_G_N	6B1 22C2												
		=USB2_BT_N -	6B2 44C6												
USB_G_P	USB_G_P	@mlb_noldo_lib.MLB_NOLDO													
		USB_BT_N - @mlb_noldo_lib.MLB_NOLDO	6B2												
		=USB2_BT_N -	6B2 44C6												
		@mlb_noldo_lib.MLB_NOLDO													
		USB_G_P - @mlb_noldo_lib.MLB_NOLDO	6B1 22C2												
		=USB2_BT_P -	6C2 44C6												
		@mlb_noldo_lib.MLB_NOLDO													
		USB_BT_P - @mlb_noldo_lib.MLB_NOLDO	6C2												
		=USB2_BT_P -	6C2 44C6												
		@mlb_noldo_lib.MLB_NOLDO													
USB_RBIAS_PN	VGA_B	USB_RBIAS_PN	22C2												
		USB_RBIAS_PN													
		@mlb_noldo_lib.MLB_NOLDO													
		VGA_B - @mlb_noldo_lib.MLB_NOLDO	69B4												
		VGA_G - @mlb_noldo_lib.MLB_NOLDO	69B4												
		VGA_HSYNC -	69B4 69C1												
		@mlb_noldo_lib.MLB_NOLDO													
		VGA_R - @													

8				7				6				5				4				3				2				1																																																							
D	C7507	CAP_402	mlb_noldd[58B7]	C7508	CAP_P_CASED2E-SM	mlb_noldd[58C3]	C7509	CAP_P_CASED2E-SM	mlb_noldd[58D3]	C7510	CAP_402	mlb_noldd[58C8]	C7511	CAP_402	mlb_noldd[58B3]	C7512	CAP_402	mlb_noldd[58C3]	C7513	CAP_402	mlb_noldd[58B7]	C7514	CAP_402	mlb_noldd[58B8]	C7515	CAP_402	mlb_noldd[58C5]	C7516	CAP_402	mlb_noldd[58B4]	C7517	CAP_P_CASED2E-SM	mlb_noldd[58D3]	C7518	CAP_603	mlb_noldd[58D2]	C7521	CAP_402	mlb_noldd[58A6]	C7526	CAP_603	mlb_noldd[58D7]	C7527	CAP_402	mlb_noldd[58C5]	C7528	CAP_402	mlb_noldd[58B5]	C7529	CAP_402	mlb_noldd[58B5]	C7530	CAP_402	mlb_noldd[58C7]	C7531	CAP_402	mlb_noldd[58B5]	C7532	CAP_402	mlb_noldd[58B6]	C7533	CAP_402	mlb_noldd[58B6]	C7534	CAP_402	mlb_noldd[58B5]	C7535	CAP_603	mlb_noldd[58D6]	C7590	CAP_402	mlb_noldd[58C3]	C7592	CAP_402	mlb_noldd[58B3]	C7596	CAP_402	mlb_noldd[58D7]	C7599	CAP_603	mlb_noldd[58A4]	C7600	CAP_603

8				7				6				5				4				3				2				1																																														
D		Q7503	TRA_HAT2165H_LFFPAK	mlb_noldd[58B4]	R2085	RES_402	mlb_noldd[20C4]	R3405	RES_402	mlb_noldd[33C1]	R5906	RES_402	mlb_noldd[46D4]	D		Q7504	TRA_HAT2165H_LFFPAK	mlb_noldd[58D3]	R2100	RES_402	mlb_noldd[21C3]	R3406	RES_402	mlb_noldd[33B1]	R5910	RES_603	mlb_noldd[46C8]	C		Q7505	TRA_HAT2165H_LFFPAK	mlb_noldd[58B3]	R2101	RES_402	mlb_noldd[21C4]	R3407	RES_402	mlb_noldd[21C4]	R5911	RES_402	mlb_noldd[33B1]	mlb_noldd[46A6]	B		Q7620	TRA_STL8NH3LL_COMBO	mlb_noldd[59C7]	R2105	RES_402	mlb_noldd[21D6]	R3408	RES_402	mlb_noldd[33C1]	R5918	RES_402	mlb_noldd[46C5]	A		Q7621	PWRFLT-3P3X3P3		R2107	RES_402	mlb_noldd[21C2]	R3409	RES_402	mlb_noldd[21C2]	R5919	RES_402	mlb_noldd[33C1]	mlb_noldd[46C5]			Q

8				7				6				5				4				3				2				1					
D	R7260	RES_402	mlb_noldo[55D2]	R7904	RES_402	mlb_noldo[62A3]	R9510	RES_402	mlb_noldo[68C2]	XW7301	SHORT_SM	mlb_noldo[56B4]	D																				
	R7261	RES_402	mlb_noldo[55C2]	R7905	RES_402	mlb_noldo[62A6]	R9537	RES_402	mlb_noldo[68D1]	XW7302	SHORT_SM	mlb_noldo[56C2]																					
	R7270	RES_402	mlb_noldo[55C2]	R7906	RES_402	mlb_noldo[62A3]	R9538	RES_402	mlb_noldo[68D1]	XW7303	SHORT_SM	mlb_noldo[56C2]																					