

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

REV	ZONE	ECN	DESCRIPTION OF CHANGE	CK APPD DATE	ENG APPD DATE
07		355269	ENGINEERING RELEASED	12/10/04	?

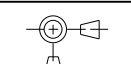
Page	(.csa)	Contents	DRI	Sync	Date
1	1	Table of Contents	RX	N/A	N/A
2	2	SYSTEM BLOCK DIAGRAM	RX	MASTER	5/23/05
3	3	Power Block Diagram	MK	POWER	06/30/2005
4	4	CONFIGURATION OPTIONS	RX	SMC	07/18/2005
5	5	FUNC TEST 1 OF 2	RX	TP	07/25/2005
6	6	SIGNAL ALIAS /RESET	RX	ENET	08/19/2005
7	7	CPU 1 OF 2-FSB	RX	MASTER	05/03/2005
8	8	CPU 2 OF 2-PWR/GND	MK	MASTER	05/03/2005
9	9	CPU DECAPS & VID<>	MK	SMC	08/19/2005
10	10	CPU MISC1-TEMP SENSOR	ES	ENET	08/19/2005
11	11	CPU ITP700FLEX DEBUG	RX	MASTER	5/23/05
12	12	NB CPU Interface	MK	NB	07/25/2005
13	13	NB PEG / Video Interfaces	DK	NB	07/25/2005
14	14	NB Misc Interfaces	RX	NB	08/15/2005
15	15	NB DDR2 Interfaces	LT	NB	07/25/2005
16	16	NB Power 1	DK	NB	07/25/2005
17	17	NB Power 2	DK	NB	07/25/2005
18	18	NB Grounds	DK	NB	07/25/2005
19	19	NB (GM) Decoupling	DK	NB	06/22/2005
20	20	NB Config Straps	DK	NB	06/28/2005
21	21		RX	SB	08/05/2005
22	22		RX	ENET	11/16/2005
23	23		RX	ENET	11/28/2005
24	24		RX	SB	08/05/2005
25	25		RX	SB	06/28/2005
26	26	SB Misc	RX	NB	07/26/2005
27	27	M42 SMBUS CONNECTIONS	ES	ENET	08/30/2005
28	28	DDR2 SO-DIMM Connector A	LT	MEMORY	06/20/2005
29	29	DDR2 SO-DIMM Connector B	LT	MEMORY	06/20/2005
30	30	Memory Active Termination	LT	MEMORY	06/20/2005
31	31	Memory Vtt Supply	LT	(MASTER)	(MASTER)
32	32	CLOCKS	DK	CLOCK	06/03/2005
33	33	CLOCK TERMINATION	DK	CLOCK	06/06/2005
34	34	PATA CONNECTOR	ES	ENET	11/01/2005
35	35	SATA CONNECTOR	ES	ENET	11/14/2005
36	36	ETHERNET CONTROLLER	ES	ENET	12/06/2005
37	37	ETHERNET CONNECTOR	ES	ENET	11/14/2005
38	38	FIREWIRE CONTROLLER	ES	ENET	08/30/2005
39	39	FIREWIRE PORT	ES	ENET	11/16/2005
40	40	CONNECTOR MISC	ES	ENET	11/16/2005
41	41	IR CONTROLLER	ES	ENET	11/09/2005
42	42		ES	ENET	11/01/2005
43	43		ES	ENET	08/19/2005
44	44	BLUETOOTH INTERFACE	MK	ENET	08/29/2005
45	45	SMC	MK	SMC	08/18/2005
46	46	SMC SUPPORT	LD	SMC	08/23/2005
47	47	LPC+ Debug Connector	MK	NB	06/30/2005
48	48	CPU Current & Voltage Sense	ES	ENET	08/30/2005

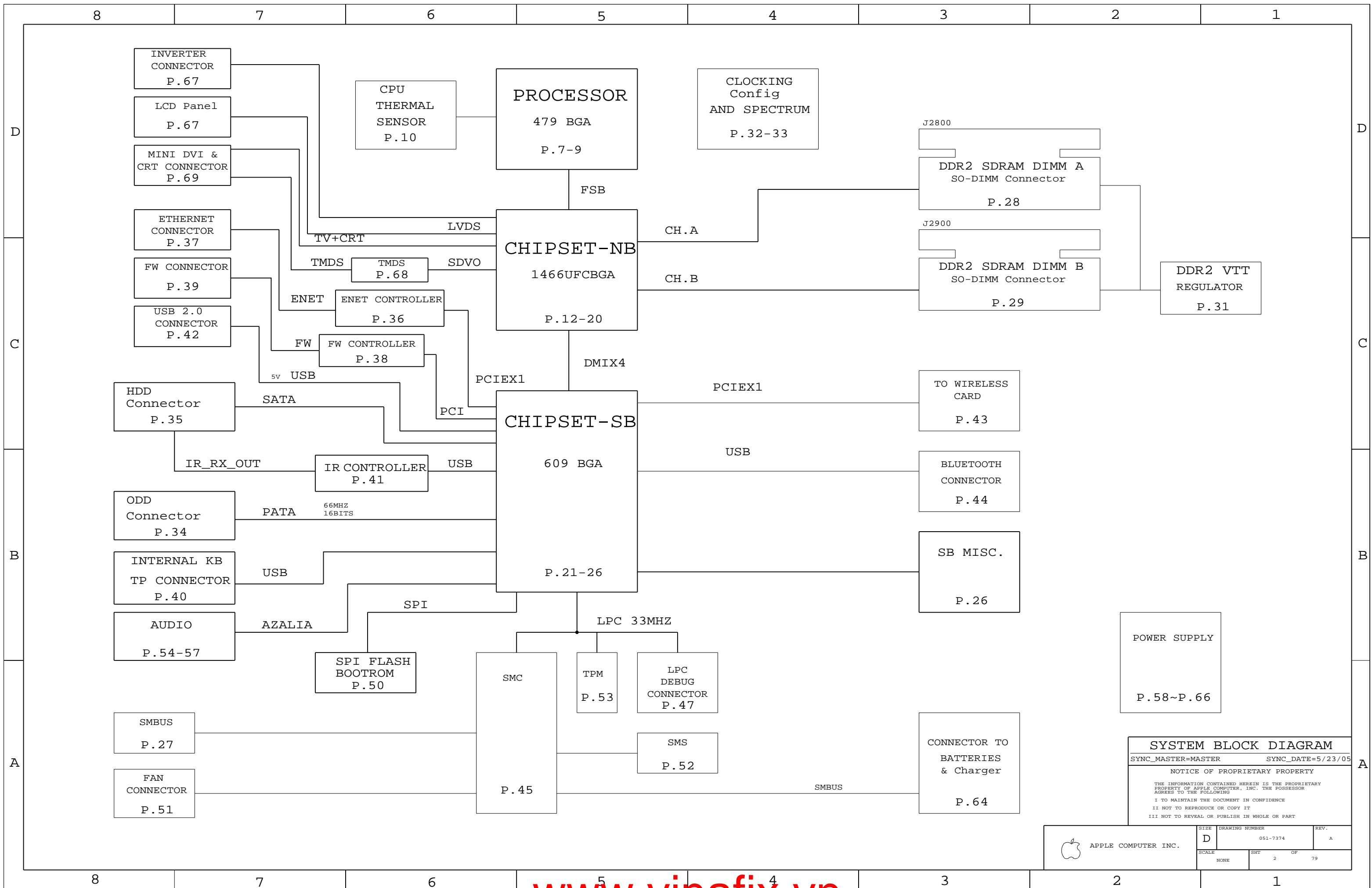
Page	(.csa)	Contents	DRI	Sync	Date
49	49	TEMPERATURE SENSE	RX	ENET	11/09/2005
50	50	SPI BOOTROM	ES	MASTER	5/23/05
51	51	Fan	MK	ENET	11/10/2005
52	52	SMS	RX	SMC	08/23/2005
53	53	TPM	DK	SMC	07/18/2005
54	54	AUDIO: CODEC	DK	M42AUDIO	08/05/2006
55	55	AUDIO: SPEAKER AMP	DK	M42AUDIO	08/05/2006
56	56	AUDIO: JACK	DK	M42AUDIO	08/05/2006
57	57	AUDIO: JACK TRANSLATORS	MK	M42AUDIO	08/05/2006
58	58	IMVP6 CPU VCore Regulator	MK	POWER	07/13/2005
59	59	5V / 3.3V Power Supply	MK	POWER	07/13/2005
60	60	2.5V/1.2V Regulator	MK	ENET	12/06/2005
61	61	1.8V Supply	MK	POWER	07/13/2005
62	62	1.5V / 1.05V Power Supply	MK	POWER	07/13/2005
63	63	S3/S0 FETS, G3H SUPPLY	MK	ENET	08/30/2005
64	64	Power Conn / Alias	MK	ENET	11/16/2005
65	65	DC-In & Battery Connectors	MK	POWER	07/13/2005
66	66	PBUS Supply/Battery Charger	ES	SMC	08/19/2005
67	67	INVERTER, LVDS, TMDS	DK	GRAPHIC	06/06/2005
68	68	EXTERNAL TMDS	DK	GRAPHIC	06/06/2005
69	69	MINI-DVI CONNECTOR		EUGENE	05/21/05
70	70	Cross Reference Page			
71	71	Cross Reference Page			
72	72	Cross Reference Page			
73	73	Cross Reference Page			
74	74	Cross Reference Page			
75	75	Cross Reference Page			
76	76	Cross Reference Page			
77	77	Cross Reference Page			
78	78	Cross Reference Page			
79	79	Cross Reference Page			

EE DRIS:
 RX-RAYMOND XU
 DK-DINESH KUMAR
 RC-RAY CHANG
 MK-MARC KLINGELHOFER
 LT-LAWRENCE TAN
 LD-LINDA DUNN

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	

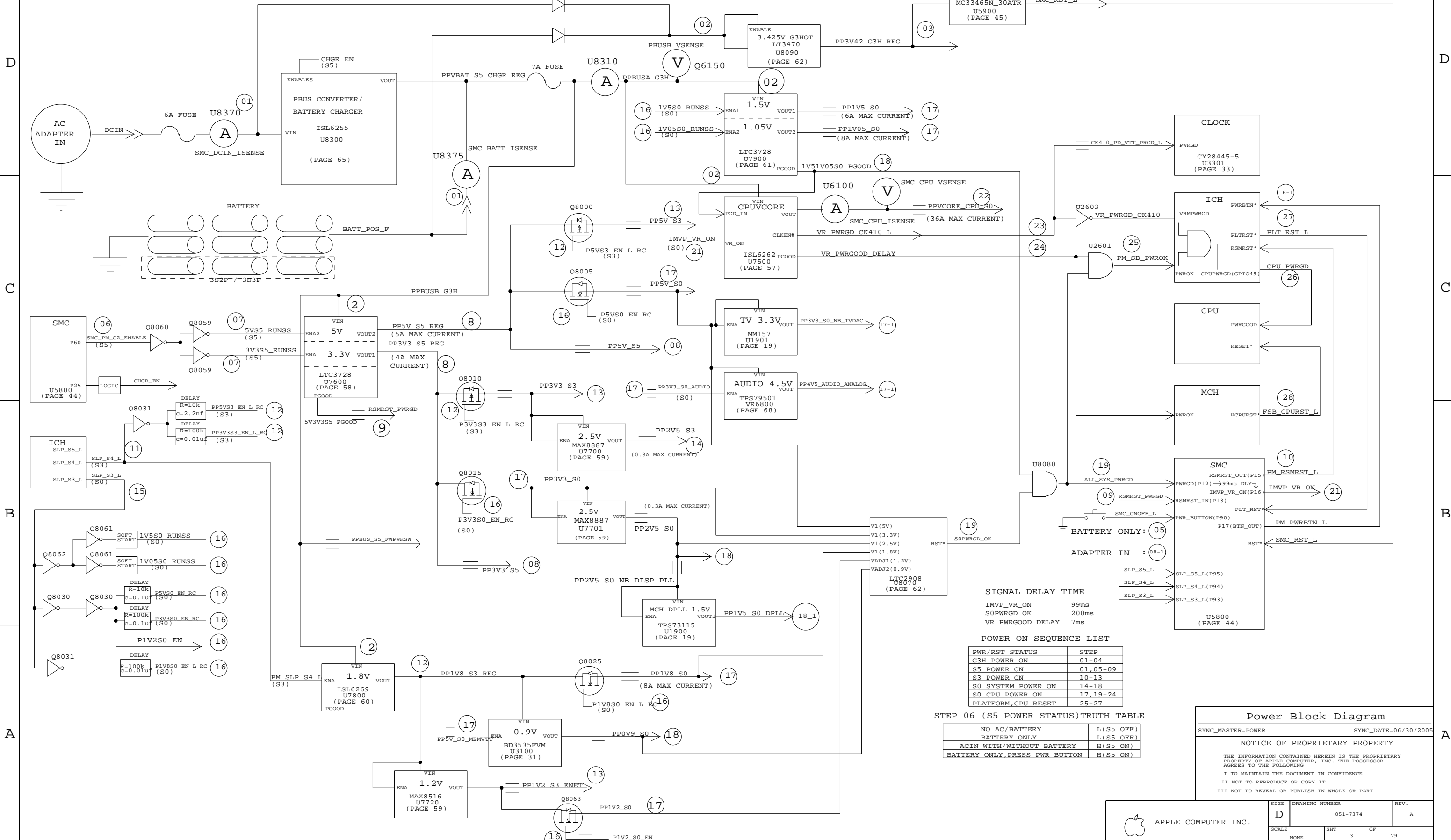
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XX : _____		DRAPTER	DESIGN CK	NOTICE OF PROPRIETARY PROPERTY THE INFORMATION CONTAINED HEREIN IS THE PROPRIETARY PROPERTY OF APPLE COMPUTER, INC. THE POSSESSOR AGREES TO THE FOLLOWING: I. TO MAINTAIN THE DOCUMENT IN CONFIDENCE II. NOT TO REPRODUCE OR COPY IT III. NOT TO REVEAL OR PUBLISH IN WHOLE OR PART	
X.XX : _____		ENG APPD	MFG APPD		
X.XXX : _____		QA APPD	DESIGNER		
ANGLES : _____		RELEASE	SCALE		
DO NOT SCALE DRAWING		NONE		TITLE	
 THIRD ANGLE PROJECTION		MATERIAL/FINISH NOTED AS APPLICABLE		SIZE D	DRAWING NUMBER
				051-7374	REV. A
				SHT 1 OF 79	



SYSTEM BLOCK DIAGRAM
 SYNC_MASTER=MASTER SYNC_DATE=5/23/05
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APPLE COMPUTER INC.	SIZE	DRAWING NUMBER	REV.
	D	051-7374	A
SCALE	SHT	OF	79
NONE	2		

M42A POWER SYSTEM ARCHITECTURE



SIGNAL DELAY TIME

IMVP_VR_ON	99ms
SOPWRGD_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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APPLE COMPUTER INC.	SIZE	D	DRAWING NUMBER	051-7374	REV.	A
	SCALE	NONE	SHT	3	OF	79

Page Notes

Power aliases required by this page:
(NONE)

Signal aliases required by this page:
(NONE)

BOM options provided by this page:
(NONE)

BOM OPTION

BOMOPTION	M42A GOOD ST MICRO 630-7795 EVT	M42A BETTER ST MICRO 630-7796 EVT	M42A BEST KIONIX 630-7799 EVT	M42A GOOD KIONIX 630-7798 EVT	M42A BETTER KIONIX 630-7736 EVT	M42A BEST ST MICRO 630-7797 EVT
1V51V05S0_CONT						
1V51V05S0_SKIP	v	v	v	v	v	v
5V3V3S3_CONT						
5V3V3S3_SKIP	v	v	v	v	v	v
ACCEL_KIONIX			v	v	v	
ACCEL_ST	v	v				v
INVERTER_BUF	v	v	v	v	v	v
INVERTER_UNBUF						
ITP						
LEMENU	v	v	v	v	v	v
MEMVIT_EN_PU	v	v	v	v	v	v
NBCFG_DMI_REVERSE						
NBCFG_DMI_X2						
NBCFG_DYN_ODT_DISABLE						
NBCFG_PEG_REVERSE						
NBCFG_SDVO_AND_PCIE						
NBCFG_VCC_1V5						
NO_REBOOT_MODE						
USB_C_OC_PU	v	v	v	v	v	v
USB_D_OC_PU	v	v	v	v	v	v
USB_E_OC_PU	v	v	v	v	v	v
GOOD	v			v		
BETTER		v			v	
BEST			v			v
M42A_PGM	v	v	v	v	v	v
ONEWIRE_PULLUP	v	v	v	v	v	v
ONEWIRE_PULLUP_OLD						
ONEWIRE_PU_PROT	v	v	v	v	v	v
ONEWIRE_PU_ACOK						
ONEWIRE_PWRCTL	v	v	v	v	v	v
ONEWIRE_ALWAYSON						
3V3_IND_2MM8	v	v	v	v	v	v
3V3_IND_3MM						
NORMAL	v	v		v	v	
FANCY			v			v
STANDOFF	v	v	v	v	v	v
FET_FDN6296	v	v	v	v	v	v
FET_STL8NH3LL						
GOOD-ST	v					
BETTER-ST		v				
BEST-KIONIX			v			
GOOD-KIONIX				v		
BETTER-KIONIX					v	
BEST-ST						v
TPM						
PVT-DIMM						
POST-RAMP-DIMM35	v	v	v	v	v	v
M42						
M42A	v	v	v	v	v	v

BOARD STACK-UP AND CONSTRUCTION

Top	SIGNAL
2	GROUND
3	SIGNAL(High Speed)
4	SIGNAL(High Speed)
5	GROUND
6	POWER
7	POWER
8	GROUND
9	SIGNAL(High Speed)
10	SIGNAL(High Speed)
11	GROUND
BOTTOM	SIGNAL

MLB STACKUP		
LAYER	THICKNESS (MM)	TRACE WIDTH (MM)
CONFORMAL_COAT		
L1 SIGNAL(TOP)	0.047	0.1
L1-L2	0.07	
L2 GROUND	0.014	---
L2-L3	0.076	
L3 SIGNAL	0.014	0.079
L3-L4	0.156	
L4 SIGNAL	0.014	0.079
L4-L5	0.076	
L5 GND	0.014	---
L5-L6	0.07	
L6 POWER	0.031	---
L6-L7	0.076	
L7 POWER	0.031	---
L7-L8	0.07	
L8 GROUND	0.014	---
L8-L9	0.076	
L9 SIGNAL	0.014	0.1
L9-L10	0.156	
L10 SIGNAL	0.014	0.1
L10-L11	0.076	
L11 GROUND	0.014	0.1
L11-L12	0.07	
L12 SIGNAL(BOTTOM)	0.047	0.1
CONFORMAL_COAT	0.018	
TOTAL	1.276	---

PART#	QTY	DESCRIPTION	REFERENCE DESIGNATOR(S)	BOM OPTION
337S3450	1	IC, MEMOM, CPU L2 1.83GHZ, 479 PGA	U0700	GOOD
337S3389	1	IC, MEMOM, CPU 2.0GHZ, 479 PGA	U0700	BETTER
337S3391	1	IC, MEMOM, CPU 2.16GHZ, 479 PGA	U0700	BEST

PART#	QTY	DESCRIPTION	REFERENCE DESIGNATOR(S)	BOM OPTION
338S0268	1	IC, FW32306, 1394A LINK, BGA, 129P	U4400	LEMENU
338S0270	1	IC, 88E8053, GIGABIT ENET XCVR, 64P QFN, NO	U4101	LEMENU
359S0109	1	IC, SLOBLP436, CLOCK GEN, 68PIN QFN	U3301	LEMENU

PART#	QTY	DESCRIPTION	REFERENCE DESIGNATOR(S)	BOM OPTION
341S2131	1	IC, 16MBIT 8-PIN SPI SERIAL FLASH, 8028	U6301	M42A_PGM
341S1797	1	IC, EEPROM, SERIAL IIC, 8KBIT, 808	U4102	M42A_PGM
341S2133	1	IC, SMC, 176P BGA, MS8/2116	U5800	M42A_PGM
341S1890	1	IC, PSOC-W/USB, 56P, MFP, CY8C24794	U5100	M42A_PGM

341S2132 FOR M42B LOCKED BOOTROM

PART#	QTY	DESCRIPTION	REFERENCE DESIGNATOR(S)	CRITICAL	BOM OPTION
826-4393	1	LBL, P/N LABEL, PCB, 28MMX6MM	EEE:YCT	CRITICAL	BEST-KIONIX
826-4393	1	LBL, P/N LABEL, PCB, 28MMX6MM	EEE:YCS	CRITICAL	BETTER-KIONIX
826-4393	1	LBL, P/N LABEL, PCB, 28MMX6MM	EEE:YCR	CRITICAL	GOOD-KIONIX

CONFIGURATION OPTIONS

SYNC_MASTER=SMC SYNC_DATE=07/18/2005

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APPLE COMPUTER INC.	SIZE	DRAWING NUMBER	REV.
	D	051-7374	A
SCALE	SHT	OF	79
NONE	4		

Functional Test Points

Power Supply NO_TESTs

NO_TEST	TEST	VALUE	LOC
	IMVP6_RBIAS		58A4 58B7
	IMVP6_COMP		58A4 58B7
	5VS5_RUNSS		5984 63C7
	1V5S0_RUNSS		62B5 63B7
	1V8S3_COMP		6186
	1V8S3_FSET		61C6
	TRUE 3V3S5_COMP		
	TRUE 3V3S5_FSET		
	TRUE 1V05S0_COMP		
	TRUE 1V05S0_FSET		
	TRUE P3V42G3H_FB		63D2

CLOCK NO_TESTS

NO_TEST	TEST	VALUE	LOC
	TRUE CK410_CPU0_N		32C4 33D5
	TRUE CK410_CPU0_P		32C4 33D5
	TRUE CK410_CPU1_N		32C4 33D5
	TRUE CK410_CPU1_P		32C4 33D5
	TRUE CK410_CPU2_ITP_SRC10_N		32C4 33D5
	TRUE CK410_CPU2_ITP_SRC10_P		32C4 33D5
	TRUE CK410_DOT96_27M_N		32A4 33B5
	TRUE CK410_DOT96_27M_P		32A4 33B5
	TRUE CK410_LVDS_N		32B4 33A5
	TRUE CK410_LVDS_P		32B4 33A5
	TRUE CK410_PCI4_CLK_SPN		
	TRUE CK410_PCF1_CLK		32B6 33D6
	TRUE CK410_SRC1_N_SPN		6B3
	TRUE CK410_SRC1_P_SPN		6B3
	TRUE CK410_SRC2_N		32B4 33C5
	TRUE CK410_SRC2_P		32B4 33C5
	TRUE CK410_SRC3_N_SPN		6B3
	TRUE CK410_SRC3_P_SPN		6B3
	TRUE CK410_SRC4_N		32B4 33B5
	TRUE CK410_SRC4_P		32B4 33B5
	TRUE CK410_SRC5_N		32B4 33C5
	TRUE CK410_SRC5_P		32B4 33C5
	TRUE CK410_SRC6_N		32B4 33C5
	TRUE CK410_SRC6_P		32B4 33C5
	TRUE CK410_SRC7_N_SPN		6B3
	TRUE CK410_SRC7_P_SPN		6B3
	TRUE CK410_SRC8_N		32A4 33C5
	TRUE CK410_SRC8_P		32A4 33C5
	TRUE CK410_SRC_CLKREQ01_L_SPN		6B3
	TRUE CK410_SRC_CLKREQ03_L_SPN		6B3
	TRUE CK410_SRC_CLKREQ08_L		32A4 33A5

FIREWARE NO_TESTS

NO_TEST	TEST	VALUE	LOC
	TRUE FW_B_TPA_N_SPN		6D1
	TRUE FW_B_TPA_P_SPN		6D1
	TRUE FW_B_TPBIAS_SPN		6D1
	TRUE FW_B_TPB_N_SPN		6D1
	TRUE FW_B_TPB_P_SPN		6D1
	TRUE FW_C_TPA_N_SPN		6D1
	TRUE FW_C_TPA_P_SPN		6D1
	TRUE FW_C_TPBIAS_SPN		6D1
	TRUE FW_C_TPB_N_SPN		6D1
	TRUE FW_C_TPB_P_SPN		6D1

LVDS NO_TESTS

NO_TEST	TEST	VALUE	LOC
	TRUE LVDS_B_CLK_N_SPN		6D5
	TRUE LVDS_B_CLK_P_SPN		6D5
	TRUE LVDS_B_DATA_N0_SPN		6D5
	TRUE LVDS_B_DATA_N1_SPN		6D5
	TRUE LVDS_B_DATA_N2_SPN		6D5
	TRUE LVDS_B_DATA_P1_SPN		6D5
	TRUE LVDS_B_DATA_P2_SPN		6D5

ETHERNET NO_TESTS

NO_TEST	TEST	VALUE	LOC
	TRUE ENET_MDI_TRAN_P<2>		37B5
	TRUE ENET_MDI_TRAN_N<2>		37B5
	TRUE ENET_MDI_TRAN_P<3>		37B5

NO_TEST	TEST	VALUE	LOC
	TRUE SMC_FAN_3_TACH		45B8 46C3
	TRUE ALS_LEFT		45A8 46C3

Fan Connectors

FUNC_TEST	TEST	VALUE	LOC
	TRUE =PP5V_S0_FAN_RT		51C4 64D3
	TRUE FAN_RT_PWM		51B3
	TRUE FAN_RT_TACH		51C3
	TRUE =PP3V3_S0_FAN_RT		51C4 64A6
	TRUE SMC_FAN_1_CTL		45B8 51B4
	TRUE SMC_FAN_1_TACH		45B8 51C4

LPC+ Debug Connector

FUNC_TEST	TEST	VALUE	LOC
	TRUE =PP3V42_G3H_LPCPLUS		47C6 64D1
	TRUE =PP5V_S0_LPCPLUS		47C6 64D3
	TRUE LPC_AD<0>		31D4 45D8 47C6 53C6
	TRUE LPC_AD<1>		31D4 45D8 47C6 53C6
	TRUE LPC_FRAME_L		31C5 45C8 47C6 53C6
	TRUE PM_CLKRUN_L		23C8 38A5 45D6 47C6
	TRUE BOOT_LPC_SPI_L		22B3 45C8 47C6
	TRUE SMC_TMS		45B5 46C6 47C6
	TRUE DEBUG_RST_L		36B1 47C6
	TRUE SMC_TRST_L		45C1 47C6
	TRUE SMC_TDO		45C5 46C6 47B6
	TRUE SMC_MD1		45C2 47B6
	TRUE SMC_TX_L		45C8 46B2 46D6 47B6
	TRUE FWH_INIT_L		5B2 21C4 47C5
	TRUE PCI_CLK_PORT80_LPC		33D6 47C5
	TRUE LPC_AD<2>		31D4 45D8 47C6 53C6
	TRUE LPC_AD<3>		31D4 45D8 47C6 53C6
	TRUE INT_SERIRO		23C8 45C8 47C6 53C6
	TRUE PM_SUS_STAT_L		23C8 45D5 46D3 47C5
	TRUE SMC_TDI		45C5 46C6 47C5
	TRUE SMC_TCK		45C5 46C6 47C5
	TRUE SMC_RST_L		45C3 46D7 47C5
	TRUE SMC_NMI		45C1 47B5
	TRUE SMC_RX_L		45C8 46B2 46D6 47B5
	TRUE SV_SET_UP		23B6 23C3 47B5

Other Func Test Points

FUNC_TEST	TEST	VALUE	LOC
	TRUE =PP1V05_S0_REG		62B1 64D8
	SMBus FUNC_TEST		
	TRUE SMBUS_SMC_MLB_SCL		37C5
	TRUE SMBUS_SMC_MLB_SDA		37B5
	FIREWIRE FUNC_TEST		
	TRUE PPFW_SWITCH		39D4
	SLEEP_LED_FUNC_TEST		
	TRUE SYS_LED_ANODE		35C5 46A3
	SMC FUNC_TEST		
	TRUE SMC_LID		4D04 45B5 46C6 65A8
	TRUE SMC_MANUAL_RST_L		46D8
	TRUE SMC_CPU_VSENSE		45D5 48B1
	Power Supply FUNC_TEST		
	TRUE ALL_SYS_PWRGD		26A5 45D8 63B1
	TRUE PPVCORE_CPU_S0		64D7
	TRUE PP1V05_S0		64D7
	TRUE PP1V5_S0		64C7
	TRUE PP1V8_S0		64C7
	TRUE PP2V5_S0		64B7
	TRUE PP3V3_S0		64B7
	TRUE PP5V_S0		64D4
	TRUE PP1V2_S3		64C4
	TRUE PP1V8_S3		64C4
	TRUE PP2V5_S3		64C4
	TRUE PP3V3_S3		64B4
	TRUE PP5V_S3		64B4
	TRUE PP3V3_S5		64A4
	TRUE PP5V_S5		64A4
	TRUE PP3V42_G3H		64D3
	TRUE PPBUSA_G3H		
	TRUE PPBUSB_G3H		
	TRUE PP18V5_G3H		64C1
	TRUE PP0V9_S0		64D7

Battery Digital Connector

FUNC_TEST	TEST	VALUE	LOC
	TRUE SMC_BS_ALRT_L		45C5 46C6 65A2
	TRUE SMBUS_BATT_SCL_F		65B6
	TRUE SMBUS_BATT_SDA_F		65A6
	TRUE BATT_IN		
	TRUE BATT_POS		65A6
	TRUE BATT_NEG		65A6

Audio FUNC_TEST

FUNC_TEST	TEST	VALUE	LOC
	TRUE PP5V_S0_AUDIO_PWR		
	TRUE PP5V_S0_AUDIO		
	TRUE GND_AUDIO_PWR		64B2
	TRUE GND_AUDIO_CODEC		64B2
	TRUE ACZ_SDATAIN<0>		21C7 54D7
	TRUE ACZ_SDATAOUT		21C7 54D7
	TRUE ACZ_BITCLK		21C7 54D7
	TRUE ACZ_RST_L		21C7 54C7 57C3
	TRUE ACZ_SYNC		21C7 54D7

Battery FUNC_TEST

FUNC_TEST	TEST	VALUE	LOC
	TRUE SMC_BATT_ISET		45B5 66B7
	TRUE SMC_BATT_CHG_EN		45D8 46B6 66A4
	TRUE SMC_BC_ACOK		45C5 46B6 65C3
	TRUE SMC_PS_ON		39C6 45D5 46A3
	TRUE SMC_BATT_TRICKLE_EN_L		45D8 46B6 66A3
	TRUE SYS_ONEWIRE		45B8 46D6 65C8

USB FUNC_TEST

FUNC_TEST	TEST	VALUE	LOC
	TRUE TP_USBP_E		6C2
	TRUE TP_USBN_E		6C2
	TRUE TP_USBP_F		
	TRUE TP_USBN_F		

DC-JACK FUNC_TEST

FUNC_TEST	TEST	VALUE	LOC
	TRUE ACIN_ENABLE_GATE		65C3

Battery charger FUNC_TEST

FUNC_TEST	TEST	VALUE	LOC
	TRUE PPVBAT_G3H_CHGR_OUT		66B5 66C2

INVERTER CONNECTOR FUNC_TEST

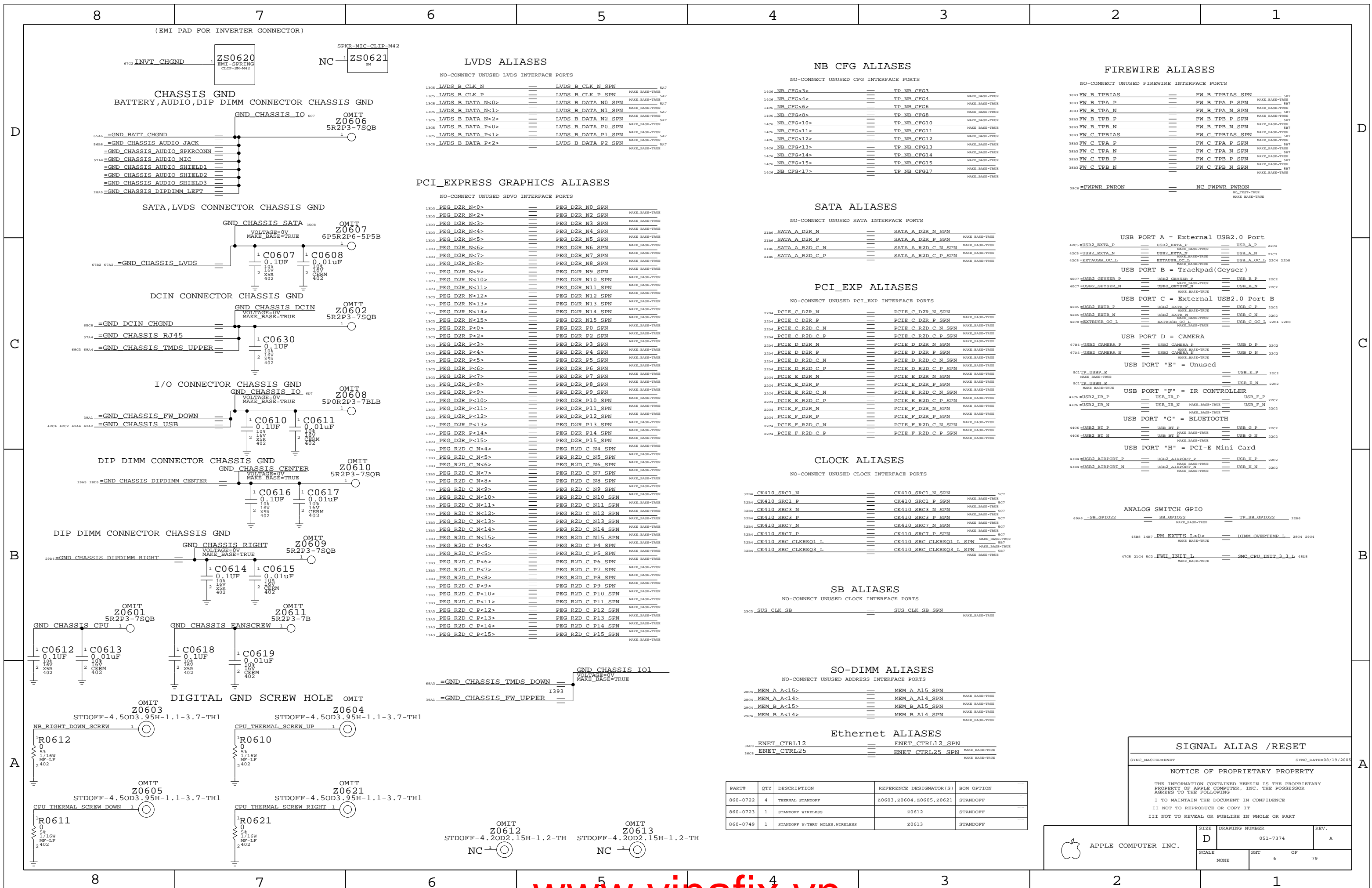
FUNC_TEST	TEST	VALUE	LOC
	TRUE PPBUS_ALL_INV_CONN		67D3
	TRUE INV_GND		67D3
	TRUE PP5V_INV_F		67D3
	TRUE INV_BKLIGHT_PWM_L		67D3

FUNC TEST 1 OF 2

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	D	051-7374	A
SCALE	SHT	OF	79
NONE	5		



LVDS ALIASES

NO-CONNECT UNUSED LVDS INTERFACE PORTS

1305	LVDS B CLK N	LVDS B CLK N SPN	MAKE_BASE=TRUE	5A7
1305	LVDS B CLK P	LVDS B CLK P SPN	MAKE_BASE=TRUE	5A7
1305	LVDS B DATA N<0>	LVDS B DATA N0 SPN	MAKE_BASE=TRUE	5A7
1305	LVDS B DATA N<1>	LVDS B DATA N1 SPN	MAKE_BASE=TRUE	5A7
1305	LVDS B DATA N<2>	LVDS B DATA N2 SPN	MAKE_BASE=TRUE	5A7
1305	LVDS B DATA P<0>	LVDS B DATA P0 SPN	MAKE_BASE=TRUE	5A7
1305	LVDS B DATA P<1>	LVDS B DATA P1 SPN	MAKE_BASE=TRUE	5A7
1305	LVDS B DATA P<2>	LVDS B DATA P2 SPN	MAKE_BASE=TRUE	5A7

PCI EXPRESS GRAPHICS ALIASES

NO-CONNECT UNUSED SDVO INTERFACE PORTS

1303	PEG D2R N<0>	PEG D2R N0 SPN	MAKE_BASE=TRUE	5A7
1303	PEG D2R N<2>	PEG D2R N2 SPN	MAKE_BASE=TRUE	5A7
1303	PEG D2R N<3>	PEG D2R N3 SPN	MAKE_BASE=TRUE	5A7
1303	PEG D2R N<4>	PEG D2R N4 SPN	MAKE_BASE=TRUE	5A7
1303	PEG D2R N<5>	PEG D2R N5 SPN	MAKE_BASE=TRUE	5A7
1303	PEG D2R N<6>	PEG D2R N6 SPN	MAKE_BASE=TRUE	5A7
1303	PEG D2R N<7>	PEG D2R N7 SPN	MAKE_BASE=TRUE	5A7
1303	PEG D2R N<8>	PEG D2R N8 SPN	MAKE_BASE=TRUE	5A7
1303	PEG D2R N<9>	PEG D2R N9 SPN	MAKE_BASE=TRUE	5A7
1303	PEG D2R N<10>	PEG D2R N10 SPN	MAKE_BASE=TRUE	5A7
1303	PEG D2R N<11>	PEG D2R N11 SPN	MAKE_BASE=TRUE	5A7
1303	PEG D2R N<12>	PEG D2R N12 SPN	MAKE_BASE=TRUE	5A7
1303	PEG D2R N<13>	PEG D2R N13 SPN	MAKE_BASE=TRUE	5A7
1303	PEG D2R N<14>	PEG D2R N14 SPN	MAKE_BASE=TRUE	5A7
1303	PEG D2R N<15>	PEG D2R N15 SPN	MAKE_BASE=TRUE	5A7
1303	PEG D2R P<0>	PEG D2R P0 SPN	MAKE_BASE=TRUE	5A7
1303	PEG D2R P<2>	PEG D2R P2 SPN	MAKE_BASE=TRUE	5A7
1303	PEG D2R P<3>	PEG D2R P3 SPN	MAKE_BASE=TRUE	5A7
1303	PEG D2R P<4>	PEG D2R P4 SPN	MAKE_BASE=TRUE	5A7
1303	PEG D2R P<5>	PEG D2R P5 SPN	MAKE_BASE=TRUE	5A7
1303	PEG D2R P<6>	PEG D2R P6 SPN	MAKE_BASE=TRUE	5A7
1303	PEG D2R P<7>	PEG D2R P7 SPN	MAKE_BASE=TRUE	5A7
1303	PEG D2R P<8>	PEG D2R P8 SPN	MAKE_BASE=TRUE	5A7
1303	PEG D2R P<9>	PEG D2R P9 SPN	MAKE_BASE=TRUE	5A7
1303	PEG D2R P<10>	PEG D2R P10 SPN	MAKE_BASE=TRUE	5A7
1303	PEG D2R P<11>	PEG D2R P11 SPN	MAKE_BASE=TRUE	5A7
1303	PEG D2R P<12>	PEG D2R P12 SPN	MAKE_BASE=TRUE	5A7
1303	PEG D2R P<13>	PEG D2R P13 SPN	MAKE_BASE=TRUE	5A7
1303	PEG D2R P<14>	PEG D2R P14 SPN	MAKE_BASE=TRUE	5A7
1303	PEG D2R P<15>	PEG D2R P15 SPN	MAKE_BASE=TRUE	5A7
1383	PEG R2D C N<4>	PEG R2D C N4 SPN	MAKE_BASE=TRUE	5A7
1383	PEG R2D C N<5>	PEG R2D C N5 SPN	MAKE_BASE=TRUE	5A7
1383	PEG R2D C N<6>	PEG R2D C N6 SPN	MAKE_BASE=TRUE	5A7
1383	PEG R2D C N<7>	PEG R2D C N7 SPN	MAKE_BASE=TRUE	5A7
1383	PEG R2D C N<8>	PEG R2D C N8 SPN	MAKE_BASE=TRUE	5A7
1383	PEG R2D C N<9>	PEG R2D C N9 SPN	MAKE_BASE=TRUE	5A7
1383	PEG R2D C N<10>	PEG R2D C N10 SPN	MAKE_BASE=TRUE	5A7
1383	PEG R2D C N<11>	PEG R2D C N11 SPN	MAKE_BASE=TRUE	5A7
1383	PEG R2D C N<12>	PEG R2D C N12 SPN	MAKE_BASE=TRUE	5A7
1383	PEG R2D C N<13>	PEG R2D C N13 SPN	MAKE_BASE=TRUE	5A7
1383	PEG R2D C N<14>	PEG R2D C N14 SPN	MAKE_BASE=TRUE	5A7
1383	PEG R2D C N<15>	PEG R2D C N15 SPN	MAKE_BASE=TRUE	5A7
1383	PEG R2D C P<4>	PEG R2D C P4 SPN	MAKE_BASE=TRUE	5A7
1383	PEG R2D C P<5>	PEG R2D C P5 SPN	MAKE_BASE=TRUE	5A7
1383	PEG R2D C P<6>	PEG R2D C P6 SPN	MAKE_BASE=TRUE	5A7
1383	PEG R2D C P<7>	PEG R2D C P7 SPN	MAKE_BASE=TRUE	5A7
1383	PEG R2D C P<8>	PEG R2D C P8 SPN	MAKE_BASE=TRUE	5A7
1383	PEG R2D C P<9>	PEG R2D C P9 SPN	MAKE_BASE=TRUE	5A7
1383	PEG R2D C P<10>	PEG R2D C P10 SPN	MAKE_BASE=TRUE	5A7
1383	PEG R2D C P<11>	PEG R2D C P11 SPN	MAKE_BASE=TRUE	5A7
13A3	PEG R2D C P<12>	PEG R2D C P12 SPN	MAKE_BASE=TRUE	5A7
13A3	PEG R2D C P<13>	PEG R2D C P13 SPN	MAKE_BASE=TRUE	5A7
13A3	PEG R2D C P<14>	PEG R2D C P14 SPN	MAKE_BASE=TRUE	5A7
13A3	PEG R2D C P<15>	PEG R2D C P15 SPN	MAKE_BASE=TRUE	5A7

NB CFG ALIASES

NO-CONNECT UNUSED CFG INTERFACE PORTS

1406	NB_CFG<3>	TP_NB_CFG3	MAKE_BASE=TRUE	5A7
1406	NB_CFG<4>	TP_NB_CFG4	MAKE_BASE=TRUE	5A7
1406	NB_CFG<6>	TP_NB_CFG6	MAKE_BASE=TRUE	5A7
1406	NB_CFG<8>	TP_NB_CFG8	MAKE_BASE=TRUE	5A7
1406	NB_CFG<10>	TP_NB_CFG10	MAKE_BASE=TRUE	5A7
1406	NB_CFG<11>	TP_NB_CFG11	MAKE_BASE=TRUE	5A7
1406	NB_CFG<12>	TP_NB_CFG12	MAKE_BASE=TRUE	5A7
1406	NB_CFG<13>	TP_NB_CFG13	MAKE_BASE=TRUE	5A7
1406	NB_CFG<14>	TP_NB_CFG14	MAKE_BASE=TRUE	5A7
1406	NB_CFG<15>	TP_NB_CFG15	MAKE_BASE=TRUE	5A7
1406	NB_CFG<17>	TP_NB_CFG17	MAKE_BASE=TRUE	5A7

SATA ALIASES

NO-CONNECT UNUSED SATA INTERFACE PORTS

2186	SATA A D2R N	SATA A D2R N SPN	MAKE_BASE=TRUE	5A7
2186	SATA A D2R P	SATA A D2R P SPN	MAKE_BASE=TRUE	5A7
2186	SATA A R2D C N	SATA A R2D C N SPN	MAKE_BASE=TRUE	5A7
2186	SATA A R2D C P	SATA A R2D C P SPN	MAKE_BASE=TRUE	5A7

PCI_EXP ALIASES

NO-CONNECT UNUSED PCI_EXP INTERFACE PORTS

2204	PCIE C D2R N	PCIE C D2R N SPN	MAKE_BASE=TRUE	5A7
2204	PCIE C D2R P	PCIE C D2R P SPN	MAKE_BASE=TRUE	5A7
2204	PCIE C R2D C N	PCIE C R2D C N SPN	MAKE_BASE=TRUE	5A7
2204	PCIE C R2D C P	PCIE C R2D C P SPN	MAKE_BASE=TRUE	5A7
2204	PCIE D D2R N	PCIE D D2R N SPN	MAKE_BASE=TRUE	5A7
2204	PCIE D D2R P	PCIE D D2R P SPN	MAKE_BASE=TRUE	5A7
2204	PCIE D R2D C N	PCIE D R2D C N SPN	MAKE_BASE=TRUE	5A7
2204	PCIE D R2D C P	PCIE D R2D C P SPN	MAKE_BASE=TRUE	5A7
2204	PCIE E D2R N	PCIE E D2R N SPN	MAKE_BASE=TRUE	5A7
2204	PCIE E D2R P	PCIE E D2R P SPN	MAKE_BASE=TRUE	5A7
2204	PCIE E R2D C N	PCIE E R2D C N SPN	MAKE_BASE=TRUE	5A7
2204	PCIE E R2D C P	PCIE E R2D C P SPN	MAKE_BASE=TRUE	5A7
2204	PCIE F D2R N	PCIE F D2R N SPN	MAKE_BASE=TRUE	5A7
2204	PCIE F D2R P	PCIE F D2R P SPN	MAKE_BASE=TRUE	5A7
2204	PCIE F R2D C N	PCIE F R2D C N SPN	MAKE_BASE=TRUE	5A7
2204	PCIE F R2D C P	PCIE F R2D C P SPN	MAKE_BASE=TRUE	5A7

CLOCK ALIASES

NO-CONNECT UNUSED CLOCK INTERFACE PORTS

3284	CK410_SRC1 N	CK410_SRC1 N SPN	MAKE_BASE=TRUE	5C7
3284	CK410_SRC1 P	CK410_SRC1 P SPN	MAKE_BASE=TRUE	5C7
3284	CK410_SRC3 N	CK410_SRC3 N SPN	MAKE_BASE=TRUE	5C7
3284	CK410_SRC3 P	CK410_SRC3 P SPN	MAKE_BASE=TRUE	5C7
3284	CK410_SRC7 N	CK410_SRC7 N SPN	MAKE_BASE=TRUE	5C7
3284	CK410_SRC7 P	CK410_SRC7 P SPN	MAKE_BASE=TRUE	5C7
3284	CK410_SRC_CLKREQ1 L	CK410_SRC_CLKREQ1 L SPN	MAKE_BASE=TRUE	5B7
3284	CK410_SRC_CLKREQ3 L	CK410_SRC_CLKREQ3 L SPN	MAKE_BASE=TRUE	5B7

SB ALIASES

NO-CONNECT UNUSED CLOCK INTERFACE PORTS

2303	SUS_CLK_SB	SUS_CLK_SB SPN	MAKE_BASE=TRUE	5A7
------	------------	----------------	----------------	-----

SO-DIMM ALIASES

NO-CONNECT UNUSED ADDRESS INTERFACE PORTS

2804	MEM A A<15>	MEM A A15 SPN	MAKE_BASE=TRUE	5A7
2804	MEM A A<14>	MEM A A14 SPN	MAKE_BASE=TRUE	5A7
2804	MEM B A<15>	MEM B A15 SPN	MAKE_BASE=TRUE	5A7
2804	MEM B A<14>	MEM B A14 SPN	MAKE_BASE=TRUE	5A7

Ethernet ALIASES

3608	ENET_CTRL12	ENET_CTRL12 SPN	MAKE_BASE=TRUE	5A7
3608	ENET_CTRL25	ENET_CTRL25 SPN	MAKE_BASE=TRUE	5A7

PART#	QTY	DESCRIPTION	REFERENCE DESIGNATOR(S)	BOM OPTION
860-0722	4	THERMAL STANDOFF	Z0603,Z0604,Z0605,Z0621	STANDOFF
860-0723	1	STANDOFF WIRELESS	Z0612	STANDOFF
860-0749	1	STANDOFF W/TWO HOLES,WIRELESS	Z0613	STANDOFF

SIGNAL ALIAS /RESET

SYNC_MASTER=ENET SYNC_DATE=08/19/2005

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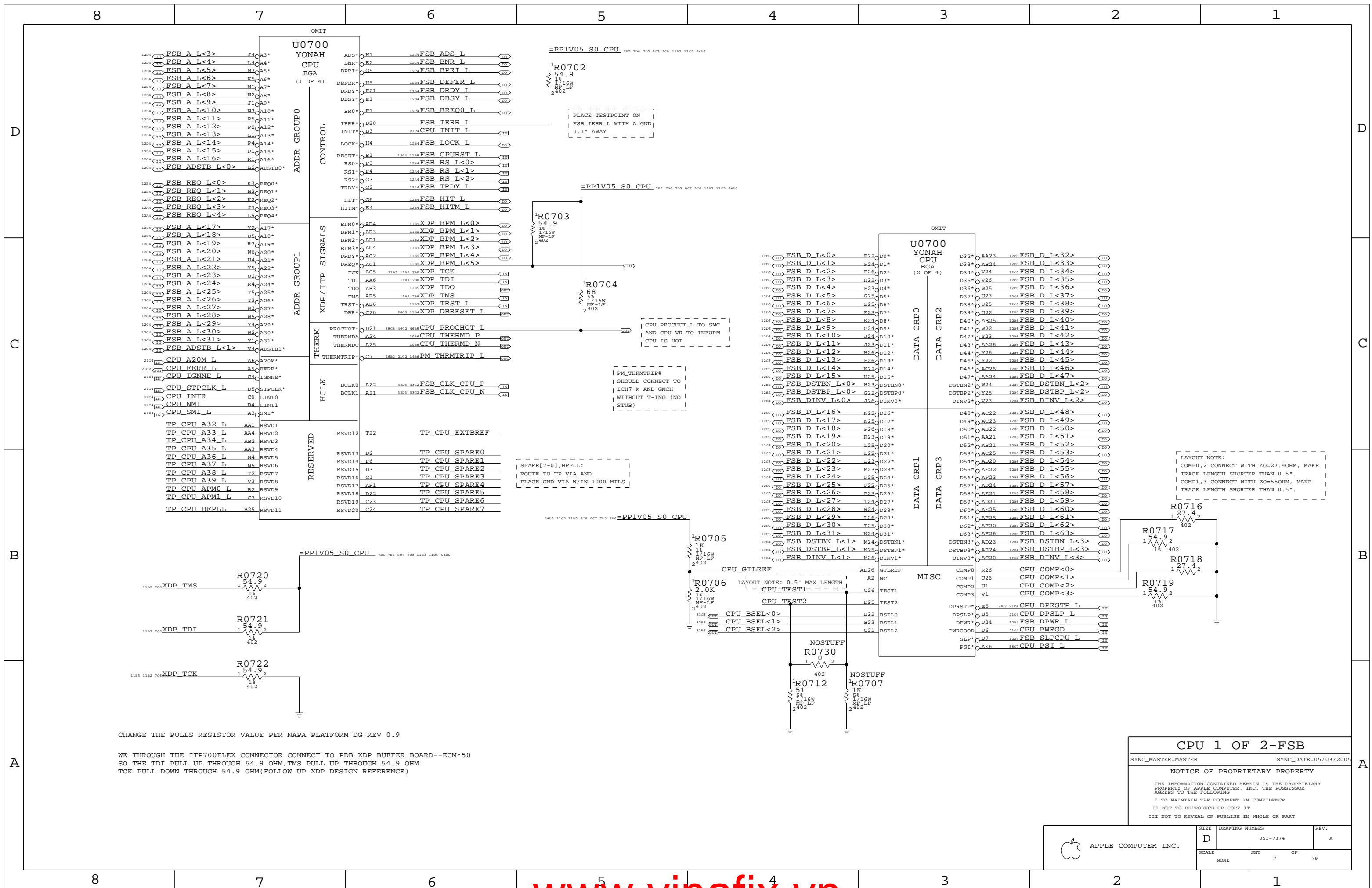
APPLE COMPUTER INC.

SCALE: NONE

DRAWING NUMBER: 051-7374

REV. A

SHEET: 6 OF 79



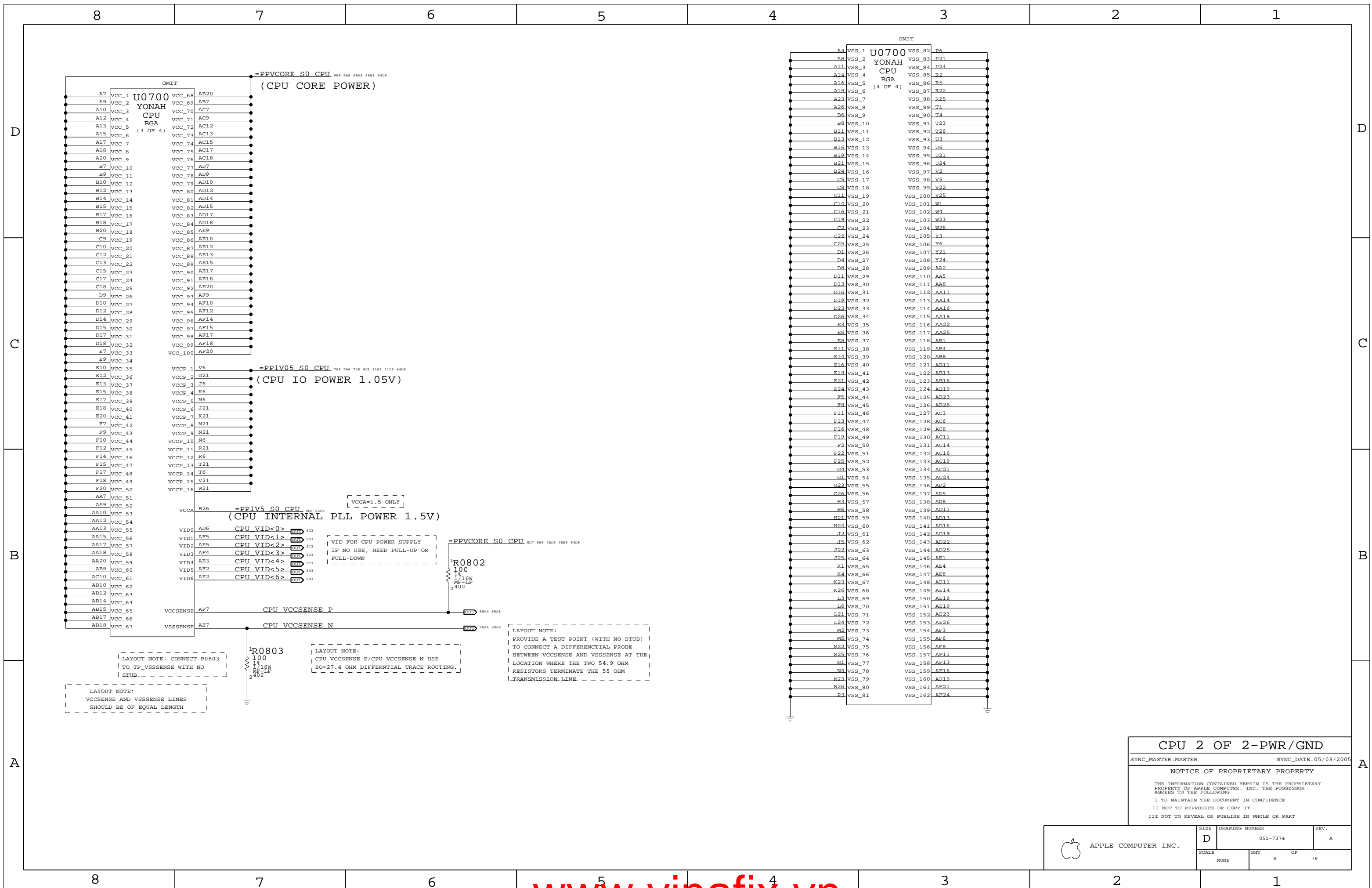
CHANGE THE PULLS RESISTOR VALUE PER NAPA PLATFORM DG REV 0.9

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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NONE	7		



CPU 2 OF 2-PWR/GND

SYNC_MASTER=MASTER SYNC_DATE=05/03/2005

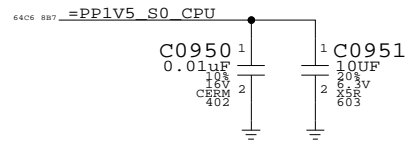
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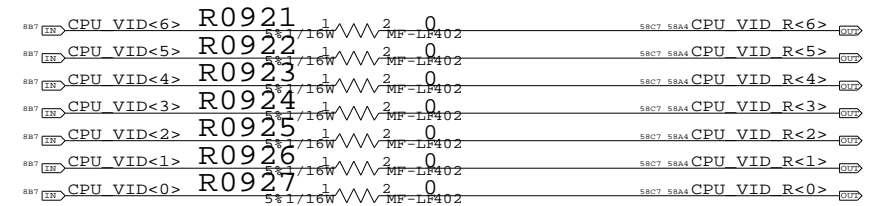
APPLE COMPUTER INC.	SIZE	DRAWING NUMBER	REV.
	D	051-7374	A
SCALE	SHT 8 OF 79		
NONE			

VCCA DECOUPLING
(CPU INTERNAL PLL POWER 1.5V)



PART NUMBER	ALTERNATE FOR PART NUMBER	BOM OPTION	REF DES	COMMENTS:
138S0603	138S0602	?	ALL	USE SAMSUNG AND MURATA ONLY
138S0606	138S0602	?	ALL	USE TAIYO

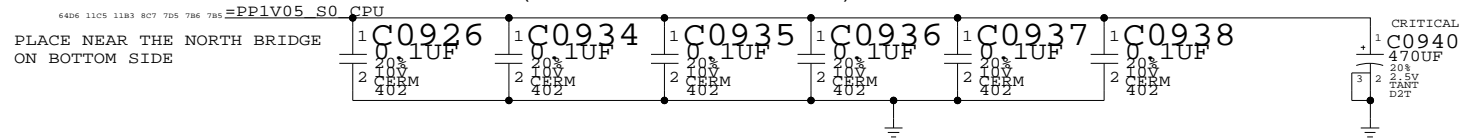
CPU CORE VID<> SETTINGS



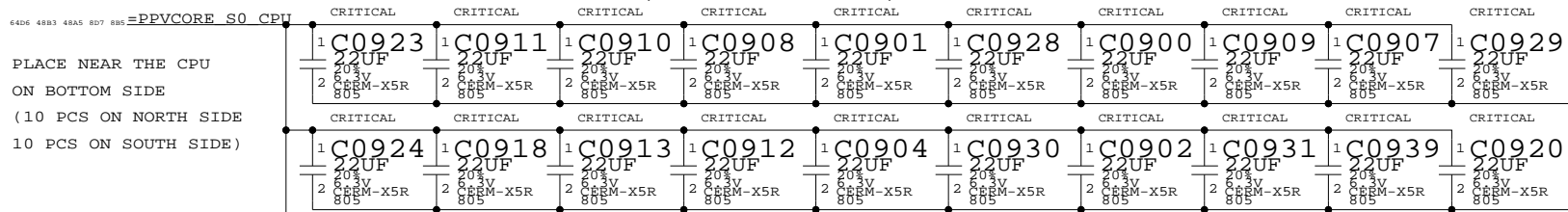
R0921~R0927 FOR CPU VOLTAGE MANUAL SETTING

VCCP CORE DECOUPLING
(CPU IO POWER 1.05V)

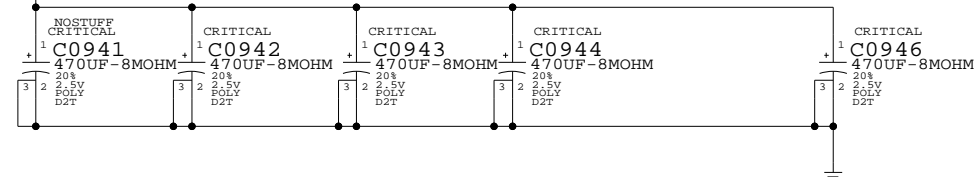
THIS 470UF FOR CPU, GMCH FSB BUS 1.05V



VCC CORE DECOUPLING
(CPU CORE POWER)



IF WE USE LOW ESL CAP, THEN WE CAN USE 20 PCS 22UF CAP



	MIN	TYP	MAX
DUAL CORE SV CPU	VCCHFM	1.1625	1.30
	VCCLFM	TBD	TBD
SINGLE CORE SV CPU	VCCHFM	1.1625	1.30
	VCCLFM	TBD	TBD
DUAL CORE LV CPU	VCCHFM	1.0	1.1625
	VCCLFM	TBD	TBD
ULV CPU	VCCHFM	TBD	TBD
	VCCLFM	TBD	TBD

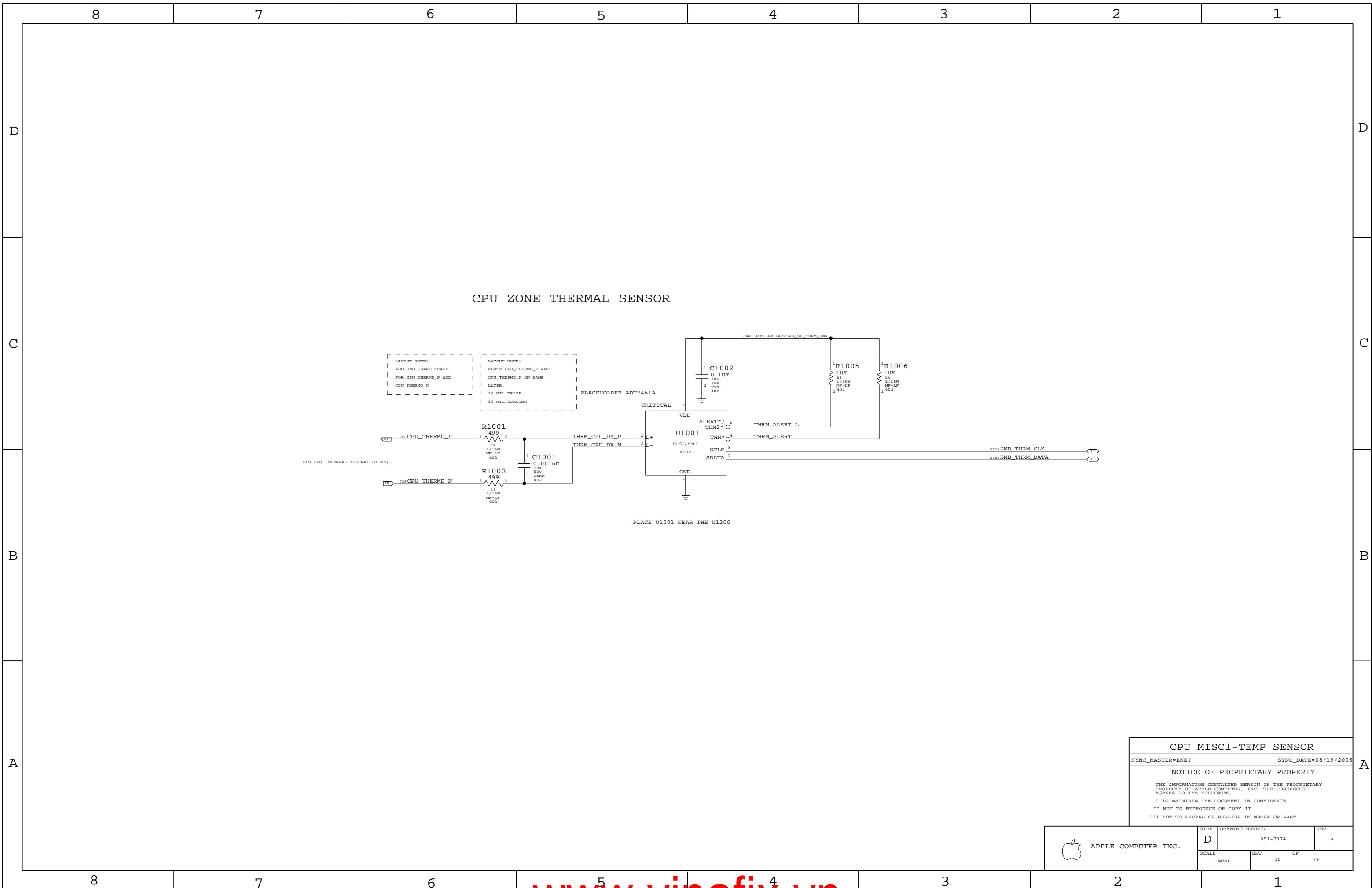
UNIT: V

- # 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
- # VCCHFM: VCORE AT HIGHEST FREQUENCY MODE
- # VCCLFM: VCORE AT LOWEST FREQUENCY MODE

CPU DECAPS & VID<>

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SCALE	NONE	SHT	9 OF 79



CPU MISC1-TEMP SENSOR

SYNC_MASTER=ENET SYNC_DATE=08/19/2005

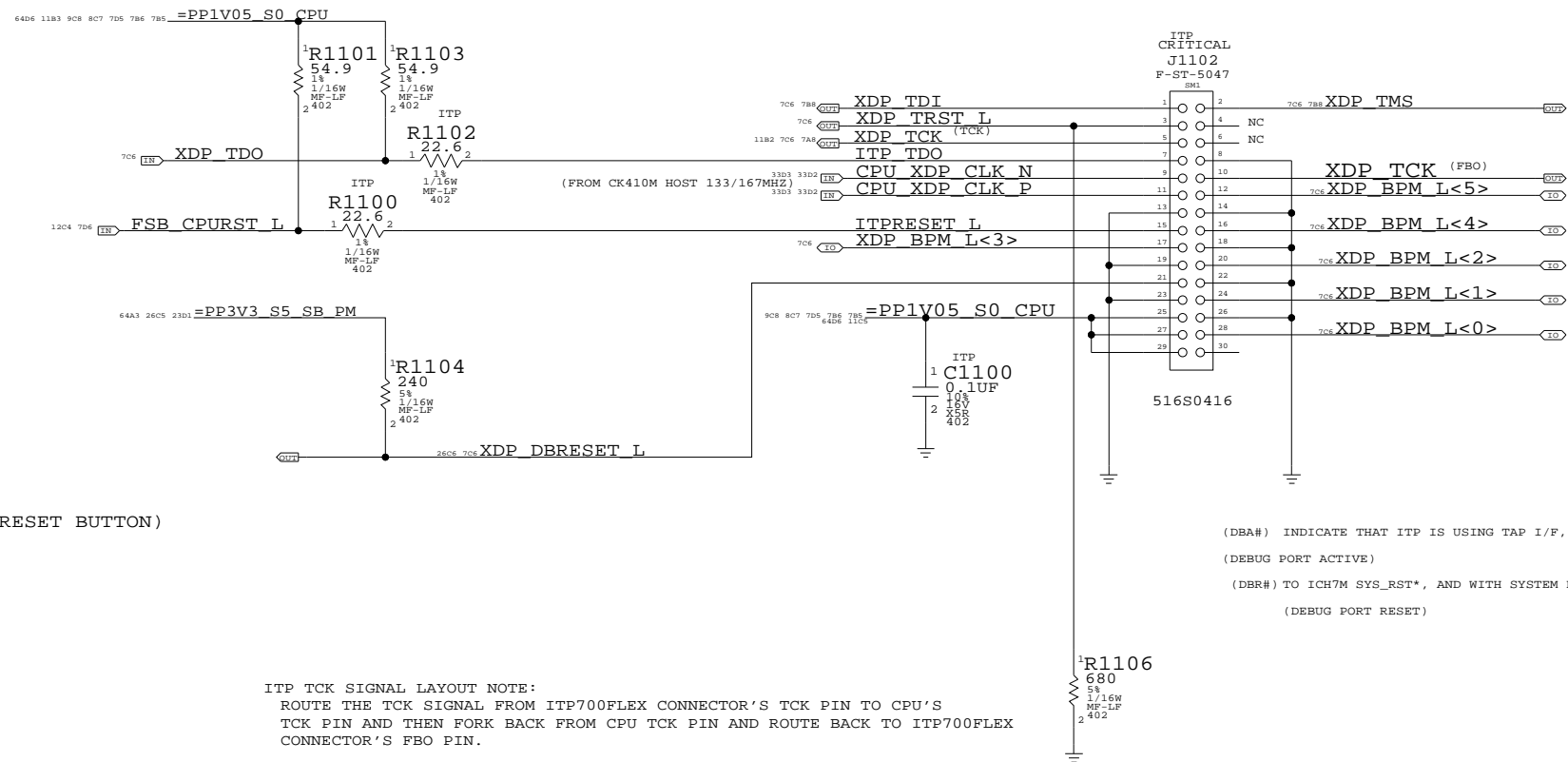
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	SCALE NONE	SHEETS 10	OF 79

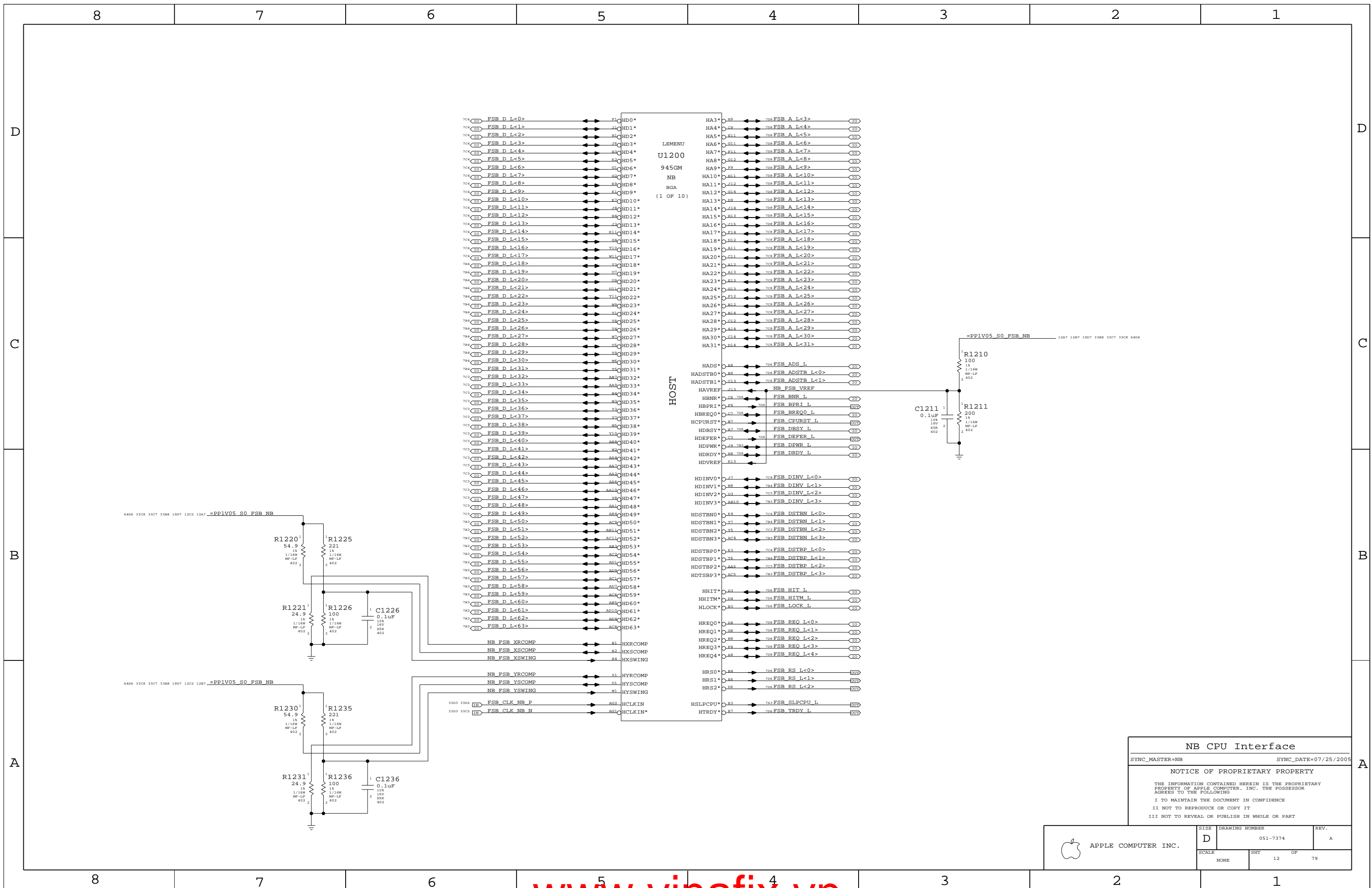
CPU ITP700FLEX DEBUG SUPPORT



CPU ITP700FLEX DEBUG
 SYNC_MASTER=MASTER SYNC_DATE=5/23/05

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NONE	11	79	



NB CPU Interface

SYNC_MASTER=NB SYNC_DATE=07/25/2005

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NONE	12		

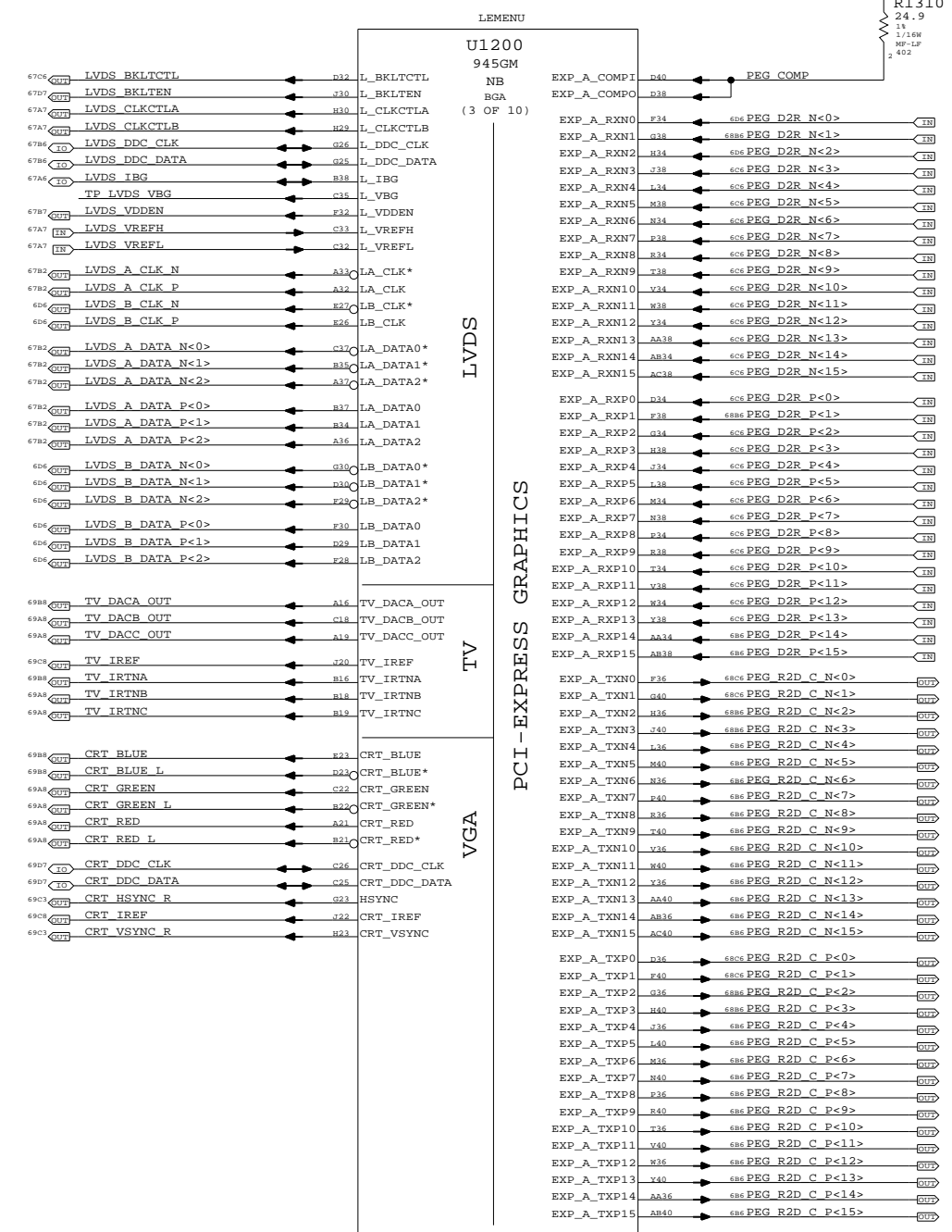
LVDS Disable
 Can leave all signals NC if LVDS is not implemented
 Tie VCC_TXLVDS and VCCA_LVDS to GND. If SDVO is used
 VCCD_LVDS must remain powered with proper decoupling.
 Otherwise, tie VCCD_LVDS to GND also.

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

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

TV-Out Disable
 Tie DACx_OUT, IRTNx, and IREF to 1.5V power rail.
 Tie VCCD_TVDAC, VCCD_QTVDAC, VCCA_TVDACx, and
 VCCA_TVVBG to 1.5V power rail. Tie VSSA_TVVBG to GND.

CRT Disable
 Tie R/R#/G/G#/B/B# and IREF to VCC Core rail, tie
 HSYNC and VSYNC to GND. Tie VCCA_CRTDAC to VCC Core
 rail, and tie VSSA_CRTDAC and VCC_SYNC to GND.



SDVO Alternate Function

SDVO_TVCLKIN#
 SDVO_INT#
 SDVO_FLDSTALL#

SDVO_TVCLKIN
 SDVO_INT
 SDVO_FLDSTALL

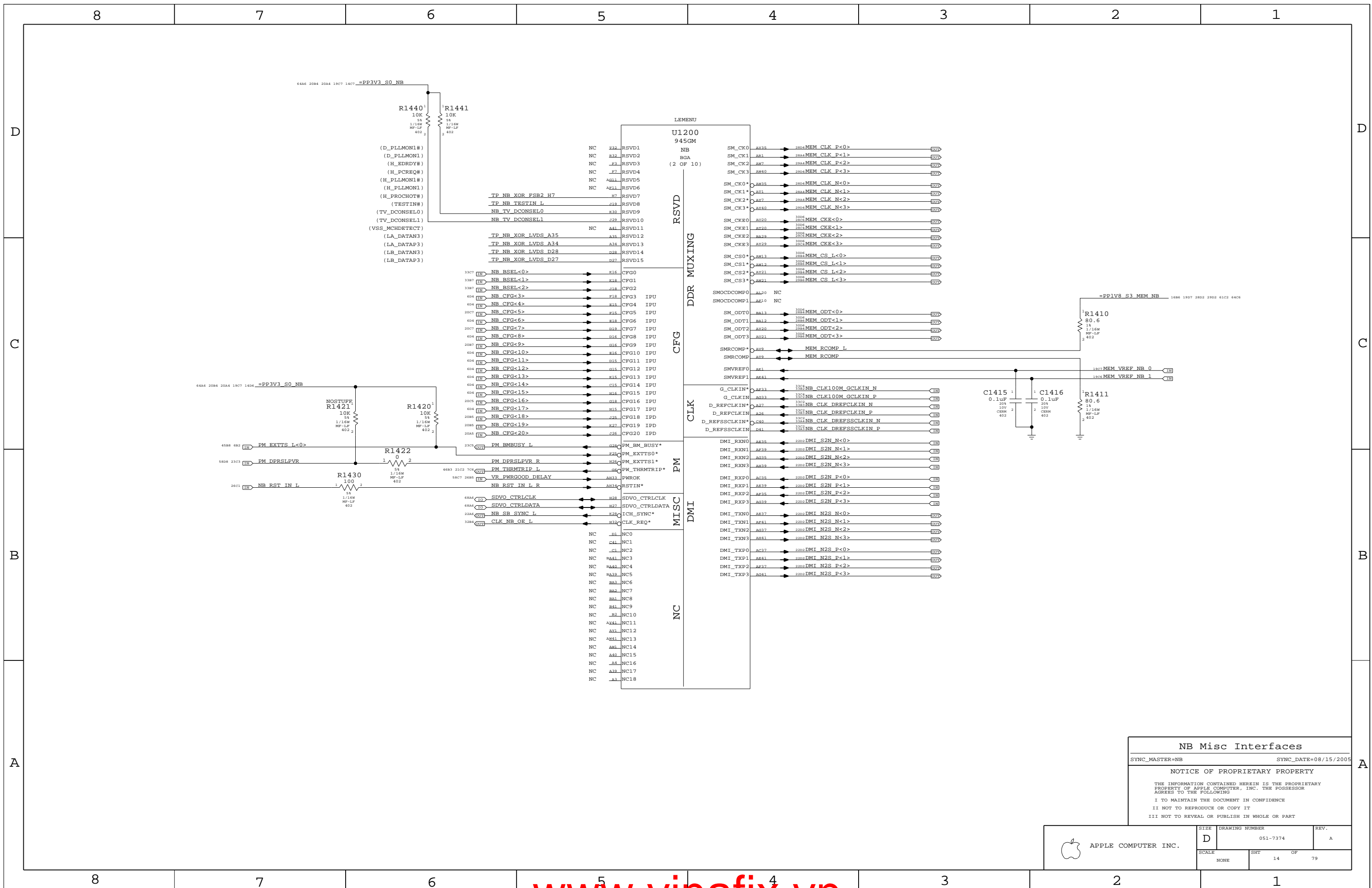
SDVOB_RED#
 SDVOB_GREEN#
 SDVOB_BLUE#
 SDVOB_CLKN
 SDVOC_RED#
 SDVOC_GREEN#
 SDVOC_BLUE#
 SDVOC_CLKN

SDVOB_RED
 SDVOB_GREEN
 SDVOB_BLUE
 SDVOB_CLKP
 SDVOC_RED
 SDVOC_GREEN
 SDVOC_BLUE
 SDVOC_CLKP

NB PEG / Video Interfaces
 SYNC_MASTER=NB SYNC_DATE=07/25/2005

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NONE	13	79	



NB Misc Interfaces

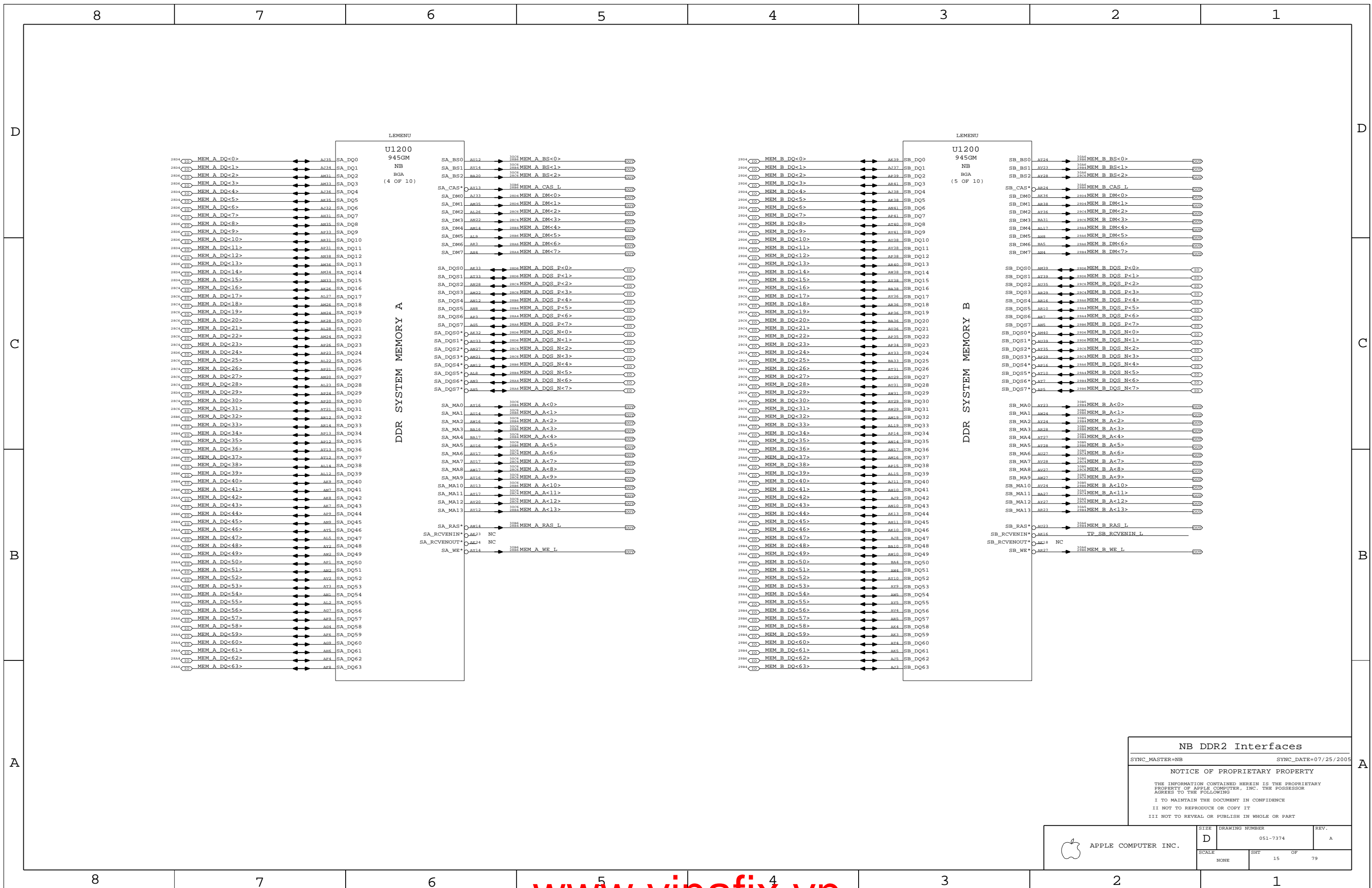
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	SCALE NONE	SHEET 14	OF 79



NB DDR2 Interfaces

SYNC_MASTER=NB SYNC_DATE=07/25/2005

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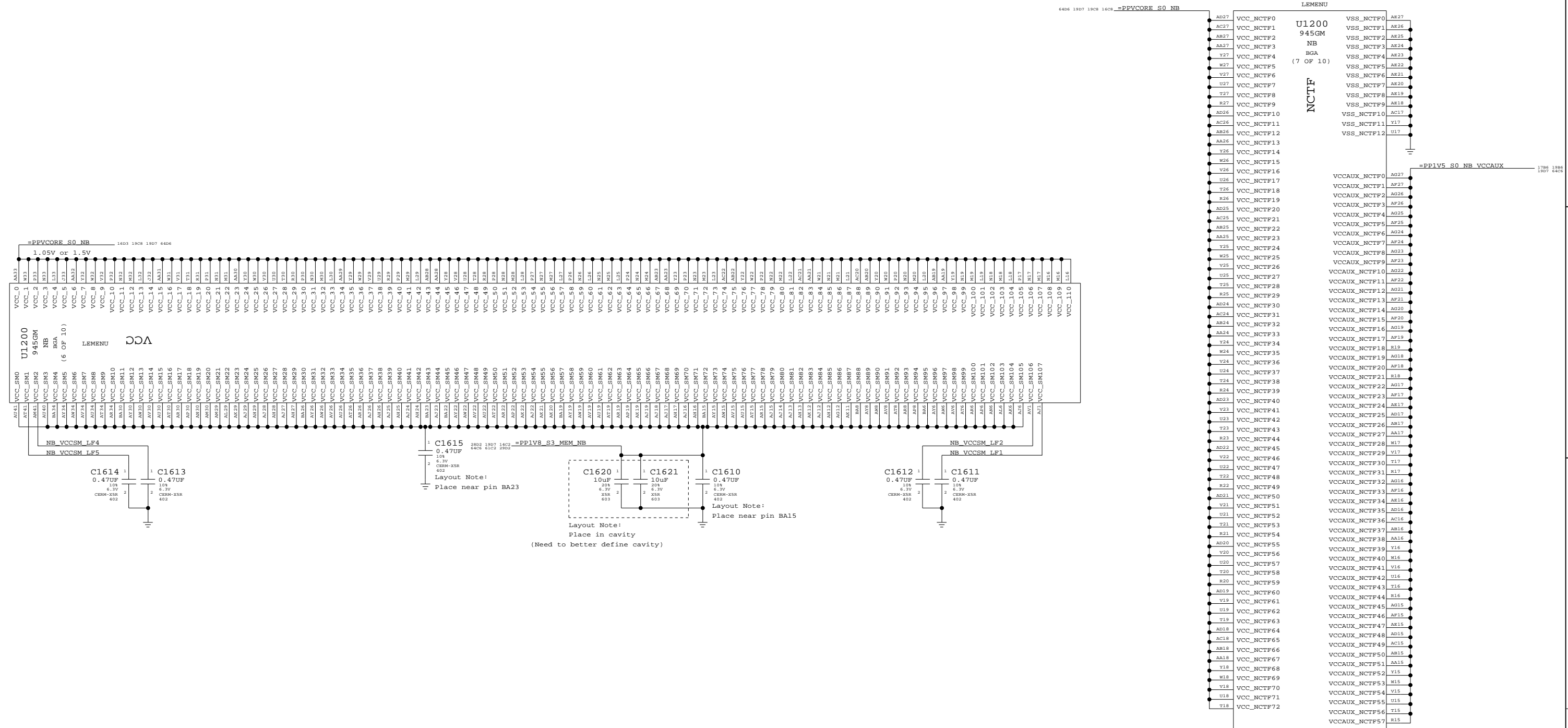
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	D	051-7374	A
SCALE	SHT	OF	REV.
NONE	15	79	

NCTF balls are Not Critical To Function

These connections can break without impacting part performance.




NB Power 1

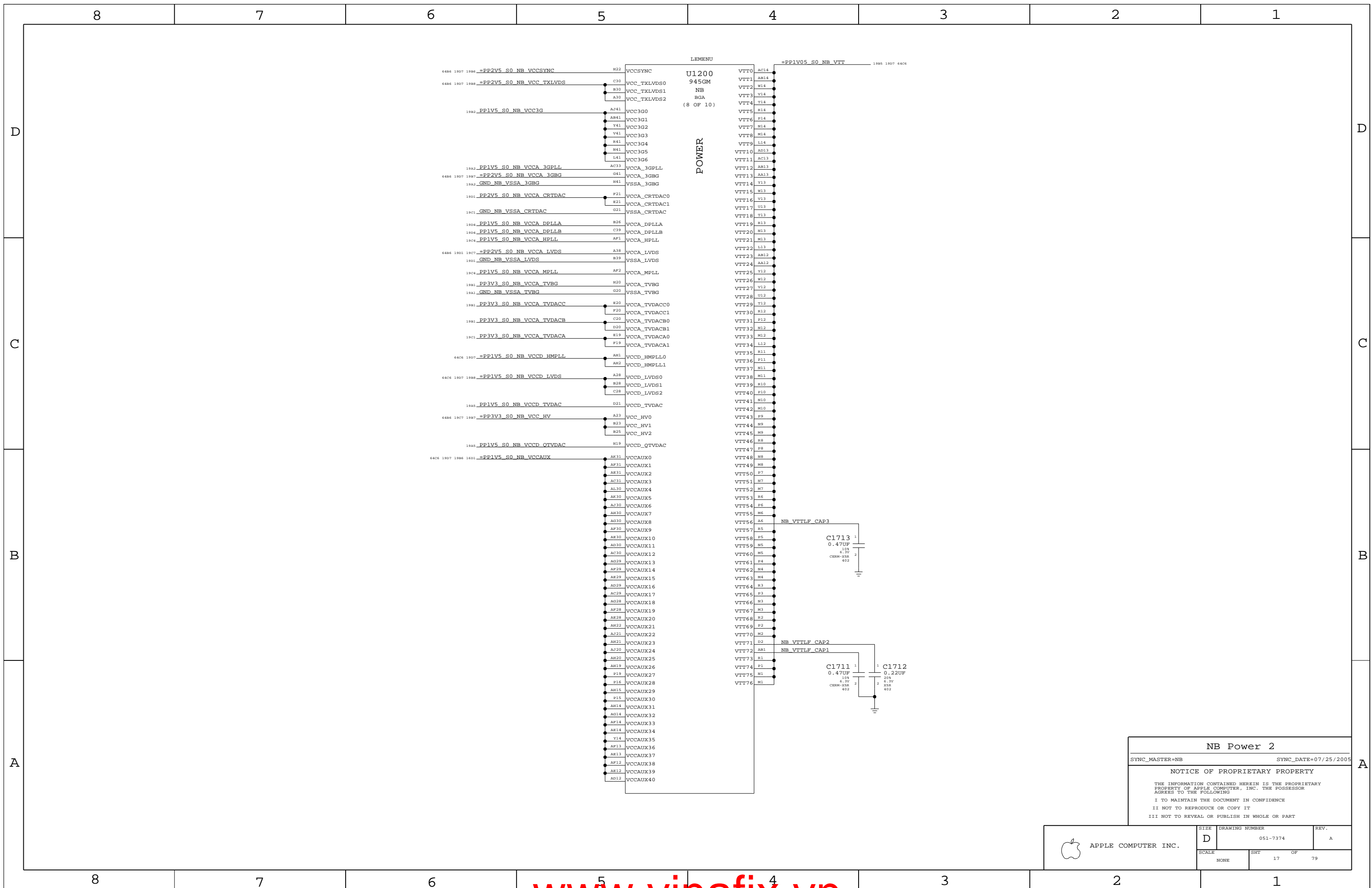
SYNC_MASTER=NB SYNC_DATE=07/25/2005

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SCALE	SHT	OF	79
NONE	16		



NB Power 2

SYNC_MASTER=NB SYNC_DATE=07/25/2005

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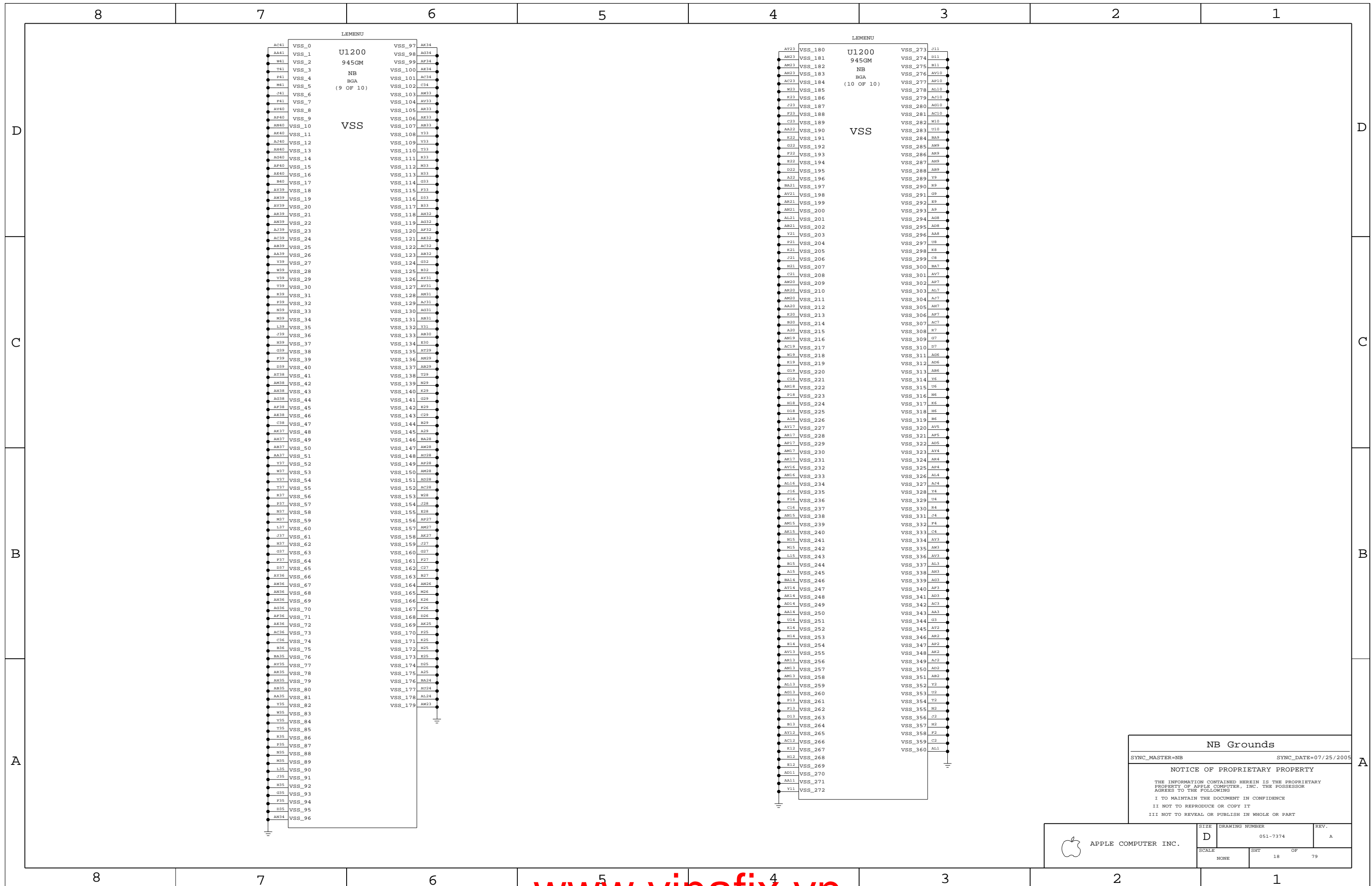
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SCALE	SHT	OF	REV.
NONE	17	79	



NB Grounds

SYNC_MASTER=NB SYNC_DATE=07/25/2005

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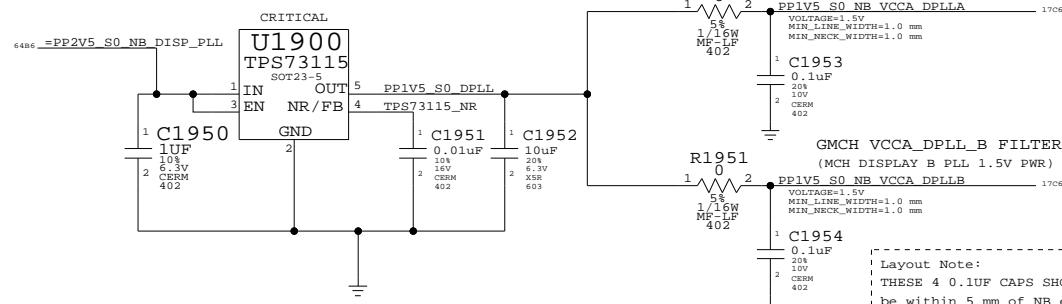
APPLE COMPUTER INC.	SIZE D	DRAWING NUMBER 051-7374	REV. A
	SCALE NONE	SHEET 18	OF 79

Power Interface

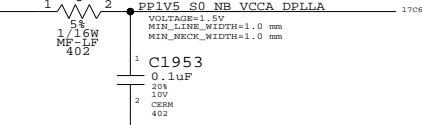
These are the power signals that leave the NB "block"

PP1V05_S0_FSB_NB	1287	1287	1202	3388	3307	3308	6406
PPVCORE_S0_NB	1608	1603	1908	6406			
PP1V05_S0_NB	1901	6406					
PP1V05_S0_NB_VTT	1703	1985	6406				
PP1V5_S0_NB	1901	6406					
PP1V5_S0_NB_PCIE	1302	6406					
PP1V5_S0_NB_PLL	1908	6406					
PP1V5_S0_NB_TVDAC	1908	6406					
PP1V5_S0_NB_VCCD_HMPLL	1706	1988	6406				
PP1V5_S0_NB_VCCD_LVDS	1706	1988	6406				
PP1V5_S0_NB_VCCAUX	1601	1786	1986	6406			
PP1V8_S3_MEM_NB	1402	1686	2802	2902	6102	6406	
PP2V5_S0_NB_CRTDAC	1904	6486					
PP2V5_S0_NB_VCCSYNC	1706	1986	6486				
PP2V5_S0_NB_VCC_TXLVDS	1706	1988	6486				
PP2V5_S0_NB_VCCA_3GBG	1706	1987	6486				
PP2V5_S0_NB_VCCA_LVDS	1706	1901	6486				
PP3V3_S0_NB	1407	1406	20A4	2084	6046		
PP3V3_S0_NB_VCC_HV	1706	1987	6486				
PP5V_S0_NB_TVDAC	1904	6403					

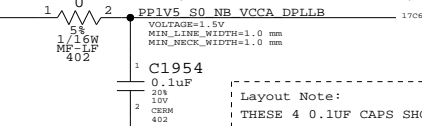
MCH DISPLAY PLL POWER LDO



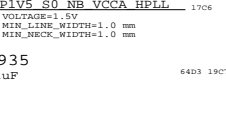
MCH VCCA_DPLL FILTER (MCH DISPLAY A PLL 1.5V PWR)



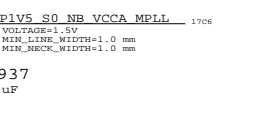
GMCH VCCA_DPLL_B FILTER (MCH DISPLAY B PLL 1.5V PWR)



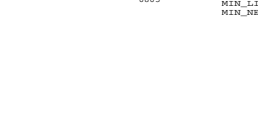
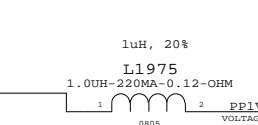
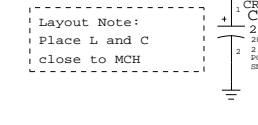
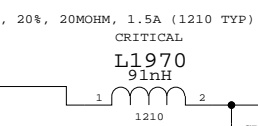
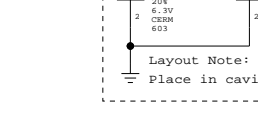
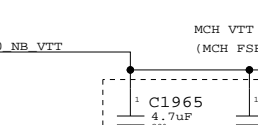
GMCH VCCA_HPLL FILTER (HOST PLL 1.5V PWR)



GMCH VCCA_MPLL FILTER (MCH MEMORY PLL 1.5V PWR)



GMCH VCCA_MPLL (MCH MEMORY PLL 1.5V PWR)



Layout Note:
This 0.1uF cap should
be within 5 mm of NB edge

Layout Note:
Route to caps, then GND

Layout Note:
THESE 4 0.1uF CAPS SHOULD
be within 5 mm of NB edge

Layout Note:
THESE 2 caps should be
within 6.35 mm of NB edge

Layout Note:
Route to caps, then GND

Layout Note:
These 8 caps should be
within 6.35 mm of NB edge

Layout Note:
Place in cavity

Layout Note:
Place on the edge

Layout Note:
These 4 caps should
be close to MCH
on opposite side.

Layout Note:
Route to caps, then GND

Layout Note:
These 4 caps should
be placed in cavity

Layout Note:
Route to caps, then GND

Layout Note:
Route to caps, then GND

Layout Note:
Route to caps, then GND

Layout Note:
Route to caps, then GND

Layout Note:
Route to caps, then GND

Layout Note:
Route to caps, then GND

Layout Note:
Route to caps, then GND

Layout Note:
Route to caps, then GND

Layout Note:
Route to caps, then GND

Layout Note:
Route to caps, then GND

Layout Note:
Route to caps, then GND

Layout Note:
Route to caps, then GND

Layout Note:
Route to caps, then GND

Layout Note:
Route to caps, then GND

Layout Note:
Route to caps, then GND

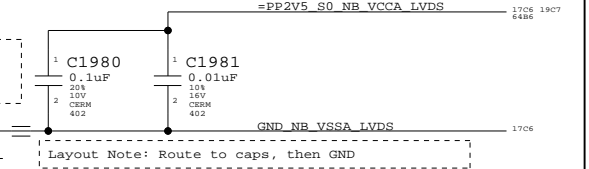
Layout Note:
Route to caps, then GND

Layout Note:
Route to caps, then GND

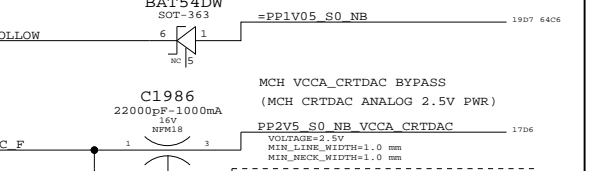
Layout Note:
Route to caps, then GND

Layout Note:
Route to caps, then GND

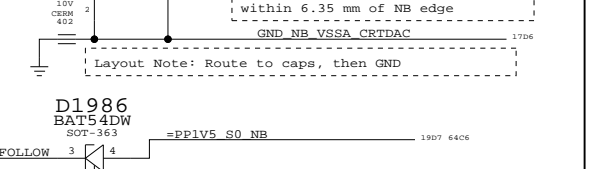
MCH LVDS_LVDS FILTER (MCH LVDS ANALOG 2.5V PWR)



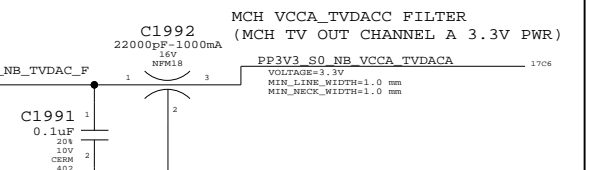
MCH VCCA_CRTDAC BYPASS (MCH CRTDAC ANALOG 2.5V PWR)



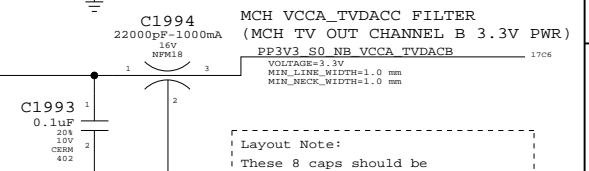
MCH VCCA_CRTDAC (MCH CRTDAC ANALOG 2.5V PWR)



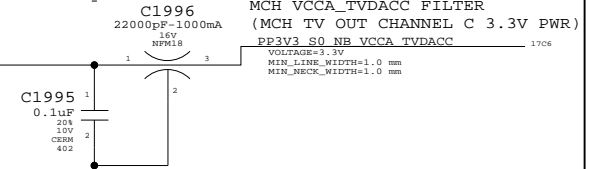
MCH VCCA_TVOUT CHANNEL A 3.3V PWR



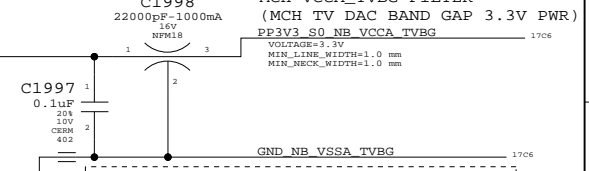
MCH VCCA_TVOUT CHANNEL B 3.3V PWR



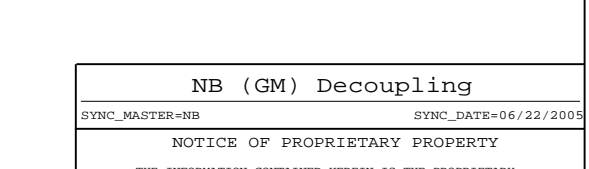
MCH VCCA_TVOUT CHANNEL C 3.3V PWR



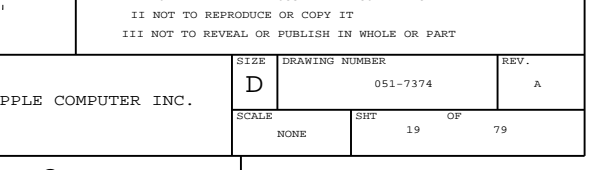
MCH VCCA_TVOUT CHANNEL D 3.3V PWR



MCH VCCA_TVOUT CHANNEL E 3.3V PWR



MCH VCCA_TVOUT CHANNEL F 3.3V PWR



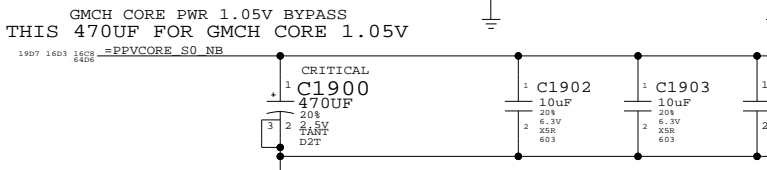
MCH VCCA_TVOUT CHANNEL G 3.3V PWR



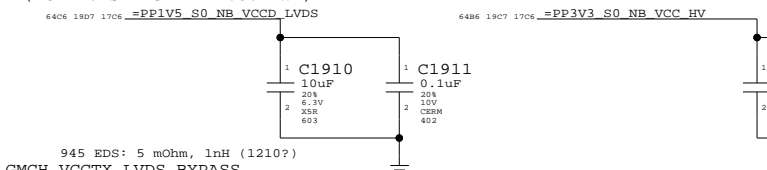
PLACE THOSE COMPONENT CLOSE TO GMCH



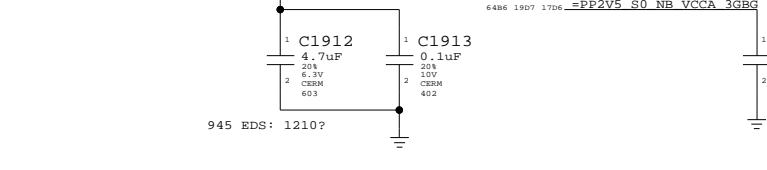
GMCH CORE PWR 1.05V BYPASS THIS 470UF FOR GMCH CORE 1.05V



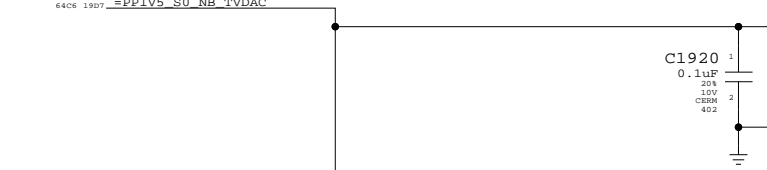
MCH VCC_HV BYPASS (MCH HV BUFFER 3.3V PWR)



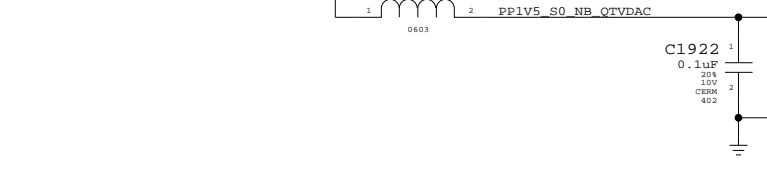
MCH VCCSYNC BYPASS (MCH H/V SYNC 2.5V PWR)



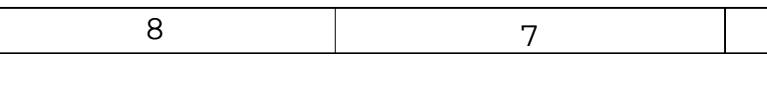
MCH VTT BYPASS (MCH FSB 1.05V PWR) (SHARE C0940 470UF)



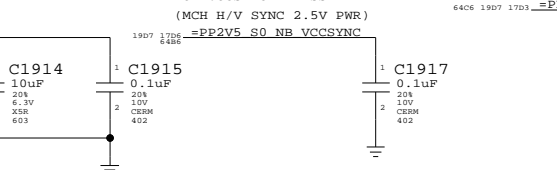
MCH VCCA_3GBG BYPASS (MCH PCIE/DMI BAND GAP 2.5V PWR)



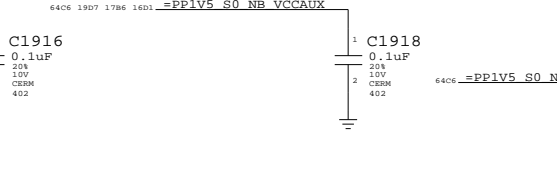
MCH VCCAUX FILTER (MCH DDR DLL&IO, FSB HSI0&IO PWR 1.5V)



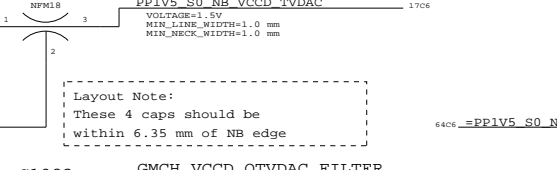
MCH VCCD_TVOUT CHANNEL A 1.5V PWR



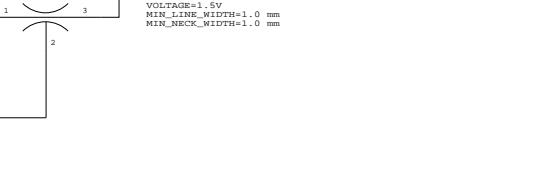
MCH VCCD_TVOUT CHANNEL B 1.5V PWR



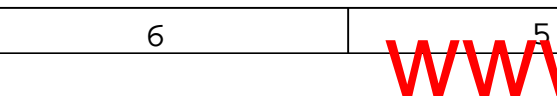
MCH VCCD_TVOUT CHANNEL C 1.5V PWR



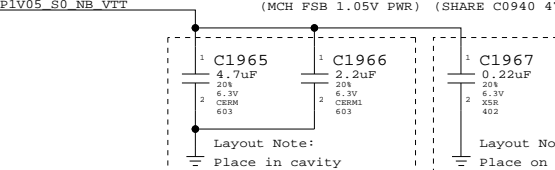
MCH VCCD_TVOUT CHANNEL D 1.5V PWR



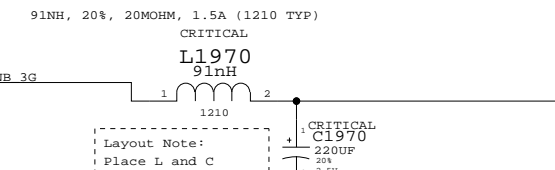
MCH VCCD_TVOUT CHANNEL E 1.5V PWR



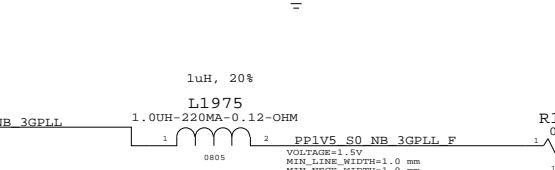
MCH VCCA_3GBG FILTER (3GIO PLL 1.5V PWR)



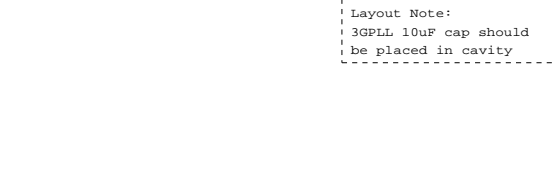
MCH VCCA_3GBG BYPASS (MCH TVOUT CHANNEL A 3.3V PWR)



MCH VCCA_3GBG BYPASS (MCH TVOUT CHANNEL B 3.3V PWR)



MCH VCCA_3GBG BYPASS (MCH TVOUT CHANNEL C 3.3V PWR)



MCH VCCA_3GBG BYPASS (MCH TVOUT CHANNEL D 3.3V PWR)



NB (GM) Decoupling

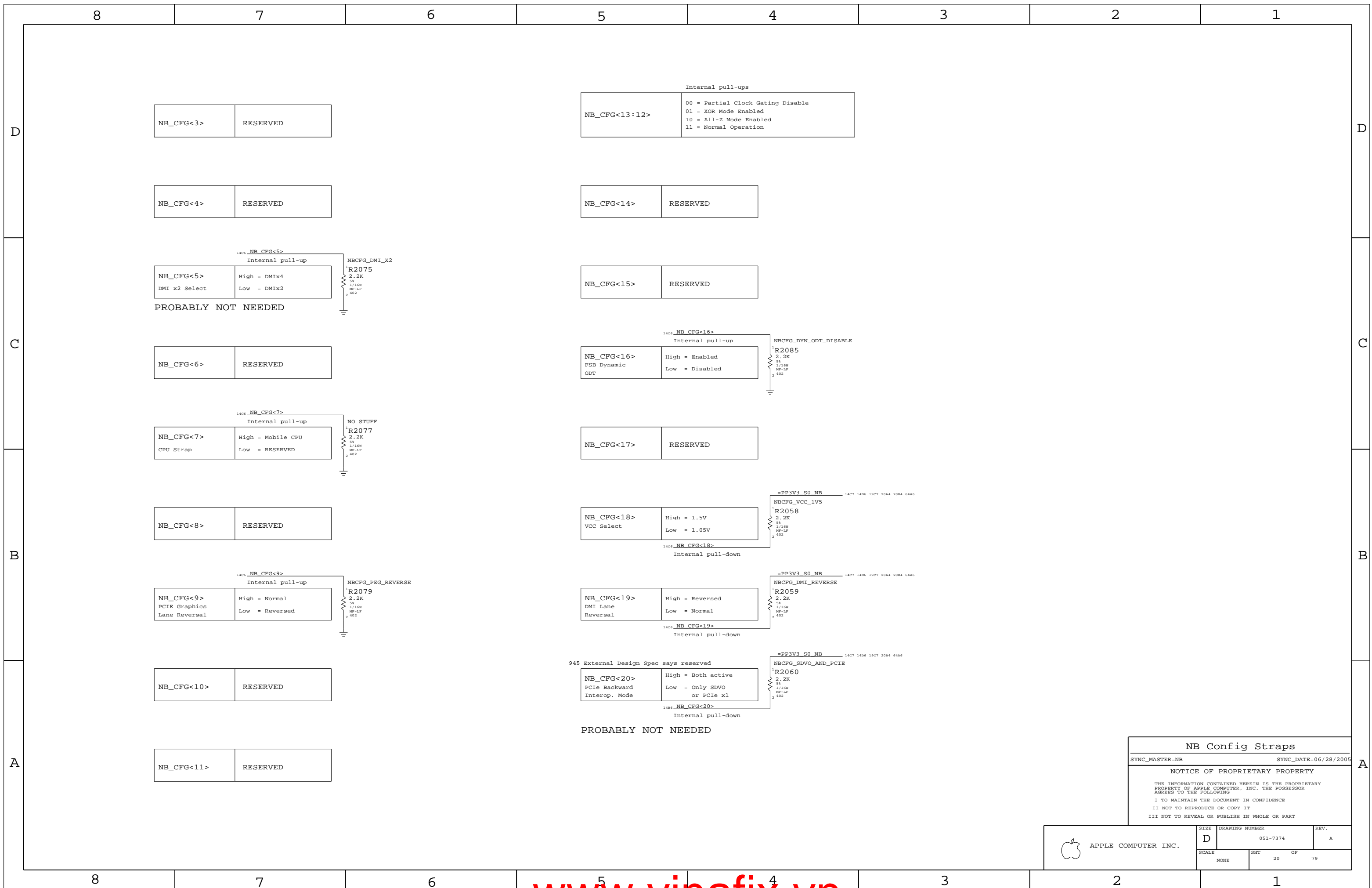
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	D	051-7374	A
SCALE	SHT	OF	79
NONE	19		



NB Config Straps

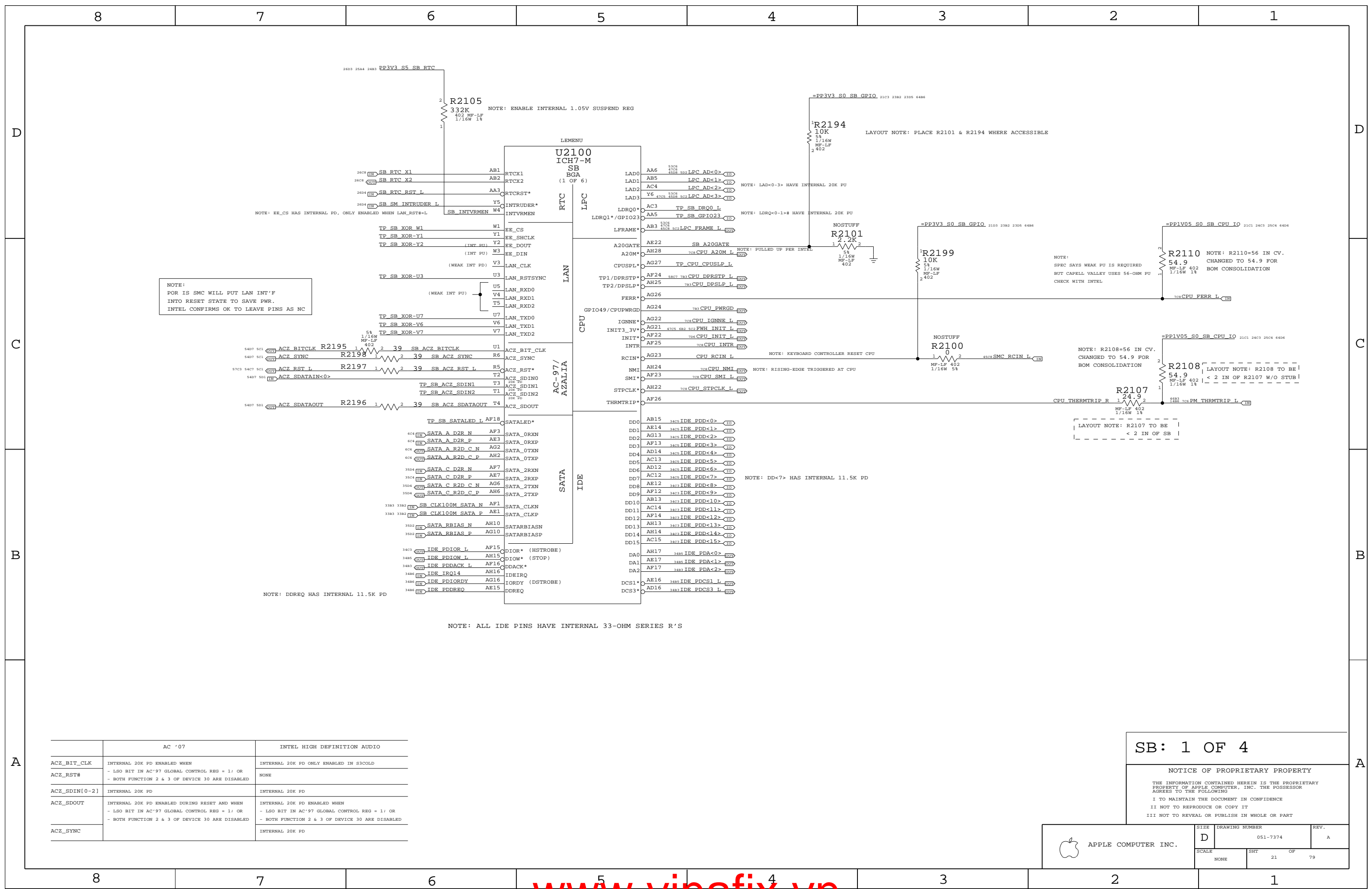
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	D	051-7374	A
SCALE	SHT	OF	REV.
NONE	20	79	



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

NOTE: ER_CS HAS INTERNAL PD, ONLY ENABLED WHEN LAN_RST# = L

NOTE: LAD<0-3> HAVE INTERNAL 20K PU

NOTE: LDRQ<0-1># HAVE INTERNAL 20K PU

NOTE: PULLED UP PER INTEL

NOTE: KEYBOARD CONTROLLER RESET CPU

NOTE: RISING-EDGE TRIGGERED AT CPU

NOTE: DD<7> HAS INTERNAL 11.5K PD

NOTE:
SPEC SAYS WEAK PU IS REQUIRED
BUT CAPELL VALLEY USES 56-OHM PU
CHECK WITH INTEL

NOTE: R2108=56 IN CV.
CHANGED TO 54.9 FOR
BOM CONSOLIDATION

LAYOUT NOTE: R2107 TO BE
< 2 IN OF SB

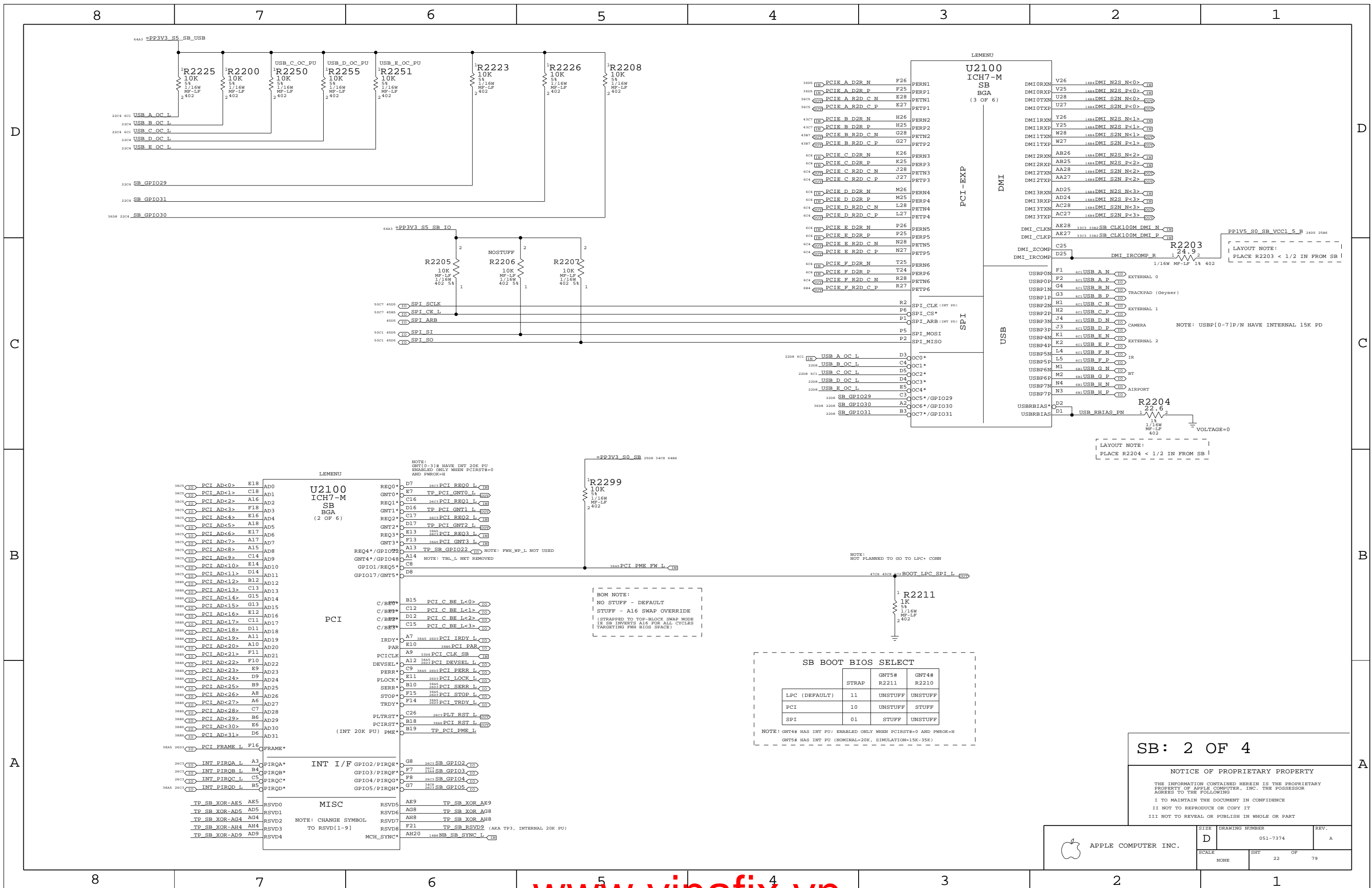
NOTE: ALL IDE PINS HAVE INTERNAL 33-OHM SERIES R'S

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

SB: 1 OF 4

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SCALE	NONE	SHT	21 OF 79



SB: 2 OF 4

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APPLE COMPUTER INC.	SIZE D	DRAWING NUMBER 051-7374	REV. A
	SCALE NONE	SHEET 22	OF 79

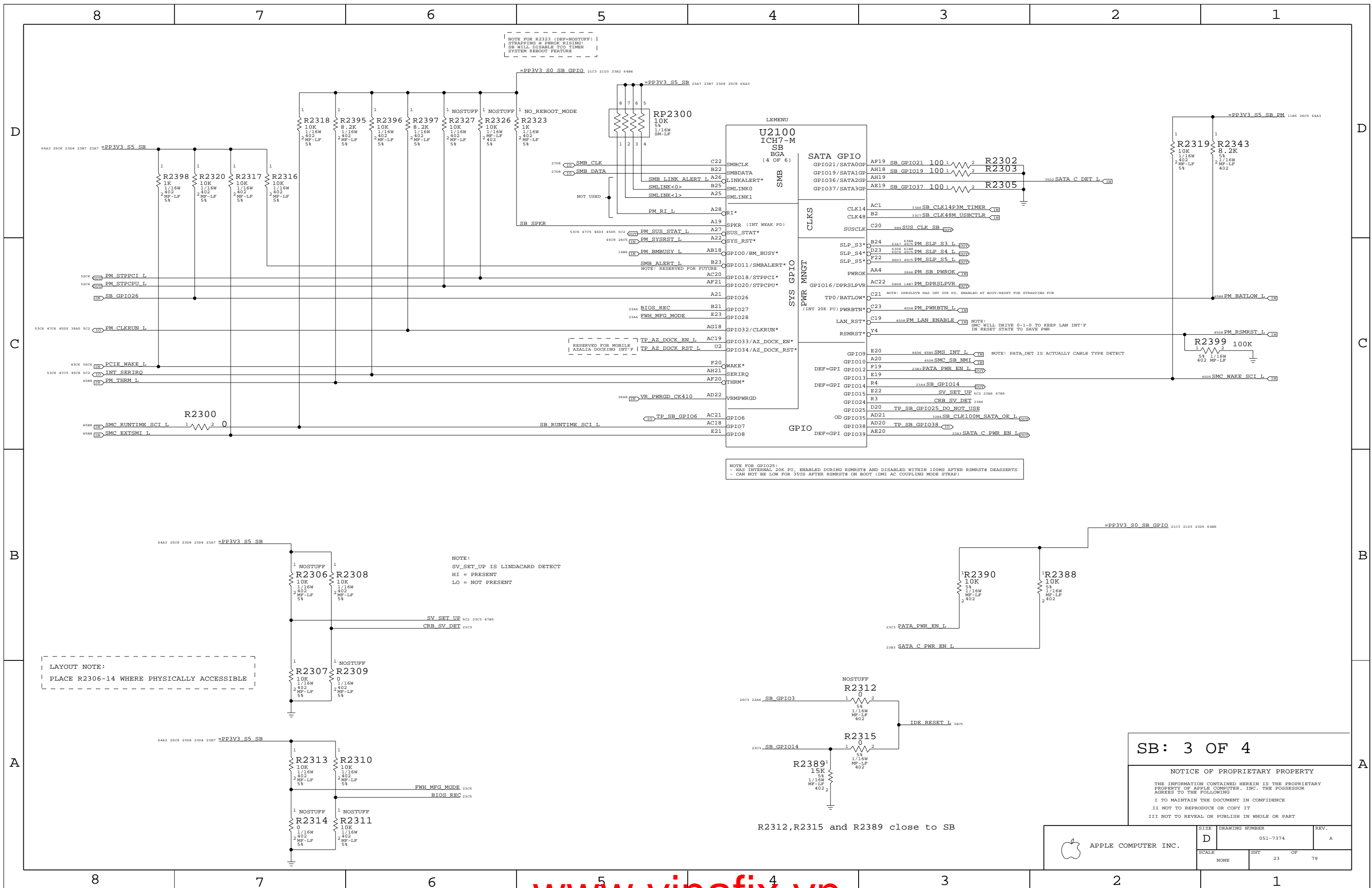
SB BOOT BIOS SELECT

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

NOTE: GNT4# HAS INT PU: ENABLED ONLY WHEN PCIRST#0 AND FWROK#H
 GNT5# HAS INT PU (NOMINAL=20K, SIMULATION=15K-35K)

BOM NOTE:
 NO STUFF - DEFAULT
 STUFF - A16 SWAP OVERRIDE
 (STRAPPED TO TOP-BLOCK SWAP MODE
 IF SB INVERTS A16 FOR ALL CYCLES
 (TARGETING FWB BIOS SPACE))

NOTE: CHANGE SYMBOL
 TO RSV[1-9]



NOTE FOR R2323 (DEF-NOSTUFF) | STRAPPING & PWROK RISING: SB WILL DISABLE TOO TIMER SYSTEM REBOOT FEATURE

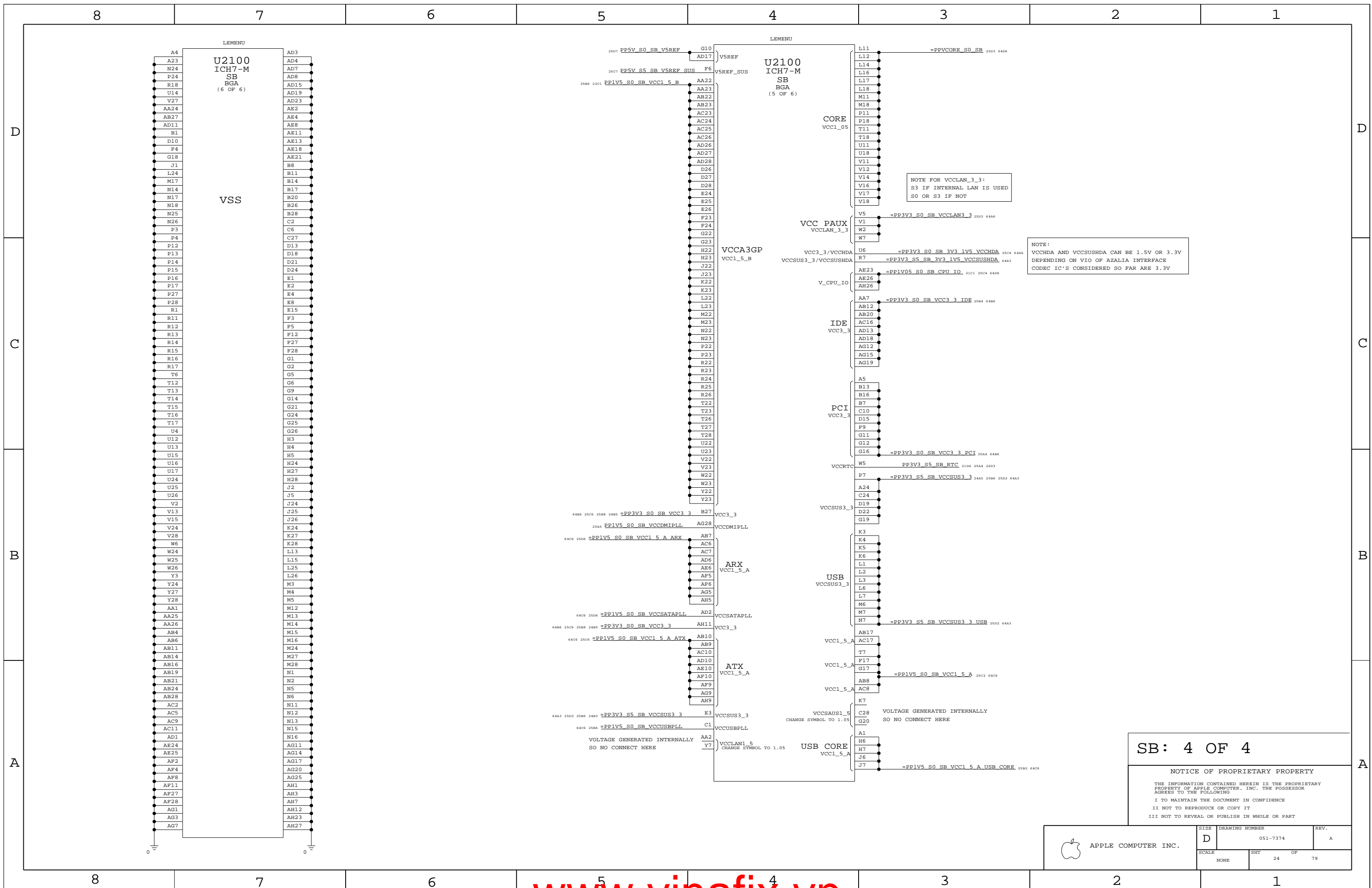
NOTE FOR GPIO25:
 - HAS INTERNAL 20K PU, ENABLED DURING RSMRST# AND DISABLED WITHIN 100MS AFTER RSMRST# DEASSERTS
 - CAN NOT BE LOW FOR 35US AFTER RSMRST# ON BOOT (EMI AC COUPLING MODE STRAP)

LAYOUT NOTE:
 PLACE R2306-14 WHERE PHYSICALLY ACCESSIBLE

SB: 3 OF 4

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APPLE COMPUTER INC.	SIZE	DRAWING NUMBER	REV.
	D	051-7374	A
SCALE	NONE	SHT	23 OF 79

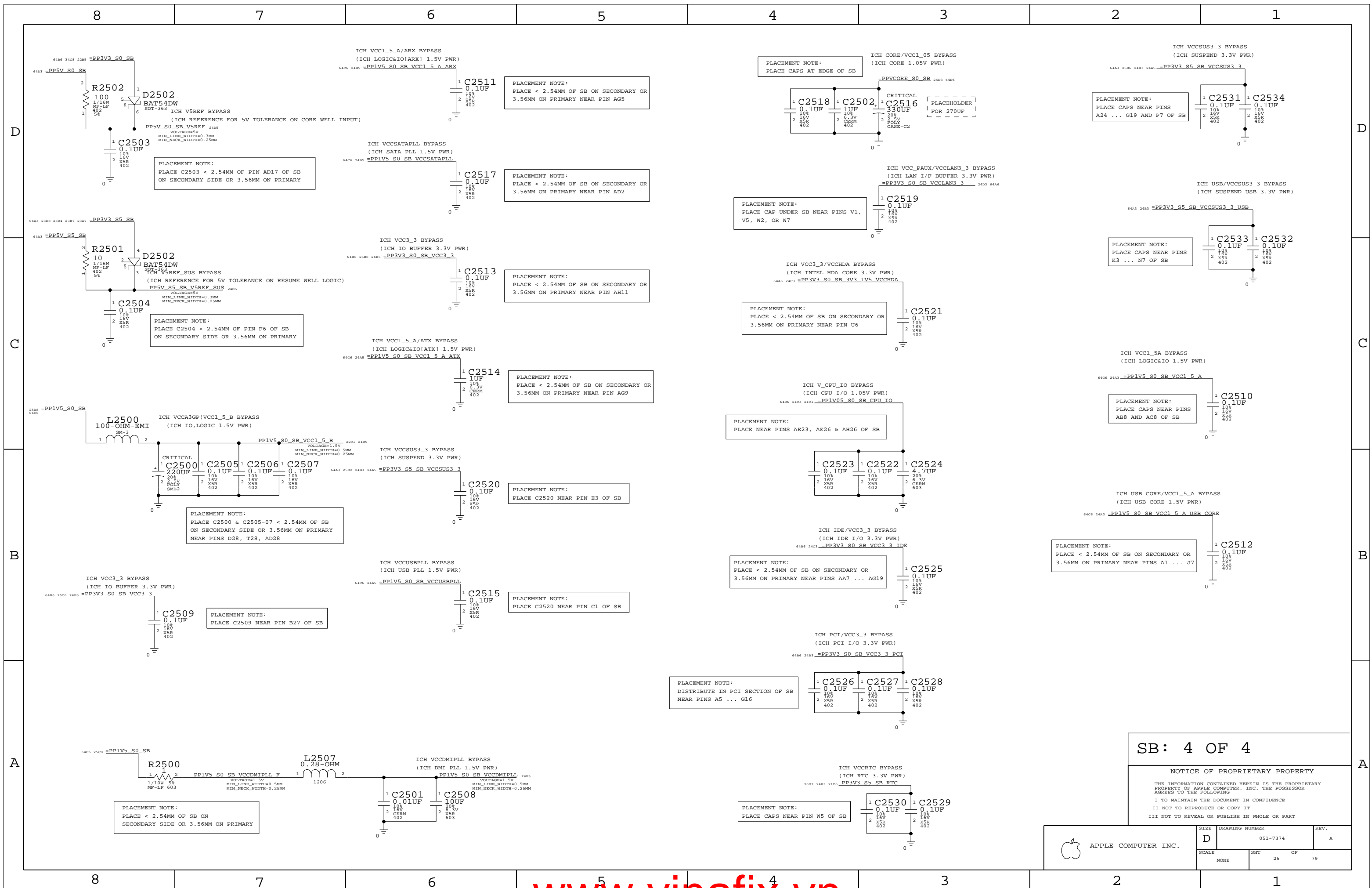


SB: 4 OF 4

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	SCALE NONE	SHT 24	OF 79



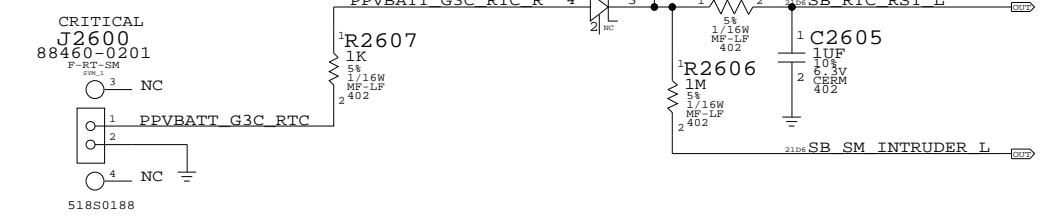
SB: 4 OF 4

NOTICE OF PROPRIETARY PROPERTY

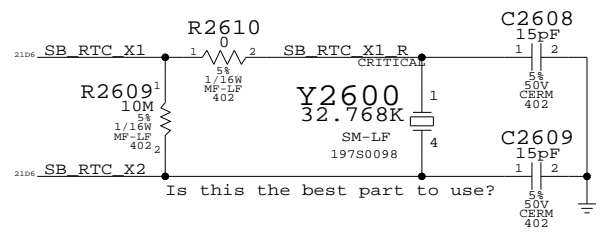
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	D	051-7374	A
SCALE	SHT	OF	79
NONE	25		

RTC Battery Connector



SB RTC Crystal Circuit

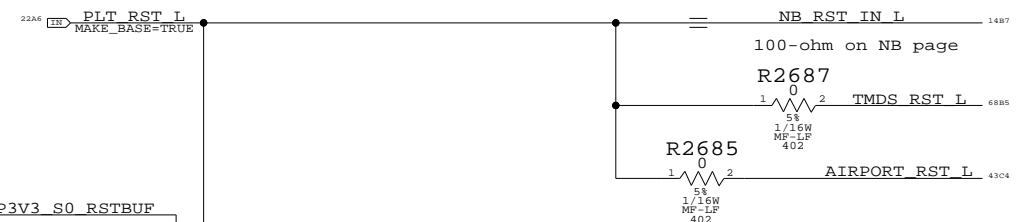


This part is never stuffed, it provides a set of pads on the board to short or to solder a reset button.

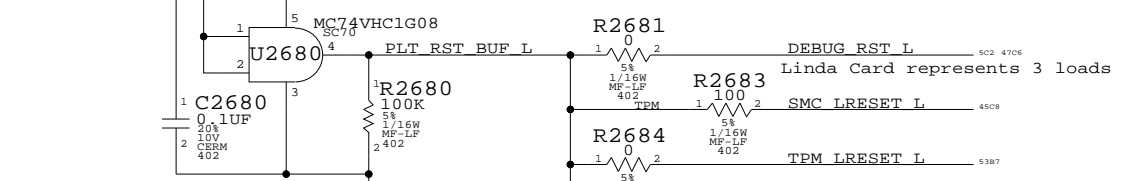
Silk: "SYS RST"

Platform Reset Connections

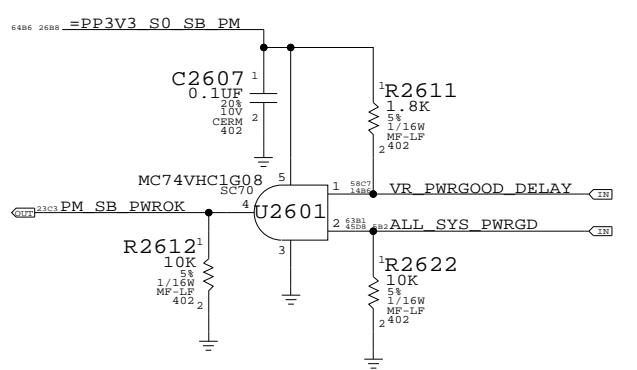
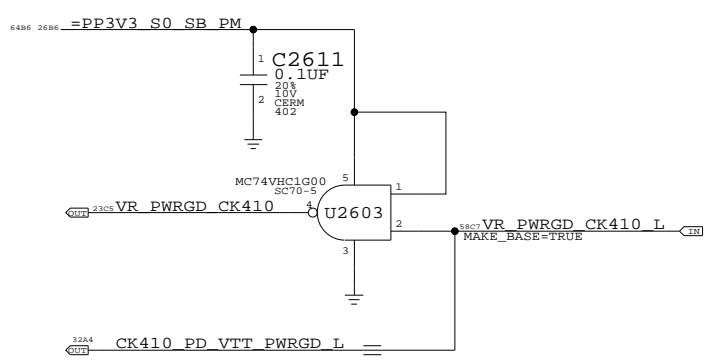
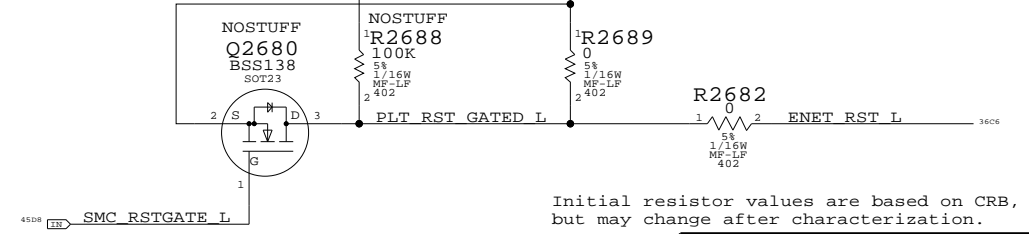
Unbuffered



Buffered



Gated



SB Misc		
SYNC_MASTER=NB	SYNC_DATE=07/26/2005	
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APPLE COMPUTER INC.	SIZE	DRAWING NUMBER	REV.
	D	051-7374	A
SCALE	SHT	OF	79
NONE	26		

8

7

6

5

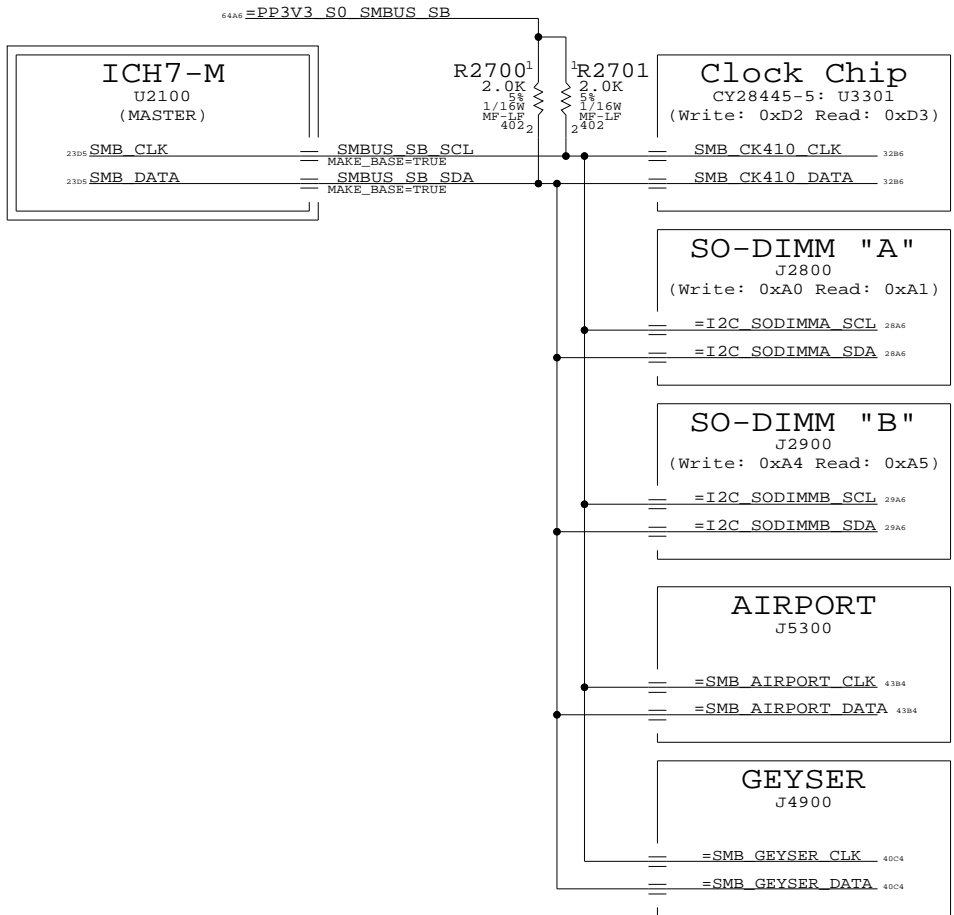
4

3

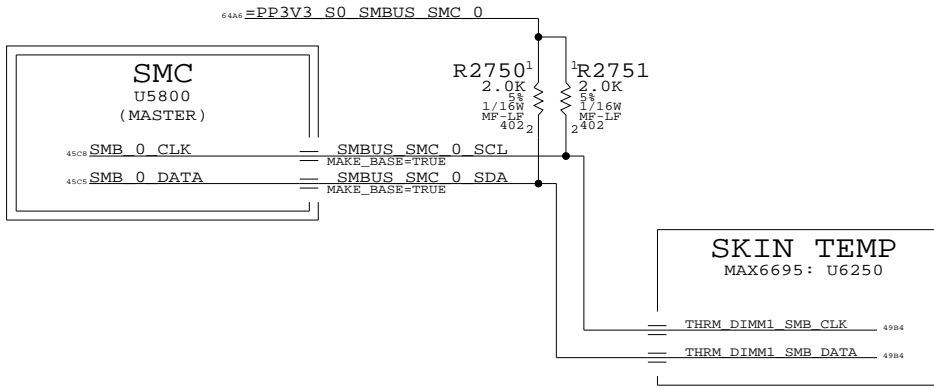
2

1

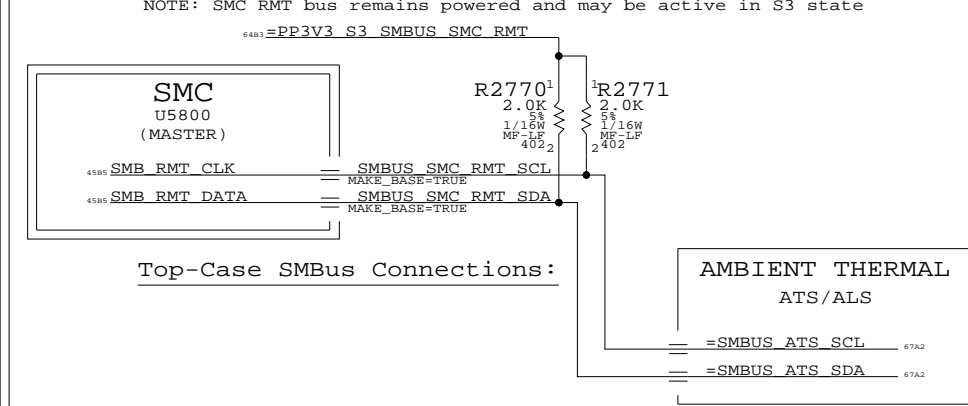
ICH7-M SMBus Connections



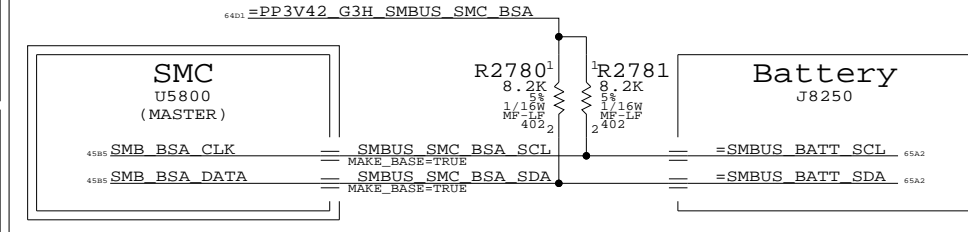
SMC "0" SMBus Connections



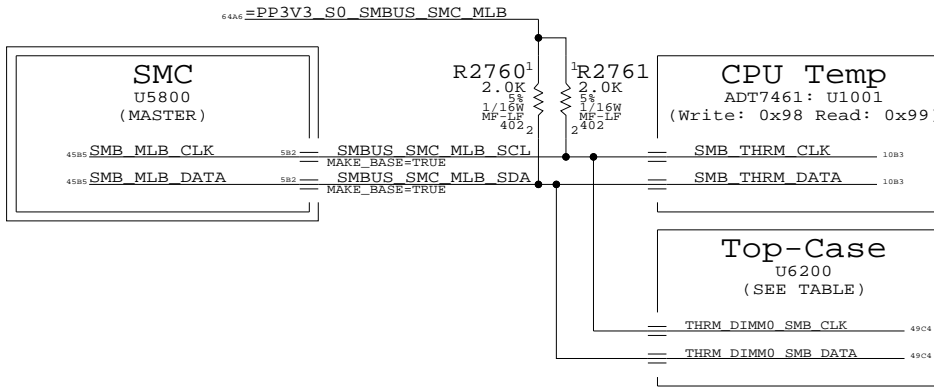
SMC "RMT" SMBus Connections



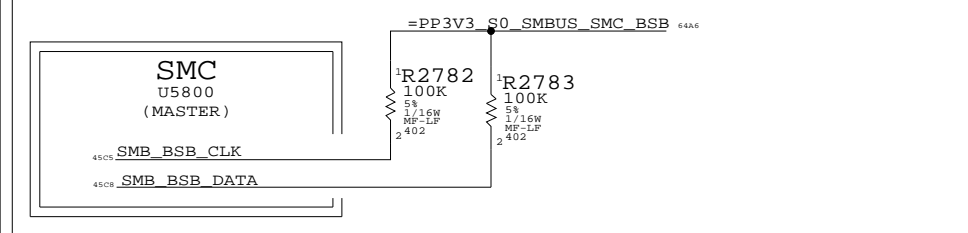
SMC "Battery A" SMBus Connections



SMC "MLB" SMBus Connections



SMC "Battery B" SMBus Connections



M42 SMBUS CONNECTIONS

SYNC_MASTER=ENET SYNC_DATE=08/30/2005

NOTICE OF PROPRIETARY PROPERTY

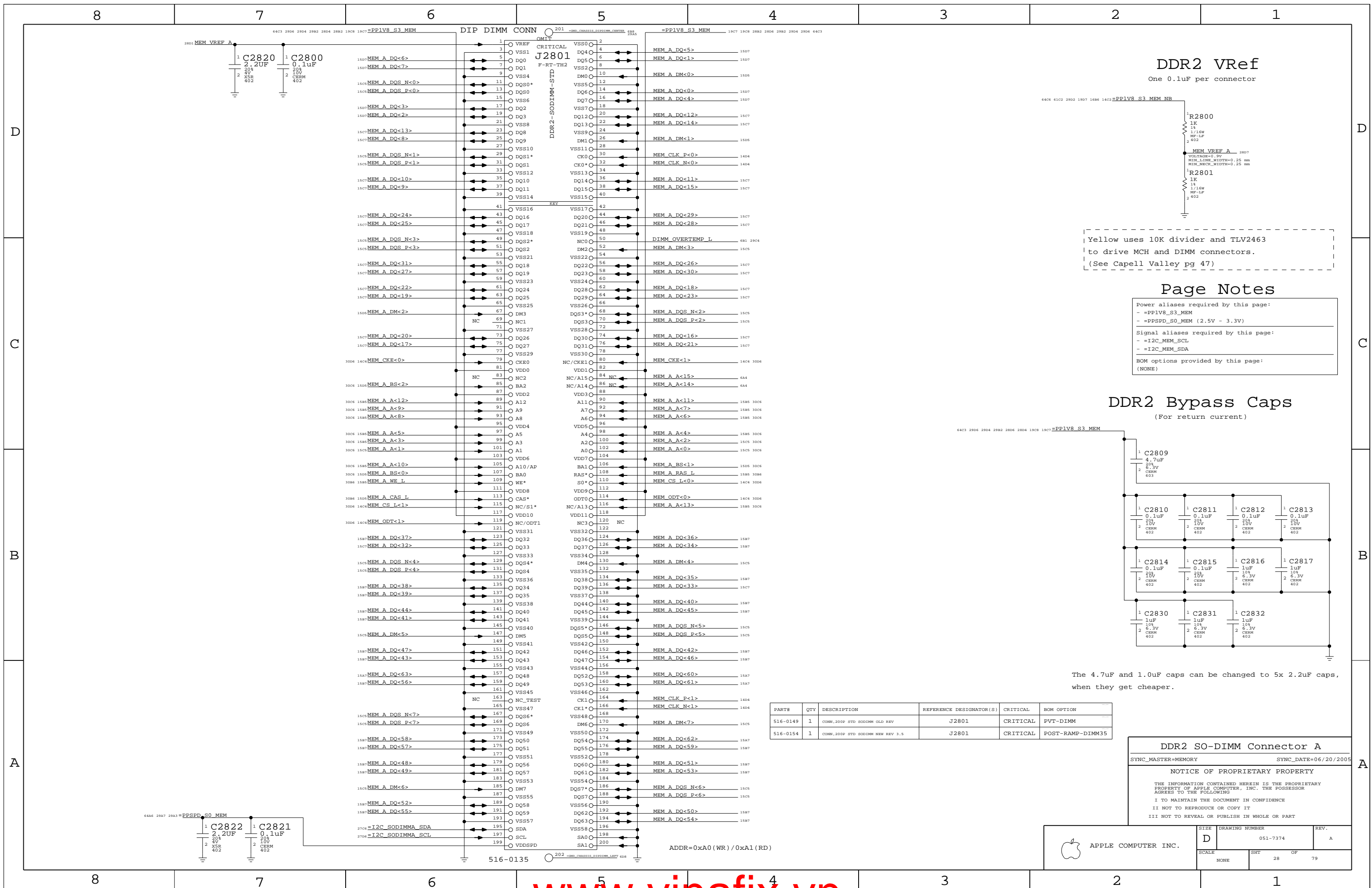
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APPLE COMPUTER INC.	SIZE	DRAWING NUMBER	REV.
	D	051-7374	A
SCALE	SHT	OF	REV.
NONE	27	79	



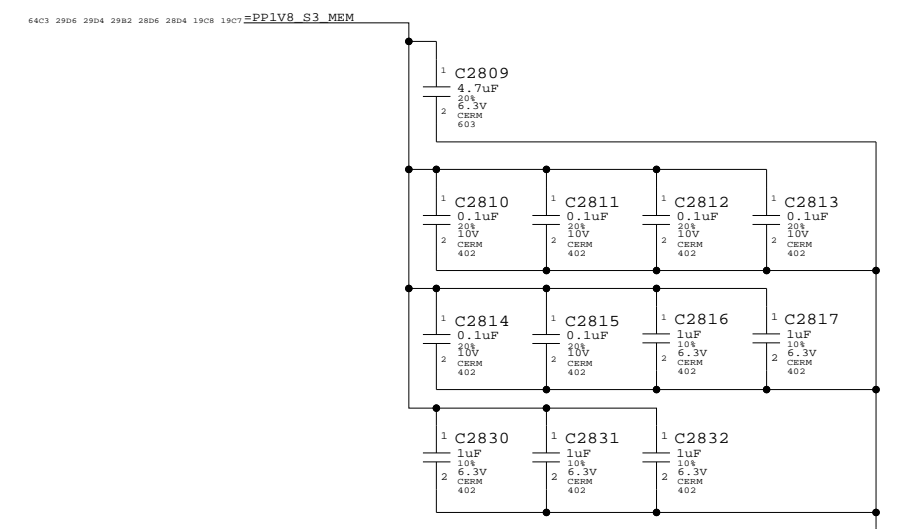
DDR2 VRef
One 0.1uF per connector

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

Page Notes

- Power aliases required by this page:
 - =PP1V8_S3_MEM
 - =PPSPD_S0_MEM (2.5V - 3.3V)
- Signal aliases required by this page:
 - =I2C_MEM_SCL
 - =I2C_MEM_SDA
- BOM options provided by this page: (NONE)

DDR2 Bypass Caps
(For return current)



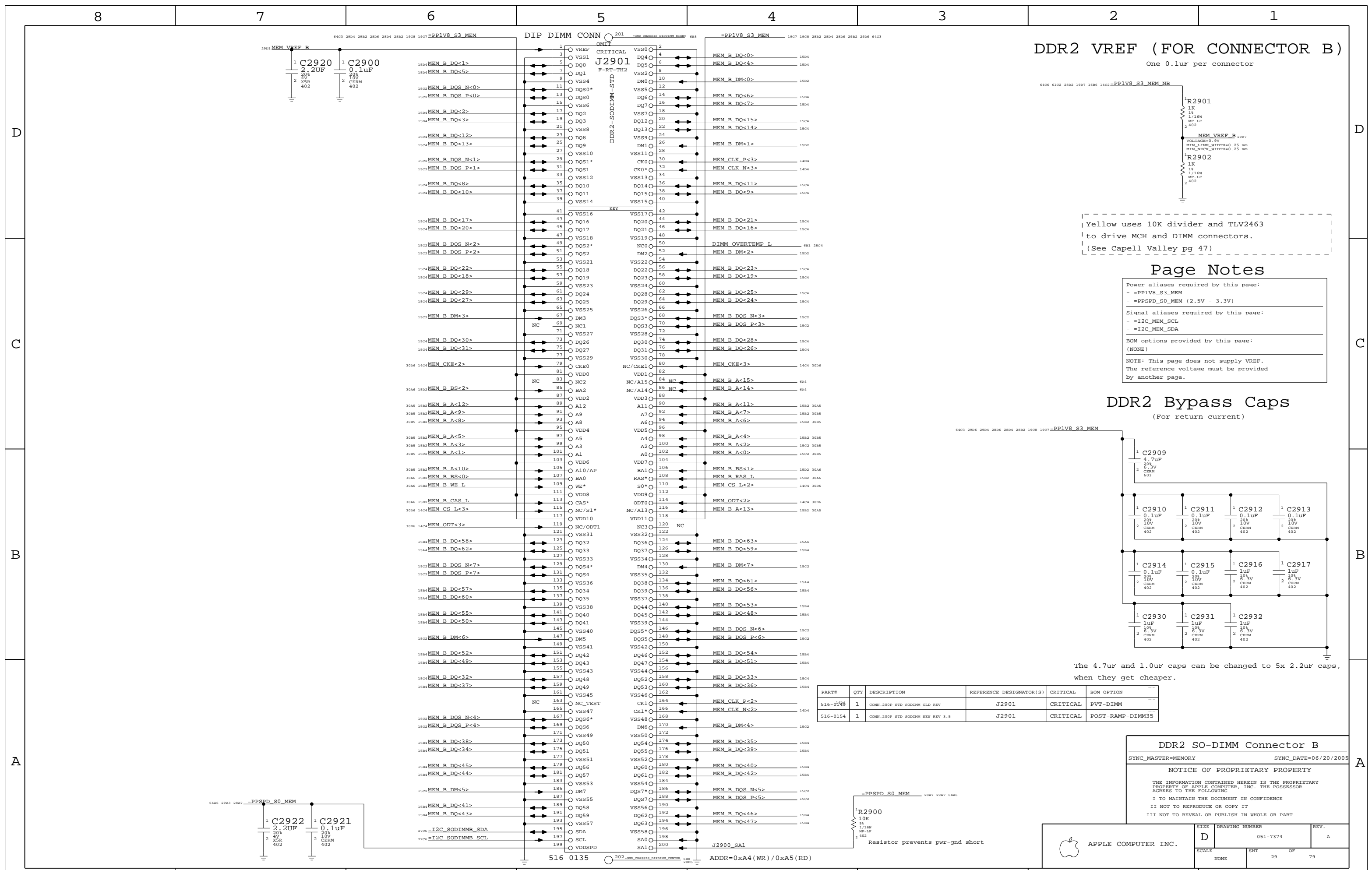
The 4.7uF and 1.0uF caps can be changed to 5x 2.2uF caps, when they get cheaper.

PART#	QTY	DESCRIPTION	REFERENCE DESIGNATOR(S)	CRITICAL	BOM OPTION
516-0149	1	CONN.200P STD SODIMM OLD REV	J2801	CRITICAL	PVT-DIMM
516-0154	1	CONN.200P STD SODIMM NEW REV 3.5	J2801	CRITICAL	POST-RAMP-DIMM35

DDR2 SO-DIMM Connector A
SYNC_MASTER=MEMORY SYNC_DATE=06/20/2005

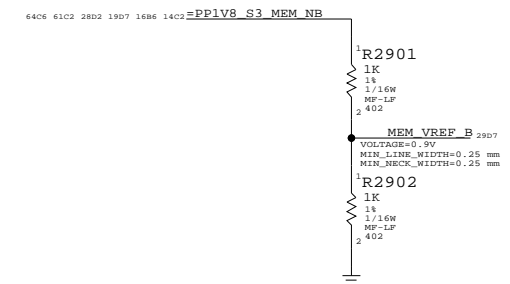
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APPLE COMPUTER INC.	SIZE	DRAWING NUMBER	REV.
	D	051-7374	A
SCALE	SHT	OF	79
NONE	28		



DDR2 VREF (FOR CONNECTOR B)

One 0.1uF per connector

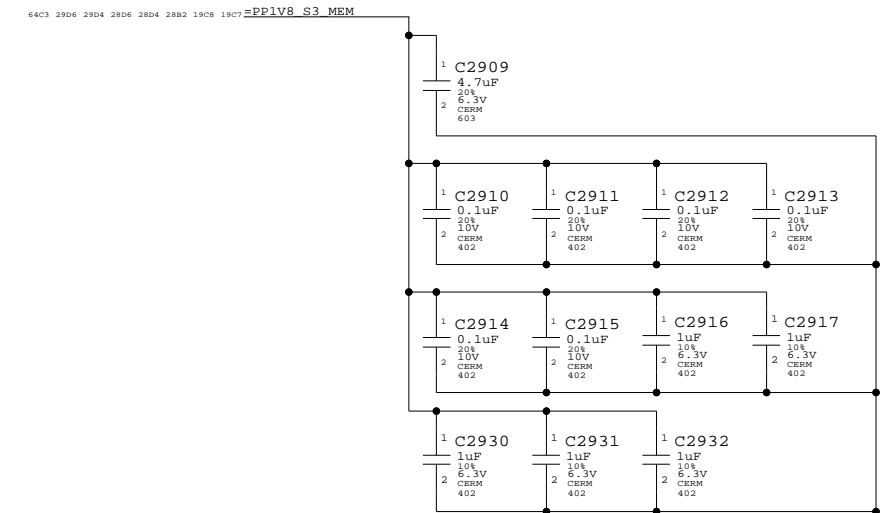


Yellow uses 10K divider and TLV2463 to drive MCH and DIMM connectors. (See Capell Valley pg 47)

Page Notes

- Power aliases required by this page:
 - =PP1V8_S3_MEM
 - =PPSPD_S0_MEM (2.5V - 3.3V)
 - Signal aliases required by this page:
 - =I2C_MEM_SCL
 - =I2C_MEM_SDA
 - BOM options provided by this page:
 - (NONE)
- NOTE: This page does not supply VREF. The reference voltage must be provided by another page.

DDR2 Bypass Caps (For return current)



The 4.7uF and 1.0uF caps can be changed to 5x 2.2uF caps, when they get cheaper.

PART#	QTY	DESCRIPTION	REFERENCE DESIGNATOR(S)	CRITICAL	BOM OPTION
516-0145	1	CONN,200P STD SODIMM OLD REV	J2901	CRITICAL	PVT-DIMM
516-0154	1	CONN,200P STD SODIMM NEW REV 1.5	J2901	CRITICAL	POST-RAMP-DIMM35

DDR2 SO-DIMM Connector B

SYNC_MASTER=MEMORY SYNC_DATE=06/20/2005

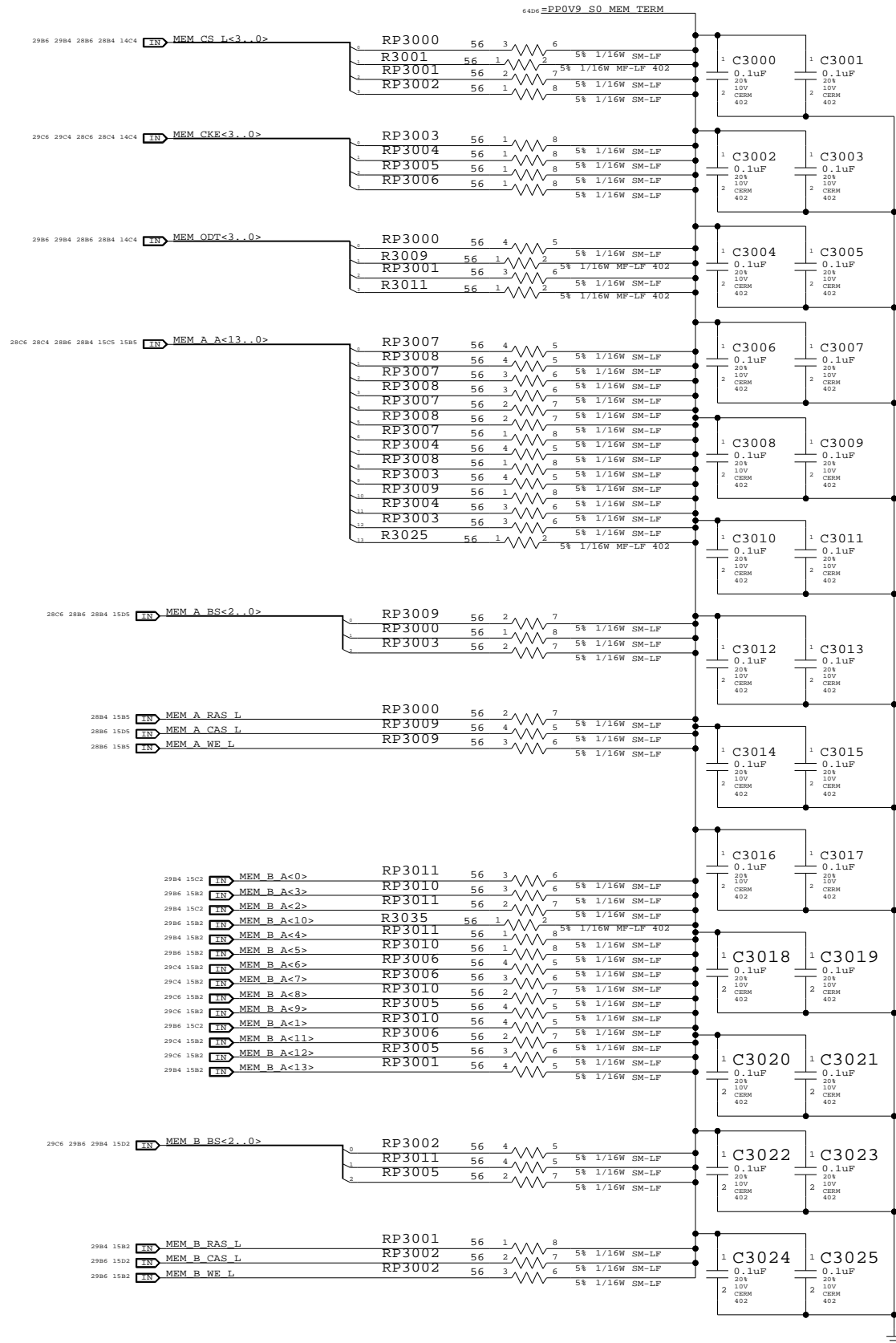
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APPLE COMPUTER INC.	SIZE D	DRAWING NUMBER 051-7374	REV. A
	SCALE NONE	SHEET 29	OF 79

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



LAYOUT NOTE: PLACE ONE CAP CLOSE TO EVERY TWO PULLUP RESISTORS TERMINATED TO PP0V9_S0_MEM_TERM

Memory Active Termination

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

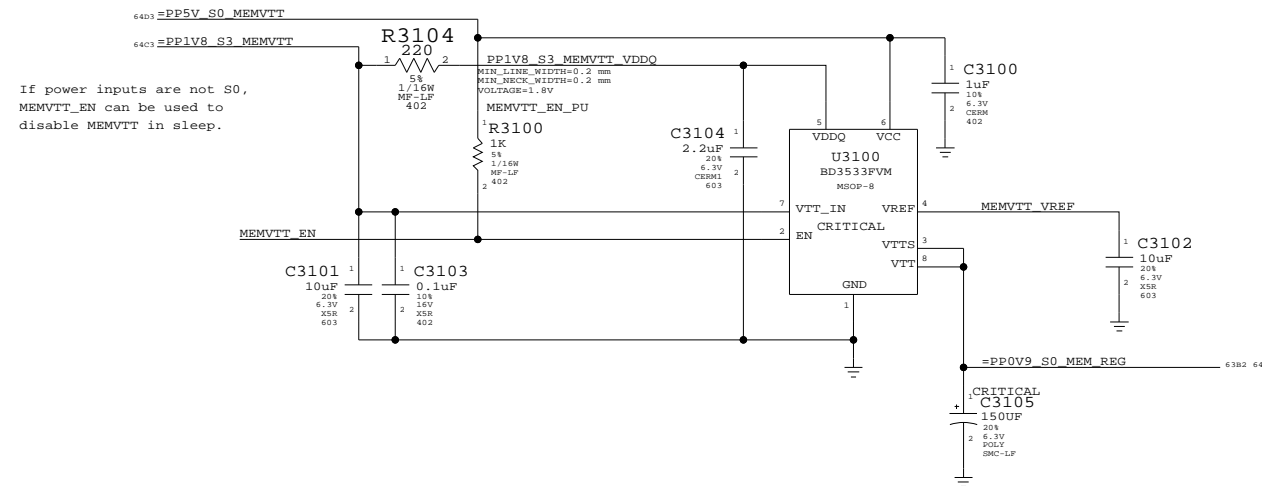
Page Notes

Power aliases required by this page:
 - =PP5V_S0_MEMVTT
 - =PP1V8_S0_MEMVTT
 - =PP0V9_S0_MEMVTT_LDO

Signal aliases required by this page:
 (NONE)

BOM options provided by this page:
 (NONE)

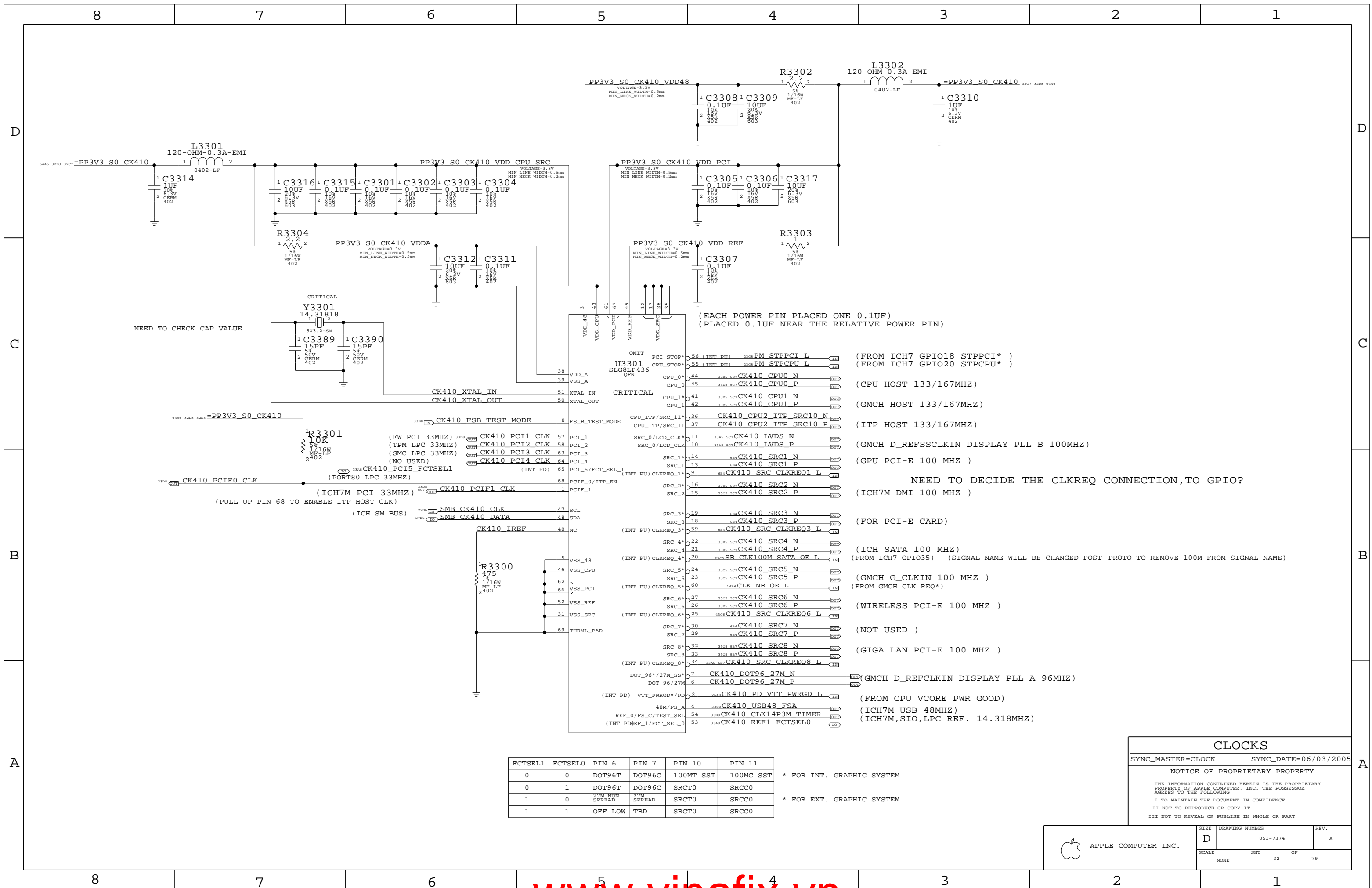
DDR2 Vtt Regulator



Memory Vtt Supply
 SYNC_MASTER=(MASTER) SYNC_DATE=(MASTER)

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APPLE COMPUTER INC.	SIZE	DRAWING NUMBER	REV.
	D	051-7374	A
SCALE	SHT	OF	REV.
NONE	31	79	



NEED TO CHECK CAP VALUE

(EACH POWER PIN PLACED ONE 0.1UF)
(PLACED 0.1UF NEAR THE RELATIVE POWER PIN)

(FROM ICH7 GPIO18 STPPCI*)
(FROM ICH7 GPIO20 STPCPU*)

(CPU HOST 133/167MHZ)

(GMCH HOST 133/167MHZ)

(ITP HOST 133/167MHZ)

(GMCH D_REFSSCLKIN DISPLAY PLL B 100MHZ)

(GPU PCI-E 100 MHZ)

NEED TO DECIDE THE CLKREQ CONNECTION, TO GPIO?
(ICH7M DMI 100 MHZ)

(FOR PCI-E CARD)

(ICH SATA 100 MHZ)
(FROM ICH7 GPIO35) (SIGNAL NAME WILL BE CHANGED POST PROTO TO REMOVE 100M FROM SIGNAL NAME)

(GMCH G_CLKIN 100 MHZ)
(FROM GMCH CLK_REQ*)

(WIRELESS PCI-E 100 MHZ)

(NOT USED)

(GIGA LAN PCI-E 100 MHZ)

(GMCH D_REFCLKIN DISPLAY PLL A 96MHZ)

(FROM CPU VCORE PWR GOOD)

(ICH7M USB 48MHZ)
(ICH7M,SIO,LPC REF. 14.318MHZ)

FCTSEL1	FCTSELO	PIN 6	PIN 7	PIN 10	PIN 11
0	0	DOT96T	DOT96C	100MT_SST	100MC_SST
0	1	DOT96T	DOT96C	SRCT0	SRCC0
1	0	27M NON SPREAD	27M SPREAD	SRCT0	SRCC0
1	1	OFF LOW	TBD	SRCT0	SRCC0

* FOR INT. GRAPHIC SYSTEM

* FOR EXT. GRAPHIC SYSTEM

CLOCKS

SYNC_MASTER=CLOCK SYNC_DATE=06/03/2005

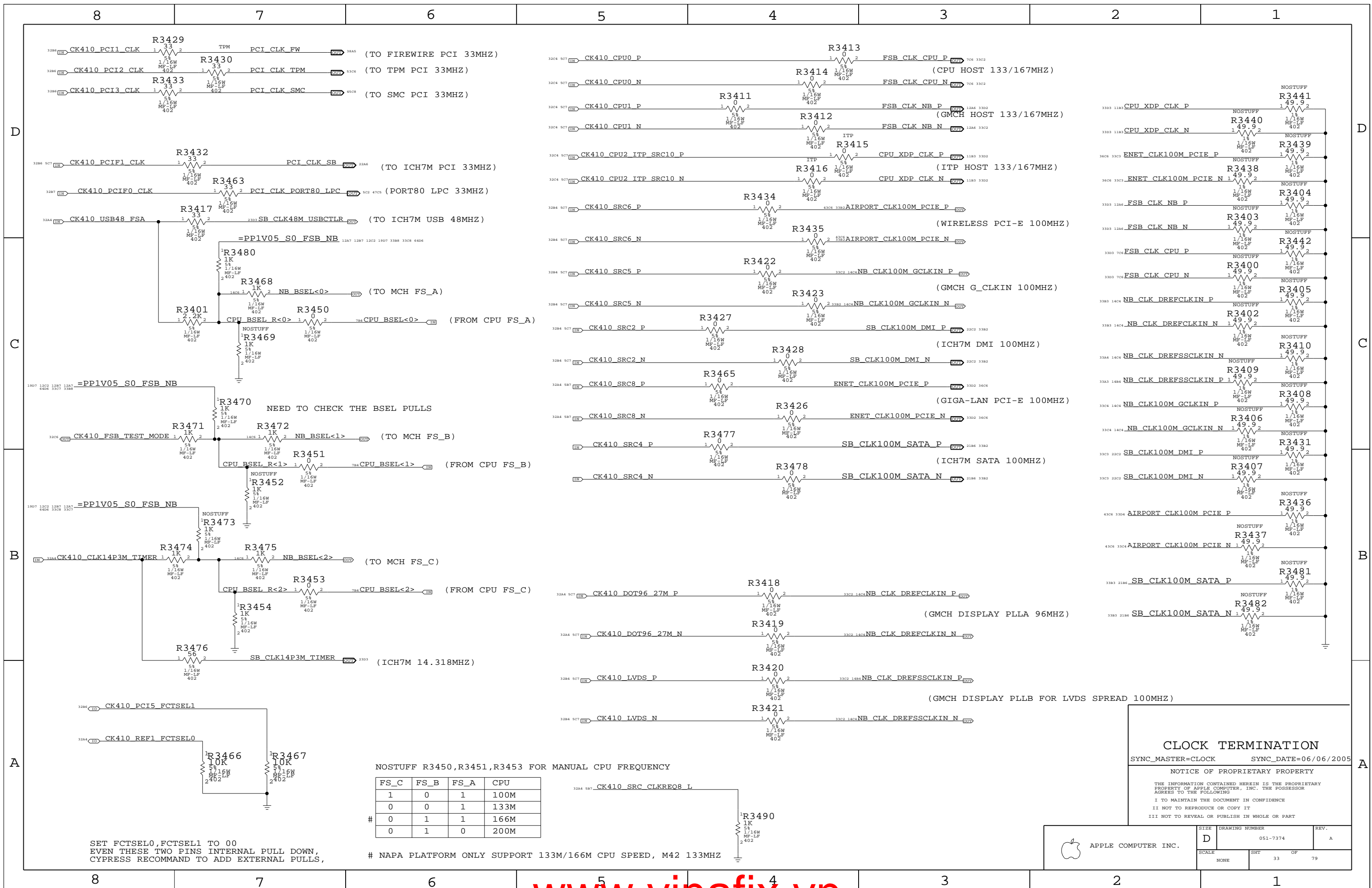
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APPLE COMPUTER INC.

SIZE	DRAWING NUMBER	REV.
D	051-7374	A
SCALE	SHT	OF
NONE	32	79



NOSTUFF R3450, R3451, R3453 FOR MANUAL CPU FREQUENCY

FS_C	FS_B	FS_A	CPU
1	0	1	100M
0	0	1	133M
0	1	1	166M
0	1	0	200M

NAPA PLATFORM ONLY SUPPORT 133M/166M CPU SPEED, M42 133MHZ

SET FCTSEL0, FCTSEL1 TO 00
EVEN THESE TWO PINS INTERNAL PULL DOWN,
CYPRESS RECOMMAND TO ADD EXTERNAL PULLS,

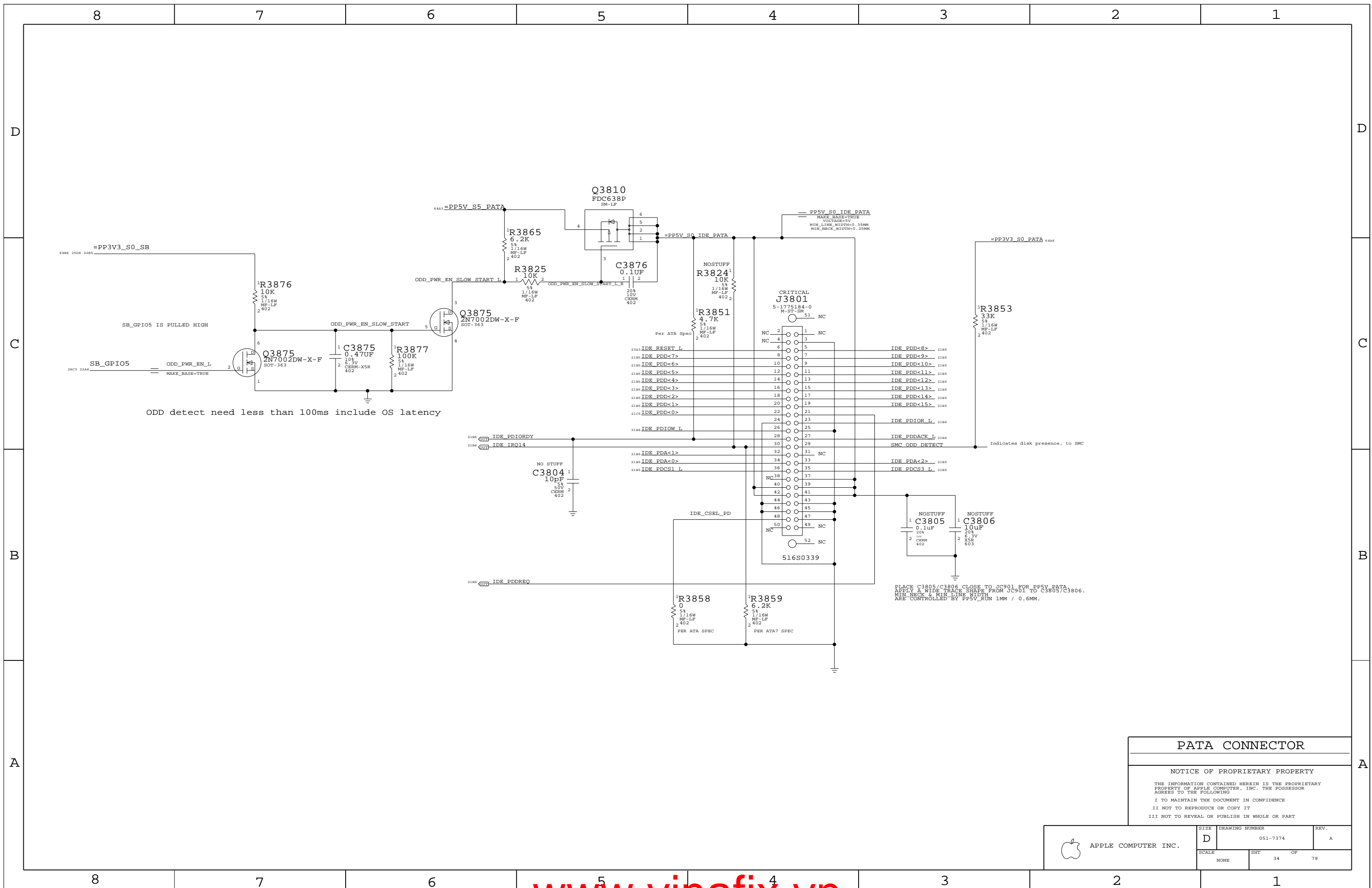
CLOCK TERMINATION

SYNC_MASTER=CLOCK SYNC_DATE=06/06/2005

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APPLE COMPUTER INC.	SIZE D	DRAWING NUMBER 051-7374	REV. A
	SCALE NONE	SHEET 33	OF 79



PATA CONNECTOR

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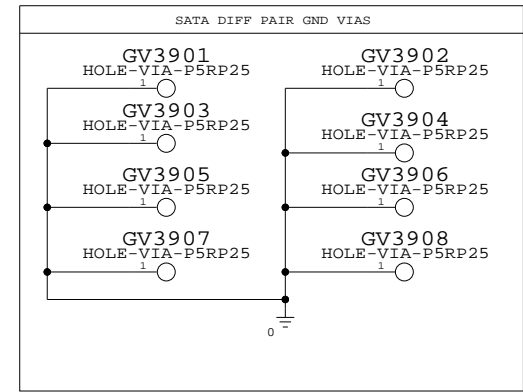
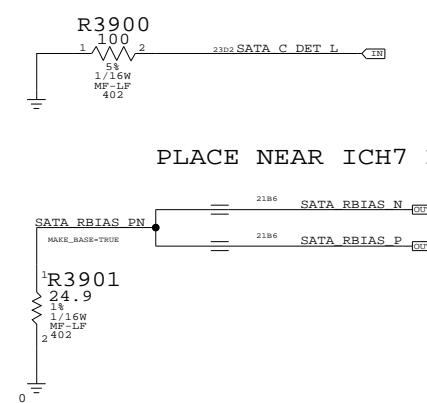
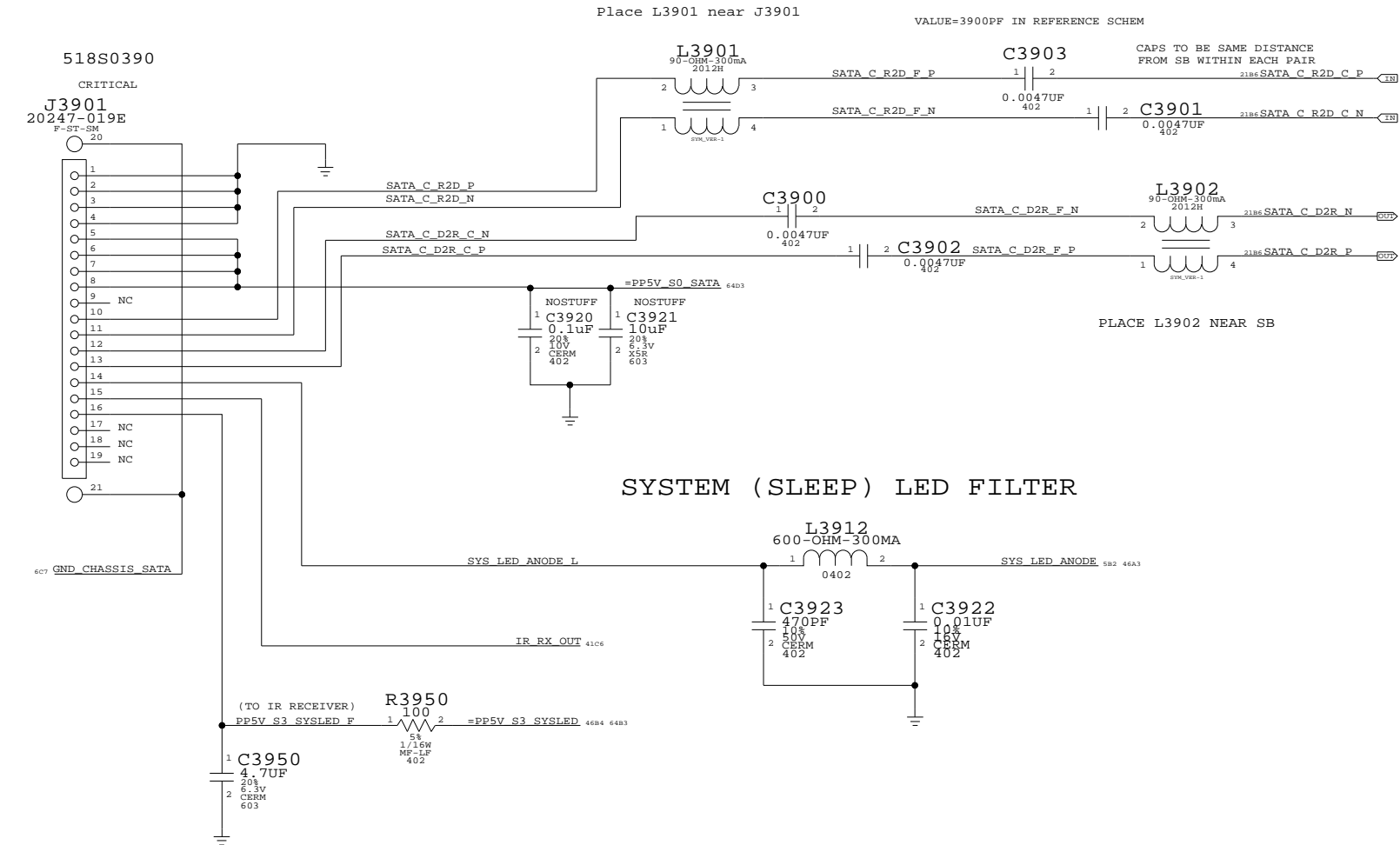
I TO MAINTAIN THE DOCUMENT IN CONFIDENCE

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APPLE COMPUTER INC.	SIZE D	DRAWING NUMBER 051-7374	REV. A
	SCALE NONE	SHEET 34	OF 79

SATA CONNECTOR



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

SATA CONNECTOR

NOTICE OF PROPRIETARY PROPERTY

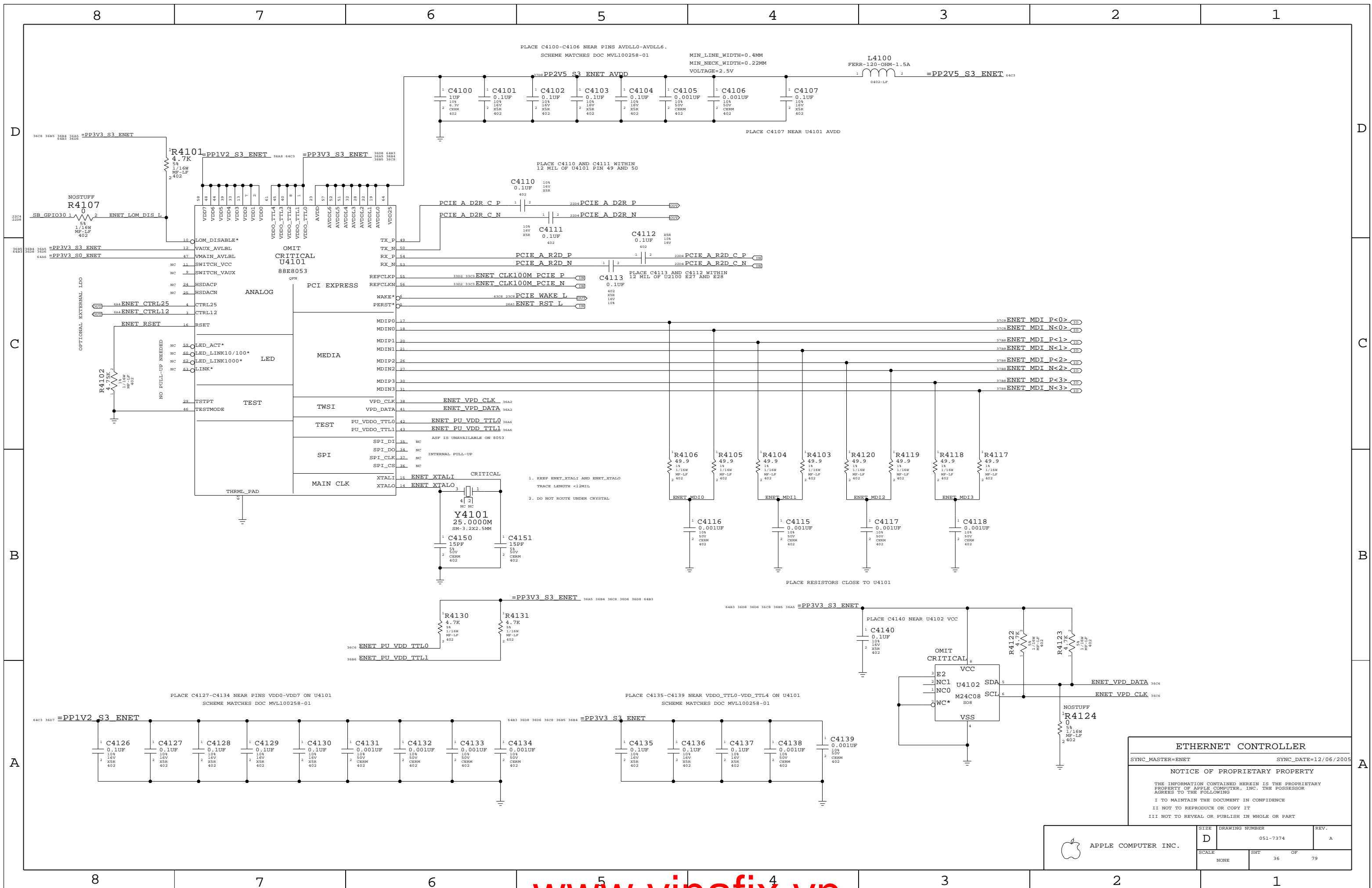
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	D	051-7374	A
SCALE	SHT	OF	79
NONE		35	



ETHERNET CONTROLLER

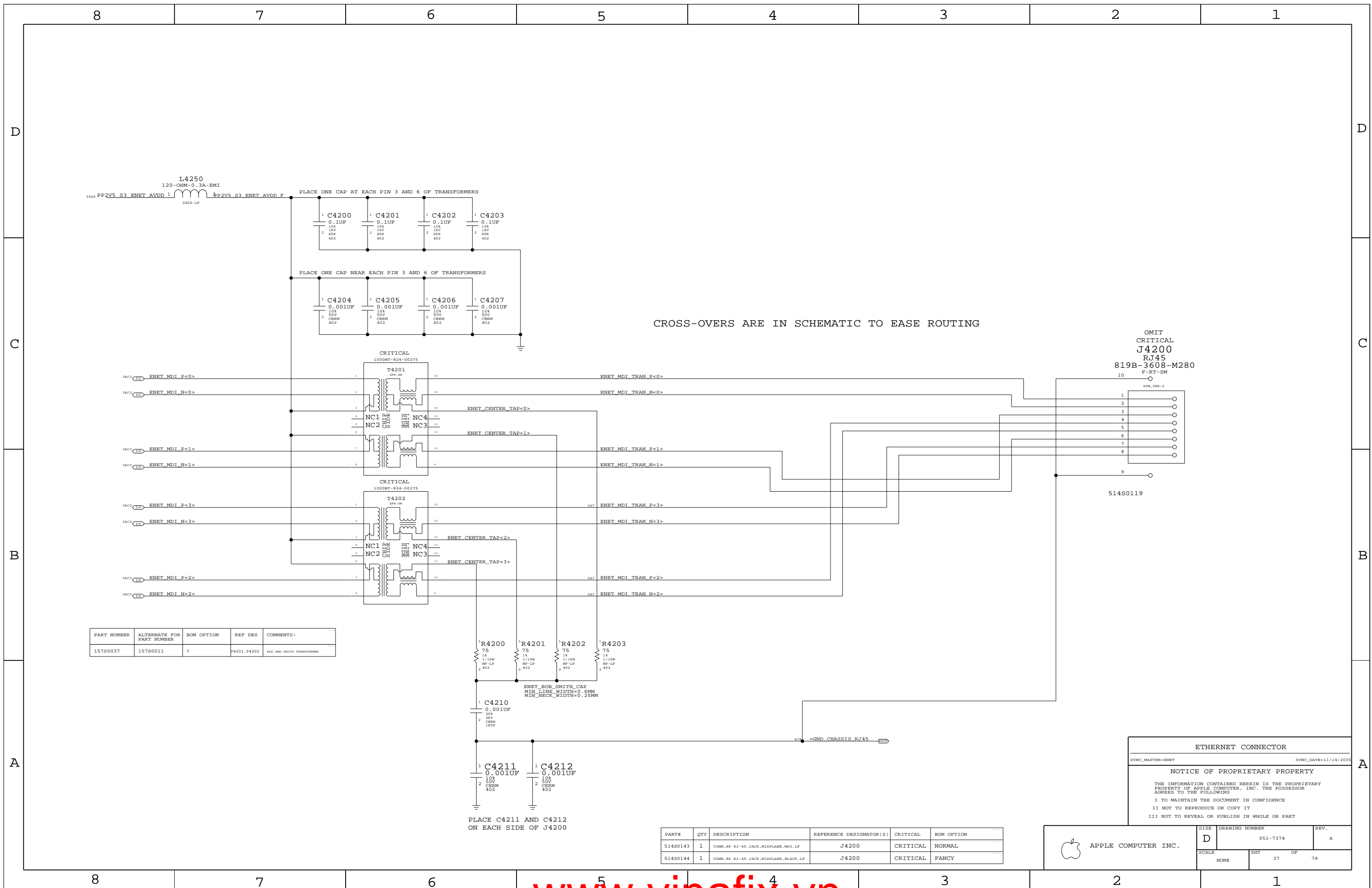
SYNC_MASTER=ENET SYNC_DATE=12/06/2005

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APPLE COMPUTER INC.	SIZE D	DRAWING NUMBER 051-7374	REV. A
	SCALE NONE	SHEET 36	OF 79



L4250
120-OHM-0.3A-EMI
PP2V5_S3_ENET_AVDD_F

PLACE ONE CAP AT EACH PIN 3 AND 6 OF TRANSFORMERS

PLACE ONE CAP NEAR EACH PIN 3 AND 6 OF TRANSFORMERS

CROSS-OVERS ARE IN SCHEMATIC TO EASE ROUTING

OMIT
CRITICAL
J4200
RJ45
819B-3608-M280
F-RT-SM

PART NUMBER	ALTERNATE FOR PART NUMBER	BOM OPTION	REF DES	COMMENTS
157S0037	157S0011	?	R4201, T4202	SEE AND DELTA TRANSFORMER

ENET_BOB_SMITH_CAP
MIN LINE WIDTH=0.6MM
MIN NECK WIDTH=0.25MM

PLACE C4211 AND C4212
ON EACH SIDE OF J4200

ETHERNET CONNECTOR
SYNC_MASTER=ENET SYNC_DATE=11/14/2005

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PART#	QTY	DESCRIPTION	REFERENCE DESIGNATOR(S)	CRITICAL	BOM OPTION
514S0143	1	CONN, SP RJ-45 JACK, MIDPLANE, M3, LF	J4200	CRITICAL	NORMAL
514S0144	1	CONN, SP RJ-45 JACK, MIDPLANE, BLACK, LF	J4200	CRITICAL	FANCY

APPLE COMPUTER INC.	SIZE	DRAWING NUMBER	REV.
	D	051-7374	A
SCALE	SHT	OF	REV.
NONE	37	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_PCO - 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

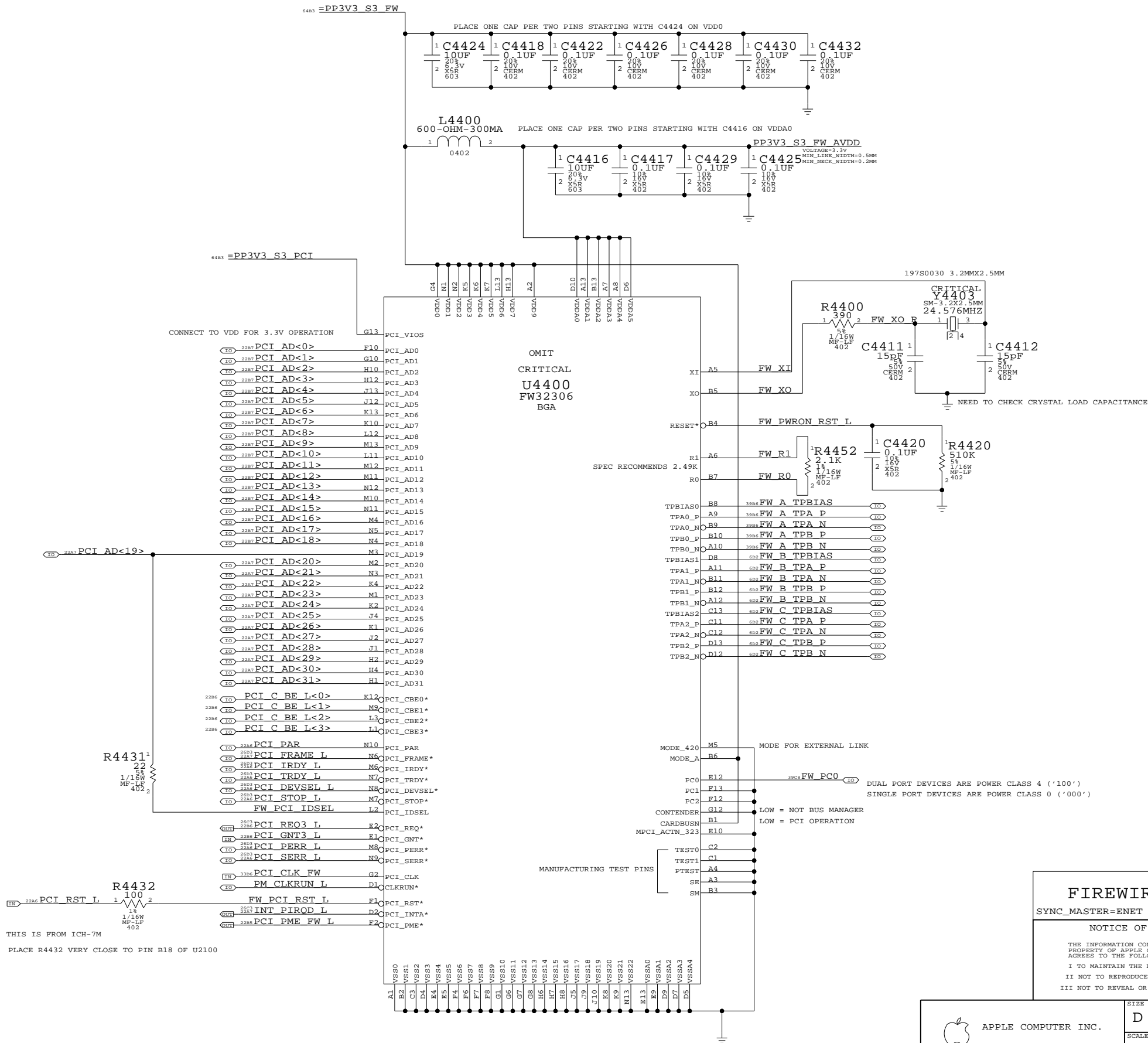
OUTPUT

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 (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 - BRINGS OUT PCO 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



THIS IS FROM ICH-7M
PLACE R4432 VERY CLOSE TO PIN B18 OF U2100

FIREWIRE CONTROLLER
SYNC_MASTER=ENET SYNC_DATE=08/30/2005

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Table with columns for SCALE, SHEET, OF, and REV. Values include NONE, 38, 79, and A.

Page Notes

INPUT:
 =PPBUS_S5_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_TPBIA0 - FIREWIRE DIFF PAIRS

OUTPUT:
 FW_PCO - POWER CLASS IDENTIFIER (SINGLE PORT - TIE LOW)

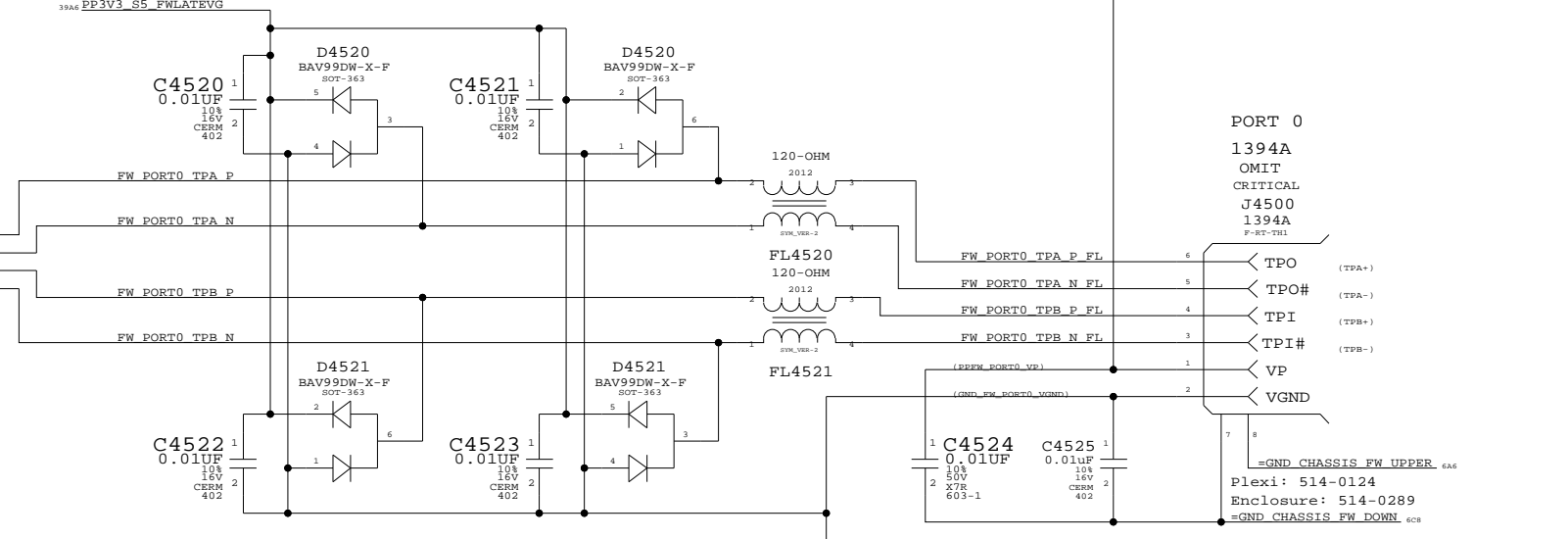
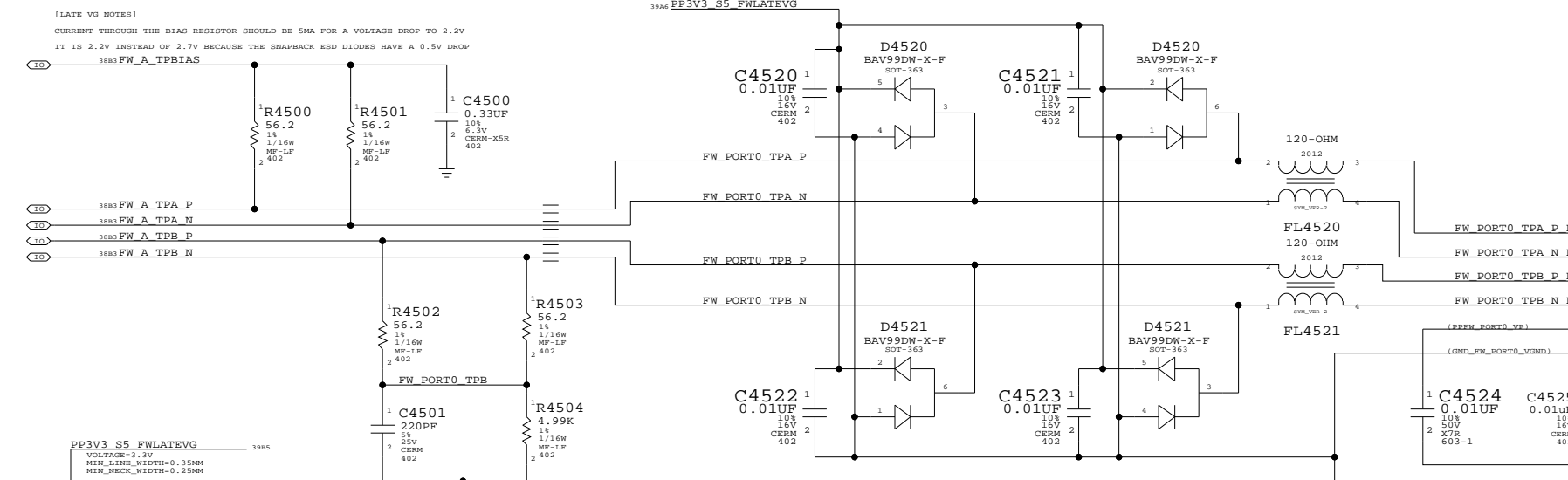
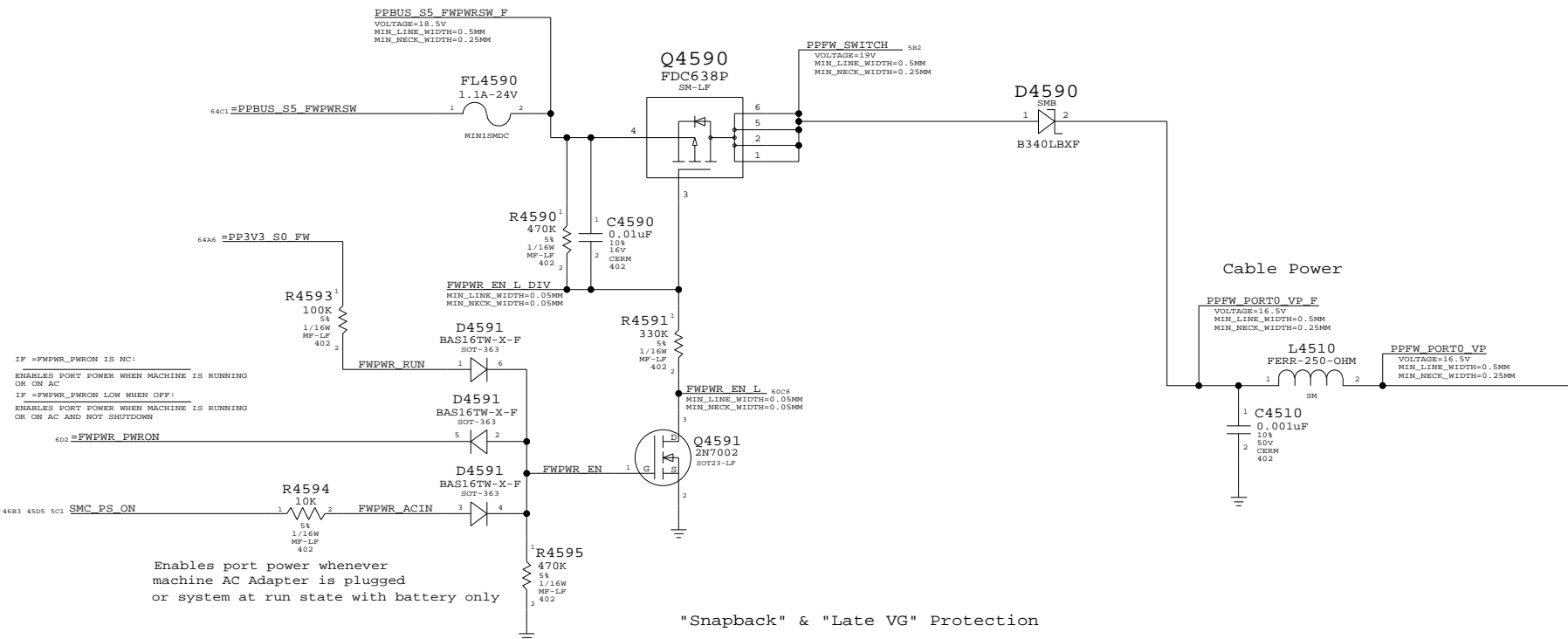
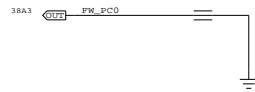
PAGE HISTORY

5/19/05 - INITIAL REVISION
 6/22/05 - CHANGED DIFF PAIR NAMES TO MATCH REUSE
 6/22/05 - REMOVED CONSTRAINTS BECAUSE USING ALLEGRO CONST MANAGER
 6/22/05 - CONNECTED FW_PCO FOR SINGLE PORT
 7/26/05 - UPDATED LATE-VG POWER RAIL CIRCUIT FROM M1
 7/26/05 - CHANGED CONNECTOR PORT NAMING TO PORT0
 7/26/05 - SWITCHED TO 514-0124 FOR FIREWIRE 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 - REMOVED ETHERNET LOW-POWER MODE CIRCUIT
 7/26/05 - UPDATED SIGNAL NAMES FOR FW PORT POWER ENABLE

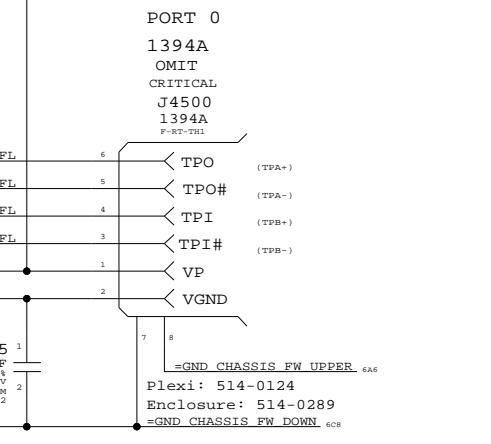
1394b implementation based on Apple
 FireWire Design Guide (FWDG 0.6, 5/14/03)

PORT POWER CLASS

0 FOR SINGLE PORT
 1 FOR DUAL PORT



PART#	QTY	DESCRIPTION	REFERENCE DESIGNATOR(S)	CRITICAL	BOM OPTION
514-0359	1	CONN, 6P 1394A RCPT, MIDLANE, M3, LF	J4500	CRITICAL	NORMAL
514-0316	1	CONN, 6P 1394A RCPT, MIDLANE, BLACK, LF	J4500	CRITICAL	FANCY



FIREWIRE PORT

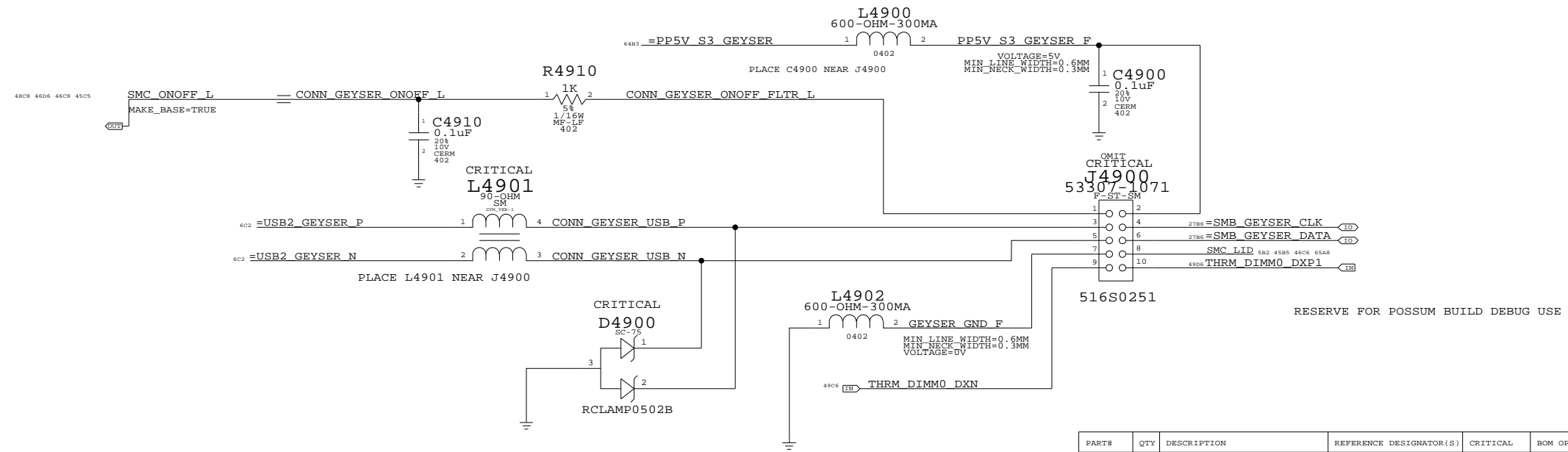
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APPLE COMPUTER INC.	SIZE	DRAWING NUMBER	REV.
	D	051-7374	A
SCALE	SHT	OF	79
NONE		39	

GEYSER AND DIMMO REMOTE TEMP SENSORS

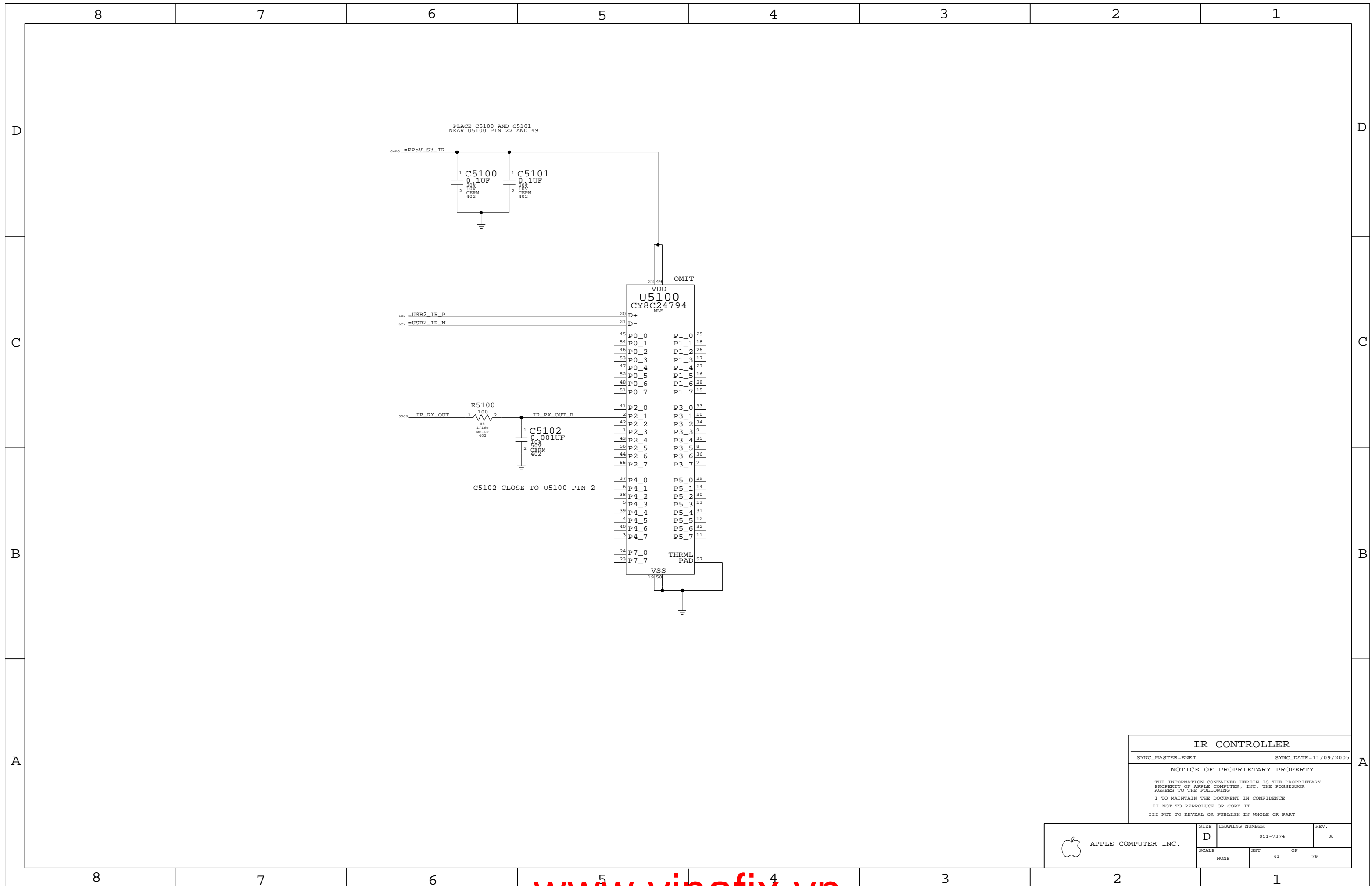


PART#	QTY	DESCRIPTION	REFERENCE DESIGNATOR(S)	CRITICAL	BOM OPTION
516S0482	1	ACES 88646-1071-NS	J4900	CRITICAL	NORMAL
516S0482	1	ACES 88646-1071-NS	J4900	CRITICAL	FANCY

CONNECTOR MISC
 SYNC_MASTER=ENET SYNC_DATE=11/16/2005

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APPLE COMPUTER INC.	SIZE	DRAWING NUMBER	REV.
	D	051-7374	A
SCALE	SHT OF		
NONE	40 OF		79



IR CONTROLLER

SYNC_MASTER=ENET SYNC_DATE=11/09/2005

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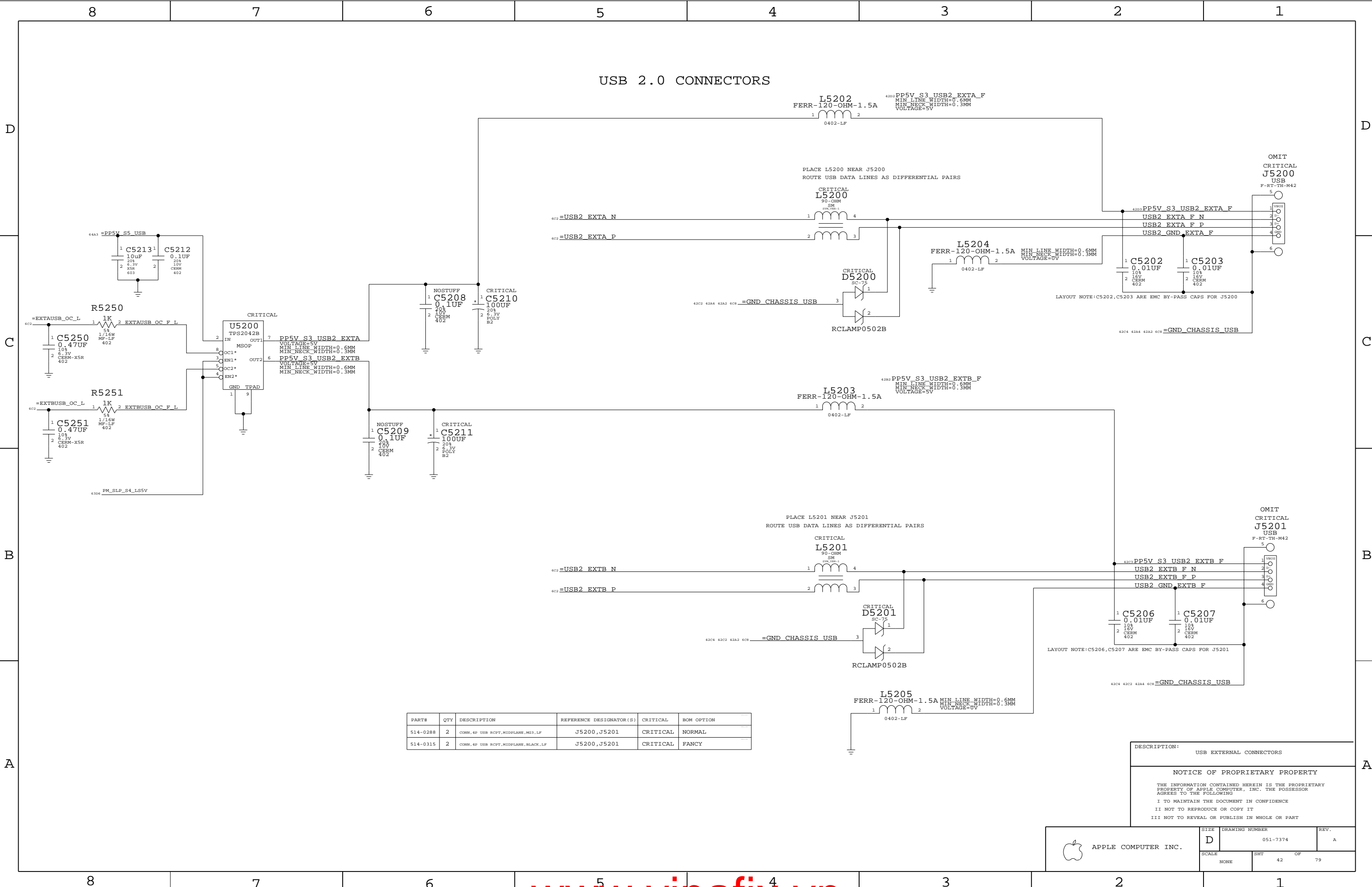
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APPLE COMPUTER INC.	SIZE D	DRAWING NUMBER 051-7374	REV. A
	SCALE NONE	SHEET 41	OF 79

USB 2.0 CONNECTORS



PART#	QTY	DESCRIPTION	REFERENCE DESIGNATOR(S)	CRITICAL	BOM OPTION
514-0288	2	CONN, 4P USB RCPT, MIDPLANE, W3, LF	J5200, J5201	CRITICAL	NORMAL
514-0315	2	CONN, 4P USB RCPT, MIDPLANE, BLACK, LF	J5200, J5201	CRITICAL	FANCY

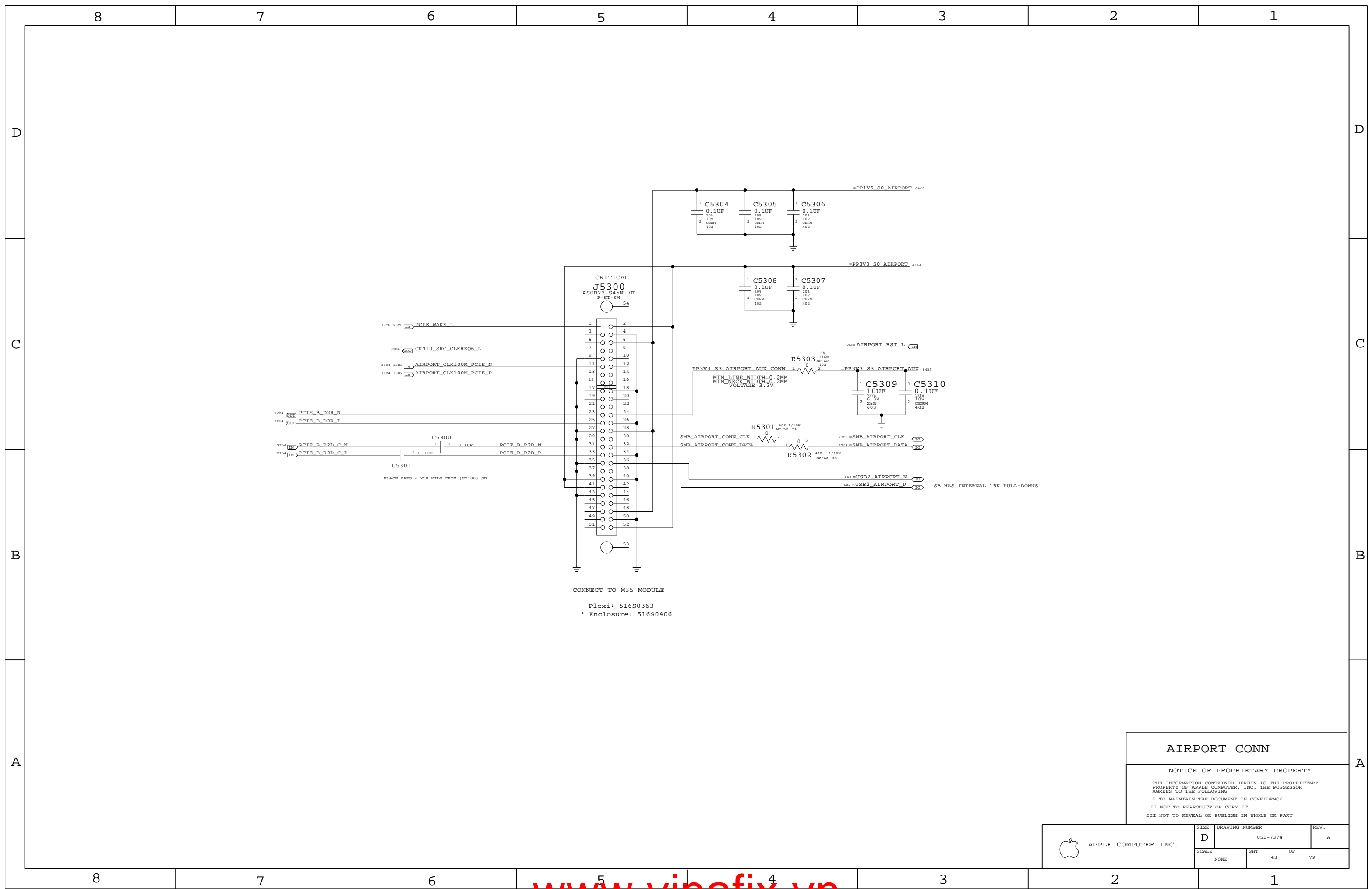
DESCRIPTION:
USB EXTERNAL CONNECTORS

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	D	051-7374	A
SCALE	SHT	OF	REV.
NONE	42	79	



CONNECT TO M35 MODULE
 Plexi: 516S0363
 * Enclosure: 516S0406

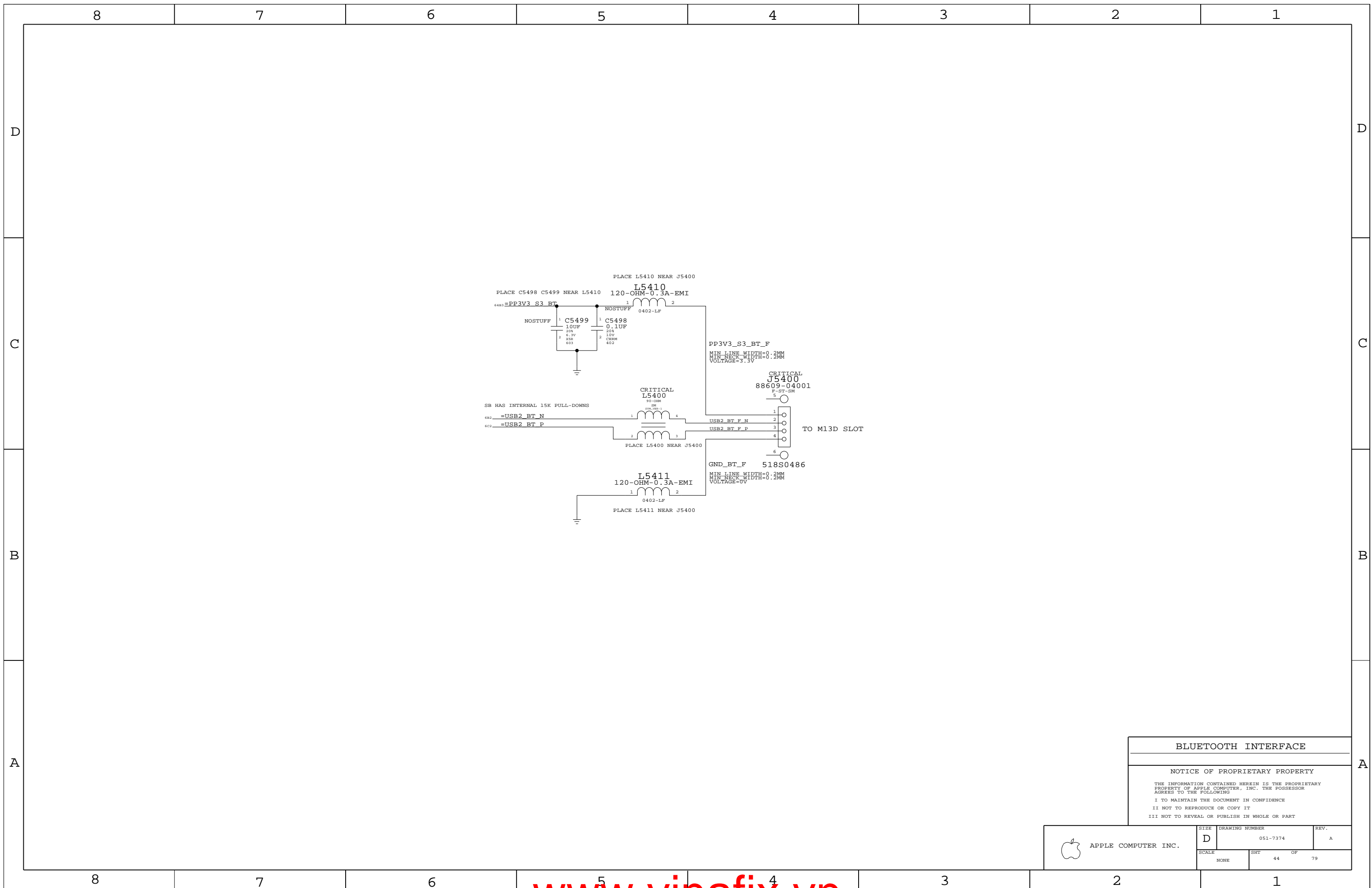
AIRPORT CONN

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APPLE COMPUTER INC.	SIZE	DRAWING NUMBER	REV.
	D	051-7374	A
SCALE	SHT	OF	REV.
NONE	43	79	



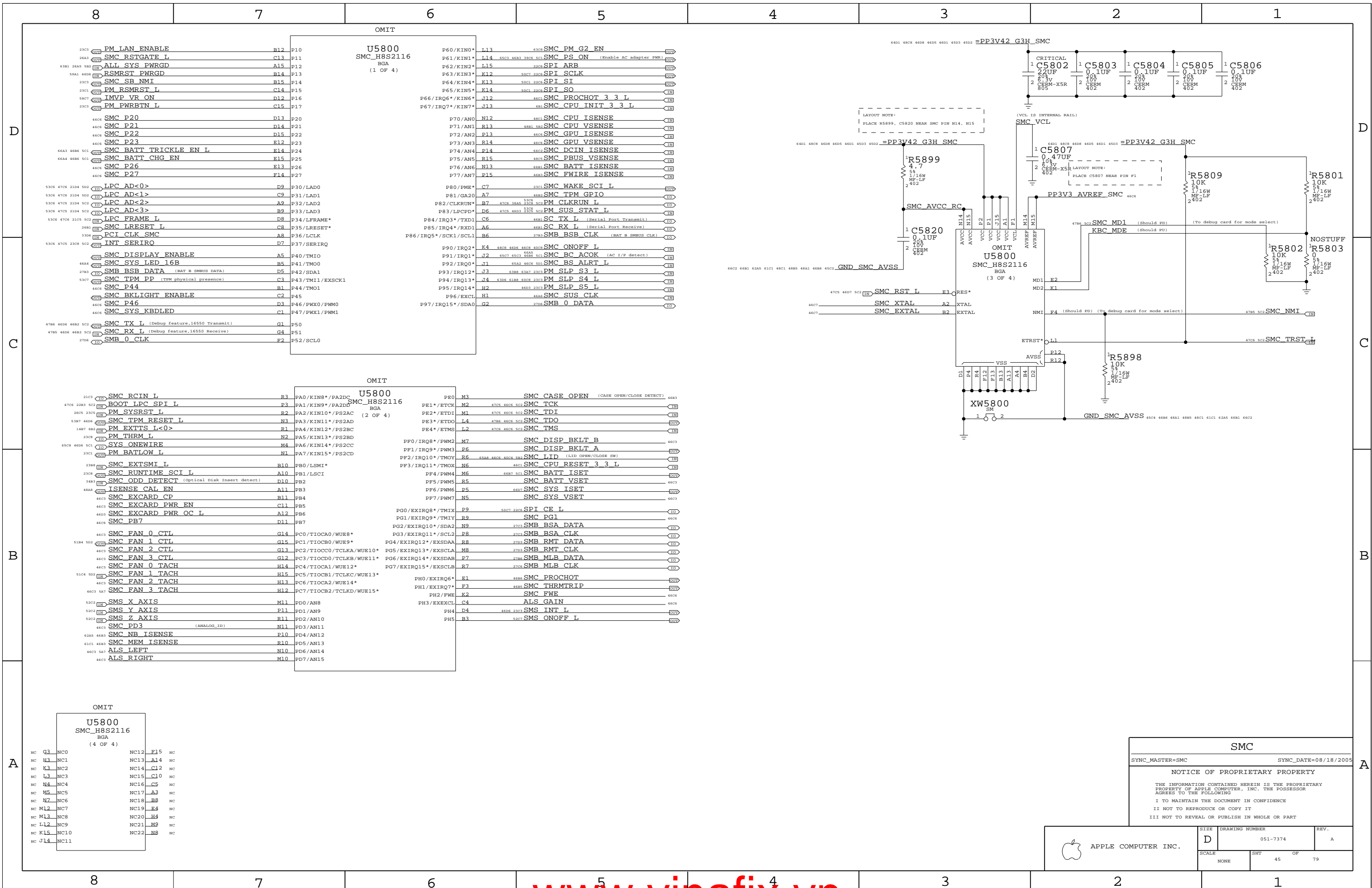
BLUETOOTH INTERFACE

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APPLE COMPUTER INC.	SIZE	DRAWING NUMBER	REV.
	D	051-7374	A
SCALE		SHT	OF
NONE		44	79



SMC

SYNC_MASTER=SMC SYNC_DATE=08/18/2005

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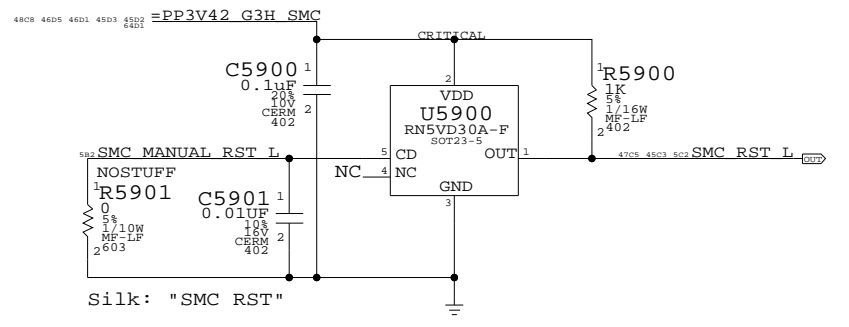
I TO MAINTAIN THE DOCUMENT IN CONFIDENCE

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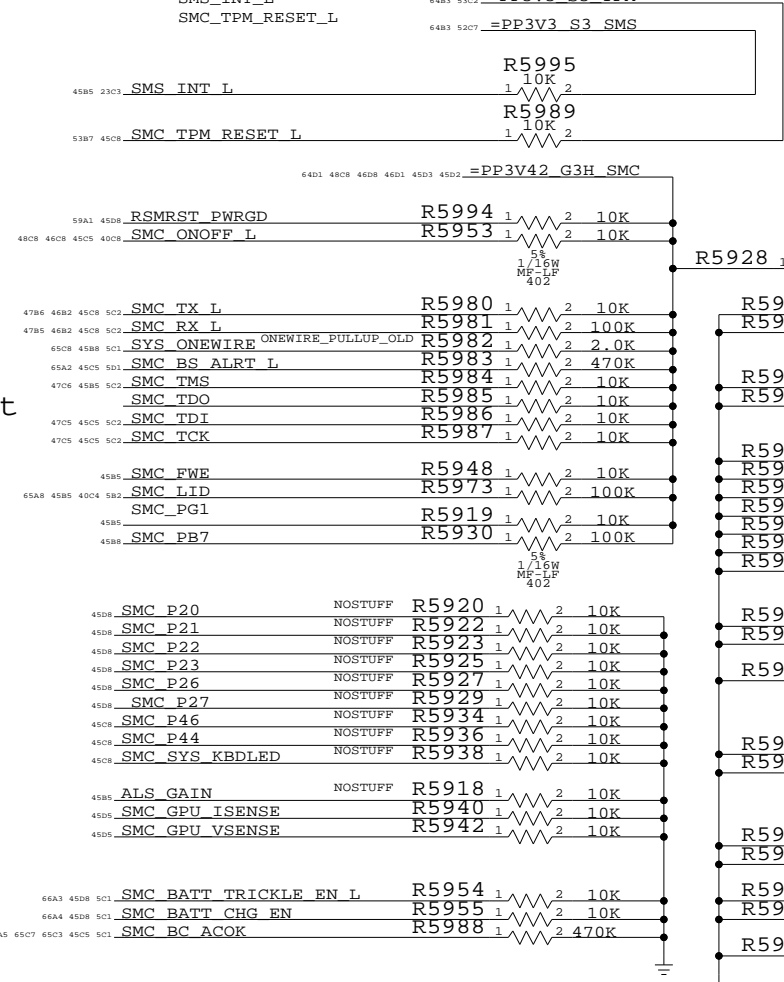
APPLE COMPUTER INC.	SIZE D	DRAWING NUMBER 051-7374	REV. A
	SCALE NONE	SHEET 45	OF 79

SMC Reset Button / Brownout Detect

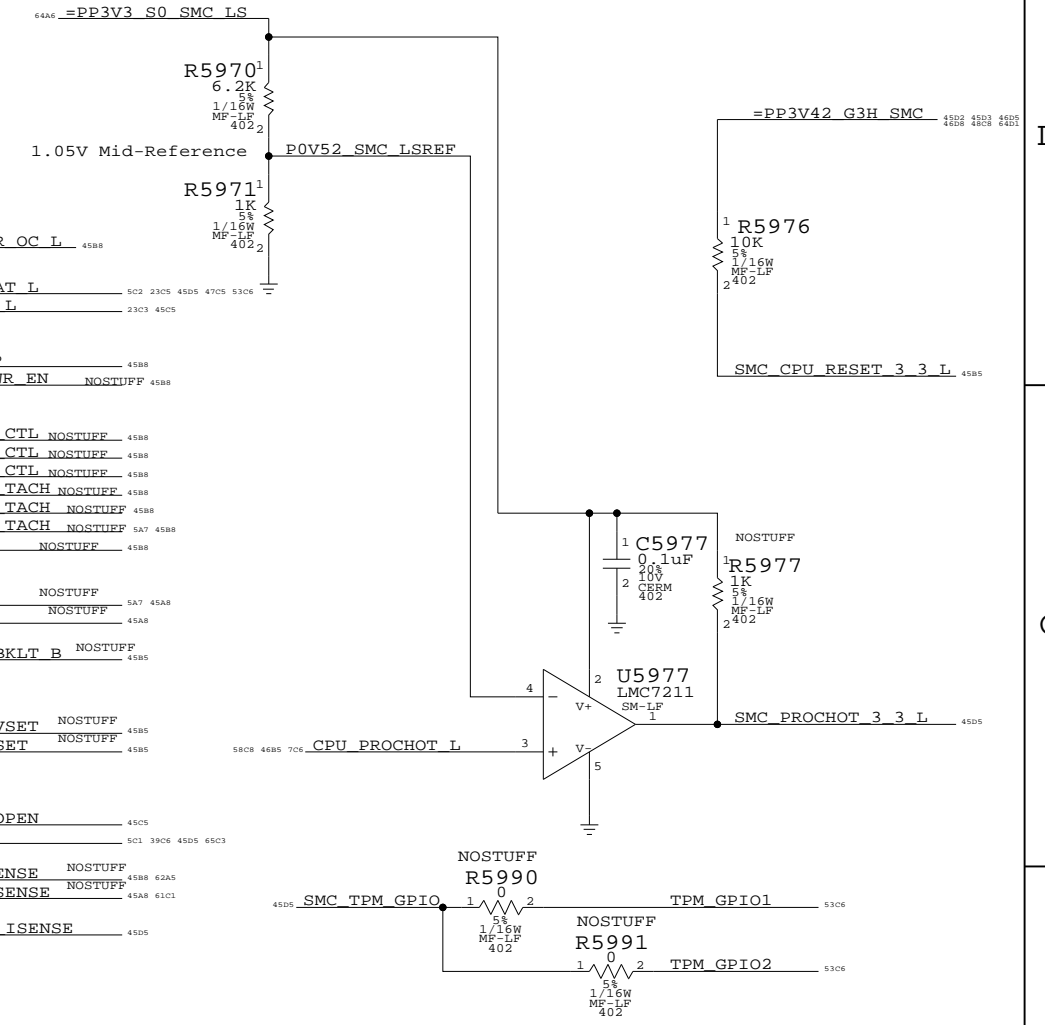


Silk: "SMC_RST"

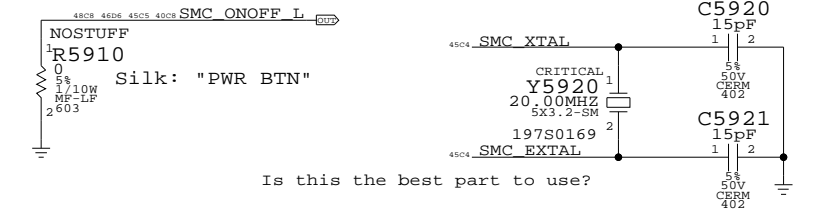
THESE NEED TO BE PULLED TO THE PROPER RAIL:
SMS_INT_L
SMS_TPM_RESET_L



SMC 1.05V to 3.3V Level Shifting

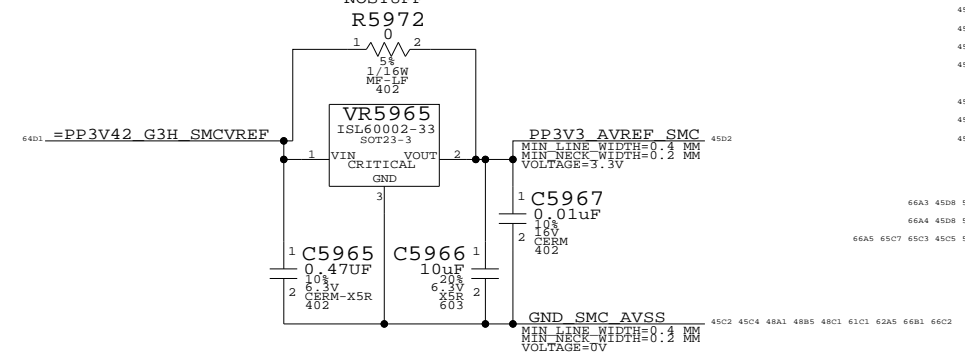


Debug Power Button SMC Crystal Circuit



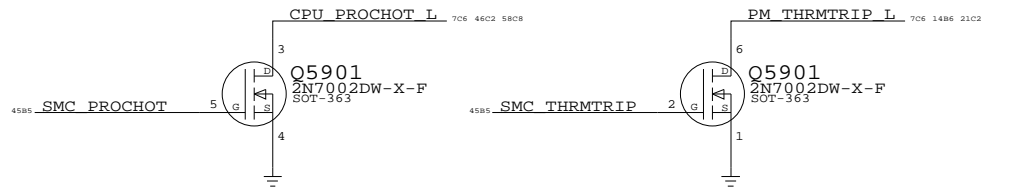
Is this the best part to use?

SMC AVREF Supply



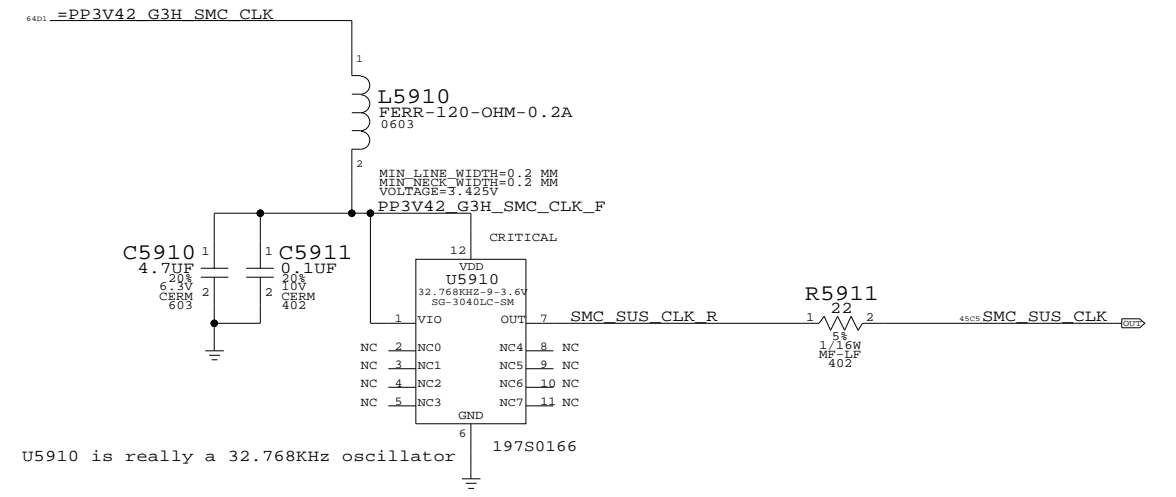
PART NUMBER	ALTERNATE FOR PART NUMBER	BOM OPTION	REF DES	COMMENTS:
353S1278	353S1381	?	VR5965	TI REF3133

SMC 3.3V to 1.05V Level Shifting



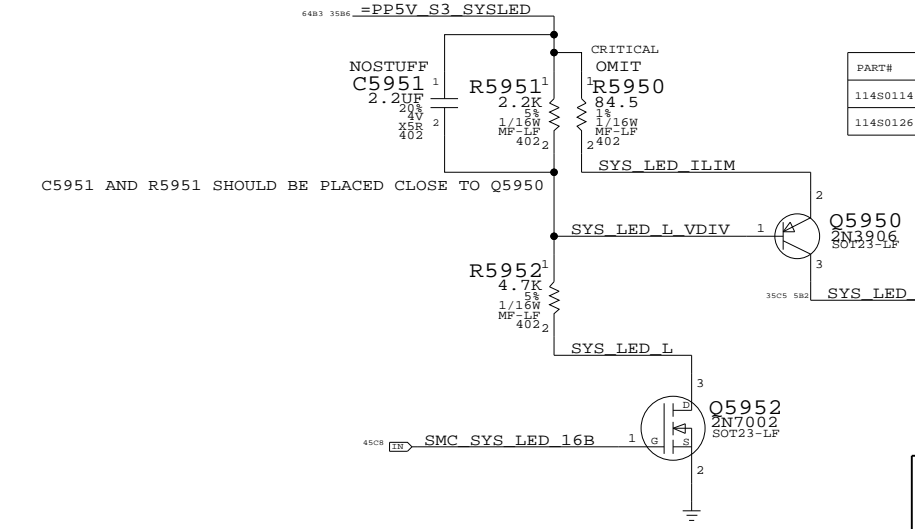
Stuff R5992, R5993 for development only

SMC G3HOT OSCILLATOR



U5910 is really a 32.768KHz oscillator

System (Sleep) LED Circuit



C5951 AND R5951 SHOULD BE PLACED CLOSE TO Q5950

PART#	QTY	DESCRIPTION	REFERENCE DESIGNATOR(S)	BOM OPTION
11480114	1	84.5, 1%, 1/16W, MF-LF, 402	R5950	NORMAL
11480126	1	115, 1%, 1/16W, MF-LF, 402	R5950	FANCY

SMC SUPPORT

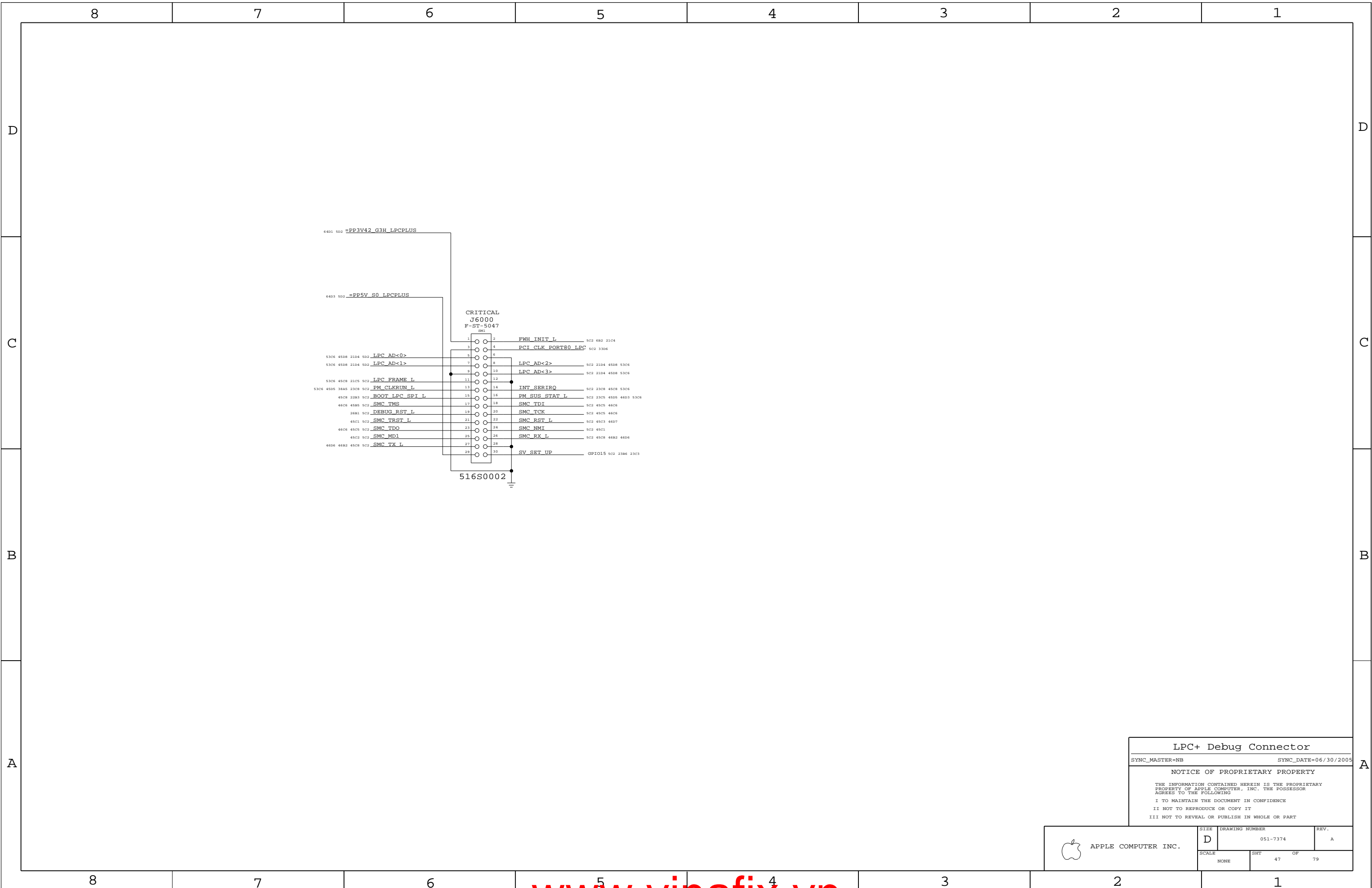
SYNC_MASTER=SMC SYNC_DATE=08/23/2005

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	DRAWING NUMBER		REV.
	D 051-7374		A
SCALE	SHT	OF	79
NONE 46			



LPC+ Debug Connector

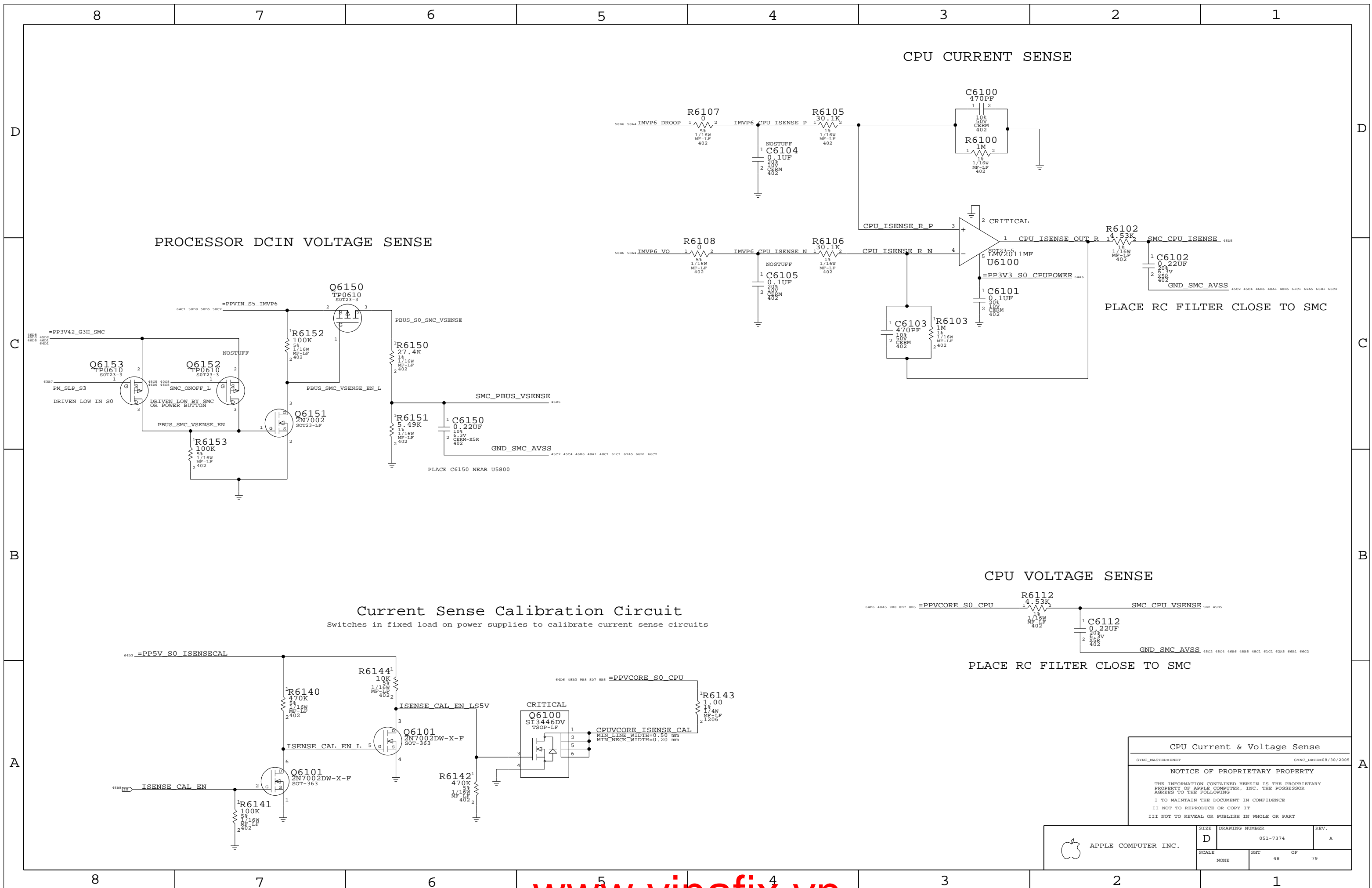
SYNC_MASTER=NB SYNC_DATE=06/30/2005

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APPLE COMPUTER INC.	SIZE D	DRAWING NUMBER 051-7374	REV. A
	SCALE NONE	SHEET 47	OF 79



PROCESSOR DCIN VOLTAGE SENSE

CPU CURRENT SENSE

Current Sense Calibration Circuit

CPU VOLTAGE SENSE

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

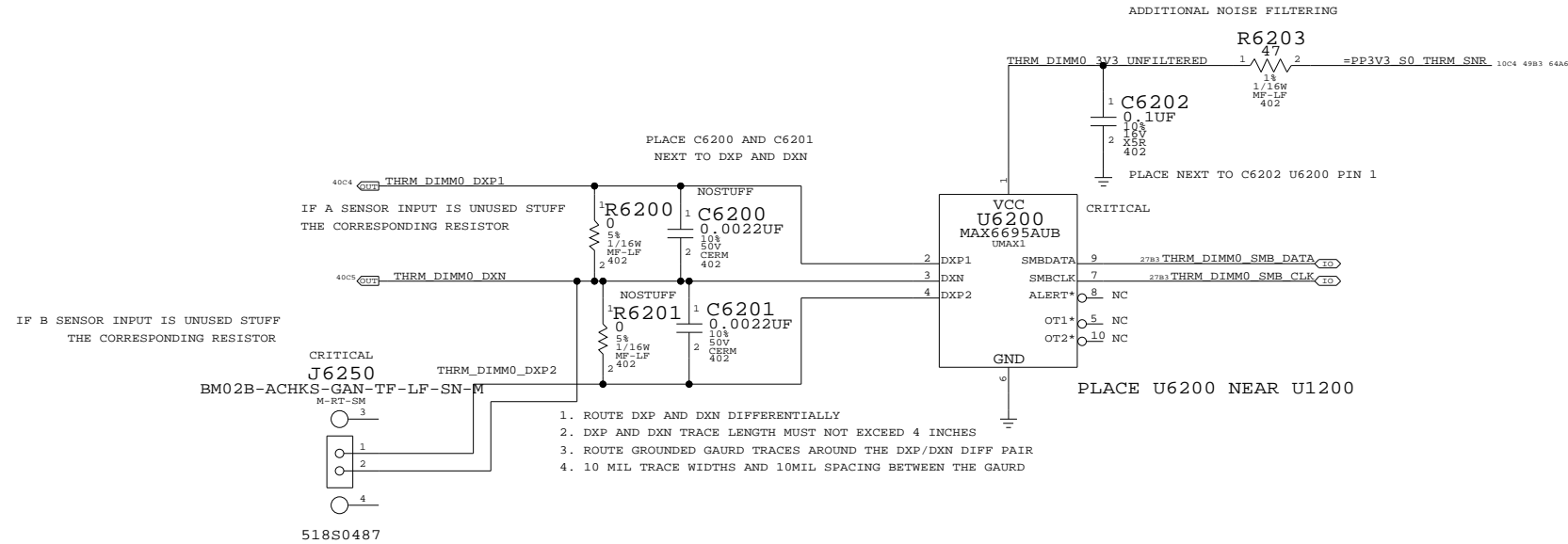
PLACE RC FILTER CLOSE TO SMC

PLACE RC FILTER CLOSE TO SMC

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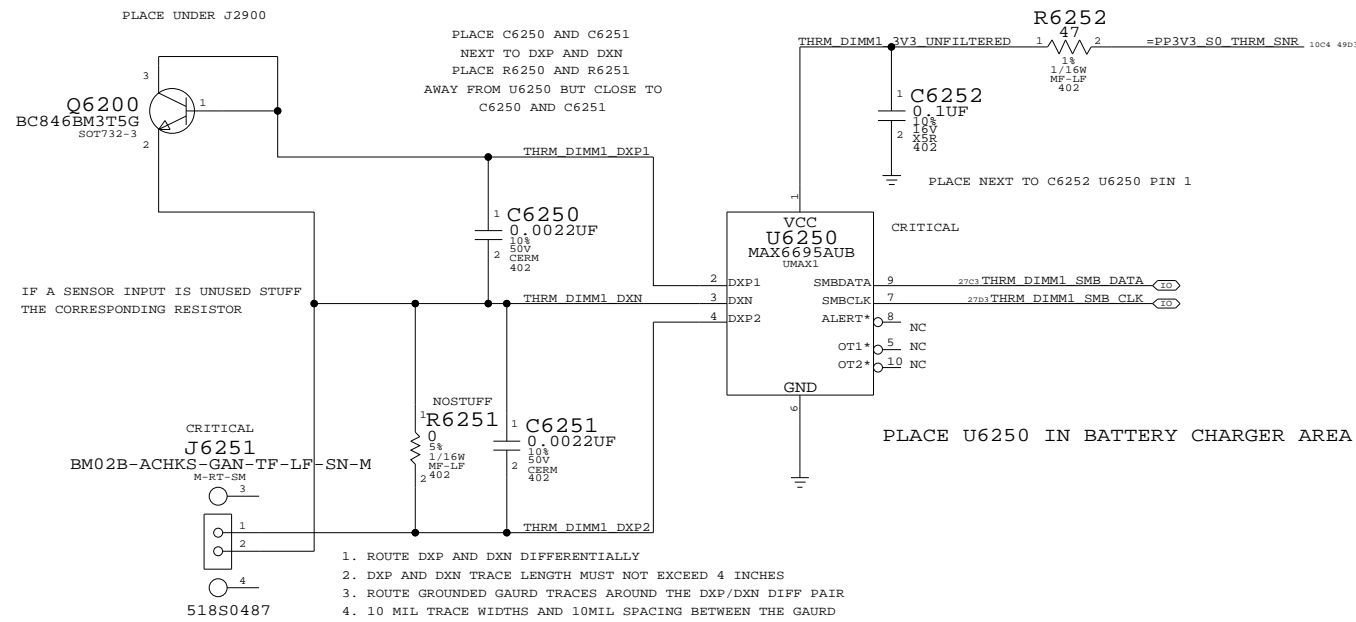
APPLE COMPUTER INC.	SIZE	DRAWING NUMBER	REV.
	D	051-7374	A
SCALE	SHT	OF	79
NONE	48		

DIMM0 TEMPERATURE ZONE



NOTE: REPLACE J6250 AND J6251 FROM 518S0332 TO 518S0452 AND THEN 518S0487
AFTER THIS CHANGE, THE SCHEAMTIC DOES NOT MATCH THE PCB ON THESE TWO LOCATIONS.

DIMM1 TEMPERATURE ZONE



NOTE: REPLACE J6250 AND J6251 FROM 518S0332 TO 518S0452 AND 518S0487
AFTER THIS CHANGE, THE SCHEAMTIC DOES NOT MATCH THE PCB ON THESE TWO LOCATIONS.

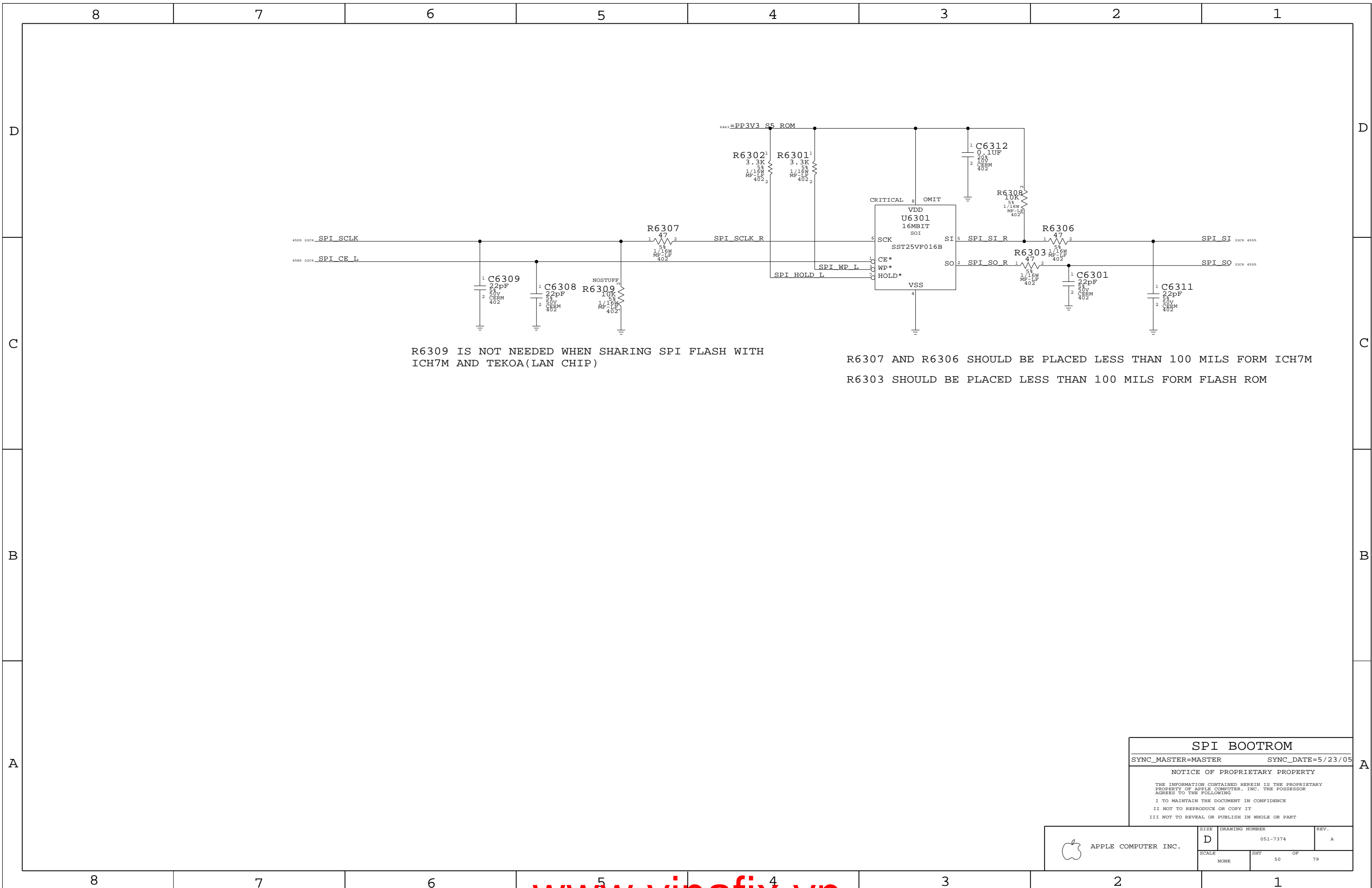
TEMPERATURE SENSE

SYNC_MASTER=ENET SYNC_DATE=11/09/2005

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APPLE COMPUTER INC.	SIZE	DRAWING NUMBER	REV.
	D	051-7374	A
SCALE	SHT	OF	79
NONE	49		



SPI BOOTROM

SYNC_MASTER=MASTER SYNC_DATE=5/23/05

NOTICE OF PROPRIETARY PROPERTY

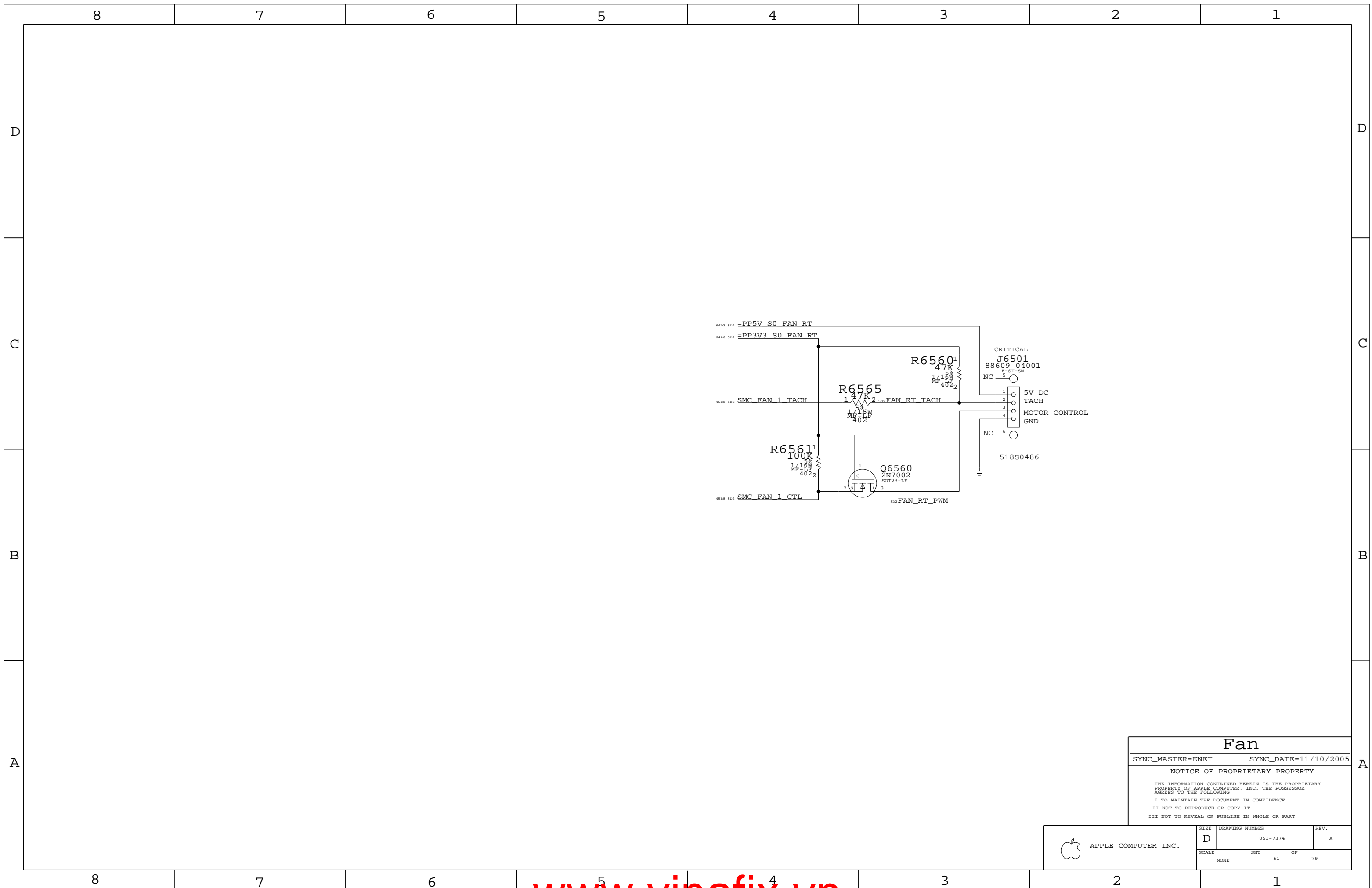
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APPLE COMPUTER INC.	SIZE D	DRAWING NUMBER 051-7374	REV. A
	SCALE NONE	SHT 50	OF 79




Fan

SYNC_MASTER=ENET SYNC_DATE=11/10/2005

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 APPLE COMPUTER INC.	SIZE	DRAWING NUMBER	REV.
	D	051-7374	A
SCALE	SHT OF		
NONE	51 OF 79		

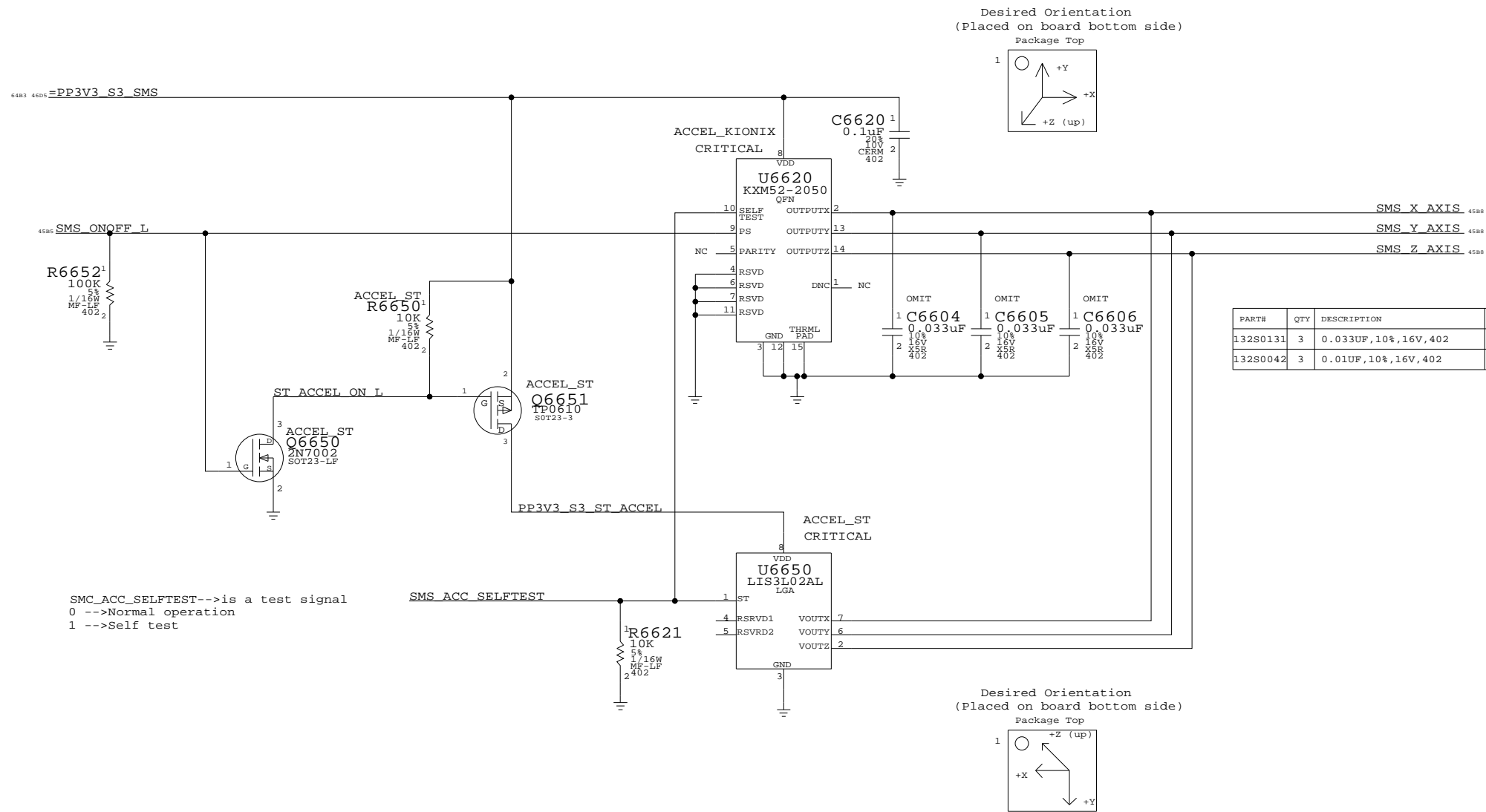
PAGE NOTES

INPUT
 =PP3V3_S3_SMS - 3.3V POWER FOR SMS (STAYS ALIVE IN SLEEP)
 SMS_ONOFF_L - CONNECT TO SMC TO BE ABLE TO PUT SMS INTO LOW-POWER MODE

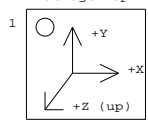
OUTPUT
 SMS_ACC_*_AXIS - ACCELEROMETER OUTPUT TO SCU

PAGE HISTORY

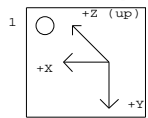
5/19/2005 - FIRST REVISION OF PAGE
 7/26/2005 - REMOVED BOM TABLE AND UPDATED SYMBOL TO KXM52-2050
 7/26/2005 - CONNECTED PD PIN TO SMC'S SMS_ONOFF_L
 7/26/2005 -



Desired Orientation
 (Placed on board bottom side)
 Package Top



Desired Orientation
 (Placed on board bottom side)
 Package Top



PART#	QTY	DESCRIPTION	REFERENCE DESIGNATOR(S)	CRITICAL	BOM OPTION
132S0131	3	0.033uF, 10%, 16V, 402	C6604, C6605, C6606		ACCEL_KIONIX
132S0042	3	0.01uF, 10%, 16V, 402	C6604, C6605, C6606		ACCEL_ST

SMC_ACC_SELFTEST-->is a test signal
 0 -->Normal operation
 1 -->Self test

SMS

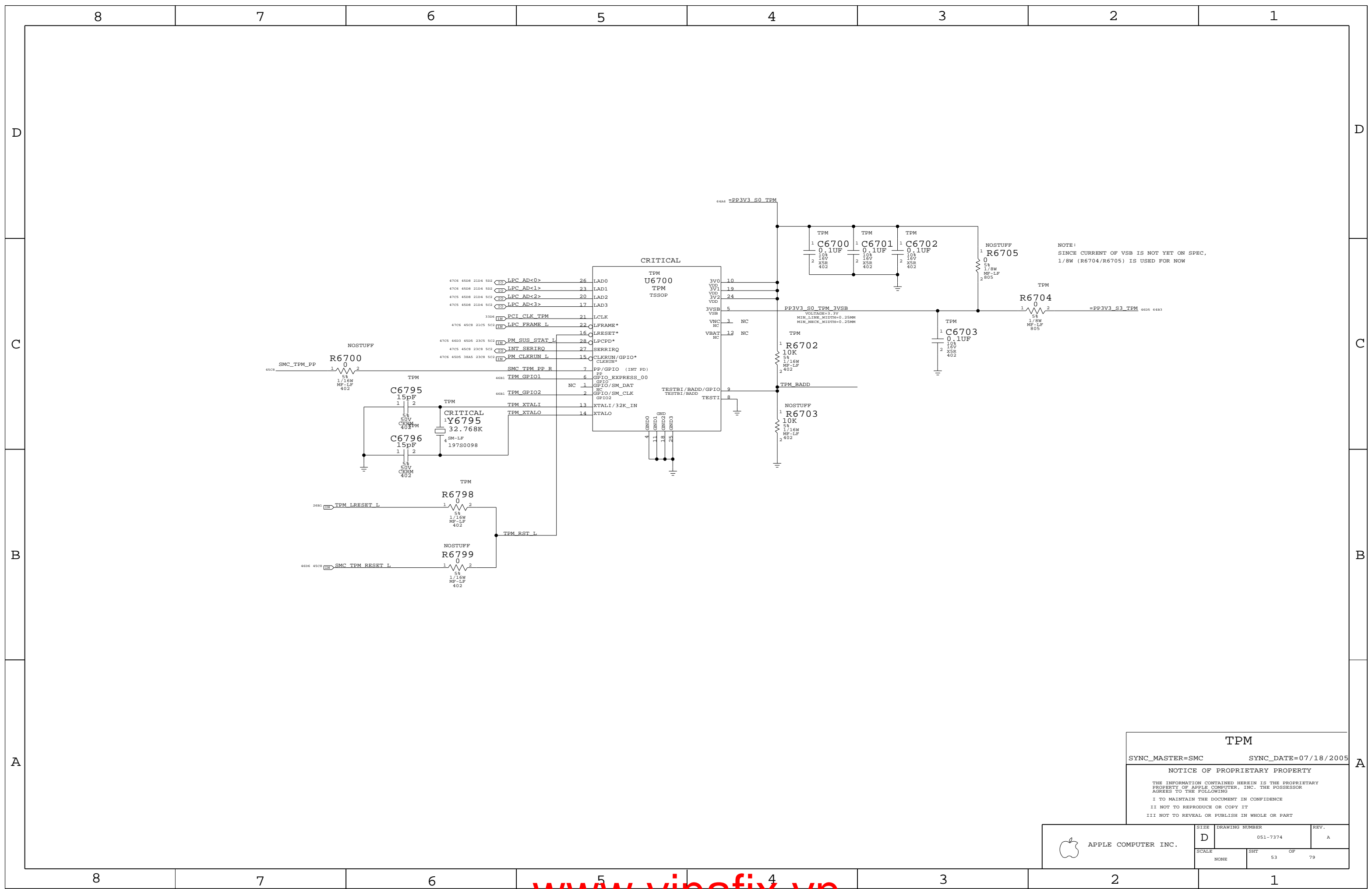
SYNC_MASTER=SMC SYNC_DATE=08/23/2005

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	D	051-7374	A
SCALE	SHT	OF	79
NONE	52		



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

TPM

SYNC_MASTER=SMC SYNC_DATE=07/18/2005

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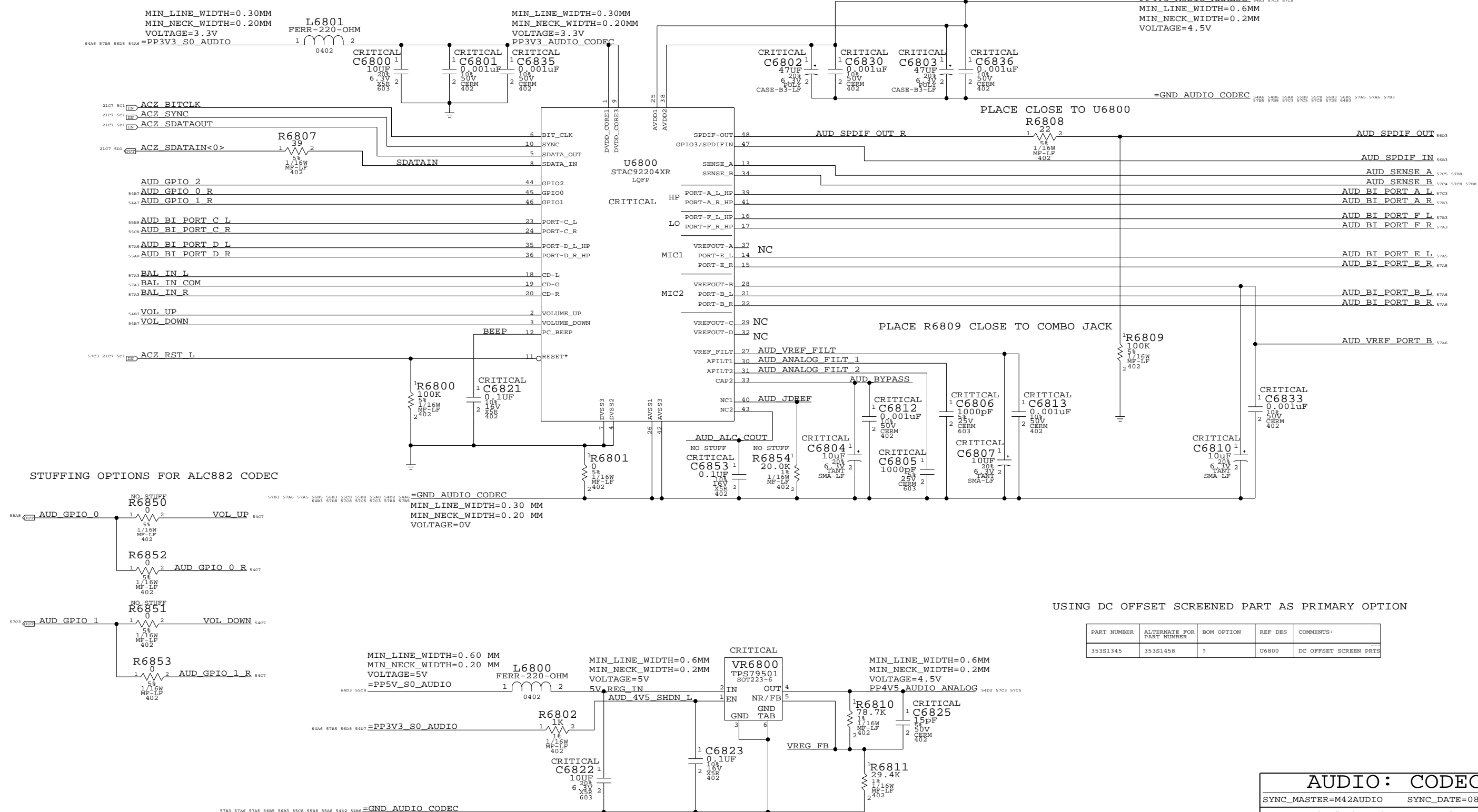
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APPLE COMPUTER INC.	SIZE	DRAWING NUMBER	REV.
	D	051-7374	A
SCALE	SHT	OF	REV.
NONE	53	79	

AUDIO CODEC

APPLE P/N 353S1458



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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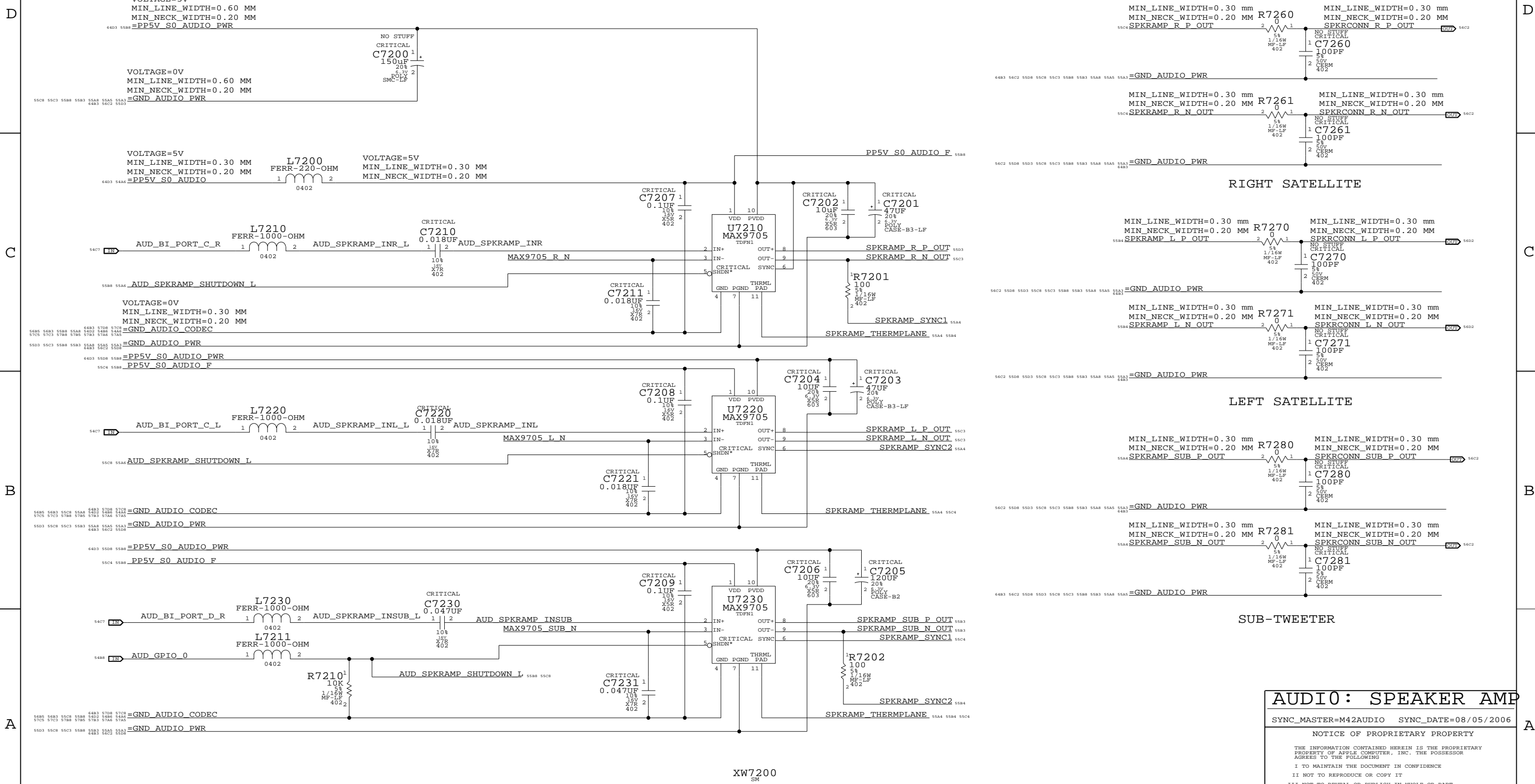
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APPLE COMPUTER INC.	SIZE	DRAWING NUMBER	REV.
	D	051-7374	A
SCALE	SHT	OF	79
NONE	54		

SATELLITE & SUB TWEETER AMPLIFIER APN:353S1595

SATELLITE 442 Hz < FC < 736 Hz
 SUB 169 Hz < FC < 282 Hz

SPEAKER OUTPUT EMI FILTERS



AUDIO: SPEAKER AMP
 SYNC_MASTER=M42AUDIO SYNC_DATE=08/05/2006
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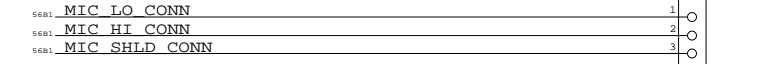
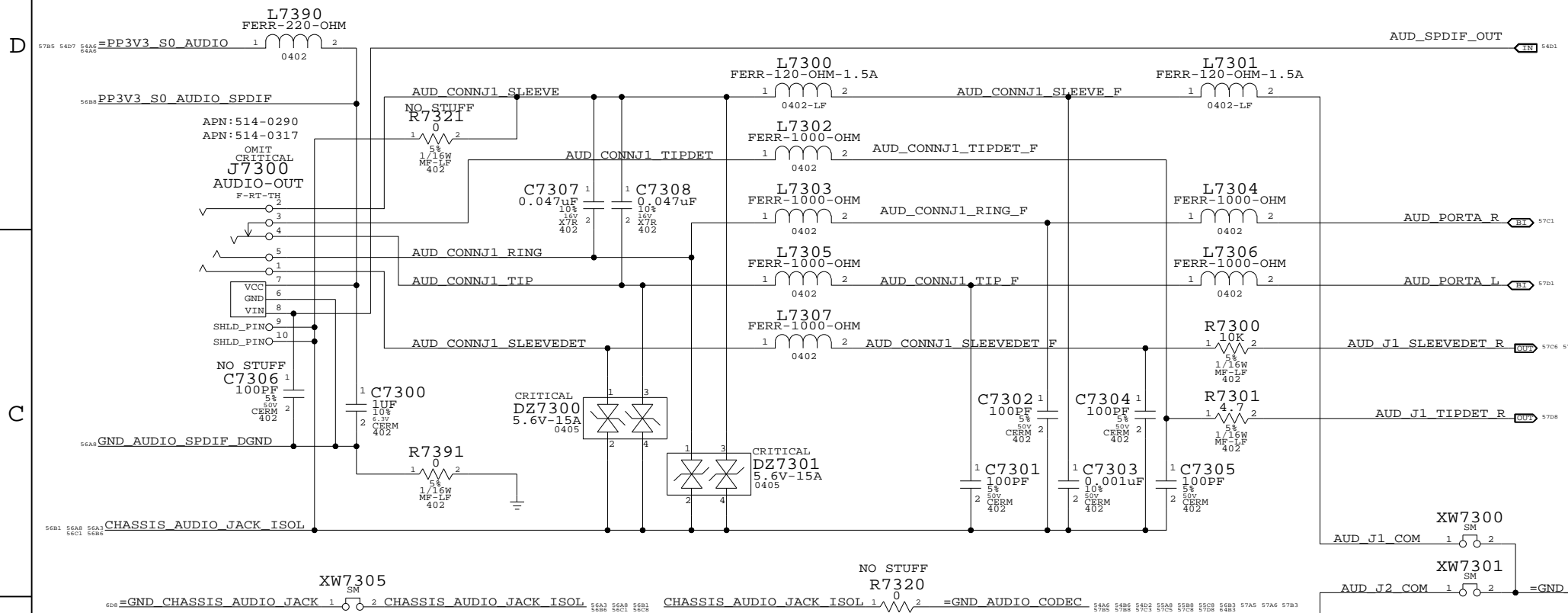
APPLE COMPUTER INC.	SIZE	DRAWING NUMBER	REV.
	D	051-7374	A
SCALE	SHT	OF	79
NONE	55		

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

MIC CONNECTOR
APN:514S0392

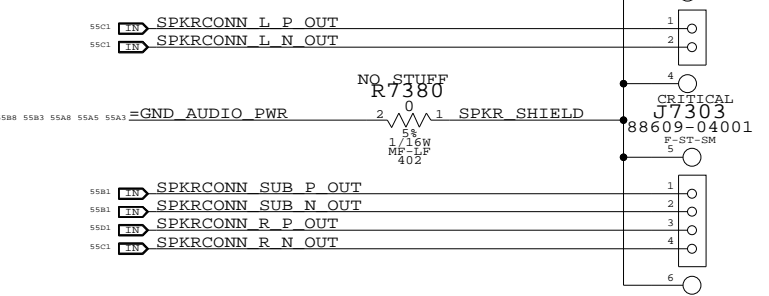
CRITICAL
J7301
48227-0301
M-RT-SM1
4

AUDIO JACK 1: LO/HP CONNECTOR, SPDIF TX

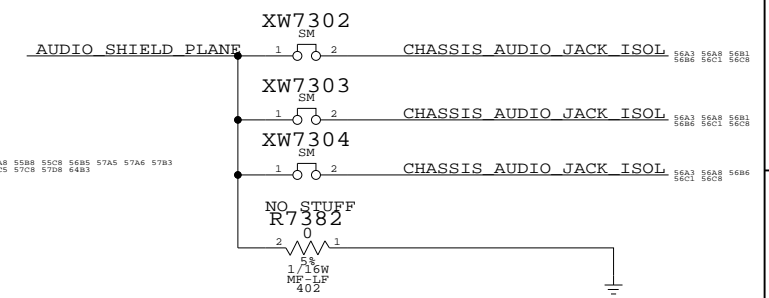


SPEAKER CONNECTOR
APN:518S0332

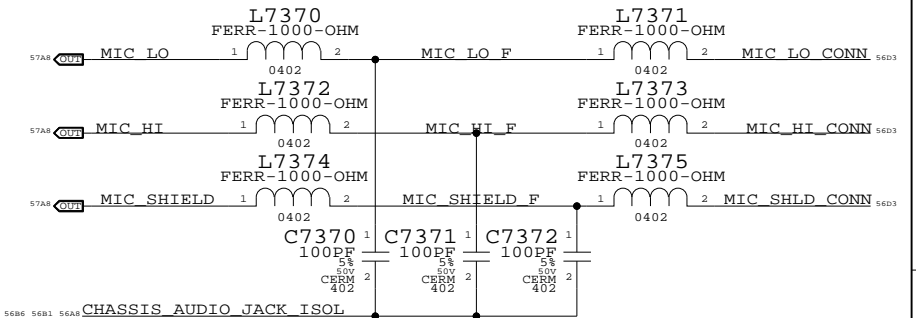
CRITICAL
J7302
88611-02001
F-ST-SM
3



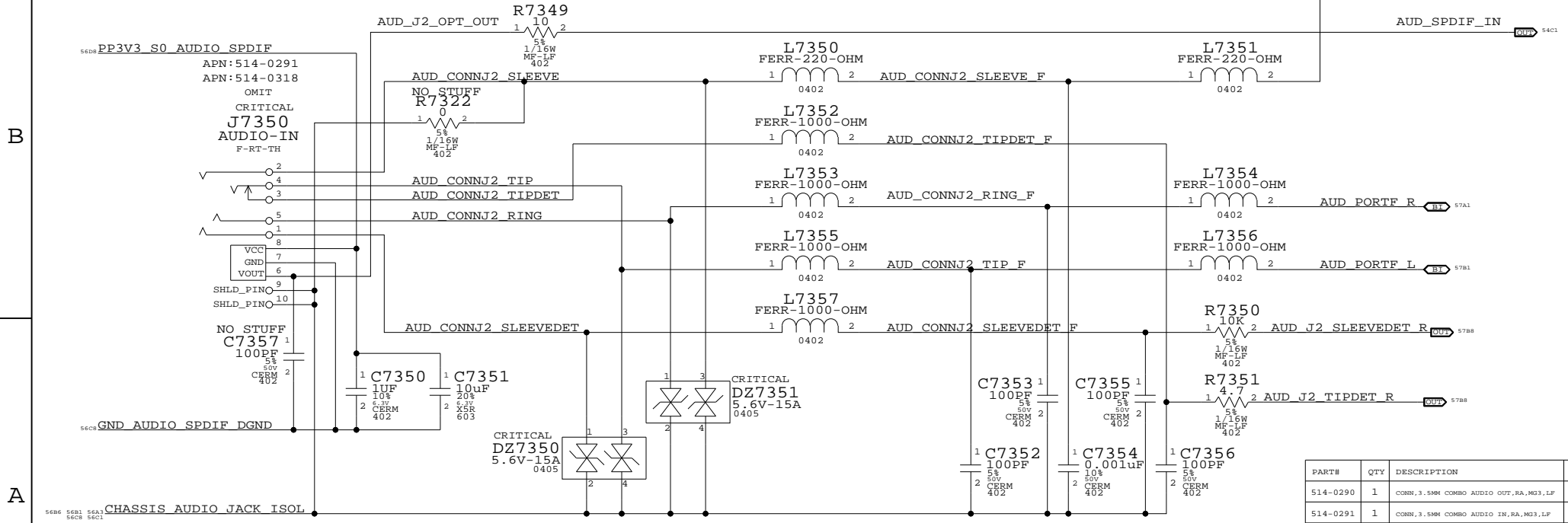
REPLACE 518S0334 WITH 518S0486
AUDIO SHIELD FILL



MIC EMI FILTER



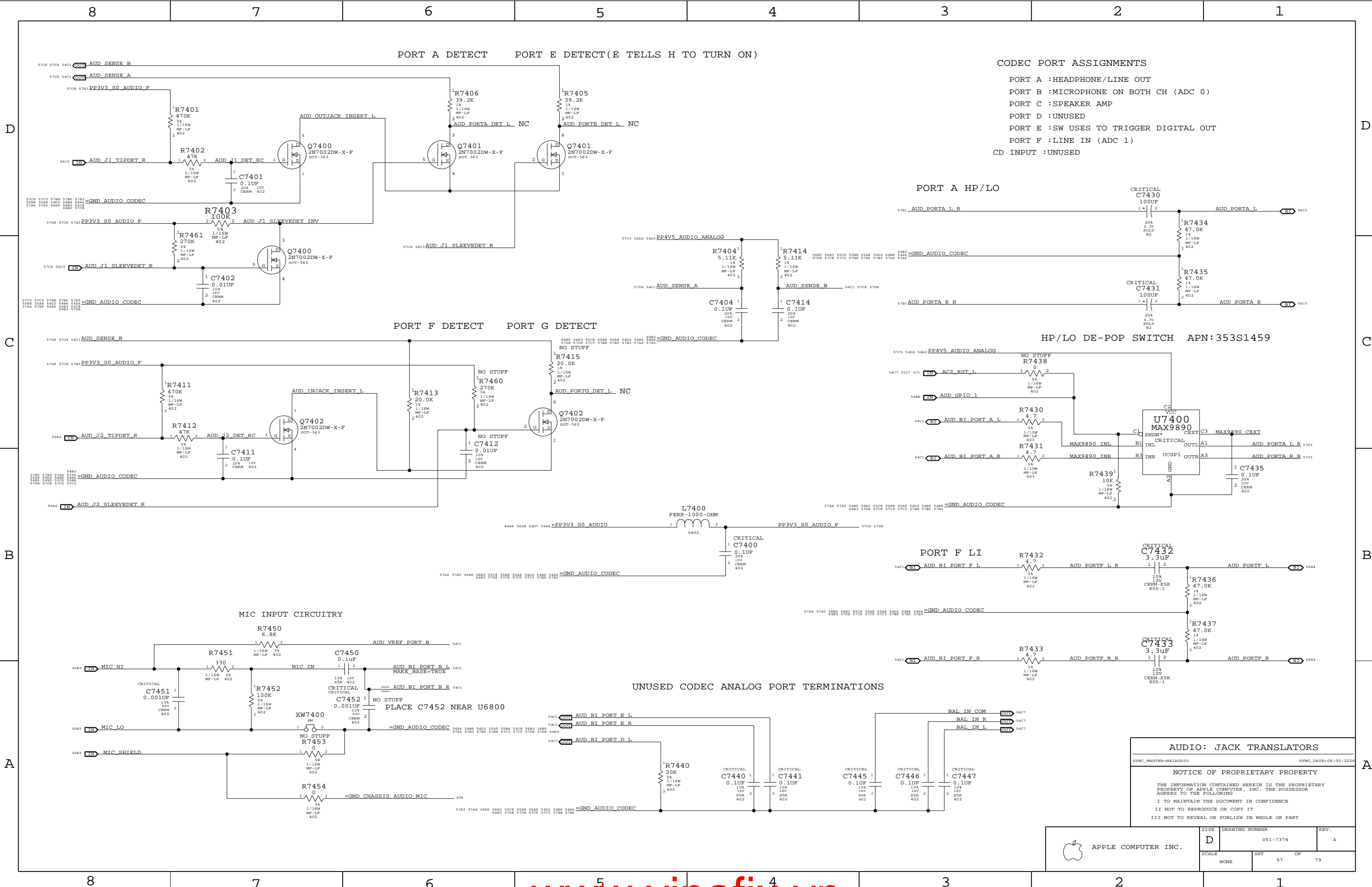
AUDIO JACK 2: LINE IN CONNECTOR, SPDIF RX



PART#	QTY	DESCRIPTION	REFERENCE DESIGNATOR(S)	CRITICAL	BOM OPTION
514-0290	1	CONN, 3.5MM COMBO AUDIO OUT, RA, M23, LF	J7300	CRITICAL	NORMAL
514-0291	1	CONN, 3.5MM COMBO AUDIO IN, RA, M23, 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

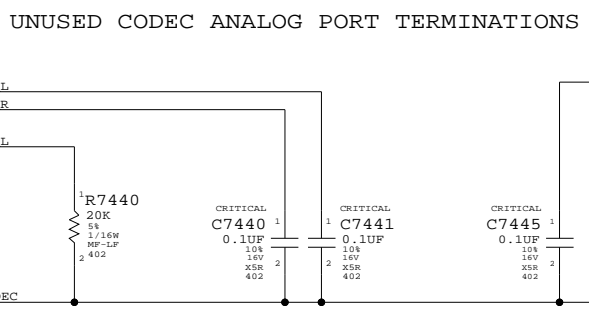
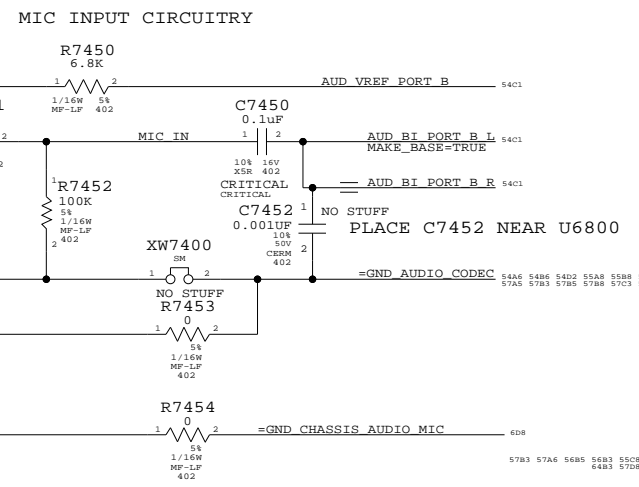
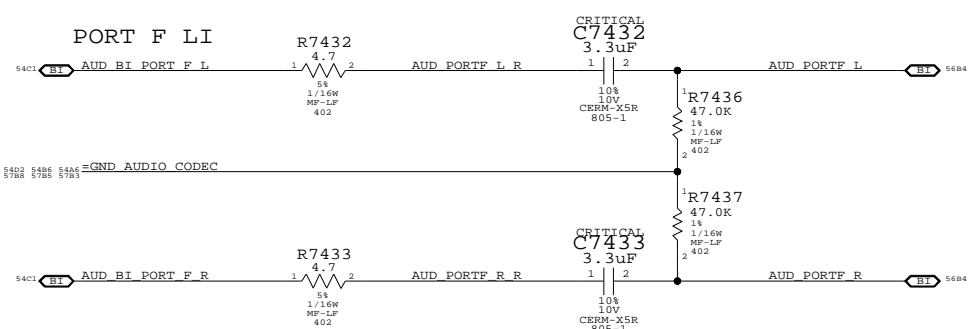
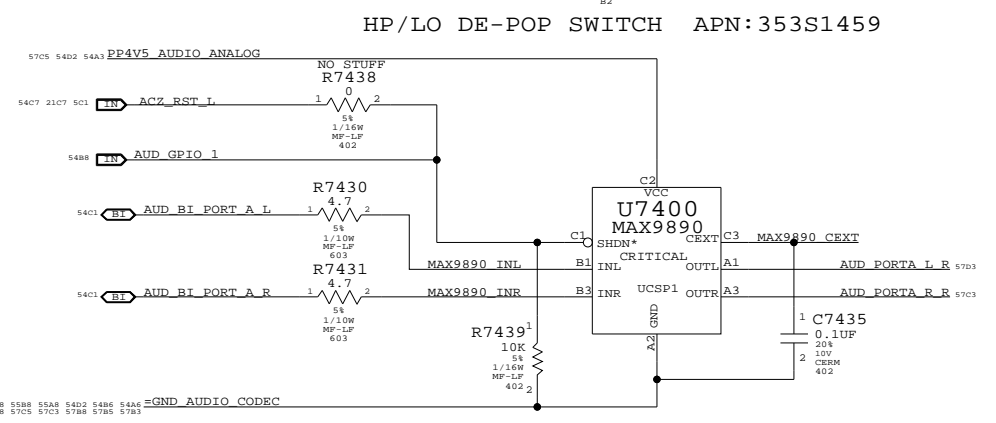
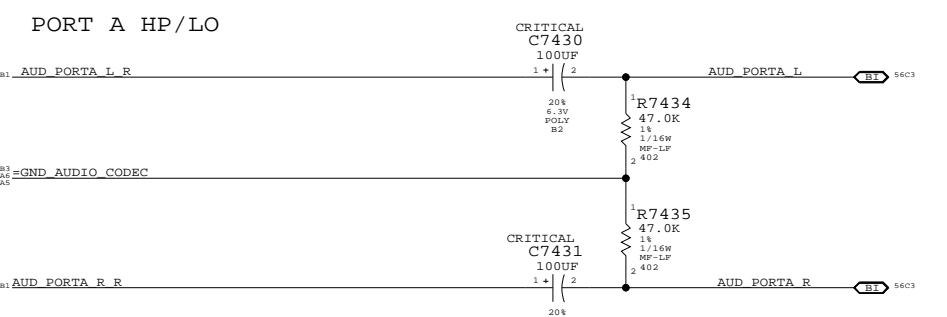
AUDIO: JACK
SYNC_MASTER=M42AUDIO SYNC_DATE=08/05/2006
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APPLE COMPUTER INC.	SIZE	DRAWING NUMBER	REV.
	D	051-7374	A
SCALE	NONE	SHT	56 OF 79



CODEC PORT ASSIGNMENTS

- PORT A : HEADPHONE/LINE OUT
- PORT B : MICROPHONE ON BOTH CH (ADC 0)
- PORT C : SPEAKER AMP
- PORT D : UNUSED
- PORT E : SW USES TO TRIGGER DIGITAL OUT
- PORT F : LINE IN (ADC 1)
- CD INPUT : UNUSED



AUDIO: JACK TRANSLATORS

SYNC_MASTER=M42AUDIO SYNC_DATE=08/05/2006

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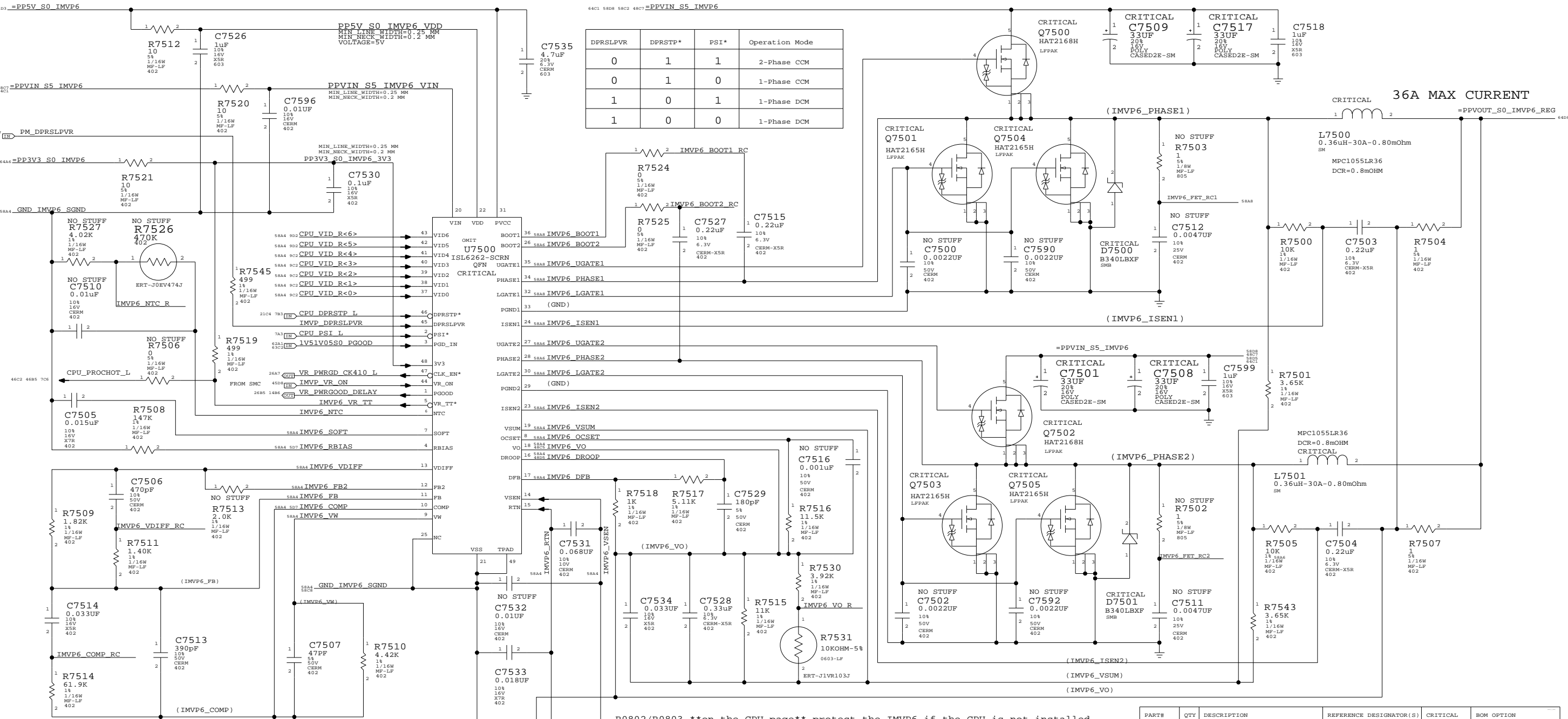
APPLE COMPUTER INC.	SIZE	DRAWING NUMBER	REV.
	D	051-7374	A
SCALE	SHT	OF	79
NONE	57		

PART NUMBER	ALTERNATE FOR PART NUMBER	BOM OPTION	REF DES	COMMENTS
128S0093	128S0092	?	C7501_C7508	XXXXT T520V3300016AT0457650
128S0093	128S0092	?	C7509_C7517	XXXXT T520V3300016AT0457650

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

R0802/R0803 **on the CPU page** protect the IMVP6 if the CPU is not installed

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
1.5 MM	0.25 MM
0.25 MM	0.25 MM
1.5 MM	0.25 MM
0.25 MM	0.25 MM
1.5 MM	0.25 MM
0.25 MM	0.25 MM
0.25 MM	0.25 MM
0.25 MM	0.25 MM
0.25 MM	0.25 MM
0.25 MM	0.25 MM
0.25 MM	0.25 MM
0.25 MM	0.25 MM
0.25 MM	0.25 MM
0.25 MM	0.25 MM

MIN_LINE_WIDTH	MIN_NECK_WIDTH
0.25 MM	0.25 MM
0.25 MM	0.25 MM
0.25 MM	0.25 MM
0.25 MM	0.25 MM
0.25 MM	0.25 MM
0.25 MM	0.25 MM
0.25 MM	0.25 MM
0.25 MM	0.25 MM
0.25 MM	0.25 MM
0.25 MM	0.25 MM
0.25 MM	0.25 MM
0.25 MM	0.25 MM
0.25 MM	0.25 MM
0.25 MM	0.25 MM

MIN_LINE_WIDTH	MIN_NECK_WIDTH
0.25 MM	0.20 MM
0.25 MM	0.20 MM
0.25 MM	0.20 MM
0.50 MM	0.20 MM
0.25 MM	0.20 MM
0.25 MM	0.20 MM
0.25 MM	0.20 MM
0.25 MM	0.20 MM
0.25 MM	0.20 MM
0.25 MM	0.25 MM
0.25 MM	0.25 MM
0.25 MM	0.25 MM
0.25 MM	0.25 MM
0.25 MM	0.25 MM
0.25 MM	0.25 MM
0.25 MM	0.25 MM
0.25 MM	0.25 MM
0.25 MM	0.25 MM
0.25 MM	0.25 MM

IMVP6 CPU VCore Regulator

SYNC_MASTER=POWER SYNC_DATE=07/13/2005

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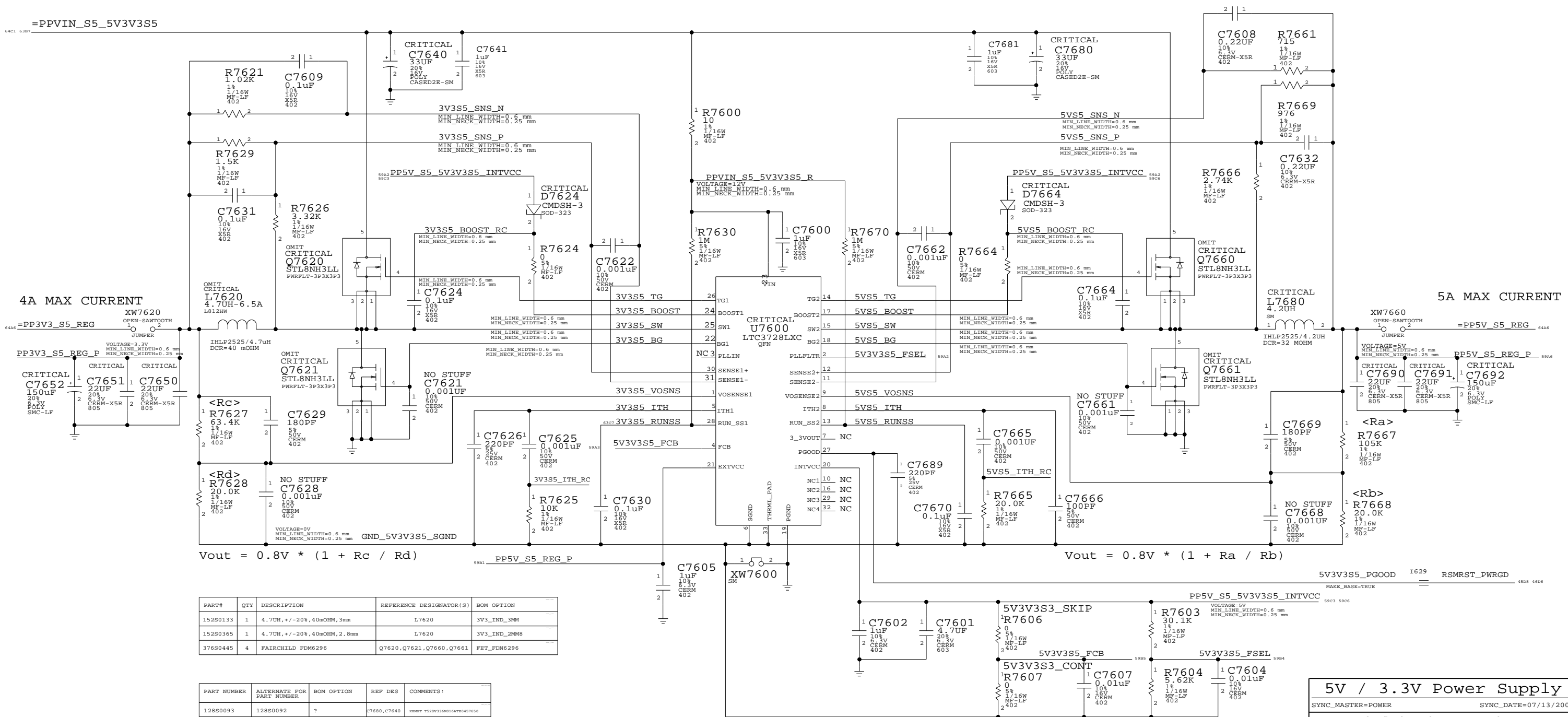
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APPLE COMPUTER INC.	SIZE	DRAWING NUMBER	REV.
	D	051-7374	A
SCALE	SHEET	OF	79
NONE	58		

5V / 3.3V POWER SUPPLY



PART#	QTY	DESCRIPTION	REFERENCE DESIGNATOR(S)	BOM OPTION
15280133	1	4.7UH, +/-20%, 40mOHM, 3mm	L7620	3V3_IND_3MM
15280365	1	4.7UH, +/-20%, 40mOHM, 2.8mm	L7620	3V3_IND_2MM8
37680445	4	FAIRCHILD FDM6296	Q7620, Q7621, Q7660, Q7661	FET_FDM6296

PART NUMBER	ALTERNATE FOR PART NUMBER	BOM OPTION	REF DES	COMMENTS:
12880093	12880092	?	C7680, C7640	RENET VS20V330M16ATE0487650
37680448	37680445	?	Q7620, Q7621	VISHAY SI17806ADN
37680448	37680445	?	Q7660, Q7661	VISHAY SI17806ADN

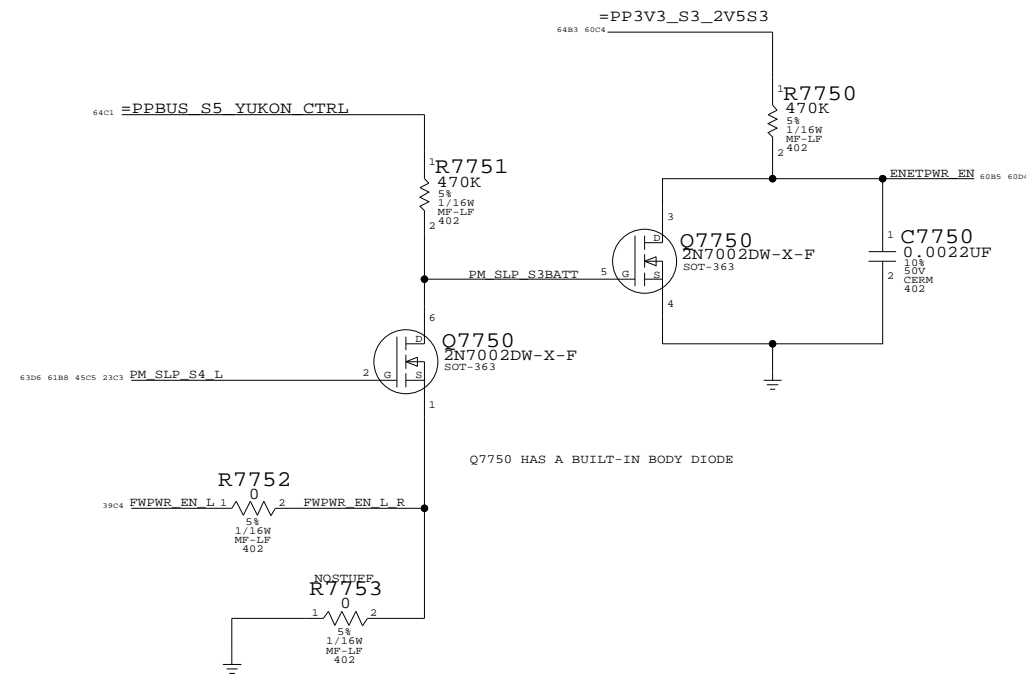
5V / 3.3V Power Supply
 SYNC_MASTER=POWER SYNC_DATE=07/13/2005

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APPLE COMPUTER INC.

SIZE	DRAWING NUMBER	REV.
D	051-7374	A
SCALE	SHT	OF
NONE	59	79

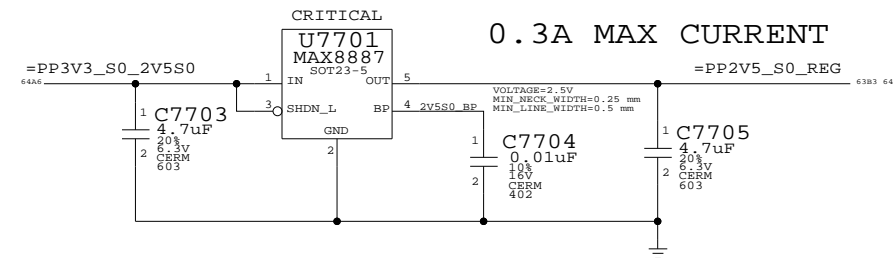
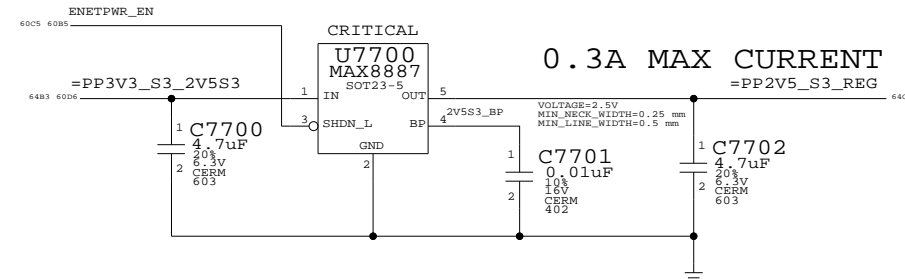
YUKON POWER CONTROL



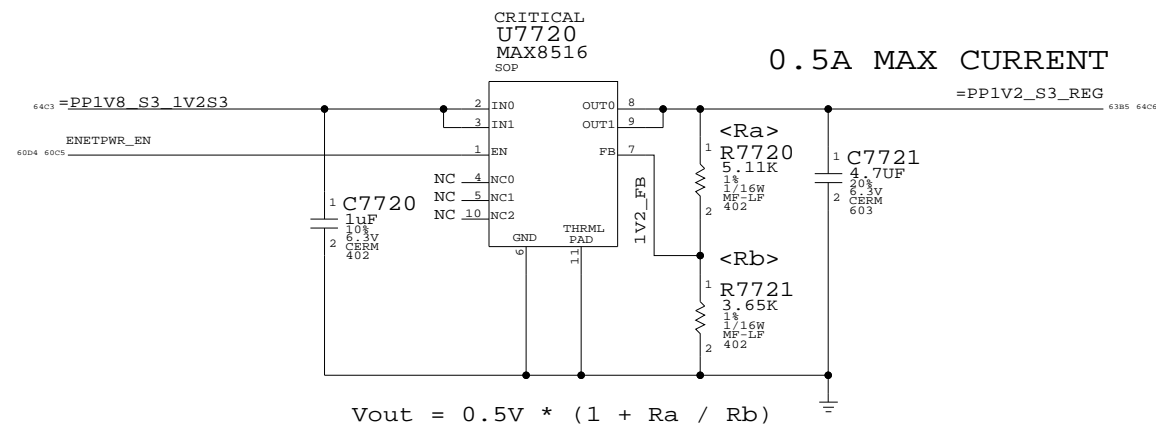
NAME	PM_SLP_S4_L	FWPWR_EN_L	PM_SLP_S3BATT	ENETPWR_EN
LOGIC	S3 S0	~S0 ~SMC_PS_ON		POWER YUKON
S3 ON BATTERY	TRUE (3.3V)	TRUE (PBUS 12.6V)	TRUE (PBUS 12.6V)	FALSE (0V)
S0 OR S3 ON AC	TRUE (3.3V)	FALSE (0V)	FALSE (0V)	TRUE (3.3V)
S5 ON AC	FALSE (0V)	TRUE (PBUS 12.6V)	TRUE (PBUS 12.6V)	FALSE (0V)
S5 ON BATT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

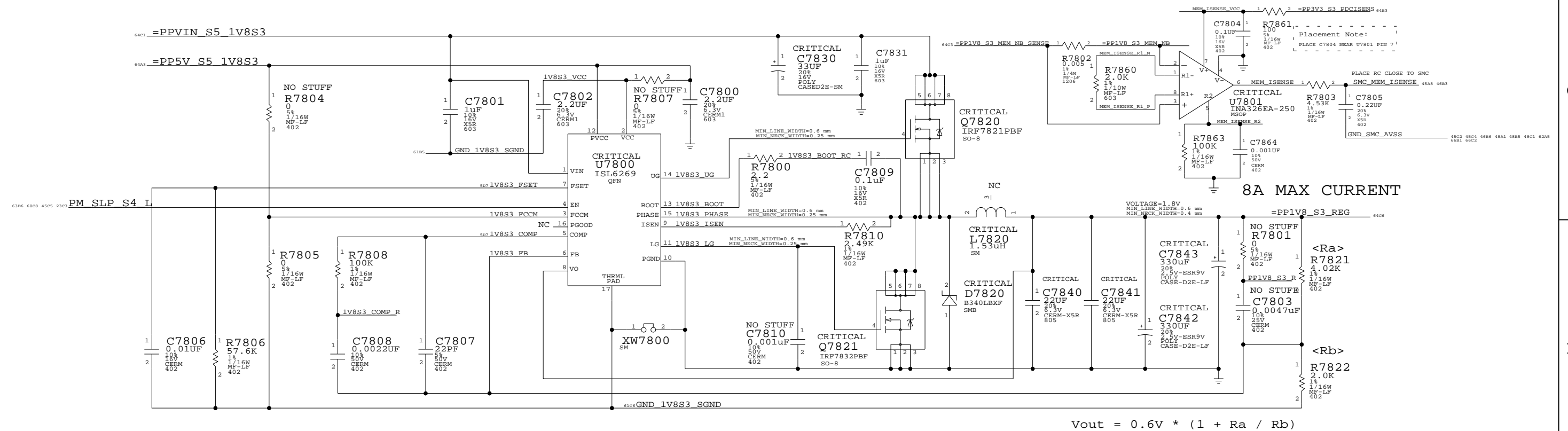
SYNC_MASTER=ENET SYNC_DATE=12/06/2005

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APPLE COMPUTER INC.	SIZE	DRAWING NUMBER	REV.
	D	051-7374	A
SCALE	SHT	OF	REV.
NONE	60	79	

1.8V POWER SUPPLY



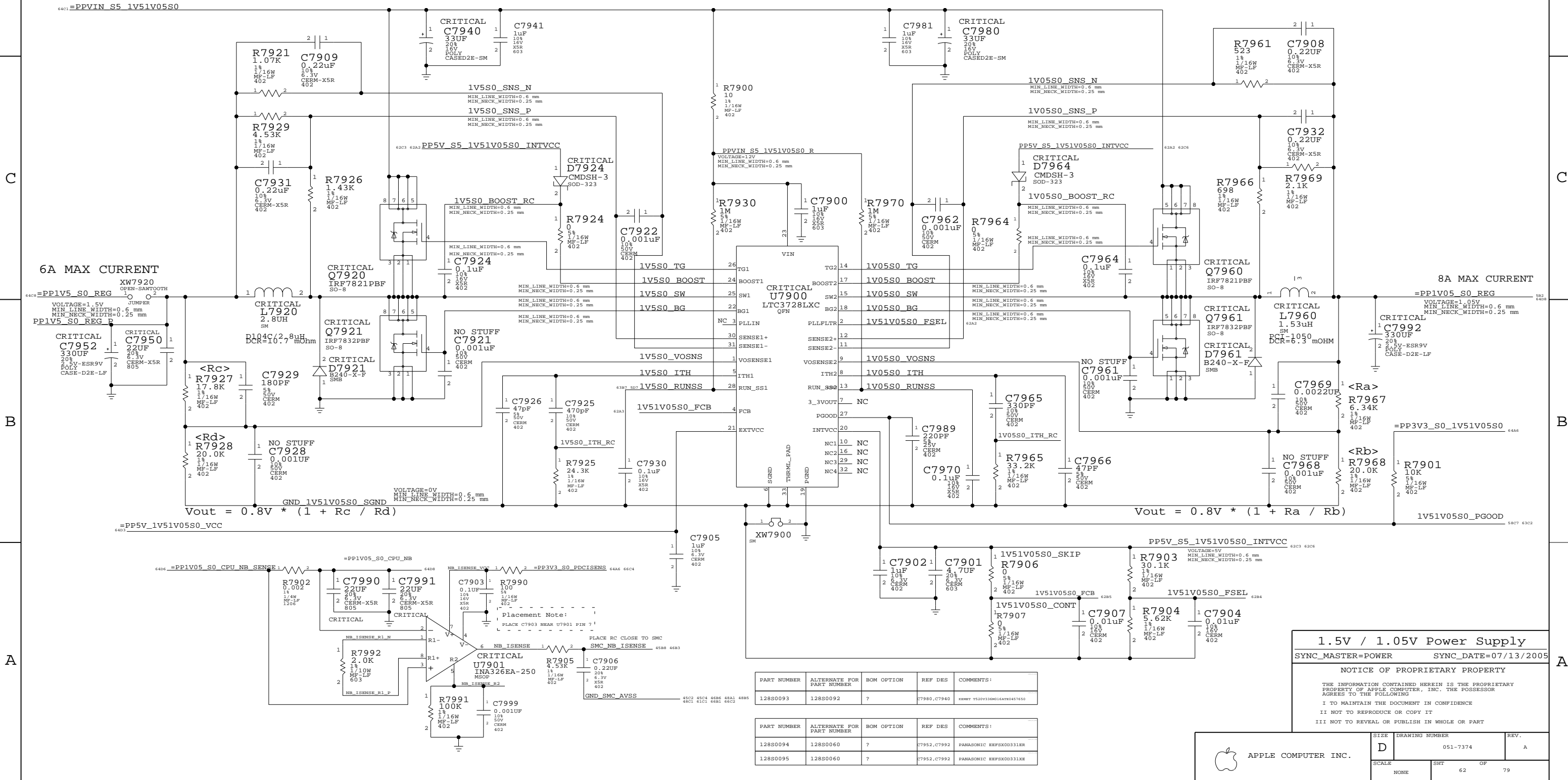
PART NUMBER	ALTERNATE FOR PART NUMBER	BOM OPTION	REF DES	COMMENTS:
128S0093	128S0092	?	C7830	ERRY 7520V330M16AT00457450

PART NUMBER	ALTERNATE FOR PART NUMBER	BOM OPTION	REF DES	COMMENTS:
128S0094	128S0060	?	C7842, C7843	PANASONIC KEPSX0D331ER
128S0095	128S0060	?	C7842, C7843	PANASONIC KEPSX0D331EK

1.8V Supply
 SYNC_MASTER=POWER SYNC_DATE=07/13/2005
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APPLE COMPUTER INC.	SIZE	DRAWING NUMBER	REV.
	D	051-7374	A
SCALE	SHT	OF	79
NONE	61		

1.5V/1.05V POWER SUPPLY



1.5V / 1.05V Power Supply
 SYNC_MASTER=POWER SYNC_DATE=07/13/2005
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APPLE COMPUTER INC.

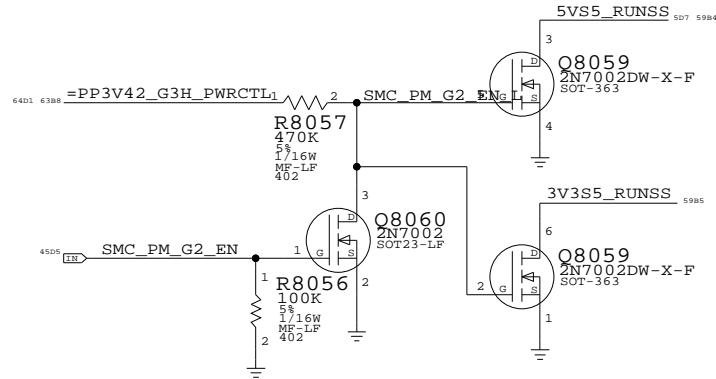
SIZE	DRAWING NUMBER	REV.
D	051-7374	A
SCALE	SHT	OF
NONE	62	79

POWER CONTROL SIGNALS

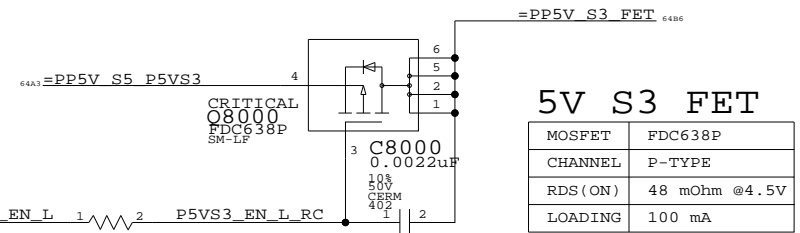
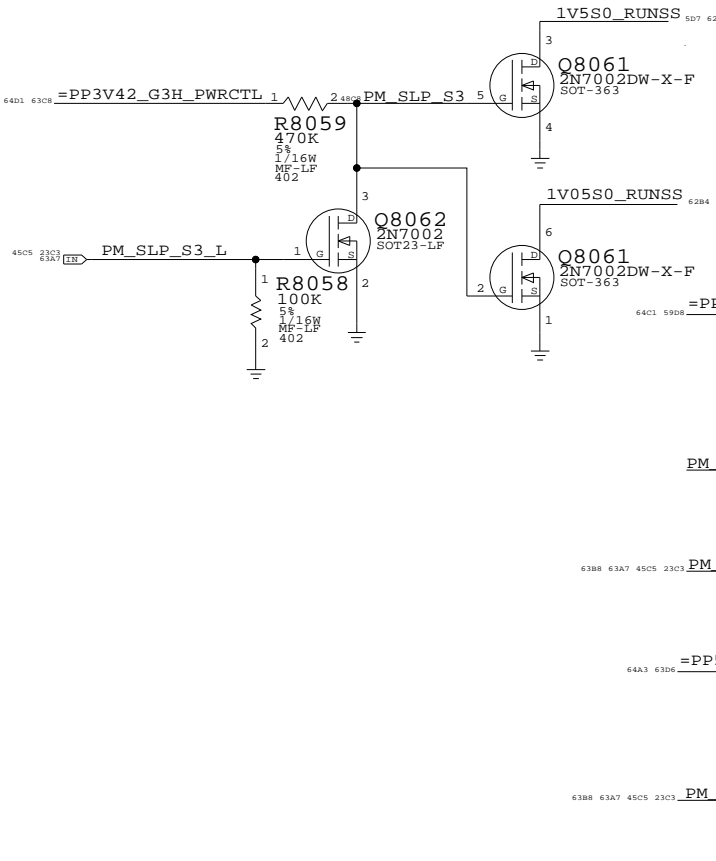
These rails are monitored by LTC2908

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

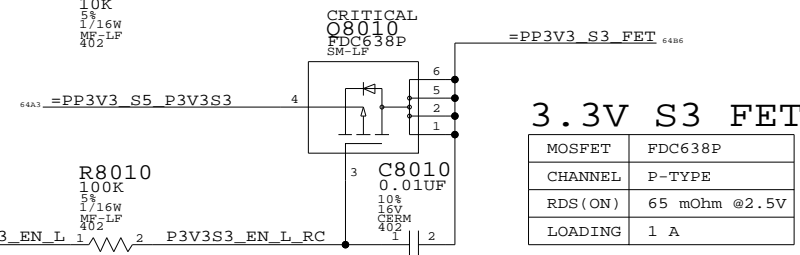
5V/3.3V S5 RUN/SS CONTROL



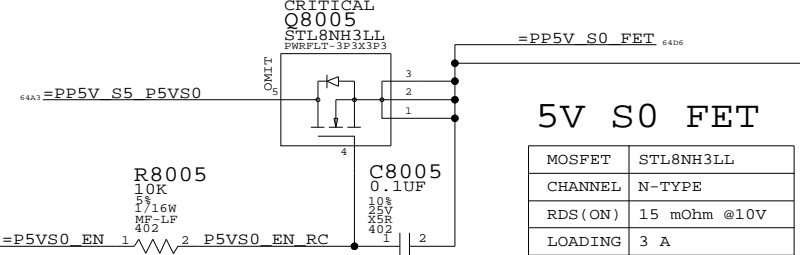
1.5V/1.05V S0 RUN/SS CONTROL



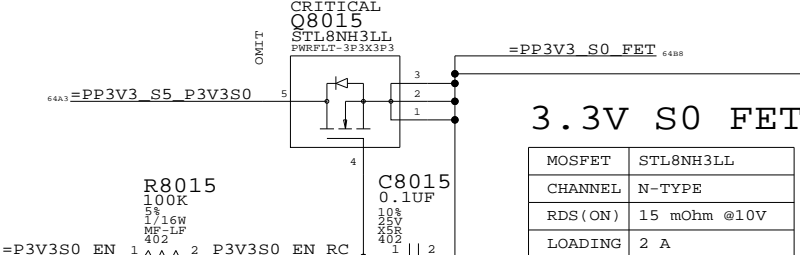
5V S3 FET	
MOSFET	FDC638P
CHANNEL	P-TYPE
RDS(ON)	48 mOhm @4.5V
LOADING	100 mA



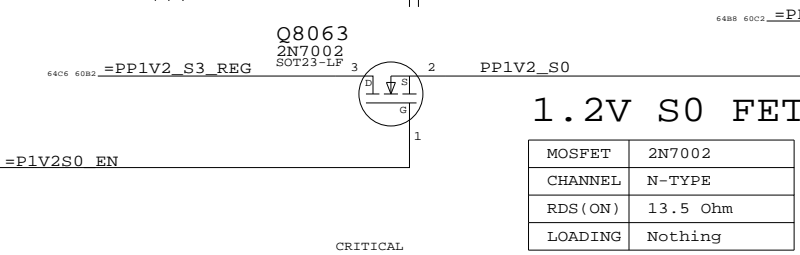
3.3V S3 FET	
MOSFET	FDC638P
CHANNEL	P-TYPE
RDS(ON)	65 mOhm @2.5V
LOADING	1 A



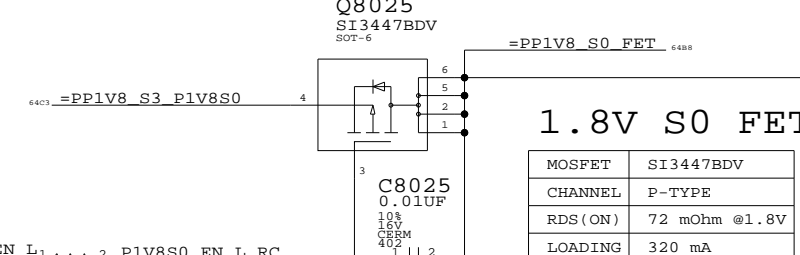
5V S0 FET	
MOSFET	STL8NH3LL
CHANNEL	N-TYPE
RDS(ON)	15 mOhm @10V
LOADING	3 A



3.3V S0 FET	
MOSFET	STL8NH3LL
CHANNEL	N-TYPE
RDS(ON)	15 mOhm @10V
LOADING	2 A



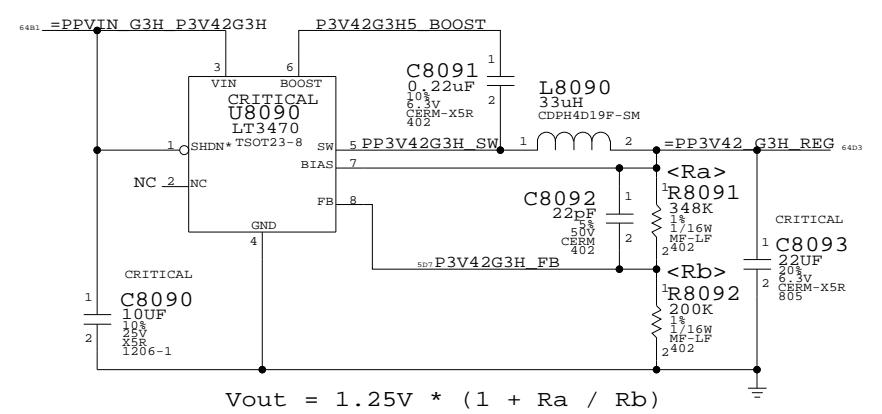
1.2V S0 FET	
MOSFET	2N7002
CHANNEL	N-TYPE
RDS(ON)	13.5 Ohm
LOADING	Nothing



1.8V S0 FET	
MOSFET	SI3447BDV
CHANNEL	P-TYPE
RDS(ON)	72 mOhm @1.8V
LOADING	320 mA

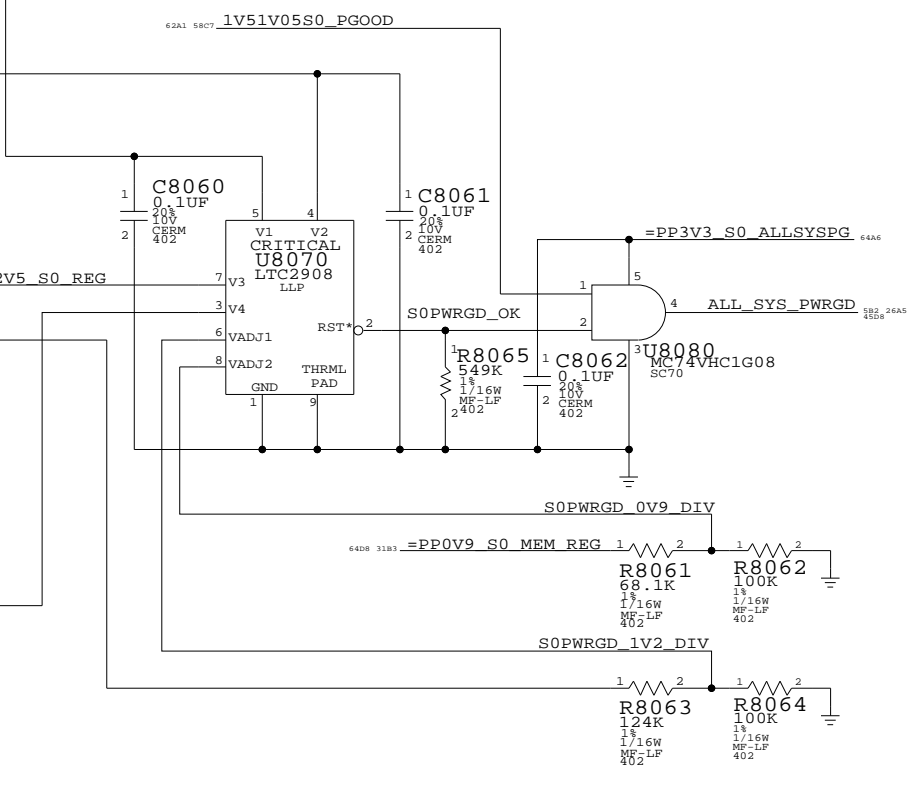
3.425V "G3Hot" SUPPLY

Supply needs to guarantee 3.31V delivered to SMC VRef generator



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

ALL SYSTEM PWRGD CIRCUIT



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

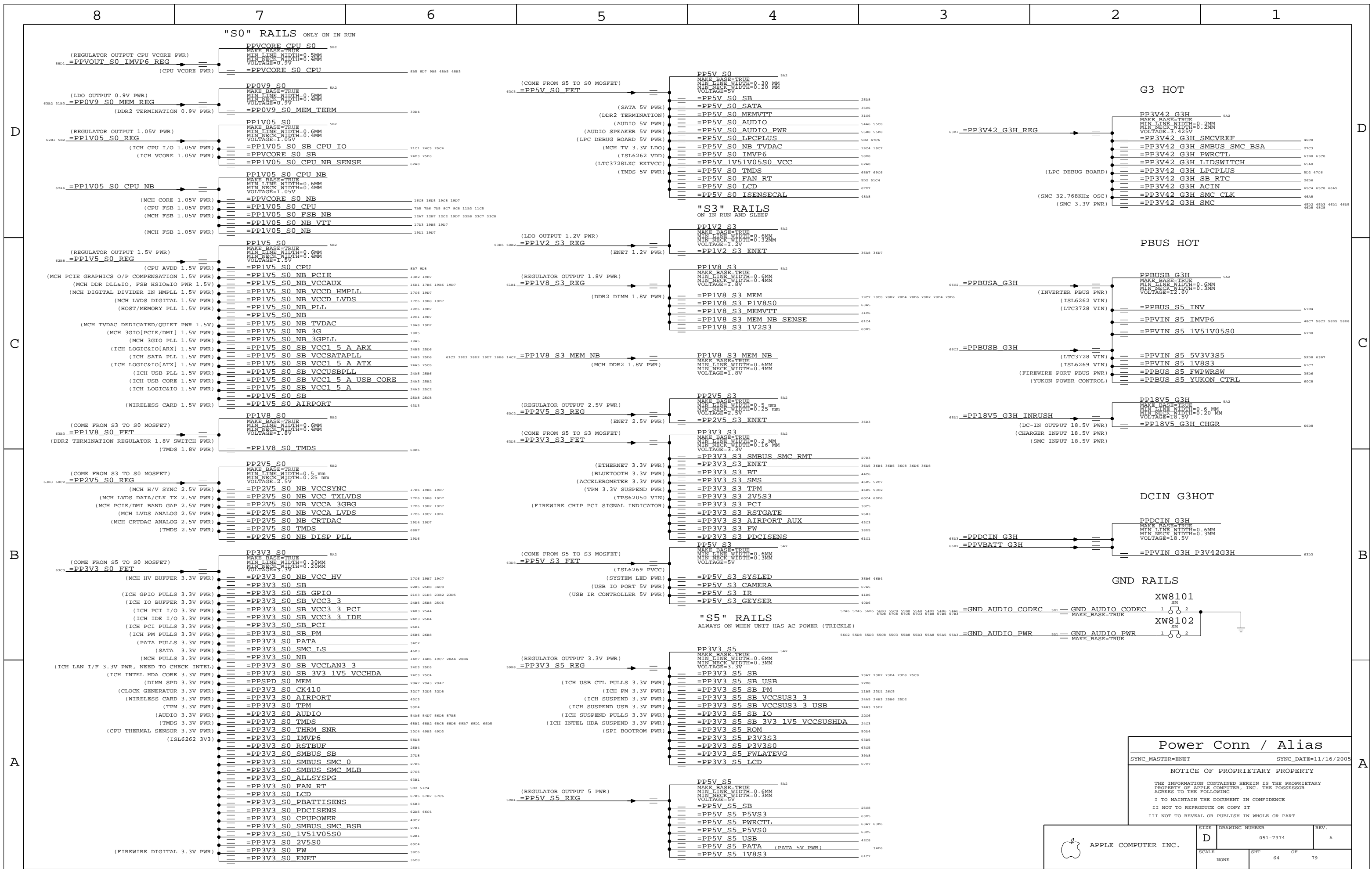
PART NUMBER	ALTERNATE FOR PART NUMBER	BOM OPTION	REF DES	COMMENTS:
376S0448	376S0445	?	Q8005, Q8015	VISHAY SI7806ADN

S3/S0 FETS, G3H SUPPLY

SYNC_MASTER=ENET SYNC_DATE=08/30/2005

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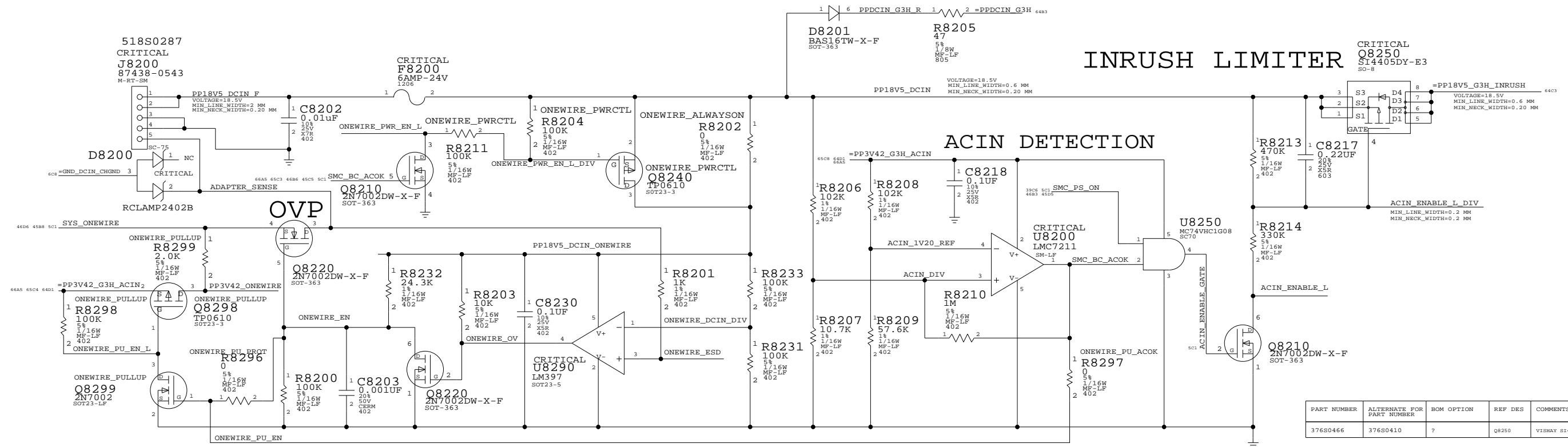
APPLE COMPUTER INC.	SIZE	DRAWING NUMBER	REV.
	D	051-7374	A
SCALE	SHT	OF	79
NONE	63		



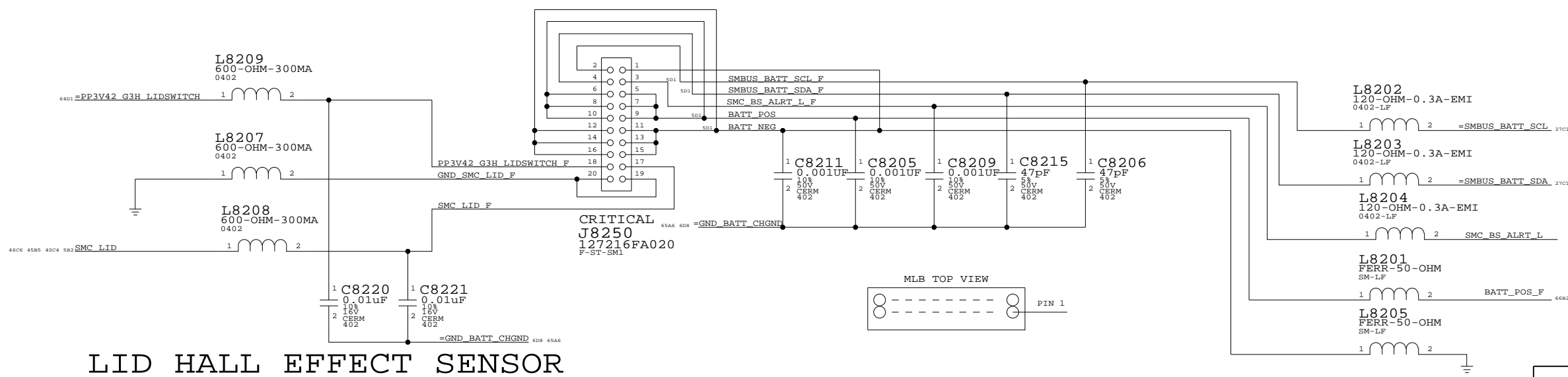
Power Conn / Alias		
SYNC_MASTER=ENET	SYNC_DATE=11/16/2005	
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APPLE COMPUTER INC.	SIZE	DRAWING NUMBER	REV.
	D	051-7374	A
SCALE	SHT	OF	79
NONE	64		

DC-JACK INTERFACE



BATTERY INTERFACE



LID HALL EFFECT SENSOR

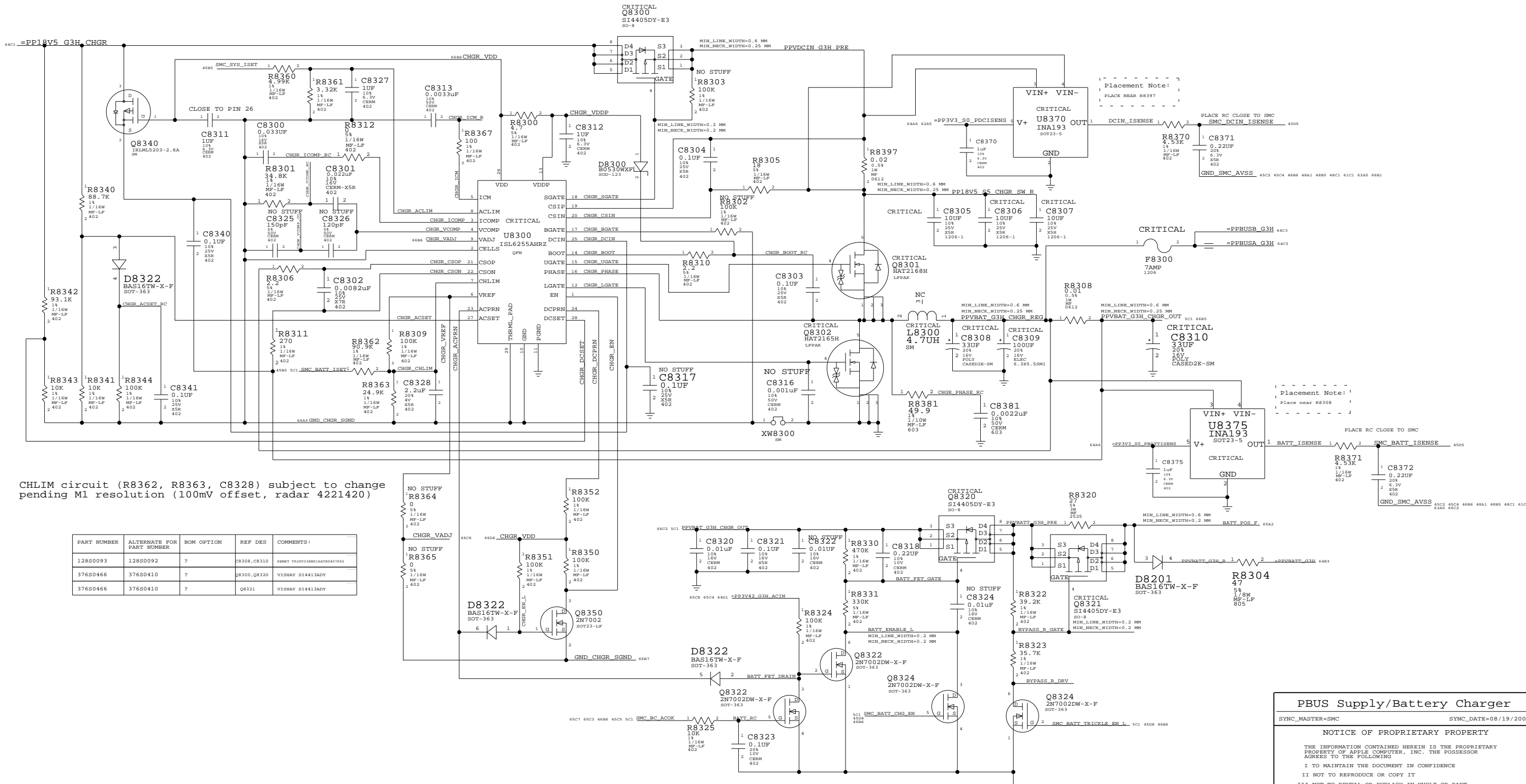
DC-In & Battery Connectors
 SYNC_MASTER=POWER SYNC_DATE=07/13/2005

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APPLE COMPUTER INC.

SCALE	SHT	OF	REV.
NONE	65	79	A

PBUS SUPPLY / BATTERY CHARGER

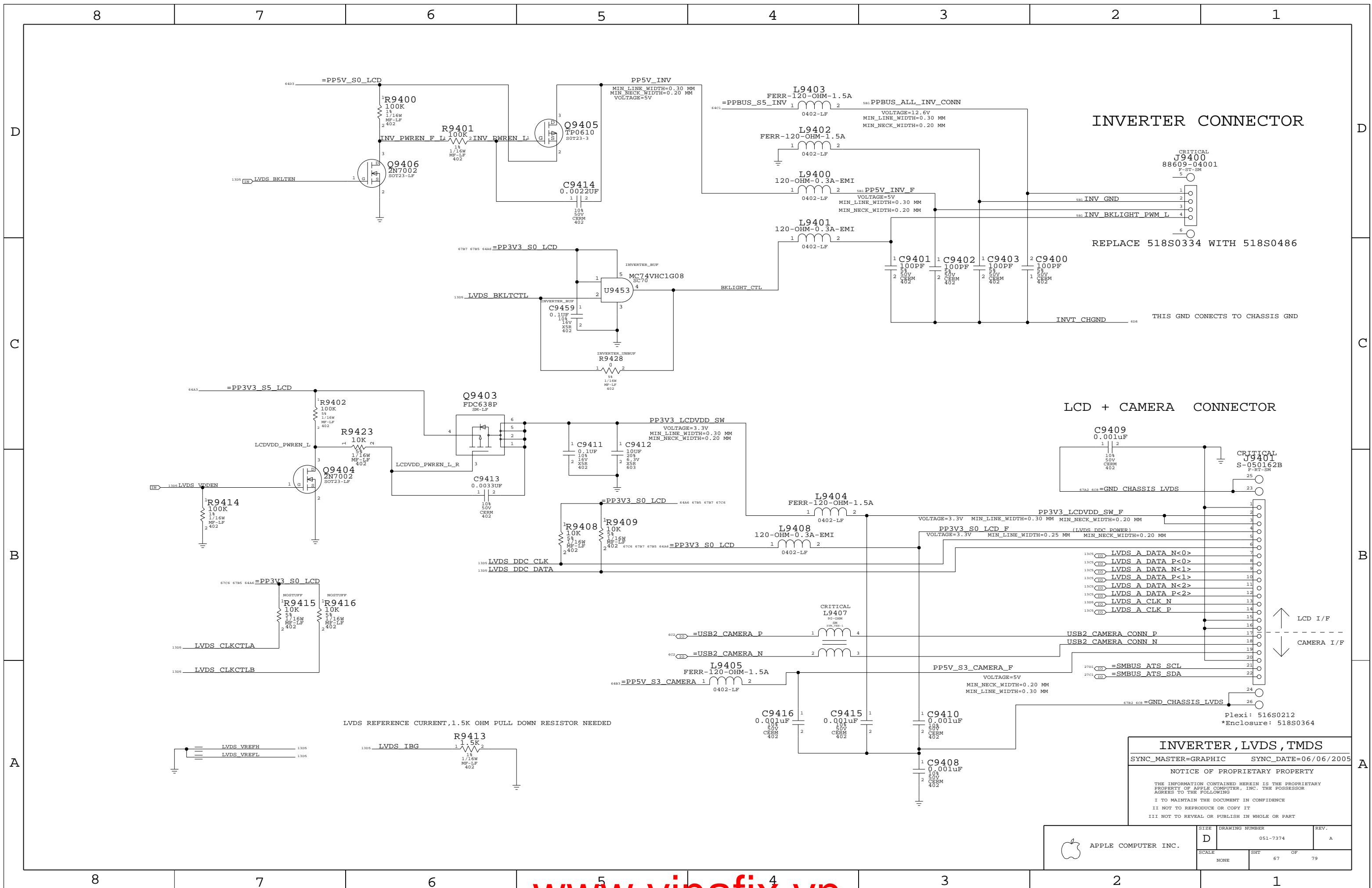


CHLIM circuit (R8362, R8363, C8328) subject to change pending M1 resolution (100mV offset, radar 4221420)

PART NUMBER	ALTERNATE FOR PART NUMBER	BOM OPTION	REF DES	COMMENTS:
128S0093	128S0092	?	C8308, C8310	KEMET T520V33M018AT045T650
376S0466	376S0410	?	Q8300, Q8320	VISHAY S14413ADY
376S0466	376S0410	?	Q8321	VISHAY S14413ADY

PBUS Supply/Battery Charger
 SYNC_MASTER=SMC SYNC_DATE=08/19/2005
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APPLE COMPUTER INC.	SIZE D	DRAWING NUMBER 051-7374	REV. A
	SCALE NONE	SHEET 66	OF 79



INVERTER CONNECTOR

REPLACE 518S0334 WITH 518S0486

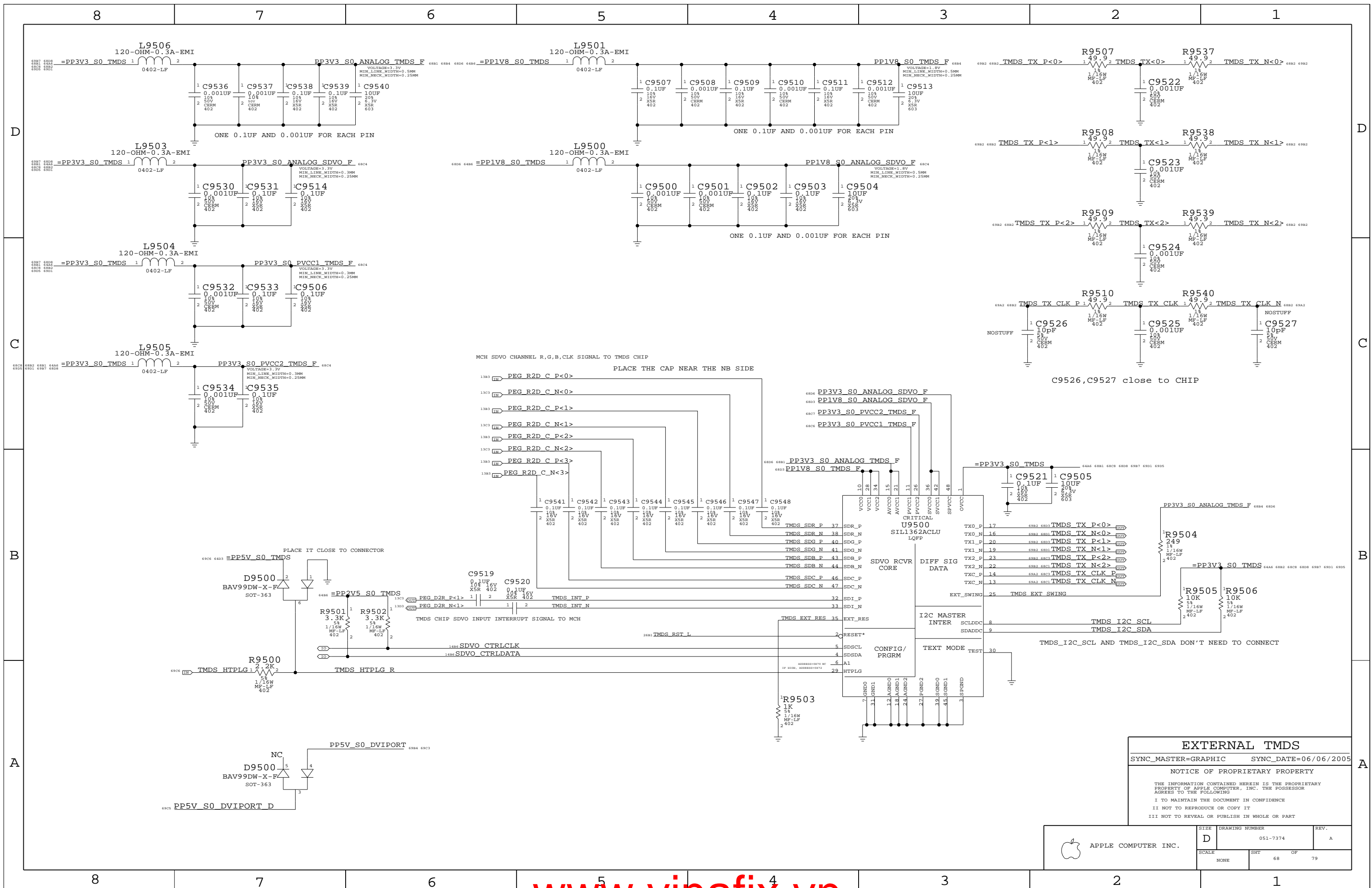
LCD + CAMERA CONNECTOR

INVERTER, LVDS, TMDS

SYNC_MASTER=GRAPHIC SYNC_DATE=06/06/2005

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APPLE COMPUTER INC.	SIZE D	DRAWING NUMBER 051-7374	REV. A
	SCALE NONE	SHEET 67	OF 79



MCH SDVO CHANNEL R,G,B,CLK SIGNAL TO TMSD CHIP
 PLACE THE CAP NEAR THE NB SIDE

C9526,C9527 close to CHIP

PLACE IT CLOSE TO CONNECTOR

TMSD_I2C_SCL AND TMSD_I2C_SDA DON'T NEED TO CONNECT

EXTERNAL TMSD
 SYNC_MASTER=GRAPHIC SYNC_DATE=06/06/2005
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APPLE COMPUTER INC.	SIZE	DRAWING NUMBER	REV.
	D	051-7374	A
SCALE	SHT	OF	79
NONE	68		

PART NUMBER	ALTERNATE FOR PART NUMBER	BOM OPTION	REF DES	COMMENTS
15580227	15580164	?	REF: 15580164	KEEP MAG LAYER IN BOX

Video Connectors

EXTERNAL VIDEO (VGA) INTERFACE

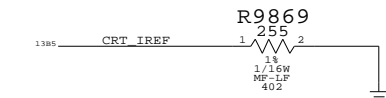
TMDS(MINI DVI) INTERFACE

Isolation required for DVI power switch

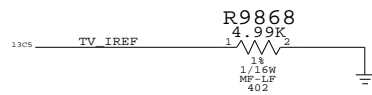
PLACE THE RESISTOR CLOSE TO GMCH AND THE CAP NEAR CONNECTOR

PLACE THE RESISTOR CLOSE TO GMCH AND THE CAP NEAR THE CONNECTOR

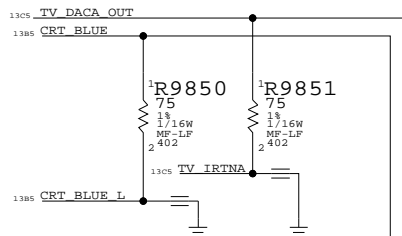
A 255 OHM 1% RESISTOR IS REQUIRED BETWEEN CRT_IREF AND GROUND



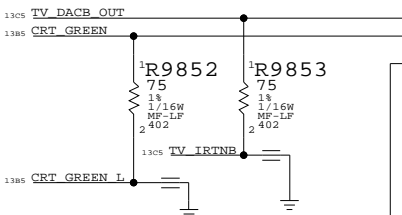
TV REFERENCE CURRENT, USES AN EXTERNAL RESISTOR OF 5K OHM 1% TO SET INTERNAL VOLTAGE LEVELS



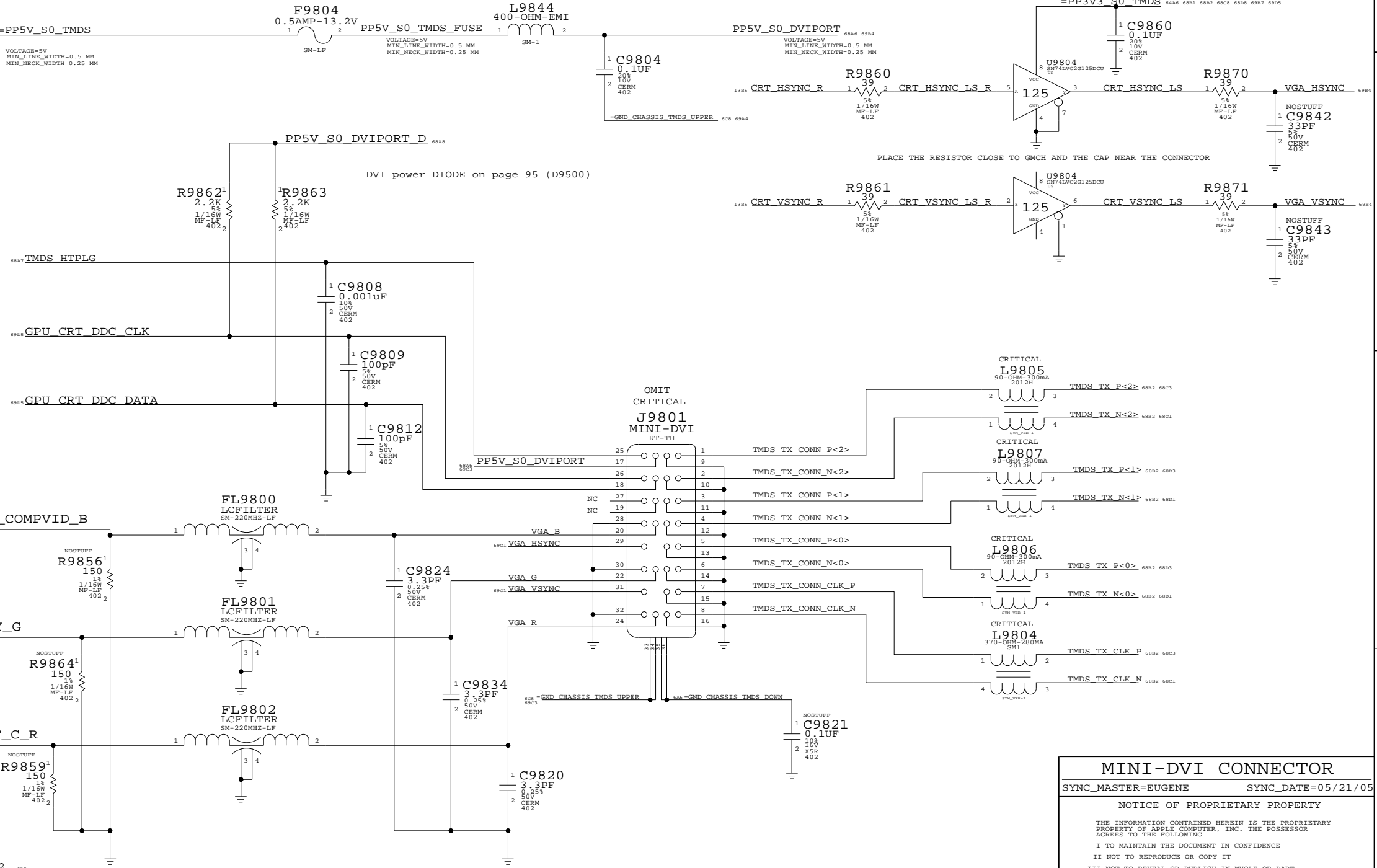
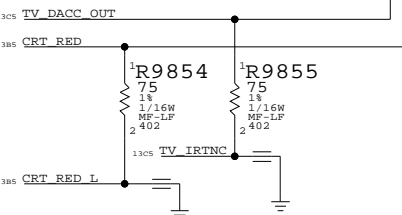
PLACE THE RESISTOR CLOSE TO GMCH



PLACE THE RESISTOR CLOSE TO GMCH



PLACE THE RESISTOR CLOSE TO GMCH



PART#	QTY	DESCRIPTION	REFERENCE DESIGNATOR(S)	CRITICAL	BOM OPTION
514-0292	1	CONN, 32P MINI-DVI BCPT, RA, MG3, LF	J9801	CRITICAL	NORMAL
514-0319	1	CONN, 32P MINI-DVI BCPT, RA, BLACK, LF	J9801	CRITICAL	FANCY

MINI-DVI CONNECTOR
 SYNC_MASTER=EUGENE SYNC_DATE=05/21/05
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	D	051-7374	A
SCALE	SHT	OF	79
NONE	69		

	8		7		6		5		4		3		2		1		
D		=@mlb_nolddo.lib.MLB_NOLDDO =PP3V3_S0_PATA - =mlb_nolddo.lib.MLB_NOLDDO =PP3V3_S0_NB_VCC_HV - =mlb_nolddo.lib.MLB_NOLDDO =PP3V3_S0_NB =mlb_nolddo.lib.MLB_NOLDDO =PP3V3_S0_LCD =mlb_nolddo.lib.MLB_NOLDDO =PP3V3_S0_IMVP6 =mlb_nolddo.lib.MLB_NOLDDO =PP3V3_S0_FW - =mlb_nolddo.lib.MLB_NOLDDO =PP3V3_S0_FET - =mlb_nolddo.lib.MLB_NOLDDO =PP3V3_S0_ENET - =mlb_nolddo.lib.MLB_NOLDDO =PP3V3_S0_CSPPOWER - =mlb_nolddo.lib.MLB_NOLDDO =PP3V3_S0_CK410 - =mlb_nolddo.lib.MLB_NOLDDO =PP3V3_S0_AUDIO - =mlb_nolddo.lib.MLB_NOLDDO =PP3V3_S0_ALLSYSFG - =mlb_nolddo.lib.MLB_NOLDDO =PP3V3_S0_AIRPORT - =mlb_nolddo.lib.MLB_NOLDDO =PP3V3_S0_2V5S0 - =mlb_nolddo.lib.MLB_NOLDDO =PP3V3_S0_1V51V05S0 - =mlb_nolddo.lib.MLB_NOLDDO =PP3V42_G3H_LPCPLUS =mlb_nolddo.lib.MLB_NOLDDO =PP3V42_G3H_SMCVREF - =mlb_nolddo.lib.MLB_NOLDDO =PP3V42_G3H_SMC - =mlb_nolddo.lib.MLB_NOLDDO =PP3V42_G3H_RTC - =mlb_nolddo.lib.MLB_NOLDDO =PP3V42_G3H_ACIN - =mlb_nolddo.lib.MLB_NOLDDO =PP3V42_G3H_SMC_CLK - =mlb_nolddo.lib.MLB_NOLDDO =PP3V42_G3H_LIDSWITCH - =mlb_nolddo.lib.MLB_NOLDDO =PP3V42_G3H_REG - =mlb_nolddo.lib.MLB_NOLDDO =PP3V42_G3H_PWRCTL - =mlb_nolddo.lib.MLB_NOLDDO =PP3V42_G3H_SMC_BSA - =mlb_nolddo.lib.MLB_NOLDDO =PP3V42_G3H_PWRCTL - =mlb_nolddo.lib.MLB_NOLDDO PP3V42_G3H - =mlb_nolddo.lib.MLB_NOLDDO =PP3V42_G3H_SMC_CLK - =mlb_nolddo.lib.MLB_NOLDDO =PP3V42_G3H_SMCVREF - =mlb_nolddo.lib.MLB_NOLDDO =PP3V42_G3H_SMC - =mlb_nolddo.lib.MLB_NOLDDO =PP3V42_G3H_SMC_BSA - =mlb_nolddo.lib.MLB_NOLDDO =PP3V42_G3H_SB_RTC - =mlb_nolddo.lib.MLB_NOLDDO =PP3V42_G3H_REG - =mlb_nolddo.lib.MLB_NOLDDO =PP3V42_G3H_PWRCTL - =mlb_nolddo.lib.MLB_NOLDDO =PP3V42_G3H_LIDSWITCH - =mlb_nolddo.lib.MLB_NOLDDO =PP3V42_G3H_ACIN - =mlb_nolddo.lib.MLB_NOLDDO =PP5V_S0_FAN_RT - =mlb_nolddo.lib.MLB_NOLDDO =PP5V_S0_ISENSECAL - =mlb_nolddo.lib.MLB_NOLDDO =PP5V_S0_LCD - =mlb_nolddo.lib.MLB_NOLDDO =PP5V_S0_IMVP6 - =mlb_nolddo.lib.MLB_NOLDDO =PP5V_S0_1V51V05S0_VCC - =mlb_nolddo.lib.MLB_NOLDDO =PP5V_S0_NB_TVDDAC - =mlb_nolddo.lib.MLB_NOLDDO =PP5V_S0_LPCPLUS - =mlb_nolddo.lib.MLB_NOLDDO =PP5V_S0_AUDIO_PWR - =mlb_nolddo.lib.MLB_NOLDDO =PP5V_S0_AUDIO - =mlb_nolddo.lib.MLB_NOLDDO =PP5V_S0_MEMWTT - =mlb_nolddo.lib.MLB_NOLDDO =PP5V_S0_FET - =mlb_nolddo.lib.MLB_NOLDDO =PP5V_S0_SATA - =mlb_nolddo.lib.MLB_NOLDDO =PP5V_S0_SB - =mlb_nolddo.lib.MLB_NOLDDO PP5V_S0 - @mlb_nolddo.lib.MLB_NOLDDO =PP5V_S0_TMDS - =mlb_nolddo.lib.MLB_NOLDDO =PP5V_S0_SB - =mlb_nolddo.lib.MLB_NOLDDO =mlb_nolddo.lib.MLB_NOLDDO =PP5V_S0_NB_TVDDAC - =mlb_nolddo.lib.MLB_NOLDDO =PP5V_S0_SATA - =mlb_nolddo.lib.MLB_NOLDDO =PP5V_S0_NB_TVDDAC - =mlb_nolddo.lib.MLB_NOLDDO =PP5V_S0_MEMWTT - =mlb_nolddo.lib.MLB_NOLDDO =PP5V_S0_LPCPLUS - =mlb_nolddo.lib.MLB_NOLDDO =mlb_nolddo.lib.MLB_NOLDDO =PP5V_S0_LCD - =mlb_nolddo.lib.MLB_NOLDDO =PP5V_S0_ISENSECAL - =mlb_nolddo.lib.MLB_NOLDDO =PP5V_S0_IMVP6 - =mlb_nolddo.lib.MLB_NOLDDO =PP5V_S0_FET - =mlb_nolddo.lib.MLB_NOLDDO =PP5V_S0_AUDIO_PWR - =mlb_nolddo.lib.MLB_NOLDDO =PP5V_S0_AUDIO - =mlb_nolddo.lib.MLB_NOLDDO															
C																	
B																	
A																	

	8	7	6	5	4	3	2	1	
D	FSB_DSTBN_L<1>	FSB_DSTBN_L<1> - @mlb_nolddo.lib.MLB_NOLDDO	7B4 12B4	FSB_D_L<55>	FSB_D_L<55> - @mlb_nolddo.lib.MLB_NOLDDO	7B3 12B6	IMVP6_COMP_RC	IMVP6_COMP_RC - @mlb_nolddo.lib.MLB_NOLDDO	58B8
	FSB_DSTBN_L<2>	FSB_DSTBN_L<2> - @mlb_nolddo.lib.MLB_NOLDDO	7C3 12B4	FSB_D_L<56>	FSB_D_L<56> - @mlb_nolddo.lib.MLB_NOLDDO	7B3 12B6	IMVP6_CPU_ISENSE_N	IMVP6_CPU_ISENSE_N - @mlb_nolddo.lib.MLB_NOLDDO	48C4
	FSB_DSTBN_L<3>	FSB_DSTBN_L<3> - @mlb_nolddo.lib.MLB_NOLDDO	7B3 12B4	FSB_D_L<57>	FSB_D_L<57> - @mlb_nolddo.lib.MLB_NOLDDO	7B3 12B6	IMVP6_CPU_ISENSE_P	IMVP6_CPU_ISENSE_P - @mlb_nolddo.lib.MLB_NOLDDO	48D4
	FSB_DSTBP_L<0>	FSB_DSTBP_L<0> - @mlb_nolddo.lib.MLB_NOLDDO	7C4 12B4	FSB_D_L<58>	FSB_D_L<58> - @mlb_nolddo.lib.MLB_NOLDDO	7B3 12B6	IMVP6_DFB	IMVP6_DFB - @mlb_nolddo.lib.MLB_NOLDDO	58A4 58B6
	FSB_DSTBP_L<1>	FSB_DSTBP_L<1> - @mlb_nolddo.lib.MLB_NOLDDO	7B4 12B4	FSB_D_L<59>	FSB_D_L<59> - @mlb_nolddo.lib.MLB_NOLDDO	7B3 12B6	IMVP6_DROOP	IMVP6_DROOP - @mlb_nolddo.lib.MLB_NOLDDO	48D5 58A4 58B6
C	FSB_DSTBP_L<2>	FSB_DSTBP_L<2> - @mlb_nolddo.lib.MLB_NOLDDO	7C3 12B4	FSB_D_L<60>	FSB_D_L<60> - @mlb_nolddo.lib.MLB_NOLDDO	7B3 12B6	IMVP6_FB	IMVP6_FB - @mlb_nolddo.lib.MLB_NOLDDO	58A4 58B7
	FSB_DSTBP_L<3>	FSB_DSTBP_L<3> - @mlb_nolddo.lib.MLB_NOLDDO	7B3 12B4	FSB_D_L<61>	FSB_D_L<61> - @mlb_nolddo.lib.MLB_NOLDDO	7B3 12B6	IMVP6_FB2	IMVP6_FB2 - @mlb_nolddo.lib.MLB_NOLDDO	58A4 58B7
	FSB_D_L<0>	FSB_D_L<0> - @mlb_nolddo.lib.MLB_NOLDDO	7C4 12D6	FSB_D_L<62>	FSB_D_L<62> - @mlb_nolddo.lib.MLB_NOLDDO	7B3 12B6	IMVP6_FET_RC1	IMVP6_FET_RC1 - @mlb_nolddo.lib.MLB_NOLDDO	58A8 58C2
	FSB_D_L<1>	FSB_D_L<1> - @mlb_nolddo.lib.MLB_NOLDDO	7C4 12D6	FSB_D_L<63>	FSB_D_L<63> - @mlb_nolddo.lib.MLB_NOLDDO	7B3 12B6	IMVP6_FET_RC2	IMVP6_FET_RC2 - @mlb_nolddo.lib.MLB_NOLDDO	58A6 58B2
	FSB_D_L<2>	FSB_D_L<2> - @mlb_nolddo.lib.MLB_NOLDDO	7C4 12D6	FSB_HITM_L	FSB_HITM_L - @mlb_nolddo.lib.MLB_NOLDDO	7D6 12B4	IMVP6_ISEN1	IMVP6_ISEN1 - @mlb_nolddo.lib.MLB_NOLDDO	58A8 58C6
B	FSB_D_L<3>	FSB_D_L<3> - @mlb_nolddo.lib.MLB_NOLDDO	7C4 12D6	FSB_HIT_L	FSB_HIT_L - @mlb_nolddo.lib.MLB_NOLDDO	7D6 12B4	IMVP6_ISEN2	IMVP6_ISEN2 - @mlb_nolddo.lib.MLB_NOLDDO	58A6 58C6
	FSB_D_L<4>	FSB_D_L<4> - @mlb_nolddo.lib.MLB_NOLDDO	7C4 12D6	FSB_IERR_L	FSB_IERR_L - @mlb_nolddo.lib.MLB_NOLDDO	7D6	IMVP6_LGATE1	IMVP6_LGATE1 - @mlb_nolddo.lib.MLB_NOLDDO	58A8 58C6
	FSB_D_L<5>	FSB_D_L<5> - @mlb_nolddo.lib.MLB_NOLDDO	7C4 12D6	FSB_LOCK_L	FSB_LOCK_L - @mlb_nolddo.lib.MLB_NOLDDO	7D6 12B4	IMVP6_LGATE2	IMVP6_LGATE2 - @mlb_nolddo.lib.MLB_NOLDDO	58A6 58C6
	FSB_D_L<6>	FSB_D_L<6> - @mlb_nolddo.lib.MLB_NOLDDO	7C4 12D6	FSB_REQ_L<0>	FSB_REQ_L<0> - @mlb_nolddo.lib.MLB_NOLDDO	7D8 12B4	IMVP6_NTC	IMVP6_NTC - @mlb_nolddo.lib.MLB_NOLDDO	58C7
	FSB_D_L<7>	FSB_D_L<7> - @mlb_nolddo.lib.MLB_NOLDDO	7C4 12D6	FSB_REQ_L<1>	FSB_REQ_L<1> - @mlb_nolddo.lib.MLB_NOLDDO	7D8 12B4	IMVP6_NTC_R	IMVP6_NTC_R - @mlb_nolddo.lib.MLB_NOLDDO	58C7
A	FSB_D_L<8>	FSB_D_L<8> - @mlb_nolddo.lib.MLB_NOLDDO	7C4 12D6	FSB_REQ_L<2>	FSB_REQ_L<2> - @mlb_nolddo.lib.MLB_NOLDDO	7D8 12A4	IMVP6_OCSET	IMVP6_OCSET - @mlb_nolddo.lib.MLB_NOLDDO	58A4 58B6
	FSB_D_L<9>	FSB_D_L<9> - @mlb_nolddo.lib.MLB_NOLDDO	7C4 12D6	FSB_REQ_L<3>	FSB_REQ_L<3> - @mlb_nolddo.lib.MLB_NOLDDO	7D8 12A4	IMVP6_PHASE1	IMVP6_PHASE1 - @mlb_nolddo.lib.MLB_NOLDDO	58A8 58C6
	FSB_D_L<10>	FSB_D_L<10> - @mlb_nolddo.lib.MLB_NOLDDO	7C4 12D6	FSB_REQ_L<4>	FSB_REQ_L<4> - @mlb_nolddo.lib.MLB_NOLDDO	7D8 12A4	IMVP6_PHASE2	IMVP6_PHASE2 - @mlb_nolddo.lib.MLB_NOLDDO	58A6 58C6
	FSB_D_L<11>	FSB_D_L<11> - @mlb_nolddo.lib.MLB_NOLDDO	7C4 12D6	FSB_RS_L<0>	FSB_RS_L<0> - @mlb_nolddo.lib.MLB_NOLDDO	7D6 12A4	IMVP6_RBIAS	IMVP6_RBIAS - @mlb_nolddo.lib.MLB_NOLDDO	5D7 58A4 58B7
	FSB_D_L<12>	FSB_D_L<12> - @mlb_nolddo.lib.MLB_NOLDDO	7C4 12D6	FSB_RS_L<1>	FSB_RS_L<1> - @mlb_nolddo.lib.MLB_NOLDDO	7D6 12A4	IMVP6_RTN	IMVP6_RTN - @mlb_nolddo.lib.MLB_NOLDDO	58A4 58B6

	8	7	6	5	4	3	2	1
	LVDS_A_DATA_N<0>	LVDS_A_DATA_N<0> - @mlb_nolddo_lib.MLB_NOLDDO	13C5 67B2	MEM_A_DM<1>	MEM_A_DQ<55>	MEM_B_DQ<4>	MEM_B_DQ<4>	MEM_B_DQ<4>
	LVDS_A_DATA_N<1>	LVDS_A_DATA_N<1> - @mlb_nolddo_lib.MLB_NOLDDO	13C5 67B2	MEM_A_DM<2>	MEM_A_DQ<56>	MEM_B_DQ<5>	MEM_B_DQ<5>	MEM_B_DQ<5>
	LVDS_A_DATA_N<2>	LVDS_A_DATA_N<2> - @mlb_nolddo_lib.MLB_NOLDDO	13C5 67B2	MEM_A_DM<3>	MEM_A_DQ<57>	MEM_B_DQ<6>	MEM_B_DQ<6>	MEM_B_DQ<6>
	LVDS_A_DATA_P<0>	LVDS_A_DATA_P<0> - @mlb_nolddo_lib.MLB_NOLDDO	13C5 67B2	MEM_A_DM<4>	MEM_A_DQ<58>	MEM_B_DQ<7>	MEM_B_DQ<7>	MEM_B_DQ<7>
	LVDS_A_DATA_P<1>	LVDS_A_DATA_P<1> - @mlb_nolddo_lib.MLB_NOLDDO	13C5 67B2	MEM_A_DM<5>	MEM_A_DQ<59>	MEM_B_DQ<8>	MEM_B_DQ<8>	MEM_B_DQ<8>
	LVDS_A_DATA_P<2>	LVDS_A_DATA_P<2> - @mlb_nolddo_lib.MLB_NOLDDO	13C5 67B2	MEM_A_DM<6>	MEM_A_DQ<60>	MEM_B_DQ<9>	MEM_B_DQ<9>	MEM_B_DQ<9>
	LVDS_BKLTCTL	LVDS_BKLTCTL - @mlb_nolddo_lib.MLB_NOLDDO	13D5 67C6	MEM_A_DM<7>	MEM_A_DQ<61>	MEM_B_DQ<10>	MEM_B_DQ<10>	MEM_B_DQ<10>
	LVDS_BKLTEN	LVDS_BKLTEN - @mlb_nolddo_lib.MLB_NOLDDO	13D5 67D7	MEM_A_DQ<0>	MEM_A_DQ<62>	MEM_B_DQ<11>	MEM_B_DQ<11>	MEM_B_DQ<11>
	LVDS_B_CLK_N	LVDS_B_CLK_N - @mlb_nolddo_lib.MLB_NOLDDO	6D6 13C5	MEM_A_DQ<1>	MEM_A_DQ<63>	MEM_B_DQ<12>	MEM_B_DQ<12>	MEM_B_DQ<12>
	LVDS_B_CLK_N_SFN	LVDS_B_CLK_N_SFN - @mlb_nolddo_lib.MLB_NOLDDO	5A7 6D5	MEM_A_DQ<2>	MEM_A_DQS_N<0>	MEM_B_DQ<13>	MEM_B_DQ<13>	MEM_B_DQ<13>
	LVDS_B_CLK_P	LVDS_B_CLK_P - @mlb_nolddo_lib.MLB_NOLDDO	6D6 13C5	MEM_A_DQ<3>	MEM_A_DQS_N<1>	MEM_B_DQ<14>	MEM_B_DQ<14>	MEM_B_DQ<14>
	LVDS_B_CLK_P_SFN	LVDS_B_CLK_P_SFN - @mlb_nolddo_lib.MLB_NOLDDO	5A7 6D5	MEM_A_DQ<4>	MEM_A_DQS_N<2>	MEM_B_DQ<15>	MEM_B_DQ<15>	MEM_B_DQ<15>
	LVDS_B_DATA_N<0>	LVDS_B_DATA_N<0> - @mlb_nolddo_lib.MLB_NOLDDO	6D6 13C5	MEM_A_DQ<5>	MEM_A_DQS_N<3>	MEM_B_DQ<16>	MEM_B_DQ<16>	MEM_B_DQ<16>
	LVDS_B_DATA_N<1>	LVDS_B_DATA_N<1> - @mlb_nolddo_lib.MLB_NOLDDO	6D6 13C5	MEM_A_DQ<6>	MEM_A_DQS_N<4>	MEM_B_DQ<17>	MEM_B_DQ<17>	MEM_B_DQ<17>
	LVDS_B_DATA_N<2>	LVDS_B_DATA_N<2> - @mlb_nolddo_lib.MLB_NOLDDO	6D6 13C5	MEM_A_DQ<7>	MEM_A_DQS_N<5>	MEM_B_DQ<18>	MEM_B_DQ<18>	MEM_B_DQ<18>
	LVDS_B_DATA_P<0>	LVDS_B_DATA_P<0> - @mlb_nolddo_lib.MLB_NOLDDO	6D6 13C5	MEM_A_DQ<8>	MEM_A_DQS_N<6>	MEM_B_DQ<19>	MEM_B_DQ<19>	MEM_B_DQ<19>
	LVDS_B_DATA_P<1>	LVDS_B_DATA_P<1> - @mlb_nolddo_lib.MLB_NOLDDO	5A7 6D5	MEM_A_DQ<9>	MEM_A_DQS_N<7>	MEM_B_DQ<20>	MEM_B_DQ<20>	MEM_B_DQ<20>
	LVDS_B_DATA_P<2>	LVDS_B_DATA_P<2> - @mlb_nolddo_lib.MLB_NOLDDO	5A7 6D5	MEM_A_DQ<10>	MEM_A_DQS_P<0>	MEM_B_DQ<21>	MEM_B_DQ<21>	MEM_B_DQ<21>
	LVDS_CLKCTLA	LVDS_CLKCTLA - @mlb_nolddo_lib.MLB_NOLDDO	13D5 67A7	MEM_A_DQ<11>	MEM_A_DQS_P<1>	MEM_B_DQ<22>	MEM_B_DQ<22>	MEM_B_DQ<22>
	LVDS_CLKCTLB	LVDS_CLKCTLB - @mlb_nolddo_lib.MLB_NOLDDO	13D5 67A7	MEM_A_DQ<12>	MEM_A_DQS_P<2>	MEM_B_DQ<23>	MEM_B_DQ<23>	MEM_B_DQ<23>
	LVDS_DDC_CLK	LVDS_DDC_CLK - @mlb_nolddo_lib.MLB_NOLDDO	13D5 67B6	MEM_A_DQ<13>	MEM_A_DQS_P<3>	MEM_B_DQ<24>	MEM_B_DQ<24>	MEM_B_DQ<24>
	LVDS_DDC_DATA	LVDS_DDC_DATA - @mlb_nolddo_lib.MLB_NOLDDO	13D5 67B6	MEM_A_DQ<14>	MEM_A_DQS_P<4>	MEM_B_DQ<25>	MEM_B_DQ<25>	MEM_B_DQ<25>
	LVDS_DBG	LVDS_DBG - @mlb_nolddo_lib.MLB_NOLDDO	13D5 67A6	MEM_A_DQ<15>	MEM_A_DQS_P<5>	MEM_B_DQ<26>	MEM_B_DQ<26>	MEM_B_DQ<26>
	LVDS_VDDEN	LVDS_VDDEN - @mlb_nolddo_lib.MLB_NOLDDO	13D5 67B7	MEM_A_DQ<16>	MEM_A_DQS_P<6>	MEM_B_DQ<27>	MEM_B_DQ<27>	MEM_B_DQ<27>
	MAX9705_L_N	MAX9705_L_N - @mlb_nolddo_lib.MLB_NOLDDO	55B6	MEM_A_DQ<17>	MEM_A_DQS_P<7>	MEM_B_DQ<28>	MEM_B_DQ<28>	MEM_B_DQ<28>
	MAX9705_R_N	MAX9705_R_N - @mlb_nolddo_lib.MLB_NOLDDO	55C6	MEM_A_DQ<18>	MEM_A_RAS_L	MEM_B_DQ<29>	MEM_B_DQ<29>	MEM_B_DQ<29>
	MAX9705_SUB_N	MAX9705_SUB_N - @mlb_nolddo_lib.MLB_NOLDDO	55A6	MEM_A_DQ<19>	MEM_A_WE_L	MEM_B_DQ<30>	MEM_B_DQ<30>	MEM_B_DQ<30>
	MAX9890_CEXT	MAX9890_CEXT - @mlb_nolddo_lib.MLB_NOLDDO	57B1	MEM_A_DQ<20>	MEM_B_A<0>	MEM_B_DQ<31>	MEM_B_DQ<31>	MEM_B_DQ<31>
	MAX9890_INL	MAX9890_INL - @mlb_nolddo_lib.MLB_NOLDDO	57B2	MEM_A_DQ<21>	MEM_B_A<1>	MEM_B_DQ<32>	MEM_B_DQ<32>	MEM_B_DQ<32>
	MAX9890_INR	MAX9890_INR - @mlb_nolddo_lib.MLB_NOLDDO	57B2	MEM_A_DQ<22>	MEM_B_A<2>	MEM_B_DQ<33>	MEM_B_DQ<33>	MEM_B_DQ<33>
	MEMVTT_EN	MEMVTT_EN - @mlb_nolddo_lib.MLB_NOLDDO	31B5	MEM_A_DQ<23>	MEM_B_A<3>	MEM_B_DQ<34>	MEM_B_DQ<34>	MEM_B_DQ<34>
	MEMVTT_VREF	MEMVTT_VREF - @mlb_nolddo_lib.MLB_NOLDDO	31C4	MEM_A_DQ<24>	MEM_B_A<4>	MEM_B_DQ<35>	MEM_B_DQ<35>	MEM_B_DQ<35>
	MEM_A_A<0>	MEM_A_A<0> - @mlb_nolddo_lib.MLB_NOLDDO	15C5 28B4	MEM_A_DQ<25>	MEM_B_A<5>	MEM_B_DQ<36>	MEM_B_DQ<36>	MEM_B_DQ<36>
	MEM_A_A<1..0>	MEM_A_A<1..0> - @mlb_nolddo_lib.MLB_NOLDDO	30C6	MEM_A_DQ<26>	MEM_B_A<6>	MEM_B_DQ<37>	MEM_B_DQ<37>	MEM_B_DQ<37>
	MEM_A_A<1>	MEM_A_A<1> - @mlb_nolddo_lib.MLB_NOLDDO	15C5 28B6	MEM_A_DQ<27>	MEM_B_A<7>	MEM_B_DQ<38>	MEM_B_DQ<38>	MEM_B_DQ<38>
	MEM_A_A<2>	MEM_A_A<2> - @mlb_nolddo_lib.MLB_NOLDDO	15C5 28B4	MEM_A_DQ<28>	MEM_B_A<8>	MEM_B_DQ<39>	MEM_B_DQ<39>	MEM_B_DQ<39>
	MEM_A_A<3>	MEM_A_A<3> - @mlb_nolddo_lib.MLB_NOLDDO	15B5 28B6	MEM_A_DQ<29>	MEM_B_A<9>	MEM_B_DQ<40>	MEM_B_DQ<40>	MEM_B_DQ<40>
	MEM_A_A<4>	MEM_A_A<4> - @mlb_nolddo_lib.MLB_NOLDDO	15B5 28B4	MEM_A_DQ<30>	MEM_B_A<10>	MEM_B_DQ<41>	MEM_B_DQ<41>	MEM_B_DQ<41>
	MEM_A_A<5>	MEM_A_A<5> - @mlb_nolddo_lib.MLB_NOLDDO	15B5 28B6	MEM_A_DQ<31>	MEM_B_A<11>	MEM_B_DQ<42>	MEM_B_DQ<42>	MEM_B_DQ<42>
	MEM_A_A<6>	MEM_A_A<6> - @mlb_nolddo_lib.MLB_NOLDDO	15B5 28C4	MEM_A_DQ<32>	MEM_B_A<12>	MEM_B_DQ<43>	MEM_B_DQ<43>	MEM_B_DQ<43>
	MEM_A_A<7>	MEM_A_A<7> - @mlb_nolddo_lib.MLB_NOLDDO	15B5 28C4	MEM_A_DQ<33>	MEM_B_A<13>	MEM_B_DQ<44>	MEM_B_DQ<44>	MEM_B_DQ<44>
	MEM_A_A<8>	MEM_A_A<8> - @mlb_nolddo_lib.MLB_NOLDDO	15B5 28C6	MEM_A_DQ<34>	MEM_B_A<14>	MEM_B_DQ<45>	MEM_B_DQ<45>	MEM_B_DQ<45>
	MEM_A_A<9>	MEM_A_A<9> - @mlb_nolddo_lib.MLB_NOLDDO	15B5 28C6	MEM_A_DQ<35>	MEM_B_BS<0>	MEM_B_DQ<46>	MEM_B_DQ<46>	MEM_B_DQ<46>
	MEM_A_A<10>	MEM_A_A<10> - @mlb_nolddo_lib.MLB_NOLDDO	15B5 28B6	MEM_A_DQ<36>	MEM_B_BS<2..0>	MEM_B_DQ<47>	MEM_B_DQ<47>	MEM_B_DQ<47>
	MEM_A_A<11>	MEM_A_A<11> - @mlb_nolddo_lib.MLB_NOLDDO	15B5 28C4	MEM_A_DQ<37>	MEM_B_BS<1>	MEM_B_DQ<48>	MEM_B_DQ<48>	MEM_B_DQ<48>
	MEM_A_A<12>	MEM_A_A<12> - @mlb_nolddo_lib.MLB_NOLDDO	15B5 28C6	MEM_A_DQ<38>	MEM_B_BS<2>	MEM_B_DQ<49>	MEM_B_DQ<49>	MEM_B_DQ<49>
	MEM_A_A<13>	MEM_A_A<13> - @mlb_nolddo_lib.MLB_NOLDDO	15B5 28B4	MEM_A_DQ<39>	MEM_B_CAS_L	MEM_B_DQ<50>	MEM_B_DQ<50>	MEM_B_DQ<50>
	MEM_A_A<14>	MEM_A_A<14> - @mlb_nolddo_lib.MLB_NOLDDO	6A4 28C4	MEM_A_DQ<40>	MEM_B_DM<0>	MEM_B_DQ<51>	MEM_B_DQ<51>	MEM_B_DQ<51>
	MEM_A_A14_SFN	MEM_A_A14_SFN - @mlb_nolddo_lib.MLB_NOLDDO	6A3	MEM_A_DQ<41>	MEM_B_DM<1>	MEM_B_DQ<52>	MEM_B_DQ<52>	MEM_B_DQ<52>
	MEM_A_A<15>	MEM_A_A<15> - @mlb_nolddo_lib.MLB_NOLDDO	6A4 28C4	MEM_A_DQ<42>	MEM_B_DM<2>	MEM_B_DQ<53>	MEM_B_DQ<53>	MEM_B_DQ<53>
	MEM_A_A15_SFN	MEM_A_A15_SFN - @mlb_nolddo_lib.MLB_NOLDDO	6A3	MEM_A_DQ<43>	MEM_B_DM<3>	MEM_B_DQ<54>	MEM_B_DQ<54>	MEM_B_DQ<54>
	MEM_A_BS<0>	MEM_A_BS<0> - @mlb_nolddo_lib.MLB_NOLDDO	15D5 28B6	MEM_A_DQ<44>	MEM_B_DM<4>	MEM_B_DQ<55>	MEM_B_DQ<55>	MEM_B_DQ<55>
	MEM_A_BS<2..0>	MEM_A_BS<2..0> - @mlb_nolddo_lib.MLB_NOLDDO	30C6	MEM_A_DQ<45>	MEM_B_DM<5>	MEM_B_DQ<56>	MEM_B_DQ<56>	MEM_B_DQ<56>
	MEM_A_BS<1>	MEM_A_BS<1> - @mlb_nolddo_lib.MLB_NOLDDO	15D5 28B4	MEM_A_DQ<46>	MEM_B_DM<6>	MEM_B_DQ<57>	MEM_B_DQ<57>	MEM_B_DQ<57>
	MEM_A_BS<2>	MEM_A_BS<2> - @mlb_nolddo_lib.MLB_NOLDDO	15D5 28C6	MEM_A_DQ<47>	MEM_B_DM<7>	MEM_B_DQ<58>	MEM_B_DQ<58>	MEM_B_DQ<58>
	MEM_A_CAS_L	MEM_A_CAS_L - @mlb_nolddo_lib.MLB_NOLDDO	15D5 28B6 30B6	MEM_A_DQ<48>	MEM_B_DQ<0>	MEM_B_DQ<59>	MEM_B_DQ<59>	MEM_B_DQ<59>
	MEM_A_DM<0>	MEM_A_DM<0> - @mlb_nolddo_lib.MLB_NOLDDO	15D5 28D4	MEM_A_DQ<49>	MEM_B_DQ<1>	MEM_B_DQ<60>	MEM_B_DQ<60>	MEM_B_DQ<60>
				MEM_A_DQ<50>	MEM_B_DQ<2>	MEM_B_DQ<61>	MEM_B_DQ<61>	MEM_B_DQ<61>
				MEM_A_DQ<51>	MEM_B_DQ<3>	MEM_B_DQ<62>	MEM_B_DQ<62>	MEM_B_DQ<62>
				MEM_A_DQ<52>	MEM_B_DQ<4>	MEM_B_DQ<63>	MEM_B_DQ<63>	MEM_B_DQ<63>
				MEM_A_DQ<53>	MEM_B_DQ<5>	MEM_B_DQS_N<0>	MEM_B_DQS_N<0>	MEM_B_DQS_N<0>
				MEM_A_DQ<54>	MEM_B_DQ<6>	MEM_B_DQS_N<1>	MEM_B_DQS_N<1>	MEM_B_DQS_N<1>

8			7			6			5			4			3			2			1		
D	MEM_B_DQS_N<2>	@mlb_noldo.lib.MLB_NOLDO MEM_B_DQS_N<2> -	15C2 29C6	NB_CFG<3>	NB_CFG<3> -	6D4 14C6	ONEWIRE_DCIIN_DIV	ONEWIRE_DCIIN_DIV -	65C5	PCIIE_F_R2D_C_N	PCIIE_F_R2D_C_N -	6C4 22C4											
	MEM_B_DQS_N<3>	@mlb_noldo.lib.MLB_NOLDO MEM_B_DQS_N<3> -	15C2 29C4	NB_CFG<4>	NB_CFG<4> -	6D4 14C6	ONEWIRE_EN	ONEWIRE_EN -	65C7	PCIIE_F_R2D_C_P	PCIIE_F_R2D_C_P -	6B4 22C4											
	MEM_B_DQS_N<4>	@mlb_noldo.lib.MLB_NOLDO MEM_B_DQS_N<4> -	15C2 29A6	NB_CFG<5>	NB_CFG<5> -	14C6 20C7	ONEWIRE_ESD	ONEWIRE_ESD -	65C5	PCIIE_WAKE_L	PCIIE_WAKE_L -	23C8 36C6 43C6											
C	MEM_B_DQS_N<5>	@mlb_noldo.lib.MLB_NOLDO MEM_B_DQS_N<5> -	15C2 29A4	NB_CFG<6>	NB_CFG<6> -	6D4 14C6	ONEWIRE_OV	ONEWIRE_OV -	65C6	PCI_AD<0>	PCI_AD<0> -	22B7 38C5											
	MEM_B_DQS_N<6>	@mlb_noldo.lib.MLB_NOLDO MEM_B_DQS_N<6> -	15C2 29B6	NB_CFG<7>	NB_CFG<7> -	14C6 20C7	ONEWIRE_PU_EN	ONEWIRE_PU_EN -	65B7	PCI_AD<1>	PCI_AD<1> -	22B7 38C5											
	MEM_B_DQS_N<7>	@mlb_noldo.lib.MLB_NOLDO MEM_B_DQS_N<7> -	15C2 29B6	NB_CFG<8>	NB_CFG<8> -	6D4 14C6	ONEWIRE_PU_EN_L	ONEWIRE_PU_EN_L -	65C8	PCI_AD<2>	PCI_AD<2> -	22B7 38C5											
B	MEM_B_DQS_P<0>	@mlb_noldo.lib.MLB_NOLDO MEM_B_DQS_P<0> -	15C2 29D6	NB_CFG<9>	NB_CFG<9> -	14C6 20B7	ONEWIRE_PWR_EN_L	ONEWIRE_PWR_EN_L -	65C7	PCI_AD<3>	PCI_AD<3> -	22B7 38C5											
	MEM_B_DQS_P<1>	@mlb_noldo.lib.MLB_NOLDO MEM_B_DQS_P<1> -	15C2 29D6	NB_CFG<10>	NB_CFG<10> -	6D4 14C6	ONEWIRE_PWR_EN_L_DIV	ONEWIRE_PWR_EN_L_DIV -	65C6	PCI_AD<4>	PCI_AD<4> -	22B7 38C5											
	MEM_B_DQS_P<2>	@mlb_noldo.lib.MLB_NOLDO MEM_B_DQS_P<2> -	15C2 29C6	NB_CFG<11>	NB_CFG<11> -	6D4 14C6	POV52_SMC_LSREF	POV52_SMC_LSREF -	46D3	PCI_AD<5>	PCI_AD<5> -	22B7 38C5											
A	MEM_B_DQS_P<3>	@mlb_noldo.lib.MLB_NOLDO MEM_B_DQS_P<3> -	15C2 29C4	NB_CFG<12>	NB_CFG<12> -	6D4 14C6	P1V8S0_EN_L_RC	P1V8S0_EN_L_RC -	63A5	PCI_AD<6>	PCI_AD<6> -	22B7 38C5											
	MEM_B_DQS_P<4>	@mlb_noldo.lib.MLB_NOLDO MEM_B_DQS_P<4> -	15C2 29A6	NB_CFG<13>	NB_CFG<13> -	6D4 14C6	P3V3S0_EN_RC	P3V3S0_EN_RC -	63B5	PCI_AD<7>	PCI_AD<7> -	22B7 38C5											
	MEM_B_DQS_P<5>	@mlb_noldo.lib.MLB_NOLDO MEM_B_DQS_P<5> -	15C2 29A4	NB_CFG<14>	NB_CFG<14> -	6D4 14C6	P3V3S3_EN_L_RC	P3V3S3_EN_L_RC -	63C5	PCI_AD<8>	PCI_AD<8> -	22B7 38C5											

	8	7	6	5	4	3	2	1
D		-USB2_EXTN_N - @mlb_noldo_lib.MLB_NOLDO	6C2 42C5					
		USB2_EXTN_N - @mlb_noldo_lib.MLB_NOLDO	6C2					
	USB_A_OC_L	-USB2_EXTN_N - @mlb_noldo_lib.MLB_NOLDO	6C2 42C5					
		USB_A_OC_L - @mlb_noldo_lib.MLB_NOLDO	6C1 22C4 22D8					
		=EXTAUSB_OC_L - @mlb_noldo_lib.MLB_NOLDO	6C2 42C8					
		EXTAUSB_OC_L - @mlb_noldo_lib.MLB_NOLDO	6C2					
		=EXTAUSB_OC_L - @mlb_noldo_lib.MLB_NOLDO	6C2 42C8					
	USB_A_P	USB_A_P - @mlb_noldo_lib.MLB_NOLDO	6C1 22C2					
		=USB2_EXTN_P - @mlb_noldo_lib.MLB_NOLDO	6C2 42C5					
		USB2_EXTN_P - @mlb_noldo_lib.MLB_NOLDO	6C2					
C		=USB2_EXTN_P - @mlb_noldo_lib.MLB_NOLDO	6C2 42C5					
	USB_B_N	USB_B_N - @mlb_noldo_lib.MLB_NOLDO	6C1 22C2					
		=USB2_GEYSER_N - @mlb_noldo_lib.MLB_NOLDO	6C2 40C7					
		USB2_GEYSER_N - @mlb_noldo_lib.MLB_NOLDO	6C2					
		=USB2_GEYSER_N - @mlb_noldo_lib.MLB_NOLDO	6C2 40C7					
	USB_B_OC_L	USB_B_OC_L - @mlb_noldo_lib.MLB_NOLDO	22C4 22D8					
	USB_B_P	USB_B_P - @mlb_noldo_lib.MLB_NOLDO	6C1 22C2					
		=USB2_GEYSER_P - @mlb_noldo_lib.MLB_NOLDO	6C2 40C7					
		USB2_GEYSER_P - @mlb_noldo_lib.MLB_NOLDO	6C2					
		=USB2_GEYSER_P - @mlb_noldo_lib.MLB_NOLDO	6C2 40C7					
B	USB_C_N	USB_C_N - @mlb_noldo_lib.MLB_NOLDO	6C1 22C2					
		=USB2_EXTN_N - @mlb_noldo_lib.MLB_NOLDO	6C2 42B5					
		USB2_EXTN_N - @mlb_noldo_lib.MLB_NOLDO	6C2					
		=USB2_EXTN_N - @mlb_noldo_lib.MLB_NOLDO	6C2 42B5					
	USB_C_P	USB_C_P - @mlb_noldo_lib.MLB_NOLDO	6C1 22C2					
		=USB2_EXTN_P - @mlb_noldo_lib.MLB_NOLDO	6C2 42B5					
		USB2_EXTN_P - @mlb_noldo_lib.MLB_NOLDO	6C2					
		=USB2_EXTN_P - @mlb_noldo_lib.MLB_NOLDO	6C2 42B5					
	USB_D_OC_L	USB_D_OC_L - @mlb_noldo_lib.MLB_NOLDO	22C4 22D8					
	USB_E_N	USB_E_N - @mlb_noldo_lib.MLB_NOLDO	6C1 22C2					
A		TP_USBN_E - @mlb_noldo_lib.MLB_NOLDO	5C1 6C2					
	USB_E_OC_L	USB_E_OC_L - @mlb_noldo_lib.MLB_NOLDO	22C4 22D8					
	USB_E_P	USB_E_P - @mlb_noldo_lib.MLB_NOLDO	6C1 22C2					
		TP_USBP_E - @mlb_noldo_lib.MLB_NOLDO	5C1 6C2					
	USB_F_N	USB_F_N - @mlb_noldo_lib.MLB_NOLDO	6C1 22C2					
		=USB2_IR_N - @mlb_noldo_lib.MLB_NOLDO	6C2 41C6					
		USB_IR_N - @mlb_noldo_lib.MLB_NOLDO	6C2					
		=USB2_IR_N - @mlb_noldo_lib.MLB_NOLDO	6C2 41C6					
	USB_F_P	USB_F_P - @mlb_noldo_lib.MLB_NOLDO	6C1 22C2					
		=USB2_IR_P - @mlb_noldo_lib.MLB_NOLDO	6C2 41C6					
	USB_IR_P - @mlb_noldo_lib.MLB_NOLDO	6C2						
	=USB2_IR_P - @mlb_noldo_lib.MLB_NOLDO	6C2 41C6						
A	USB_G_N	USB_G_N - @mlb_noldo_lib.MLB_NOLDO	6B1 22C2					
		=USB2_BT_N - @mlb_noldo_lib.MLB_NOLDO	6B2 44C6					
		USB_BT_N - @mlb_noldo_lib.MLB_NOLDO	6B2					
		=USB2_BT_N - @mlb_noldo_lib.MLB_NOLDO	6B2 44C6					
	USB_G_P	USB_G_P - @mlb_noldo_lib.MLB_NOLDO	6B1 22C2					
		=USB2_BT_P - @mlb_noldo_lib.MLB_NOLDO	6C2 44C6					
		USB_BT_P - @mlb_noldo_lib.MLB_NOLDO	6C2					
		=USB2_BT_P - @mlb_noldo_lib.MLB_NOLDO	6C2 44C6					
	USB_RBIAIS_PN	USB_RBIAIS_PN - @mlb_noldo_lib.MLB_NOLDO	22C2					
	VGA_B	VGA_B - @mlb_noldo_lib.MLB_NOLDO	69B4					
VGA_G	VGA_G - @mlb_noldo_lib.MLB_NOLDO	69B4						
VGA_HSYNC	VGA_HSYNC - @mlb_noldo_lib.MLB_NOLDO	69B4 69C1						
VGA_R	VGA_R - @mlb_noldo_lib.MLB_NOLDO	69A4						
VGA_VSYNC	VGA_VSYNC - @mlb_noldo_lib.MLB_NOLDO	69B4 69C1						
VOL_DOWN	VOL_DOWN - @mlb_noldo_lib.MLB_NOLDO	54B7 54C7						
VOL_UP	VOL_UP - @mlb_noldo_lib.MLB_NOLDO	54B7 54C7						
VREG_FB	VREG_FB - @mlb_noldo_lib.MLB_NOLDO	54A4						
VR_PWRGD_CK410	VR_PWRGD_CK410 - @mlb_noldo_lib.MLB_NOLDO	23C5 26A8						
VR_PWRGOOD_DELAY	VR_PWRGOOD_DELAY - @mlb_noldo_lib.MLB_NOLDO	14B6 26B5 58C7						
XDP_BPM_L<0>	XDP_BPM_L<0> - @mlb_noldo_lib.MLB_NOLDO	7C6 11B2						
XDP_BPM_L<1>	XDP_BPM_L<1> - @mlb_noldo_lib.MLB_NOLDO	7C6 11B2						
XDP_BPM_L<2>	XDP_BPM_L<2> - @mlb_noldo_lib.MLB_NOLDO	7C6 11B2						
XDP_BPM_L<3>	XDP_BPM_L<3> - @mlb_noldo_lib.MLB_NOLDO	7C6 11B3						
XDP_BPM_L<4>	XDP_BPM_L<4> - @mlb_noldo_lib.MLB_NOLDO	7C6 11B2						
XDP_BPM_L<5>	XDP_BPM_L<5> - @mlb_noldo_lib.MLB_NOLDO	7C6 11B2						
XDP_DBRESET_L	XDP_DBRESET_L - @mlb_noldo_lib.MLB_NOLDO	7C6 11B4 26C6						
XDP_TCK	XDP_TCK - @mlb_noldo_lib.MLB_NOLDO	7A8 7C6 11B2 11B3						
XDP_TDI	XDP_TDI - @mlb_noldo_lib.MLB_NOLDO	7B8 7C6 11B3						
XDP_TDO	XDP_TDO - @mlb_noldo_lib.MLB_NOLDO	7C6 11B5						
XDP_TMS	XDP_TMS - @mlb_noldo_lib.MLB_NOLDO	7B8 7C6 11B2						
XDP_TRST_L	XDP_TRST_L - @mlb_noldo_lib.MLB_NOLDO	7C6 11B3						

8	7	6	5	4	3	2	1																																																																																																																						
C7507 CAP_402 mlb_nolldo[58B7]	C7981 CAP_603 mlb_nolldo[62C4]	C9820 CAP_402 mlb_nolldo[69A4]	L1934 IND_0603 mlb_nolldo[19C5]	L1936 IND_0603 mlb_nolldo[19C5]	L1970 IND_1210 mlb_nolldo[19B4]	L1975 IND_0805 mlb_nolldo[19A4]	L1985 IND_0603 mlb_nolldo[19D3]	L1990 IND_0603 mlb_nolldo[19C3]	L2500 IND_SM-3 mlb_nolldo[25B8]	L2507 IND_1206 mlb_nolldo[25A7]	L3301 IND_0402-LF mlb_nolldo[32D7]	L3302 IND_0402-LF mlb_nolldo[32D3]	L3901 FILTER_4P_2012H mlb_nolldo[35D6]	L3902 FILTER_4P_2012H mlb_nolldo[35D5]	L3912 IND_0402 mlb_nolldo[35C6]	L4100 IND_0402-LF mlb_nolldo[36D3]	L4250 IND_0402-LF mlb_nolldo[37D7]	L4400 IND_0402 mlb_nolldo[38D4]	L4510 IND_SM mlb_nolldo[39C3]	L4550 IND_SM-1 mlb_nolldo[39A7]	L4900 IND_0402 mlb_nolldo[40D5]	L4901 FILTER_4P_SM mlb_nolldo[40C6]	L4902 IND_0402 mlb_nolldo[40C5]	L5200 FILTER_4P_SM mlb_nolldo[42C4]	L5201 FILTER_4P_SM mlb_nolldo[42B4]	L5202 IND_0402-LF mlb_nolldo[42D4]	L5203 IND_0402-LF mlb_nolldo[42C4]	L5204 IND_0402-LF mlb_nolldo[42C3]	L5205 IND_0402-LF mlb_nolldo[42A3]	L5400 FILTER_4P_SM mlb_nolldo[44B5]	L5410 IND_0402-LF mlb_nolldo[44C5]	L5411 IND_0402-LF mlb_nolldo[44B5]	L5910 IND_0603 mlb_nolldo[46A7]	L6800 IND_0402 mlb_nolldo[54A5]	L6801 IND_0402 mlb_nolldo[54D6]	L7200 IND_0402 mlb_nolldo[55C7]	L7210 IND_0402 mlb_nolldo[55C7]	L7211 IND_0402 mlb_nolldo[55A7]	L7220 IND_0402 mlb_nolldo[55B7]	L7230 IND_0402 mlb_nolldo[55A7]	L7300 IND_0402-LF mlb_nolldo[56D6]	L7301 IND_0402-LF mlb_nolldo[56D4]	L7302 IND_0402 mlb_nolldo[56D6]	L7303 IND_0402 mlb_nolldo[56C6]	L7304 IND_0402 mlb_nolldo[56C4]	L7305 IND_0402 mlb_nolldo[56C6]	L7306 IND_0402 mlb_nolldo[56C4]	L7307 IND_0402 mlb_nolldo[56C6]	L7350 IND_0402 mlb_nolldo[56B6]	L7351 IND_0402 mlb_nolldo[56B4]	L7352 IND_0402 mlb_nolldo[56B6]	L7353 IND_0402 mlb_nolldo[56B6]	L7354 IND_0402 mlb_nolldo[56B4]	L7355 IND_0402 mlb_nolldo[56B6]	L7356 IND_0402 mlb_nolldo[56B4]	L7357 IND_0402 mlb_nolldo[56A6]	L7370 IND_0402 mlb_nolldo[56B2]	L7371 IND_0402 mlb_nolldo[56B1]	L7372 IND_0402 mlb_nolldo[56B2]	L7373 IND_0402 mlb_nolldo[56B1]	L7374 IND_0402 mlb_nolldo[56B2]	L7375 IND_0402 mlb_nolldo[56B1]	L7390 IND_0402 mlb_nolldo[56D8]	L7400 IND_0402 mlb_nolldo[57B4]	L7500 IND_SM mlb_nolldo[58D2]	L7501 IND_SM mlb_nolldo[58B2]	L7620 IND_L812HW mlb_nolldo[59B7]	L7680 IND_SM mlb_nolldo[59B2]	L7820 IND_3P_SM mlb_nolldo[61B3]	L7920 IND_SM mlb_nolldo[62B7]	L7960 IND_3P_SM mlb_nolldo[62B2]	L8090 IND_CDP4D19F-SM mlb_nolldo[63D1]	L8201 IND_SM-LF mlb_nolldo[65A3]	L8202 IND_0402-LF mlb_nolldo[65A3]	L8203 IND_0402-LF mlb_nolldo[65A3]	L8204 IND_0402-LF mlb_nolldo[65A3]	L8205 IND_SM-LF mlb_nolldo[65A3]	L8207 IND_0402 mlb_nolldo[65A7]	L8208 IND_0402 mlb_nolldo[65A7]	L8209 IND_0402 mlb_nolldo[65A7]	L8300 IND_3P_SM mlb_nolldo[66C4]	L9400 IND_0402-LF mlb_nolldo[67D4]	L9401 IND_0402-LF mlb_nolldo[67C4]	L9402 IND_0402-LF mlb_nolldo[67D4]	L9403 IND_0402-LF mlb_nolldo[67D4]	L9404 IND_0402-LF mlb_nolldo[67B4]	L9405 IND_0402-LF mlb_nolldo[67A4]	L9407 IND_0402-LF mlb_nolldo[67A4]	L9408 IND_0402-LF mlb_nolldo[67B4]	L9500 IND_0402-LF mlb_nolldo[68D5]	L9501 IND_0402-LF mlb_nolldo[68D5]	L9503 IND_0402-LF mlb_nolldo[68D8]	L9504 IND_0402-LF mlb_nolldo[68C8]	L9505 IND_0402-LF mlb_nolldo[68C8]	L9506 IND_0402-LF mlb_nolldo[68D8]	L9804 FILTER_4P_SMI mlb_nolldo[69A2]	L9805 FILTER_4P_2012H mlb_nolldo[69B2]	L9806 FILTER_4P_2012H mlb_nolldo[69B2]	L9807 FILTER_4P_2012H mlb_nolldo[69B2]	L9844 IND_SM-1 mlb_nolldo[69C4]	Q2680 TRA_SINGLE_MOSFET_NC mlb_nolldo[26A3]	HN_SOT23	Q3810 TRA_FDC638P_SM-LF mlb_nolldo[34C5]	Q3875 TRA_2N7002DW_SOT-363 mlb_nolldo[34C6 34C7]	Q4590 TRA_FDC638P_SM-LF mlb_nolldo[39D5]	Q4591 TRA_2N7002_SOT23-LF mlb_nolldo[39C5]	Q5901 TRA_2N3906_SOT3-LF mlb_nolldo[46B4 68B5]	Q5950 TRA_2N3906_SOT23-LF mlb_nolldo[46A3]	Q5952 TRA_2N7002_SOT23-LF mlb_nolldo[46A3]	Q6100 TRA_S13446DV_TSOP-LF mlb_nolldo[48A5]	Q6101 TRA_2N7002DW_SOT-363 mlb_nolldo[48A6 48A7]	Q6150 TRA_TP0610_SOT23-3 mlb_nolldo[48C6]	Q6151 TRA_2N7002_SOT23-LF mlb_nolldo[48C7]	Q6152 TRA_TP0610_SOT23-3 mlb_nolldo[48C7]	Q6153 TRA_TP0610_SOT23-3 mlb_nolldo[48C8]	Q6200 SOT32-3 M mlb_nolldo[49B6]	Q6560 TRA_2N7002_SOT23-LF mlb_nolldo[51B3]	Q6560 TRA_2N7002_SOT23-LF mlb_nolldo[52B6]	Q6651 TRA_TP0610_SOT23-3 mlb_nolldo[52B6]	Q7400 TRA_2N7002DW_SOT-363 mlb_nolldo[57C7 57D7]	Q7401 TRA_2N7002DW_SOT-363 mlb_nolldo[57D5 57D6]	Q7402 TRA_2N7002DW_SOT-363 mlb_nolldo[57B7 57C5]	Q7500 TRA_HAT2168H_LFPAK mlb_nolldo[58D3]	Q7501 TRA_HAT2168H_LFPAK mlb_nolldo[58D4]	Q7502 TRA_HAT2168H_LFPAK mlb_nolldo[58C3]

D

D

C

C

B

B

A

A

	8	7	6	5	4	3	2	1			
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T4202 XFR_1000BT_82400275_mlb_noldd[37B6] XFR-SM U0700 CPU_YONAH_BGA mlb_noldd[7C3 7D7] U0700 CPU_YONAH_BGA mlb_noldd[8D8 8D4] U1001 ADT7481 mlb_noldd[10C5] U1200 NB_945GM_BGA mlb_noldd[12D5] U1200 NB_945GM_BGA mlb_noldd[13D4] U1200 NB_945GM_BGA mlb_noldd[14D5] U1200 NB_945GM_BGA mlb_noldd[15D3 15D7] U1200 NB_945GM_BGA mlb_noldd[16D2 16C8] U1200 NB_945GM_BGA mlb_noldd[17D5] U1200 NB_945GM_BGA mlb_noldd[18D4 18D7] U1900 LREG_TPS73115_SOT23-5 M9157_SOT23-5-LF mlb_noldd[19C4] U2100 SB_ICH7M_BGA mlb_noldd[21D6] U2100 SB_ICH7M_BGA mlb_noldd[22B7 22D3] U2100 SB_ICH7M_BGA mlb_noldd[23D4] U2100 SB_ICH7M_BGA mlb_noldd[24D4 24D7] U2601 MC74VHC1G08_SC70 mlb_noldd[26A5] U2603 MC74VHC1G08_SC70-5 mlb_noldd[26A7] U2680 MC74VHC1G08_SC70 mlb_noldd[26B3] U3100 LREG_BD3533FVM_MSOP-8 U3301 CLK_SYN_SLG8L436_QF mlb_noldd[32C5] N U4101 88E8053_QFN mlb_noldd[36D6] U4102 EEPROM_M24C08_S08 mlb_noldd[36A3] U4400 FW32306_BGA_BGA mlb_noldd[38C5] U5100 CY8C24794_MLF mlb_noldd[41C5] U5200 SWI_TPS2042B_MSOP mlb_noldd[42C7] U5800 SMC_H8S2116_BGA mlb_noldd[45A8 45C3 45C7 45D7] U5900 VDET_RNSVD_SOT23-5 mlb_noldd[46D7] U5910 OCS_LIP_SG-3040LC-SM mlb_noldd[46A7] U5977 COMPARTATOR_LMC7211_S mlb_noldd[46C2] M-LF U6100 OPAMP_LMV2011_SOT23-5 mlb_noldd[48C3] 5 U6200 MAX6695_UMAX1 mlb_noldd[49D4] U6250 MAX6695_UMAX1 mlb_noldd[49B4] U6301 FLASH_SST25VF016B_SO mlb_noldd[50D3] I_SOI U6620 KM52_QFN mlb_noldd[52C5] U6650 LISL62AL_LGA mlb_noldd[52B5] U6700 TPM_TSSOP mlb_noldd[53C5] U6800 AUDIO_STAC92204XR_LQ mlb_noldd[54D5] FP U7210 MAX9705_TDFN1 mlb_noldd[55C5] U7220 MAX9705_TDFN1 mlb_noldd[55B5] U7230 MAX9705_TDFN1 mlb_noldd[55A5] U7400 MAX9890_UCSP1 mlb_noldd[57C2] U7500 ISL6262_QFN mlb_noldd[58C6] U7600 LTC3728L_QFN mlb_noldd[59C5] U7700 MAX8887_SOT23-5 mlb_noldd[60D4] U7701 MAX8887_SOT23-5 mlb_noldd[60C4] U7720 LREG_MAX8516_SOP mlb_noldd[60B3] U7800 ISL6269_QFN mlb_noldd[61C5] U7801 AMP_INA326_MSOP mlb_noldd[61C2] U7900 LTC3728L_QFN mlb_noldd[62C5] U7901 AMP_INA326_MSOP mlb_noldd[62A6] U8070 LTC2908_LLF mlb_noldd[63B2] U8080 MC74VHC1G08_SC70 mlb_noldd[63B1] U8090 LP3470_TSSOP mlb_noldd[63D3] U8200 COMPARTATOR_LMC7211_S mlb_noldd[65C4] M-LF U8250 MC74VHC1G08_SC70 mlb_noldd[65C3] U8290 COMPARTATOR_LM397_SOT mlb_noldd[65C5] 23-5 U8300 ISL6255_QFN mlb_noldd[66C6] U8370 INA193_SOT23-5 mlb_noldd[66C3] U8375 INA193_SOT23-5 mlb_noldd[66B2] U9453 MC74VHC1G08_SC70 mlb_noldd[67C5] U9500 SII1362_MDF mlb_noldd[68B4] U9801 VIDEO_TS3V330_SOP mlb_noldd[69B7] U9804 SN74LVC20125_US mlb_noldd[69C2 69C2] VR5965 VREF_ISL6000233_SOT2 mlb_noldd[46C7] 3-3 VR6800 LREG_TPS79501_SOT223 mlb_noldd[54A5] -6 XW5800 SHORT_SM mlb_noldd[45C3] XW7200 SHORT_SM mlb_noldd[55A5] XW7300 SHORT_SM mlb_noldd[56C4]	XW7301 SHORT_SM mlb_noldd[56B4] XW7302 SHORT_SM mlb_noldd[56C2] XW7303 SHORT_SM mlb_noldd[56C2] XW7304 SHORT_SM mlb_noldd[56B2] XW7305 SHORT_SM mlb_noldd[56B7] XW7400 SHORT_SM mlb_noldd[57A7] XW7500 SHORT_SM mlb_noldd[58A6] XW7600 SHORT_SM mlb_noldd[59A5] XW7620 JUMPER_OPEN-SAWTOOTH mlb_noldd[59B8] XW7660 JUMPER_OPEN-SAWTOOTH mlb_noldd[59B1] XW7800 SHORT_SM mlb_noldd[61B5] XW7900 SHORT_SM mlb_noldd[62A5] XW7920 JUMPER_OPEN-SAWTOOTH mlb_noldd[62B8] XW8101 SHORT_SM mlb_noldd[64B2] XW8102 SHORT_SM mlb_noldd[64B2] XW8300 SHORT_SM mlb_noldd[66B4] Y2600 CRYSTAL_4PIN_SM-LF mlb_noldd[26C7] Y3301 CRYSTAL_5X3.2-SM mlb_noldd[32C7] Y4101 CRYSTAL_4PIN_SM-3.2X mlb_noldd[36B6] 2.5MM Y4403 CRYSTAL_4PIN_SM-3.2X mlb_noldd[38C2] 2.5MM Y5920 CRYSTAL_5X3.2-SM mlb_noldd[46C7] Y6795 CRYSTAL_4PIN_SM-LF mlb_noldd[53B6] Z0601 MTGHOLE mlb_noldd[68B] Z0602 MTGHOLE mlb_noldd[6C6] Z0603 PCB_STANDOFF mlb_noldd[6A8] Z0604 PCB_STANDOFF mlb_noldd[6A6] Z0605 PCB_STANDOFF mlb_noldd[6A8] Z0606 MTGHOLE mlb_noldd[6D6] Z0607 MTGHOLE mlb_noldd[6C6] Z0608 MTGHOLE mlb_noldd[6C6] Z0609 MTGHOLE mlb_noldd[6B7] Z0610 MTGHOLE mlb_noldd[6B6] Z0611 MTGHOLE mlb_noldd[6B7] Z0612 PCB_STANDOFF mlb_noldd[6A6] Z0613 PCB_STANDOFF mlb_noldd[6A5] Z0621 PCB_STANDOFF mlb_noldd[6A6] ZS0620 SPRING_CLIP_IP_RMI_C mlb_noldd[6D7] LIP-SM-M42 ZS0621 CLIP_SM mlb_noldd[6D6]							
A	8	7	6	5	4	3	2	1			