

M42C MLB

11/27/2006 POST RAMP WITH LOCKED BOOTROM

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

REV	ZONE	ECN	DESCRIPTION OF CHANGE	CK APPD DATE	ENG APPD DATE
C		474680	PRODUCTION RELEASED	11/27/06	?

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11	11	CPU ITP700FLEX DEBUG	RX	MASTER	5/23/05
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13	13	NB PEG / Video Interfaces	DK	NB	07/25/2005
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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

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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			

EE DRIS:

RX-RAYMOND XU
DK-DINESH KUMAR

RC-RAY CHANG


MK-MARC KLINGELHOFFER
LT-LAWRENCE TAN
ES-ERIC SMITH

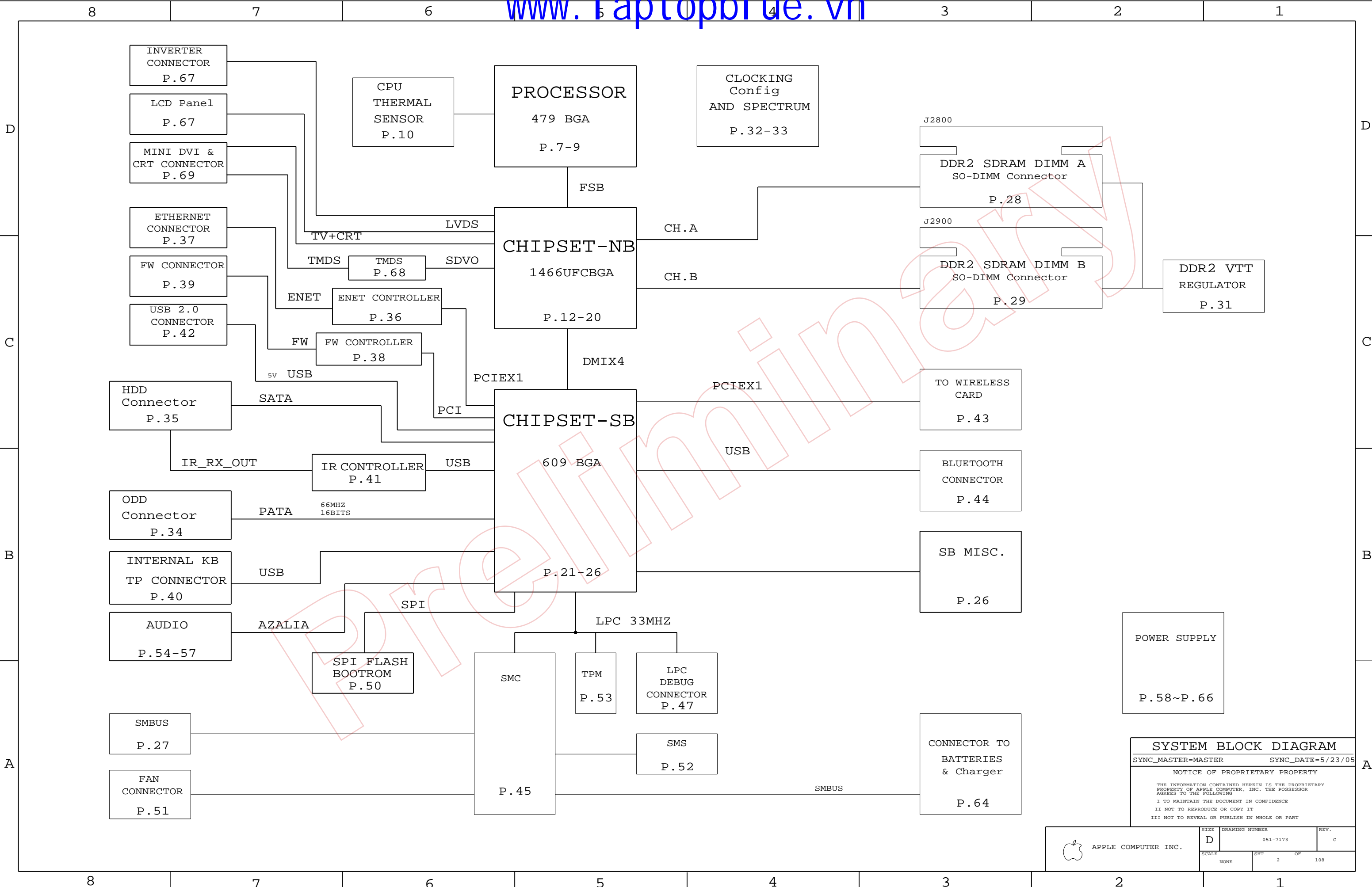
LD-LINDA DUNN

Schematic / PCB #'s

PART#	QTY	DESCRIPTION	REFERENCE DESIGNATOR(S)	BOM OPTION
051-7173	1	SCHEM,MACBOOK,MLB	SCH	
820-1889	1	PCBF,MACBOOK,MLB	PCB	

DRAWING
TITLE=U230
ARREV=DRAWING
LAST_MODIFIED=Mon Nov 27 14:57:31 2006

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	ENG APPD	MFG APPD	TITLE			
	QA APPD	DESIGNER	SCHEM,MLB,MACBOOK			
RELEASE	SCALE	NONE	DRAWING NUMBER	051-7173	REV.	C
MATERIAL/FINISH NOTED AS APPLICABLE		SIZE	D	SHT 1 OF 108		



SYSTEM BLOCK DIAGRAM

SYNC_MASTER=MASTER

SYNC_DATE=5/23/05

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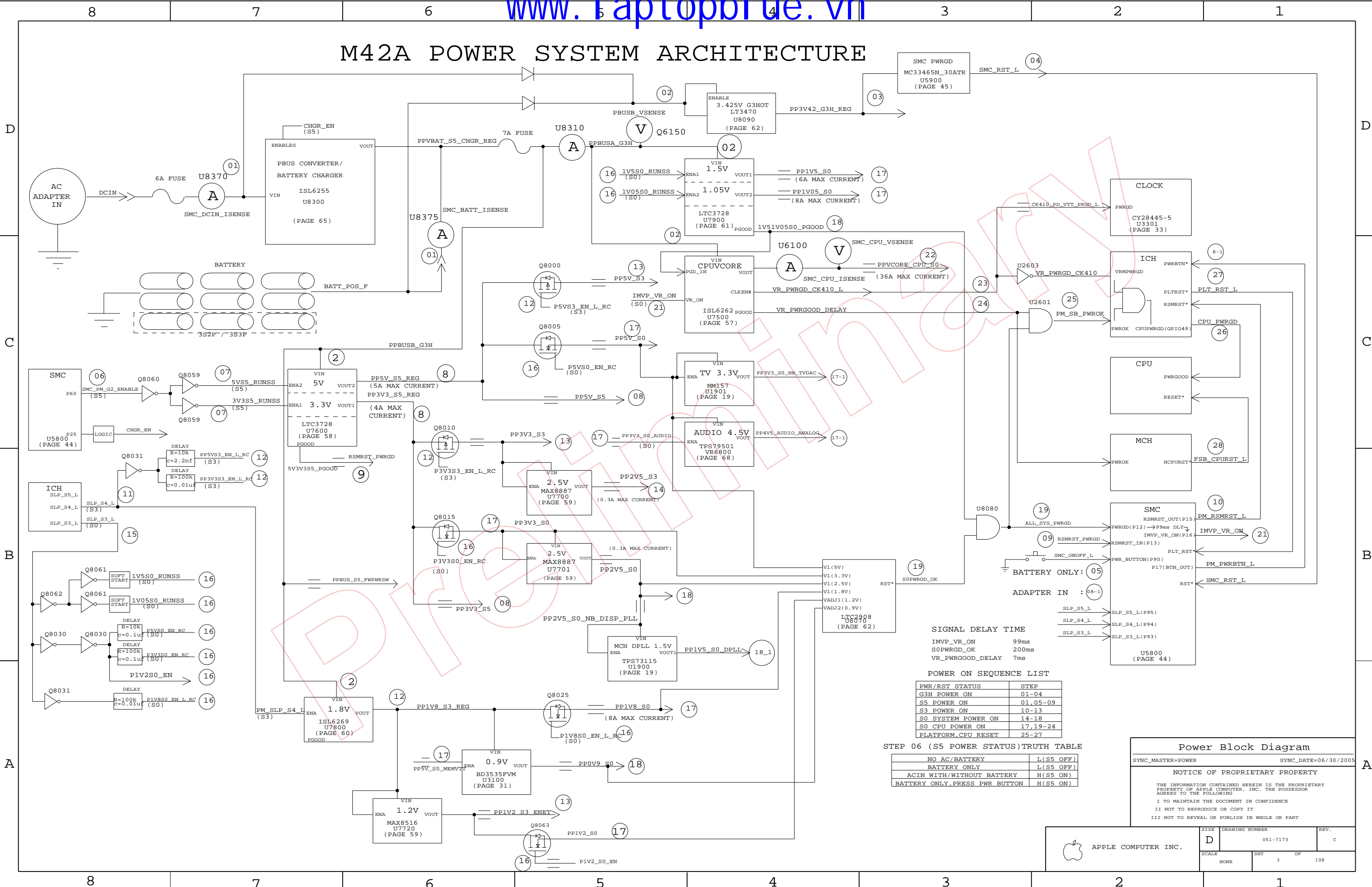
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APPLE COMPUTER INC.	SIZE D	DRAWING NUMBER 051-7173	REV. c
	SCALE NONE	SHT 2	OF 108



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

LAYER	THICKNESS (MM)	TRACE WIDTH (MM)
CONFORMAL_COAT	0.018	
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
337S3387	1	IC, MEMOM, CPU B2 DC 1.83GHZ, 479 PGA	U0700	GOOD
337S3389	1	IC, MEMOM, CPU B2 DC 2.0GHZ, 479 PGA	U0700	BETTER
337S3389	1	IC, MEMOM, CPU B2 DC 2.0GHZ, 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
341S1942	1	IC, 16MBIT 8-PIN SPI SERIAL FLASH, 802P8	U6301	M42A_PGM
341S1797	1	IC, EEPROM, SERIAL IIC, 8KBIT, S08	U4102	M42A_PGM
341S1946	1	IC, SMC, 176P BGA, H58/2116	U5800	M42A_PGM
341S1890	1	IC, PSOC-W/USB, 56P, MLP, CY8C24794	U5100	M42A_PGM

PART#	QTY	DESCRIPTION	REFERENCE DESIGNATOR(S)	CRITICAL	BOM OPTION
826-4393	1	LBL, P/N LABEL, PCB, 28MMX6MM	EEE:WES	CRITICAL	GOOD-ST
826-4393	1	LBL, P/N LABEL, PCB, 28MMX6MM	EEE:WET	CRITICAL	BETTER-ST
826-4393	1	LBL, P/N LABEL, PCB, 28MMX6MM	EEE:WEW	CRITICAL	BEST-KIONIX
826-4393	1	LBL, P/N LABEL, PCB, 28MMX6MM	EEE:WEV	CRITICAL	GOOD-KIONIX
826-4393	1	LBL, P/N LABEL, PCB, 28MMX6MM	EEE:W6V	CRITICAL	BETTER-KIONIX
826-4393	1	LBL, P/N LABEL, PCB, 28MMX6MM	EEE:WEU	CRITICAL	BEST-ST

CONFIGURATION OPTIONS

SYNC_MASTER=SMC SYNC_DATE=07/18/2005

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SIZE	DRAWING NUMBER	REV.
D	051-7173	C
SCALE	SHT	OF
NONE	4	108

D

C

B

A

Power Supply NO_TESTS

NO_TEST		
H183	IMVP6_RBIAS	58
H184	IMVP6_COMP	58
H185	5VS5_RUNSS	59 63
H186	1V5S0_RUNSS	62 63
H187	1V8S3_COMP	61
H188	1V8S3_FSET	61
H189	TRUE 3V3S5_COMP	
H190	TRUE 3V3S5_FSET	
H191	TRUE 1V05S0_COMP	
H192	TRUE 1V05S0_FSET	
H193	TRUE P3V42G3H_FB	63

CLOCK NO_TESTS

NO_TEST		
H183	TRUE CK410_CPU0_N	32 33
H184	TRUE CK410_CPU0_P	32 33
H185	TRUE CK410_CPU1_N	32 33
H186	TRUE CK410_CPU1_P	32 33
H187	TRUE CK410_CPU2_ITP_SRC10_N	32 33
H188	TRUE CK410_CPU2_ITP_SRC10_P	32 33
H189	TRUE CK410_DOT96_27M_N	32 33
H190	TRUE CK410_DOT96_27M_P	32 33
H191	TRUE CK410_LVDS_N	32 33
H192	TRUE CK410_LVDS_P	32 33
H193	TRUE CK410_PCI4_CLK_SPN	32 33
H194	TRUE CK410_PCIF1_CLK	32 33
H195	TRUE CK410_SRC1_N_SPN	6
H196	TRUE CK410_SRC1_P_SPN	6
H197	TRUE CK410_SRC2_N	32 33
H198	TRUE CK410_SRC2_P	32 33
H199	TRUE CK410_SRC3_N_SPN	6
H200	TRUE CK410_SRC3_P_SPN	6
H201	TRUE CK410_SRC4_N	32 33
H202	TRUE CK410_SRC4_P	32 33
H203	TRUE CK410_SRC5_N	32 33
H204	TRUE CK410_SRC5_P	32 33
H205	TRUE CK410_SRC6_N	32 33
H206	TRUE CK410_SRC6_P	32 33
H207	TRUE CK410_SRC7_N_SPN	6
H208	TRUE CK410_SRC7_P_SPN	6
H209	TRUE CK410_SRC8_N	32 33
H210	TRUE CK410_SRC8_P	32 33
H211	TRUE CK410_SRC_CLKREQ01_L_SPN	6
H212	TRUE CK410_SRC_CLKREQ03_L_SPN	6
H213	TRUE CK410_SRC_CLKREQ08_L	32 33

FIREWARE NO_TESTS

NO_TEST		
H209	TRUE FW_B_TPA_N_SPN	6
H210	TRUE FW_B_TPA_P_SPN	6
H211	TRUE FW_B_TPBIAS_SPN	6
H212	TRUE FW_B_TPB_N_SPN	6
H213	TRUE FW_B_TPB_P_SPN	6
H214	TRUE FW_C_TPA_N_SPN	6
H215	TRUE FW_C_TPA_P_SPN	6
H216	TRUE FW_C_TPBIAS_SPN	6
H217	TRUE FW_C_TPB_N_SPN	6
H218	TRUE FW_C_TPB_P_SPN	6

LVDS NO_TESTS

NO_TEST		
H209	TRUE LVDS_B_CLK_N_SPN	6
H210	TRUE LVDS_B_CLK_P_SPN	6
H211	TRUE LVDS_B_DATA_N0_SPN	6
H212	TRUE LVDS_B_DATA_N1_SPN	6
H213	TRUE LVDS_B_DATA_N2_SPN	6
H214	TRUE LVDS_B_DATA_P1_SPN	6
H215	TRUE LVDS_B_DATA_P2_SPN	6

ETHERNET NO_TESTS

NO_TEST		
H215	TRUE ENET_MDI_TRAN_P<2>	37
H216	TRUE ENET_MDI_TRAN_N<2>	37
H217	TRUE ENET_MDI_TRAN_P<3>	37

NO_TEST		
H218	TRUE SMC_FAN_3_TACH	45 46
H219	TRUE ALS_LEFT	45 46

Functional Test Points

Fan Connectors

FUNC_TEST		
H183	TRUE =PP5V_S0_FAN_RT	51 64
H184	TRUE FAN_RT_PWM	51
H185	TRUE FAN_RT_TACH	51
H186	TRUE =PP3V3_S0_FAN_RT	51 64
H187	TRUE SMC_FAN_1_CTL	45 51
H188	TRUE SMC_FAN_1_TACH	45 51

LPC+ Debug Connector

FUNC_TEST		
H183	TRUE =PP3V42_G3H_LPCPLUS	47 64
H184	TRUE =PP5V_S0_LPCPLUS	47 64
H185	TRUE LPC_AD<0>	21 45 47 53
H186	TRUE LPC_AD<1>	21 45 47 53
H187	TRUE LPC_FRAME_L	21 45 47 53
H188	TRUE PM_CLKRUN_L	23 38 45 47 53
H189	TRUE BOOT_LPC_SPI_L	22 45 47
H190	TRUE SMC_TMS	45 46 47
H191	TRUE DEBUG_RST_L	26 47
H192	TRUE SMC_TRST_L	45 47
H193	TRUE SMC_TDO	45 46 47
H194	TRUE SMC_MD1	45 47
H195	TRUE SMC_TX_L	45 46 47
H196	TRUE FWH_INIT_L	5 21 47
H197	TRUE PCI_CLK_PORT80_LPC	33 47
H198	TRUE LPC_AD<2>	21 45 47 53
H199	TRUE LPC_AD<3>	21 45 47 53
H200	TRUE INT_SERIRQ	23 45 47 53
H201	TRUE PM_SUS_STAT_L	23 45 46 47 53
H202	TRUE SMC_TDI	45 46 47
H203	TRUE SMC_TCK	45 46 47
H204	TRUE SMC_RST_L	45 46 47
H205	TRUE SMC_NMI	45 47
H206	TRUE SMC_RX_L	45 46 47
H207	TRUE SV_SET_UP	23 47

Other Func Test Points

FUNC_TEST		
H183	TRUE =PP1V05_S0_REG	62 64
I182 SMBus FUNC_TEST		
H183	TRUE SMBUS_SMC_MLB_SCL	27
H184	TRUE SMBUS_SMC_MLB_SDA	27
FIREWIRE FUNC_TEST		
H183	TRUE PPFW_SWITCH	39
SLEEP LED FUNC_TEST		
H183	TRUE SYS_LED_ANODE	35 46
SMC FUNC_TEST		
H183	TRUE SMC_LID	40 45 46 65
H184	TRUE SMC_MANUAL_RST_L	46
H185	TRUE SMC_CPU_VSENSE	45 48
Power Supply FUNC_TEST		
H183	TRUE ALL_SYS_PWRGD	26 45 63
H184	TRUE PPVCORE_CPU_S0	64
H185	TRUE PP1V05_S0	64
H186	TRUE PP1V5_S0	64
H187	TRUE PP1V8_S0	64
H188	TRUE PP2V5_S0	64
H189	TRUE PP3V3_S0	64
H190	TRUE PP5V_S0	64
H191	TRUE PP1V2_S3	64
H192	TRUE PP1V8_S3	64
H193	TRUE PP2V5_S3	64
H194	TRUE PP3V3_S3	64
H195	TRUE PP5V_S3	64
H196	TRUE PP3V3_S5	64
H197	TRUE PP5V_S5	64
H198	TRUE PP3V42_G3H	64
H199	TRUE PPBUS_A_G3H	64
H200	TRUE PPBUS_B_G3H	64
H201	TRUE PP18V5_G3H	64
H202	TRUE PP0V9_S0	64

Battery Digital Connector

FUNC_TEST		
H183	TRUE SMC_BS_ALRT_L	45 46 65
H184	TRUE SMBUS_BATT_SCL_F	65
H185	TRUE SMBUS_BATT_SDA_F	65
H186	TRUE BATT_IN	
H187	TRUE BATT_POS	65
H188	TRUE BATT_NEG	65

Audio FUNC_TEST

H183	TRUE PP5V_S0_AUDIO_PWR	
H184	TRUE PP5V_S0_AUDIO	
H185	TRUE GND_AUDIO_PWR	64
H186	TRUE GND_AUDIO_CODECS	64
H187	TRUE ACZ_SDATIN<0>	21 54
H188	TRUE ACZ_SDATAOUT	21 54
H189	TRUE ACZ_BITCLK	21 54
H190	TRUE ACZ_RST_L	21 54 57
H191	TRUE ACZ_SYNC	21 54

Battery FUNC_TEST

H183	TRUE SMC_BATT_ISET	45 66
H184	TRUE SMC_BATT_CHG_EN	45 46 66
H185	TRUE SMC_BC_ACOK	45 46 65 66
H186	TRUE SMC_PS_ON	39 45 46 65
H187	TRUE SMC_BATT_TRICKLE_EN_L	45 46 66
H188	TRUE SYS_ONEWIRE	45 46 65

USB FUNC_TEST

H183	TRUE TP_USBP_E	6
H184	TRUE TP_USBN_E	6
H185	TRUE TP_USBP_F	
H186	TRUE TP_USBN_F	

DC-JACK FUNC_TEST

H183	TRUE ACIN_ENABLE_GATE	65
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Battery charger FUNC_TEST

H183	TRUE PPVBAT_G3H_CHGR_OUT	66
------	--------------------------	----

INVERTER CONNECTOR FUNC_TEST

H183	TRUE PPBUS_ALL_INV_CONN	67
H184	TRUE INV_GND	67
H185	TRUE PP5V_INV_F	67
H186	TRUE INV_BKLIGHT_PWM_L	67

FUNC TEST 1 OF 2

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SCALE	SHT	OF
NONE	5	108

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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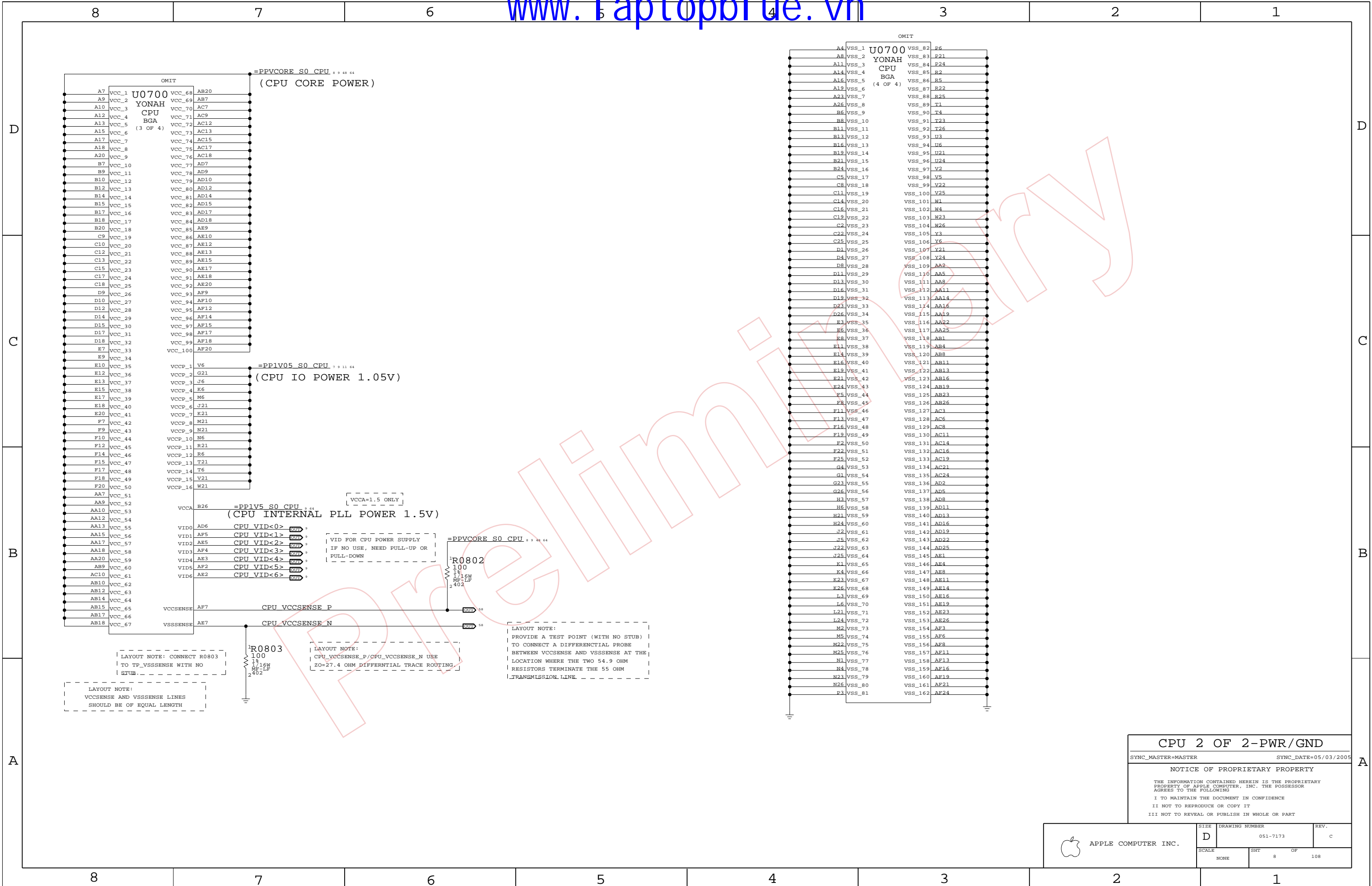
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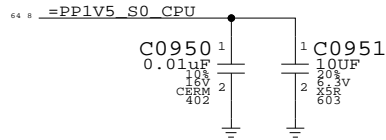


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SIZE	DRAWING NUMBER	REV.
D	051-7173	C
SCALE	SHT	OF
NONE	7	108

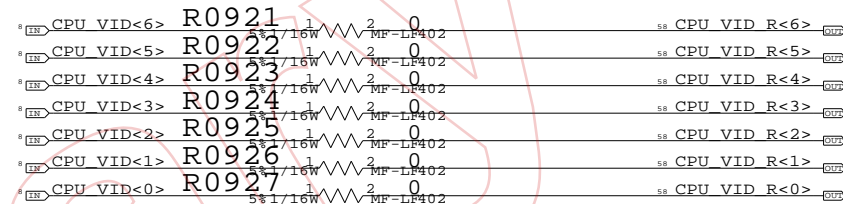


VCCA DECOUPLING
(CPU INTERNAL PLL POWER 1.5V)



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

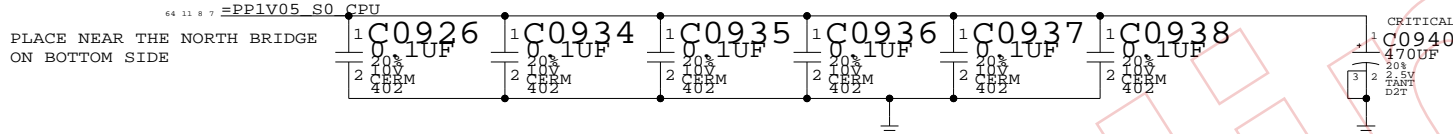
CPU CORE VID<> SETTINGS



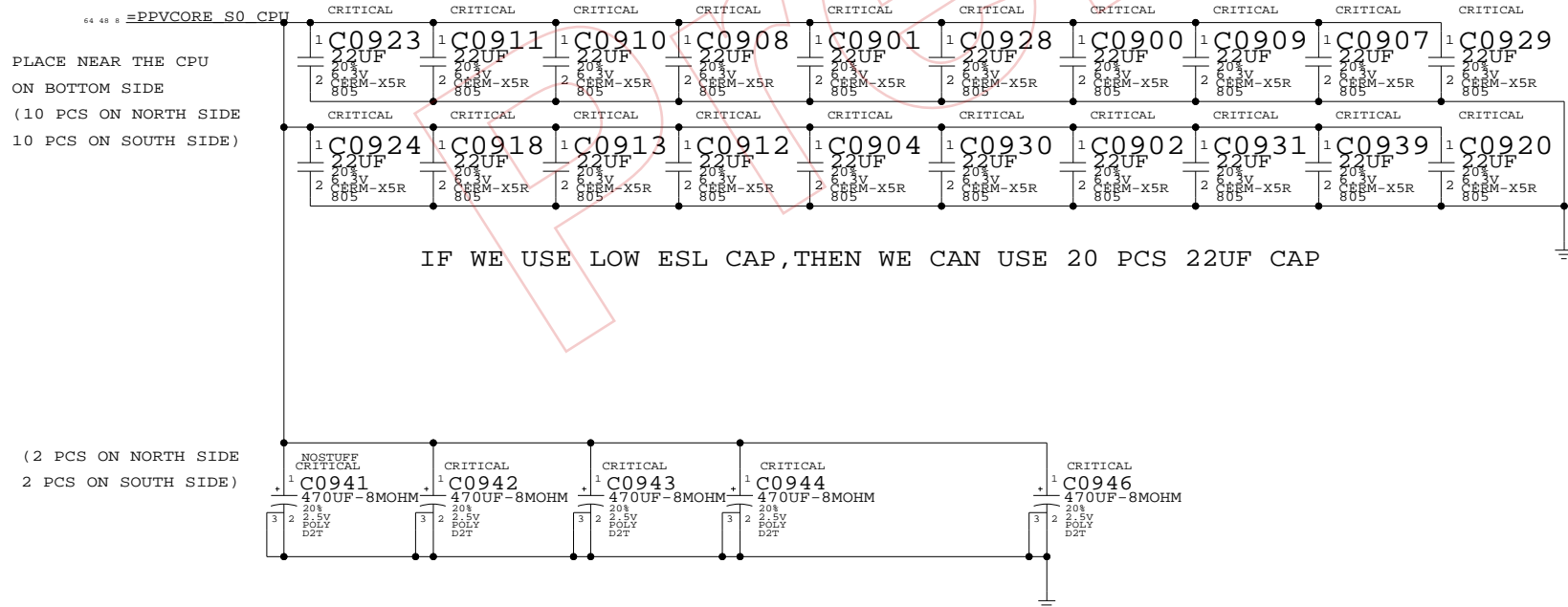
R0921~R0927 FOR CPU VOLTAGE MANUAL SETTING

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	

DUAL CORE LV CPU	VCCHFM 1.0		1.1625
	VCCLFM	TBD	

ULV CPU	VCCHFM	TBD	TBD
	VCCLFM	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<>

NOTICE OF PROPRIETARY PROPERTY


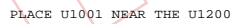
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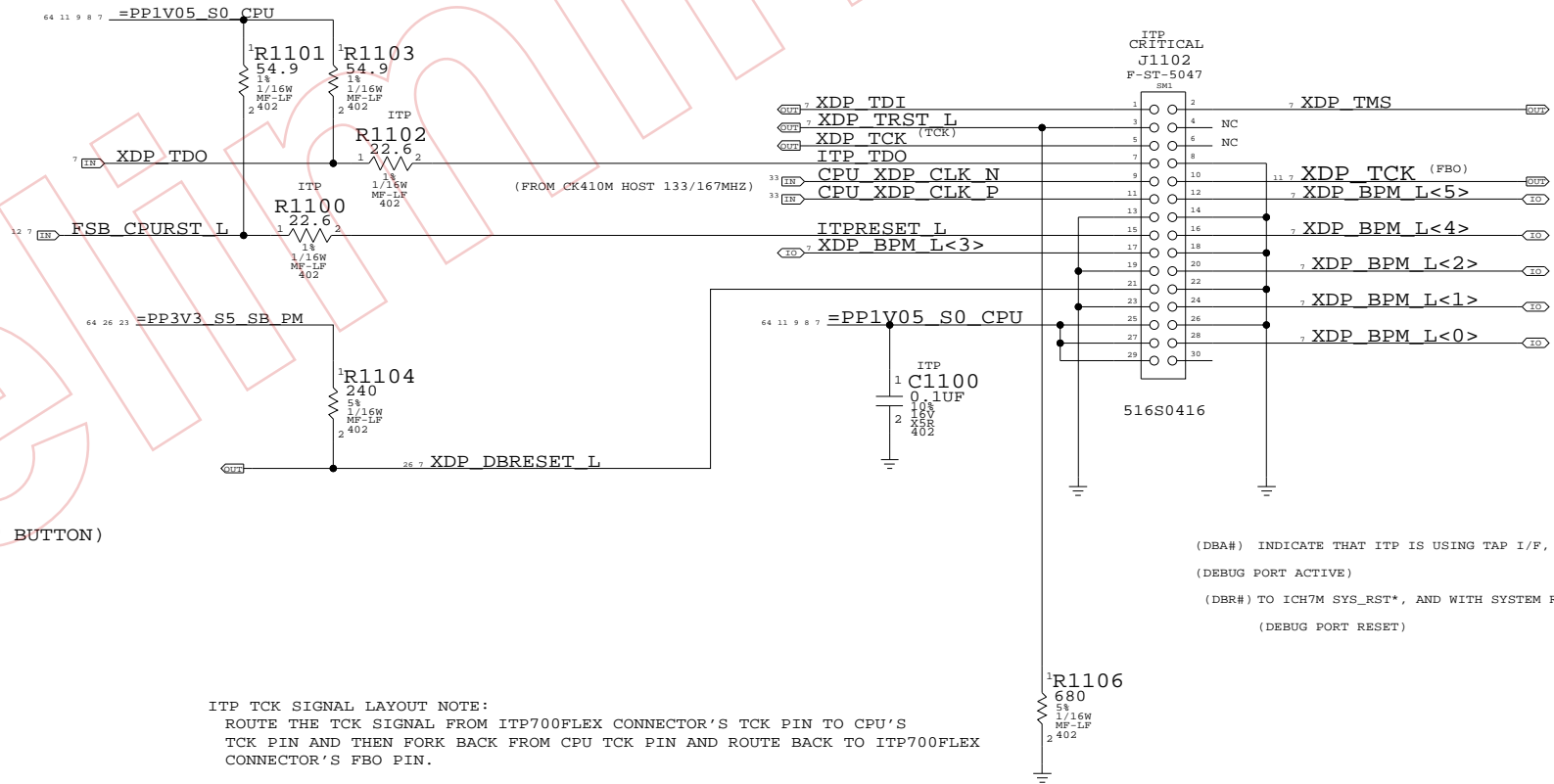
SIZE	DRAWING NUMBER	REV.
D	051-7173	C
SCALE	SHT	OF
NONE	9	108

LAYOUT NOTE: ADD GND GUARD TRACE FOR CPU_THERMD_P AND CPU_THERMD_N	LAYOUT NOTE: ROUTE CPU_THERMD_P AND CPU_THERMD_N ON SAME LAYER. 10 MIL TRACE 10 MIL SPACING
---	--



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CPU ITP700FLEX DEBUG SUPPORT



APPLE COMPUTER INC.

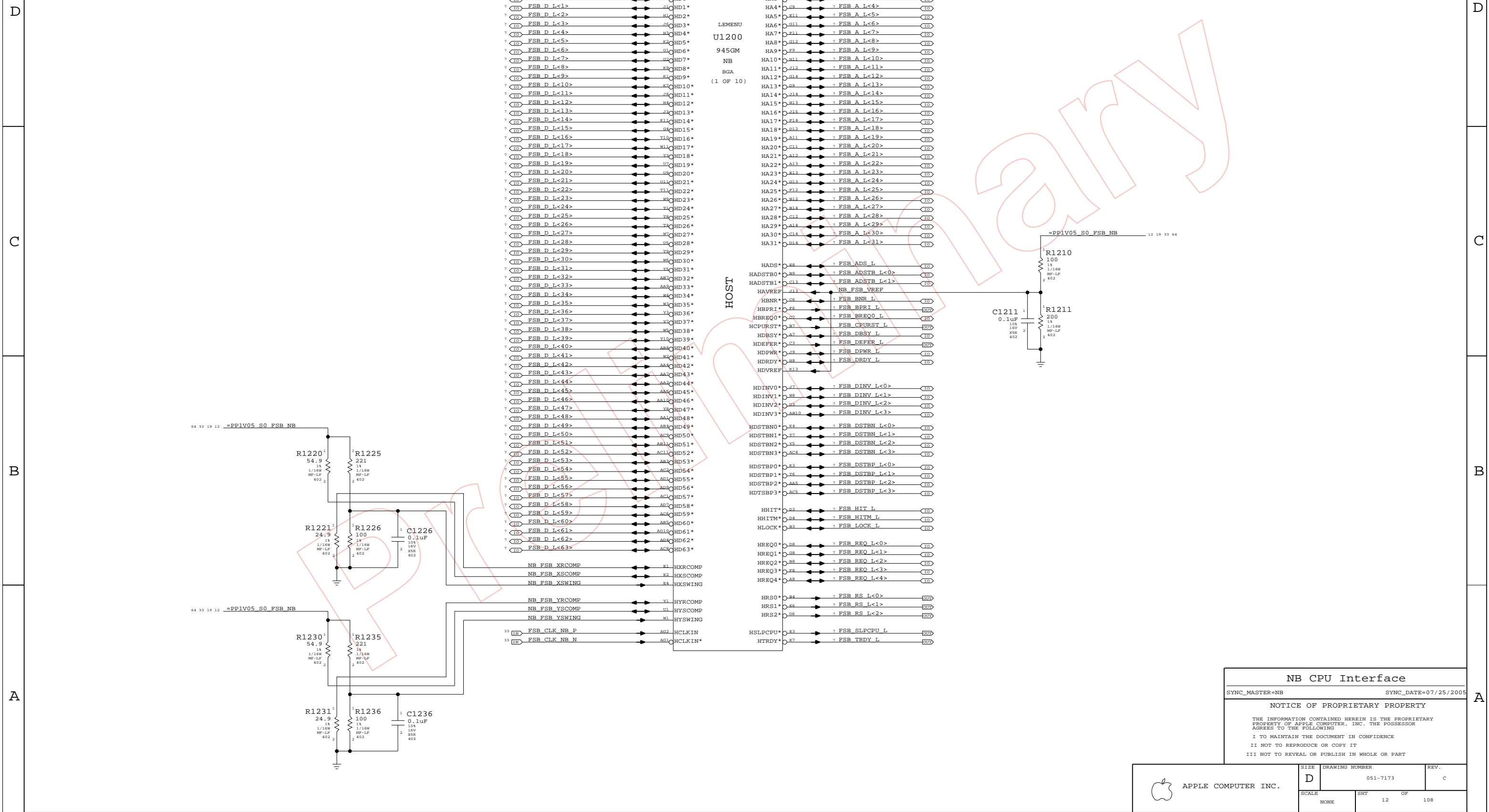
CPU ITP700FLEX DEBUG

SYNC_MASTER=MASTER SYNC_DATE=5/23/05

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D	051-7173	C
SCALE	SHT	OF
NONE	11	108



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

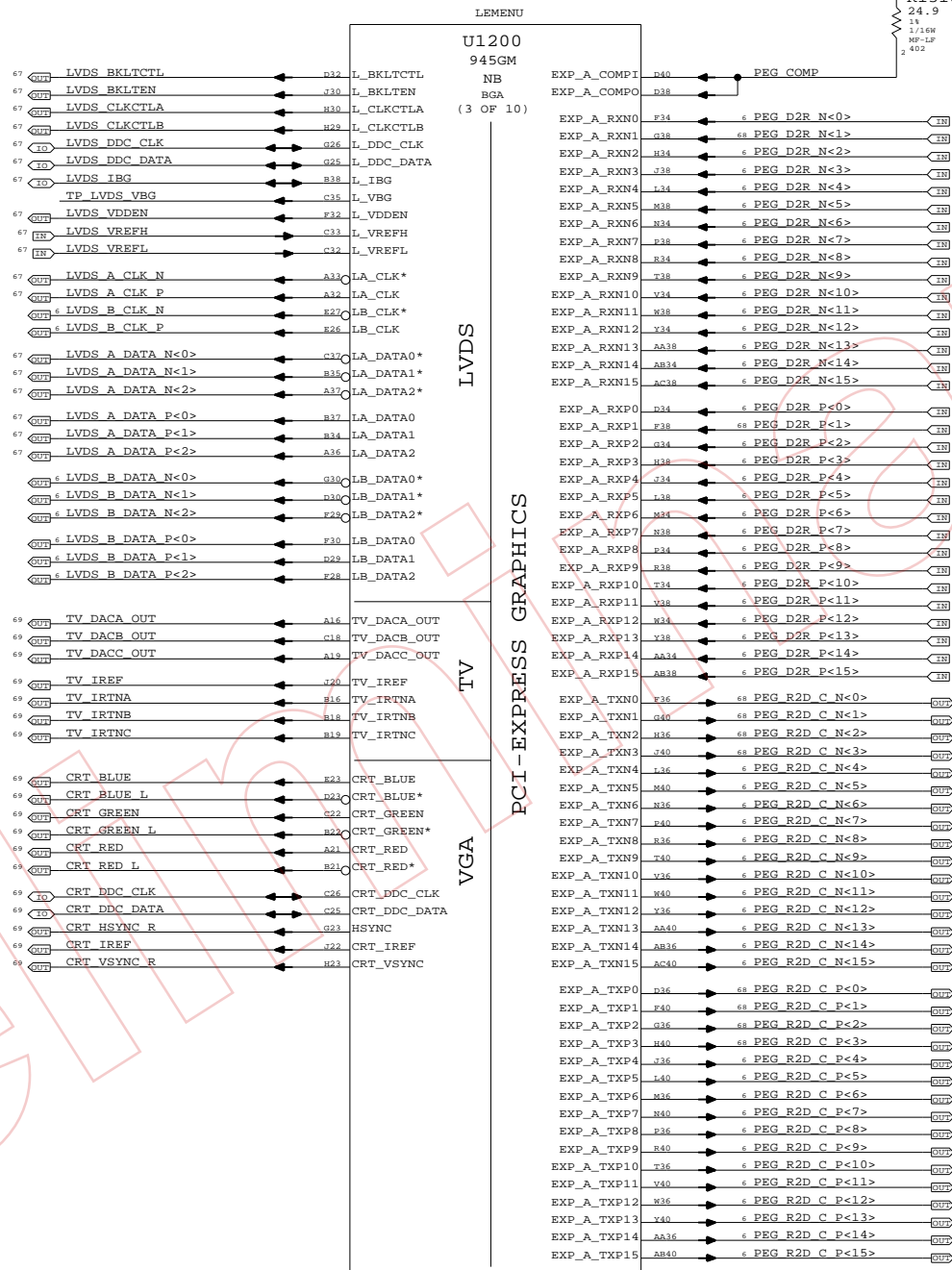
Unused DAC outputs must remain powered, but can omit
filtering components. Unused DAC outputs should
connect to GND through 75-ohm resistors.

TV-Out Disable

Tie DACx_OUT, IRTNx, and IREF to 1.5V power rail.
Tie VCCD_TVDAC, VCCD_QTVDAC, VCCA_TVDACx, and
VCCA_TVBG to 1.5V power rail. Tie VSSA_TVBG 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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SIZE

D

DRAWING NUMBER

051-7173

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C

SCALE

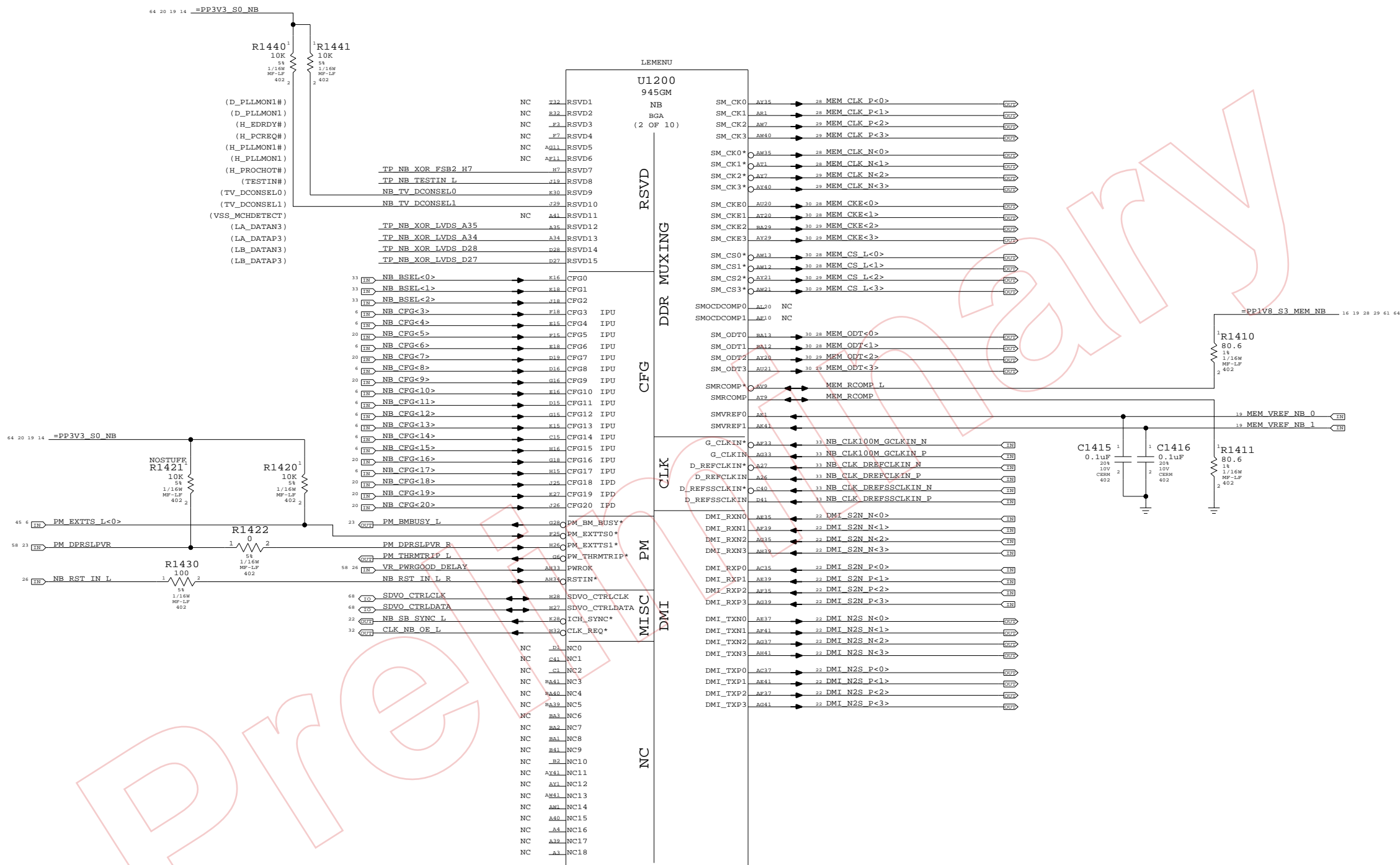
NONE

SHT

13

OF

108



NB Misc Interfaces

SYNC_MASTER=NB SYNC_DATE=08/15/2005

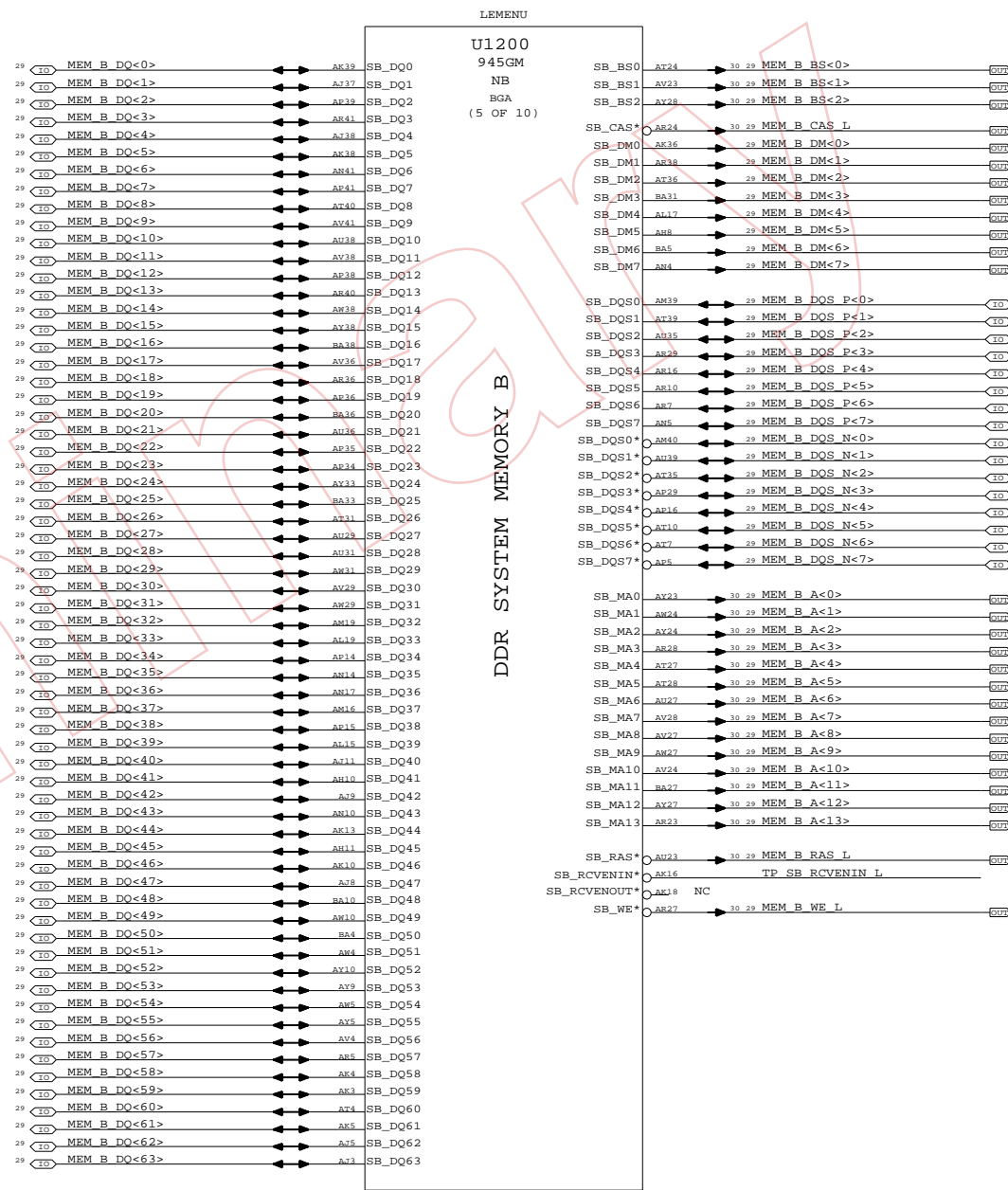
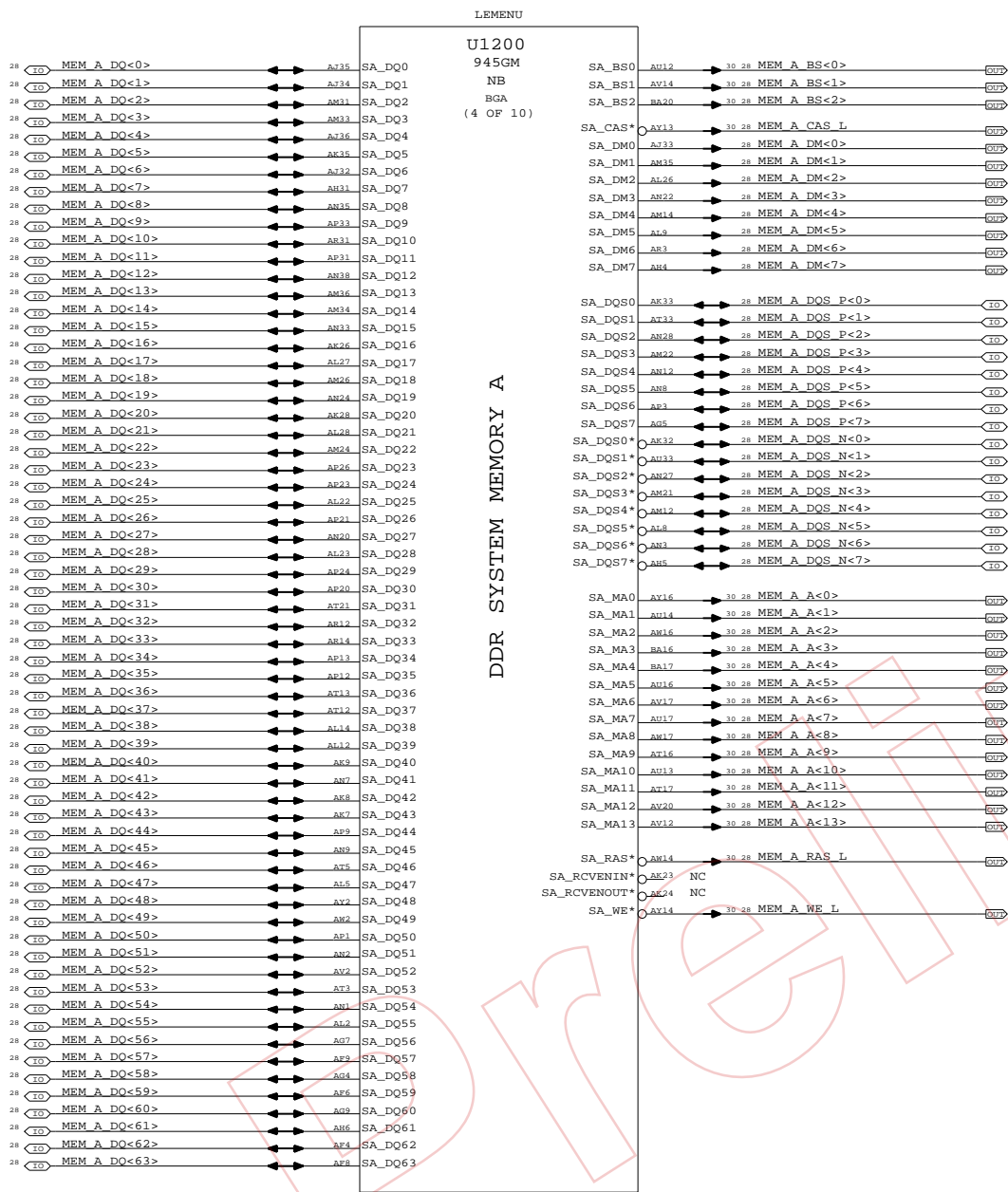
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NB DDR2 Interfaces

SYNC_MASTER=NB SYNC_DATE=07/25/2005

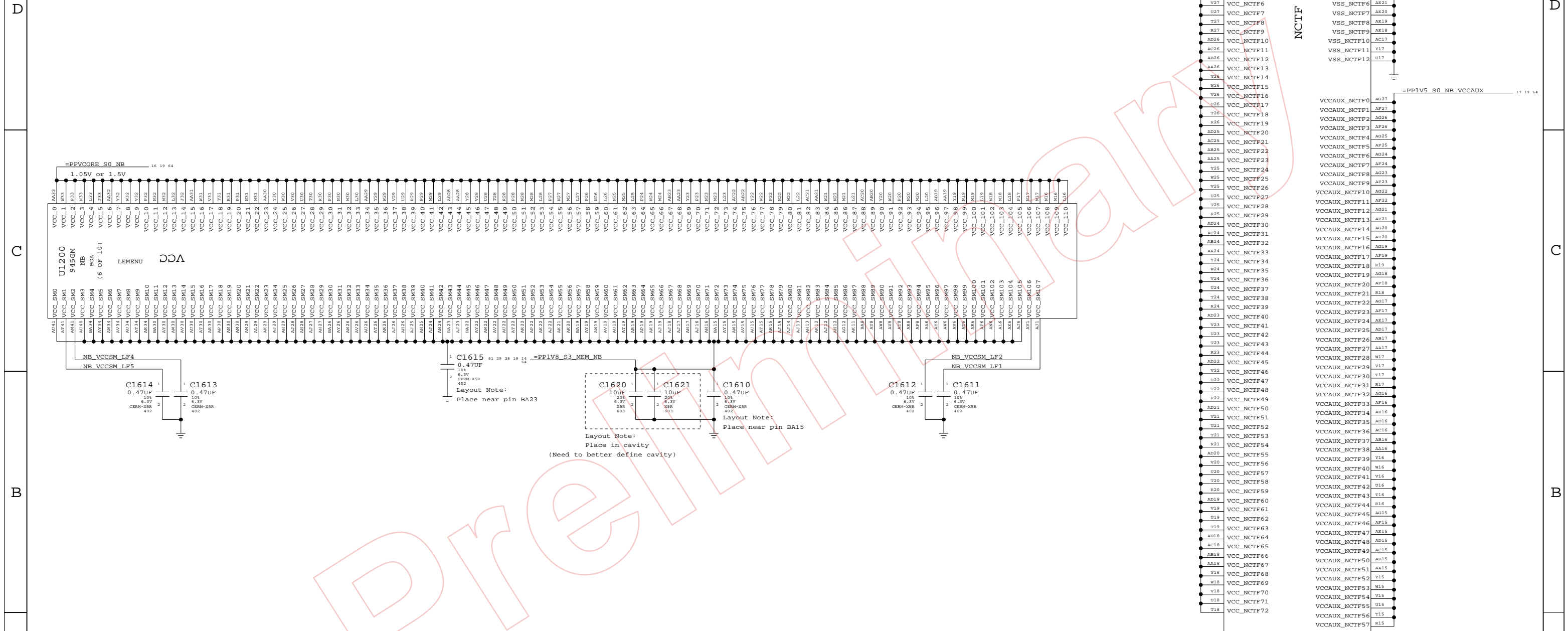
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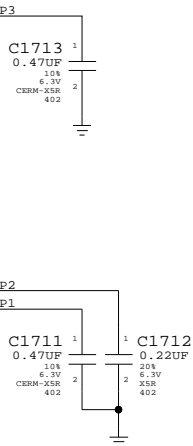
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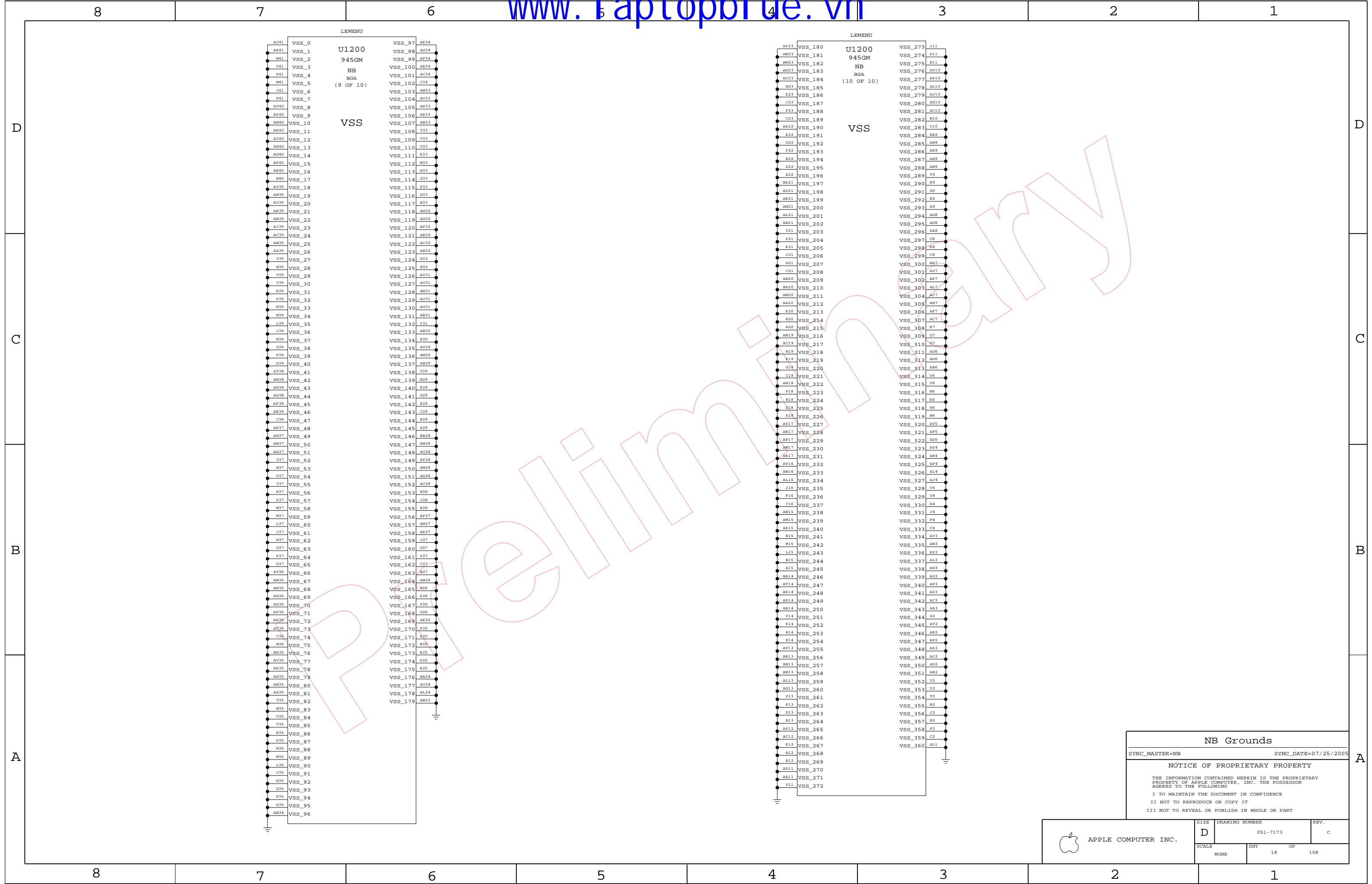
III NOT TO REVEAL OR PUBLISH IN WHOLE OR PART



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	D	051-7173	C
	SCALE	SHT OF	
	NONE	16	108



 APPLE COMPUTER INC.	SIZE	DRAWING NUMBER	REV.
	D	051-7173	C
	SCALE	SHT	OF
	NONE	17	108



NB Grounds

SYNC_MASTER=NB SYNC_DATE=07/25/2005

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D

C

B

A

D

C

B

A

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

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

14_NB_CFG<5> Internal pull-up	
NB_CFG<5> DMI x2 Select	High = DMIx4 Low = DMIx2
PROBABLY NOT NEEDED	

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

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

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

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

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

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

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

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

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

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

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

=PP3V3_S0_NB NBCFG_VCC_LV5	
NB_CFG<18> VCC Select	High = 1.5V Low = 1.05V
14_NB_CFG<18> Internal pull-down	

=PP3V3_S0_NB NBCFG_DMI_REVERSE	
NB_CFG<19> DMI Lane Reversal	High = Reversed Low = Normal
14_NB_CFG<19> Internal pull-down	

945 External Design Spec says reserved =PP3V3_S0_NB NBCFG_SDVO_AND_PCIE	
NB_CFG<20> PCIe Backward Interop. Mode	High = Both active Low = Only SDVO or PCIe x1
14_NB_CFG<20> Internal pull-down	

PROBABLY NOT NEEDED

NB Config Straps		
SYNC_MASTER=NB		SYNC_DATE=06/28/2005
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	SCALE NONE	SHT 20	OF 108



SB: 1 OF 4

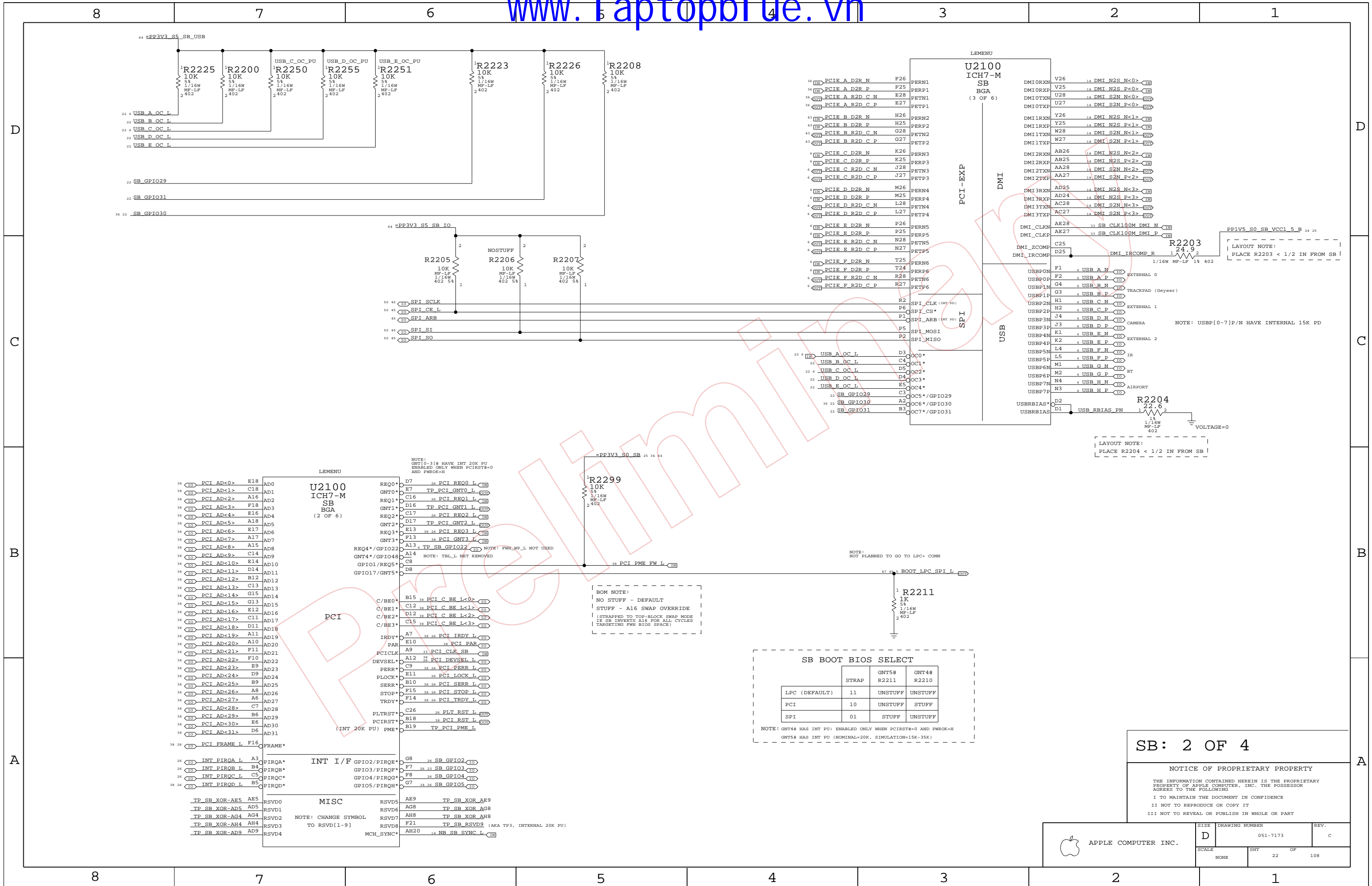
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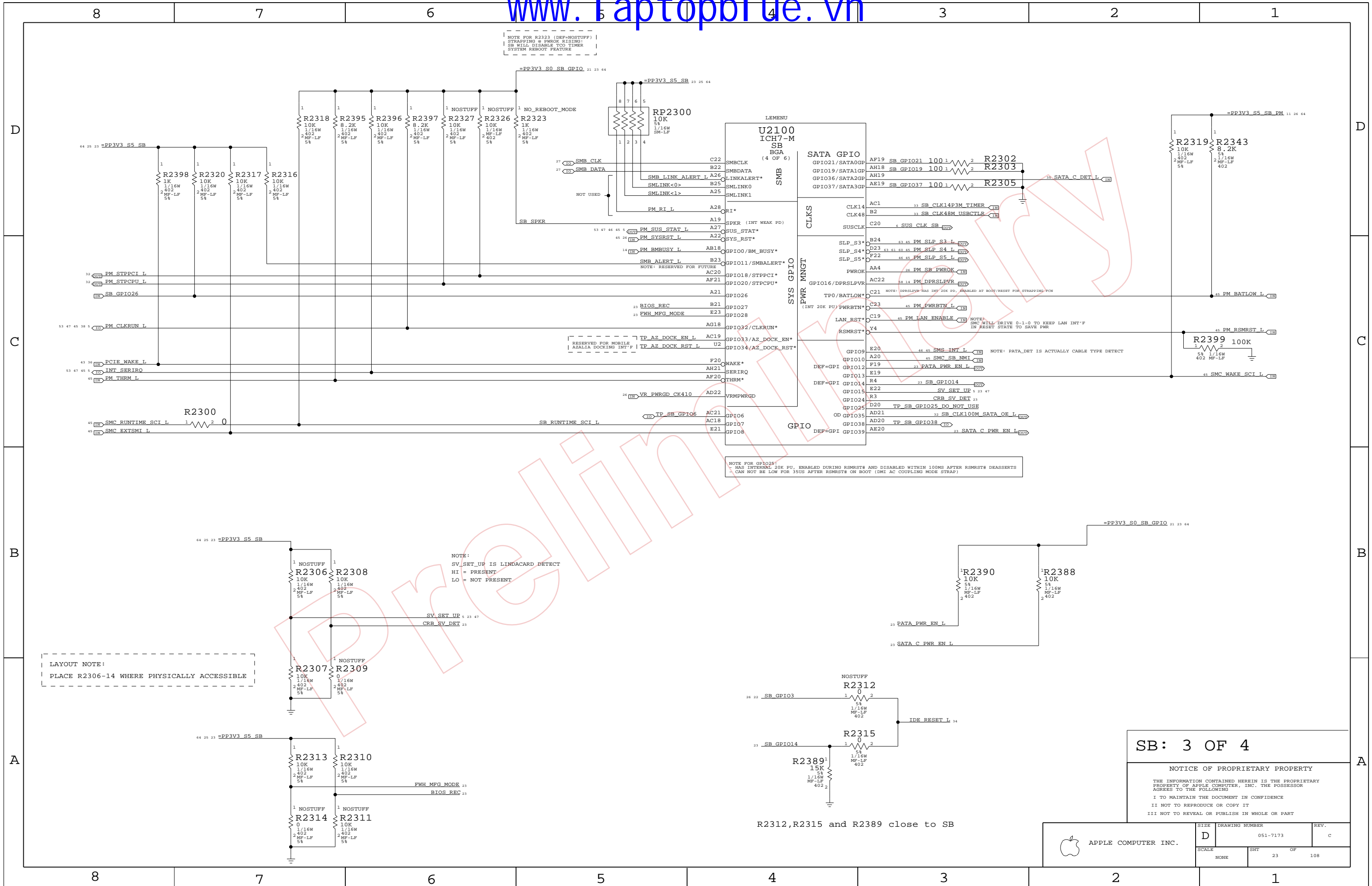
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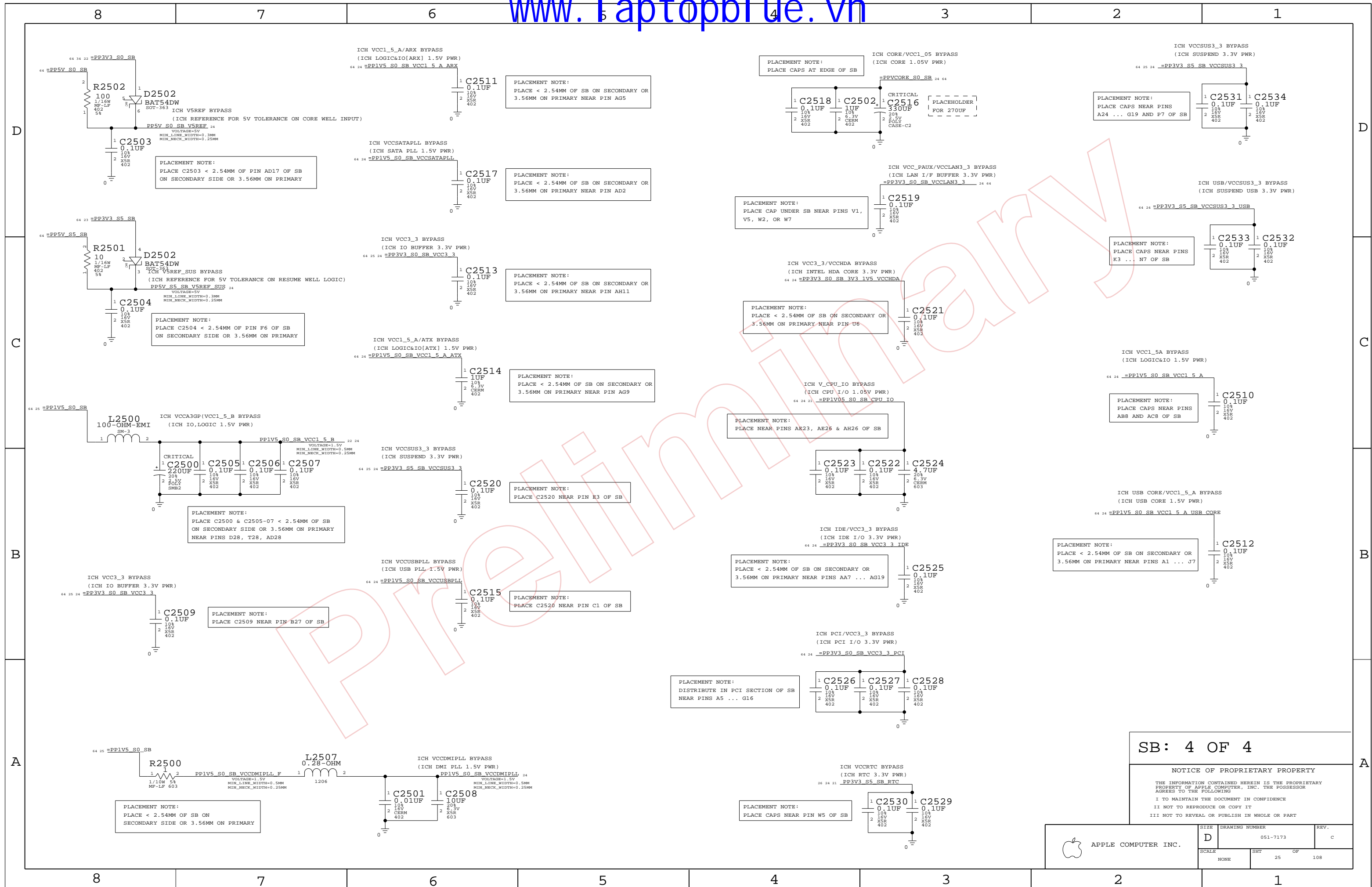
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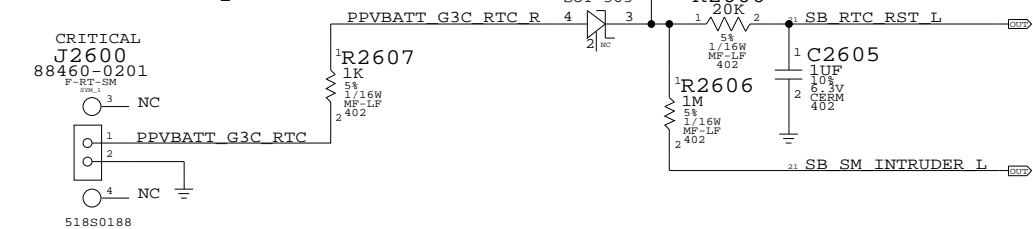
III NOT TO REVEAL OR PUBLISH IN WHOLE OR PART



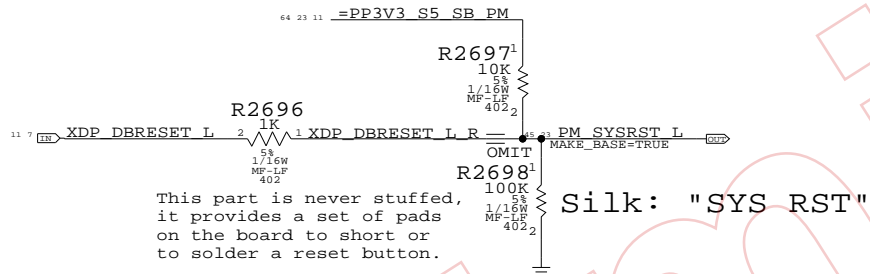
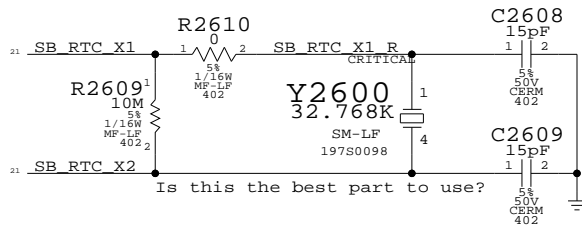




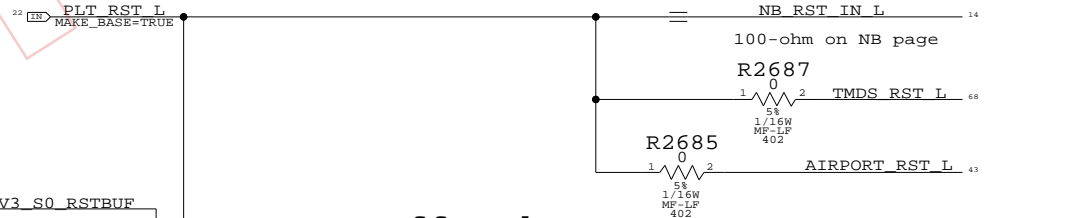
RTC Battery Connector



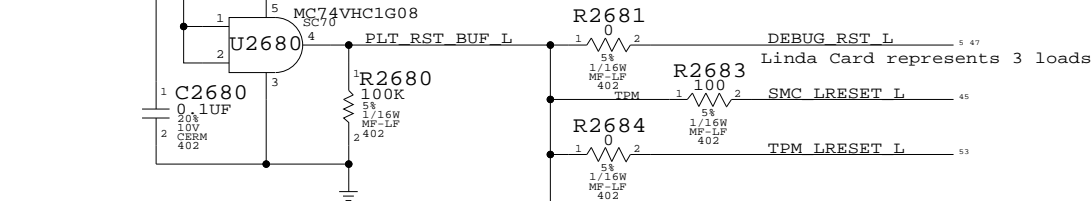
SB RTC Crystal Circuit



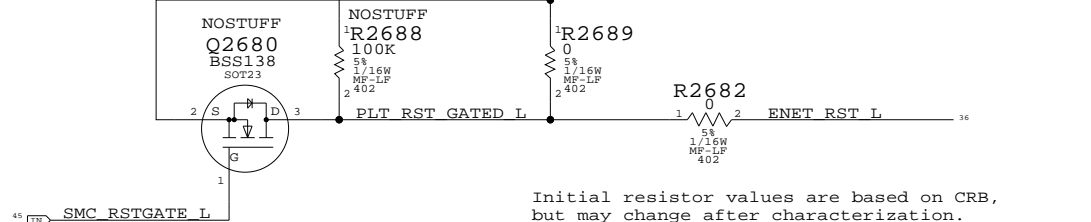
Platform Reset Connections
Unbuffered



Buffered



Gated



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

SB Misc

SYNC_MASTER=NB SYNC_DATE=07/26/2005

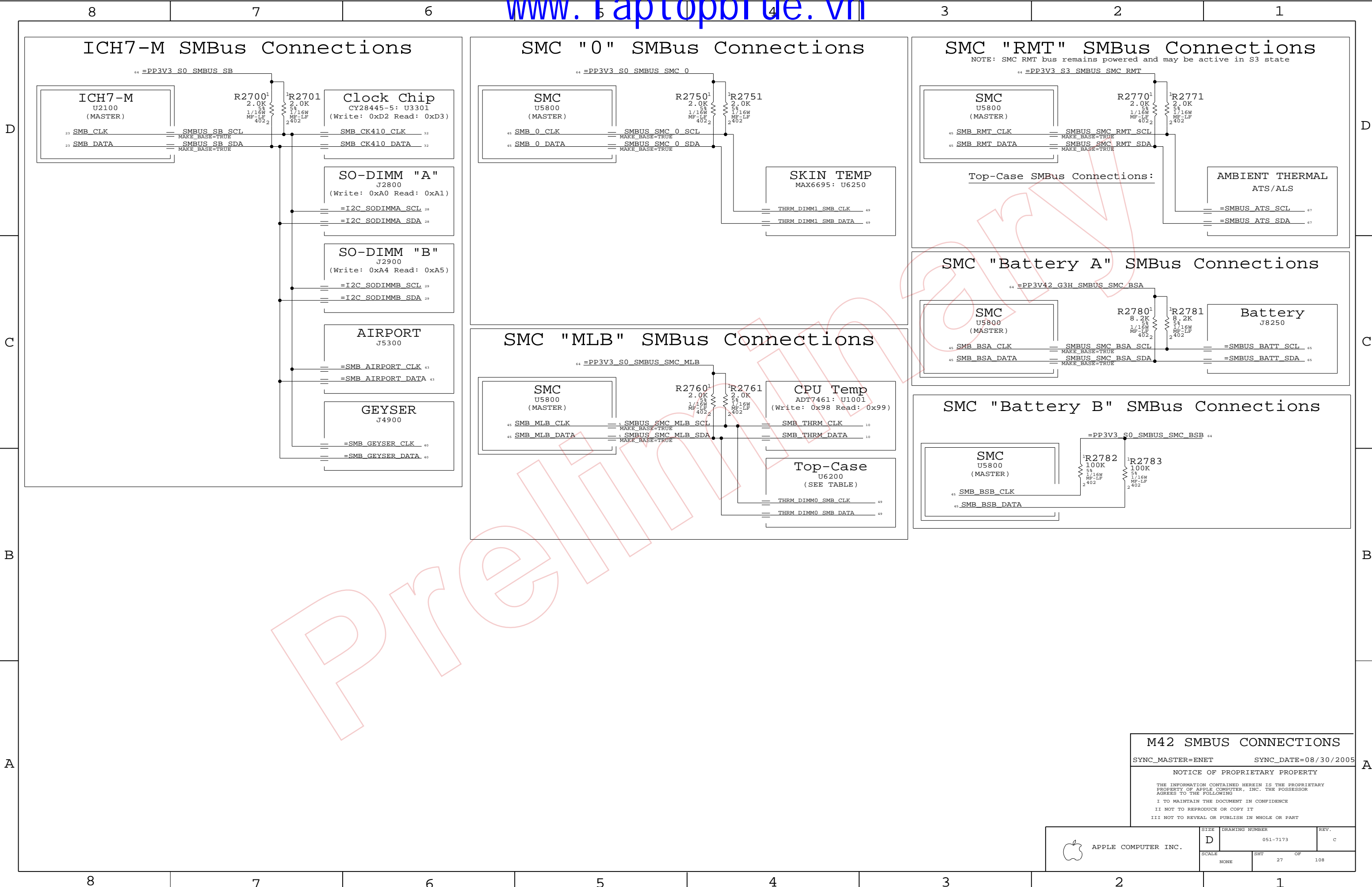
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D	051-7173	C
SCALE	SHT	OF
NONE	26	108



M42 SMBUS CONNECTIONS

SYNC_MASTER=ENET

SYNC_DATE=08/30/2005

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APPLE COMPUTER INC.

SIZE

D

DRAWING NUMBER

051-7173

REV.

C

SCALE

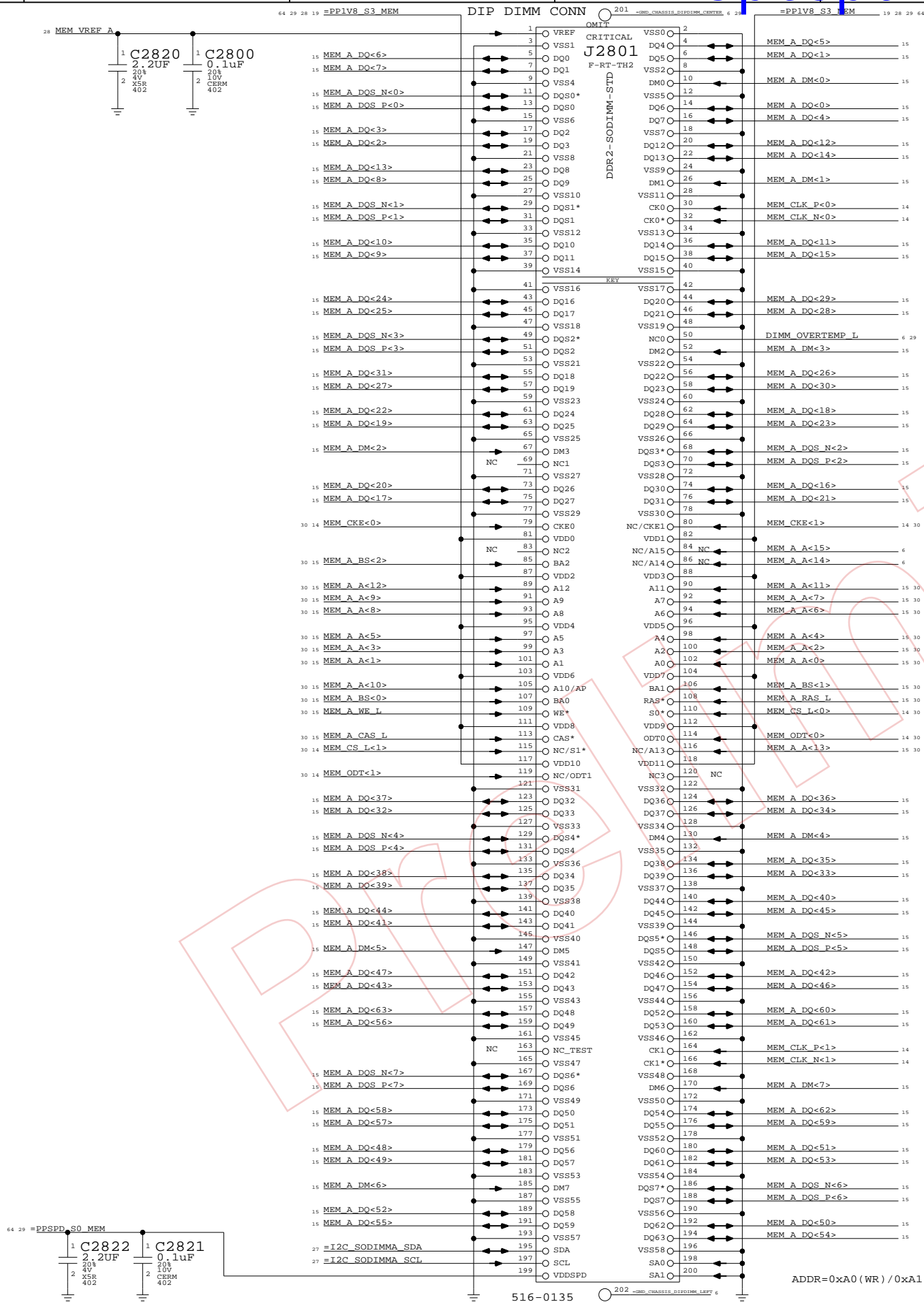
NONE

SHT

27

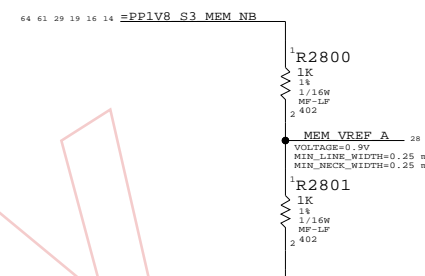
OF

108



DDR2 VRef

One 0.1uF per connector



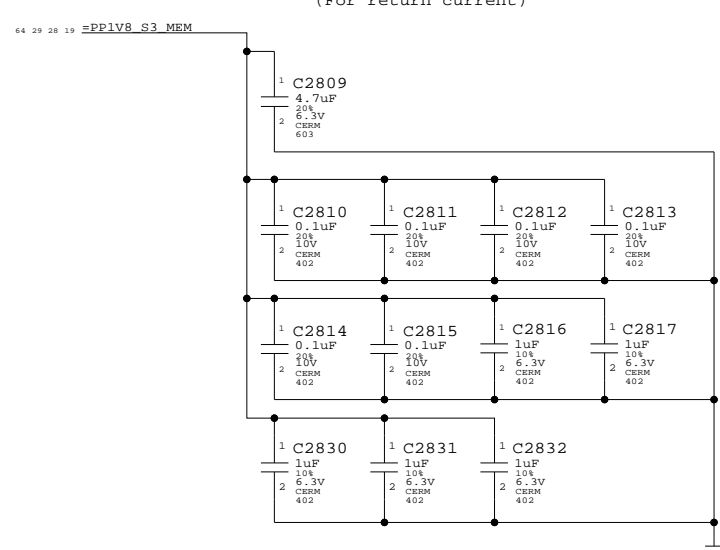
Yellow uses 10K divider and TLV2463 to drive MCH and DIMM connectors. (See Capell Valley pg 47)

Page Notes

- Power aliases required by this page:
- =PPIV8_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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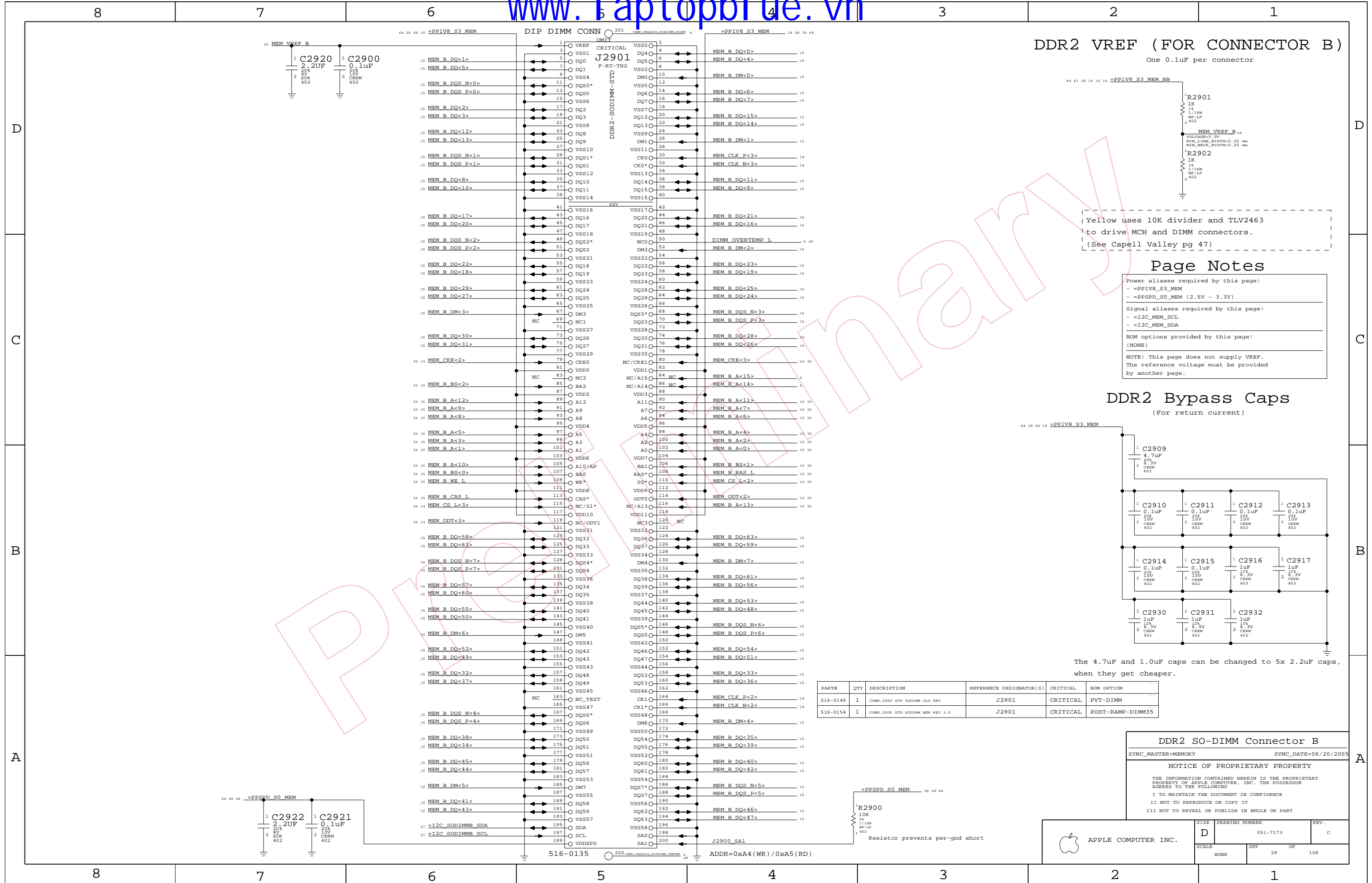
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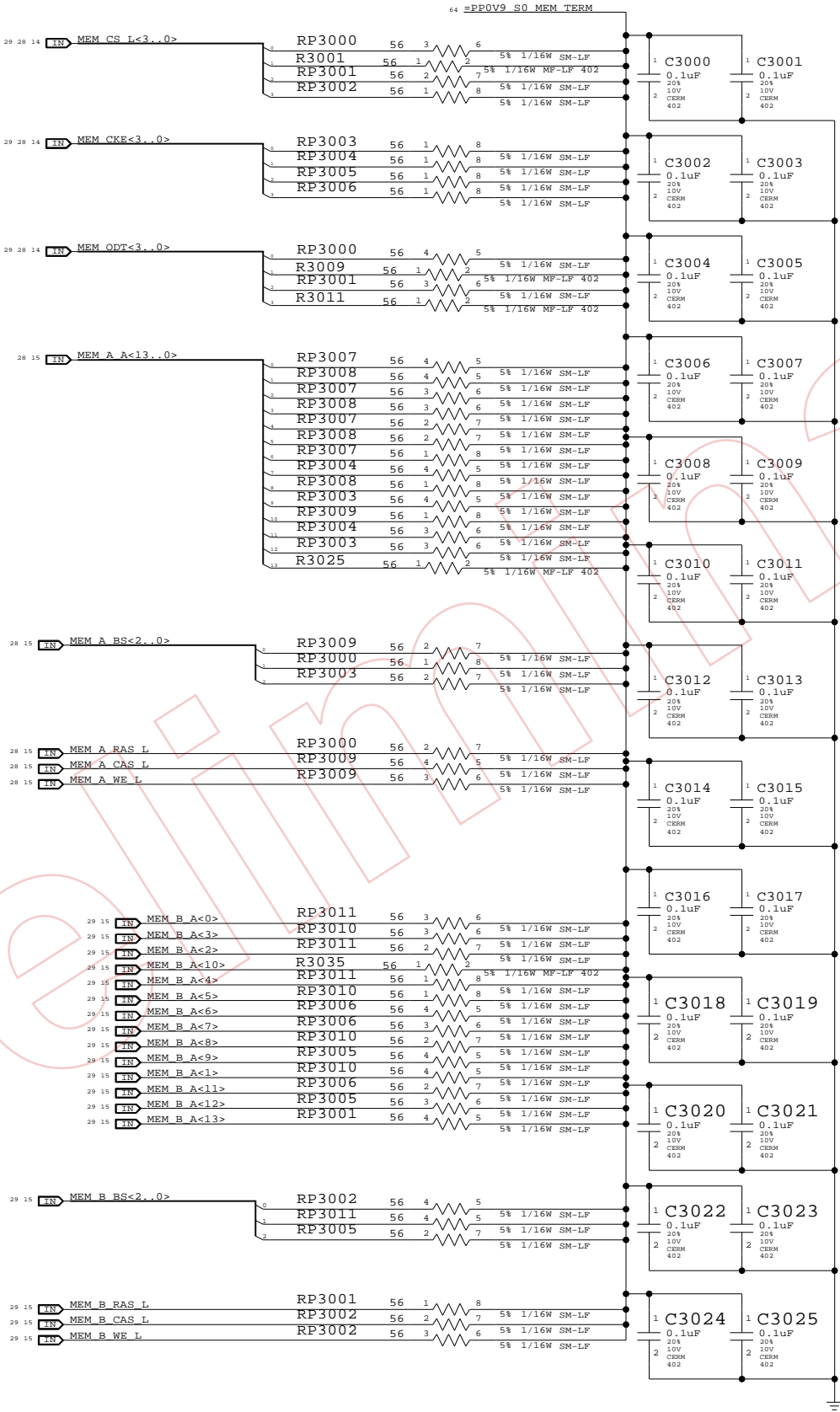
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	D	051-7173	C
SCALE	SHT	OF	
NONE	28	108	



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



Memory Active Termination

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SIZE	DRAWING NUMBER	REV.
D	051-7173	C
SCALE	SHT	OF
NONE	30	108

D

C

B

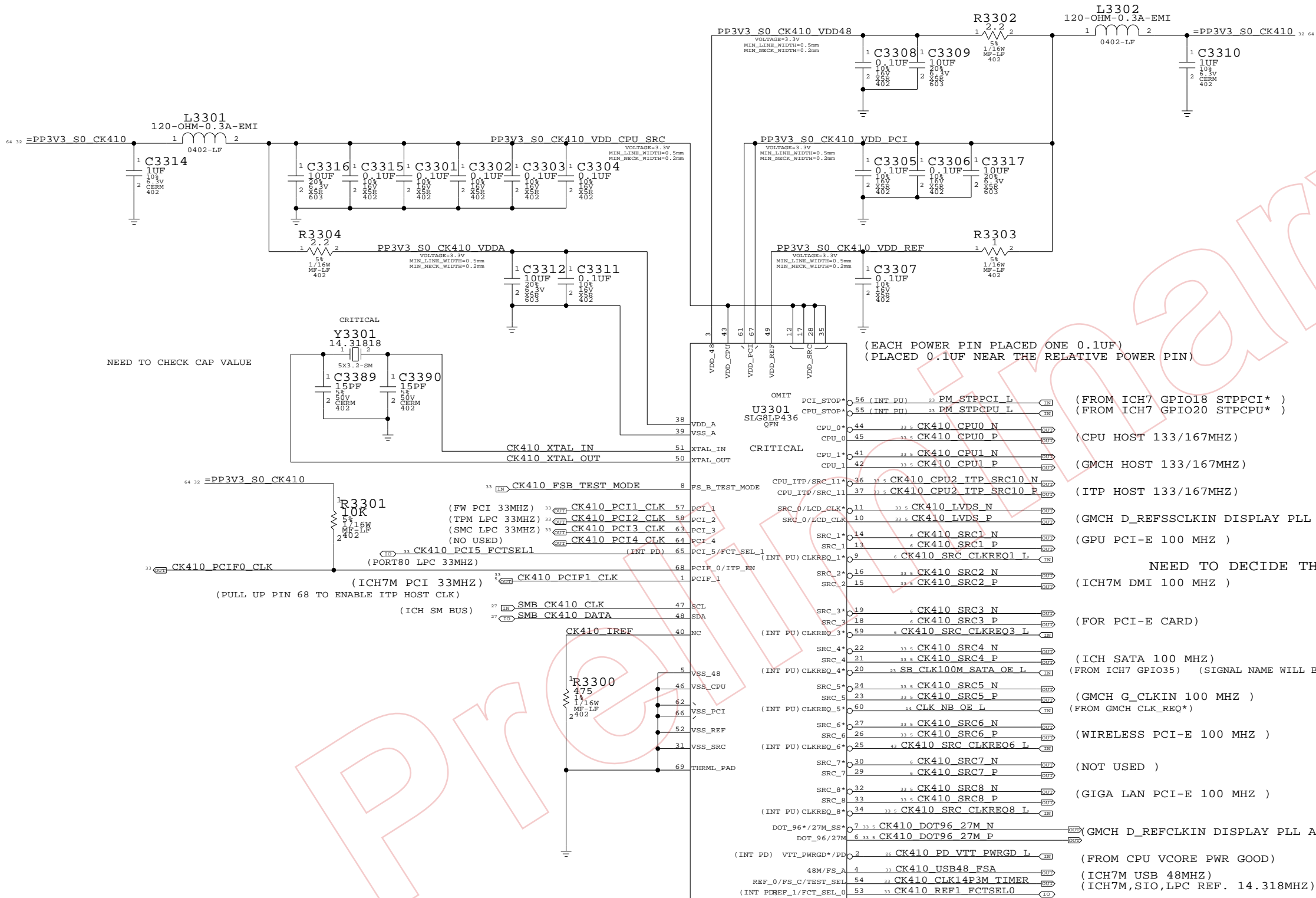
A

D

C

B

A



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	FCTSEL0	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

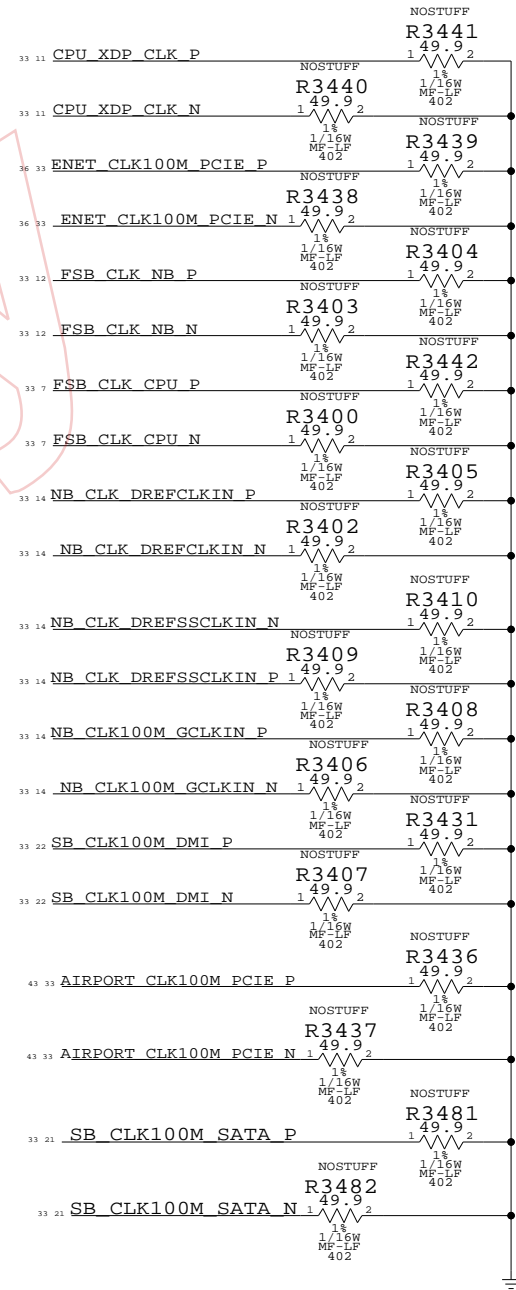
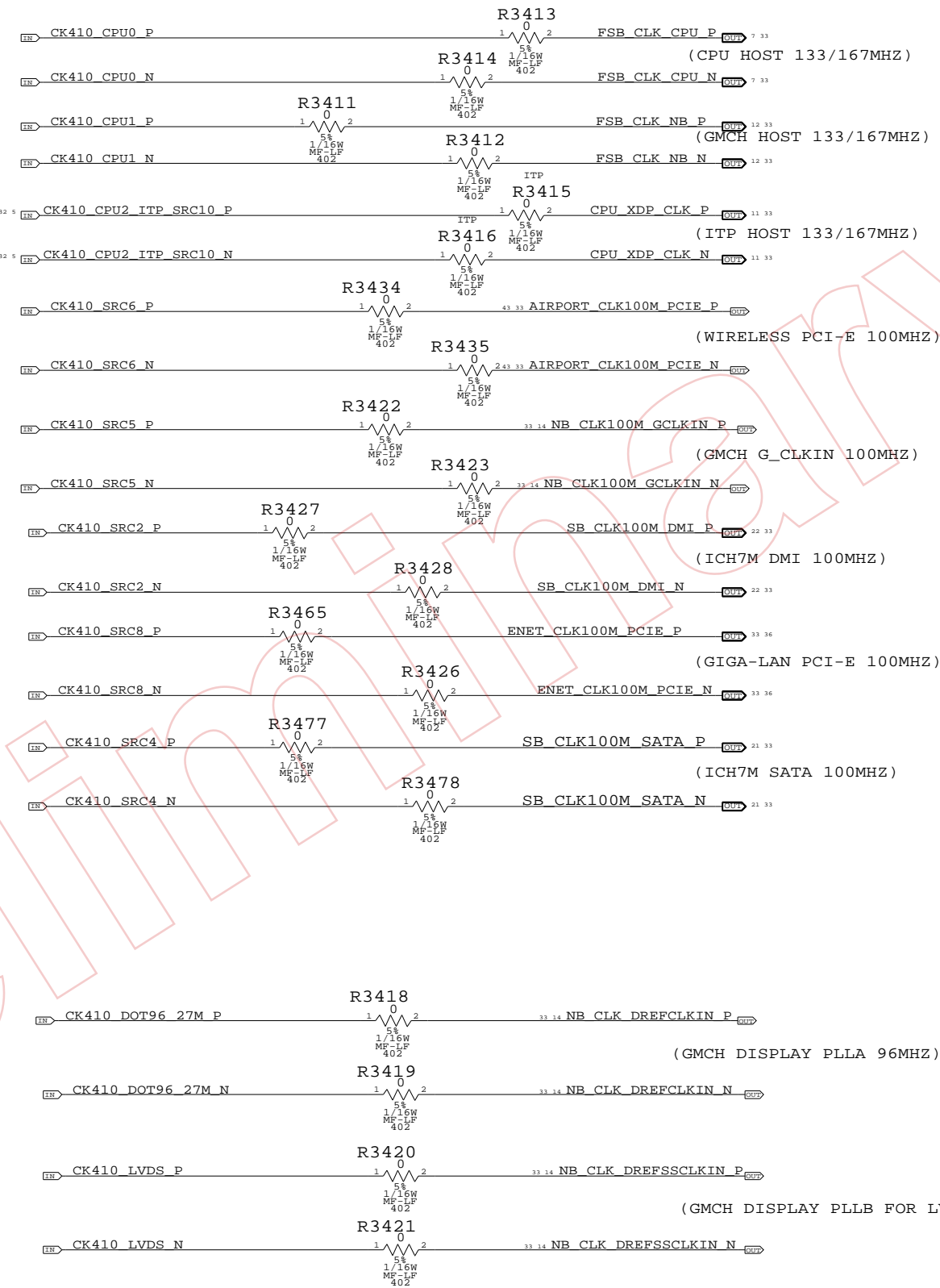
CLOCKS

SYNC_MASTER=CLOCK SYNC_DATE=06/03/2005

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	SCALE NONE	SHT 33	OF 108



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

```

CLOCK TERMINATION
SYNC_MASTER=CLOCK          SYNC_DATE=06/06/2005

NOTICE OF PROPRIETARY PROPERTY

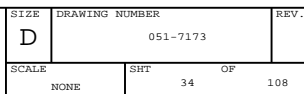
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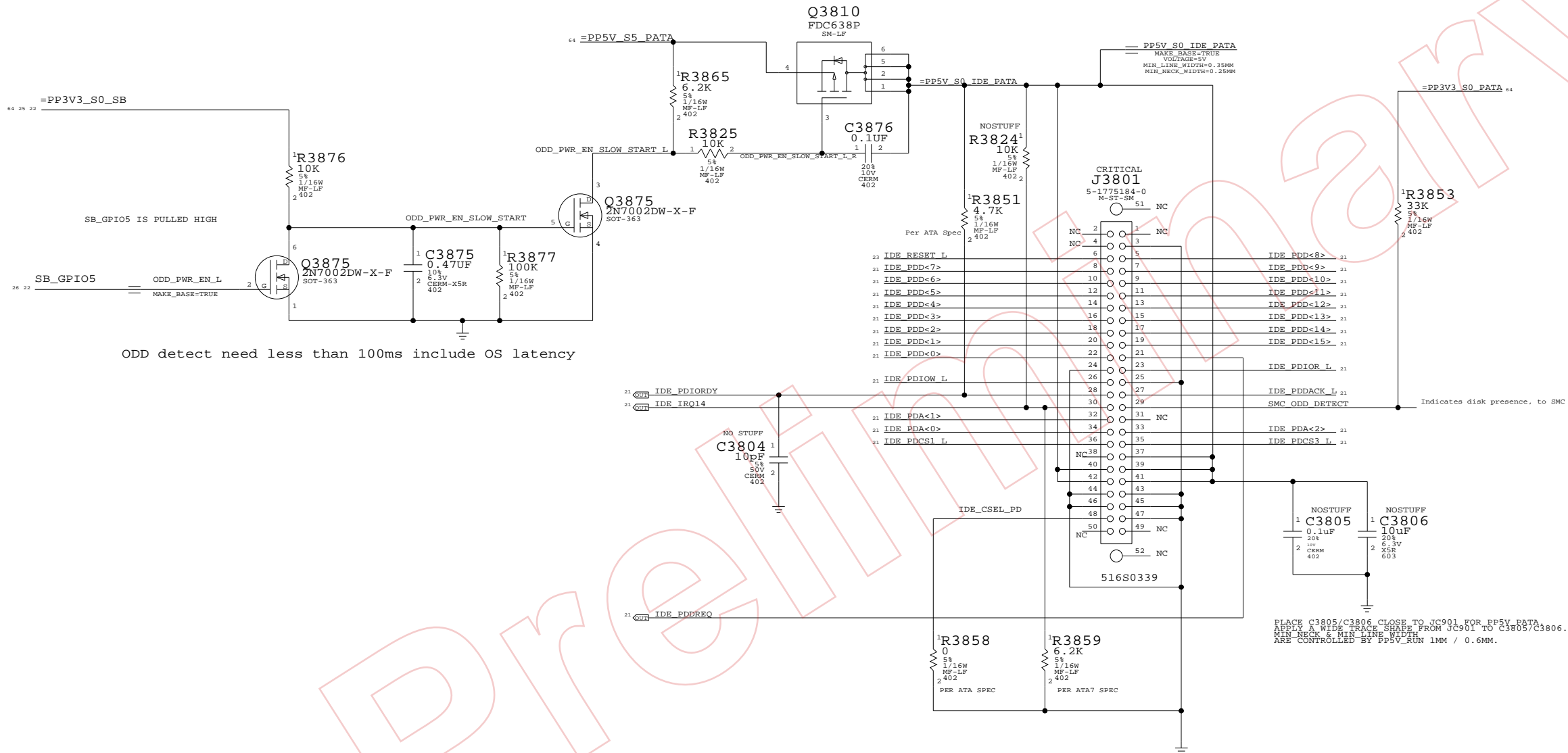
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PATA CONNECTOR

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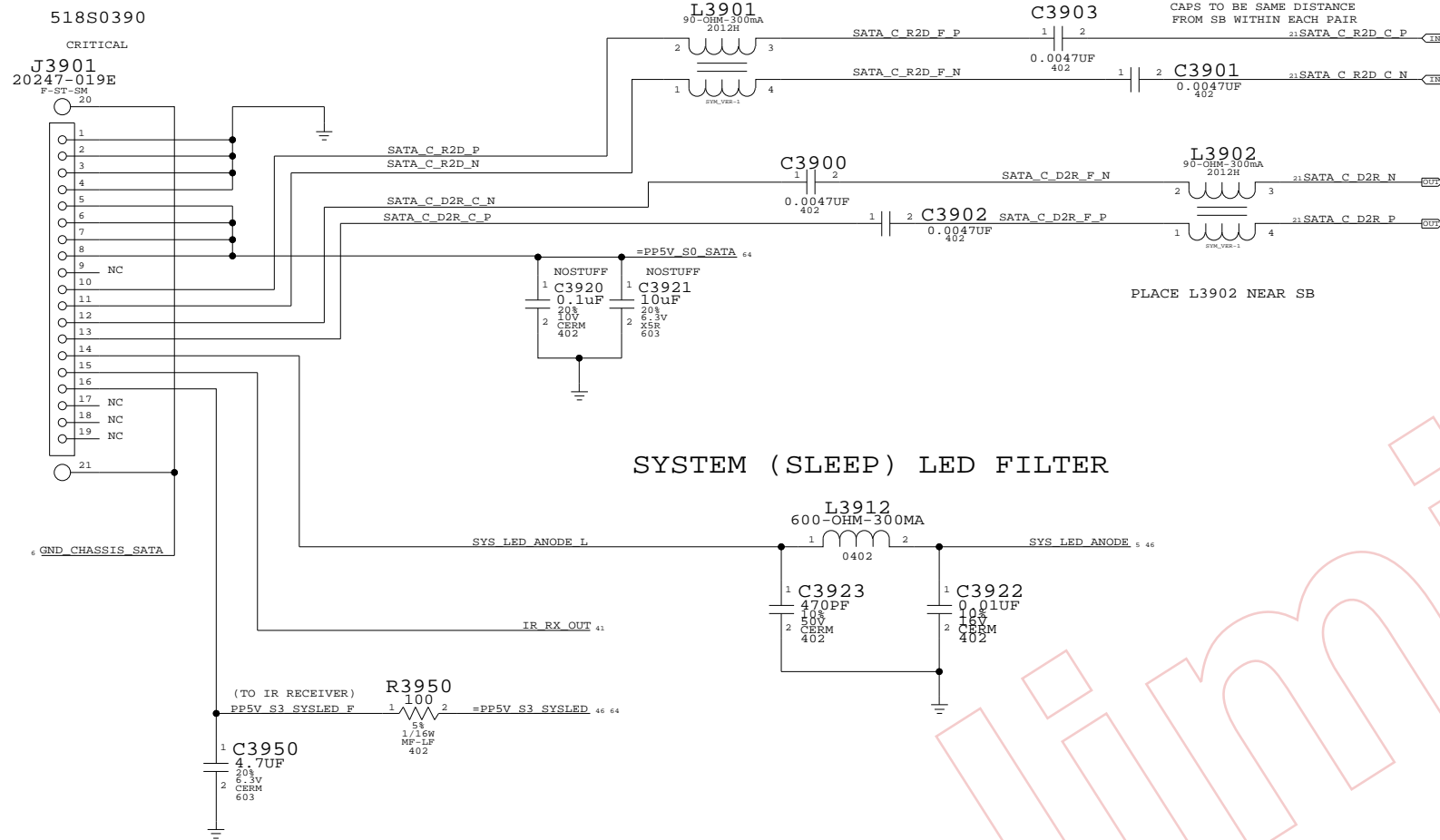
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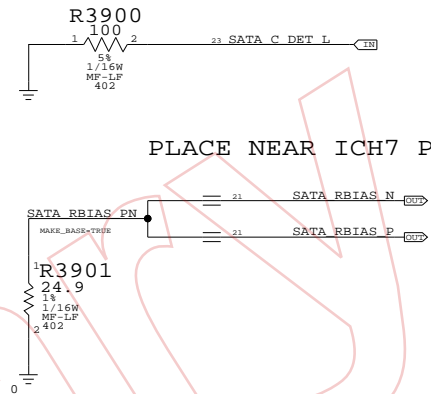
APPLE COMPUTER INC.	SIZE D	DRAWING NUMBER 051-7173	REV. C
	SCALE NONE	SHT 38	OF 108

Place L3901 near J3901

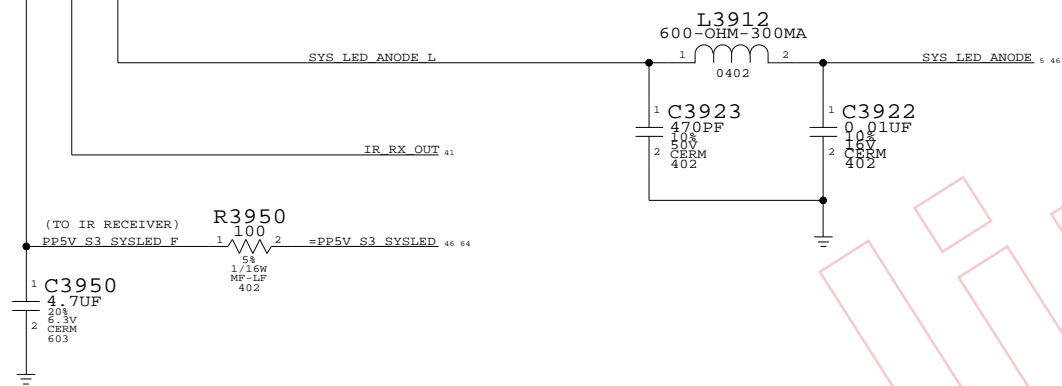
VALUE=3900PF IN REFERENCE SCHEM



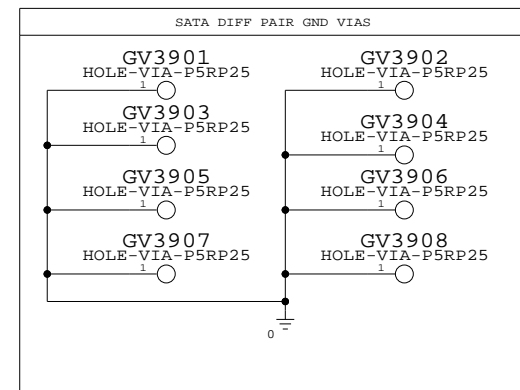
PLACE NEAR ICH7 PIN



SYSTEM (SLEEP) LED FILTER



SATA DIFF PAIR GND VIAS



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

SATA CONNECTOR

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APPLE COMPUTER INC.

SIZE D	DRAWING NUMBER 051-7173	REV. C
SCALE NONE	SHT 39	OF 108



PART#	QTY	DESCRIPTION	REFERENCE DESIGNATOR(S)	CRITICAL	BOM OPTION
514S0143	1	CONN, 8P RJ-45 JACK, MIDPLANE, M23, LF	J4200	CRITICAL	NORMAL
514S0144	1	CONN, 8P RJ-45 JACK, MIDPLANE, BLACK, LF	J4200	CRITICAL	FANCY

 APPLE COMPUTER INC.	SIZE D	DRAWING NUMBER 051-7173	REV. C
	SCALE NONE	SHT OF 42 108	

PAGE NOTES

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

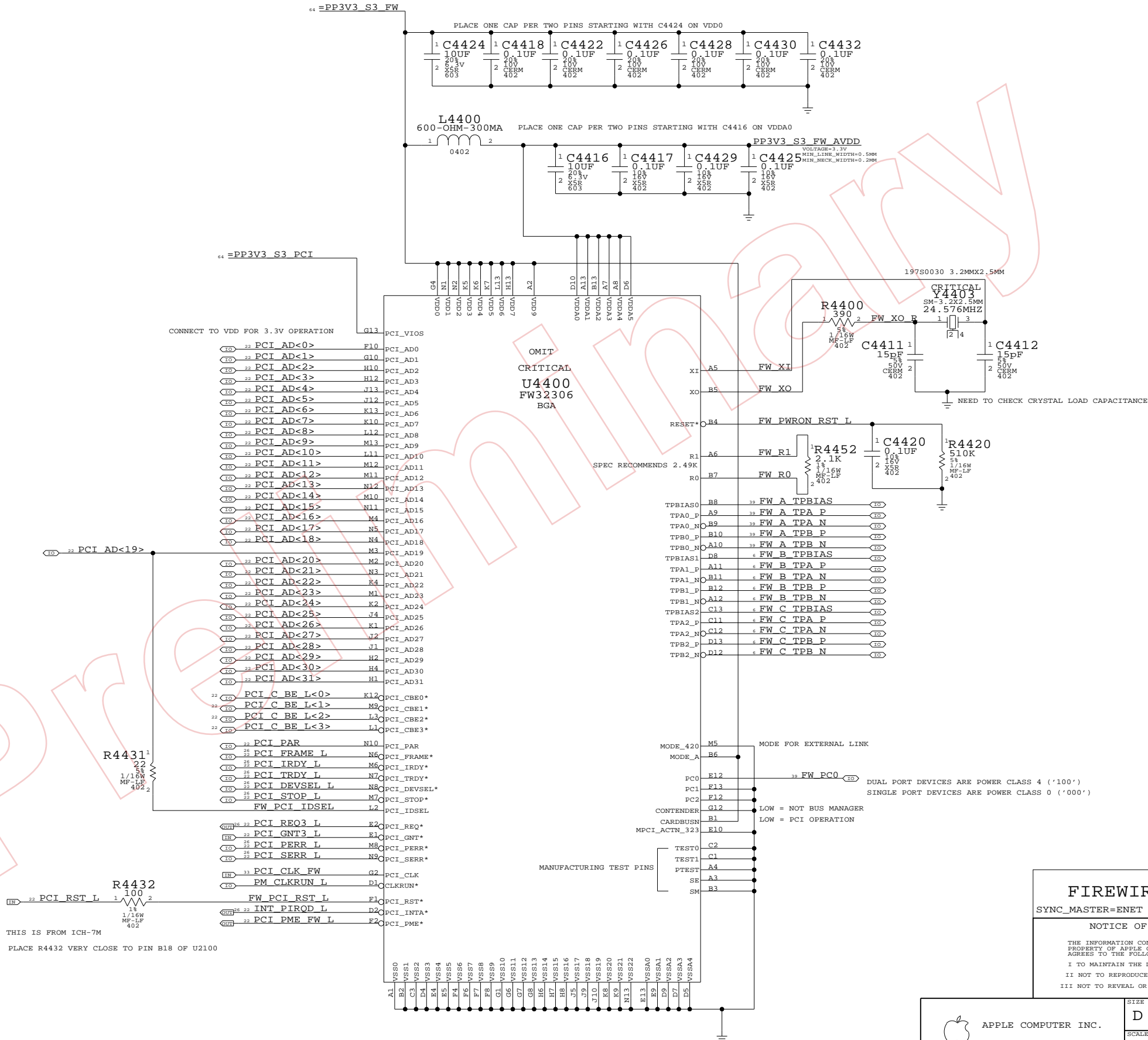
INPUT/OUTPUT
PCI_AD<0..31>, PCI_C_BE_L<0..3>, PCI_FRAME_L, PCI_IRDY_L, PCI_TRDY_L,
PCI_DEVSEL_L, PCI_STOP_L, PCI_PAR, PCI_PERR_L, PCI_SERR_L
FW_A_TPA_P/N, FW_A_TPB_P/N, FW_A_TPBIAS - PORT 0 FIREWIRE DIFF PAIRS
FW_B_TPA_P/N, FW_B_TPB_P/N, FW_B_TPBIAS - PORT 1 FIREWIRE DIFF PAIRS
FW_C_TPA_P/N, FW_C_TPB_P/N,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

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

PAGE HISTORY

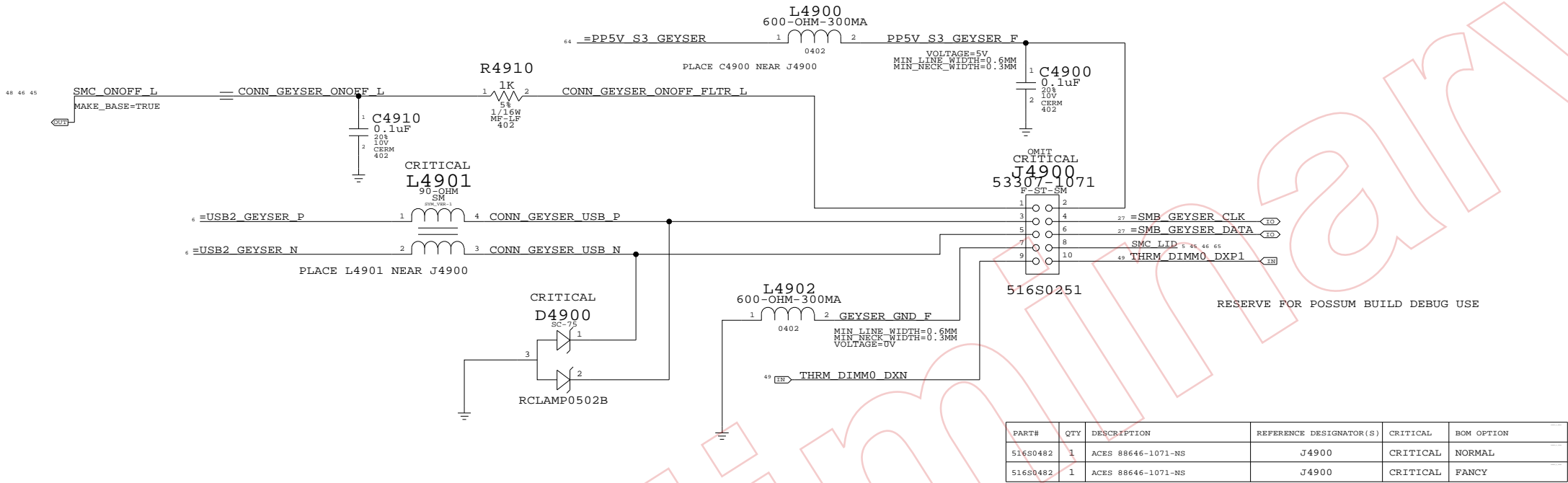
5/19/2005 - FIRST REVISION OF PAGE
6/20/2005 - BGA VERSION OF FW323-06 ADDED
6/21/2005 - CHANGED INT* TO INT_PIRQD_L (PER ARCHITECTURAL DEFINITION)
6/21/2005 - CHANGED PCI_ID TO AD19 (PER ARCHITECTURAL DEFINITION)
6/21/2005 - CHANGED REQ/GNT TO REQ3/GNT3 (PER ARCHITECTURAL DEFINITION)
6/22/2005 - ADDED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

MOBILE TURNS OFF CONTROLLER POWER DURING SLEEP
0.001A DURING SLEEP



[illegible]

GEYSER AND DIMM0 REMOTE TEMP SENSORS



CONNECTOR MISC

SYNC_MASTER=ENET

SYNC_DATE=11/16/2005

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SCALE
NONE

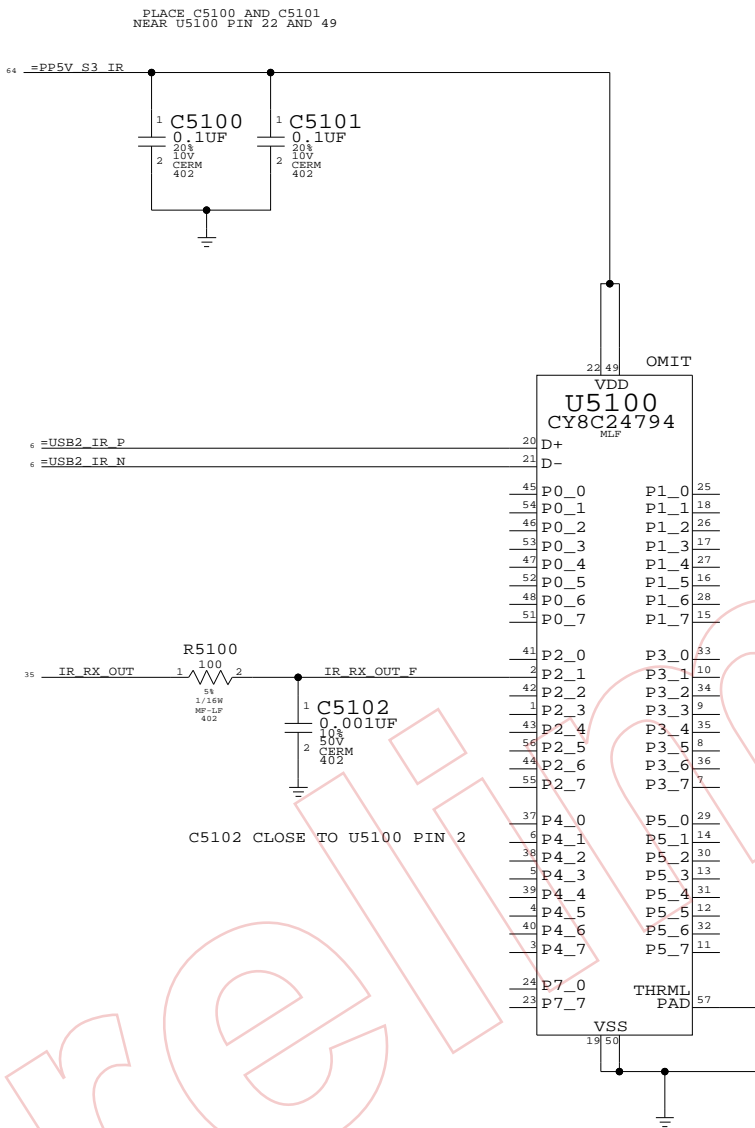
SIZE
D

DRAWING NUMBER
051-7173

SHT
49

REV.
C

OF
108



IR CONTROLLER

SYNC_MASTER=ENET SYNC_DATE=11/09/2005

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APPLE COMPUTER INC.

SIZE

D

DRAWING NUMBER

051-7173

REV.

C

SCALE

NONE

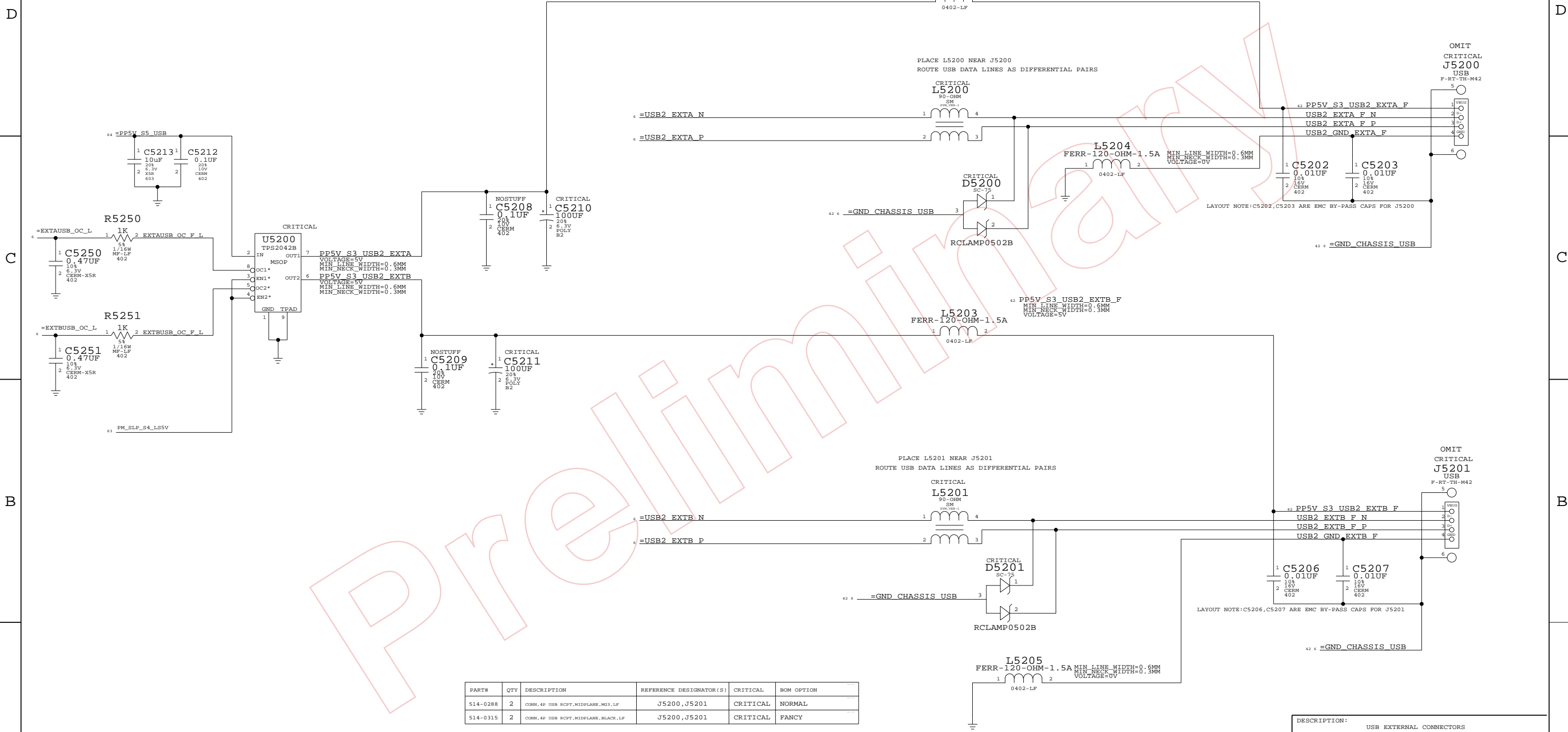
SHT

51

OF

108

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

NOTICE OF PROPRIETARY PROPERTY

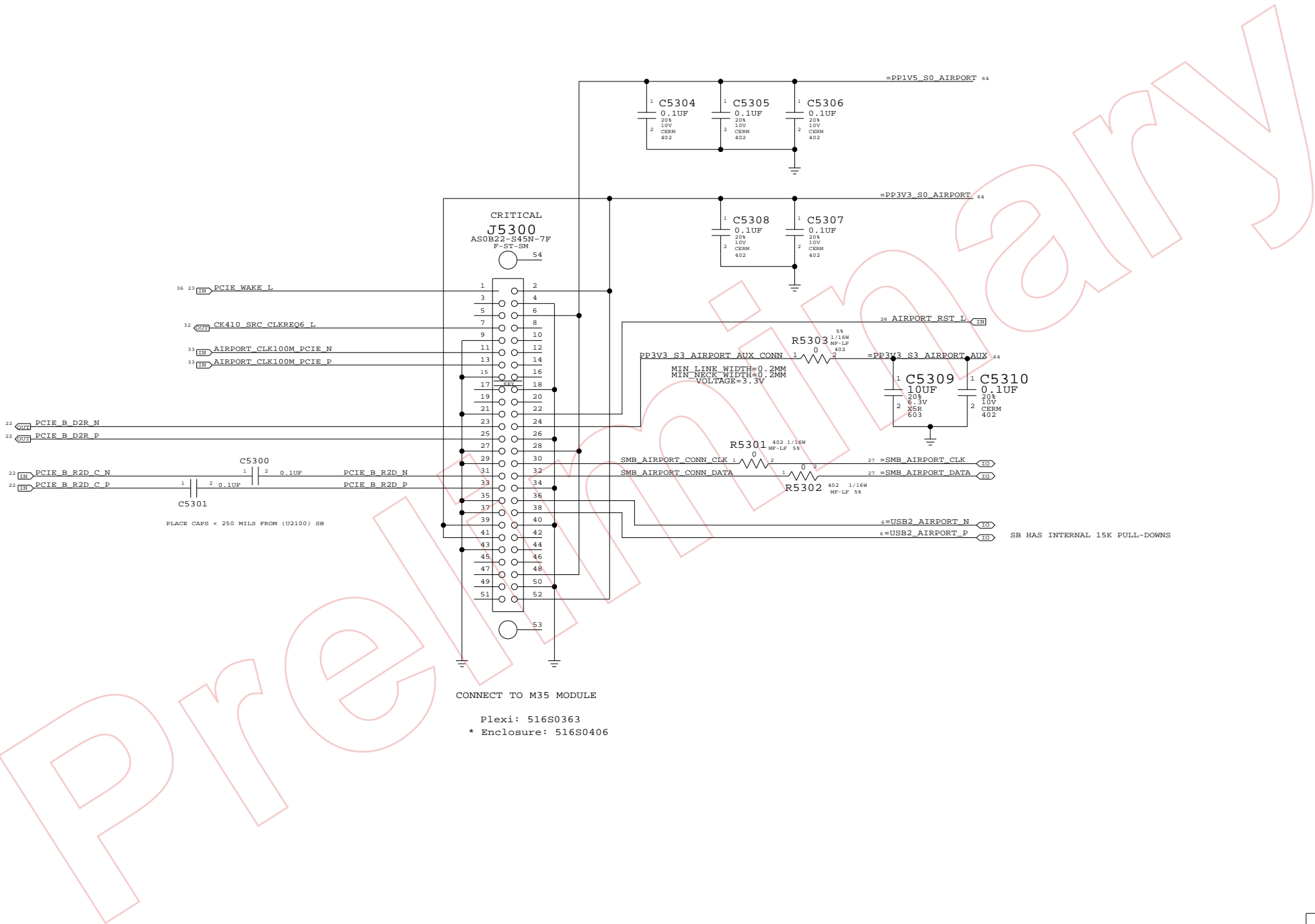
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APPLE COMPUTER INC.	SIZE D	DRAWING NUMBER 051-7173	REV. C
	SCALE NONE	SHT 52	OF 108



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

AIRPORT CONN

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APPLE COMPUTER INC.	SIZE D	DRAWING NUMBER 051-7173	REV. C
	SCALE NONE	SHT 53	OF 108

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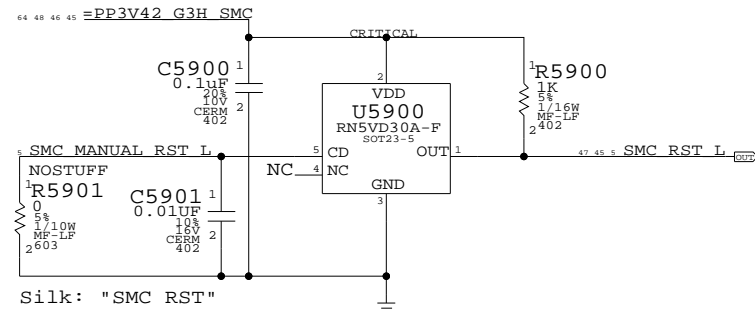
I TO MAINTAIN THE DOCUMENT IN CONFIDENCE

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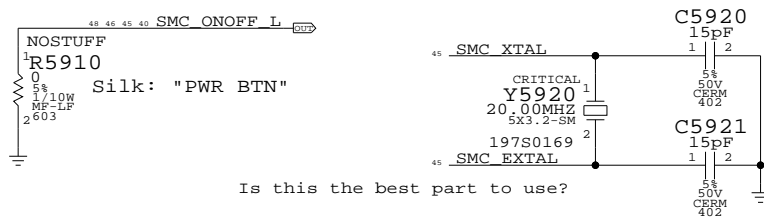
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MPUTER INC.	SIZE D	DRAWING NUMBER 051-7173	REV. C
	SCALE NONE	SHT 54 OF 108	

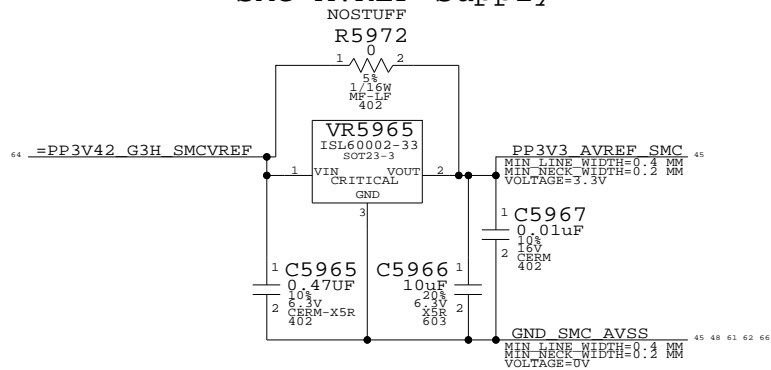
SMC Reset Button / Brownout Detect



Debug Power Button SMC Crystal Circuit

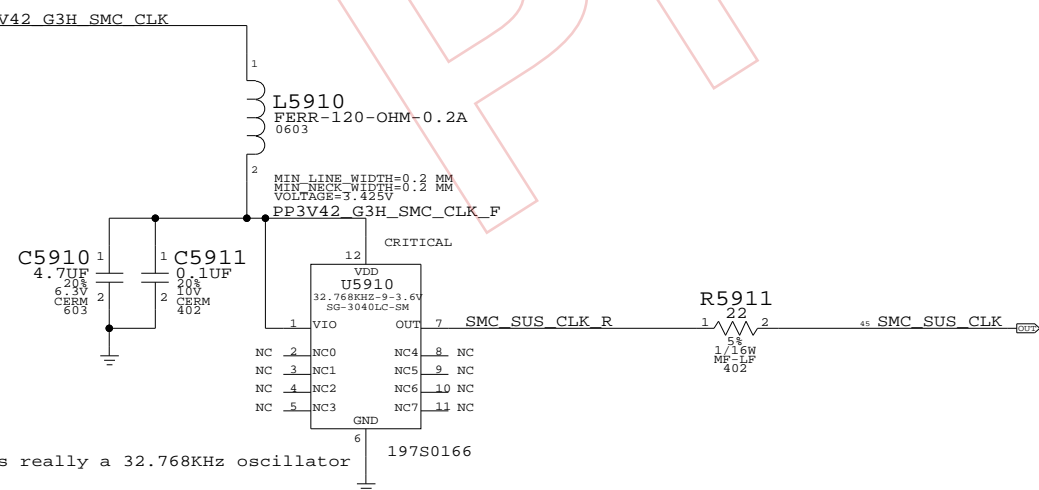


SMC AVREF Supply



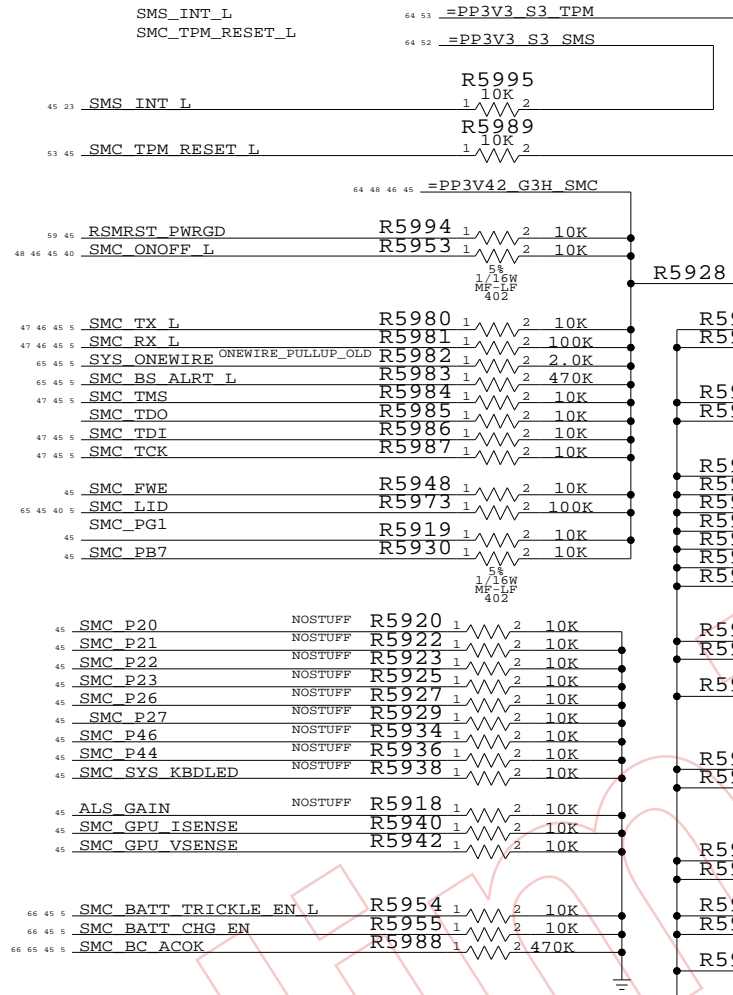
PART NUMBER	ALTERNATE FOR PART NUMBER	BOM OPTION	REF DES	COMMENTS:
353S1278	353S1381	?	VR5965	TI REF3133

SMC G3HOT OSCILLATOR

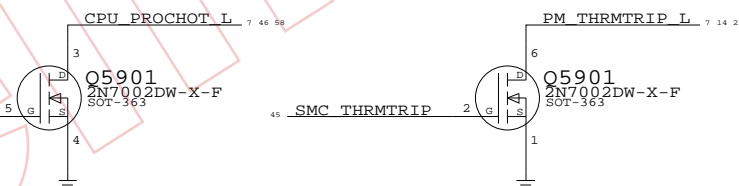


U5910 is really a 32.768KHz oscillator

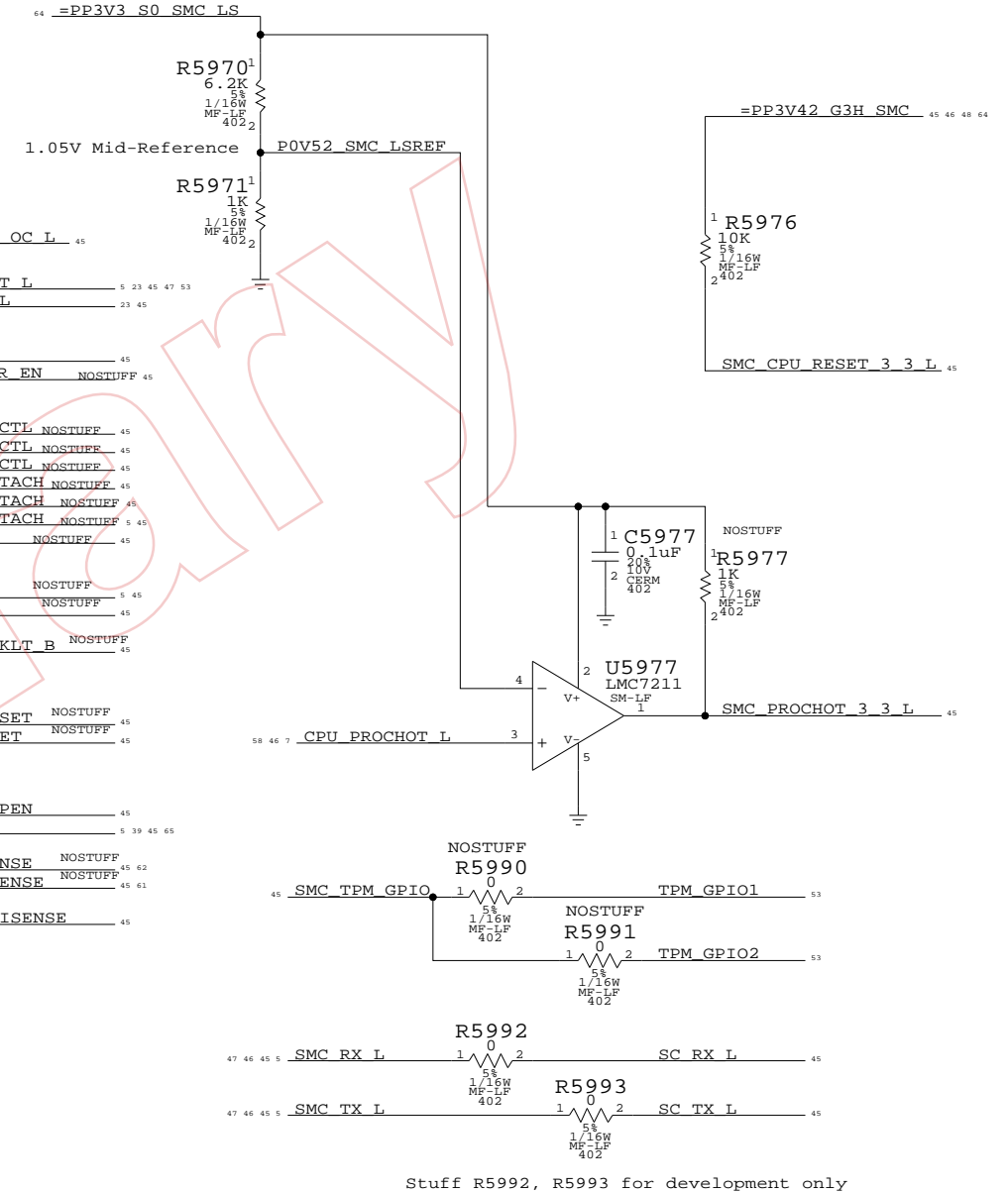
THESE NEED TO BE PULLED TO THE PROPER RAIL:



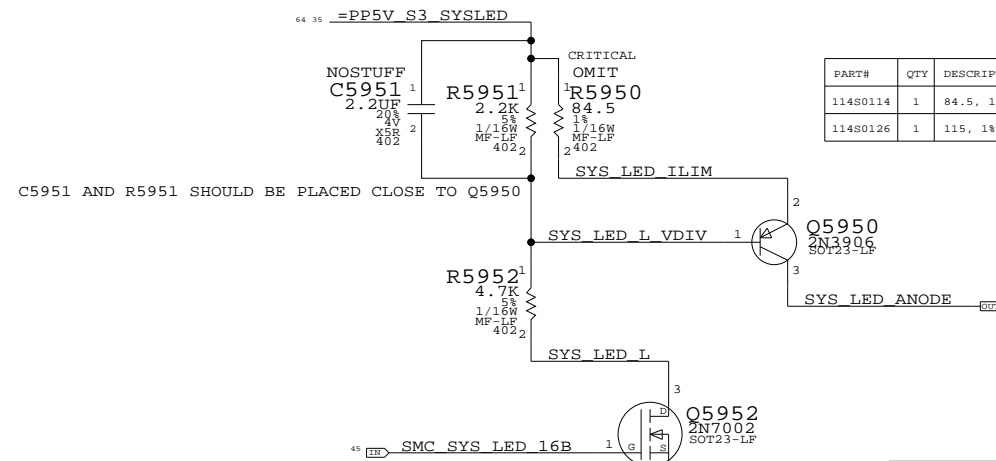
SMC 3.3V to 1.05V Level Shifting



SMC 1.05V to 3.3V Level Shifting



System (Sleep) LED Circuit



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

SMC SUPPORT

SYNC_MASTER=SMC	SYNC_DATE=08/23/2005
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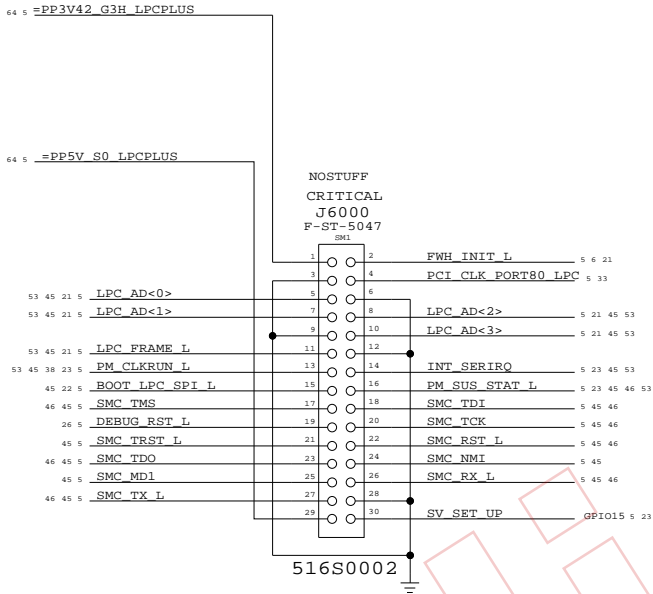


APPLE COMPUTER INC.

SIZE	DRAWING NUMBER	REV.
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D	051-7173	C
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SCALE	SHT	OF



LPC+ Debug Connector

SYNC_MASTER=NBSYNC_DATE=06/30/2005


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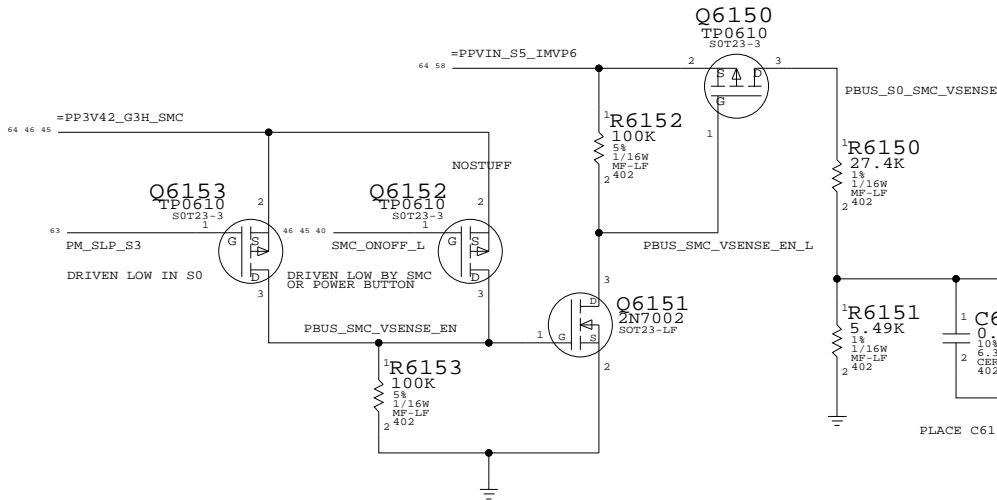
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II NOT TO REPRODUCE OR COPY IT

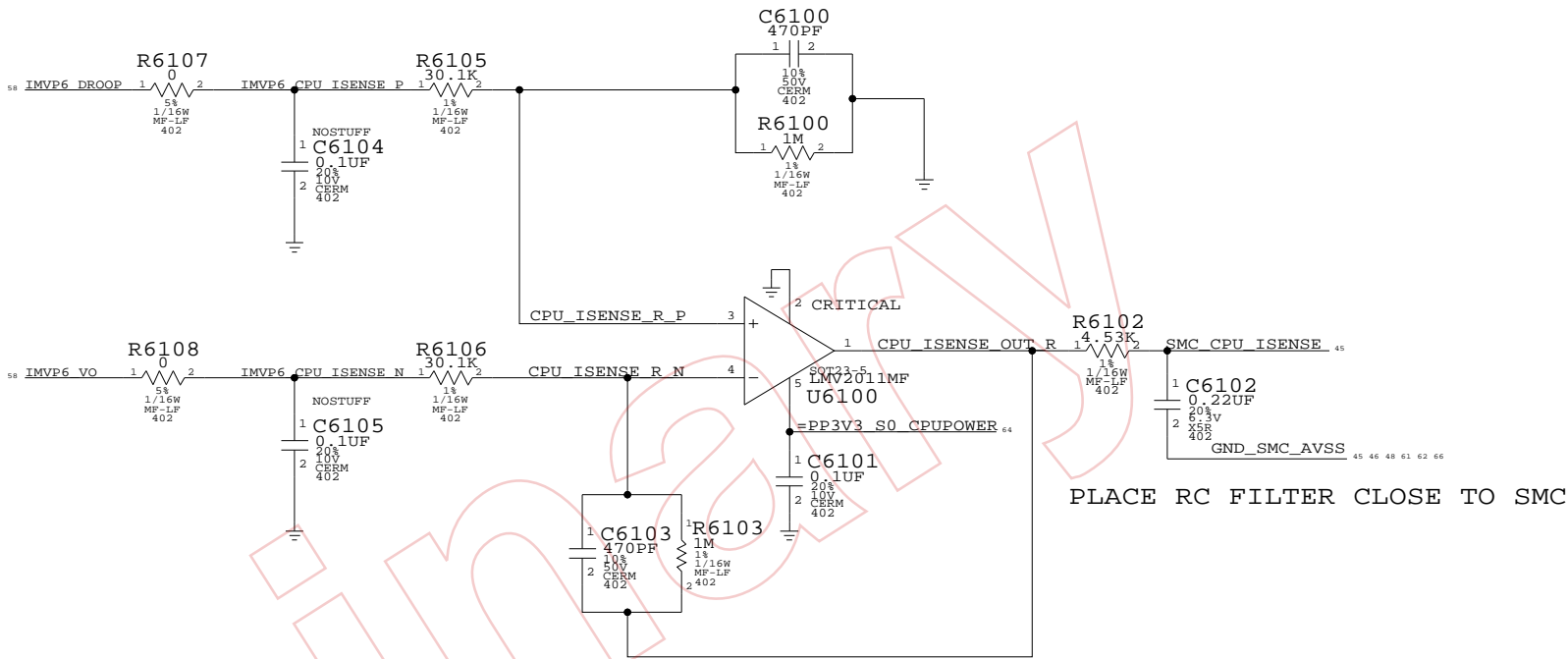
III NOT TO REVEAL OR PUBLISH IN WHOLE OR PART

 APPLE COMPUTER INC.	SIZE D	DRAWING NUMBER 051-7173	REV. C
	SCALE NONE	SHT 60	OF 108

PROCESSOR DCIN VOLTAGE SENSE

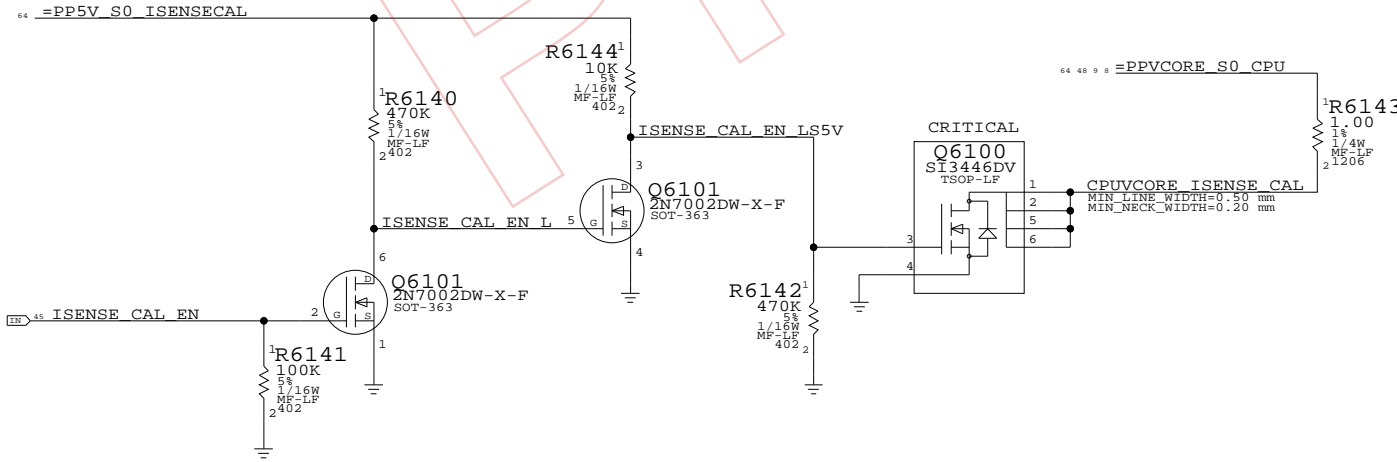


CPU CURRENT SENSE

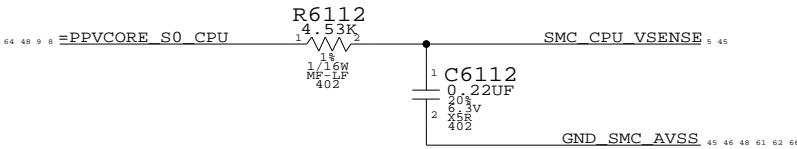


Current Sense Calibration Circuit

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



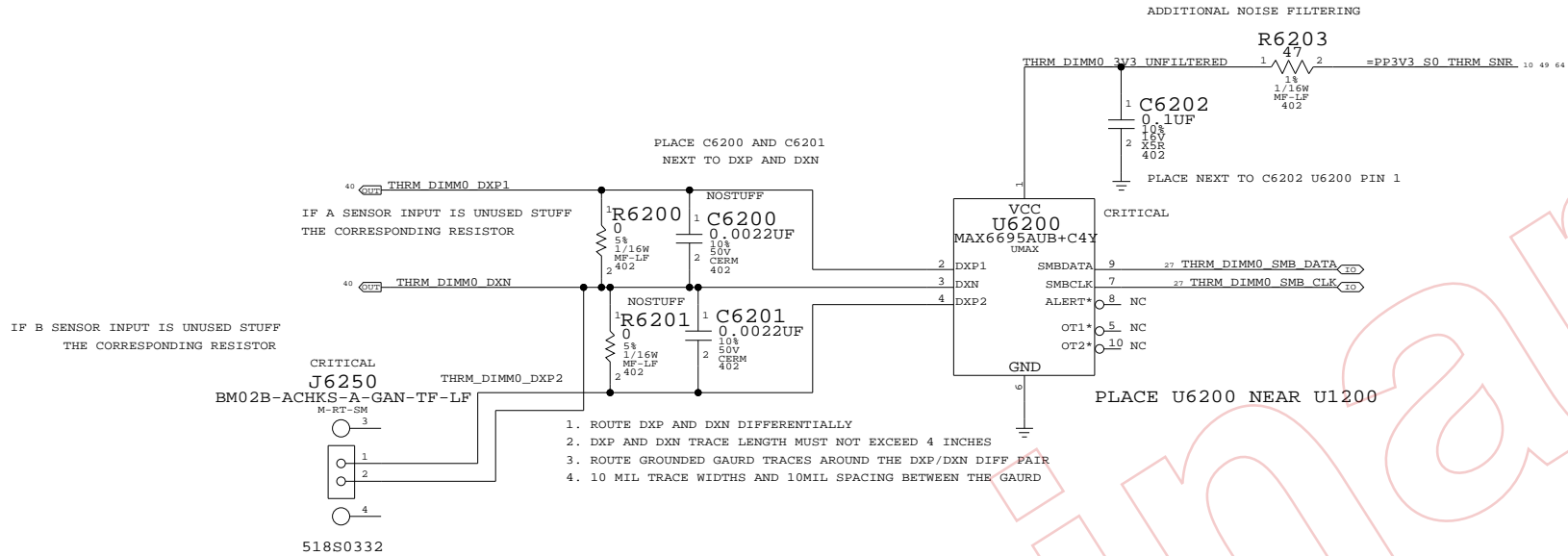
CPU VOLTAGE SENSE



CPU Current & Voltage Sense	
SYNC_MASTER=ENET	SYNC_DATE=08/30/2005
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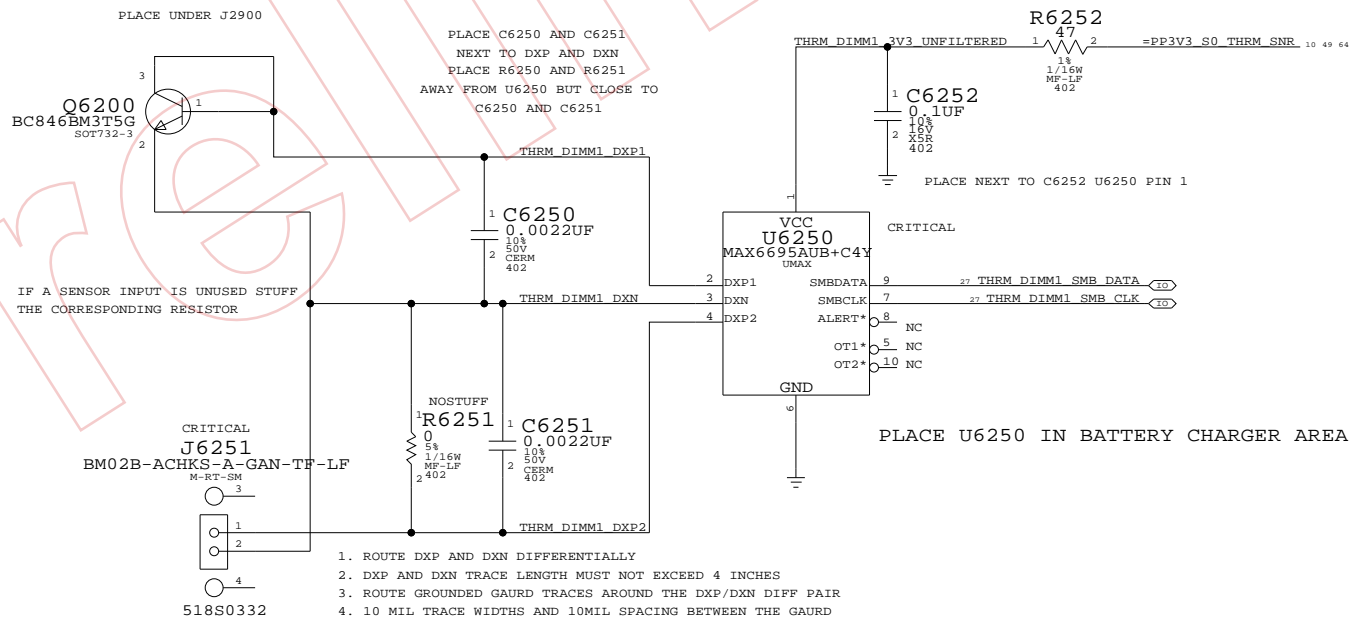
APPLE COMPUTER INC.	SIZE	DRAWING NUMBER	REV.
	D	051-7173	C
SCALE		SHT	OF
NONE		61	108

DIMM0 TEMPERATURE ZONE



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

TEMPERATURE SENSE

SYNC_MASTER=ENET SYNC_DATE=11/09/2005

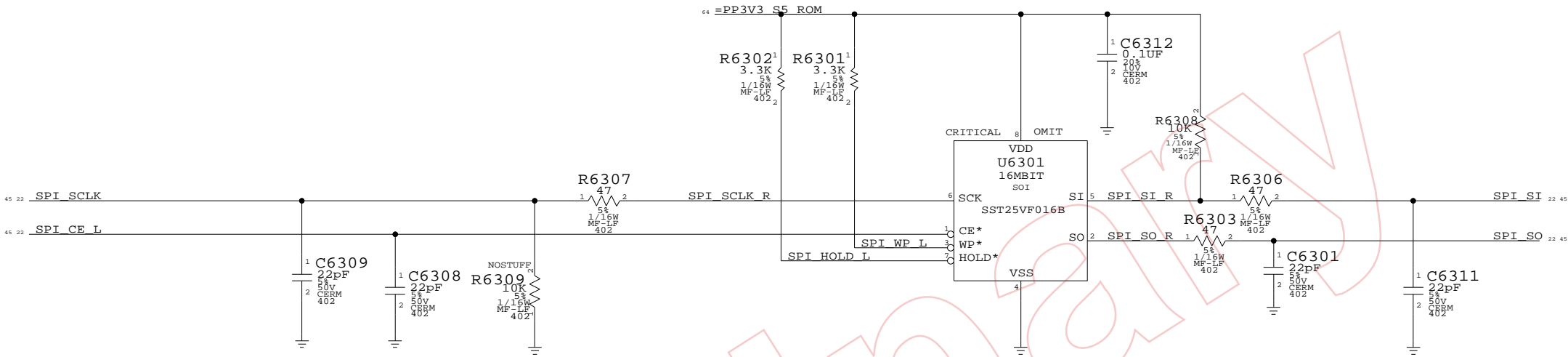
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SIZE	DRAWING NUMBER	REV.
D	051-7173	C
SCALE	SHT	OF
NONE	62	108



R6309 IS NOT NEEDED WHEN SHARING SPI FLASH WITH ICH7M AND TEKOA(LAN CHIP)

R6307 AND R6306 SHOULD BE PLACED LESS THAN 100 MILS FORM ICH7M
R6303 SHOULD BE PLACED LESS THAN 100 MILS FORM FLASH ROM

SPI BOOTROM

SYNC_MASTER=MASTER

SYNC_DATE=5/23/05

NOTICE OF PROPRIETARY PROPERTY

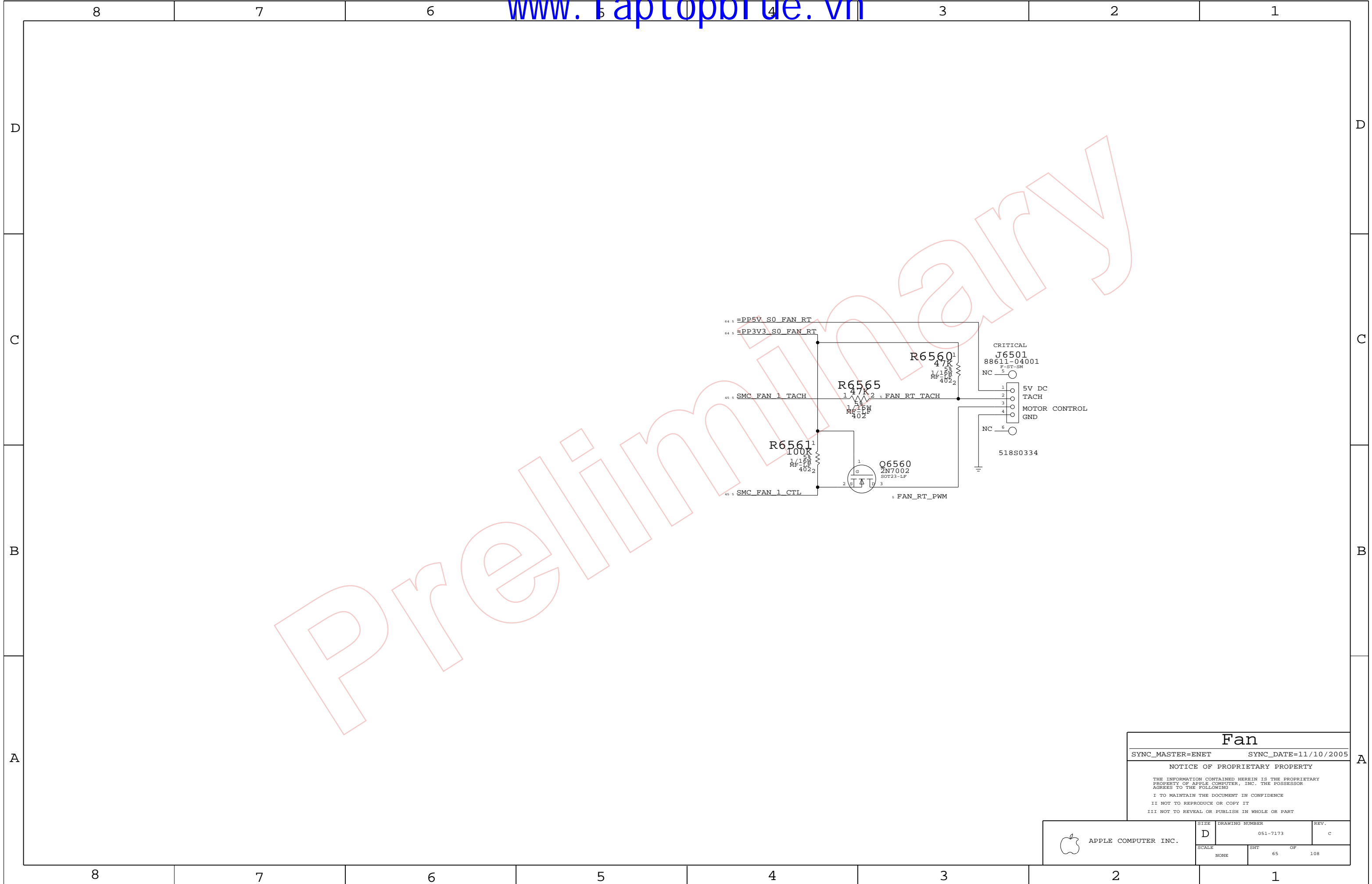
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	D	051-7173	C
SCALE		SHT	OF
NONE		63	108



Fan

SYNC_MASTER=ENET SYNC_DATE=11/10/2005

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APPLE COMPUTER INC.

SIZE

D

DRAWING NUMBER

051-7173

REV.

C

SCALE

NONE

SHT

65

OF

108

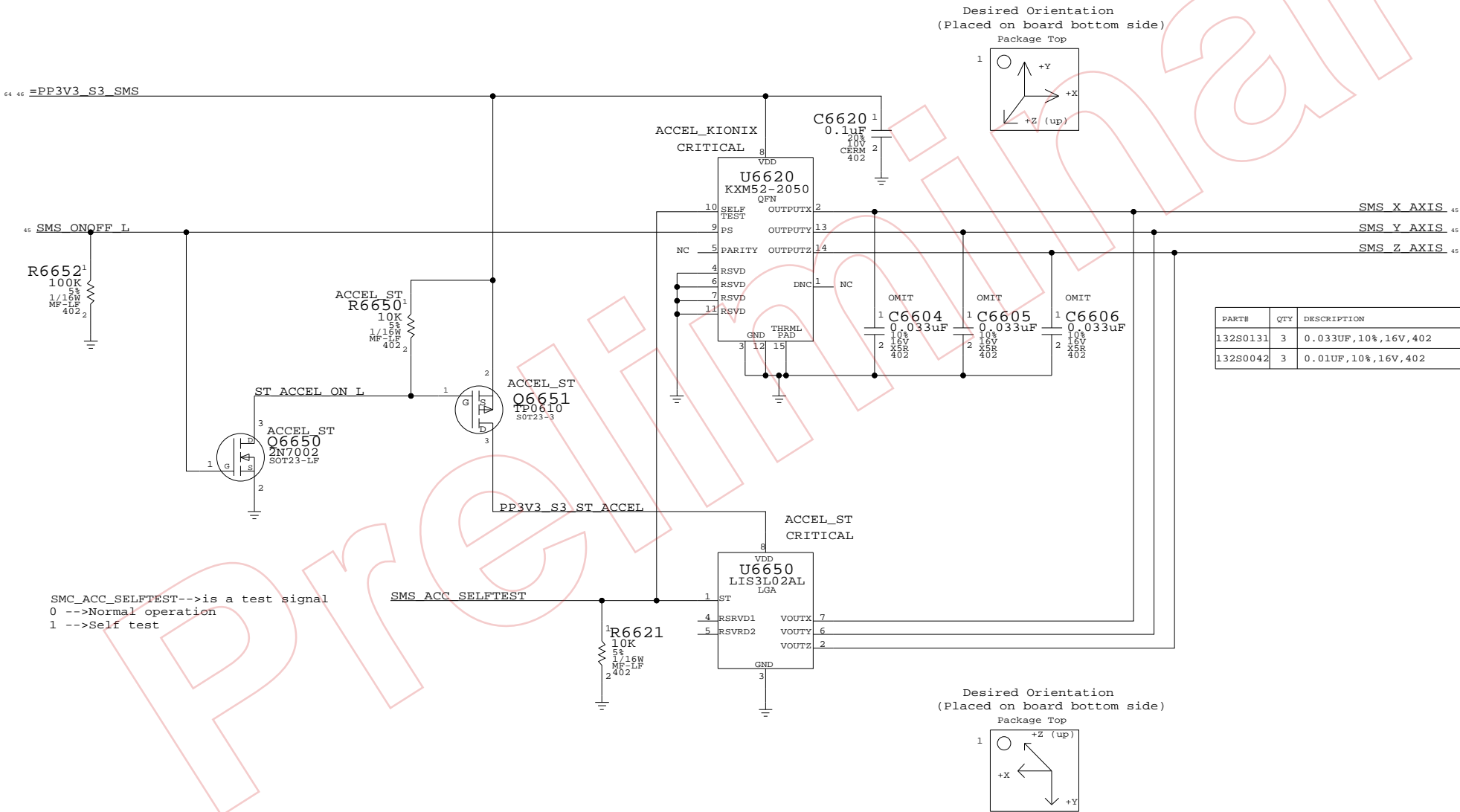
PAGE NOTES

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



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

SMS

SYNC_MASTER=SMC SYNC_DATE=08/23/2005

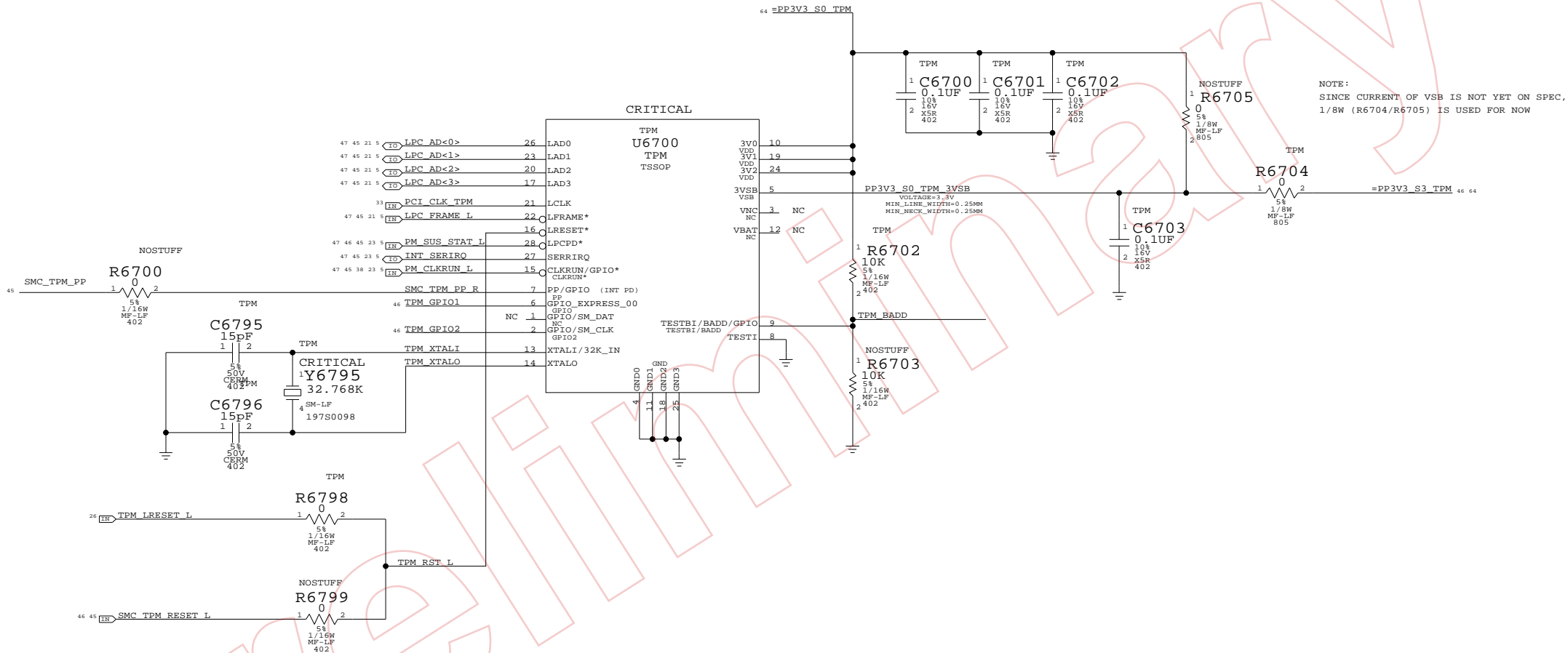
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APPLE COMPUTER INC.

SIZE	DRAWING NUMBER	REV.
D	051-7173	C
SCALE	SHT	OF
NONE	66	108



TPM

SYNC_MASTER=SMC SYNC_DATE=07/18/2005

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APPLE COMPUTER INC.	SIZE D	DRAWING NUMBER 051-7173	REV. C
	SCALE NONE	SHT 67	OF 108

A



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

SYNC_MASTER=M42AUDIO SYNC_DATE=08/05/2006

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SIZE	DRAWING NUMBER	REV.
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1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
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SCALE	SHT	OF
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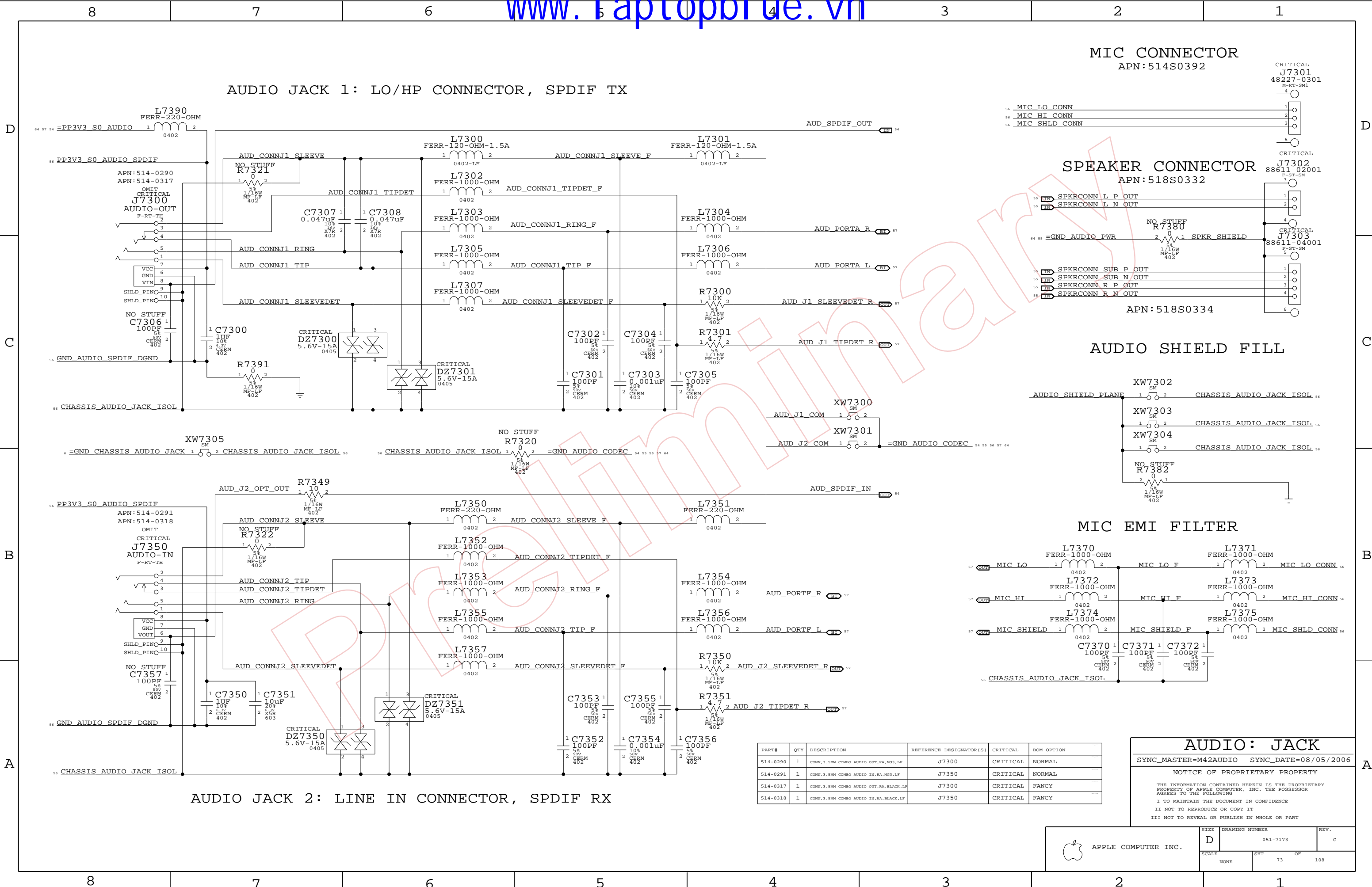
SPEAKER OUTPUT EMI FILTERS



64 56 55 =GND AUDIO PWR 1 2 SPKRAMP THERMPLANE 51



108



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

AUDIO: JACK

SYNC_MASTER=M42AUDIO SYNC_DATE=08/05/2006

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APPLE COMPUTER INC.

SIZE
D

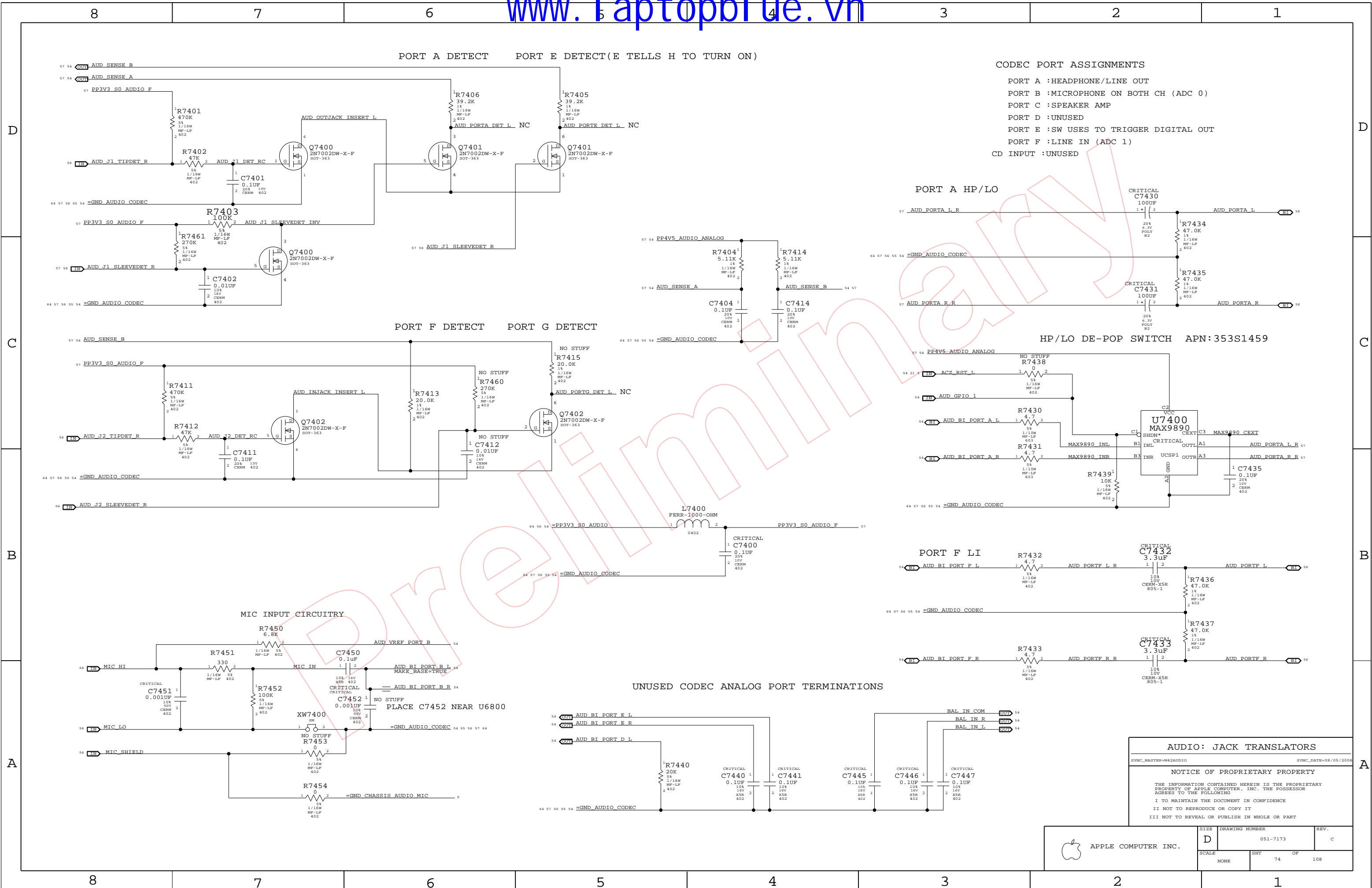
DRAWING NUMBER
051-7173

REV.
C

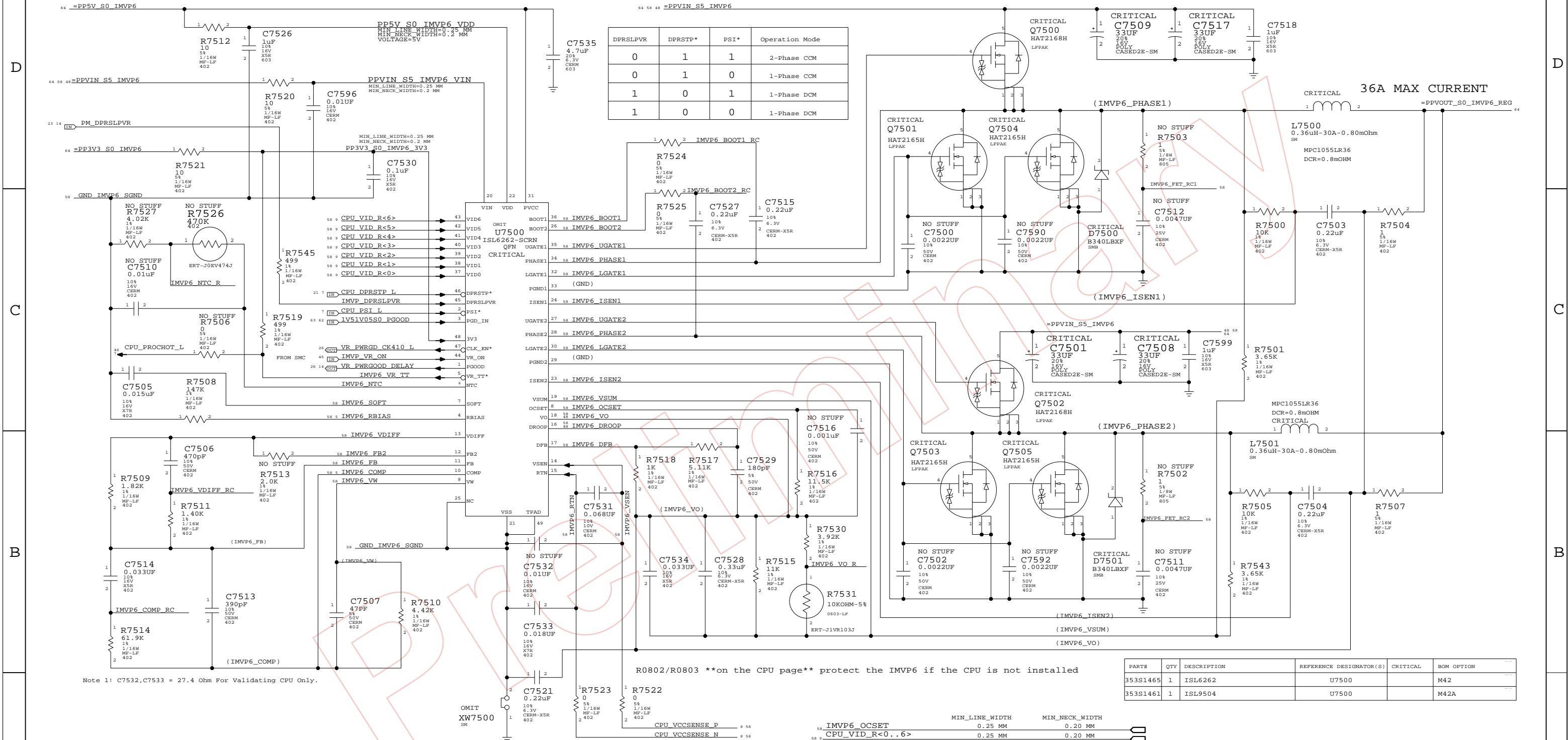
SCALE
NONE

SHT
73

OF
108



PART NUMBER	ALTERNATE FOR PART NUMBER	BOM OPTION	REF DES	COMMENTS:
128S0093	128S0092	?	C7501,C7508	KENET T520V336M016AT0457650
128S0093	128S0092	?	C7509,C7517	KENET T520V336M016AT0457650



IMVP6 CPU VCORE REGULATOR

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

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

	MIN_LINE_WIDTH	MIN_NECK_WIDTH
IMVP6_OCSET	0.25 MM	0.20 MM
CPU_VID_R<0..6>	0.25 MM	0.20 MM
IMVP6_VSUM	0.25 MM	0.20 MM
GND_IMVP6_SGND	0.50 MM	0.20 MM
IMVP6_VO	0.25 MM	0.20 MM
IMVP6_DROOP	0.25 MM	0.20 MM
IMVP6_DFB	0.25 MM	0.20 MM
IMVP6_SOFT	0.25 MM	0.20 MM
IMVP6_RBIA5	0.25 MM	0.20 MM
IMVP6_VDIFF	0.25 MM	0.20 MM
IMVP6_FB2	0.25 MM	0.20 MM
IMVP6_FB	0.25 MM	0.20 MM
IMVP6_COMP	0.25 MM	0.20 MM
IMVP6_VW	0.25 MM	0.25 MM
CPU_VCCSENSE_P	0.25 MM	0.25 MM
CPU_VCCSENSE_N	0.25 MM	0.25 MM
IMVP6_RTN	0.25 MM	0.25 MM
IMVP6_VSEN	0.25 MM	0.25 MM

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

IMVP6 CPU VCore Regulator

SYNC_MASTER=POWER SYNC_DATE=07/13/2005


NOTICE OF PROPRIETARY PROPERTY

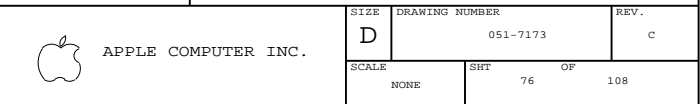
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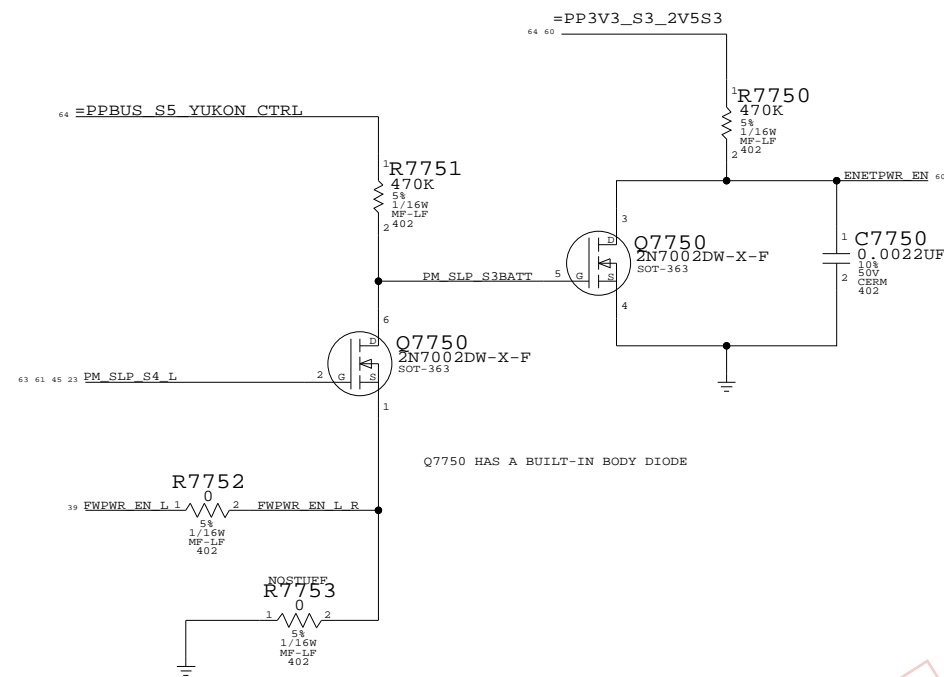
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 APPLE COMPUTER INC.	SIZE	DRAWING NUMBER	REV.
	D	051-7173	C
	SCALE	SHT	OF
	NONE	75	108



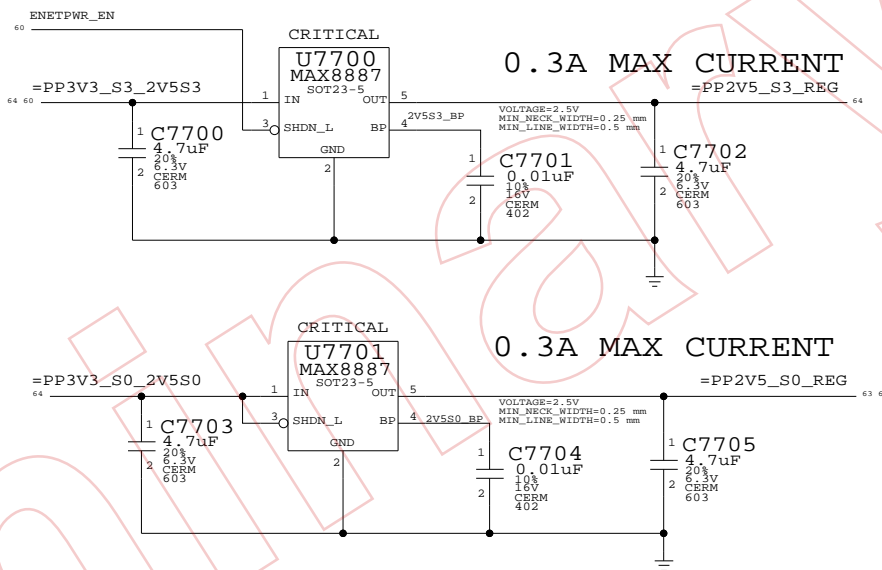
YUKON POWER CONTROL



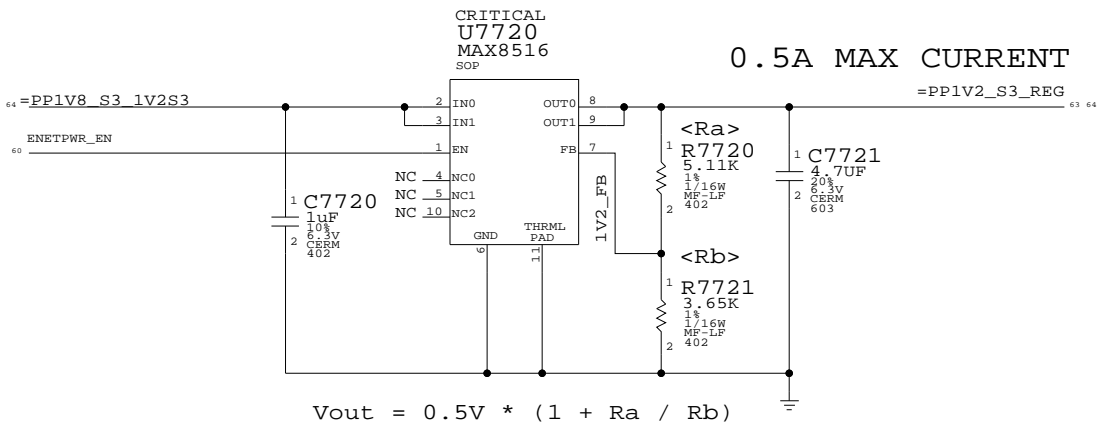
NAME	PM_SLP_S4_L	FWPWR_EN_L	PM_SLP_S3BATT	ENETPWR_EN
LOGIC	S3 S0	~S0 ~SMC_PS_ON		POWER YUKON
S3 ON BATTERY	TRUE (3.3V)	TRUE (PBUS 12.6V)	TRUE (PBUS 12.6V)	FALSE (0V)
S0 OR S3 ON AC	TRUE (3.3V)	FALSE (0V)	FALSE (0V)	TRUE (3.3V)
S5 ON AC	FALSE (0V)	TRUE (PBUS 12.6V)	TRUE (PBUS 12.6V)	FALSE (0V)
S5 ON BATT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



$$V_{out} = 0.5V * (1 + R_a / R_b)$$

2.5V/1.2V Regulator

SYNC_MASTER=ENET

SYNC_DATE=12/06/2005

NOTICE OF PROPRIETARY PROPERTY

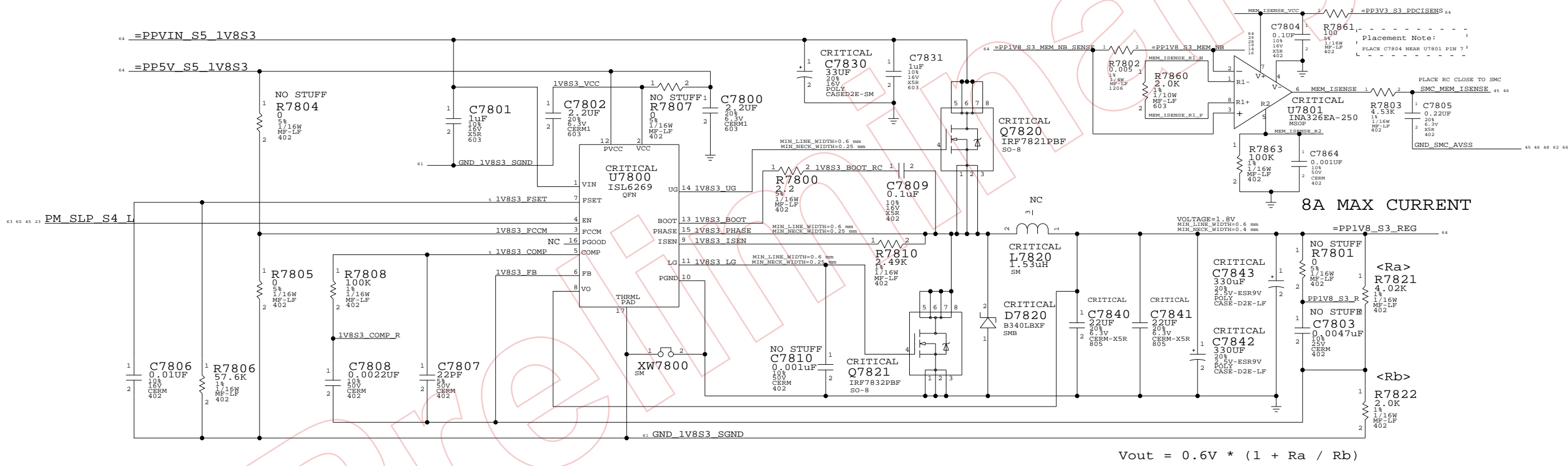
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1.8V POWER SUPPLY



PART NUMBER	ALTERNATE FOR PART NUMBER	BOM OPTION	REF DES	COMMENTS:
128S0093	128S0092	?	C7830	FIXED 7520V336M016ATE0457450

PART NUMBER	ALTERNATE FOR PART NUMBER	BOM OPTION	REF DES	COMMENTS:
128S0094	128S0060	?	C7842, C7843	PANASONIC KEPSX0D331ER
128S0095	128S0060	?	C7842, C7843	PANASONIC KEPSX0D331KE

1.8V Supply

SYNC_MASTER=POWER

SYNC_DATE=07/13/2005

NOTICE OF PROPRIETARY PROPERTY

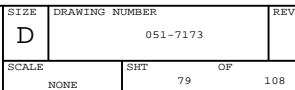
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	D	051-7173	C
SCALE		SHT	OF
NONE		78	108

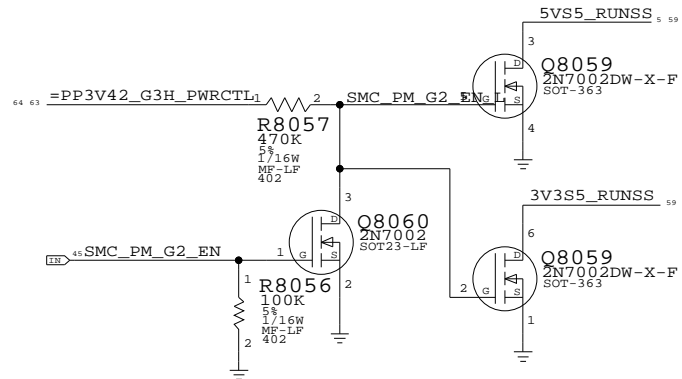


POWER CONTROL SIGNALS

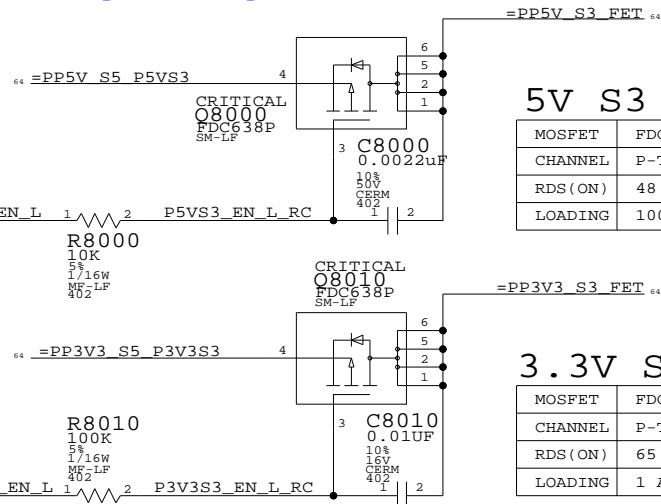
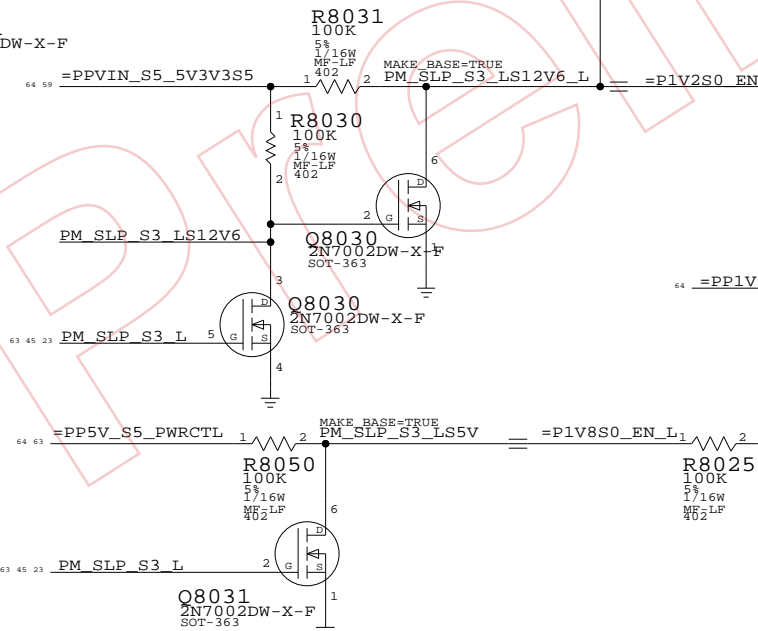
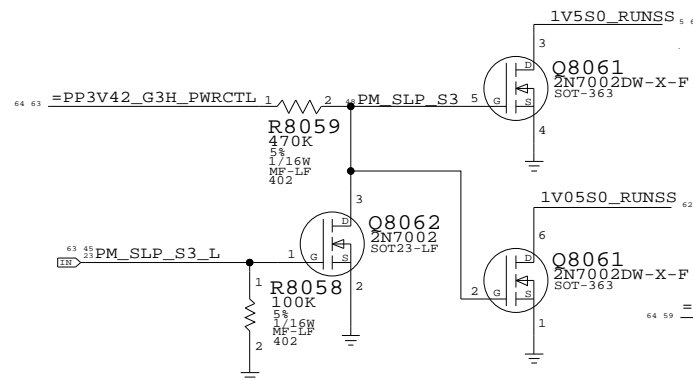
These rails are monitored by LTC2908

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

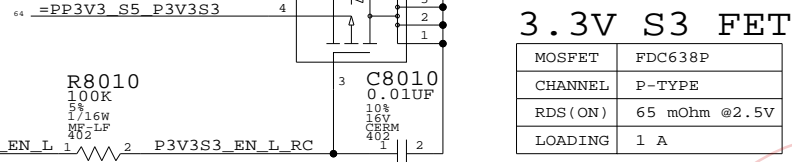


1.5V/1.05V S0 RUN/SS CONTROL



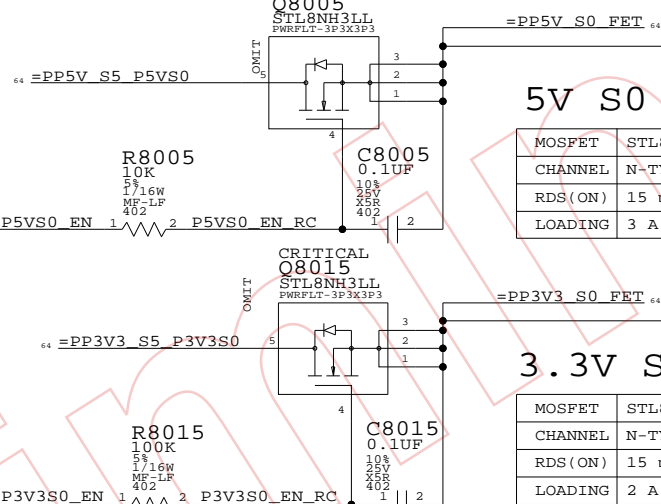
5V S3 FET

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



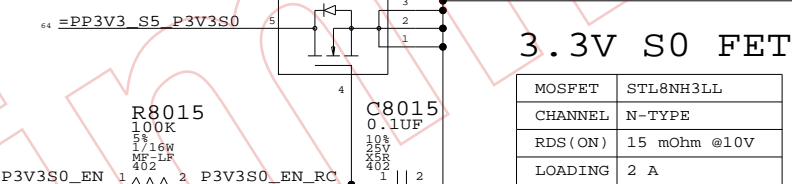
3.3V S3 FET

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



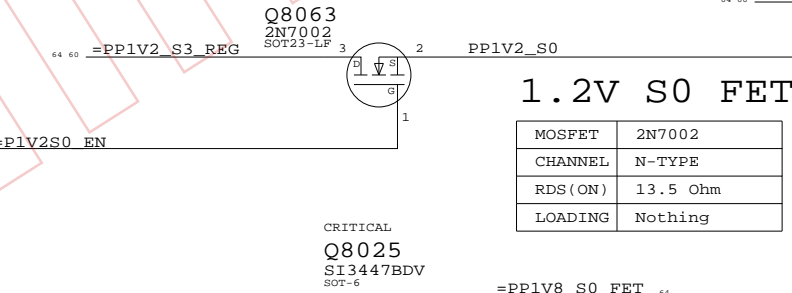
5V S0 FET

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



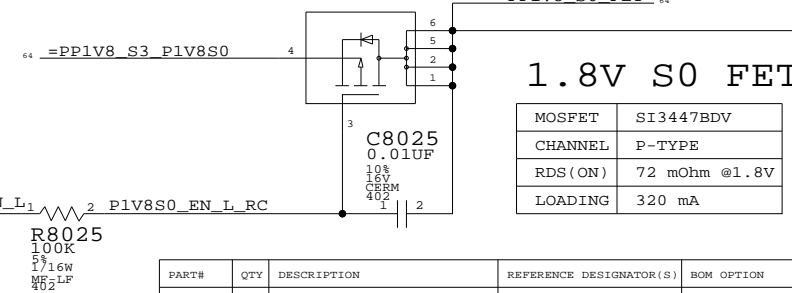
3.3V S0 FET

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

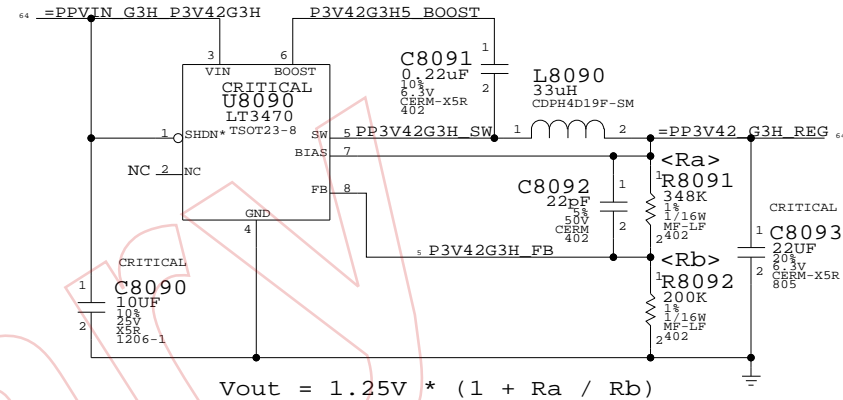


1.8V S0 FET

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

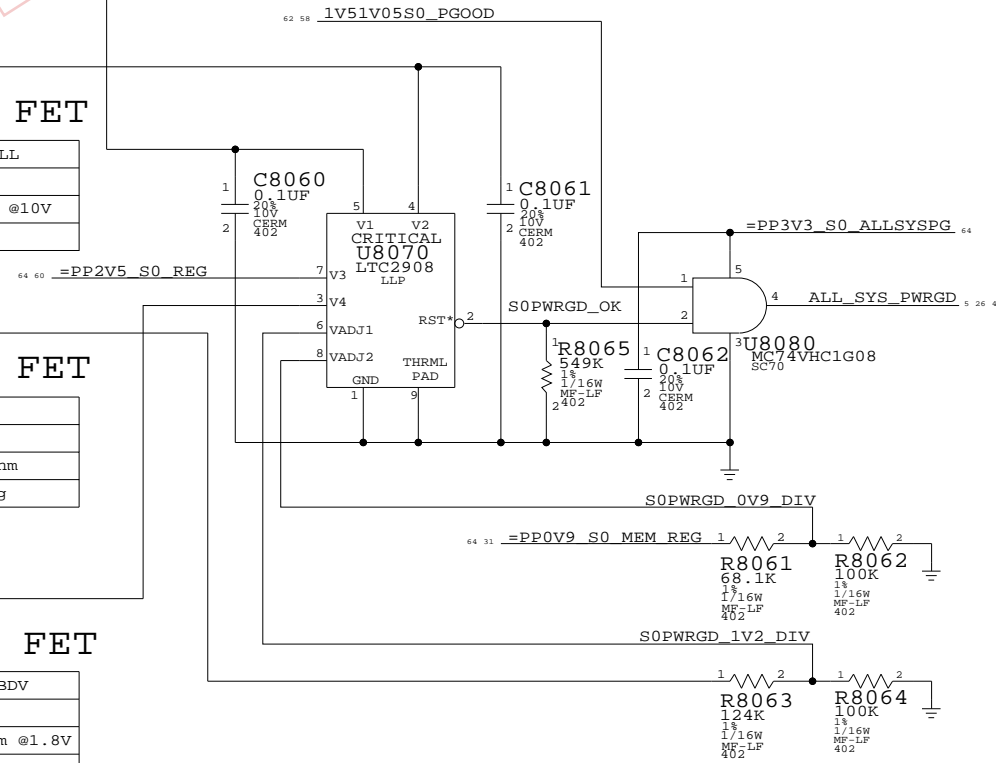
3.425V "G3Hot" SUPPLY

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

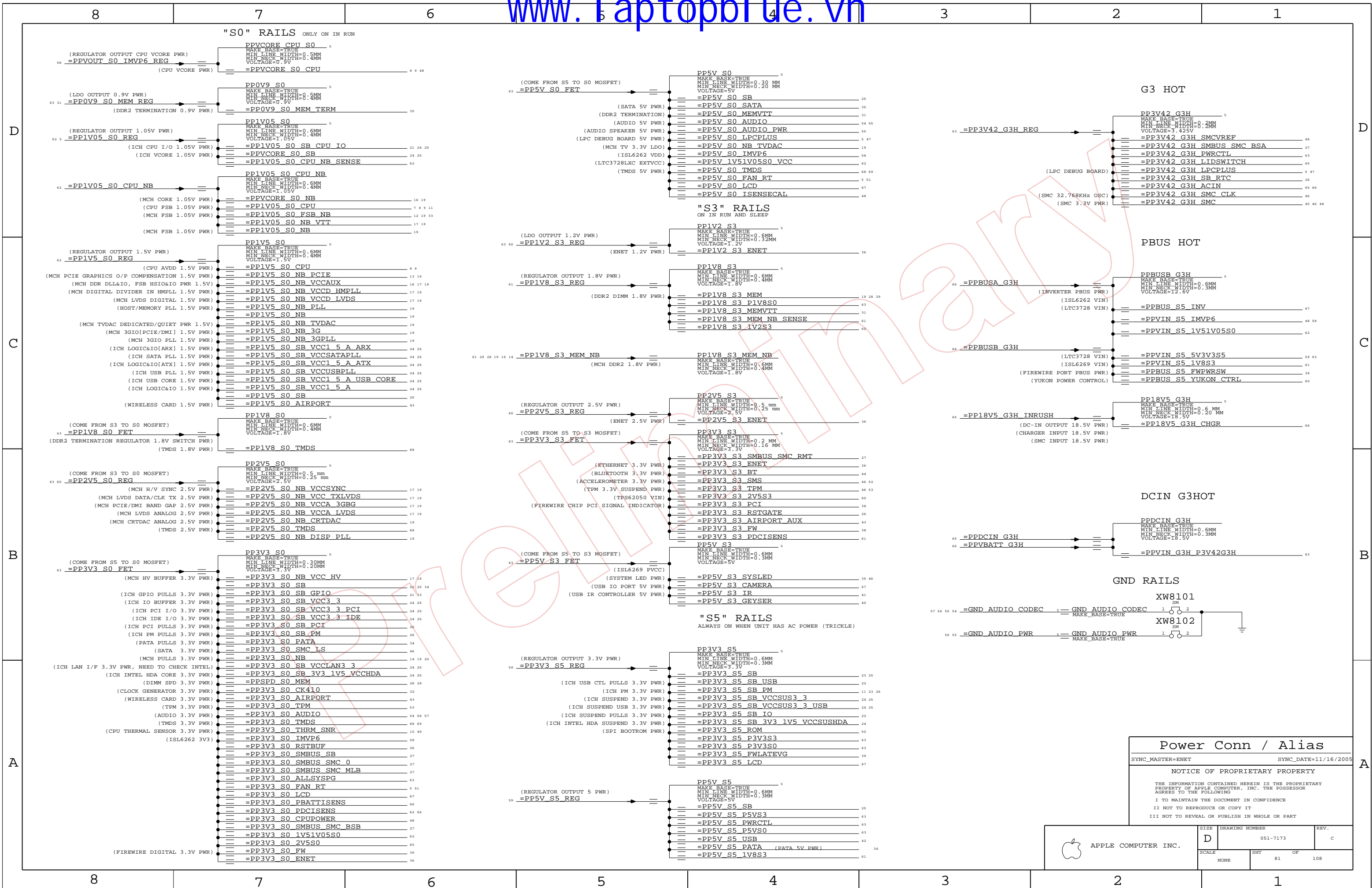
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SIZE	DRAWING NUMBER	REV.
D	051-7173	C
SCALE	SHT	OF
NONE	80	108



D



B



NONE	82	108
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D

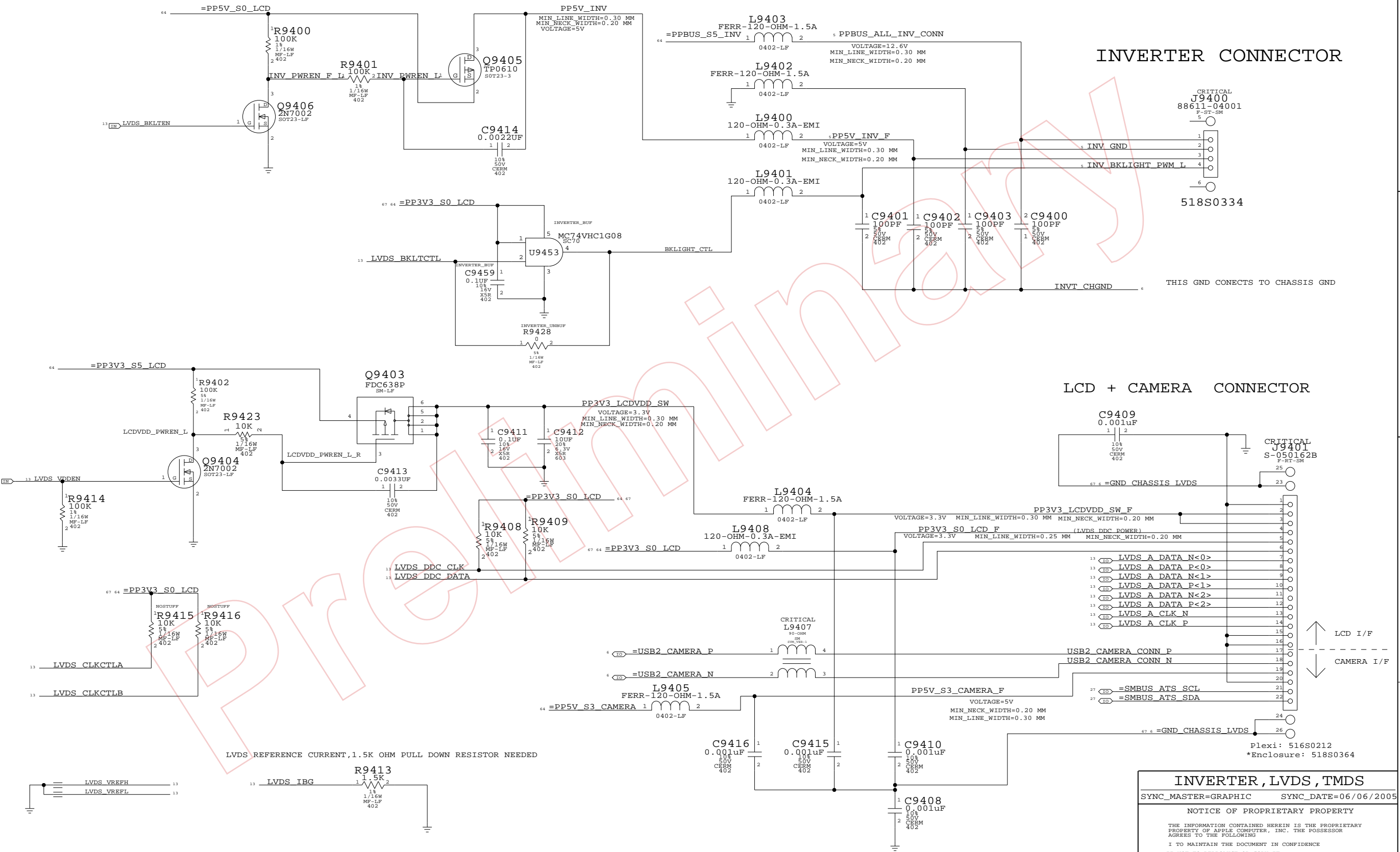



B

A

SCALE	SHT	OF
NONE	83	108





 APPLE COMPUTER INC.	SIZE	DRAWING NUMBER	REV.
	D	051-7173	C
	SCALE	SHT	OF
	NONE	95	108



APPLE COMPUTER INC.

SIZE	DRAWING NUMBER	REV.
D	051-7173	

SCALE	SHT	OF
NONE	95	108

PART NUMBER	ALTERNATE FOR PART NUMBER	BOM OPTION	REF DES	COMMENTS:
155S0227	155S0164	?	PP5V_S0_TMD5	KEEP MAG LAYER 28 BOX

Video Connectors

EXTERNAL VIDEO (VGA) INTERFACE

TMD5(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

DVI power DIODE on page 95 (D9500)

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 RCPT, RA, MG3, LF	J9801	CRITICAL	NORMAL
514-0319	1	CONN, 32P MINI-DVI RCPT, RA, BLACK, LF	J9801	CRITICAL	FANCY

MINI-DVI CONNECTOR

SYNC_MASTER=EUGENE SYNC_DATE=05/21/05

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SIZE	DRAWING NUMBER	REV.
D	051-7173	C
SCALE	SHT	OF
NONE	98	108

[illegible]

8	7	6	5	4	3	2	1
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8			7			6			5			4			3			2			1		
D	FWPWR_EN		FWPWR_EN - @m42a_lib.M42A	39C5	IMVP6_PHASE2		IMVP6_PHASE2 - @m42a_lib.M42A	58A6 58C6	MEM_A_DQ<6>		MEM_A_DQ<6> - @m42a_lib.M42A	15D7 28D6	MEM_B_DQ<17>		MEM_B_DQ<17> - @m42a_lib.M42A	15C4 29C6							
	FWPWR_EN_L		FWPWR_EN_L - @m42a_lib.M42A	39C4 60C8	IMVP6_RBIAS		IMVP6_RBIAS - @m42a_lib.M42A	5D7 58A4 58B7	MEM_A_DQ<7>		MEM_A_DQ<7> - @m42a_lib.M42A	15D7 28D6	MEM_B_DQ<18>		MEM_B_DQ<18> - @m42a_lib.M42A	15C4 29C6							
	FWPWR_EN_L_DIV		FWPWR_EN_L_DIV - @m42a_lib.M42A	39C5	IMVP6_RTN		IMVP6_RTN - @m42a_lib.M42A	58A4 58B6	MEM_A_DQ<8>		MEM_A_DQ<8> - @m42a_lib.M42A	15D7 28D6	MEM_B_DQ<19>		MEM_B_DQ<19> - @m42a_lib.M42A	15C4 29C4							
	FWPWR_EN_L_R		FWPWR_EN_L_R - @m42a_lib.M42A	60C7	IMVP6_SOFT		IMVP6_SOFT - @m42a_lib.M42A	58A4 58C7	MEM_A_DQ<9>		MEM_A_DQ<9> - @m42a_lib.M42A	15C7 28D6	MEM_B_DQ<20>		MEM_B_DQ<20> - @m42a_lib.M42A	15C4 29C6							
	FWPWR_RUN		FWPWR_RUN - @m42a_lib.M42A	39C6	IMVP6_UGATE1		IMVP6_UGATE1 - @m42a_lib.M42A	58A8 58C6	MEM_A_DQ<10>		MEM_A_DQ<10> - @m42a_lib.M42A	15D7 28D6	MEM_B_DQ<21>		MEM_B_DQ<21> - @m42a_lib.M42A	15C4 29C4							
	FW_A_TPA_N		FW_A_TPA_N - @m42a_lib.M42A	38B3 39B6	IMVP6_UGATE2		IMVP6_UGATE2 - @m42a_lib.M42A	58A6 58C6	MEM_A_DQ<11>		MEM_A_DQ<11> - @m42a_lib.M42A	15C7 28D4	MEM_B_DQ<22>		MEM_B_DQ<22> - @m42a_lib.M42A	15C4 29C6							
				39B5	IMVP6_VDIFF		IMVP6_VDIFF - @m42a_lib.M42A	58A4 58B7	MEM_A_DQ<12>		MEM_A_DQ<12> - @m42a_lib.M42A	15C7 28D4	MEM_B_DQ<23>		MEM_B_DQ<23> - @m42a_lib.M42A	15C4 29C4							
	FW_A_TPA_P		FW_A_TPA_P - @m42a_lib.M42A	38B3 39B6	IMVP6_VDIFF_RC		IMVP6_VDIFF_RC - @m42a_lib.M42A	58B7	MEM_A_DQ<13>		MEM_A_DQ<13> - @m42a_lib.M42A	15C7 28D6	MEM_B_DQ<24>		MEM_B_DQ<24> - @m42a_lib.M42A	15C4 29C4							
				39B5	IMVP6_VO		IMVP6_VO - @m42a_lib.M42A	58A6 58A4 58B6	MEM_A_DQ<14>		MEM_A_DQ<14> - @m42a_lib.M42A	15C7 28D4	MEM_B_DQ<25>		MEM_B_DQ<25> - @m42a_lib.M42A	15C4 29C4							
	FW_A_TPBBIAS		FW_A_TPBBIAS - @m42a_lib.M42A	38B3 39B6	IMVP6_VO_R		IMVP6_VO_R - @m42a_lib.M42A	58B4	MEM_A_DQ<15>		MEM_A_DQ<15> - @m42a_lib.M42A	15C7 28D4	MEM_B_DQ<26>		MEM_B_DQ<26> - @m42a_lib.M42A	15C4 29C4							
C	FW_A_TPB_N		FW_A_TPB_N - @m42a_lib.M42A	38B3 39B6	IMVP6_VO_R1		IMVP6_VO_R1 - @m42a_lib.M42A	58A8	MEM_A_DQ<16>		MEM_A_DQ<16> - @m42a_lib.M42A	15C7 28C4	MEM_B_DQ<27>		MEM_B_DQ<27> - @m42a_lib.M42A	15C4 29C6							
				39B5	IMVP6_VO_R2		IMVP6_VO_R2 - @m42a_lib.M42A	58A6	MEM_A_DQ<17>		MEM_A_DQ<17> - @m42a_lib.M42A	15C7 28C6	MEM_B_DQ<28>		MEM_B_DQ<28> - @m42a_lib.M42A	15C4 29C4							
	FW_A_TPB_P		FW_A_TPB_P - @m42a_lib.M42A	38B3 39B6	IMVP6_VR_TT		IMVP6_VR_TT - @m42a_lib.M42A	58C7	MEM_A_DQ<18>		MEM_A_DQ<18> - @m42a_lib.M42A	15C7 28C4	MEM_B_DQ<29>		MEM_B_DQ<29> - @m42a_lib.M42A	15C4 29C6							
				39B5	IMVP6_VSEN		IMVP6_VSEN - @m42a_lib.M42A	58A4 58B5	MEM_A_DQ<19>		MEM_A_DQ<19> - @m42a_lib.M42A	15C7 28C6	MEM_B_DQ<30>		MEM_B_DQ<30> - @m42a_lib.M42A	15C4 29C6							
	FW_B_TPA_N		FW_B_TPA_N - @m42a_lib.M42A	6D2 38B3	IMVP6_VSUM		IMVP6_VSUM - @m42a_lib.M42A	58A4 58C6	MEM_A_DQ<20>		MEM_A_DQ<20> - @m42a_lib.M42A	15C7 28C6	MEM_B_DQ<31>		MEM_B_DQ<31> - @m42a_lib.M42A	15C4 29C6							
				5B7 6D1	IMVP6_VSUM_R1		IMVP6_VSUM_R1 - @m42a_lib.M42A	58A8	MEM_A_DQ<21>		MEM_A_DQ<21> - @m42a_lib.M42A	15C7 28C4	MEM_B_DQ<32>		MEM_B_DQ<32> - @m42a_lib.M42A	15C4 29A6							
	FW_B_TPA_P		FW_B_TPA_P - @m42a_lib.M42A	6D2 38B3	IMVP6_VSUM_R2		IMVP6_VSUM_R2 - @m42a_lib.M42A	58A6	MEM_A_DQ<22>		MEM_A_DQ<22> - @m42a_lib.M42A	15C7 28C6	MEM_B_DQ<33>		MEM_B_DQ<33> - @m42a_lib.M42A	15C4 29A4							
				5B7 6D1	IMVP6_VW		IMVP6_VW - @m42a_lib.M42A	58B7 58B7	MEM_A_DQ<23>		MEM_A_DQ<23> - @m42a_lib.M42A	15C7 28C4	MEM_B_DQ<34>		MEM_B_DQ<34> - @m42a_lib.M42A	15C4 29A6							
	FW_B_TPBBIAS		FW_B_TPBBIAS - @m42a_lib.M42A	6D2 38B3	IMVP_DPRS1PVR		IMVP_DPRS1PVR - @m42a_lib.M42A	58C7	MEM_A_DQ<24>		MEM_A_DQ<24> - @m42a_lib.M42A	15C7 28C6	MEM_B_DQ<35>		MEM_B_DQ<35> - @m42a_lib.M42A	15C4 29A4							
				5B7 6D1	IMVP_VR_ON		IMVP_VR_ON - @m42a_lib.M42A	45D8 58C7	MEM_A_DQ<25>		MEM_A_DQ<25> - @m42a_lib.M42A	15C7 28C6	MEM_B_DQ<36>		MEM_B_DQ<36> - @m42a_lib.M42A	15C4 29A4							
B	FW_B_TPB_N		FW_B_TPB_N - @m42a_lib.M42A	22A7 26C3	INT_PIRQA_L		INT_PIRQA_L - @m42a_lib.M42A	22A7 26C3	MEM_A_DQ<26>		MEM_A_DQ<26> - @m42a_lib.M42A	15C7 28C4	MEM_B_DQ<37>		MEM_B_DQ<37> - @m42a_lib.M42A	15C4 29A6							
				5B7 6D1	INT_PIRQB_L		INT_PIRQB_L - @m42a_lib.M42A	22A7 26C3	MEM_A_DQ<27>		MEM_A_DQ<27> - @m42a_lib.M42A	15C7 28C6	MEM_B_DQ<38>		MEM_B_DQ<38> - @m42a_lib.M42A	15C4 29A6							
	FW_B_TPB_P		FW_B_TPB_P - @m42a_lib.M42A	6D2 38B3	INT_PIRQC_L		INT_PIRQC_L - @m42a_lib.M42A	22A7 26C3	MEM_A_DQ<28>		MEM_A_DQ<28> - @m42a_lib.M42A	15C7 28C4	MEM_B_DQ<39>		MEM_B_DQ<39> - @m42a_lib.M42A	15C4 29A4							
				5B7 6D1	INT_PIRQD_L		INT_PIRQD_L - @m42a_lib.M42A	22A7 26C3 38A5	MEM_A_DQ<29>		MEM_A_DQ<29> - @m42a_lib.M42A	15C7 28D4	MEM_B_DQ<40>		MEM_B_DQ<40> - @m42a_lib.M42A	15C4 29A4							
	FW_C_TPA_N		FW_C_TPA_N - @m42a_lib.M42A	6D2 38B3	INT_SERRIQ		INT_SERRIQ - @m42a_lib.M42A	5C2 23C8 45C8 47C5 53C6	MEM_A_DQ<30>		MEM_A_DQ<30> - @m42a_lib.M42A	15C7 28C4	MEM_B_DQ<41>		MEM_B_DQ<41> - @m42a_lib.M42A	15C4 29A6							
				5B7 6D1	INVT_CHGND		INVT_CHGND - @m42a_lib.M42A	6D8 67C2	MEM_A_DQ<31>		MEM_A_DQ<31> - @m42a_lib.M42A	15C7 28C6	MEM_B_DQ<42>		MEM_B_DQ<42> - @m42a_lib.M42A	15C4 29A4							
	FW_C_TPA_P		FW_C_TPA_P - @m42a_lib.M42A	6D2 38B3	INV_BKLIGHT_PWM_L		INV_BKLIGHT_PWM_L - @m42a_lib.M42A	5B1 67D2	MEM_A_DQ<32>		MEM_A_DQ<32> - @m42a_lib.M42A	15C7 28B6	MEM_B_DQ<43>		MEM_B_DQ<43> - @m42a_lib.M42A	15C4 29A6							
				5B7 6D1	INV_GND		INV_GND - @m42a_lib.M42A	5B1 67D2	MEM_A_DQ<33>		MEM_A_DQ<33> - @m42a_lib.M42A	15C7 28B4	MEM_B_DQ<44>		MEM_B_DQ<44> - @m42a_lib.M42A	15C4 29A6							
	FW_C_TPBBIAS		FW_C_TPBBIAS - @m42a_lib.M42A	6D2 38B3	INV_PWREN_F_L		INV_PWREN_F_L - @m42a_lib.M42A	67D6	MEM_A_DQ<34>		MEM_A_DQ<34> - @m42a_lib.M42A	15B7 28B4	MEM_B_DQ<45>		MEM_B_DQ<45> - @m42a_lib.M42A	15C4 29A6							
				5B7 6D1	INV_PWREN_L		INV_PWREN_L - @m42a_lib.M42A	67D6	MEM_A_DQ<35>		MEM_A_DQ<35> - @m42a_lib.M42A	15B7 28B4	MEM_B_DQ<46>		MEM_B_DQ<46> - @m42a_lib.M42A	15C4 29A4							
A	FW_C_TPB_N		FW_C_TPB_N - @m42a_lib.M42A	6D2 38B3	IR_RX_OUT		IR_RX_OUT - @m42a_lib.M42A	35C6 41C6	MEM_A_DQ<36>		MEM_A_DQ<36> - @m42a_lib.M42A	15B7 28B4	MEM_B_DQ<47>		MEM_B_DQ<47> - @m42a_lib.M42A	15C4 29A4							
				5B7 6D1	IR_RX_OUT_F		IR_RX_OUT_F - @m42a_lib.M42A	41C5	MEM_A_DQ<37>		MEM_A_DQ<37> - @m42a_lib.M42A	15B7 28B6	MEM_B_DQ<48>		MEM_B_DQ<48> - @m42a_lib.M42A	15C4 29B4							
	FW_C_TPB_P		FW_C_TPB_P - @m42a_lib.M42A	6D2 38B3	ISENSE_CAL_EN		ISENSE_CAL_EN - @m42a_lib.M42A	45B8 48A8	MEM_A_DQ<38>		MEM_A_DQ<38> - @m42a_lib.M42A	15B7 28B6	MEM_B_DQ<49>		MEM_B_DQ<49> - @m42a_lib.M42A	15C4 29A6							
				5B7 6D1	ISENSE_CAL_EN_L		ISENSE_CAL_EN_L - @m42a_lib.M42A	48A7	MEM_A_DQ<39>		MEM_A_DQ<39> - @m42a_lib.M42A	15B7 28B6	MEM_B_DQ<50>		MEM_B_DQ<50> - @m42a_lib.M42A	15C4 29B6							
	FW_PCIE_IDSEL		FW_PCIE_IDSEL - @m42a_lib.M42A	38A5	ISENSE_CAL_EN_LSSV		ISENSE_CAL_EN_LSSV - @m42a_lib.M42A	48A8	MEM_A_DQ<40>		MEM_A_DQ<40> - @m42a_lib.M42A	15B7 28B4	MEM_B_DQ<51>		MEM_B_DQ<51> - @m42a_lib.M42A	15C4 29B4							
				38A5	ITPRESET_L		ITPRESET_L - @m42a_lib.M42A	11B3	MEM_A_DQ<41>		MEM_A_DQ<41> - @m42a_lib.M42A	15B7 28B6	MEM_B_DQ<52>		MEM_B_DQ<52> - @m42a_lib.M42A	15C4 29A6							

D	NB_CFG<10>	TP_NB_CFG10 - @m42a_lib.M42A	6D4 14C6	6D3
	NB_CFG<11>	TP_NB_CFG11 - @m42a_lib.M42A	6D4 14C6	6D3
	NB_CFG<12>	TP_NB_CFG12 - @m42a_lib.M42A	6D4 14C6	6D3
	NB_CFG<13>	TP_NB_CFG13 - @m42a_lib.M42A	6D4 14C6	6D3
	NB_CFG<14>	TP_NB_CFG14 - @m42a_lib.M42A	6D4 14C6	6D3
	NB_CFG<15>	TP_NB_CFG15 - @m42a_lib.M42A	6D4 14C6	6D3
	NB_CFG<16>	TP_NB_CFG16 - @m42a_lib.M42A	6D3 20C5	14C6
	NB_CFG<17>	TP_NB_CFG17 - @m42a_lib.M42A	6D4 14C6	6D3
	NB_CFG<18>	TP_NB_CFG18 - @m42a_lib.M42A	14C6 20B5	14C6
	NB_CFG<19>	TP_NB_CFG19 - @m42a_lib.M42A	14C6 20B5	14C6
C	NB_CLK100M_GCLKIN_N	NB_CLK100M_GCLKIN_P - @m42a_lib.M42A	14C4 33B2 33C4	14C4 33C2 33C4
	NB_CLK100M_GCLKIN_P	NB_CLK100M_GCLKIN_P - @m42a_lib.M42A	14C4 33B2 33C2	14C4 33B2 33C2
	NB_CLK100M_GCLKIN_P	NB_CLK100M_GCLKIN_P - @m42a_lib.M42A	14C4 33A4 33C2	14C4 33A3 33C2
	NB_CLK100M_GCLKIN_P	NB_CLK100M_GCLKIN_P - @m42a_lib.M42A	14C4 33A3 33C2	14C4 33A3 33C2
	NB_CLK100M_GCLKIN_P	NB_CLK100M_GCLKIN_P - @m42a_lib.M42A	14C4 33A3 33C2	14C4 33A3 33C2
	NB_CLK100M_GCLKIN_P	NB_CLK100M_GCLKIN_P - @m42a_lib.M42A	14C4 33A3 33C2	14C4 33A3 33C2
	NB_CLK100M_GCLKIN_P	NB_CLK100M_GCLKIN_P - @m42a_lib.M42A	14C4 33A3 33C2	14C4 33A3 33C2
	NB_CLK100M_GCLKIN_P	NB_CLK100M_GCLKIN_P - @m42a_lib.M42A	14C4 33A3 33C2	14C4 33A3 33C2
	NB_CLK100M_GCLKIN_P	NB_CLK100M_GCLKIN_P - @m42a_lib.M42A	14C4 33A3 33C2	14C4 33A3 33C2
	NB_CLK100M_GCLKIN_P	NB_CLK100M_GCLKIN_P - @m42a_lib.M42A	14C4 33A3 33C2	14C4 33A3 33C2
B	NB_FSB_VREF	NB_FSB_VREF - @m42a_lib.M42A	12A6	12A6
	NB_FSB_XRCOMP	NB_FSB_XRCOMP - @m42a_lib.M42A	12A6	12A6
	NB_FSB_XSCOMP	NB_FSB_XSCOMP - @m42a_lib.M42A	12A6	12A6
	NB_FSB_XSWING	NB_FSB_XSWING - @m42a_lib.M42A	12A6	12A6
	NB_FSB_YRCOMP	NB_FSB_YRCOMP - @m42a_lib.M42A	12A6	12A6
	NB_FSB_YSCOMP	NB_FSB_YSCOMP - @m42a_lib.M42A	12A6	12A6
	NB_FSB_YSWING	NB_FSB_YSWING - @m42a_lib.M42A	12A6	12A6
	NB_FSB_YSCOMP	NB_FSB_YSCOMP - @m42a_lib.M42A	12A6	12A6
	NB_FSB_YSWING	NB_FSB_YSWING - @m42a_lib.M42A	12A6	12A6
	NB_FSB_YSCOMP	NB_FSB_YSCOMP - @m42a_lib.M42A	12A6	12A6
A	NB_FSB_YSWING	NB_FSB_YSWING - @m42a_lib.M42A	12A6	12A6
	NB_FSB_YSCOMP	NB_FSB_YSCOMP - @m42a_lib.M42A	12A6	12A6
	NB_FSB_YSWING	NB_FSB_YSWING - @m42a_lib.M42A	12A6	12A6
	NB_FSB_YSCOMP	NB_FSB_YSCOMP - @m42a_lib.M42A	12A6	12A6
	NB_FSB_YSWING	NB_FSB_YSWING - @m42a_lib.M42A	12A6	12A6
	NB_FSB_YSCOMP	NB_FSB_YSCOMP - @m42a_lib.M42A	12A6	12A6
	NB_FSB_YSWING	NB_FSB_YSWING - @m42a_lib.M42A	12A6	12A6
	NB_FSB_YSCOMP	NB_FSB_YSCOMP - @m42a_lib.M42A	12A6	12A6
	NB_FSB_YSWING	NB_FSB_YSWING - @m42a_lib.M42A	12A6	12A6
	NB_FSB_YSCOMP	NB_FSB_YSCOMP - @m42a_lib.M42A	12A6	12A6

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SMB_MLBSPKRAMF
SPKRAMF
SPKRAMF

8		7		6		5		4		3		2		1	
D	TP_NB_XOR_LVDS_D27	TP_NB_XOR_LVDS_D27 - @m42a_lib.M42A	14C6	<div>XDP_TMSXDP_TRST_L</div>		<div>XDP_TMS - @m42a_lib.M42AXDP_TRST_L - @m42a_lib.M42A</div>		<div>7B8 7C6 11B27C6 11B3</div>							
	TP_NB_XOR_LVDS_D28	TP_NB_XOR_LVDS_D28 - @m42a_lib.M42A	14C6												
	TP_PCI_GNT0_L	TP_PCI_GNT0_L - @m42a_lib.M42A	22B6												
	TP_PCI_GNT1_L	TP_PCI_GNT1_L - @m42a_lib.M42A	22B6												
	TP_PCI_GNT2_L	TP_PCI_GNT2_L - @m42a_lib.M42A	22B6												
	TP_PCI_PME_L	TP_PCI_PME_L - @m42a_lib.M42A	22A6												
	TP_SB_ACZ_SDIN1	TP_SB_ACZ_SDIN1 - @m42a_lib.M42A	21C6												
	TP_SB_ACZ_SDIN2	TP_SB_ACZ_SDIN2 - @m42a_lib.M42A	21C6												
	TP_SB_DRQ0_L	TP_SB_DRQ0_L - @m42a_lib.M42A	21D4												
	TP_SB_GPIO6	TP_SB_GPIO6 - @m42a_lib.M42A	23C5												
C	TP_SB_GPIO22	TP_SB_GPIO22 - @m42a_lib.M42A	6B1 22B6												
	=SB_GPIO22	- @m42a_lib.M42A	6B2 69A6												
	SB_GPIO22	- @m42a_lib.M42A	6B2												
	=SB_GPIO22	- @m42a_lib.M42A	6B2 69A6												
	TP_SB_GPIO23	TP_SB_GPIO23 - @m42a_lib.M42A	21D5												
	TP_SB_GPIO25_DO_NOT_USE	TP_SB_GPIO25_DO_NOT_USE - @m42a_lib.M42A	23C3												
	TP_SB_GPIO38	TP_SB_GPIO38 - @m42a_lib.M42A	23C3												
	TP_SB_RCVENIN_L	TP_SB_RCVENIN_L - @m42a_lib.M42A	15B2												
	TP_SB_RSVD9	TP_SB_RSVD9 - @m42a_lib.M42A	22A6												
	TP_SB_SATALED_L	TP_SB_SATALED_L - @m42a_lib.M42A	21C6												
B	TP_SB_XOR-AD5	TP_SB_XOR-AD5 - @m42a_lib.M42A	22A7												
	TP_SB_XOR-AD9	TP_SB_XOR-AD9 - @m42a_lib.M42A	22A7												
	TP_SB_XOR-AE5	TP_SB_XOR-AE5 - @m42a_lib.M42A	22A7												
	TP_SB_XOR-AG4	TP_SB_XOR-AG4 - @m42a_lib.M42A	22A7												
	TP_SB_XOR-AH4	TP_SB_XOR-AH4 - @m42a_lib.M42A	22A7												
	TP_SB_XOR-U3	TP_SB_XOR-U3 - @m42a_lib.M42A	21C6												
	TP_SB_XOR-U7	TP_SB_XOR-U7 - @m42a_lib.M42A	21C6												
	TP_SB_XOR-V6	TP_SB_XOR-V6 - @m42a_lib.M42A	21C6												
	TP_SB_XOR-V7	TP_SB_XOR-V7 - @m42a_lib.M42A	21C6												
	TP_SB_XOR-Y1	TP_SB_XOR-Y1 - @m42a_lib.M42A	21C6												
A	TP_SB_XOR-Y2	TP_SB_XOR-Y2 - @m42a_lib.M42A	21C6												
	TP_SB_XOR-AE9	TP_SB_XOR-AE9 - @m42a_lib.M42A	22A6												
	TP_SB_XOR-AG8	TP_SB_XOR-AG8 - @m42a_lib.M42A	22A6												
	TP_SB_XOR-AH8	TP_SB_XOR-AH8 - @m42a_lib.M42A	22A6												
	TP_SB_XOR-W1	TP_SB_XOR-W1 - @m42a_lib.M42A	21C6												
	TP_USBN_F	TP_USBN_F - @m42a_lib.M42A	5C1												
	TP_USBP_F	TP_USBP_F - @m42a_lib.M42A	5C1												
	TV_DACA_OUT	TV_DACA_OUT - @m42a_lib.M42A	13C5 69B8												
	TV_DACB_OUT	TV_DACB_OUT - @m42a_lib.M42A	13C5 69A8												
	TV_DACC_OUT	TV_DACC_OUT - @m42a_lib.M42A	13C5 69A8												
	TV_IREF	TV_IREF - @m42a_lib.M42A	13C5 69C8												
	USB2_BT_F_N	USB2_BT_F_N - @m42a_lib.M42A	44C4												
	USB2_BT_F_P	USB2_BT_F_P - @m42a_lib.M42A	44B4												
	USB2_CAMERA_CONN_N	USB2_CAMERA_CONN_N - @m42a_lib.M42A	67A2												
	USB2_CAMERA_CONN_P	USB2_CAMERA_CONN_P - @m42a_lib.M42A	67B2												
	USB2_EXT_A_F_N	USB2_EXT_A_F_N - @m42a_lib.M42A	42C2												
	USB2_EXT_A_F_P	USB2_EXT_A_F_P - @m42a_lib.M42A	42C2												
	USB2_EXTB_F_N	USB2_EXTB_F_N - @m42a_lib.M42A	42B2												
	USB2_EXTB_F_P	USB2_EXTB_F_P - @m42a_lib.M42A	42B2												
	USB2_GND_EXT_A_F	USB2_GND_EXT_A_F - @m42a_lib.M42A	42C2												
	USB2_GND_EXTB_F	USB2_GND_EXTB_F - @m42a_lib.M42A	42B2												
	USB_A_N	USB_A_N - @m42a_lib.M42A	6C1 22C2												
	=USB2_EXT_A_N	- @m42a_lib.M42A	6C2 42C5												
	USB2_EXT_A_N	- @m42a_lib.M42A	6C2												
	=USB2_EXT_A_N	- @m42a_lib.M42A	6C2 42C5												
	USB_A_OC_L	USB_A_OC_L - @m42a_lib.M42A	6C1 22C4 22D8												
	=EXTAUSB_OC_L	- @m42a_lib.M42A	6C2 42C8												
	EXTAUSB_OC_L	- @m42a_lib.M42A	6C2												
	=EXTAUSB_OC_L	- @m42a_lib.M42A	6C2 42C8												
	USB_A_P	USB_A_P - @m42a_lib.M42A	6C1 22C2												
	=USB2_EXT_A_P	- @m42a_lib.M42A	6C2 42C5												
	USB2_EXT_A_P	- @m42a_lib.M42A	6C2												
	=USB2_EXT_A_P	- @m42a_lib.M42A	6C2 42C5												
	USB_B_N	USB_B_N - @m42a_lib.M42A	6C1 22C2												
	=USB2_GEYSER_N	- @m42a_lib.M42A	6C2 40C7												
	USB2_GEYSER_N	- @m42a_lib.M42A	6C2												
	=USB2_GEYSER_N	- @m42a_lib.M42A	6C2 40C7												
	USB_B_OC_L	USB_B_OC_L - @m42a_lib.M42A	22C4 22D8												
	USB_B_P	USB_B_P - @m42a_lib.M42A	6C1 22C2												
	=USB2_GEYSER_P	- @m42a_lib.M42A	6C2 40C7												
	USB2_GEYSER_P	- @m42a_lib.M42A	6C2												
	=USB2_GEYSER_P	- @m42a_lib.M42A	6C2 40C7												
	USB_C_N	USB_C_N - @m42a_lib.M42A	6C1 22C2												
	=USB2_EXTB_N	- @m42a_lib.M42A	6C2 42B5												
	USB2_EXTB_N	- @m42a_lib.M42A	6C2												
	=USB2_EXTB_N	- @m42a_lib.M42A	6C2 42B5												

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D	Q7502	TRA_HAT2168H_LFFPAK	m42a[58C3]	Q7503	TRA_HAT2165H_LFFPAK	m42a[58B4]	Q7504	TRA_HAT2165H_LFFPAK	m42a[58D3]	Q7505	TRA_HAT2165H_LFFPAK	m42a[58B3]	Q7620	TRA_STL8NH3LL_COMBO_	m42a[59C7]	PWRFLT-3P3X3P3	Q7621	TRA_STL8NH3LL_COMBO_	m42a[59B7]	PWRFLT-3P3X3P3	Q7660	TRA_STL8NH3LL_COMBO_	m42a[59C3]	PWRFLT-3P3X3P3	Q7661	TRA_STL8NH3LL_COMBO_	m42a[59B3]	PWRFLT-3P3X3P3	Q7750	TRA_2N7002DW_SOT-363	m42a[60C6 60C7]	Q7820	TRA_IRF7821_SO-8	m42a[61C4]	Q7821	TRA_IRF7832_SO-8	m42a[61B4]	Q7920	TRA_IRF7821_SO-8	m42a[62C6]	Q7921	TRA_IRF7832_SO-8	m42a[62B6]	Q7960	TRA_IRF7821_SO-8	m42a[62C3]	Q7961	TRA_IRF7832_SO-8	m42a[62B3]	Q8000	TRA_FDC638P_SM-LF	m42a[63D4]	Q8005	TRA_STL8NH3LL_COMBO_	m42a[63C4]	PWRFLT-3P3X3P3	Q8010	TRA_FDC638P_SM-LF	m42a[63D4]	Q8015	TRA_STL8NH3LL_COMBO_	m42a[63C4]	PWRFLT-3P3X3P3	Q8025	TRA_SI3447BDV_SOT-6	m42a[63A4]	Q8030	TRA_2N7002DW_SOT-363	m42a[63A6 63B6]	Q8031	TRA_2N7002DW_SOT-363	m42a[63D6 63A6]	Q8059	TRA_2N7002DW_SOT-363	m42a[63C7 63C7]	Q8060	TRA_2N7002_SOT23-LF	m42a[63C8]	Q8061	TRA_2N7002DW_SOT-363	m42a[63B7 63B7]	Q8062	TRA_2N7002_SOT23-LF	m42a[63B8]	Q8063	TRA_2N7002_SOT23-LF	m42a[63B4]	Q8210	TRA_2N7002DW_SOT-363	m42a[65C6 65C3]	Q8220	TRA_2N7002DW_SOT-363	m42a[65C7 65C6]	Q8240	TRA_TP0610_SOT23-3	m42a[65D9]	Q8250	TRA_SI4405DY_SO-8	m42a[65D2]	Q8298	TRA_TP0610_SOT23-3	m42a[65C7]	Q8299	TRA_2N7002_SOT23-LF	m42a[65C7]	Q8300	TRA_SI4405DY_SO-8	m42a[66D5]	Q8301	TRA_HAT2168H_LFFPAK	m42a[66C4]	Q8302	TRA_HAT2165H_LFFPAK	m42a[66B4]	Q8320	TRA_SI4405DY_SO-8	m42a[66B3]	Q8321	TRA_SI4405DY_SO-8	m42a[66B3]	Q8322	TRA_2N7002DW_SOT-363	m42a[66A4 66A4]	Q8324	TRA_2N7002DW_SOT-363	m42a[66A3 66A4]	Q8340	TRA_IRML5203_SM	m42a[66C8]	Q8350	TRA_2N7002_SOT23-LF	m42a[66A6]	Q9403	TRA_FDC638P_SM-LF	m42a[67B6]	Q9404	TRA_2N7002_SOT23-LF	m42a[67B7]	Q9405	TRA_TP0610_SOT23-3	m42a[67D5]	Q9406	TRA_2N7002_SOT23-LF	m42a[67D6]	Q9801	TRA_2N7002DW_SOT-363	m42a[69D6 69D6]	R0610	RES_402	m42a[6A7]	R0611	RES_402	m42a[6A8]	R0612	RES_402	m42a[6A8]	R0621	RES_402	m42a[6A7]	R0702	RES_402	m42a[7D5]	R0703	RES_402	m42a[7C5]	R0704	RES_402	m42a[7C5]	R0705	RES_402	m42a[7B4]	R0706	RES_402	m42a[7B4]	R0707	RES_402	m42a[7A4]	R0712	RES_402	m42a[7A4]	R0716	RES_402	m42a[7B2]	R0717	RES_402	m42a[7B2]	R0718	RES_402	m42a[7B2]	R0719	RES_402	m42a[7B2]	R0720	RES_402	m42a[7B7]	R0721	RES_402	m42a[7B7]	R0722	RES_402	m42a[7A7]	R0730	RES_402	m42a[7A4]	R0802	RES_402	m42a[8B6]	R0803	RES_402	m42a[8A7]	R0921	RES_402	m42a[9D2]	R0922	RES_402	m42a[9D2]	R0923	RES_402	m42a[9C2]	R0924	RES_402	m42a[9C2]	R0925	RES_402	m42a[9C2]	R0926	RES_402	m42a[9C2]	R0927	RES_402	m42a[9C2]	R1001	RES_402	m42a[10B6]	R1002	RES_402	m42a[10B6]	R1005	RES_402	m42a[10C4]	R1006	RES_402	m42a[10C3]	R1100	RES_402	m42a[11B5]	R1101	RES_402	m42a[11C5]	R1102	RES_402	m42a[11B4]	R1103	RES_402	m42a[11C5]	R1104	RES_402	m42a[11B5]	R1106	RES_402	m42a[11A3]	R1210	RES_402	m42a[12C3]	R1211	RES_402	m42a[12C3]	R1220	RES_402	m42a[12B7]	R1221	RES_402	m42a[12B7]	R1225	RES_402	m42a[12B7]	R1226	RES_402	m42a[12B7]	R1230	RES_402	m42a[12A7]	R1231	RES_402	m42a[12A7]	R1235	RES_402	m42a[12A7]	R1236	RES_402	m42a[12A7]	R1310	RES_402	m42a[13D3]	R1410	RES_402	m42a[14C2]	R1411	RES_402	m42a[14C2]	R1420	RES_402	m42a[14C6]	R1421	RES_402	m42a[14C6]	R1422	RES_402	m42a[14B6]	R1430	RES_402	m42a[14B6]	R1440	RES_402	m42a[14D6]	R1441	RES_402	m42a[14D6]	R1950	RES_402	m42a[19D5]	R1951	RES_402	m42a[19D5]	R1975	RES_402	m42a[19A4]	R1985	RES_402	m42a[19D3]	R1986	RES_402	m42a[19C6]	R1987	RES_402	m42a[19C6]	R1988	RES_402	m42a[19C7]	R1989	RES_402	m42a[19C7]	R1990	RES_402	m42a[19C3]	R2058	RES_402	m42a[20B4]	R2059	RES_402	m42a[20B4]	R2060	RES_402	m42a[20A4]	R2075	RES_402	m42a[20C7]	R2077	RES_402	m42a[20B7]	R2079	RES_402	m42a[20B7]	R2085	RES_402	m42a[20C4]	R2100	RES_402	m42a[21C3]	R2101	RES_402	m42a[21C4]	R2105	RES_402	m42a[21D6]	R2107	RES_402	m42a[21C2]	R2108	RES_402	m42a[21C2]	R2110	RES_402	m42a[21C2]	R2194	RES_402	m42a[21D4]	R2195	RES_402	m42a[21C6]	R2196	RES_402	m42a[21C6]	R2197	RES_402	m42a[21C6]	R2198	RES_402	m42a[21C6]	R2199	RES_402	m42a[21C3]	R2200	RES_402	m42a[22D7]	R2203	RES_402	m42a[22C2]	R2204	RES_402	m42a[22C2]	R2205	RES_402	m42a[22C6]	R2206	RES_402	m42a[22C5]	R2207	RES_402	m42a[22C5]	R2208	RES_402	m42a[22D5]	R2211	RES_402	m42a[22B3]	R2223	RES_402	m42a[22D6]	R2225	RES_402	m42a[22D7]	R2226	RES_402	m42a[22D5]	R2250	RES_402	m42a[22D7]	R2251	RES_402	m42a[22D6]	R2255	RES_402	m42a[22D7]	R2299	RES_402	m42a[22B5]	R2300	RES_402	m42a[23C7]	R2302	RES_402	m42a[23D3]	R2303	RES_402	m42a[23D3]	R2305	RES_402	m42a[23D3]	R2306	RES_402	m42a[23B7]	R2307	RES_402	m42a[23A7]	R2308	RES_402	m42a[23A7]	R2309	RES_402	m42a[23A7]	R2310	RES_402	m42a[23A7]	R2311	RES_402	m42a[23A7]	R2312	RES_402	m42a[23A3]	R2313	RES_402	m42a[23A7]	R2314	RES_402	m42a[23A7]	R2315	RES_402	m42a[23A3]	R2316	RES_402	m42a[23D7]	R2317	RES_402	m42a[23D7]	R2318	RES_402	m42a[23D7]	R2319	RES_402	m42a[23D2]	R2320	RES_402	m42a[23D7]	R2323	RES_402	m42a[23D5]	R2326	RES_402	m42a[23D6]	R2327	RES_402	m42a[23D6]	R2343	RES_402	m42a[23D1]	R2388	RES_402	m42a[23B2]	R2389	RES_402	m42a[23A4]	R2390	RES_402	m42a[23B3]	R2395	RES_402	m42a[23D7]	R2396	RES_402	m42a[23D6]	R2397	RES_402	m42a[23D6]	R2398	RES_402	m42a[23D8]	R2399	RES_402	m42a[23C1]	R2500	RES_603	m42a[25A8]	R2501	RES_402	m42a[25C8]	R2502	RES_402	m42a[25D8]	R2600	RES_402	m42a[26D4]	R2606	RES_402	m42a[26D5]	R2607	RES_402	m42a[26C7]	R2610	RES_402	m42a[26C7]	R2611	RES_402	m42a[26B5]	R2612	RES_402	m42a[26A5]	R2622	RES_402	m42a[26A5]	R2636	RES_402	m42a[26C2]	R2637	RES_402	m42a[26C2]	R2638	RES_402	m42a[26C2]	R2639	RES_402	m42a[26C2]	R2640	RES_402	m42a[26C2]	R2641	RES_402	m42a[26C2]	R2642	RES_402	m42a[26C2]	R2643	RES_402

8				7				6				5				4				3				2				1																							
D	R7210	RES_402	m42a[55A7]	R7903	RES_402	m42a[62A3]	R9509	RES_402	m42a[68C2]	XW7300	SHORT_SM	m42a[56C4]	C	B	A	D	C	B	A	D	C	B	A	D	C	B	A	D	C	B	A																				
	R7260	RES_402	m42a[55D2]	R7904	RES_402	m42a[62A3]	R9510	RES_402	m42a[68C2]	XW7301	SHORT_SM	m42a[56B4]																																							
	R7261	RES_402	m42a[55C2]	R7905	RES_402	m42a[62A6]	R9537	RES_402	m42a[68D1]	XW7302	SHORT_SM	m42a[56C2]																																							
	R7270	RES_402	m42a[55C2]	R7906	RES_402	m42a[62A3]	R9538	RES_402	m42a[68D1]	XW7303	SHORT_SM	m42a[56C2]																																							
	R7271	RES_402	m42a[55C2]	R7907	RES_402	m42a[62A3]	R9539	RES_402	m42a[68C1]	XW7304	SHORT_SM	m42a[56B2]																																							
	R7280	RES_402	m42a[55B2]	R7921	RES_402	m42a[62C7]	R9540	RES_402	m42a[68C1]	XW7305	SHORT_SM	m42a[56B7]																																							
	R7281	RES_402	m42a[55B2]	R7924	RES_402	m42a[62C6]	R9821	RES_402	m42a[69D7]	XW7400	SHORT_SM	m42a[57A7]																																							
	R7300	RES_402	m42a[56C4]	R7925	RES_402	m42a[62B6]	R9822	RES_402	m42a[69D6]	XW7500	SHORT_SM	m42a[58A6]																																							
	R7301	RES_402	m42a[56C4]	R7926	RES_402	m42a[62C7]	R9850	RES_402	m42a[69B8]	XW7600	SHORT_SM	m42a[59A5]																																							
	R7320	RES_402	m42a[56B5]	R7927	RES_402	m42a[62B8]	R9851	RES_402	m42a[69B8]	XW7620	JUMPER_OPEN-SAWTOOTH	m42a[59B8]																																							
	R7321	RES_402	m42a[56D7]	R7928	RES_402	m42a[62B8]	R9852	RES_402	m42a[69A8]	XW7660	JUMPER_OPEN-SAWTOOTH	m42a[59B1]																																							
	R7322	RES_402	m42a[56B7]	R7929	RES_402	m42a[62C7]	R9853	RES_402	m42a[69A8]	XW7800	SHORT_SM	m42a[61B5]																																							
	R7349	RES_402	m42a[56B7]	R7930	RES_402	m42a[62C5]	R9854	RES_402	m42a[69A8]	XW7900	SHORT_SM	m42a[62A5]																																							
	R7350	RES_402	m42a[56A4]	R7961	RES_402	m42a[62C2]	R9855	RES_402	m42a[69A8]	XW7920	JUMPER_OPEN-SAWTOOTH	m42a[62B8]																																							
	R7351	RES_402	m42a[56A4]	R7964	RES_402	m42a[62C3]	R9856	RES_402	m42a[69B6]	XW8101	SHORT_SM	m42a[64B2]																																							
	R7380	RES_402	m42a[56C2]	R7965	RES_402	m42a[62B3]	R9859	RES_402	m42a[69A6]	XW8102	SHORT_SM	m42a[64B2]																																							
	R7382	RES_402	m42a[56B2]	R7966	RES_402	m42a[62C2]	R9860	RES_402	m42a[69C3]	XW8300	SHORT_SM	m42a[66B4]																																							
	R7391	RES_402	m42a[56C7]	R7967	RES_402	m42a[62B2]	R9861	RES_402	m42a[69C3]	Y2600	CRYSTAL_4PIN_SM-LF	m42a[26C7]																																							
	R7401	RES_402	m42a[57D8]	R7968	RES_402	m42a[62B2]	R9862	RES_402	m42a[69C5]	Y3301	CRYSTAL_5X3.2-SM	m42a[32C7]																																							
	R7402	RES_402	m42a[57D7]	R7969	RES_402	m42a[62C2]	R9863	RES_402	m42a[69C5]	Y4101	CRYSTAL_4PIN_SM-3.2X	m42a[36B6]																																							
	R7403	RES_402	m42a[57C7]	R7970	RES_402	m42a[62C4]	R9864	RES_402	m42a[69A6]																																										
	R7404	RES_402	m42a[57C4]	R7970	RES_402	m42a[62A6]	R9868	RES_402	m42a[69C8]																																										
	R7405	RES_402	m42a[57D5]	R7991	RES_402	m42a[62A6]	R9869	RES_402	m42a[69C8]																																										
	R7406	RES_402	m42a[57D6]	R7992	RES_603	m42a[62A7]	R9870	RES_402	m42a[69C1]																																										
	R7411	RES_402	m42a[57C8]	R8000	RES_402	m42a[63D5]	R9871	RES_402	m42a[69C1]																																										
	R7412	RES_402	m42a[57B7]	R8005	RES_402	m42a[63C5]	RP2300	RPAK4P_SM-LF	m42a[23D5]																																										
	R7413	RES_402	m42a[57C6]	R8010	RES_402	m42a[63C5]	RP2600	RPAK4P_SM-LF	m42a[26D2]																																										
	R7414	RES_402	m42a[57C4]	R8015	RES_402	m42a[63B5]	RP2601	RPAK4P_SM-LF	m42a[26D2]																																										
	R7415	RES_402	m42a[57C5]	R8025	RES_402	m42a[63A5]	RP2602	RPAK4P_SM-LF	m42a[26C2]																																										
	R7430	RES_603	m42a[57C3]	R8030	RES_402	m42a[63B6]	RP3000	RPAK4P_SM-LF	m42a[30B4 30C4 30D4 30D4]																																										
	R7431	RES_603	m42a[57B3]	R8031	RES_402	m42a[63B6]	RP3001	RPAK4P_SM-LF	m42a[30C4 30A4 30A4 30D4]																																										
	R7432	RES_402	m42a[57B3]	R8032	RES_402	m42a[63D6]	RP3002	RPAK4P_SM-LF	m42a[30A4 30A4 30A4 30D4]																																										
	R7433	RES_402	m42a[57A3]	R8033	RES_402	m42a[63D6]	RP3003	RPAK4P_SM-LF	m42a[30C4 30C4 30C4 30D4]																																										
	R7434	RES_402	m42a[57C2]	R8050	RES_402	m42a[63A6]	RP3004	RPAK4P_SM-LF	m42a[30C4 30C4 30D4]																																										
	R7435	RES_402	m42a[57C2]	R8056	RES_402	m42a[63C8]	RP3005	RPAK4P_SM-LF	m42a[30B4 30A4 30A4 30D4]																																										
C	R7436	RES_402	m42a[57B2]	R8057	RES_402	m42a[63C8]	RP3006	RPAK4P_SM-LF	m42a[30B4 30B4 30A4 30D4]																																										
	R7437	RES_402	m42a[57B2]	R8058	RES_402	m42a[63B8]	RP3007	RPAK4P_SM-LF	m42a[30C4 30C4 30C4 30C4]																																										
	R7438	RES_402	m42a[57C2]	R8059	RES_402	m42a[63B8]	RP3008	RPAK4P_SM-LF	m42a[30C4 30C4 30C4 30C4]																																										
	R7439	RES_402	m42a[57B2]	R8061	RES_402	m42a[63B1]	RP3009	RPAK4P_SM-LF	m42a[30B4 30B4 30C4 30C4]																																										
	R7440	RES_402	m42a[57A5]	R8062	RES																																														