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- 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
04		426972	ENGINEERING RELEASED	02/23/06?	


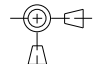
SCHEM, SYMPHONY, M9

DVT

02/23/06

PDF PAGE	CSA PAGE	CONTENTS	SYNC MASTER	DATE
1	1	Table of Contents	N/A	N/A
2	2	Block Diagram	(MASTER)	(MASTER)
3	4	BOM CONFIGURATION	(MASTER)	(MASTER)
4	6	Aliases	(MASTER)	(MASTER)
5	51	Left USB Port	(MASTER)	(MASTER)
6	53	ExpressCard Connector	BUZZ	02/23/2006
7	54	PCI-E MiniCard Connector	BUZZ	02/23/2006
8	55	MLB I/O Board Connector	(MASTER)	(MASTER)
9	64	Left ALS	(MASTER)	(MASTER)
10	68	AUDIO: CODEC	AUDIO_M9_PRO_LIO	02/23/2006
11	70	AUDIO: LINE IN	AUDIO_M9_PRO_LIO	02/23/2006
12	71	AUDIO: HEADPHONE AMP	AUDIO_M9_PRO_LIO	02/23/2006
13	72	AUDIO: SPEAKER AMP	AUDIO_M9_PRO_LIO	02/23/2006
14	73	AUDIO: JACKS	AUDIO_M9_PRO_LIO	02/23/2006
15	74	AUDIO: JACK TRANSLATORS	AUDIO_M9_PRO_LIO	02/23/2006
16	78	3.3V Supply	BUZZ	02/23/2006
17	82	DC-In & Battery Connectors	(MASTER)	(MASTER)
18	84	LEFT I/O POWER CONNECTOR	(MASTER)	(MASTER)
19	100	HISTORY- NON-AUDIO	(MASTER)	(MASTER)
20	101	HISTORY- AUDIO	(MASTER)	(MASTER)
21	102	Cross Reference Page		
22	103	Cross Reference Page		
23	104	Cross Reference Page		

PART#	QTY	DESCRIPTION	REFERENCE DESIGNATOR(S)	BOM OPTION
051-7066	1	SCHEM, SYMPHONY, NEW, M9	SCH1	
820-1970	1	PCBF, SYMPHONY, M9	PCB1	

DIMENSIONS ARE IN MILLIMETERS		METRIC		 Apple Computer Inc.	
XX :	_____	DRAPTER	/	DESIGN CK	/
X.XX :	_____	ENG APPD	/	MFG APPD	/
X.XXX :	_____	QA APPD	/	DESIGNER	/
ANGLES :	_____	RELEASE	/	SCALE	NONE
DO NOT SCALE DRAWING		MATERIAL/FINISH NOTED AS APPLICABLE		SIZE	D
 THIRD ANGLE PROJECTION		DRAWING NUMBER		051-7066	REV. 04
SHT 1 OF 104					

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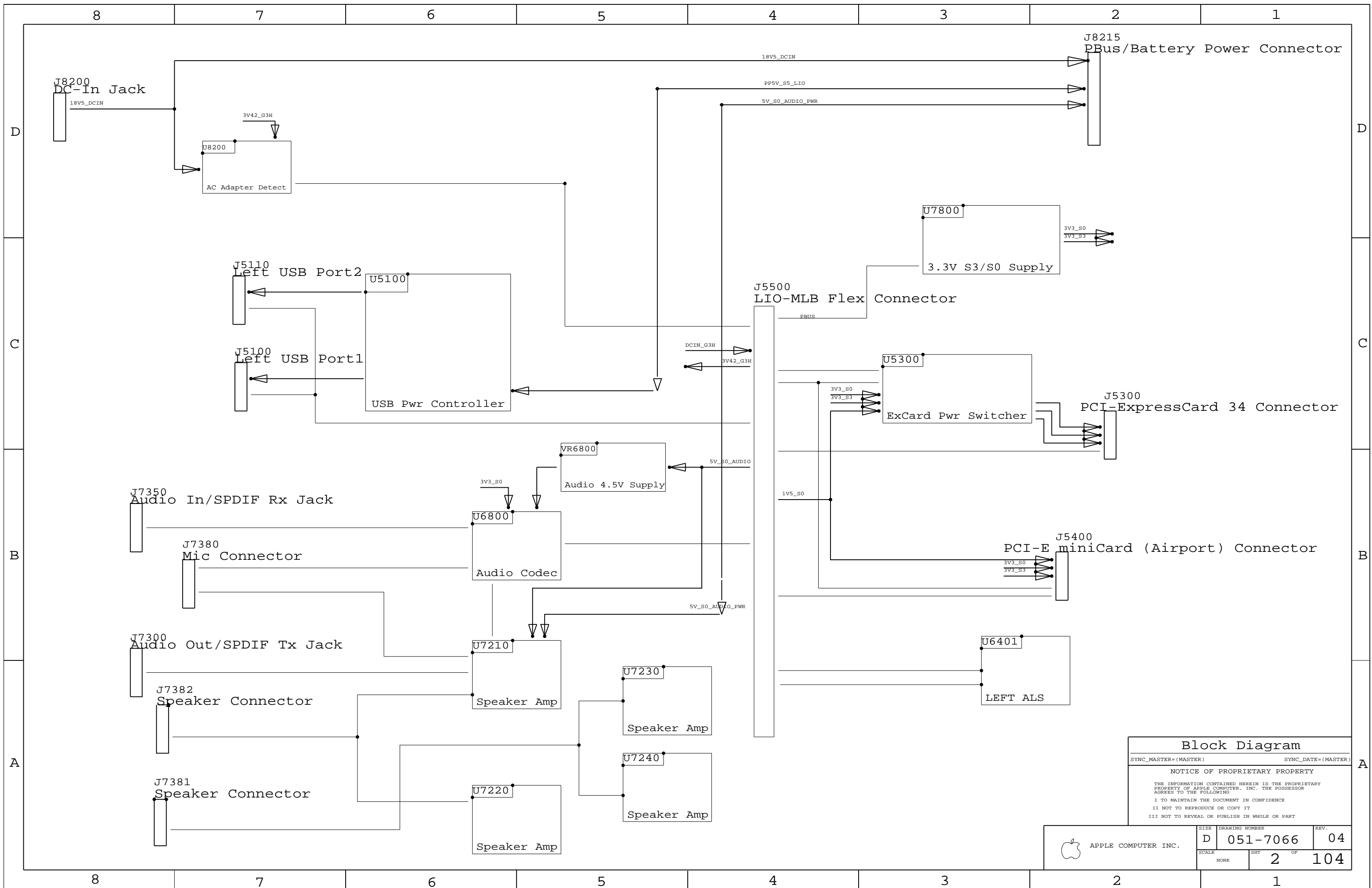
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Block Diagram

SYNC_MASTER=(MASTER) SYNC_DATE=(MASTER)

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APPLE COMPUTER INC.	SIZE D	DRAWING NUMBER 051-7066	REV. 04
	SCALE NONE	SH1 2	OF 104

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BOM NUMBER	BOM NAME	BOM OPTIONS
630-7510	PCBA, SYMPHONY, NEW, M9	COMMON, EXCARD_3CNTL, ONEWIRE_DIV, ONEWIRE_PWRCTL, ALTERNATE

BAR CODE LABEL / EEE#'S

PART NUMBER	QTY	DESCRIPTION	REFERENCE DES	CRITICAL	BOM OPTION
000-0041	1	PLACEHOLDER FOR EEE/CCC INFO	[EEE:V3P]	CRITICAL	

PART#	QTY	DESCRIPTION	REFERENCE DESIGNATOR(S)	CRITICAL	BOM OPTION
815-8851	1	ALS SPACER, M9	SP6401	CRITICAL	

PART NUMBER	ALTERNATE FOR PART NUMBER	BOM OPTION	REF DES	COMMENTS:
376S0448	376S0445		ALL	

D

D

C

C


B

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A

BOM CONFIGURATION	
SYNC_MASTER=(MASTER)	SYNC_DATE=(MASTER)
NOTICE OF PROPRIETARY PROPERTY	
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 APPLE COMPUTER INC.	SIZE	DRAWING NUMBER	REV.
	D	051-7066	04
SCALE	SHT		OF
NONE	4		104

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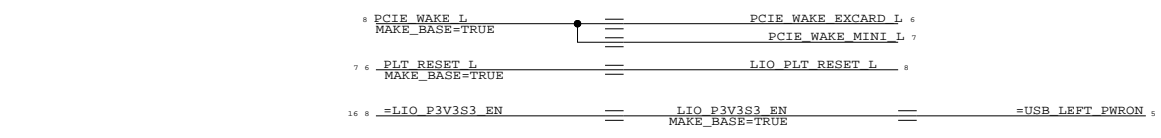
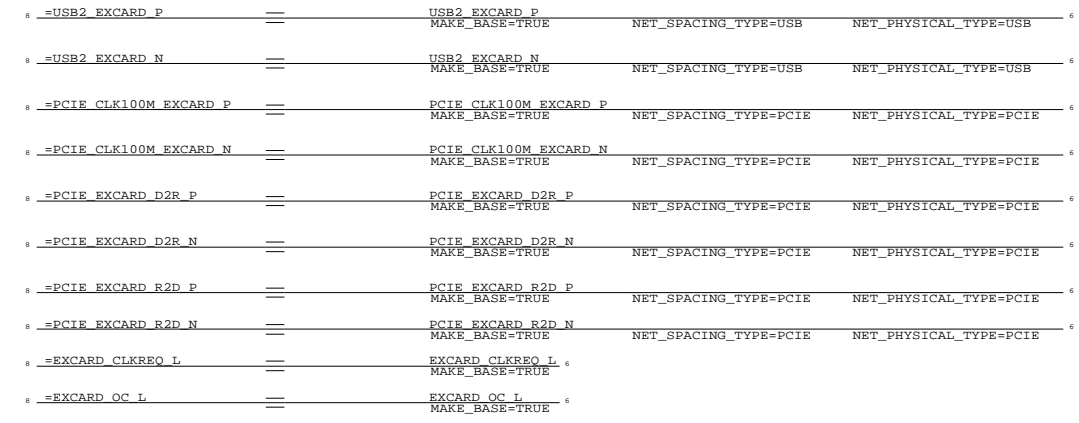
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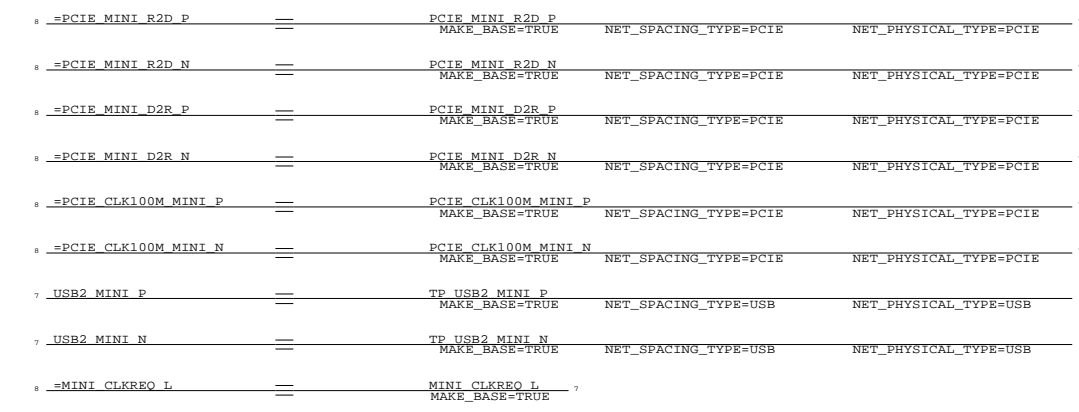
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POWER & GROUNDS

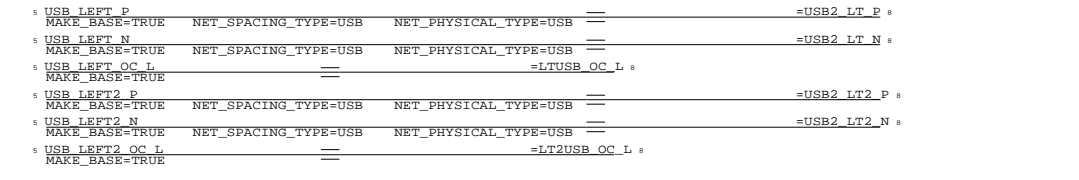
PCI-E EXPRESS CARD 34



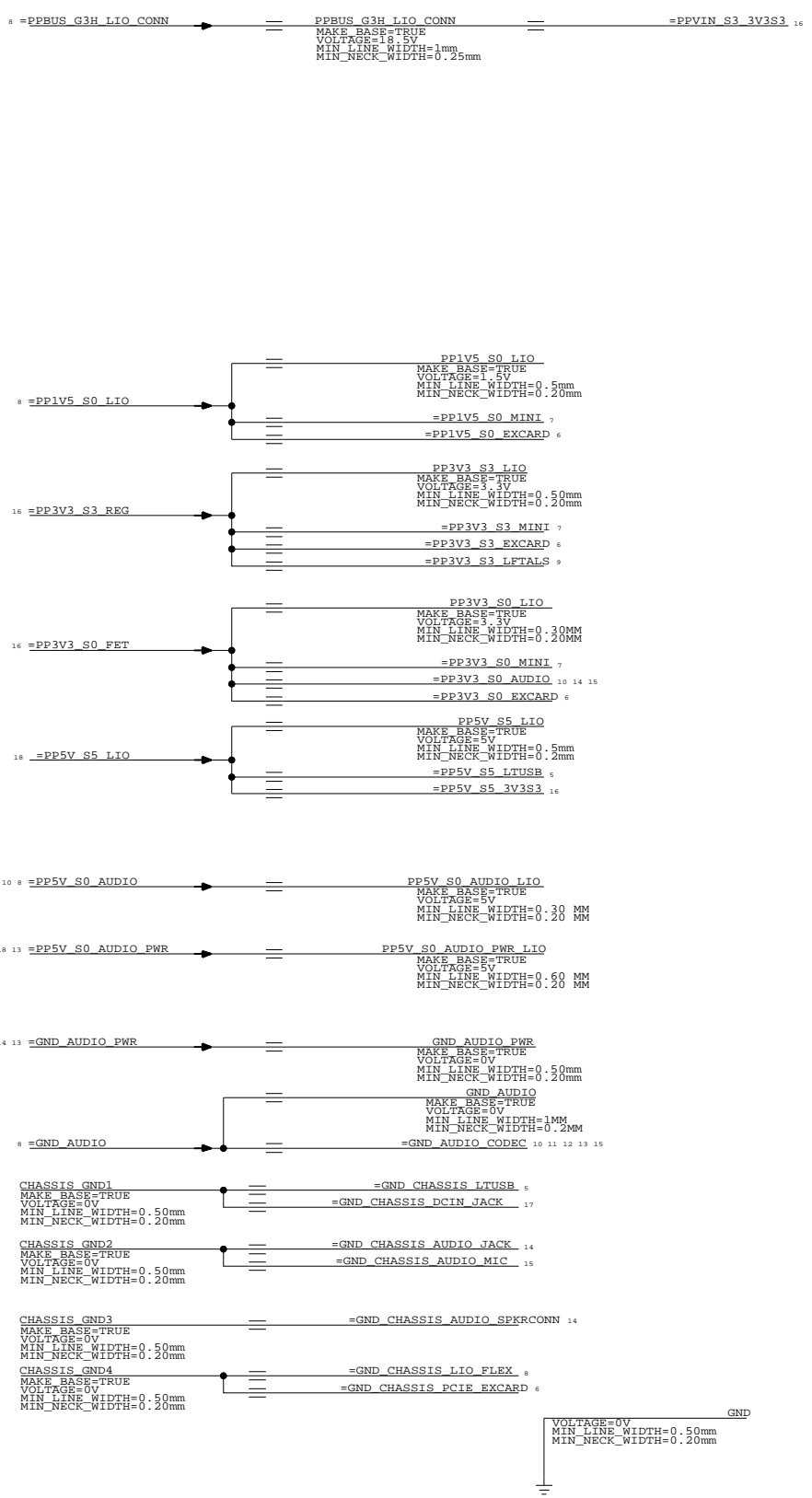
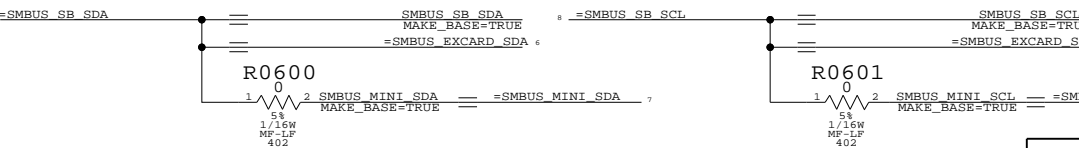
PCI-E MINICARD



USB



SMBUS



Aliases

SYNC_MASTER=(MASTER) SYNC_DATA=(MASTER)

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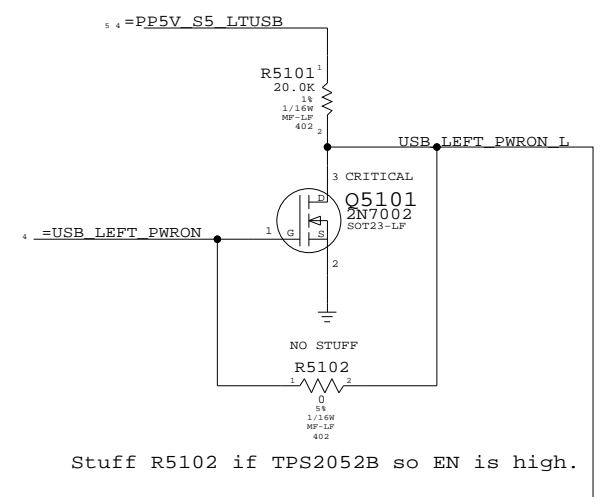
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II NOT TO REPRODUCE OR COPY IT

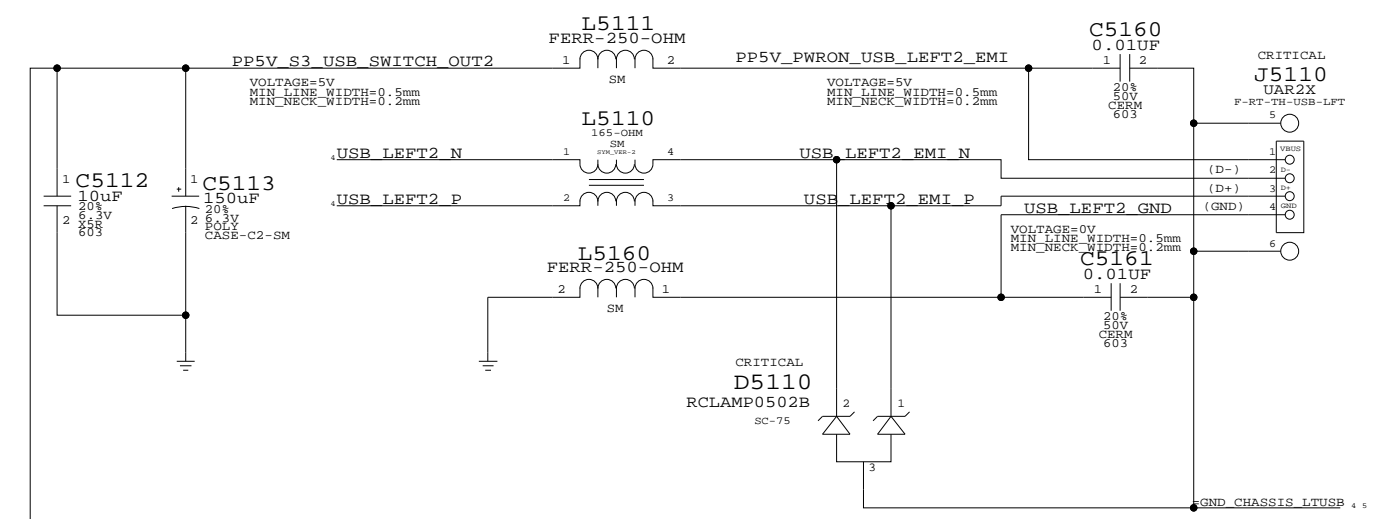
III NOT TO REVEAL OR PUBLISH IN WHOLE OR PART

APPLE COMPUTER INC.

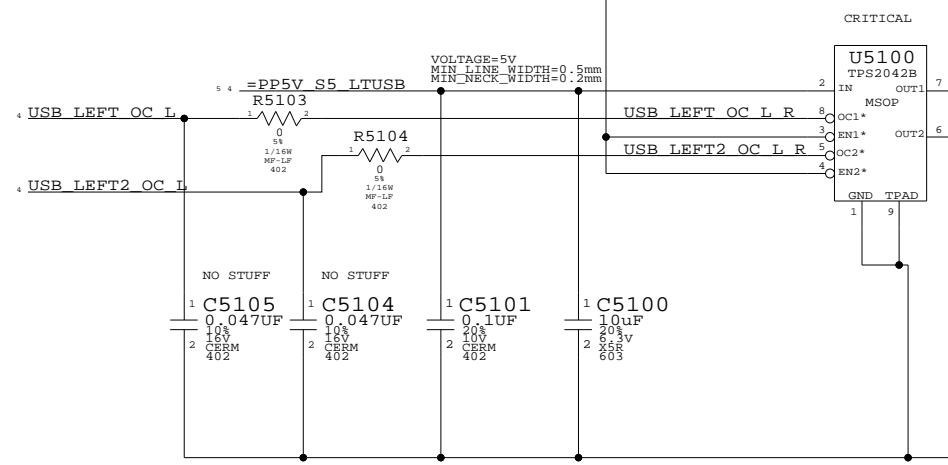
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NONE	D 051-7066	04
SCALE	SHT	OF
	6	104



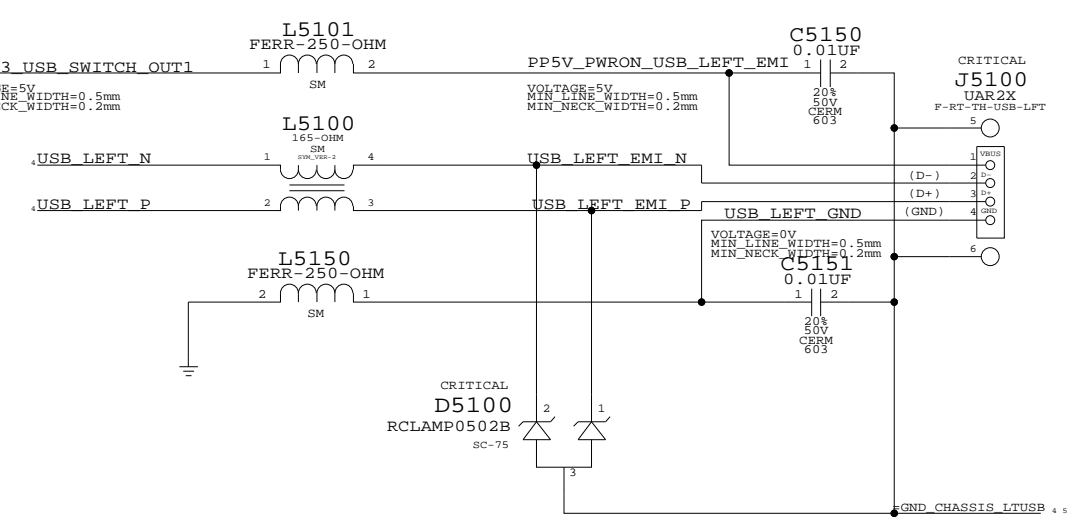
LEFT2 USB PORT



PUT L5110, L5111, AND L5160 ACROSS THE MOAT



LEFT USB PORT

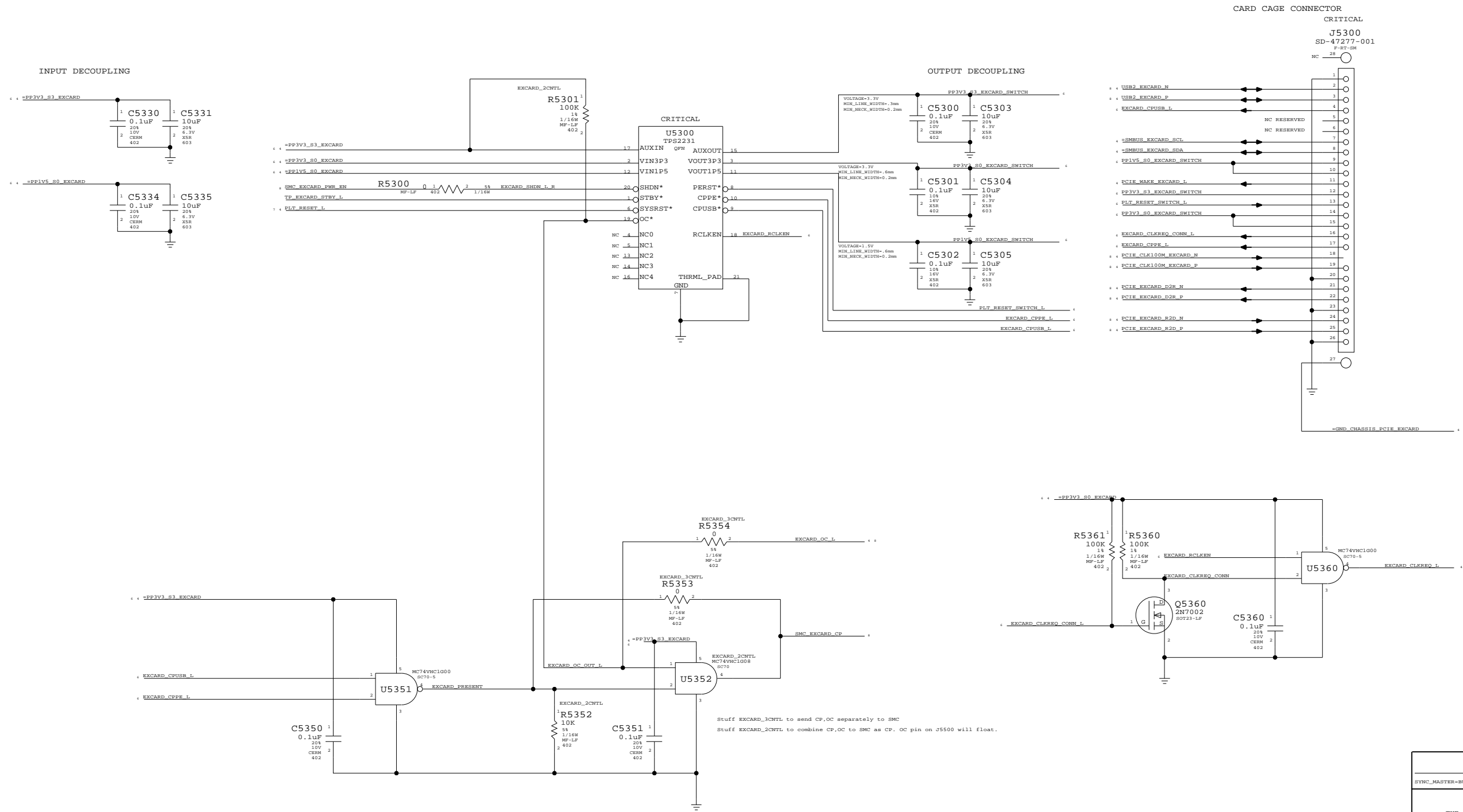


PUT L5100, L5101, AND L5150 ACROSS THE MOAT

Left USB Port
 SYNC_MASTER=(MASTER) SYNC_DATE=(MASTER)
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	D	051-7066	04
SCALE	SHT	OF	
NONE	51	104	

EXPRESSCARD/34 TOP MOUNT CONNECTOR



ExpressCard Connector

SYNC_MASTER=BUZZ SYNC_DATE=02/23/2006

NOTICE OF PROPRIETARY PROPERTY

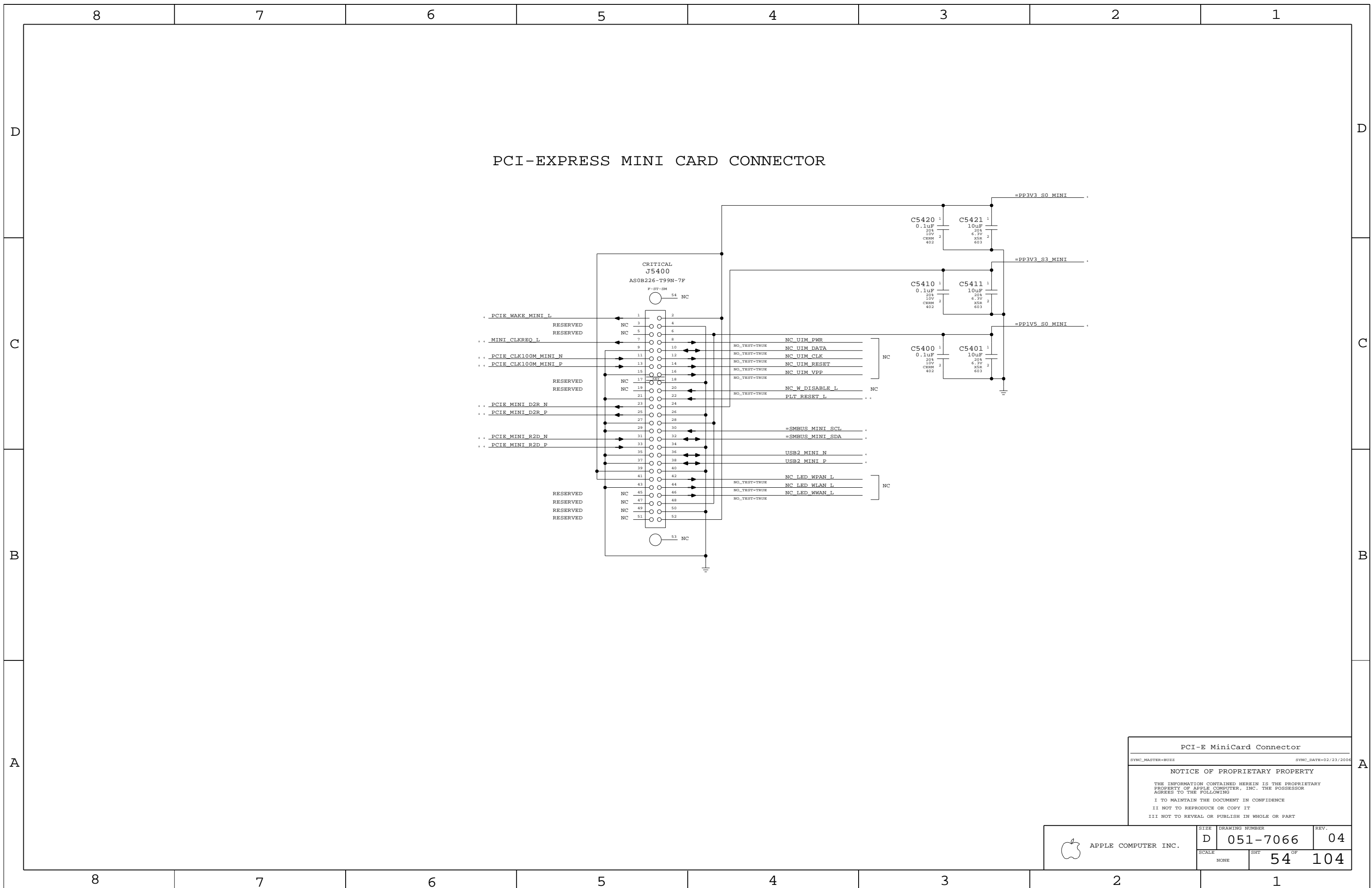
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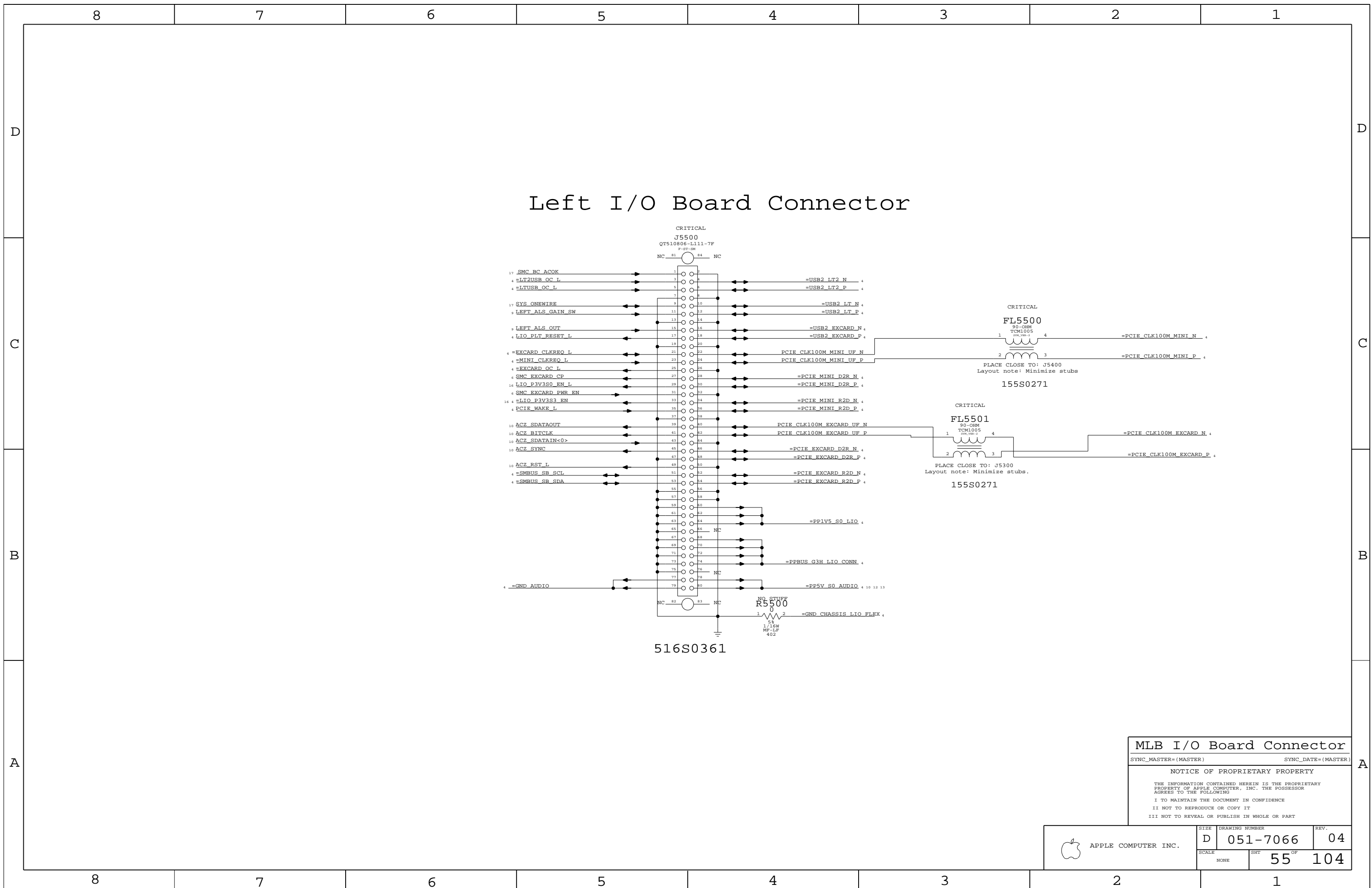
APPLE COMPUTER INC.	SIZE D	DRAWING NUMBER 051-7066	REV. 04
	SCALE NONE	SHT 53	OF 104



PCI-EXPRESS MINI CARD CONNECTOR

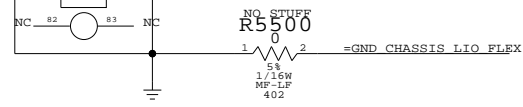
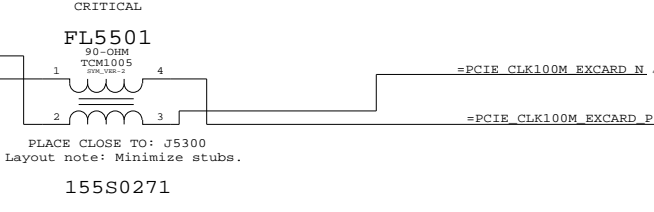
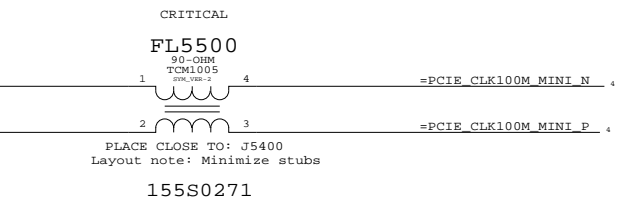
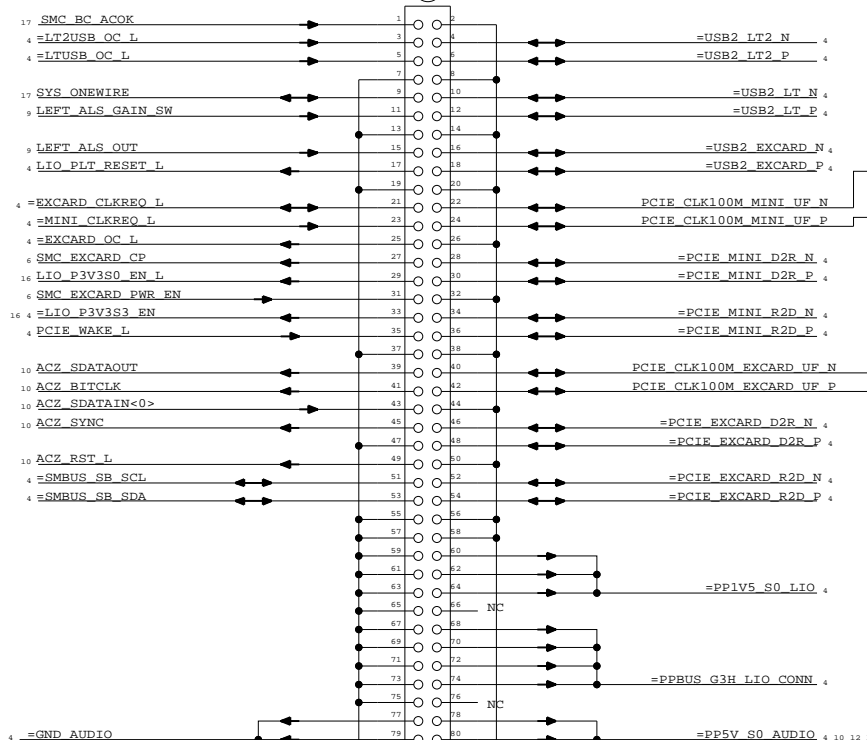
PCI-E MiniCard Connector
 SYNC_MASTER=BUZZ SYNC_DATE=02/23/2006
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APPLE COMPUTER INC.	SIZE	DRAWING NUMBER	REV.
	D	051-7066	04
SCALE	SHT		
NONE	54		104



Left I/O Board Connector

CRITICAL
J5500
 QT510806-L111-7F
 P-ST-SM
 NC 81 84 NC



516S0361

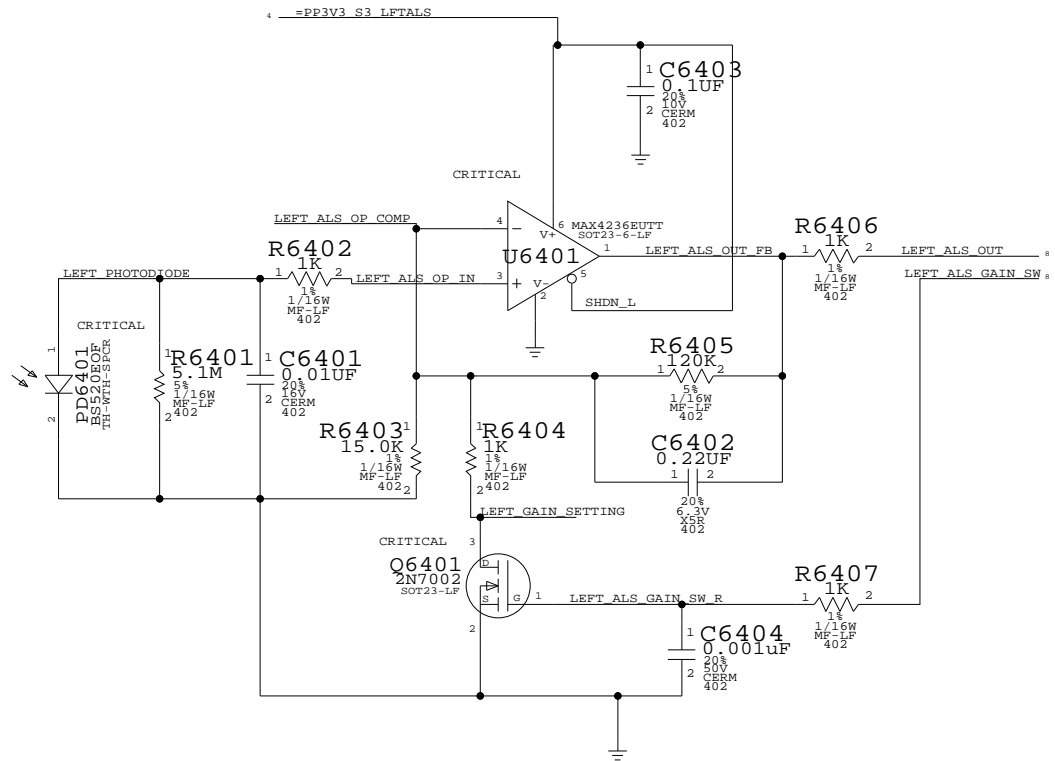
MLB I/O Board Connector

SYNC_MASTER=(MASTER) SYNC_DATE=(MASTER)

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	D	051-7066	04
SCALE	NONE	SHT	55 OF 104



Left ALS

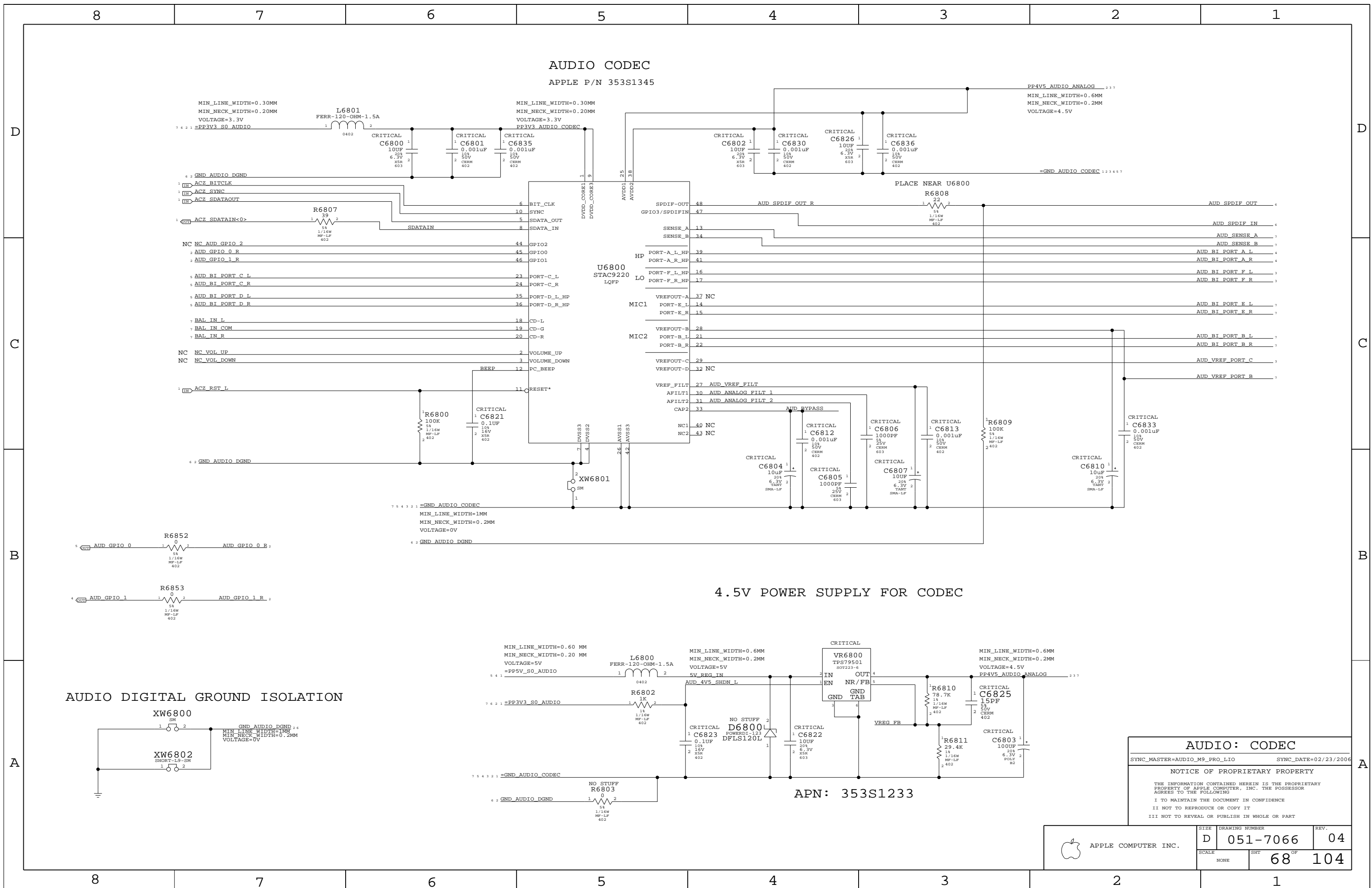
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	D	051-7066	04
SCALE	SHT	OF	
NONE	64	104	



AUDIO: CODEC
 SYNC_MASTER=AUDIO_M9_PRO_LIO SYNC_DATE=02/23/2006
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APPLE COMPUTER INC.	SIZE	DRAWING NUMBER	REV.
	D	051-7066	04
SCALE	NONE	SHT	68 OF 104

APN: 353S1233

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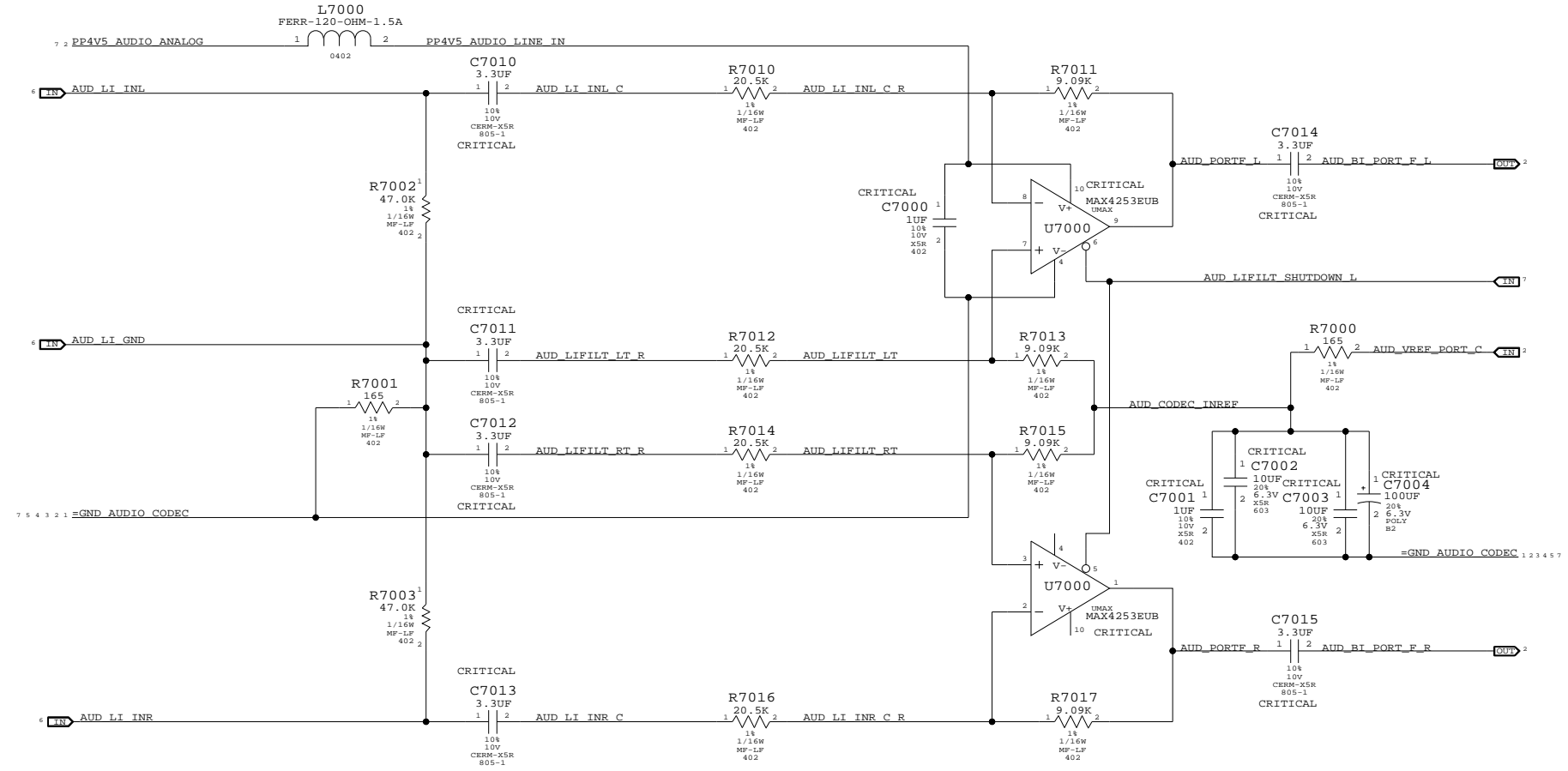
B

B

A

A

Pseudo-Diff Line-In Filter
 GAIN = -7.1DB AV = 0.44
 FC = 2.4 HZ



AUDIO: LINE IN
 SYNC_MASTER=AUDIO_M9_PRO_LIO SYNC_DATE=02/23/2006
 NOTICE OF PROPRIETARY PROPERTY
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APPLE COMPUTER INC.	SIZE	DRAWING NUMBER	REV.
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SCALE		SHT	OF
NONE		70	104

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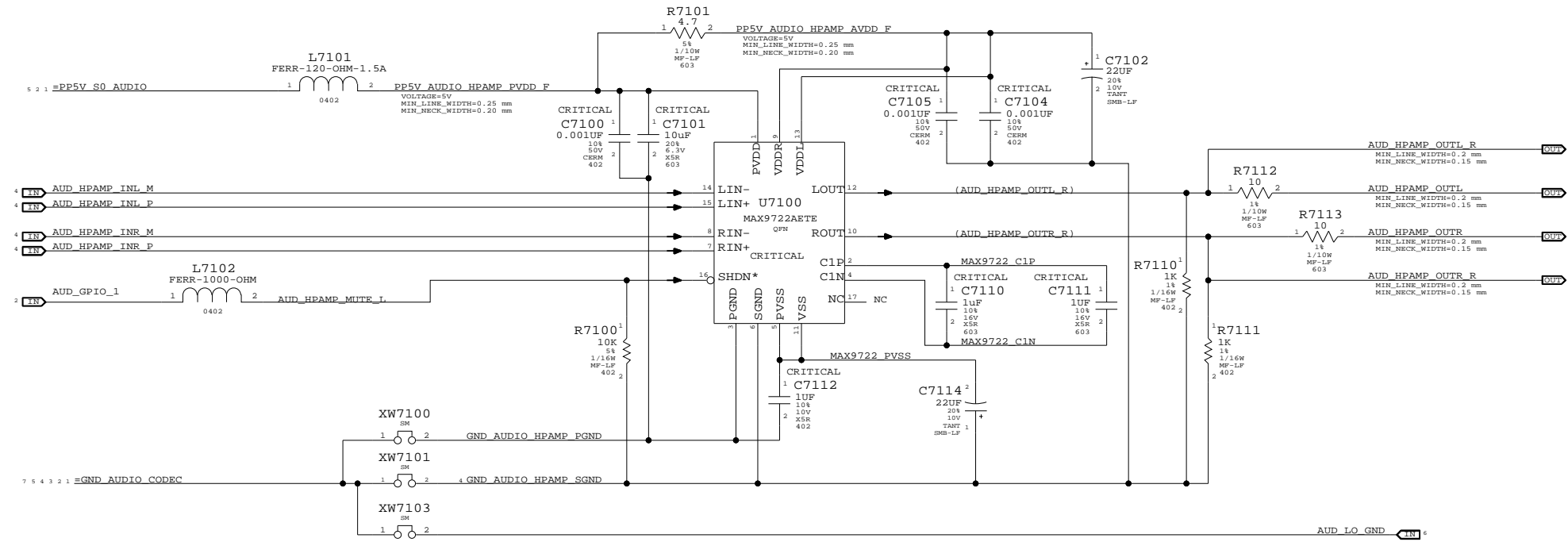
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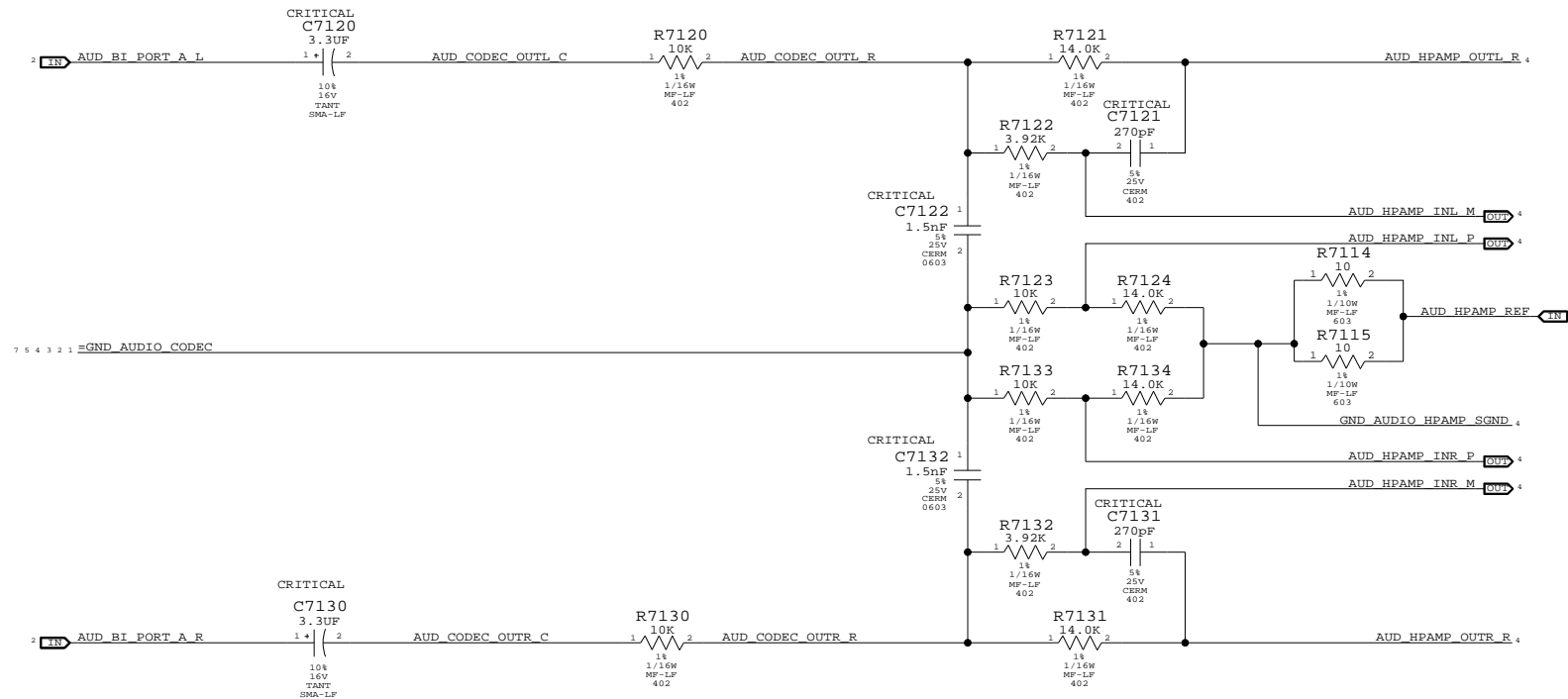
2

1

Headphone Amplifier (MAX9722)
 APN:353S0959
 VOLTAGE GAIN:1.4



2nd Order DAC Filter
 HP:4.8 HZ



AUDIO: HEADPHONE AMP

SYNC_MASTER=AUDIO_M9_PRO_LIO SYNC_DATE=02/23/2006

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APPLE COMPUTER INC.	SIZE	DRAWING NUMBER	REV.
	D	051-7066	04
SCALE	NONE	SHT	71 OF 104

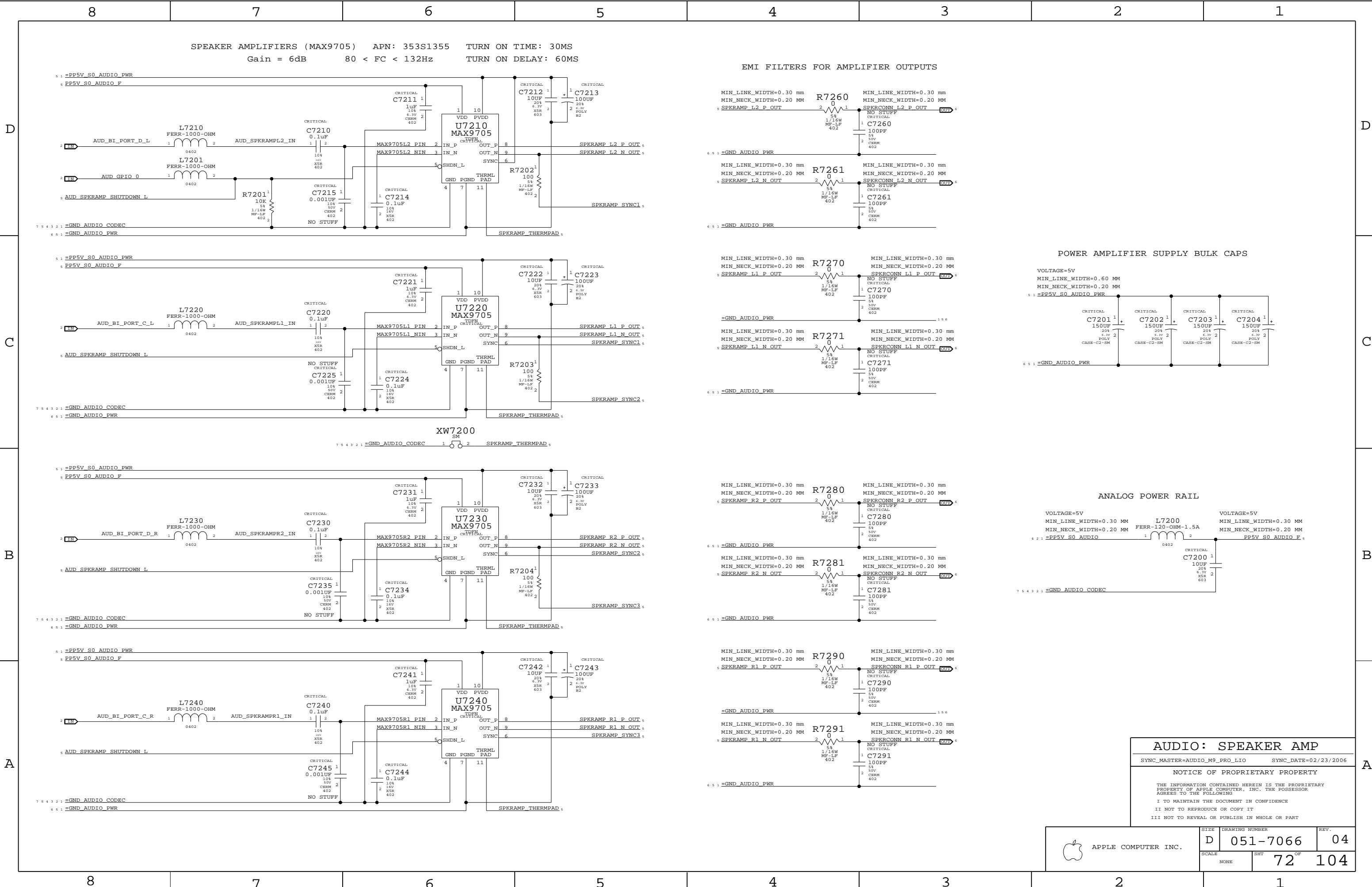
SPEAKER AMPLIFIERS (MAX9705) APN: 353S1355 TURN ON TIME: 30MS
Gain = 6dB 80 < FC < 132Hz TURN ON DELAY: 60MS

EMI FILTERS FOR AMPLIFIER OUTPUTS

POWER AMPLIFIER SUPPLY BULK CAPS

ANALOG POWER RAIL

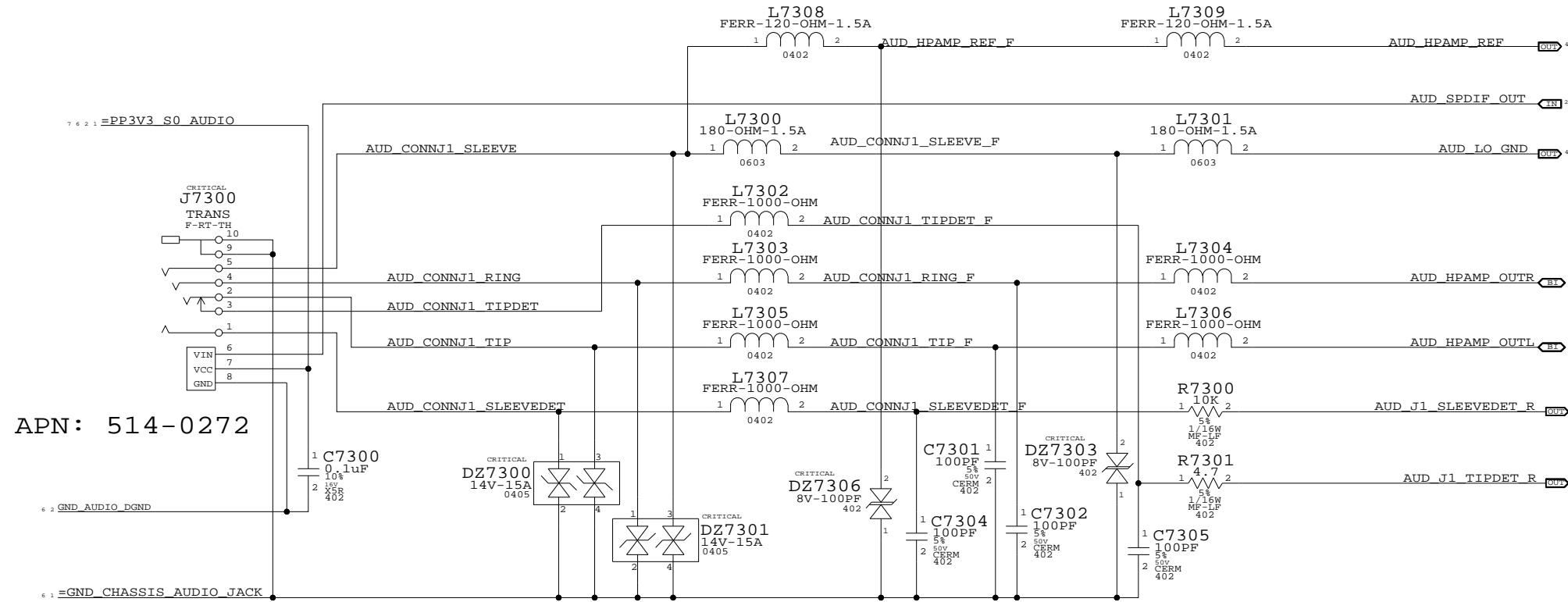
XW7200



AUDIO: SPEAKER AMP
 SYNC_MASTER=AUDIO_M9_PRO_LIO SYNC_DATE=02/23/2006
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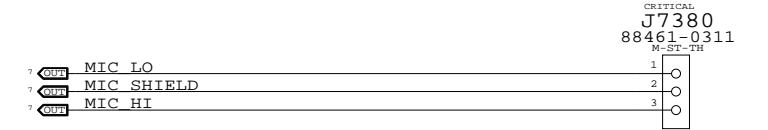
APPLE COMPUTER INC.	SIZE	DRAWING NUMBER	REV.
	D	051-7066	04
SCALE	SHT	72 OF	104
NONE			

AUDIO JACK 1 LO/HP CONNECTOR, SPDIF TX

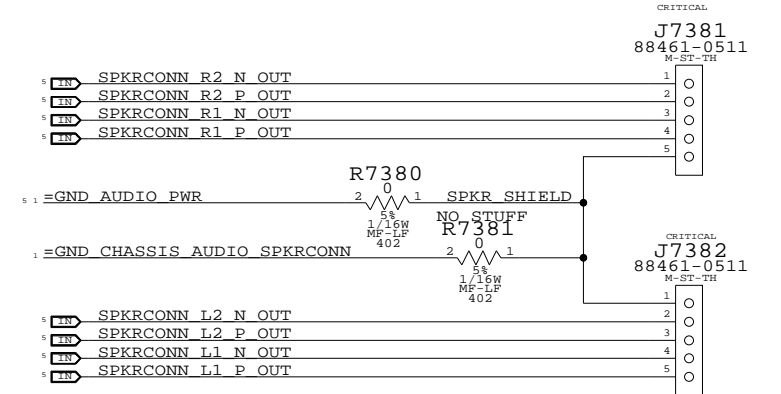


APN: 514-0272

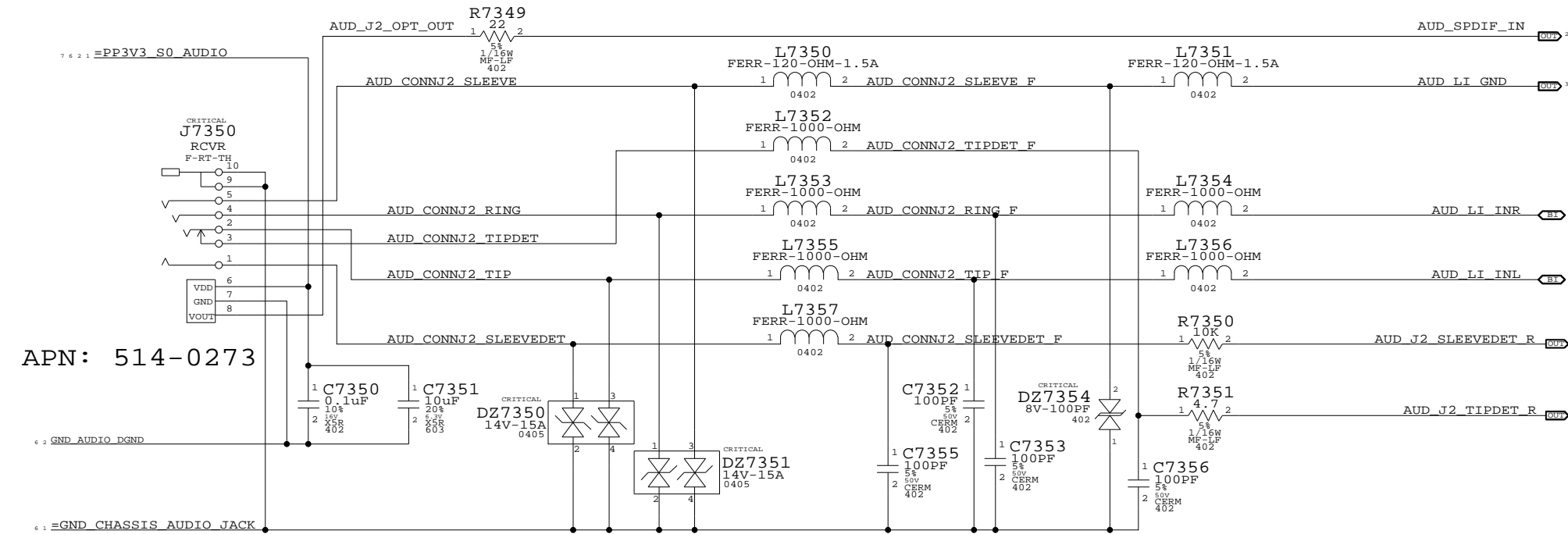
MIC CONNECTOR
APN: 518-0230



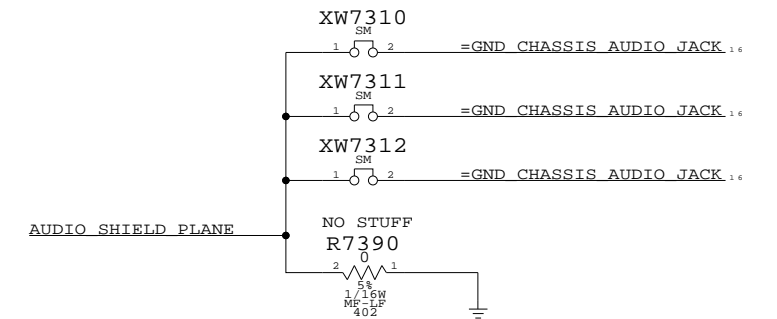
SPEAKER CONNECTORS
APN: 518-0229



AUDIO JACK 2 LINE IN CONNECTOR, SPDIF RX



APN: 514-0273



AUDIO SHIELD
(FILLED SHAPE)

AUDIO: JACKS

SYNC_MASTER=AUDIO_M9_PRO_LIO SYNC_DATE=02/23/2006

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APPLE COMPUTER INC.	SIZE	DRAWING NUMBER	REV.
	D	051-7066	04
SCALE	NONE	SHT	73 OF 104

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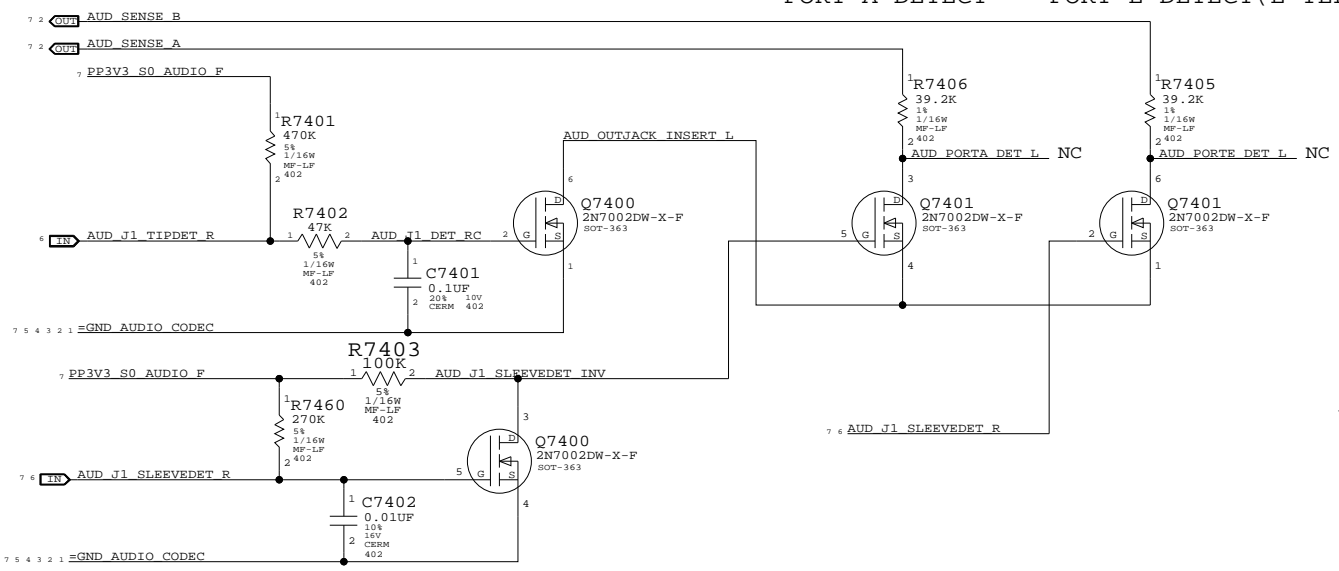
D

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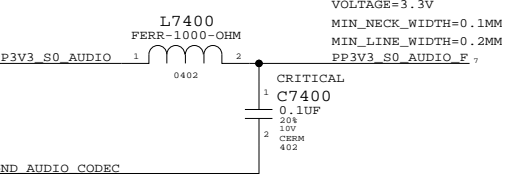
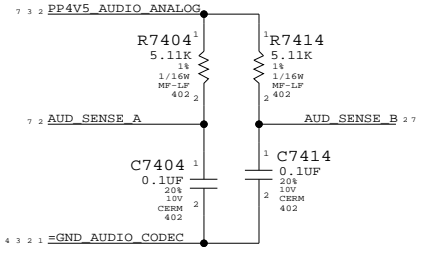
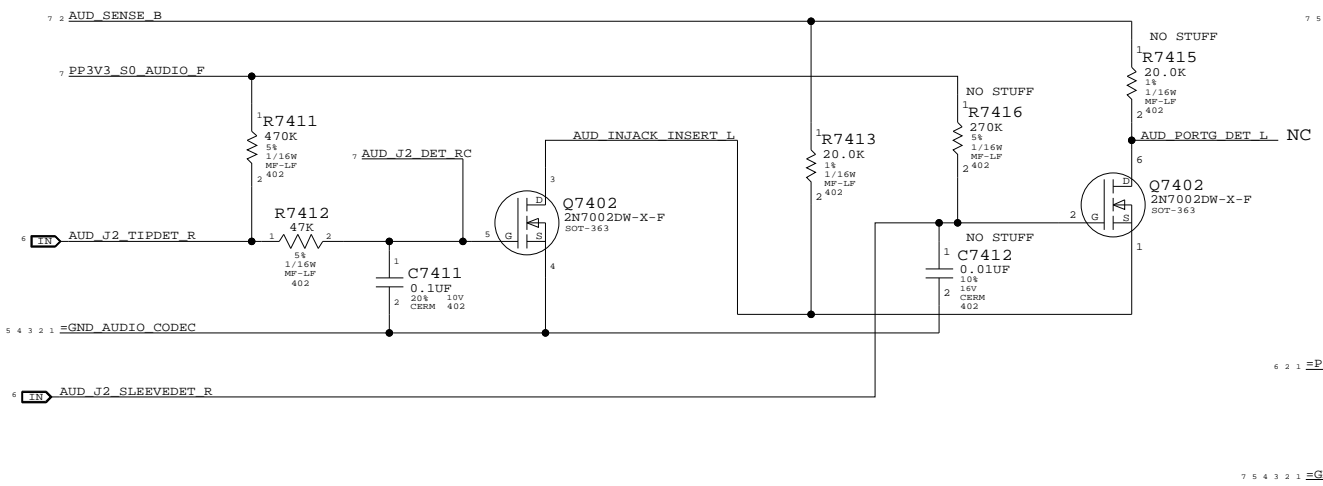
A

PORT A DETECT PORT E DETECT(E TELLS H TO TURN ON)

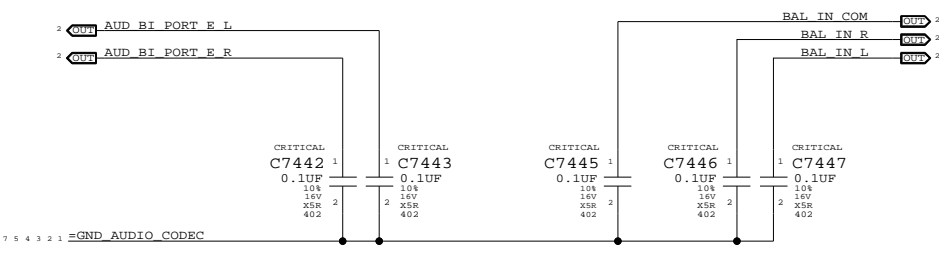


CODEC PORT ASSIGNMENTS
 PORT A : HEADPHONE/LINE OUT
 PORT B : MICROPHONE ON BOTH CH (ADC 0)
 PORT C : TRANSDUCER 1 ON LEFT/RIGHT SPEAKER
 PORT D : TRANSDUCER 2 ON LEFT/RIGHT SPEAKER
 PORT E : SW USES TO TRIGGER DIGITAL OUT
 PORT F : LINE IN (ADC 1)
 CD INPUT : UNUSED

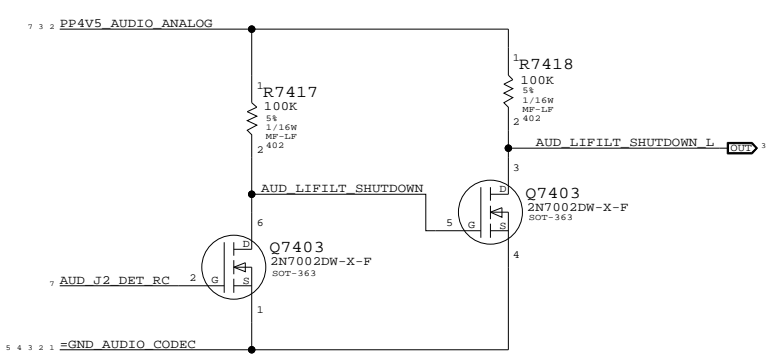
PORT F DETECT PORT G DETECT



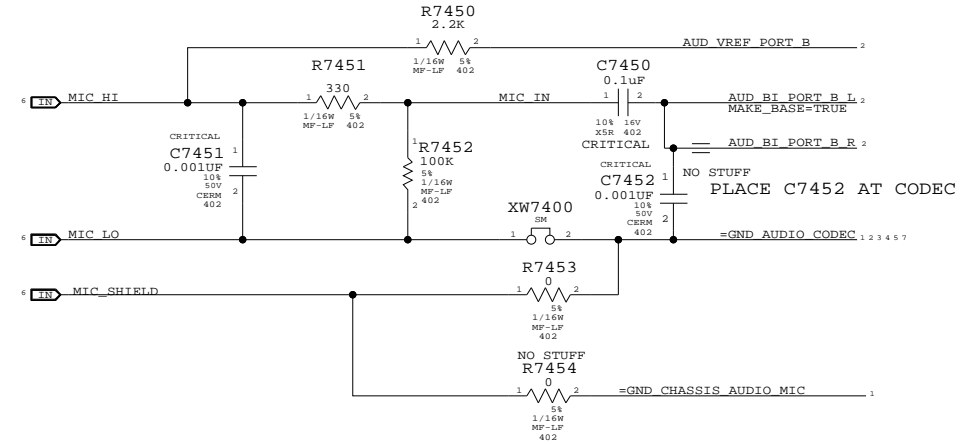
UNUSED CODEC ANALOG PORT TERMINATIONS



LINE IN FILTER SHUTDOWN CONTROL

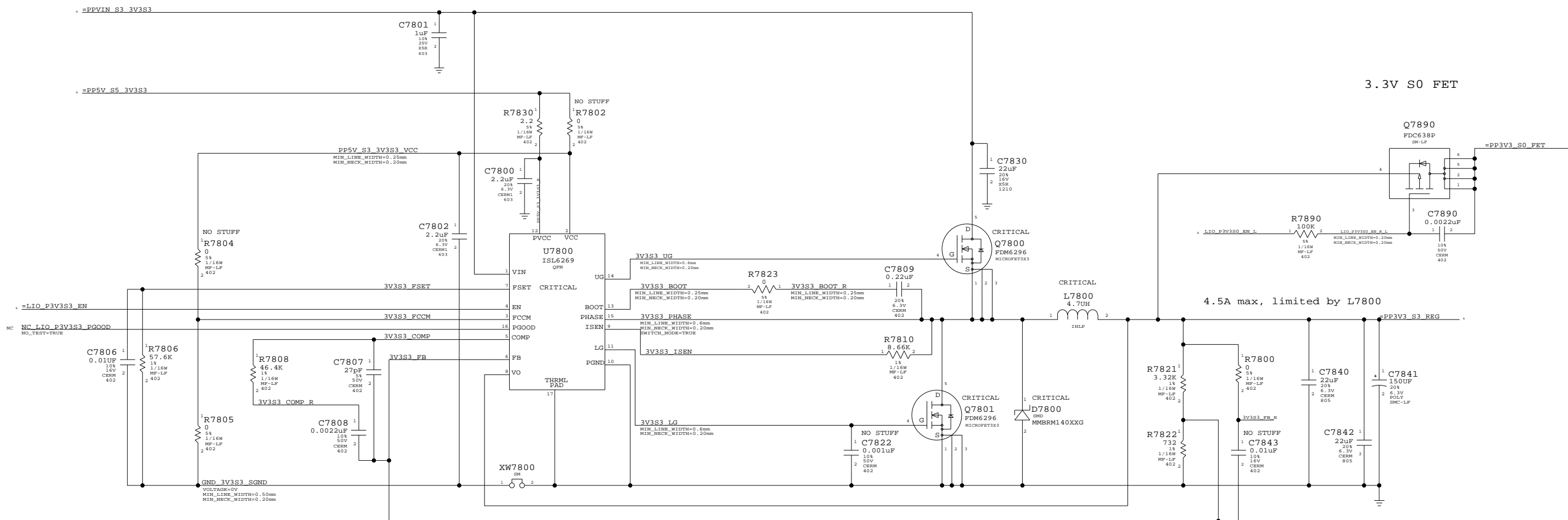


MIC INPUT CIRCUITRY



AUDIO: JACK TRANSLATORS
 SYNC_MASTER=AUDIO_M9_PRO_L10 SYNC_DATE=02/23/2006
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3.3V S3/S0 Power Supply



3.3V Supply

SYNC_MASTER=BUZZ SYNC_DATE=02/23/2006

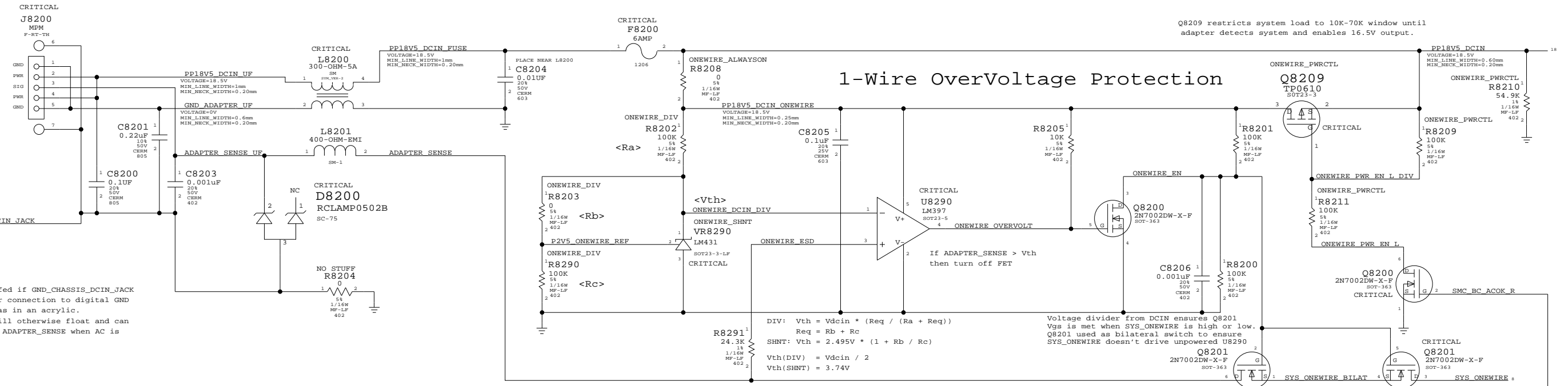
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APPLE COMPUTER INC.	SIZE	DRAWING NUMBER	REV.
	D	051-7066	04
SCALE	SHT	OF	
NONE	78	104	

DC Power Jack



R8204 should be stuffed if GND_CHASSIS_DCIN_JACK does not have another connection to digital GND in the system, such as in an acrylic. The chassis ground will otherwise float and can send transients onto ADAPTER_SENSE when AC is connected.

PART NUMBER	QTY	DESCRIPTION	REFERENCE DES	CRITICAL	BOM OPTION
116S0085	1	RES, 6.2K, 5%, 1/16W, 0402, LF	R8202		ONEWIRE_SHNT
114S0315	1	RES, 10K, 1%, 1/16W, 0402, LF	R8203		ONEWIRE_SHNT
114S0343	1	RES, 20K, 1%, 1/16W, 0402, LF	R8290		ONEWIRE_SHNT

ONEWIRE_SHNT BOM option allows the use of an adjustable shunt voltage regulator to provide the reference to the LM397 comparator. This allows the protection circuit to enforce a -3.7V max signal on ADAPTER_SENSE instead of the voltage divider DCIN/2 approach.
R8202 value ensures mA current for DCIN >= 13.4V per LM431 spec.

DC-In & Battery Connectors
 SYNC_MASTER=(MASTER) SYNC_DATE=(MASTER)
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	D	051-7066	04
SCALE	NONE	SHT	82 OF 104

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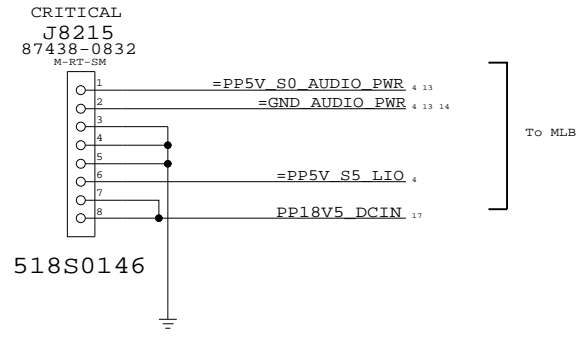
2

1

D

D

Left I/O Power Connector



C

C

B

B

A

A


LEFT I/O POWER CONNECTOR

SYNC MASTER=(MASTER) SYNC DATE=(MASTER)

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SCALE	NONE	SHT	84 OF 104

8

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CHANGE LIST

1/27/06

BEGINNING OF EVT TO EVT2 CHANGES ON ALT_LIO_EVT DIRECTORY
CHANGED PD6401 SYMBOL TO SPACER JEDEC PACK TYPE.
CHANGED REV TO 03.

2/1/06:

PG 82.
CHANGED R8291 TO 24.3K ON 1-WIRE CKT TO MATCH M1 CKT.
ADDED C8207 AND R8292 ON Q8200 PIN 2 TO ADD ESD PROTECTION ON GATE OF Q8200.

2/2/06:

PG. 64.
ADDED ALS SPACER 815-8851 IN BOM TABLE. GOES WITH PD6401.
PG. 78
ADDED 337S0448 AS ALTERNATE FOR 337S0445 ON Q7800 AND Q7801.

2/6/06:

PG. 78
CHANGED R7890 TO 100K FOR <RDAR://PROBLEM/4435222> MOSFET CR: QUAL LIO BOARD 3.3V @ 1.8V
PG 82.
CORRECTED R8292 VALUE TO 1K PER <RDAR://PROBLEM/4426307> M9 EVT SYMPHONY: FLOATING FET GATE ON LIO CONNECTOR SHOULD HAVE ESD PROTECTION.

2/7/06:

PG 3.
MOVE ALL BOM TABLES TO PG 3. CORRECTED APN OF FETS IN ALTERNATE BOM TABLE.

2/9/06:

PG. 78
CHANGED R7810 TO 8.66K TO MATCH M1.

2/10/06:


PG. 51
ADDED R5103, C5105 AND R5104, C5104 TO USB_LEFT_OC_L AND USB_LEFT2_OC_L TO MATCH M1.

2/23/06:

REMOVE LEMENU BOMOPTION FROM CODEC. REMOVE BOM NUMBERS TABLE ALONG WITH LE_MENU & PROJ_PARTS BOMS. FLAT BOM NOW.
ADDED CRITICAL ATTRIBUTES TO Q5101, Q6401, U6401, DZ7303, DZ7306, DZ7354, Q8200, Q8201, Q8209
SYNCED FROM M1_LIO_MOSFET REV A.0.0
===CHANGED===

C7830 [ON PAGE(S) 78] CHANGED FROM CAP_1210-22UF,20%,16V,X7R TO CAP_1210-22UF,20%,16V,X5R
C7840 [ON PAGE(S) 78] CHANGED FROM CAP_805-22UF,20%,6.3V,X5R TO CAP_805-22UF,20%,6.3V,CERM
C7842 [ON PAGE(S) 78] CHANGED FROM CAP_805-22UF,20%,6.3V,X5R TO CAP_805-22UF,20%,6.3V,CERM

HISTORY- NON-AUDIO		
SYNC_MASTER=(MASTER)	SYNC_DATE=(MASTER)	
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NONE	100	104	

CHANGE LIST

OCT 19 2005 : INITIAL RELEASE
 OCT 26 2005 : CHANGE ALL SPEAKER OUTPUT INDUCTORS TO 0 OHM SHORTING RESISTORS
 ADDED OPTIONAL SHORTING RESISTORS FROM AUDIO JACKS TO CHASSIS GROUND
 OCT 27 2005 : MOVE ESD DIODE NEARER TO JACK, DAISY CHAIN SYNC PIN ON SPEAKER AMPLIFIER
 FLIP SPEAKER CONNECTOR PIN ASSIGNMENT TO ACCOMODATE CABLE ROUTING
 NOV 03 2005 : CHANGE SPEAKER CONNECTOR J7380/J7381 TO 518S0053
 NOV 03 2005 : CHANGE SPEAKER CONNECTOR J7380/J7381 TO 518S0215(WHITE) AND 518S0316(BLACK)
 NOV 04 2005 : CHANGE SPEAKER CONNECTOR J7380/J7381 TO 518S0053
 NOV 07 2005 : ADDED PAGE 70, INPUT FILTER & 71, HEADPHONE AMPLIFIER
 DEC 01 2005 : CHANGE PIN OUT OF MIC CONNECTOR
 DEC 05 2005 : CHANGE MIC CONNECTOR TO APN 518-0152
 DEC 06 2005 : CHANGE Q7403 CIRCUITRY, ADDED R7418, REMOVED R7407
 CHANGE BOTH AUDIO 5V S0 RAIL TO S5
 DEC 07 2005 : CHANGE APN OF C7301, C7302, C7303 & C7304 TO 128S0081 TO REDUCE HEIGHT
 CHANGE PIN OUT OF MIC CONNECTOR TO MATCH SIREN PROTO
 DEC 08 2005 : UPDATE SYMBOL FOR 128S0081 TO MATCH LATEST LIBRARY SYMBOL
 CHANGE BOTH AUDIO 5V S5 RAIL TO S0
 DEC 20 2005 : ADDED CRITICAL ATTRIBUTE TO CONNECTORS
 CHANGE R7100 TO 10K
 DEC 23 2005 : REPLACE R7114/R7115 WITH XW7103, REMOVE XW7102, CHANGE C7112 TO 0402 10V
 CHANGE L7300/L7301 TO LOWER DCR 0603 FERRITE, CHANGE R7112/13 FROM 14 TO 10 OHMS
 REMOVE STUFFING OPTION FOR ALC882 CODEC, C6850/51/52, R6850/51/53/54
 REPLACE R6801 WITH XW6801, ISOLATED AUDIO DIGITAL GND THROUGH XW6800
 JAN 02 2006 : ADD "NC " PREFIX TO AUD_GPIO_2, VOL_UP, VOL_DOWN NETS, CHANGE C7112 TO 138S0578
 ADD ALTERNATE BOM TABLE FOR CONNECTORS J7380, J7381 AND J7382
 JAN 05 2006 : ADD D6800 TO PROVIDE DISCHARGE PATH FOR BULK CAPS ON 4.5V POWER
 CHANGE D6825 FROM 1UF TO 15PF TO PREVENT PREMATURE FAILURE OF VR6800
 JAN 06 2006 : ADD NO STUFF BOMOPTION TO D6800
 JAN 20 2006 : ADD R6809 AS A PULL DOWN ON SPDIF OUTPUT TO HOLD NET IN INACTIVE STATE BY DEFAULT
 CHANGE CONNECTION FOR D6800
 JAN 25 2006 : ADD L7000, REMOVE L6802/L6803
 JAN 26 2006 : REMOVE R7320,R7321, R7323, ADD L7308,C7452,C7306,R7114,R7115
 JAN 27 2006 : ADDED C7215,C7225,C7235,C7245 FOR HF IMMUNITY
 JAN 30 2006 : CHANGED PINOUT OF MIC CONNECTOR TO MATCH MIC ASSEMBLY
 JAN 31 2006 : ADDED XW6802 TO PROVIDE RETURN PATH FOR AZALIA BUS SIGNALS (EMI)
 ADDED L7309 FOR HEADPHONE AMP REFERENCE TAP POINT
 FEB 03 2006 : CHANGED C7306,C7303 & C7354 TO DZ7306,DZ7303 & DZ7354 TO SOLVE ESD ISSUE
 ADDED C7001-C7004 TO REDUCE NOISE LEVEL ON LINE-IN BUFFER VREF
 REMOVE R6809, C6832. REPLACED BY C7001-C7004
 FEB 06 2006 : CHANGED XW6802 FROM LAYER 8 TO LAYER 9 SHORT DUE TO TECHNICAL LIMITATION ALLEGRO
 FEB 07 2006 : "NO STUFF" C7452, C7215, C7225, C7235 & C7245
 FEB 15 2006 : CHANGE VALUE OF C7120 & C7130 FROM 10UF TO 3.3UF TO REDUCE INTENSITY OF CLICK DURING UNMUTE.
 THIS MOVES THE CORNER FREQUENCY FROM 1.6HZ TO 4.8HZ.

HISTORY- AUDIO

SYNC_MASTER=(MASTER) SYNC_DATE=(MASTER)

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	SCALE	SHT	OF
	NONE	101	104

	8	7	6	5	4	3	2	1
D	MAX9722_PVSS	MAX9722_PVSS - @alt_l1o.lib.ALT_L1O	12C4					
	MIC_HI	MIC_HI - @alt_l1o.lib.ALT_L1O	14D3 15A6	SPKRCONN_L1_P_OUT	@alt_l1o.lib.ALT_L1O		13C3 14C3	
	MIC_IN	MIC_IN - @alt_l1o.lib.ALT_L1O	15A5	SPKRCONN_L2_N_OUT	SPKRCONN_L2_N_OUT - @alt_l1o.lib.ALT_L1O		13D3 14C3	
	MIC_LO	MIC_LO - @alt_l1o.lib.ALT_L1O	14D3 15A6	SPKRCONN_L2_P_OUT	SPKRCONN_L2_P_OUT - @alt_l1o.lib.ALT_L1O		13D3 14C3	
	MIC_SHIELD	MIC_SHIELD - @alt_l1o.lib.ALT_L1O	14D3 15A6	SPKRCONN_R1_N_OUT	SPKRCONN_R1_N_OUT - @alt_l1o.lib.ALT_L1O		13A3 14C3	
	NC_AUD_GPIO_2	NC_AUD_GPIO_2 - @alt_l1o.lib.ALT_L1O	10C7	SPKRCONN_R1_P_OUT	SPKRCONN_R1_P_OUT - @alt_l1o.lib.ALT_L1O		13A3 14C3	
	NC_LED_WLAN_L	NC_LED_WLAN_L - @alt_l1o.lib.ALT_L1O	7B3	SPKRCONN_R2_N_OUT	SPKRCONN_R2_N_OUT - @alt_l1o.lib.ALT_L1O		13B3 14C3	
	NC_LED_WPAN_L	NC_LED_WPAN_L - @alt_l1o.lib.ALT_L1O	7B3	SPKRCONN_R2_P_OUT	SPKRCONN_R2_P_OUT - @alt_l1o.lib.ALT_L1O		13B3 14C3	
	NC_LED_WWAN_L	NC_LED_WWAN_L - @alt_l1o.lib.ALT_L1O	7B3	SPKR_SHIELD	SPKR_SHIELD - @alt_l1o.lib.ALT_L1O	14C2		
	NC_L1O_P3V3S3_PGOOD	NC_L1O_P3V3S3_PGOOD - @alt_l1o.lib.ALT_L1O	16B8	SYS_ONEWIRE	SYS_ONEWIRE - @alt_l1o.lib.ALT_L1O	8C6 17C1		
C	NC_UIM_CLK	NC_UIM_CLK - @alt_l1o.lib.ALT_L1O	7C3	SYS_ONEWIRE_BILAT	SYS_ONEWIRE_BILAT - @alt_l1o.lib.ALT_L1O	7C3		
	NC_UIM_DATA	NC_UIM_DATA - @alt_l1o.lib.ALT_L1O	7C3	TP_EXCARD_STBY_L	TP_EXCARD_STBY_L - @alt_l1o.lib.ALT_L1O	10C7		
	NC_UIM_PWR	NC_UIM_PWR - @alt_l1o.lib.ALT_L1O	7C3	TP_USB2_MINI_N	TP_USB2_MINI_N - @alt_l1o.lib.ALT_L1O	4B2		
	NC_UIM_RESET	NC_UIM_RESET - @alt_l1o.lib.ALT_L1O	7C3	TP_USB2_MINI_P	TP_USB2_MINI_P - @alt_l1o.lib.ALT_L1O	4B2		
	NC_UIM_VFP	NC_UIM_VFP - @alt_l1o.lib.ALT_L1O	7C3	USB_LEFT2_EMI_N	USB_LEFT2_EMI_N - @alt_l1o.lib.ALT_L1O	4B5 7B3		
	NC_VOL_DOWN	NC_VOL_DOWN - @alt_l1o.lib.ALT_L1O	10C7	USB_LEFT2_EMI_P	USB_LEFT2_EMI_P - @alt_l1o.lib.ALT_L1O	5C4		
	NC_VOL_UP	NC_VOL_UP - @alt_l1o.lib.ALT_L1O	10C7	USB_LEFT2_GND	USB_LEFT2_GND - @alt_l1o.lib.ALT_L1O	5C3		
	NC_W_DISABLE_L	NC_W_DISABLE_L - @alt_l1o.lib.ALT_L1O	7C3	USB_LEFT2_GND	USB_LEFT2_GND - @alt_l1o.lib.ALT_L1O	5C3		
	ONEWIRE_DCIIN_DIV	ONEWIRE_DCIIN_DIV - @alt_l1o.lib.ALT_L1O	17C5	USB_LEFT2_OC_L_R	USB_LEFT2_OC_L_R - @alt_l1o.lib.ALT_L1O	5B7		
	ONEWIRE_EN	ONEWIRE_EN - @alt_l1o.lib.ALT_L1O	17D3	USB_LEFT2_OC_L_R	USB_LEFT2_OC_L_R - @alt_l1o.lib.ALT_L1O	5B7		
B	ONEWIRE_EN	ONEWIRE_EN - @alt_l1o.lib.ALT_L1O	17D3	USB_LEFT2_OC_L_R	USB_LEFT2_OC_L_R - @alt_l1o.lib.ALT_L1O	5B7		
	ONEWIRE_EN	ONEWIRE_EN - @alt_l1o.lib.ALT_L1O	17D3	USB_LEFT2_OC_L_R	USB_LEFT2_OC_L_R - @alt_l1o.lib.ALT_L1O	5B7		
	ONEWIRE_EN	ONEWIRE_EN - @alt_l1o.lib.ALT_L1O	17D3	USB_LEFT2_OC_L_R	USB_LEFT2_OC_L_R - @alt_l1o.lib.ALT_L1O	5B7		
	ONEWIRE_EN	ONEWIRE_EN - @alt_l1o.lib.ALT_L1O	17D3	USB_LEFT2_OC_L_R	USB_LEFT2_OC_L_R - @alt_l1o.lib.ALT_L1O	5B7		
	ONEWIRE_EN	ONEWIRE_EN - @alt_l1o.lib.ALT_L1O	17D3	USB_LEFT2_OC_L_R	USB_LEFT2_OC_L_R - @alt_l1o.lib.ALT_L1O	5B7		
	ONEWIRE_EN	ONEWIRE_EN - @alt_l1o.lib.ALT_L1O	17D3	USB_LEFT2_OC_L_R	USB_LEFT2_OC_L_R - @alt_l1o.lib.ALT_L1O	5B7		
	ONEWIRE_EN	ONEWIRE_EN - @alt_l1o.lib.ALT_L1O	17D3	USB_LEFT2_OC_L_R	USB_LEFT2_OC_L_R - @alt_l1o.lib.ALT_L1O	5B7		
	ONEWIRE_EN	ONEWIRE_EN - @alt_l1o.lib.ALT_L1O	17D3	USB_LEFT2_OC_L_R	USB_LEFT2_OC_L_R - @alt_l1o.lib.ALT_L1O	5B7		
	ONEWIRE_EN	ONEWIRE_EN - @alt_l1o.lib.ALT_L1O	17D3	USB_LEFT2_OC_L_R	USB_LEFT2_OC_L_R - @alt_l1o.lib.ALT_L1O	5B7		
	ONEWIRE_EN	ONEWIRE_EN - @alt_l1o.lib.ALT_L1O	17D3	USB_LEFT2_OC_L_R	USB_LEFT2_OC_L_R - @alt_l1o.lib.ALT_L1O	5B7		
A	ONEWIRE_EN	ONEWIRE_EN - @alt_l1o.lib.ALT_L1O	17D3	USB_LEFT2_OC_L_R	USB_LEFT2_OC_L_R - @alt_l1o.lib.ALT_L1O	5B7		
	ONEWIRE_EN	ONEWIRE_EN - @alt_l1o.lib.ALT_L1O	17D3	USB_LEFT2_OC_L_R	USB_LEFT2_OC_L_R - @alt_l1o.lib.ALT_L1O	5B7		
	ONEWIRE_EN	ONEWIRE_EN - @alt_l1o.lib.ALT_L1O	17D3	USB_LEFT2_OC_L_R	USB_LEFT2_OC_L_R - @alt_l1o.lib.ALT_L1O	5B7		
	ONEWIRE_EN	ONEWIRE_EN - @alt_l1o.lib.ALT_L1O	17D3	USB_LEFT2_OC_L_R	USB_LEFT2_OC_L_R - @alt_l1o.lib.ALT_L1O	5B7		
	ONEWIRE_EN	ONEWIRE_EN - @alt_l1o.lib.ALT_L1O	17D3	USB_LEFT2_OC_L_R	USB_LEFT2_OC_L_R - @alt_l1o.lib.ALT_L1O	5B7		
	ONEWIRE_EN	ONEWIRE_EN - @alt_l1o.lib.ALT_L1O	17D3	USB_LEFT2_OC_L_R	USB_LEFT2_OC_L_R - @alt_l1o.lib.ALT_L1O	5B7		
	ONEWIRE_EN	ONEWIRE_EN - @alt_l1o.lib.ALT_L1O	17D3	USB_LEFT2_OC_L_R	USB_LEFT2_OC_L_R - @alt_l1o.lib.ALT_L1O	5B7		
	ONEWIRE_EN	ONEWIRE_EN - @alt_l1o.lib.ALT_L1O	17D3	USB_LEFT2_OC_L_R	USB_LEFT2_OC_L_R - @alt_l1o.lib.ALT_L1O	5B7		
	ONEWIRE_EN	ONEWIRE_EN - @alt_l1o.lib.ALT_L1O	17D3	USB_LEFT2_OC_L_R	USB_LEFT2_OC_L_R - @alt_l1o.lib.ALT_L1O	5B7		
	ONEWIRE_EN	ONEWIRE_EN - @alt_l1o.lib.ALT_L1O	17D3	USB_LEFT2_OC_L_R	USB_LEFT2_OC_L_R - @alt_l1o.lib.ALT_L1O	5B7		
	ONEWIRE_EN	ONEWIRE_EN - @alt_l1o.lib.ALT_L1O	17D3	USB_LEFT2_OC_L_R	USB_LEFT2_OC_L_R - @alt_l1o.lib.ALT_L1O	5B7		

8			7			6			5			4			3			2			1		
Title: Cref Part Report Design: alt_lio Date: Feb 10 15:48:12 2006			C7301 CAP_402 alt_lio[14C5] C7302 CAP_402 alt_lio[14C5] C7304 CAP_402 alt_lio[14C5] C7305 CAP_402 alt_lio[14C5] C7350 CAP_402 alt_lio[14A7] C7351 CAP_603 alt_lio[14A7] C7352 CAP_402 alt_lio[14A5] C7353 CAP_402 alt_lio[14A5] C7355 CAP_402 alt_lio[14A5] C7356 CAP_402 alt_lio[14A5] C7400 CAP_402 alt_lio[15B4] C7401 CAP_402 alt_lio[15D7] C7402 CAP_402 alt_lio[15C7] C7404 CAP_402 alt_lio[15C4] C7411 CAP_402 alt_lio[15B7] C7412 CAP_402 alt_lio[15B6] C7414 CAP_402 alt_lio[15C4] C7442 CAP_402 alt_lio[15A3] C7443 CAP_402 alt_lio[15A2] C7445 CAP_402 alt_lio[15A2] C7446 CAP_402 alt_lio[15A1] C7447 CAP_402 alt_lio[15A1] C7450 CAP_402 alt_lio[15A4] C7451 CAP_402 alt_lio[15A5] C7452 CAP_402 alt_lio[15A4] C7800 CAP_603 alt_lio[16C6] C7801 CAP_603 alt_lio[16C6] C7802 CAP_603 alt_lio[16C6] C7806 CAP_402 alt_lio[16B8] C7807 CAP_402 alt_lio[16B6] C7808 CAP_402 alt_lio[16B7] C7809 CAP_402 alt_lio[16C4] C7822 CAP_402 alt_lio[16B4] C7830 CAP_1210 alt_lio[16C3] C7840 CAP_805 alt_lio[16B2] C7841 CAP_P_SMC-LF alt_lio[16B2] C7842 CAP_805 alt_lio[16B2] C7843 CAP_402 alt_lio[16B2] C7890 CAP_402 alt_lio[16C1] C8200 CAP_805 alt_lio[17D7] C8201 CAP_805 alt_lio[17D7] C8203 CAP_402 alt_lio[17D7] C8204 CAP_603 alt_lio[17D6] C8205 CAP_603 alt_lio[17D4] C8206 CAP_402 alt_lio[17C2] C8207 CAP_402 alt_lio[17B1] D5100 DIODE_SCHOT_3P_A_SC- alt_lio[5A3] 75 D5110 DIODE_SCHOT_3P_A_SC- alt_lio[5C4] 75 D6800 DIODE_SCHOT_POWERDI- alt_lio[10A4] 123 D7800 DIO_MBRM140T3_SM_SMD alt_lio[16B3] D8200 DIODE_SCHOT_3P_A_SC- alt_lio[17C7] 75 D27300 SUPPR_TRANSIENT_4P1_ alt_lio[14C6] 0405 D27301 SUPPR_TRANSIENT_4P1_ alt_lio[14C6] 0405 D27303 SUPPR_TRANSIENT1_402 alt_lio[14C5] D27306 SUPPR_TRANSIENT1_402 alt_lio[14C5] D27350 SUPPR_TRANSIENT_4P1_ alt_lio[14A6] 0405 D27351 SUPPR_TRANSIENT_4P1_ alt_lio[14A6] 0405 D27354 SUPPR_TRANSIENT1_402 alt_lio[14A5] F8200 FUSE_1206 alt_lio[17D5] FL5500 FILTER_4P_TCM1005 alt_lio[8C3] FL5501 FILTER_4P_TCM1005 alt_lio[8B3] J5100 CON_F4RT_USB_S2MT_TH alt_lio[5B2] _F-RT-TH-USB-LFT J5110 CON_F4RT_USB_S2MT_TH alt_lio[5C2] _F-RT-TH-USB-LFT J5300 CON_F26RT_S2MT_SM_F- alt_lio[6D2] RT-SM J5400 CON_F52RT_D2MT_SM_F- alt_lio[7C5] ST-SM J5500 CON_F80ST_D4MT_SM_F- alt_lio[8C4] ST-SM J7300 CON_F8RT_SPDIFFRAN_T alt_lio[14C8] H2_F-RT-TH J7350 CON_F8RT_SPDIFRCVR_T alt_lio[14B8] H2_F-RT-TH J7380 CON_M3ST_S_TH_M-ST-T alt_lio[14D1] H J7381 CON_MSST_S_TH_M-ST-T alt_lio[14C1] H J7382 CON_MSST_S_TH_M-ST-T alt_lio[14C1] H J8200 CON_F5RT_S2MT_TH3_F- alt_lio[17D8] RT-TH J8215 CON_MBRRT_S_SM_M-RT-S alt_lio[18C5] M L5100 FILTER_4P_SM alt_lio[5B4] L5101 IND_SM alt_lio[5B4] L5110 FILTER_4P_SM alt_lio[5C4] L5111 IND_SM alt_lio[5D4] L5150 IND_SM alt_lio[5A4] L5160 IND_SM alt_lio[5C4] L6800 IND_0402 alt_lio[10A5] L6801 IND_0402 alt_lio[10D6] L7000 IND_0402 alt_lio[11C6] L7101 IND_0402 alt_lio[12D6] L7102 IND_0402 alt_lio[12C6] L7200 IND_0402 alt_lio[13B2] L7201 IND_0402 alt_lio[13D7] L7210 IND_0402 alt_lio[13D7] L7220 IND_0402 alt_lio[13C7] L7230 IND_0402 alt_lio[13B7] L7240 IND_0402 alt_lio[13A7] L7300 IND_0603 alt_lio[14D6] L7301 IND_0603 alt_lio[14D4] L7302 IND_0402 alt_lio[14C6] L7303 IND_0402 alt_lio[14C6] L7304 IND_0402 alt_lio[14C4] L7305 IND_0402 alt_lio[14C6] L7306 IND_0402 alt_lio[14C4] L7307 IND_0402 alt_lio[14C6] L7308 IND_0402 alt_lio[14D6] L7309 IND_0402 alt_lio[14D4] L7350 IND_0402 alt_lio[14B6] L7351 IND_0402 alt_lio[14B4] L7352 IND_0402 alt_lio[14B6] L7353 IND_0402 alt_lio[14B6] L7354 IND_0402 alt_lio[14B4] L7355 IND_0402 alt_lio[14A6] L7356 IND_0402 alt_lio[14A4] L7357 IND_0402 alt_lio[14A6] L7400 IND_0402 alt_lio[15B4] L7800 IND_IHLF alt_lio[16B3] L8200 FILTER_4P_SM alt_lio[17D6] L8201 IND_SM-1 alt_lio[17D6] PD6401 PHOTOIODE_2P_TH-WTH alt_lio[9C6] -SPCR Q5101 TRA_2N7002_SOT23-LF alt_lio[5C7] Q5360 TRA_2N7002_SOT23-LF alt_lio[6B3] Q6401 TRA_2N7002_SOT23-LF alt_lio[9C5] Q7400 TRA_2N7002DW_SOT-363 alt_lio[15C7 15D7] Q7401 TRA_2N7002DW_SOT-363 alt_lio[15D5 15D6] Q7402 TRA_2N7002DW_SOT-363 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MC74VHC1G00_SCT70-5 alt_lio[6B2] U6401 OPAMP_MAX4236EUTT_SO alt_lio[9C5] T23-6-LF U6800 AUDIO_STAC9220_LQFP alt_lio[10D5] U7000 OPAMP_MAX44253_UMAX alt_lio[11B4 11C4] U7100 MAX9722_QFN alt_lio[12D4] U7210 MAX9705_TDFN alt_lio[13D6] U7220 MAX9705_TDFN alt_lio[13C6] U7230 MAX9705_TDFN alt_lio[13B6] U7240 MAX9705_TDFN alt_lio[13A6] U7800 ISL6269_QFN alt_lio[16C6] U8290 COMPARETOR_LM397_SOT alt_lio[17C4] 23-5 VR6800 LREG_TPS79501_SOT223 alt_lio[10A4] -6 VR8290 SHNTRRG_LM431_SOT23- alt_lio[17C5] 3-LF XW6800 SHORT_SM alt_lio[10A8] XW6801 SHORT_SM alt_lio[10B5] XW6802 SHORT_LAYER_9_SHORT- alt_lio[10A8] L9-SM XW7100 SHORT_SM alt_lio[12C5] XW7101 SHORT_SM alt_lio[12C5] XW7103 SHORT_SM alt_lio[12C5] XW7200 SHORT_SM alt_lio[13B6] XW7310 SHORT_SM alt_lio[14B2] XW7311 SHORT_SM alt_lio[14B2] XW7312 SHORT_SM alt_lio[14B2] XW7400 SHORT_SM alt_lio[15A4] XW7800 SHORT_SM alt_lio[16B6]			C5100 CAP_603 alt_lio[5B7] C5101 CAP_402 alt_lio[5B7] C5102 CAP_603 alt_lio[5B6] C5103 CAP_P_CASE-C2-SM alt_lio[5B5] 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