

8

7

6

5

4

3

2

1

1. ALL RESISTANCE VALUES ARE IN OHMS, 0.1 WATT +/- 5%.

2. ALL CAPACITANCE VALUES ARE IN MICROFARADS.

3. ALL CRYSTALS & OSCILLATOR VALUES ARE IN HERTZ.

REV

ZONE

ECN

DESCRIPTION OF CHANGE

CK APPD

DATE

ENG APPD

DATE

02

384035

ENGINEERING RELEASED

06/01/05

05

PDF

CSA

CONTENTS

SYNC MASTER

DATE

1

1

Table of Contents

N/A

N/A

2

2

Board Information

N/A

N/A

3

3

Block Diagram

N/A

N/A

4

5

Revision History

N/A

N/A

5

7

Functional Test Signals

N/A

N/A

6

11

Signal & Power Aliases

SPDIF-AUDIO

05/31/2005

7

12

DC Power Connector

N/A

N/A

8

25

Internal USB/Audio/DC Connector

N/A

N/A

9

93

Left USB Connector

N/A

N/A

10

100

BrownOdio Codec

SPDIF-AUDIO

05/31/2005

11

101

Line In Filter

SPDIF-AUDIO

05/31/2005

12

102

S/PDIF Receiver

SPDIF-AUDIO

05/31/2005

13

104

Headphone Amp

SPDIF-AUDIO

05/31/2005

14

105

MAX9715 Speaker Amps

SPDIF-AUDIO

05/31/2005

15

106

Audio Connectors

SPDIF-AUDIO

05/31/2005

16

107

Audio Power Supply

SPDIF-AUDIO

05/31/2005

17

108

18

109

Cross Reference Page

19

110

Cross Reference Page

SCHEM, TATIC, Q16C

06/01/2005

(EVT)

PART#

QTY

DESCRIPTION

REFERENCE DESIGNATOR(S)

BOM OPTION

051-6847

1

SCHEM, TATIC, Q16C

SCH1

820-1820

1

PCBF, TATIC, Q16C

PCB1

DIMENSIONS ARE IN MILLIMETERS

XX ±

X.XX ±

X.XXX ±

ANGLES ±

DO NOT SCALE DRAWING

THIRD ANGLE PROJECTION

METRIC

DRAFTER

ENG APPD

QA APPD

RELEASE

DESIGN CK

MFG APPD

DESIGNER

SCALE

MATERIAL/FINISH NOTED AS APPLICABLE

SIZE

NONE

Apple Computer Inc.

NOTICE OF PROPRIETARY PROPERTY

THE INFORMATION CONTAINED HEREIN IS THE PROPRIETARY PROPERTY OF APPLE COMPUTER, INC. THE POSSESSOR AGREES TO THE FOLLOWING

I TO MAINTAIN THE DOCUMENT IN CONFIDENCE

II NOT TO REPRODUCE OR COPY IT

III NOT TO REVEAL OR PUBLISH IN WHOLE OR PART

TITLE

SCHEM, TATIC, Q16C

DRAWING NUMBER

051-6847

REV:

02

SHT

1

OF

110

8

7

6

5

4

3

2

1

PCB SPECS

THICKNESS : 1.2 MM / 0.047 IN
1/2 OZ CU THICKNESS: 0.0177 MM
1.0 OZ CU THICKNESS: 0.0356 MM

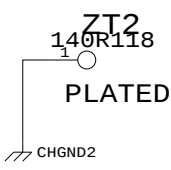
IMPEDANCE : 50 OHMS +/- 10%
DIELECTRIC: FR-4
LAYER COUNT: 12

SEE PCB CAD FILES FOR MORE SPECIFIC INFO.

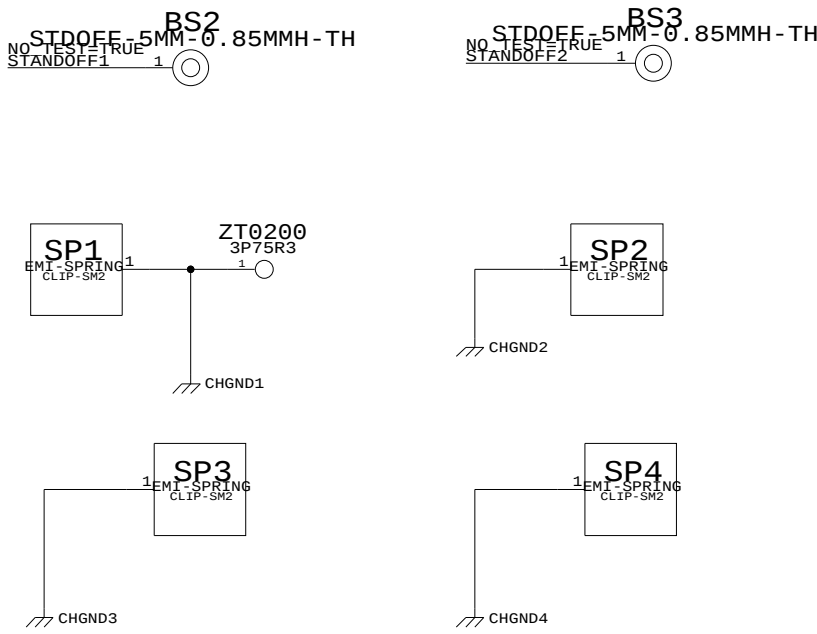
BOARD STACK-UP AND CONSTRUCTION

1		SIGNAL
2	PREPREG	GROUND
3	LAMINATE	SIGNAL
4	PREPREG	SIGNAL
5	LAMINATE	GROUND
6	PREPREG	CUT POWER PLANE
7	LAMINATE	CUT POWER PLANE
8	PREPREG	GROUND
9	LAMINATE	SIGNAL
10	PREPREG	SIGNAL
11	LAMINATE	GROUND
12	PREPREG	SIGNAL

BOARD HOLES



PCB BOARD STANDOFFS / FINGER SPRINGS



Board Information

SYNC_MASTER=N/A SYNC_DATE=N/A

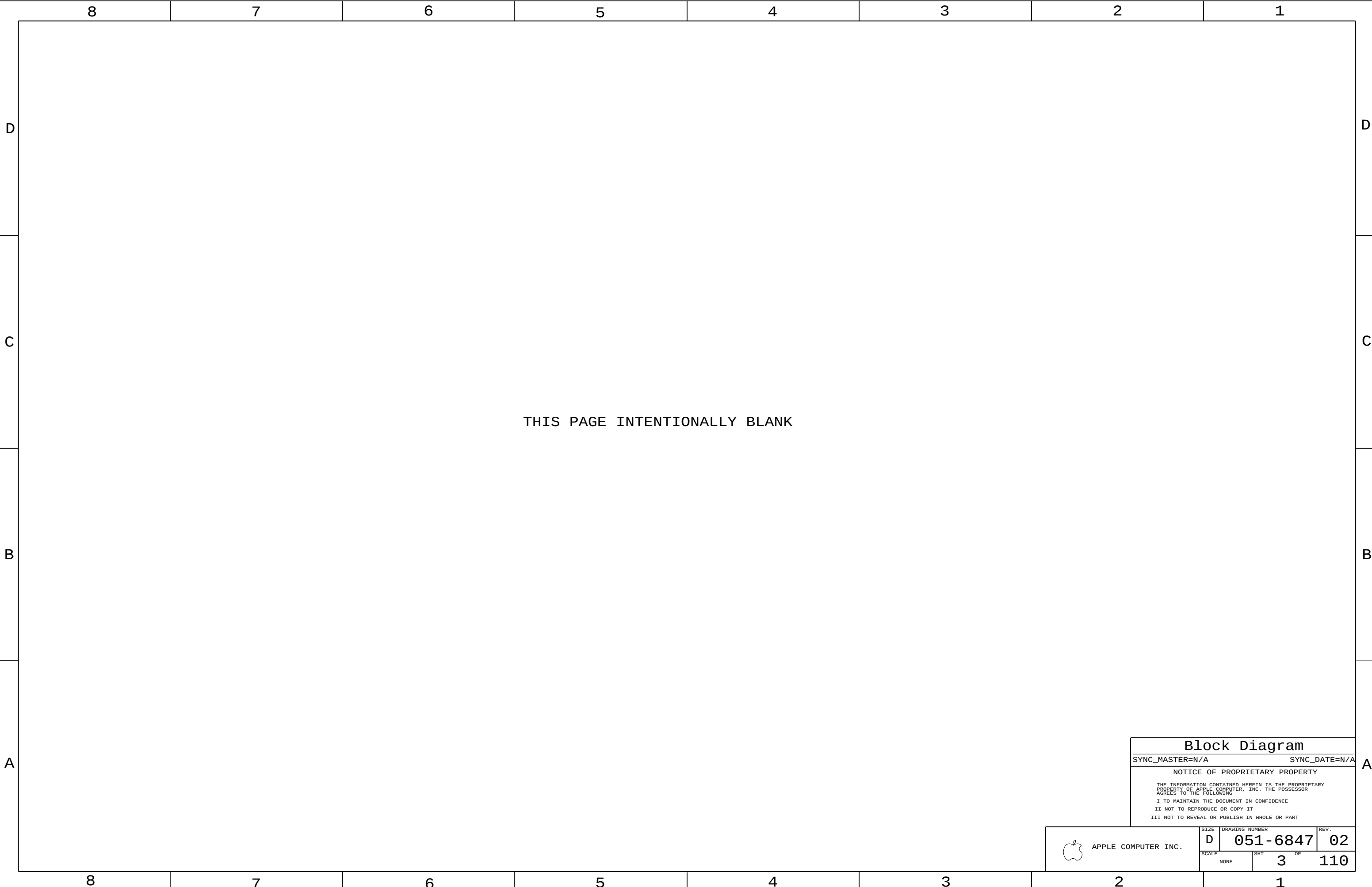
NOTICE OF PROPRIETARY PROPERTY

THE INFORMATION CONTAINED HEREIN IS THE PROPRIETARY PROPERTY OF APPLE COMPUTER, INC. THE POSSESSOR AGREES TO THE FOLLOWING
I TO MAINTAIN THE DOCUMENT IN CONFIDENCE
II NOT TO REPRODUCE OR COPY IT
III NOT TO REVEAL OR PUBLISH IN WHOLE OR PART



APPLE COMPUTER INC.

SIZE	DRAWING NUMBER	REV.
D	051-6847	02
SCALE	SHT	OF
NONE	2	110



Block Diagram			
SYNC_MASTER=N/A		SYNC_DATE=N/A	
NOTICE OF PROPRIETARY PROPERTY			
THE INFORMATION CONTAINED HEREIN IS THE PROPRIETARY PROPERTY OF APPLE COMPUTER, INC. THE POSSESSOR AGREES TO THE FOLLOWING			
I TO MAINTAIN THE DOCUMENT IN CONFIDENCE			
II NOT TO REPRODUCE OR COPY IT			
III NOT TO REVEAL OR PUBLISH IN WHOLE OR PART			
SIZE	DRAWING NUMBER		REV.
D	051-6847		02
SCALE	SHT	OF	
NONE	3	110	

8

7

6

5

4

3

2

1

D

C

B

A

D

C	
---	--

B	
----------	--

A

Revision History

02

SYNC_MASTER=N/A

SYNC_DATE=N/A	
---------------	--

NOTICE OF PROPRIETARY PROPERTY

THE INFORMATION CONTAINED HEREIN IS THE PROPRIETARY
PROPERTY OF APPLE COMPUTER, INC. THE POSSESSOR
AGREES TO THE FOLLOWING

I TO MAINTAIN THE DOCUMENT IN CONFIDENCE

II NOT TO REPRODUCE OR COPY IT

III NOT TO REVEAL OR PUBLISH IN WHOLE OR PART



APPLE COMPUTER INC.

SIZE
D

DRAWING NUMBER	REVISION
051-6847	

02

SCALE

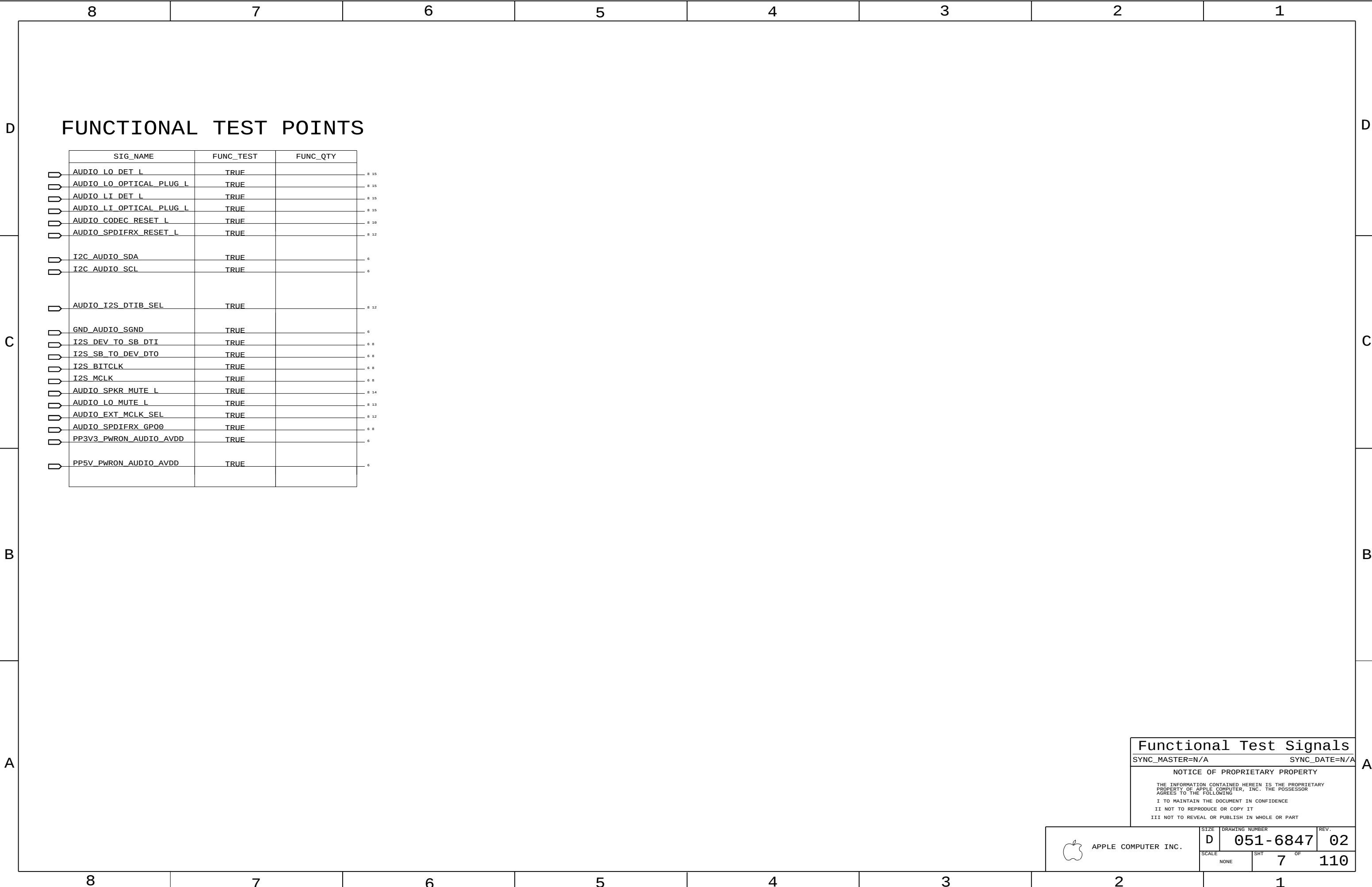
NONE

SHT

5 OF

5

110



C

B

A

8

7

6

5

4

3

2

1

Functional Test Signals

SYNC_MASTER=N/A

SYNC_DATE=N/A

NOTICE OF PROPRIETARY PROPERTY

THE INFORMATION CONTAINED HEREIN IS THE PROPRIETARY PROPERTY OF APPLE COMPUTER, INC. THE POSSESSOR AGREES TO THE FOLLOWING

I TO MAINTAIN THE DOCUMENT IN CONFIDENCE

II NOT TO REPRODUCE OR COPY IT

III NOT TO REVEAL OR PUBLISH IN WHOLE OR PART

APPLE COMPUTER INC.

SIZE

D

DRAWING NUMBER

051-6847

REV.

02

SCALE

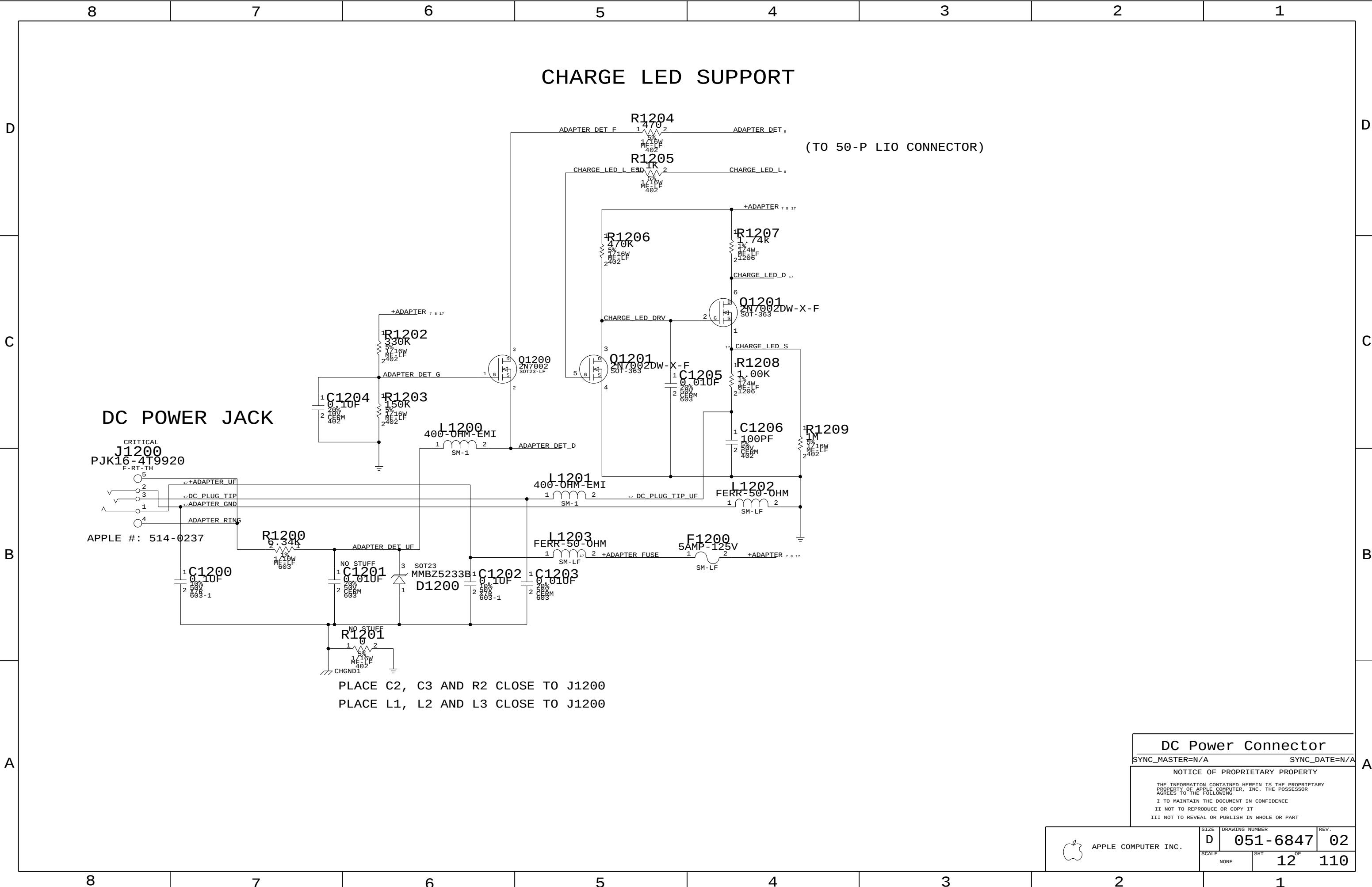
NONE

SHT

7

OF

110



DC Power Connector

SYNC_MASTER=N/A

SYNC_DATE=N/A

NOTICE OF PROPRIETARY PROPERTY

THE INFORMATION CONTAINED HEREIN IS THE PROPRIETARY PROPERTY OF APPLE COMPUTER, INC. THE POSSESSOR AGREES TO THE FOLLOWING

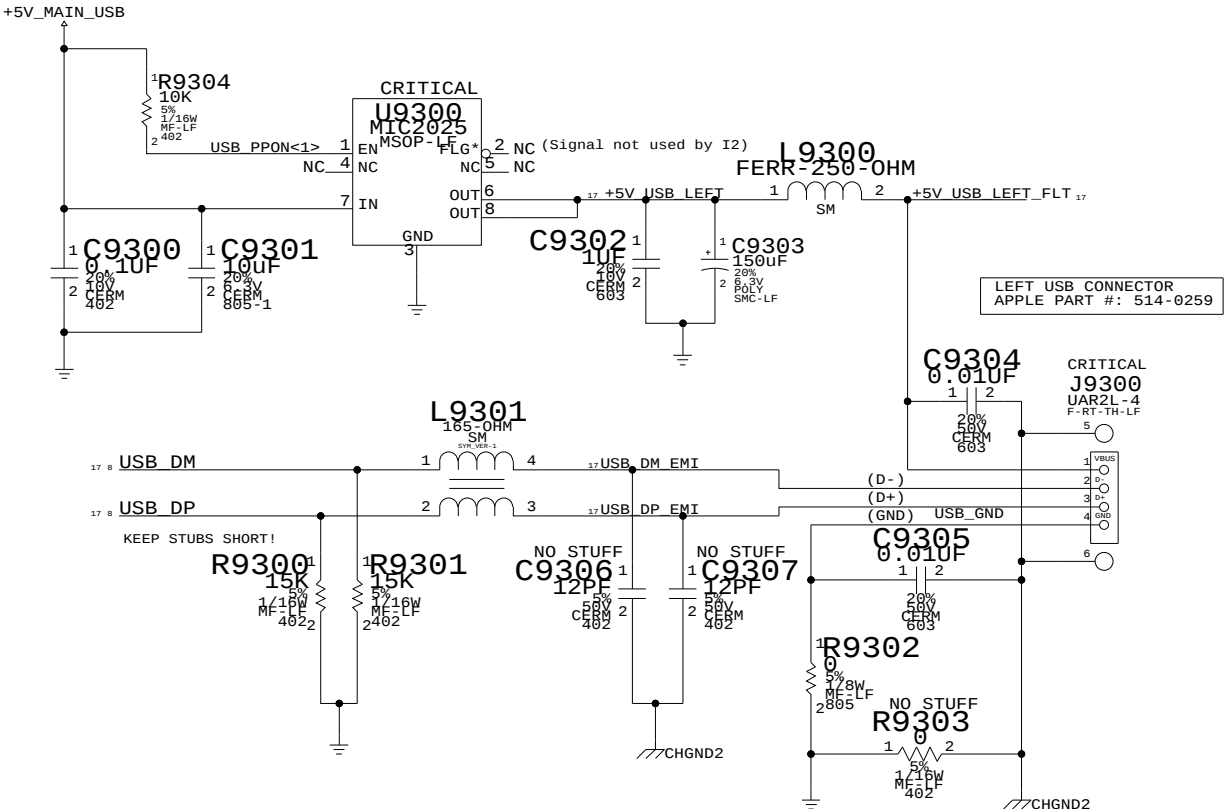
I TO MAINTAIN THE DOCUMENT IN CONFIDENCE

II NOT TO REPRODUCE OR COPY IT

III NOT TO REVEAL OR PUBLISH IN WHOLE OR PART

APPLE COMPUTER INC.	SIZE	DRAWING NUMBER	REV.
	D	051-6847	02
SCALE		SHT	OF
NONE		12	110

LEFT USB CONNECTOR (System Left USB Port)



Place R9302, L9301 ACROSS THE MOAT

Left USB Connector

SYNC_MASTER=N/A SYNC_DATE=N/A

NOTICE OF PROPRIETARY PROPERTY

THE INFORMATION CONTAINED HEREIN IS THE PROPRIETARY PROPERTY OF APPLE COMPUTER, INC. THE POSSESSOR AGREES TO THE FOLLOWING
I TO MAINTAIN THE DOCUMENT IN CONFIDENCE
II NOT TO REPRODUCE OR COPY IT
III NOT TO REVEAL OR PUBLISH IN WHOLE OR PART



APPLE COMPUTER INC.

SIZE	DRAWING NUMBER	REV.
D	051-6847	02
SCALE	SHT	OF
NONE	93	110

ELECTRICAL_CONSTRAINT_SET	NET_TYPE		DIFFERENTIAL_PAIR
	SPACING	PHYSICAL	
	I2S	I2S	

I2S_PCM3052_DTI_R_10

Page Notes

Power aliases required by this page:

- =PP4V2_AUDIO_CODEC_AVDD
- =PP3V3_AUDIO_CODEC_DVDD
- =GND_AUDIO_CODEC_SGND

Signal aliases required by this page:

- =I2C_PCM3052_SCL
- =I2C_PCM3052_SDA
- =I2S_PCM3052_DT0
- =I2S_PCM3052_DTI
- =I2S_PCM3052_MCLK
- =I2S_PCM3052_BITCLK
- =I2S_PCM3052_SYNC

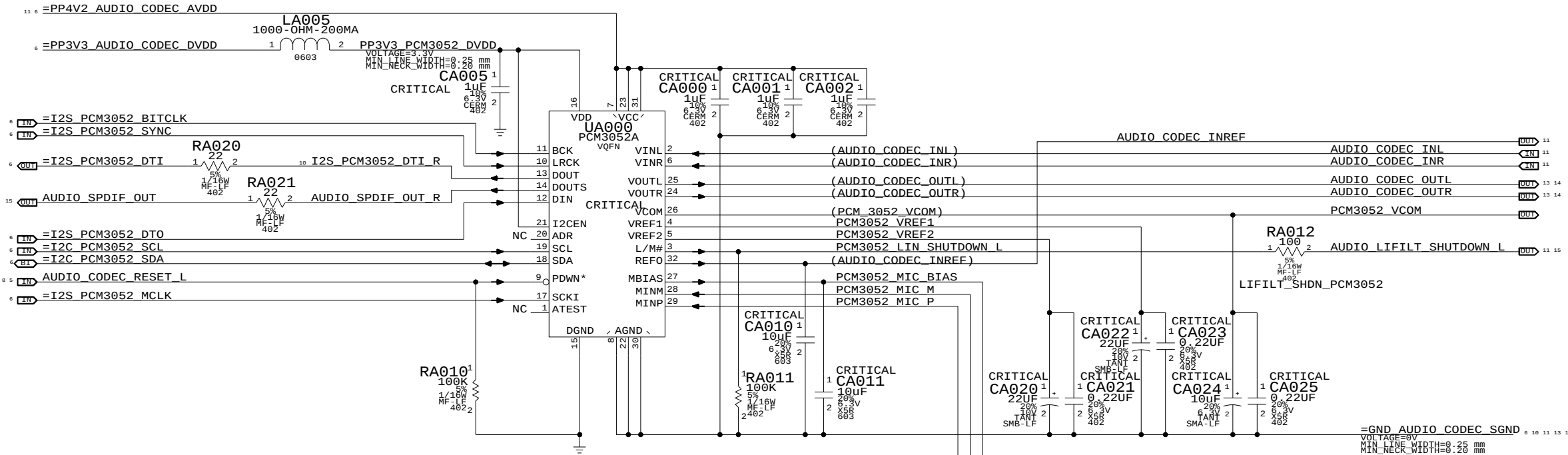
BOM options provided by this page:

(NONE)

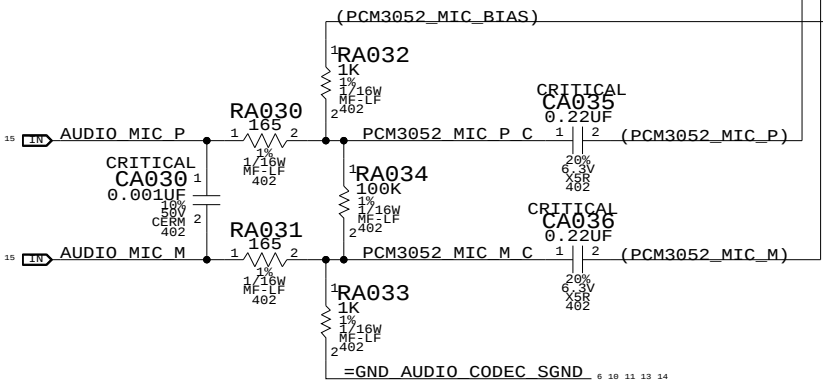
BrownOdio CODEC (TI PCM3052A)

If 3052 uses I2S-a, ADR = NC or low, I2C Addr=8C

If 3052 uses I2S-b, ADR = high, I2C Addr=8E



Microphone Interface



BrownOdio Codec

SYNC_MASTER=SPDIF-AUDIO SYNC_DATE=05/31/2005

NOTICE OF PROPRIETARY PROPERTY

THE INFORMATION CONTAINED HEREIN IS THE PROPRIETARY PROPERTY OF APPLE COMPUTER, INC. THE POSSESSOR AGREES TO THE FOLLOWING

I TO MAINTAIN THE DOCUMENT IN CONFIDENCE

II NOT TO REPRODUCE OR COPY IT

III NOT TO REVEAL OR PUBLISH IN WHOLE OR PART



APPLE COMPUTER INC.

SIZE	DRAWING NUMBER	REV.
D	051-6847	02
SCALE	SHT	OF
NONE	100	110

```
Power aliases required by this page:
- =PP4V2_AUDIO_LIFILT_AVDD
- =GND_AUDIO_CODEC_SGND

Signal aliases required by this page:
(NONE)

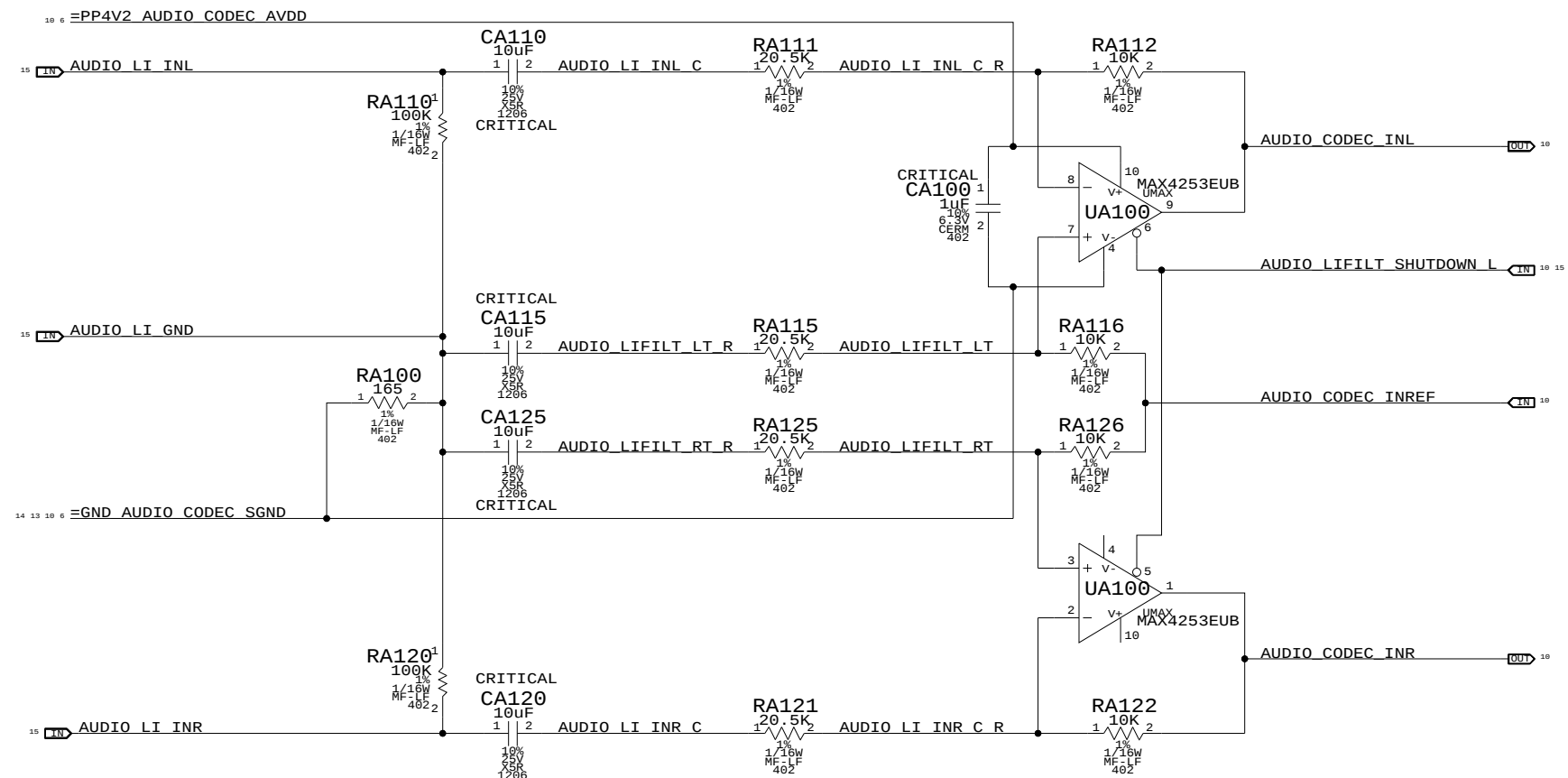
BOM options provided by this page:
(NONE)
```

```
Power aliases required by this page:
- =PP4V2_AUDIO_LIFILT_AVDD
- =GND_AUDIO_CODEC_SGND

Signal aliases required by this page:
(NONE)

BOM options provided by this page:
(NONE)
```

Pseudo-Diff Line-In Filter
Gain = -6.24dB $A_v = 0.49$
 $F_c = 0.78$ Hz



Line In Filter

NOTICE OF PROPRIETARY PROPERTY

NOTICE OF PROPRIETARY PROPERTY

THE INFORMATION CONTAINED HEREIN IS THE PROPRIETARY
PROPERTY OF APPLE COMPUTER, INC. THE POSSESSOR
AGREES TO THE FOLLOWING

I TO MAINTAIN THE DOCUMENT IN CONFIDENCE

II NOT TO REPRODUCE OR COPY IT

III NOT TO REVEAL OR PUBLISH IN WHOLE OR PART



APPLE COMPUTER INC.

SIZE	DRAWING NUMBER	REV.
D	051-6847	02
SCALE	SHT OF	
NONE	101 110	

I2S	I2SMUX	MCLK	OUT	R	12
I2S	I2SMUX	DTI	OUT	R	12
I2S	CS8416	DTI	R		12
I2S	CS8416	RMCK	R		12
I2S	CS8416	BITCLK	R		12
I2S	CS8416	SYNC	R		12
I2S	CS8416	DTI			12
I2S	CS8416	RMCK			12

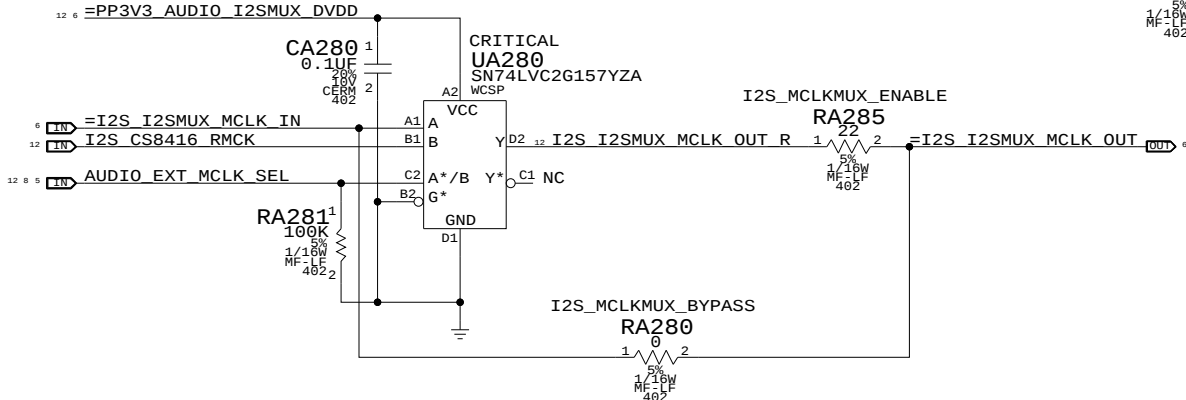
aliases required by this package

Signal aliases required by this page:

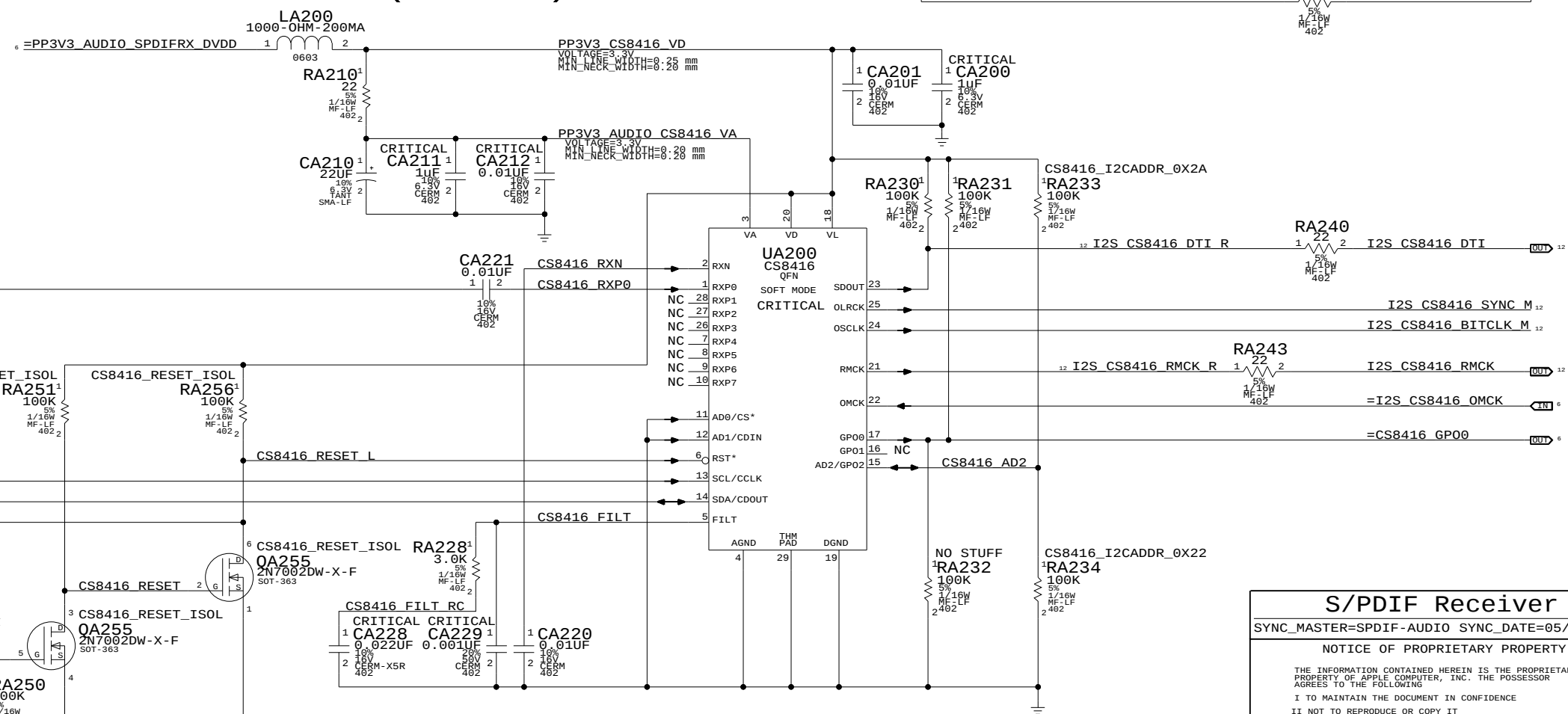
BOM options provided by this page:

- CS8416_I2CADDR_0X22 / CS8416_I2CADDR_0X2A
Selects between two I2C addresses for CS8416.
- CS8416_RESET_ISOL / CS8416_RESET_NOISOL
Stuffs or bypasses isolation circuit for CS8416 RESET input. This circuit protects the CS8416 from leakage on the RESET GPIO from I/O ASIC.
- I2S_MCLKMUX_ENABLE / I2S_MCLKMUX_BYPASS
Connects or bypasses I2S MCLK mux circuit. When enabled, I/O ASIC GPIO AUDIO_EXT_MCLK_SEL selects CS8416 MCLK output instead of I/O ASIC MCLK output to be used as input to CODEC circuit.
- I2S_CLKSW_ENABLE / I2S_CLKSW_BYPASS
Enable or disable UA270 tristate functionality for SYNC and BITCLK
Allows for alternate method of removing CS4216 from the hostbus when SB I2S a is in Master mode.

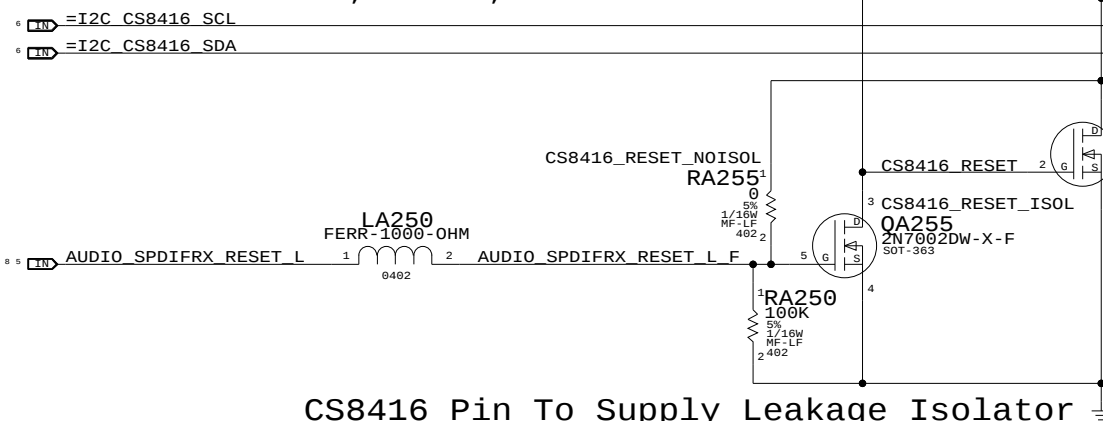
CODEC receives either host I2S bus MCLK or CS8416 RMCK



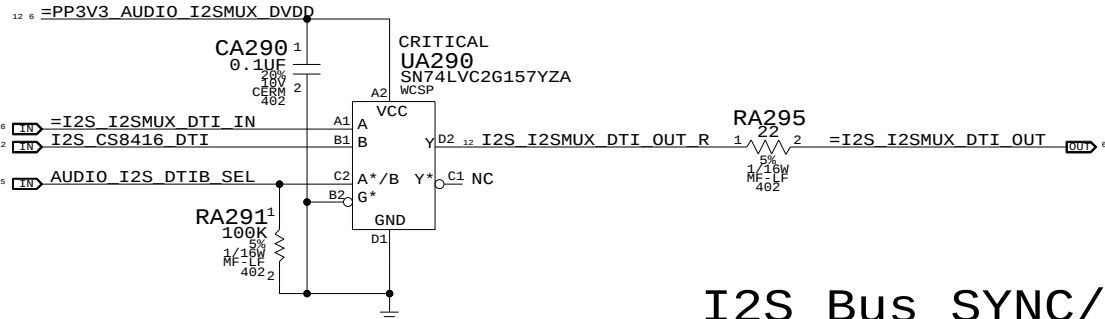
LA200



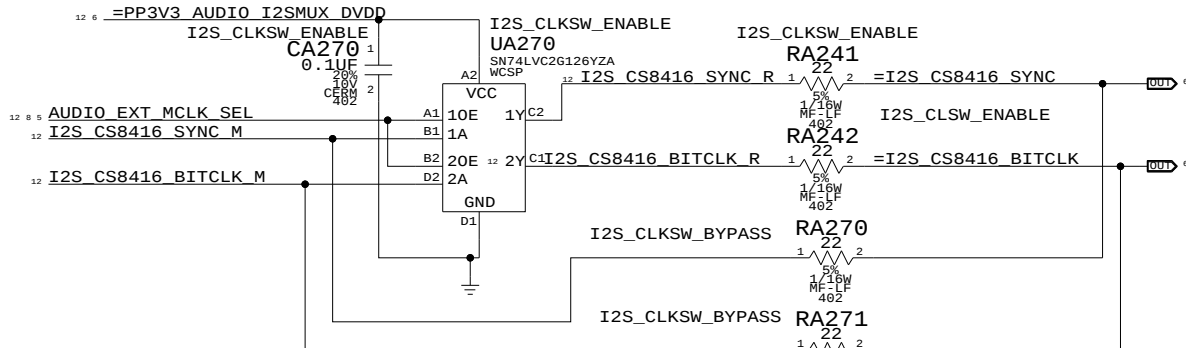
i2s-a	AD2=0, AD1=0, AD0=0
i2s-b	AD2=0, AD1=0, AD0=1
i2s-c	AD2=0, AD1=1, AD0=0
i2s-d	AD2=0, AD1=1, AD0=1



Host bus receives either CODEC DTI or CS8416 DTI



Host bus SYNC/BITCLK direction switch



SYNC MASTER=SPDIF-AUDIO SYNC DATE=05/31/2005

THE INFORMATION CONTAINED HEREIN IS THE PROPRIETARY
PROPERTY OF APPLE COMPUTER, INC. THE POSSESSOR
AGREES TO THE FOLLOWING

I TO MAINTAIN THE DOCUMENT IN CONFIDENCE

II NOT TO REPRODUCE OR COPY IT
III NOT TO REVEAL OR PUBLISH IN WHOLE OR PART



SIZE D	DRAWING NUMBER 051-6847	REV. 02
SCALE NONE	SHT 102	OF 110

ELECTRICAL_CONSTRAINT_SET	NET_TYPE		DIFFERENTIAL_PAIR
	SPACING	PHYSICAL	
	AUDIO	AUDIO	AUDIO_HPAMP_OUTL_R_13
	AUDIO	AUDIO	AUDIO_HPAMP_OUTR_R_13
	AUDIO	AUDIO	AUDIO_HPAMP_OUTL_13_15
	AUDIO	AUDIO	AUDIO_HPAMP_OUTR_13_15

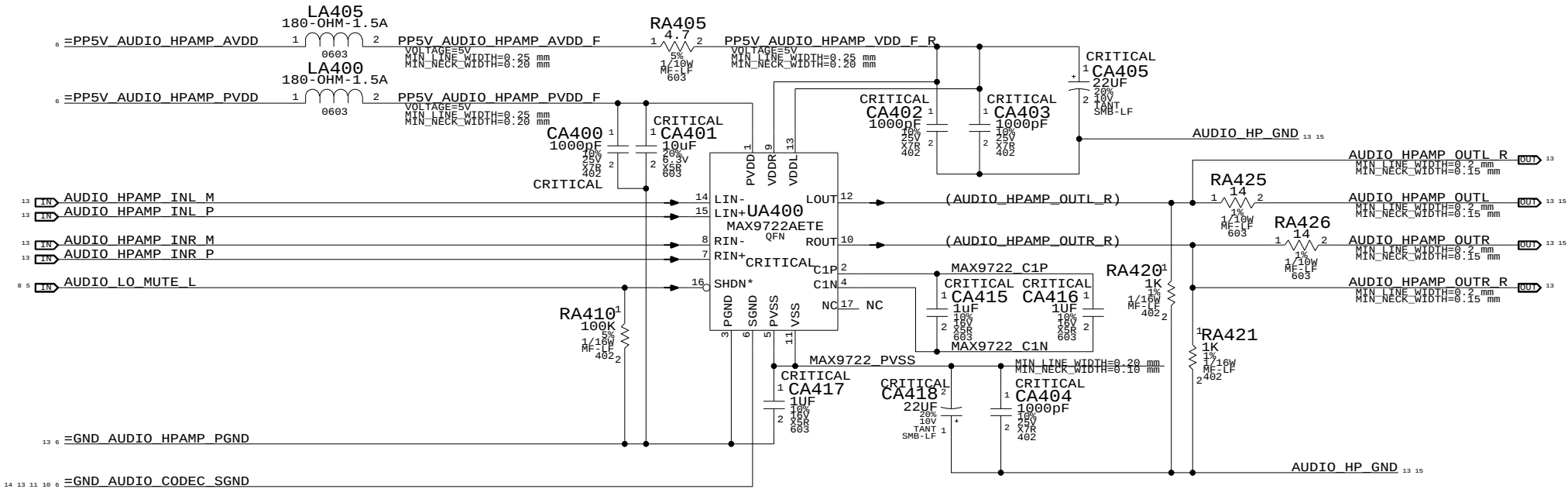
Page Notes

Power aliases required by this page:
- =PP5V_AUDIO_HPAMP_AVDD
- =PP5V_AUDIO_HPAMP_PVDD
- =GND_AUDIO_HPAMP_PGND (GND for power)
- =GND_AUDIO_HPAMP_SGND (GND for signal)
- =GND_AUDIO_CODEC_SGND
- =GND_AUDIO_HP_STAR_GND

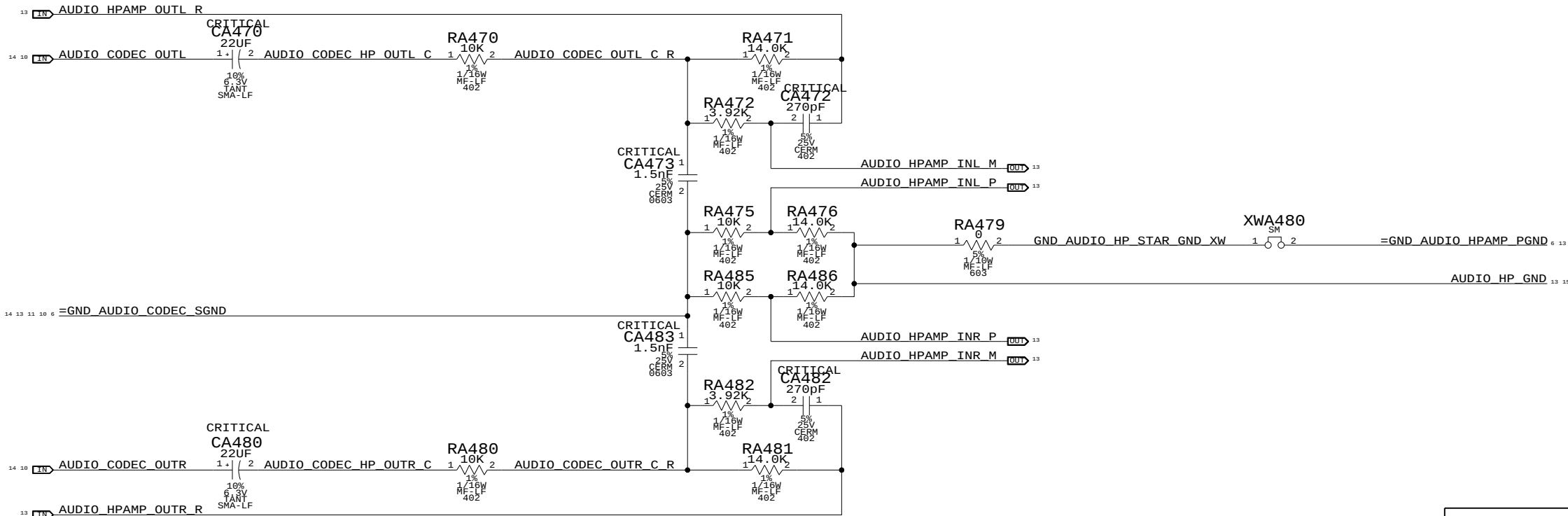
Signal aliases required by this page:
(NONE)

BOM options provided by this page:
(NONE)

Headphone Amplifier (MAX9722)



2nd Order DAC Filter



Headphone Amp

SYNC_MASTER=SPDIF-AUDIO SYNC_DATE=05/31/2005

NOTICE OF PROPRIETARY PROPERTY

THE INFORMATION CONTAINED HEREIN IS THE PROPRIETARY PROPERTY OF APPLE COMPUTER, INC. THE POSSESSOR AGREES TO THE FOLLOWING
I TO MAINTAIN THE DOCUMENT IN CONFIDENCE
II NOT TO REPRODUCE OR COPY IT
III NOT TO REVEAL OR PUBLISH IN WHOLE OR PART



APPLE COMPUTER INC.

SIZE	DRAWING NUMBER	REV.
D	051-6847	02
SCALE	SHT	OF
NONE	104	110

Power aliases required by this page:

- =PP5V_AUDIOIO_SPKRAMP_PVDD
- =PP5V_AUDIOIO_SPKRAMP_AVDD
- =GND_AUDIOIO_SPKRAMP_PGND (GND for power)
- =GND_AUDIOIO_SPKRAMP_SGND (GND for signal)

Signal aliases required by this page:

(NONE)

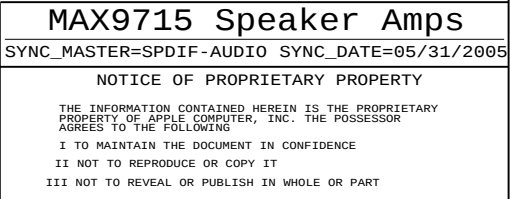
BOM options provided by this page:

- 10DBS_GAIN

MAX9715 GAIN is set through this pin

HIGH = 9dB

LOW = 10.5dB



ELECTRICAL_CONSTRAINT_SET	NET_TYPE		DIFFERENTIAL_PAIR
	SPACING	PHYSICAL	
□	AUDIO	AUDIO	AUDIO LOCONN OUTL F
□	AUDIO	AUDIO	AUDIO LOCONN OUTR F
□	AUDIO	AUDIO	AUDIO LOCONN GND F
□	AUDIO	AUDIO	AUDIO LOCONN OUTL
□	AUDIO	AUDIO	AUDIO LOCONN OUTR
□	AUDIO	AUDIO	AUDIO LOCONN GND
□	AUDIO	AUDIO	AUDIO HP GND

Page Notes

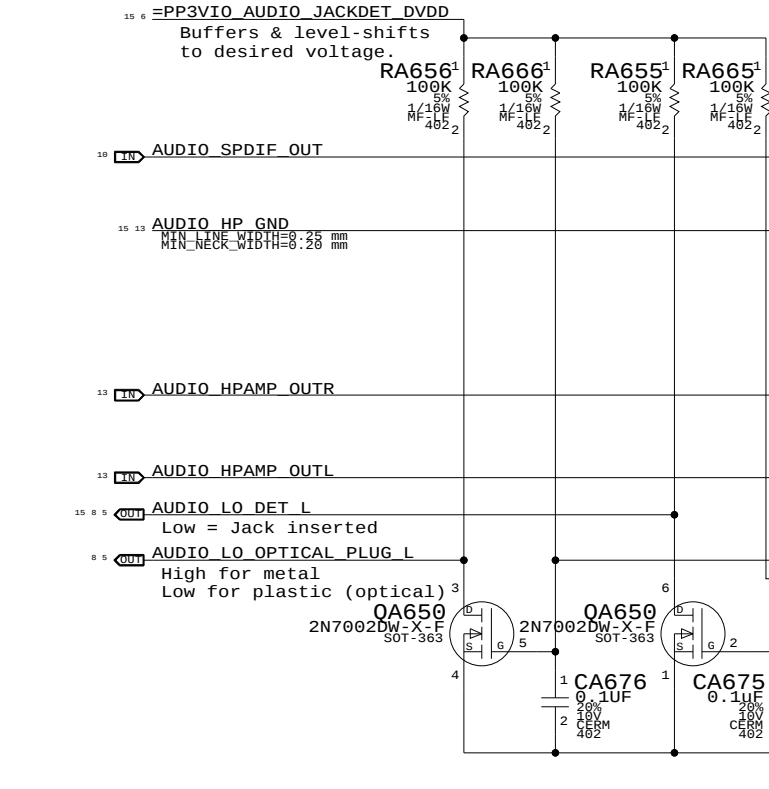
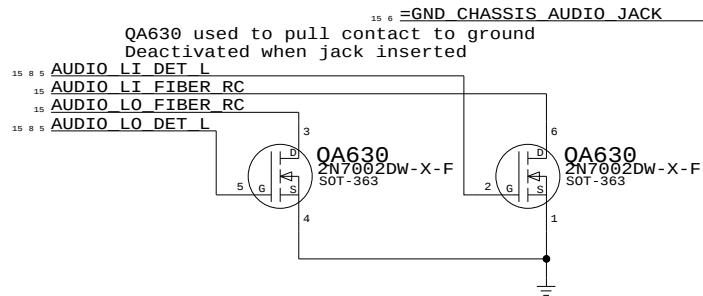
Power aliases required by this page:

- =PP3V3_AUDIO_JACK_DVDD
- =PPVIO_AUDIO_JACKDET_DVDD
- =GND_AUDIO_SPKRAMP_PGND
- =GND_CHASSIS_AUDIO_JACK

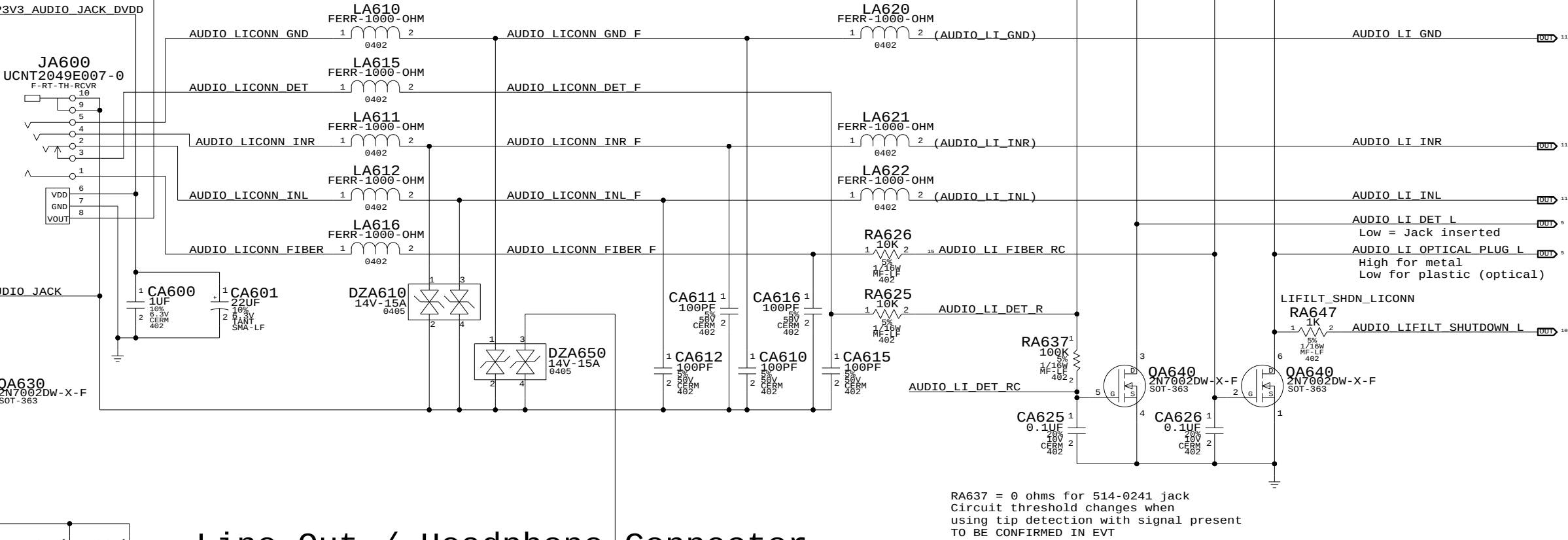
Signal aliases required by this page:
(NONE)

BOM options provided by this page:

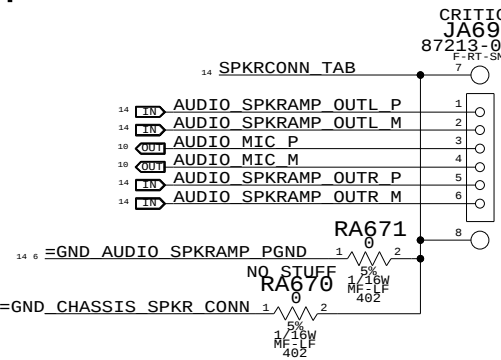
- LIFILT_SHDN_LICONN
Uses line-in connector optical plug detect to control line-in filter shutdown signal. When no cable or an optical cable is inserted, this signal will be low, so it can be used as an active-low shutdown for the line-in filter circuit.
BOM option to be confirmed and made permanent in EVT



Line-In Connector



Speaker/Mic Connector



Audio Connectors		
SYNC_MASTER=SPDIF-AUDIO SYNC_DATE=05/31/2005		
NOTICE OF PROPRIETARY PROPERTY		
THE INFORMATION CONTAINED HEREIN IS THE PROPRIETARY PROPERTY OF APPLE COMPUTER, INC. THE POSSESSOR AGREES TO THE FOLLOWING		
I TO MAINTAIN THE DOCUMENT IN CONFIDENCE		
II NOT TO REPRODUCE OR COPY IT		
III NOT TO REVEAL OR PUBLISH IN WHOLE OR PART		

APPLE COMPUTER INC.	SIZE	DRAWING NUMBER	REV.
	D	051-6847	02
SCALE	SHT		OF
	NONE		106 110

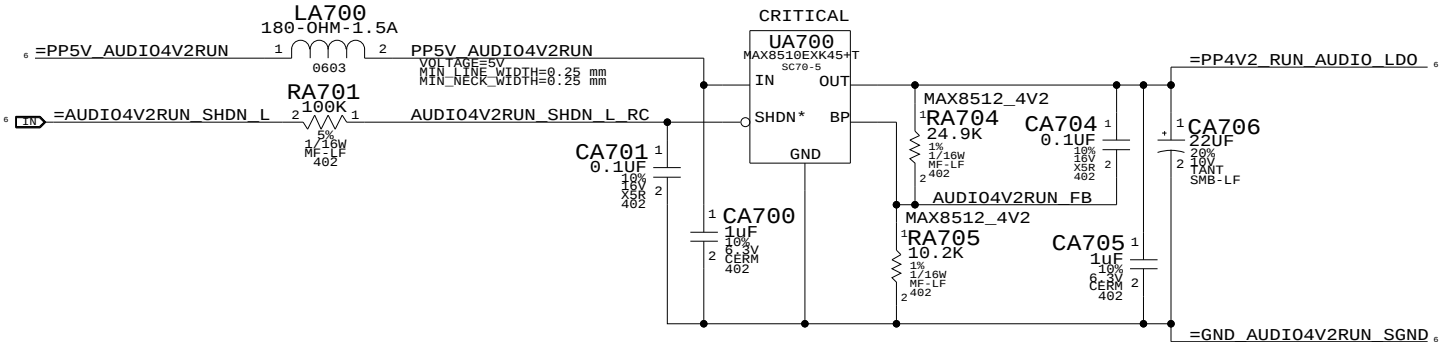
Page Notes

Power aliases required by this page:
- =PP5V_AUDIOI04V2RUN
- =PP4V2_RUN_AUDIO_LDO
- =GND_AUDIOI04V2RUN_SGND

Signal aliases required by this page:
- =AUDIO4V2RUN_SHDN_L

BOM options provided by this page:
- MAX8512_4V2
Used when MAX8512 is stuff at UA700
MAX8512 is an adjustable regulator that needs RA704/705 to program Vout

Audio 4.5V LDO (CODEC)



UA700 to be verified and confirmed in proto
Component option in order of preference
-MAX8510EXK45-T(353S0960) 4.5V Fixed regulator
-MAX8510EXK42-T (New part) 4.2V Fixed regulator
-MAX8512EXK-T(353S1110) Adjustable regulator

Audio Power Supply

SYNC_MASTER=SPDIF-AUDIO SYNC_DATE=05/31/2005

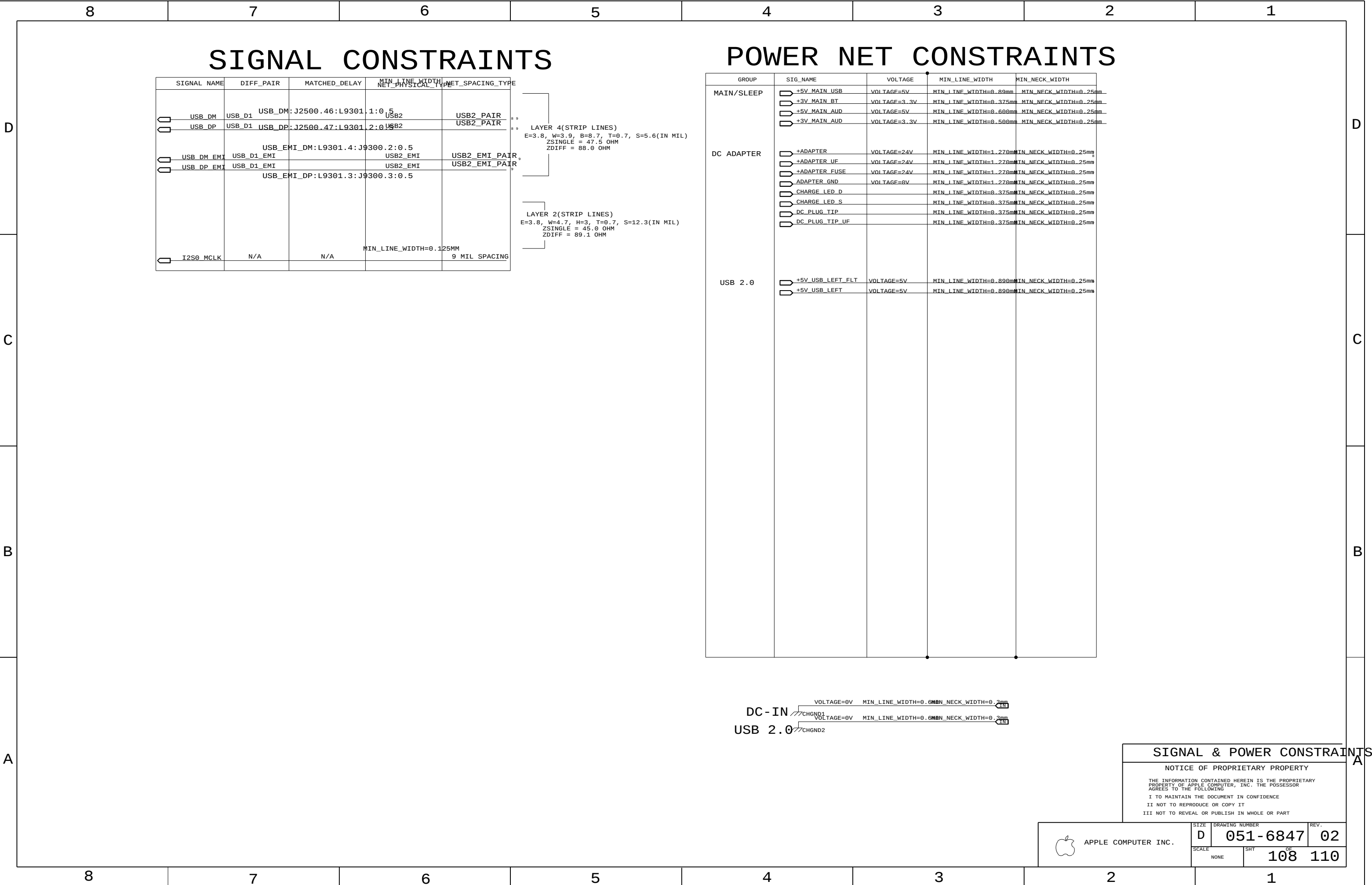
NOTICE OF PROPRIETARY PROPERTY

THE INFORMATION CONTAINED HEREIN IS THE PROPRIETARY PROPERTY OF APPLE COMPUTER, INC. THE POSSESSOR AGREES TO THE FOLLOWING
I TO MAINTAIN THE DOCUMENT IN CONFIDENCE
II NOT TO REPRODUCE OR COPY IT
III NOT TO REVEAL OR PUBLISH IN WHOLE OR PART



APPLE COMPUTER INC.

SIZE	DRAWING NUMBER	REV.
D	051-6847	02
SCALE	SHT	OF
NONE	107	110



[illegible]

8		7		6		5		4		3		2		1	
D	C	B	A	*** Part Cross-Reference for the entire design ***											
				B52 PCB_STANDOFF 2											
				B53 PCB_STANDOFF 2											
				C1200 CAP 7											
				C1201 CAP 7											
				C1202 CAP 7											
				C1203 CAP 7											
				C1204 CAP 7											
				C1205 CAP 7											
				C1206 CAP 7											
				C2501 CAP 8											
				C3300 CAP 9											
				C9301 CAP 9											
				C9302 CAP 9											
				C9303 CAP_P 9											
				C9304 CAP 9											
				C9305 CAP 9											
				C9306 CAP 9											
				C9307 CAP 9											
				CA000 CAP 10											
				CA001 CAP 10											
				CA002 CAP 10											
				CA005 CAP 10											
				CA010 CAP 10											
				CA011 CAP 10											
				CA020 CAP_P 10											
				CA021 CAP 10											
				CA022 CAP_P 10											
				CA023 CAP 10											
				CA024 CAP_P 10											
				CA025 CAP 10											
				CA030 CAP 10											
				CA035 CAP 10											
				CA036 CAP 10											
				CA100 CAP 11											
				CA110 CAP 11											
				CA115 CAP 11											
				CA120 CAP 11											
				CA125 CAP 11											
				CA200 CAP 12											
				CA201 CAP 12											
				CA210 CAP_P 12											
				CA211 CAP 12											
				CA212 CAP 12											
				CA220 CAP 12											
				CA221 CAP 12											
				CA228 CAP 12											
				CA229 CAP 12											
				CA270 CAP 12											
				CA280 CAP 12											
				CA290 CAP 12											
				CA400 CAP 13											
				CA401 CAP 13											
				CA402 CAP 13											
				CA403 CAP 13											
				CA404 CAP 13											
				CA405 CAP_P 13											
				CA415 CAP 13											
				CA416 CAP 13											
				CA417 CAP 13											
				CA418 CAP_P 13											
				CA470 CAP_P 13											
				CA472 CAP 13											
				CA473 CAP 13											
				CA480 CAP_P 13											
				CA482 CAP 13											
				CA483 CAP 13											
				CA500 CAP 14											
				CA510 CAP 14											
				CA515 CAP 14											
				CA516 CAP 14											
				CA550 CAP 14											
				CA560 CAP 14											
				CA580 CAP_P 14											
				CA590 CAP 14											
				CA591 CAP 14											
				CA592 CAP 14											
				CA593 CAP 14											
				CA600 CAP 15											
				CA601 CAP_P 15											
				CA610 CAP 15											
				CA611 CAP 15											
				CA612 CAP 15											
				CA615 CAP 15											
				CA616 CAP 15											
				CA625 CAP 15											
				CA626 CAP 15											
				CA675 CAP 15											
				CA676 CAP 15											
				CA680 CAP 15											
				CA681 CAP 15											
				CA682 CAP 15											
				CA685 CAP 15											
				CA686 CAP 15											
				CA690 CAP 15											
				CA700 CAP 16											
				CA701 CAP 16											
				CA704 CAP 16											
				CA705 CAP 16											
				CA706 CAP_P 16											
				D1200 ZENER 7											
				DZ0010 SUPPR_TRANSIENT_4P1 15											
				DZ0050 SUPPR_TRANSIENT_4P1 15											
				F1200 FUSE 7											
				J1200 CON_F3RT_S2HT_TH3 7											
				J2500 CON_MS60M_5MM 8											
				J2501 CON_M4RT_5_5M 8											
				J9300 CON_F4RT_USB_S2MT_TH 9											
				JA600 CON_FBRT_SPOIFRCVR_TH2 15											
				JA600 CON_FBRT_SPOIFTRAN_TH2 15											
				JA699 CON_F6RT_S2HT_SM 15											
				L1200 IND 7											
				L1201 IND 7											
				L1202 IND 7											
				L1203 IND 7											
				L5300 IND 9											
				L9301 FILTER_4P 9											
				LA005 IND 10											
				LA200 IND 12											
				LA250 IND 12											
				LA400 IND 13											
				LA405 IND 13											
				LA500 IND 14											
LA501 IND 14															
LA502 IND 14															
LA503 IND 14															
LA505 IND 14															
LA506 IND 14															
LA610 IND 15															
LA611 IND 15															
LA612 IND 15															
LA615 IND 15															
LA616 IND 15															
LA620 IND 15															
LA621 IND 15															
LA622 IND 15															
LA670 IND 15															
LA671 IND 15															
LA672 IND 15															
LA680 IND 15															
LA681 IND 15															
LA682 IND 15															
LA685 IND 15															
LA686 IND 15															
LA700 IND 16															
Q1200 TRA_2N7002 7															
Q1201 TRA_2N7002DW 7															
Q0355 TRA_2N7002DW 12															
Q0630 TRA_2N7002DW 15															
Q0640 TRA_2N7002DW 15															
Q0650 TRA_2N7002DW 15															
R1200 RES 7															
R1201 RES 7															
R1202 RES 7															
R1203 RES 7															
R1204 RES 7															
R1205 RES 7															
R1206 RES 7															
R1207 RES 7															
R1208 RES 7															
R1209 RES 7															
R9300 RES 9															
R9301 RES 9															
R9302 RES 9															
R9303 RES 9															
R9304 RES 9															
RA010 RES 10															
RA011 RES 10															
RA012 RES 10															
RA020 RES 10															
RA021 RES 10															
RA030 RES 10															
RA031 RES 10															
RA032 RES 10															
RA033 RES 10															
RA034 RES 10															
RA100 RES 11															
RA110 RES 11															
RA111 RES 11															
RA112 RES 11															
RA115 RES 11															
RA116 RES 11															
RA120 RES 11															
RA121 RES 11															
RA122 RES 11															
RA125 RES 11															
RA126 RES 11															
RA210 RES 12															
RA228 RES 12															
RA230 RES 12															
RA231 RES 12															
RA232 RES 12															
RA233 RES 12															
RA234 RES 12															
RA240 RES 12															
RA241 RES 12															
RA242 RES 12															
RA243 RES 12															
RA250 RES 12															
RA251 RES 12															
RA255 RES 12															
RA256 RES 12															
RA270 RES 12															
RA271 RES 12															
RA280 RES 12															
RA281 RES 12															
RA285 RES 12															
RA291 RES 12															
RA295 RES 12															
RA405 RES 13															
RA410 RES 13															
RA420 RES 13															
RA421 RES 13															
RA425 RES 13															
RA426 RES 13															
RA470 RES 13															
RA471 RES 13															
RA472 RES 13															
RA475 RES 13															
RA476 RES 13															
RA479 RES 13															
RA480 RES 13															
RA481 RES 13															
RA482 RES 13															
RA485 RES 13															
RA486 RES 13															
RA565 RES 14															
RA566 RES 14															
RA567 RES 14															
RA625 RES 15															
RA626 RES 15															
RA635 RES 15															
RA636 RES 15															
RA637 RES 15															
RA645 RES 15															
RA646 RES 15															
RA647 RES 15															
RA655 RES 15															
RA656 RES 15															
RA655 RES 15															
RA656 RES 15															
RA667 RES 15															
RA670 RES 15															
RA671 RES 15															
RA675 RES 15															
RA676 RES 15															
RA701 RES 16															
RA704 RES 16															
RA705 RES 16															
SP1 SPRING_CLIP_1P_EMI 2															
SP2 SPRING_CLIP_1P_EMI 2															
SP3 SPRING_CLIP_1P_EMI 2															
SP4 SPRING_CLIP_1P_EMI 2															
U9300 SMT_MTC2825 9															
UA000 AUDIO_PCH0052A 10															
UA100 OPAMP_MAX4253 11															
UA200 CS8416_SHORT 12															
UA270 SN74LVC2G12V2ZA 12															
UA280 SN74LVC2G157YZA 12															
UA290 SN74LVC2G157YZA 12															
UA600 MAX9722 13															
UA600 MAX9715 14															
UA601 MAX4721 14															
UA700 MAX9510 16															
XW1101 SHORT 6															
XW6480 SHORT 13															
ZT2 MTGHOLE 2															
ZT0200 MTGHOLE 2															

110