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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.


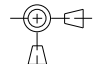
REV	ZONE	ECN	DESCRIPTION OF CHANGE	CK APPD	ENG APPD
				DATE	DATE
				?	?

SCHEM, LIO, MBP 15"

04/20/07

PDF PAGE	CSA PAGE	CONTENTS	SYNC MASTER	DATE
1	1	Table of Contents		
2	2	Block Diagram		
3	4	BOM Configuration	(Master)	(Master)
4	9	Aliases	(Master)	(Master)
5	34	PCI-E MiniCard Connector	(Master)	(Master)
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7	36	MLB I/O Board Connector	(Master)	(Master)
8	46	Left USB Port	(Master)	(Master)
9	56	Current & Thermal Sensors	(Master)	(Master)
10	62	AUDIO:CODEC	LENGO_M75_AUDIO	03/20/2007
11	65	AUDIO: HEADPHONE AMP	LENGO_M75_AUDIO	03/20/2007
12	66	AUDIO:SPEAKER AMP	LENGO_M75_AUDIO	03/20/2007
13	67	AUDIO: JACKS	LENGO_M75_AUDIO	03/20/2007
14	68	AUDIO: JACK TRANSLATORS	LENGO_M75_AUDIO	03/20/2007
15	69	DC-In & Battery Connectors	(Master)	(Master)
16	76	5V/3.3V SUPPLY	<MASTER>	<MASTER>
17	79	PBus Supply & Batt. Charger	(Master)	(Master)
18	90	Inverter Connector	SPLIT_INVERTER	12/06/2006
19	98	Inverter Support	SPLIT_INVERTER	01/31/2007
20	99	Inverter Control IC	SPLIT_INVERTER	01/31/2007

PART#	QTY	DESCRIPTION	REFERENCE DESIGNATOR(S)	CRITICAL	BOM OPTION
051-7226	1	SCHEM, BANDCAMP, M75	SCH1	CRITICAL	
820-2102	1	PCBF, BANDCAMP, M75	PCB1	CRITICAL	

DIMENSIONS ARE IN MILLIMETERS		METRIC		 Apple Computer Inc.	
XX : _____	_____	DRAPPER	DESIGN CK	NOTICE OF PROPRIETARY PROPERTY THE INFORMATION CONTAINED HEREIN IS THE PROPRIETARY PROPERTY OF APPLE COMPUTER, INC. THE POSSESSOR AGREES TO THE FOLLOWING: I. TO MAINTAIN THE DOCUMENT IN CONFIDENCE II. NOT TO REPRODUCE OR COPY IT III. NOT TO REVEAL OR PUBLISH IN WHOLE OR PART	
X.XX : _____	_____	ENG APPD	MFG APPD		
X.XXX : _____	_____	QA APPD	DESIGNER		
ANGLES : _____	_____	RELEASE	SCALE		
DO NOT SCALE DRAWING		NONE		SCHEM, LIO, MBP 15	
 THIRD ANGLE PROJECTION		MATERIAL/FINISH NOTED AS APPLICABLE			
		SIZE D		SHT 1 OF 20	

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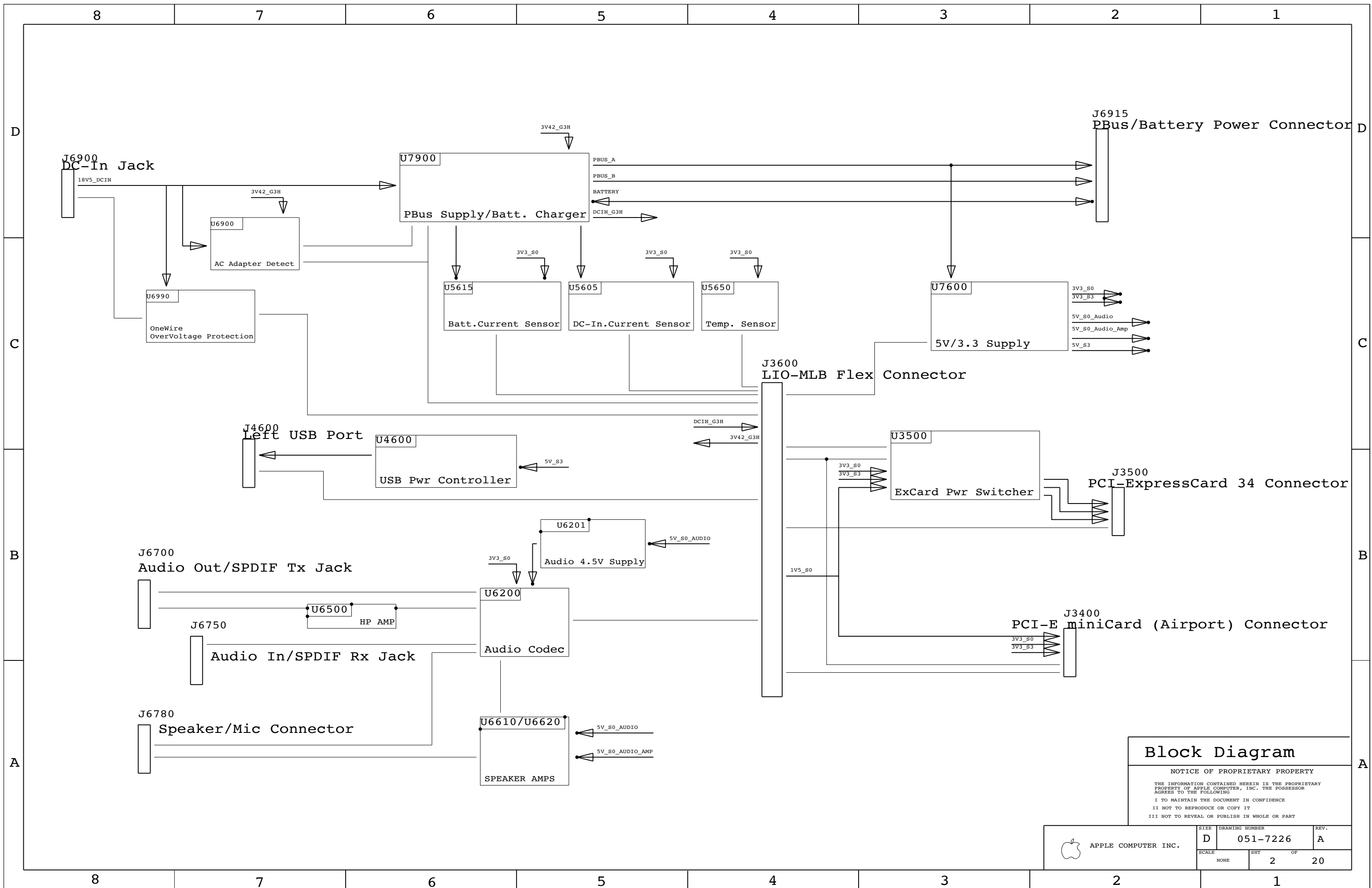
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Block Diagram

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	D	051-7226	A
SCALE	SHT	OF	REV.
NONE	2	20	

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BOM NUMBER	BOM NAME	BOM OPTIONS
630-7933	PCBA, BANDCAMP, M75	ALTERNATE, COMMON, M75_COMMON, INV_BYPASS, X5F
630-8087	PCBA, BAGOFINFINITE, M75	ALTERNATE, COMMON, M75_COMMON, INV_BYPASS, XPV
BOM GROUP	BOM OPTIONS	
M75_COMMON	ISL6257H	

Bar Code Label / EEE #'s


PART NUMBER	QTY	DESCRIPTION	REFERENCE DES	CRITICAL	BOM OPTION
000-0041	1	PLACEHOLDER FOR EEE/CCC INFO	[EEE:X5F]	CRITICAL	X5F
000-0041	1	PLACEHOLDER FOR EEE/CCC INFO	[EEE:XPV]	CRITICAL	XPV

Alternate Parts

PART NUMBER	ALTERNATE FOR PART NUMBER	BOM OPTION	REF DES	COMMENTS:
37680448	37680445		ALL	SI7806ADN for FSM6296
12880081	12880061		ALL	150uF, 6.3V, 25MOHM, C2
12880093	12880092		ALL	33UF, 16V, 45MOHM, D2E
35381717	35381297		ALL	LM397, COMPARATOR
37680560	37680532		ALL	SI7909DN for SI7913DN

www.vinafix.vn

BOM Configuration	
SYNC_MASTER=(Master)	SYNC_DATE=(Master)
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 APPLE COMPUTER INC.	SIZE	DRAWING NUMBER	REV.
	D	051-7226	A
SCALE	SHT OF		
NONE	3 OF		20

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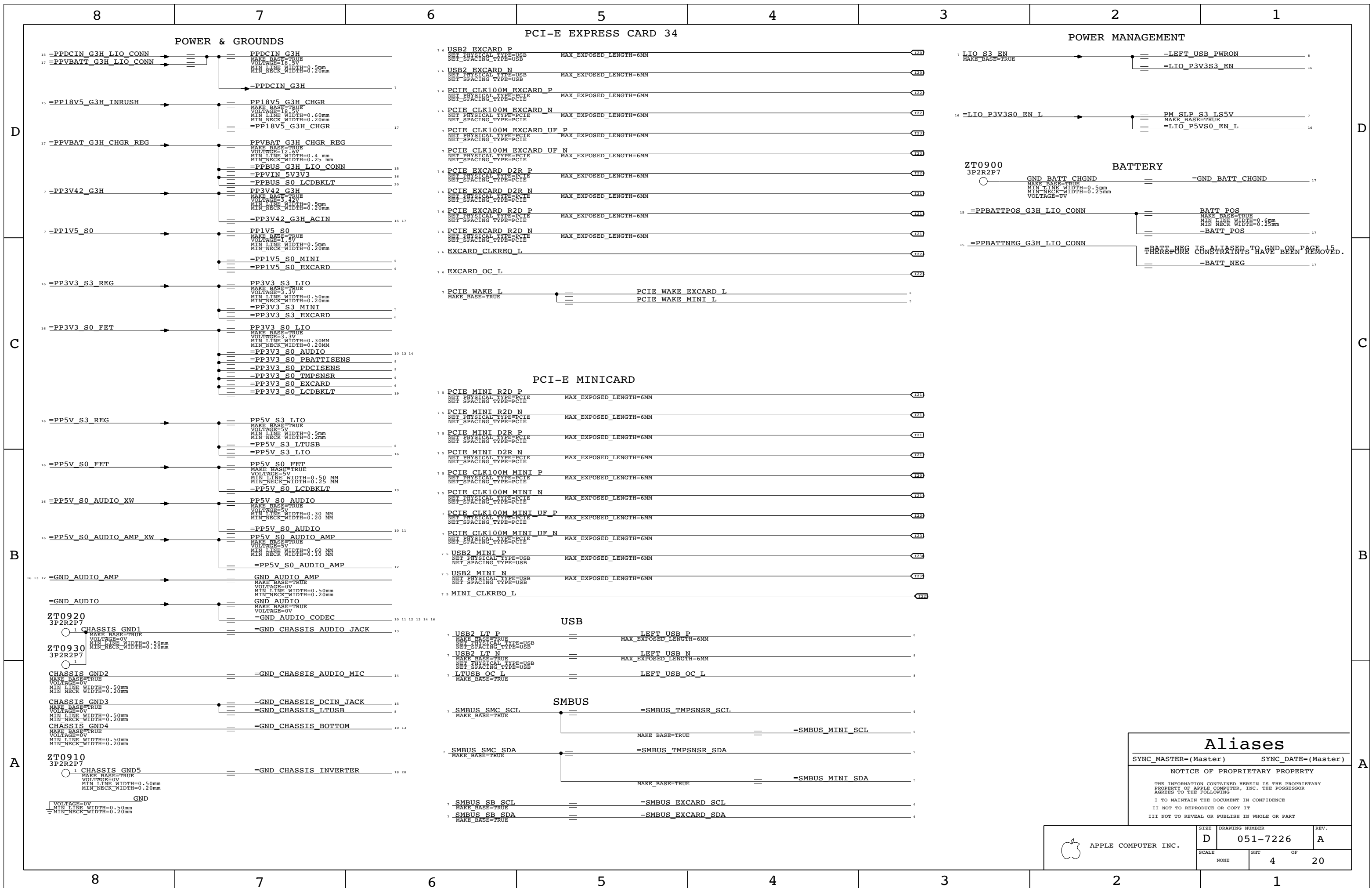
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Aliases

SYNC_MASTER=(Master) SYNC_DATE=(Master)

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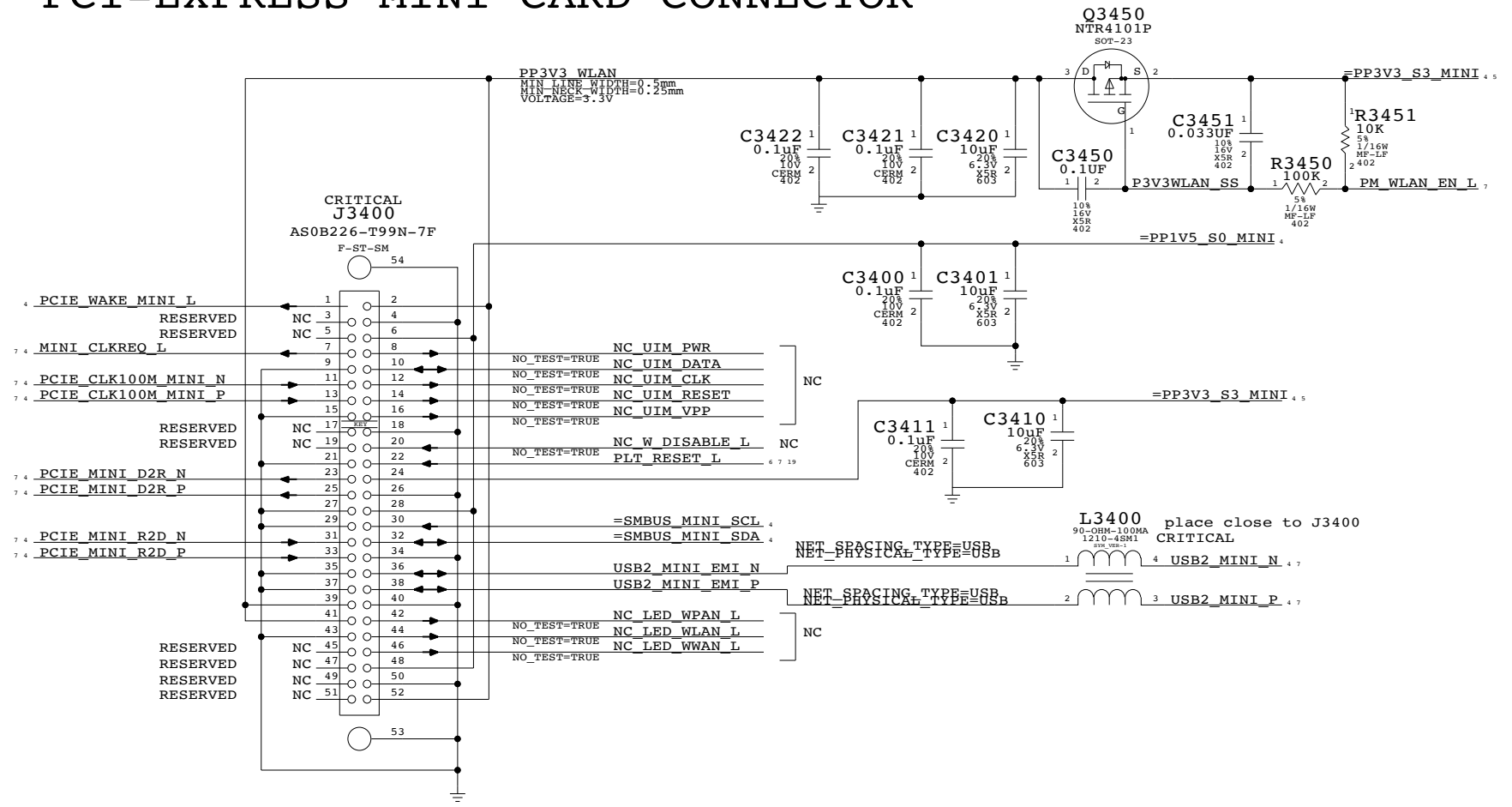
I TO MAINTAIN THE DOCUMENT IN CONFIDENCE

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APPLE COMPUTER INC.	SIZE	DRAWING NUMBER	REV.
	D	051-7226	A
SCALE	SHT OF		REV.
NONE	4 OF		20

PCI-EXPRESS MINI CARD CONNECTOR

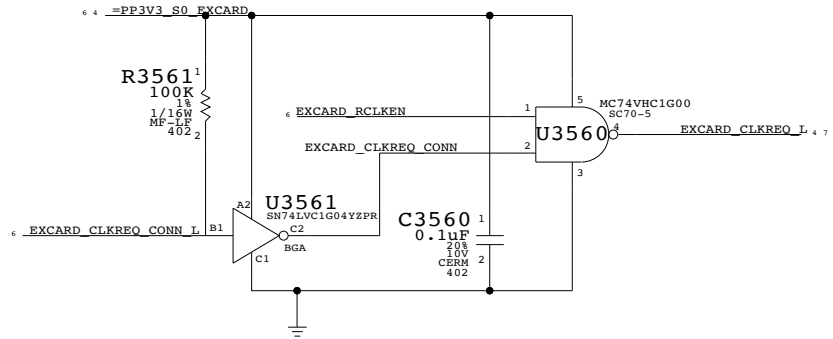
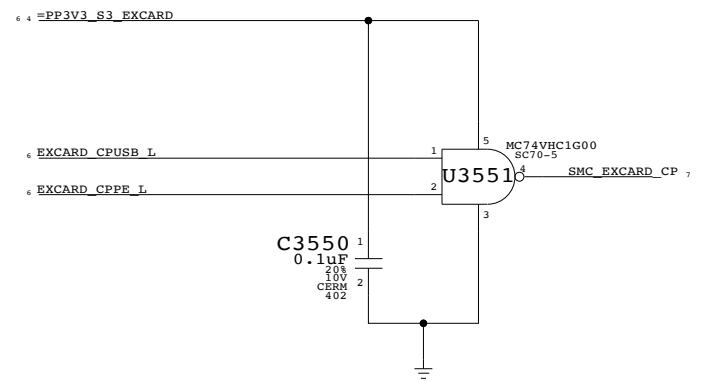
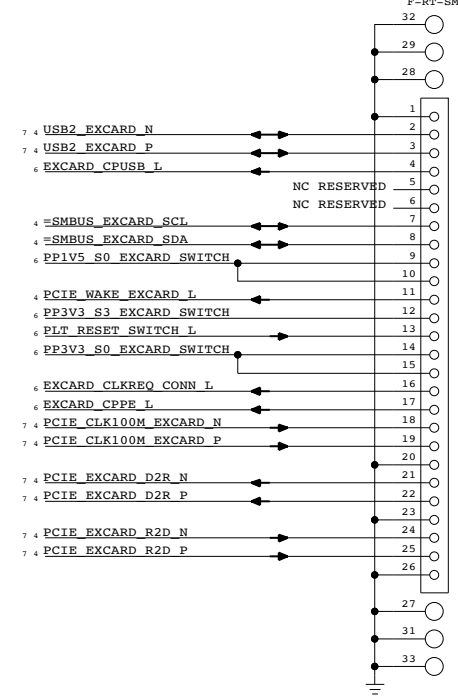
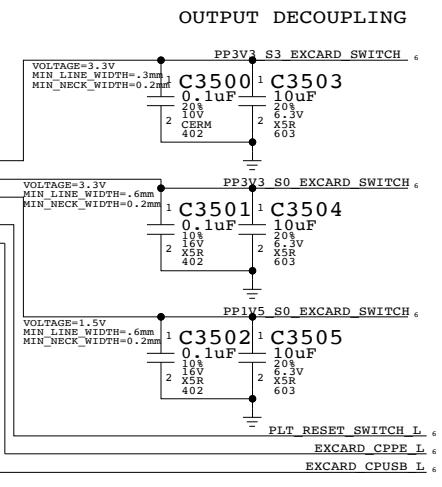
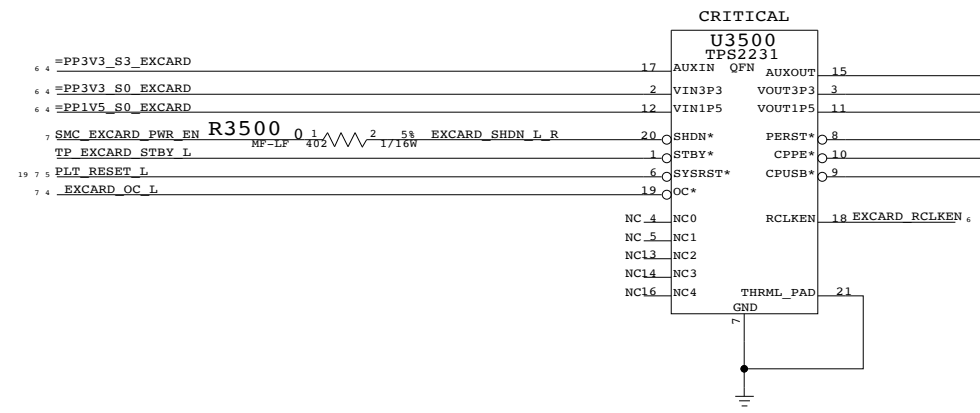
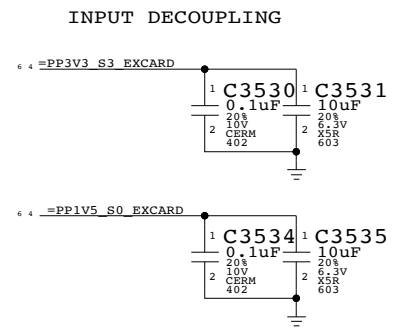


PCI-E MiniCard Connector
 SYNC_MASTER=(Master) SYNC_DATE=(Master)
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APPLE COMPUTER INC.	SIZE D	DRAWING NUMBER 051-7226	REV. A
	SCALE NONE	SHT 5	OF 20

EXPRESSCARD/34 TOP MOUNT CONNECTOR

CARD CAGE CONNECTOR
CRITICAL
J3500
237-5300703903-2
P-RF-SM



ExpressCard Connector
SYNC_MASTER=(Master) SYNC_DATE=(Master)
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	D	051-7226	A
SCALE	SHT OF		REV.
NONE	6 OF		20

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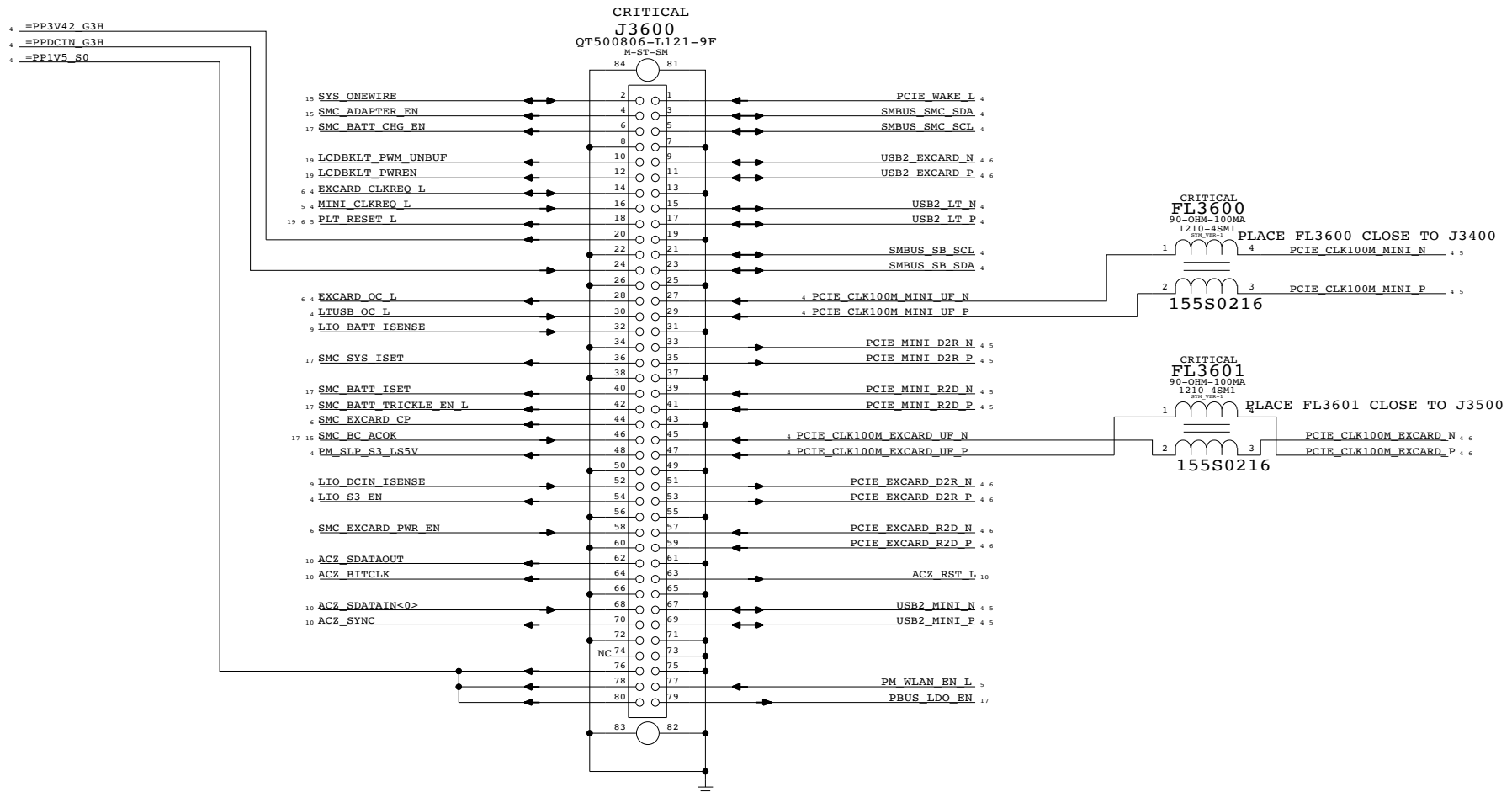
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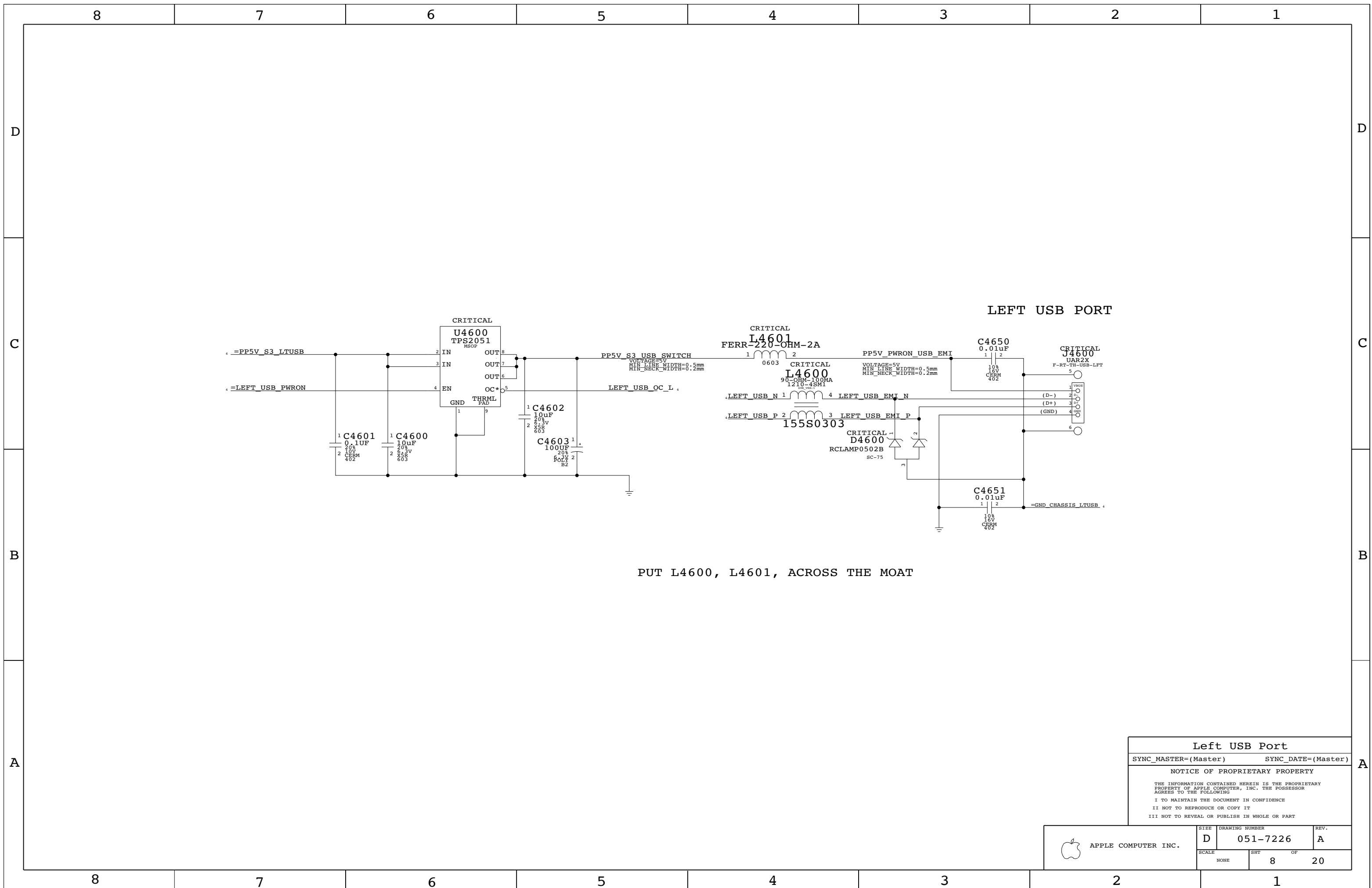
1

Left I/O Board Connector



MLB I/O Board Connector
 SYNC_MASTER=(Master) SYNC_DATE=(Master)
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APPLE COMPUTER INC.	SIZE	DRAWING NUMBER	REV.
	D	051-7226	A
SCALE	SHT OF		
NONE	7 OF		20



PUT L4600, L4601, ACROSS THE MOAT

Left USB Port

SYNC_MASTER=(Master) SYNC_DATE=(Master)

NOTICE OF PROPRIETARY PROPERTY

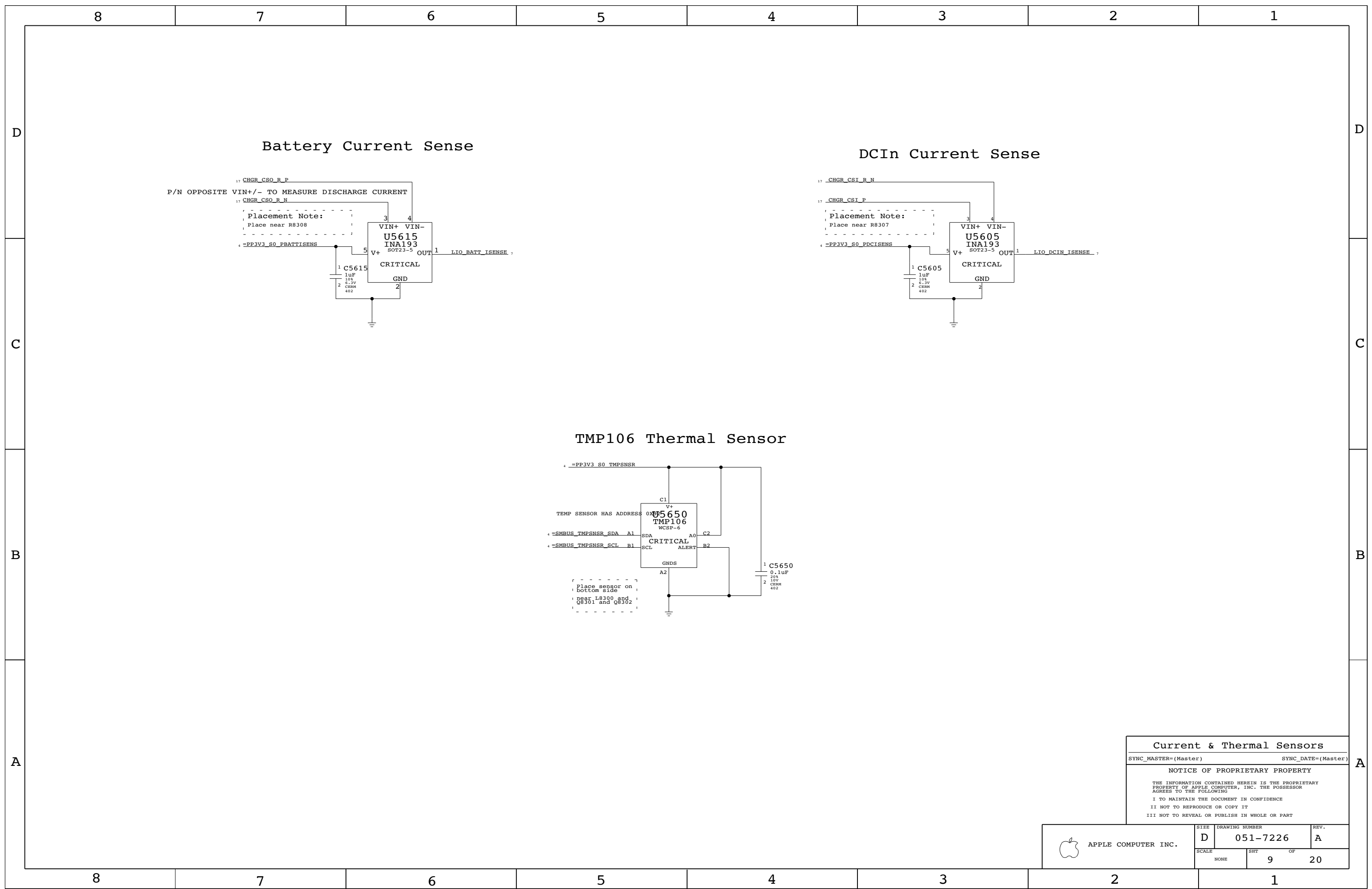
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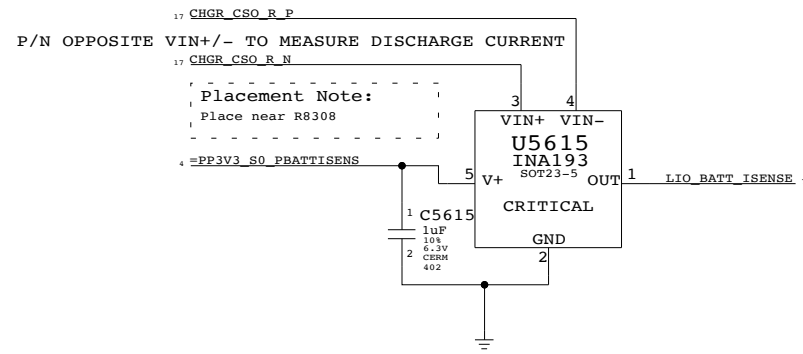
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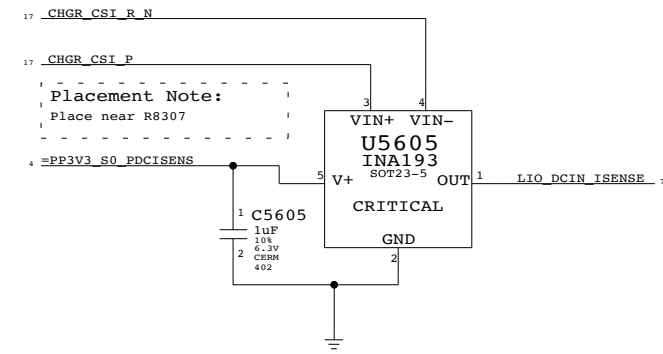
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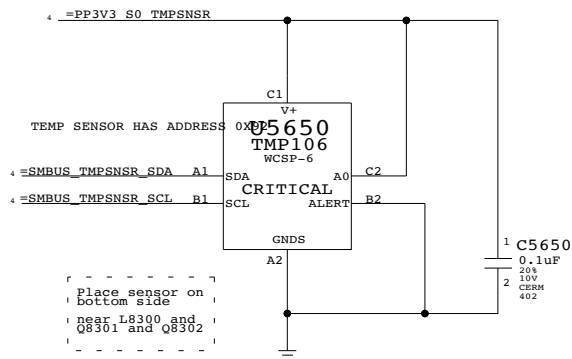
Battery Current Sense



DCIn Current Sense

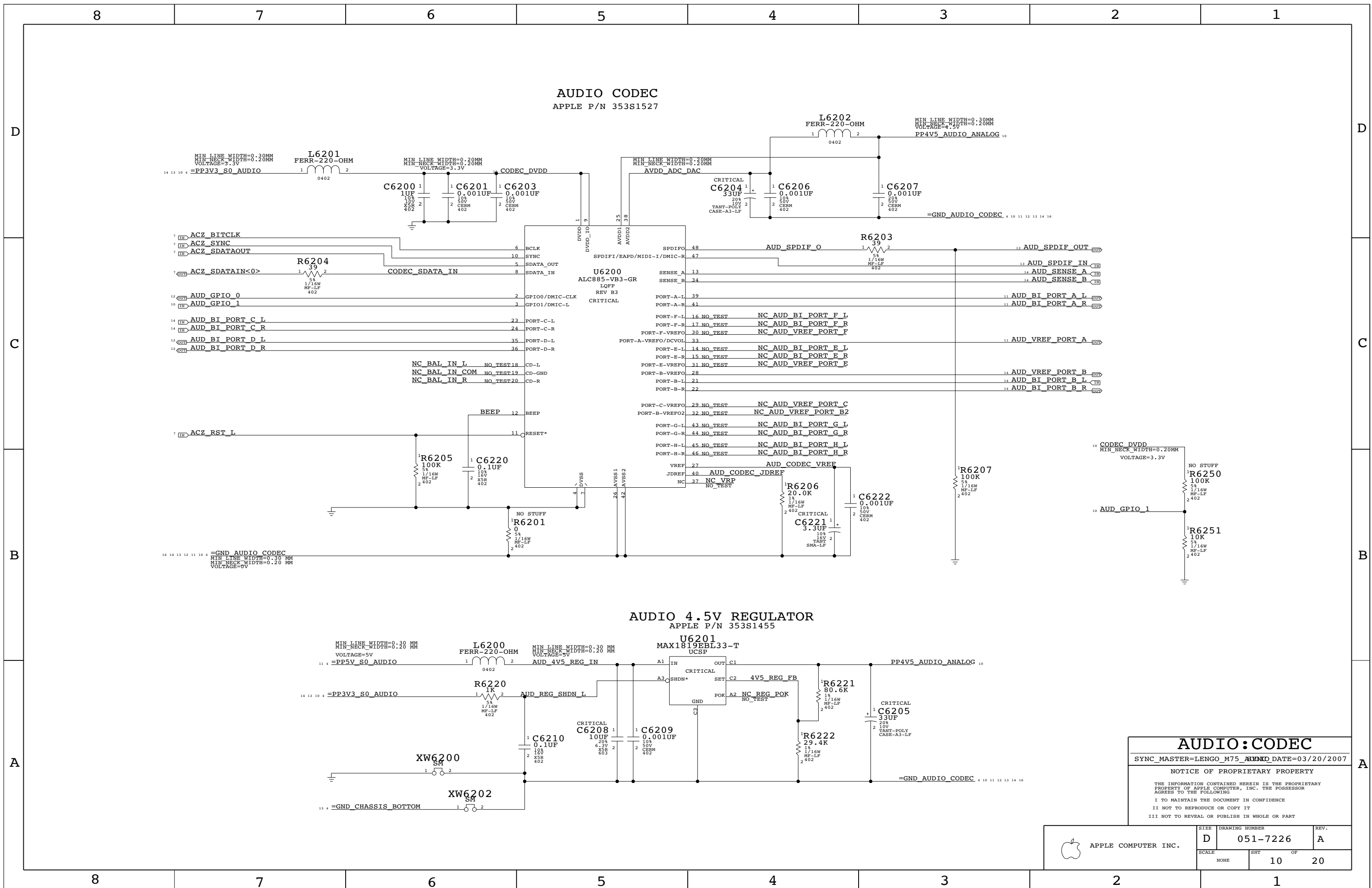


TMP106 Thermal Sensor



Current & Thermal Sensors
 SYNC_MASTER=(Master) SYNC_DATE=(Master)
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APPLE COMPUTER INC.	SIZE	DRAWING NUMBER	REV.
	D	051-7226	A
SCALE	SHT OF		REV.
NONE	9 OF		20



AUDIO CODEC
APPLE P/N 353S1527

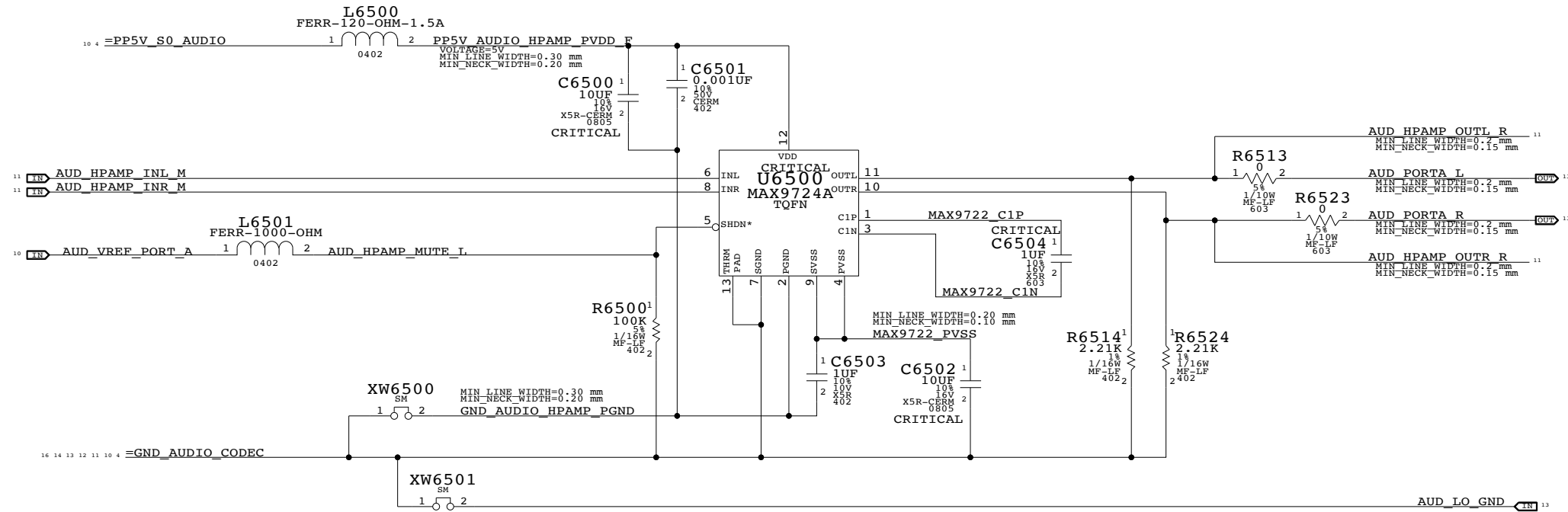
AUDIO 4.5V REGULATOR
APPLE P/N 353S1455

AUDIO:CODEC
 SYNC_MASTER=LENGO_M75_AUMNO_DATE=03/20/2007
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APPLE COMPUTER INC.	SIZE	DRAWING NUMBER	REV.
	D	051-7226	A
SCALE	NONE	SHT OF	10 20

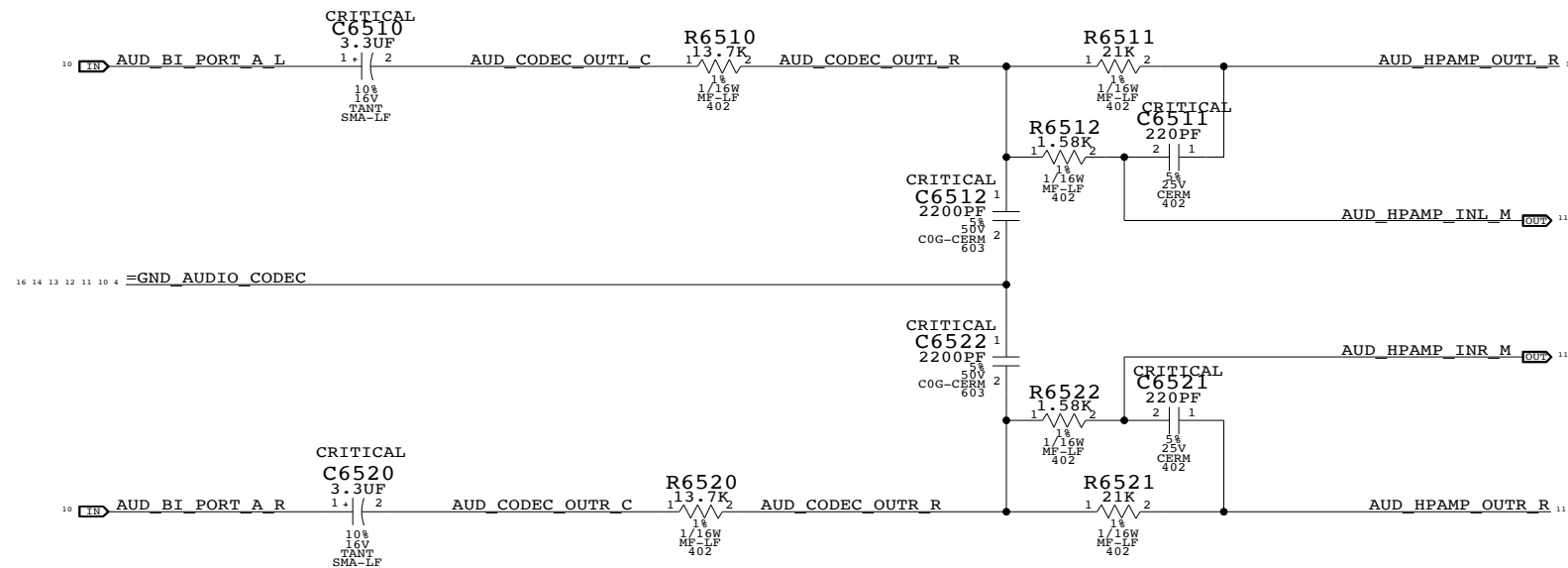
Headphone Amplifier (MAX9724A)

APN: 353S1637
VOLTAGE GAIN: 1.53



2nd Order DAC Filter

HP: 3.52 KHZ LP: 39 KHZ



AUDIO: HEADPHONE AMP
 SYNC_MASTER=LENGO_M75_A SYNC_DATE=03/20/2007

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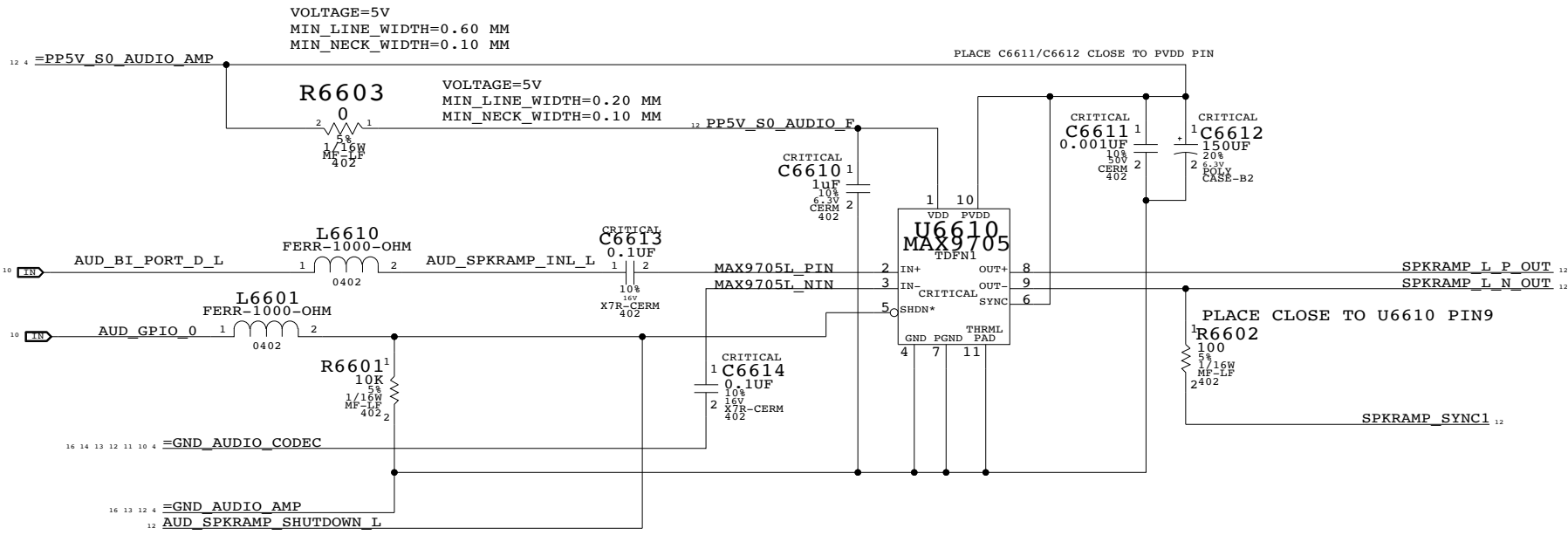
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SCALE	SHT	OF	REV.
NONE	11	20	A

2X MONO SPEAKER AMPLIFIERS (MAX9705B)

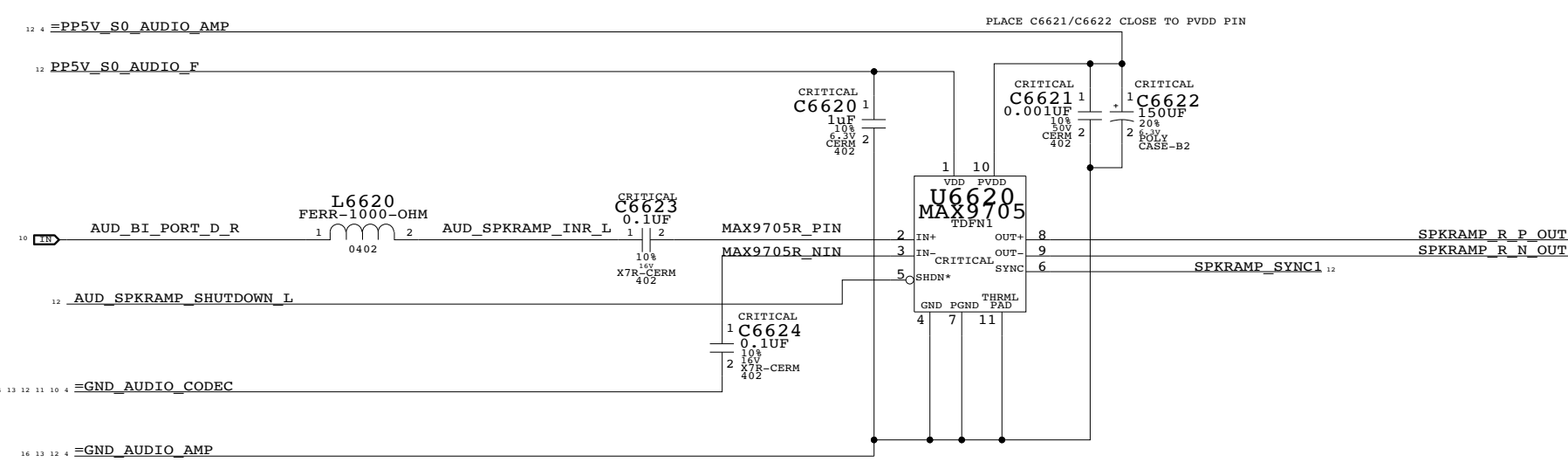
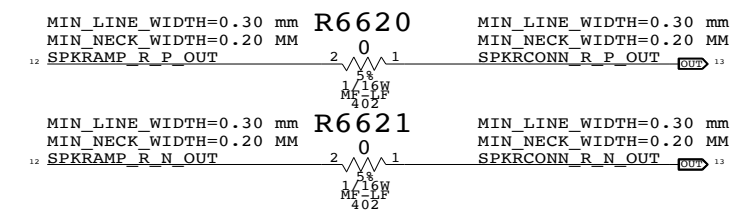
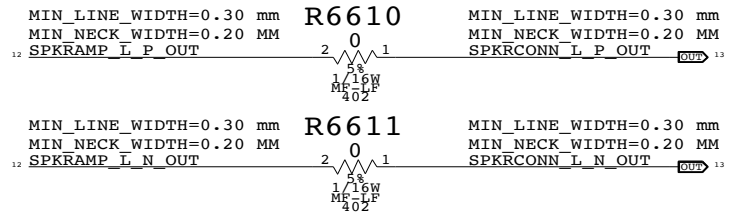
APN: 353S1595

GAIN = 12DB

79Hz < FC < 132Hz



FANCY SPEAKER TESTPOINTS



AUDIO:SPEAKER AMP

SYNC_MASTER=LENGO_M75_AUMNO_DATE=03/20/2007

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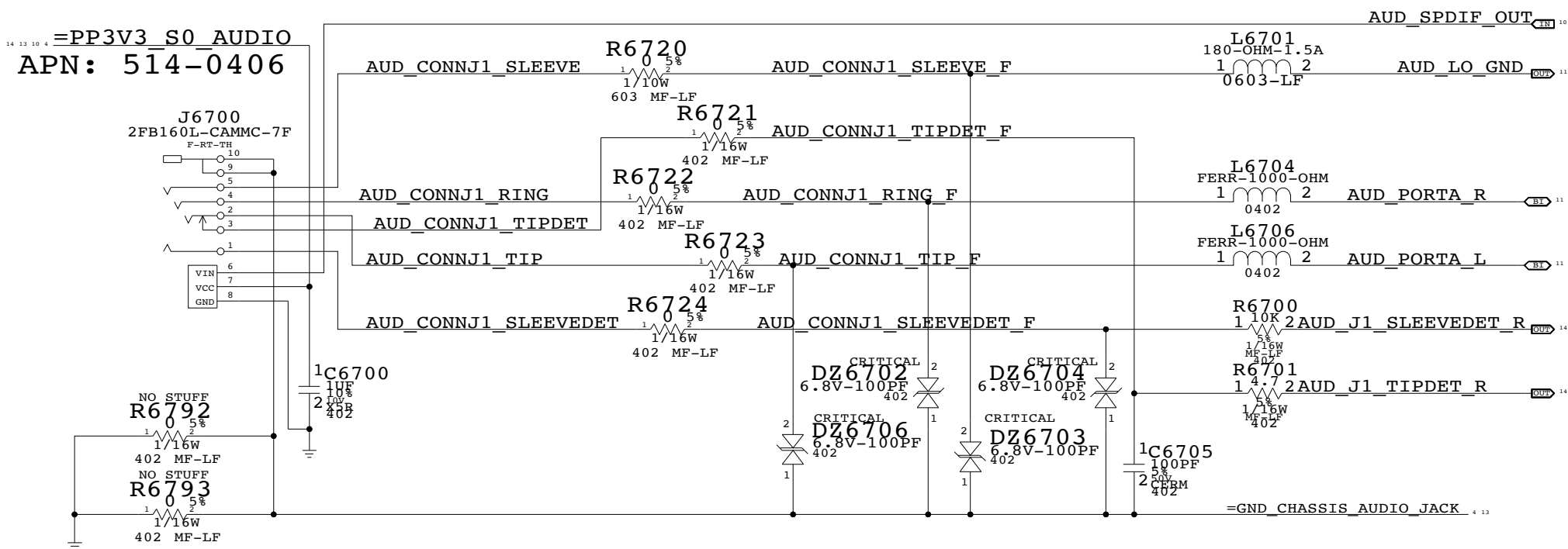
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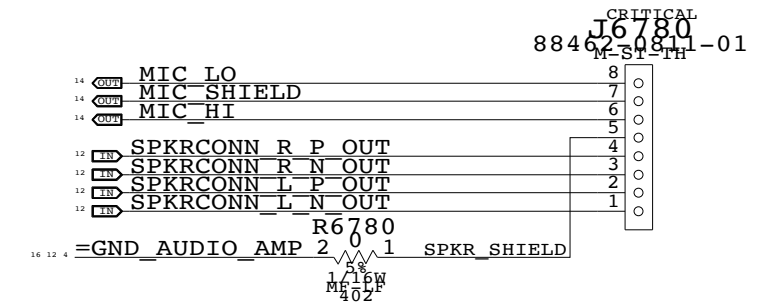
III NOT TO REVEAL OR PUBLISH IN WHOLE OR PART

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SCALE	SHT OF		REV.
NONE	12		20

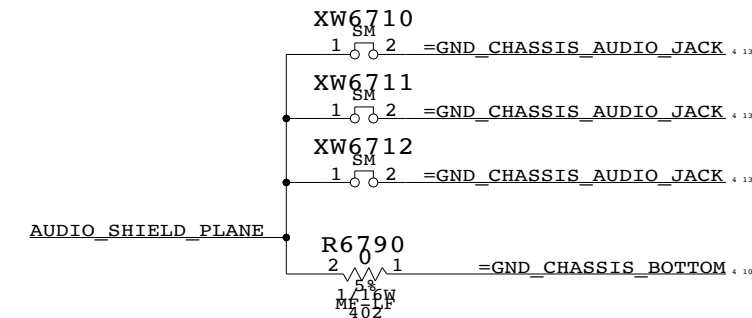
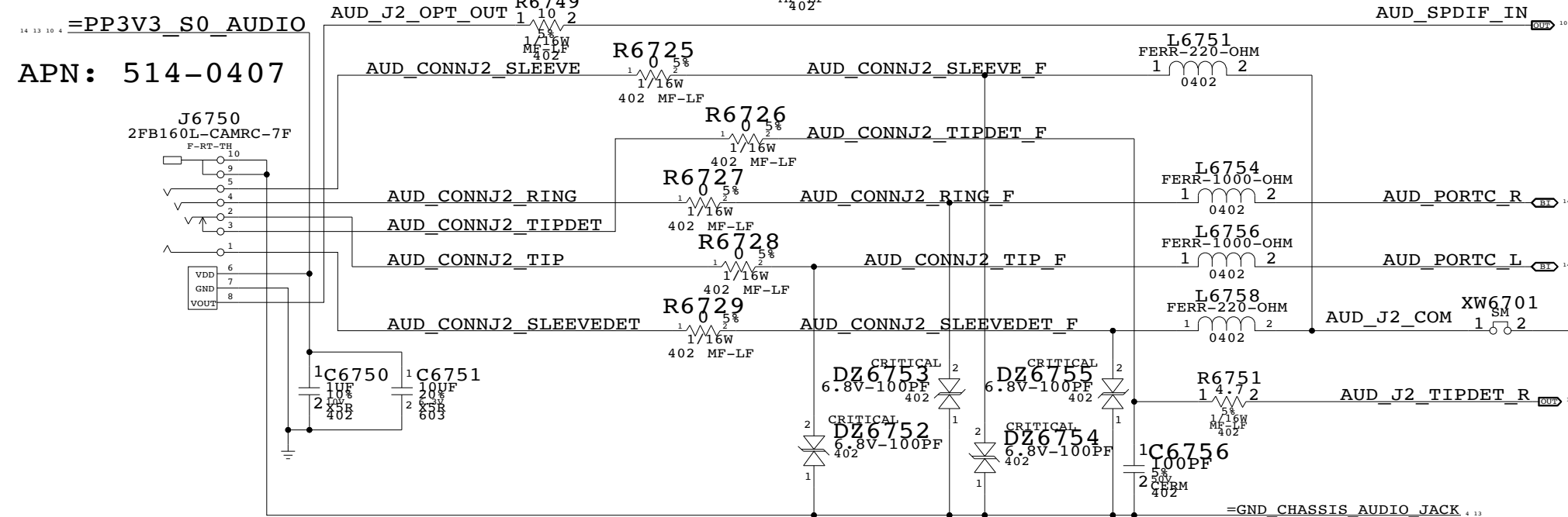
AUDIO JACK 1 LO/HP CONNECTOR, SPDIF TX



SPEAKER/MIC CONNECTOR
APN: 518-0262



PLACE AT GROUND MOAT



AUDIO SHIELD
(FILLED SHAPE)

AUDIO JACK 2 LINE IN CONNECTOR, SPDIF RX

AUDIO: JACKS
 SYNC_MASTER=LENGO_M75 SYNC_DATE=03/20/2007
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APPLE COMPUTER INC.	SIZE	DRAWING NUMBER	REV.
	D	051-7226	A
SCALE	NONE	SHT OF	13 OF 20

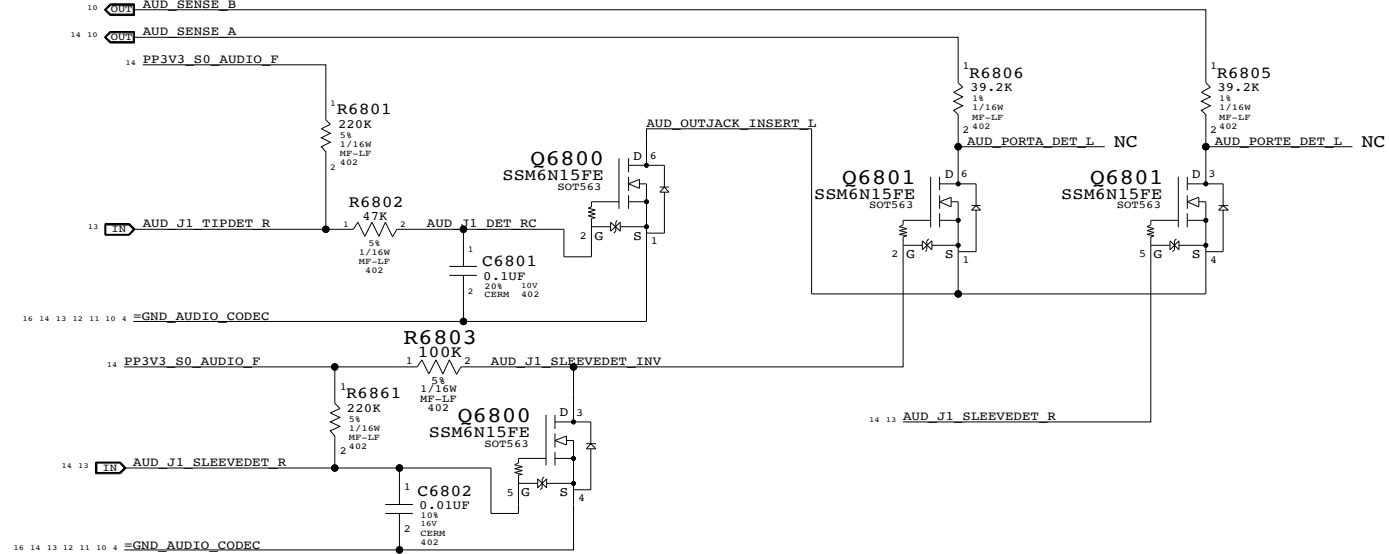
CODEC OUTPUT SIGNAL PATHS

FUNCTION	VOLUME	CONVERTER	PIN COMPLEX	MUTE CONTROL	DET ASSIGNMENT
HP/LINE OUT	0x0D	0x03	0x15 (A)	VREF_A	0x15 (A)
SPEAKER	0x0C	0x02	0x14 (D)	GPIO_0	N/A
SPDIF OUT	N/A	0x06	0x1E (SPDIF OUT)	N/A	0x1B (E)

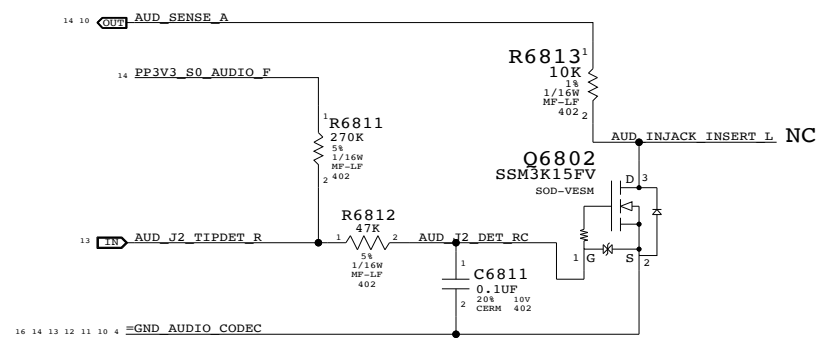
CODEC INPUT SIGNAL PATHS

FUNCTION	MIXER	CONVERTER	PIN COMPLEX	VREF	DET ASSIGNMENT
LINE IN	0x23	0x08	0x1A (C)	N/A	0x1A (C)
MIC IN	0x24	0x07	0x18 (B)	B (80%)	N/A
SPDIF IN	N/A	0x0A	0x1F (SPDIF IN)	N/A	N/A

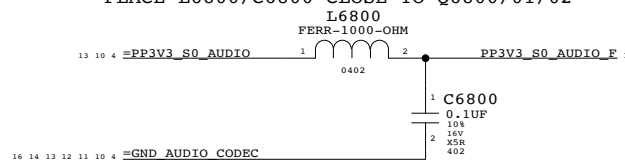
PORT A DETECT PORT E DETECT (SPDIF DELEGATE)



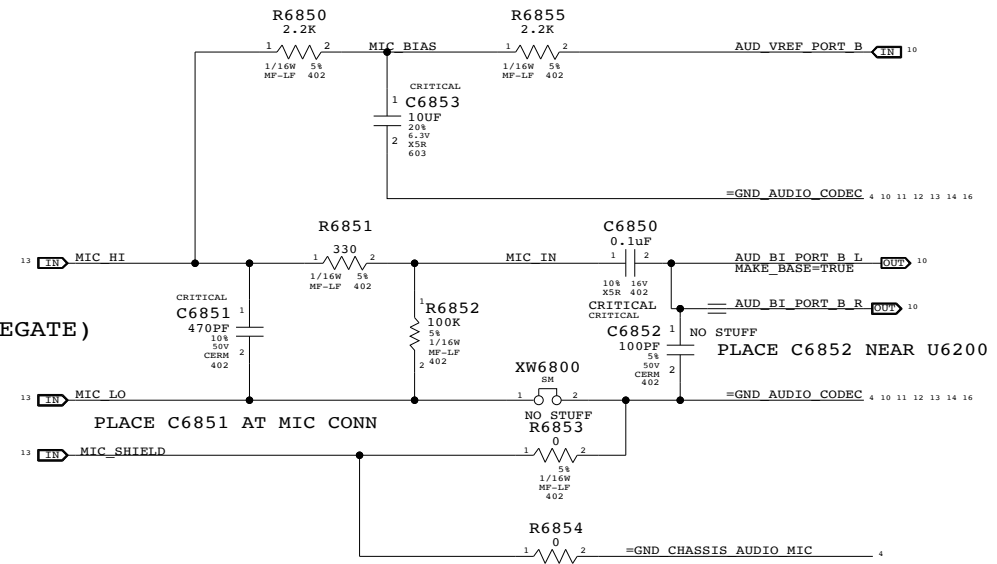
Line-in (PORT C) DETECT



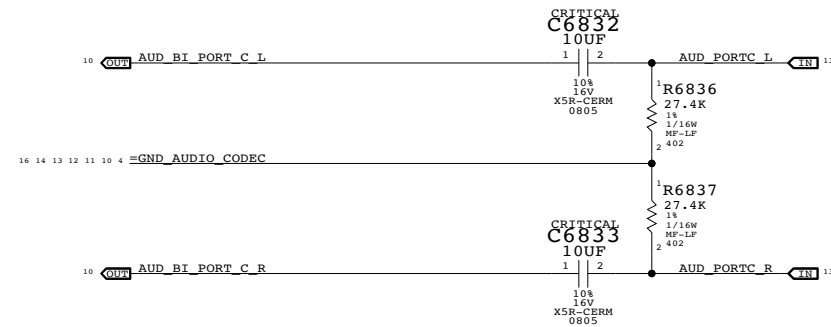
PLACE L6800/C6800 CLOSE TO Q6800/01/02



MIC INPUT CIRCUITRY



PORT C LI



AUDIO: JACK TRANSLATORS

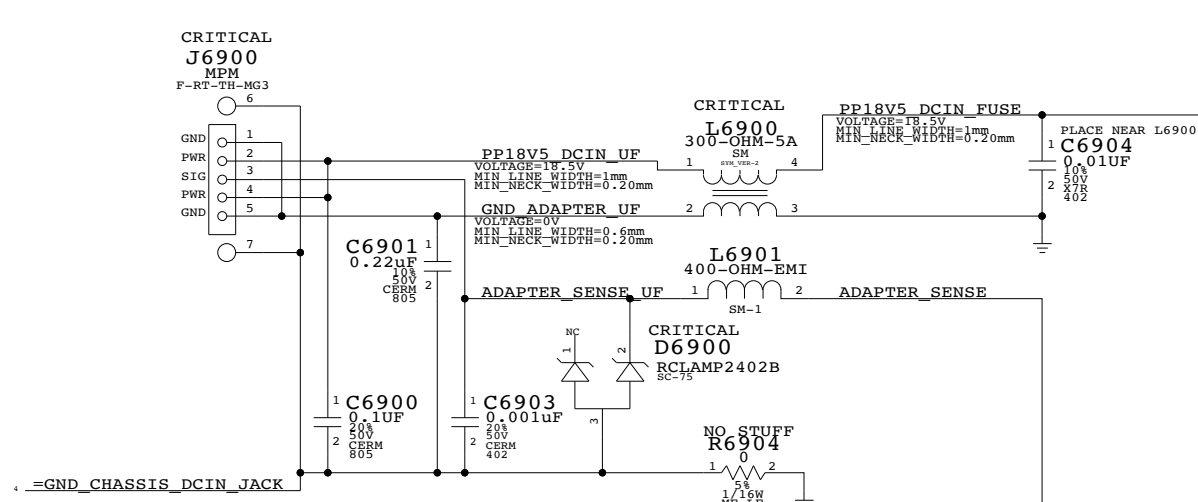
SYNC_MASTER=LENGO_M75_AUDIO SYNC_DATE=03/20/2007

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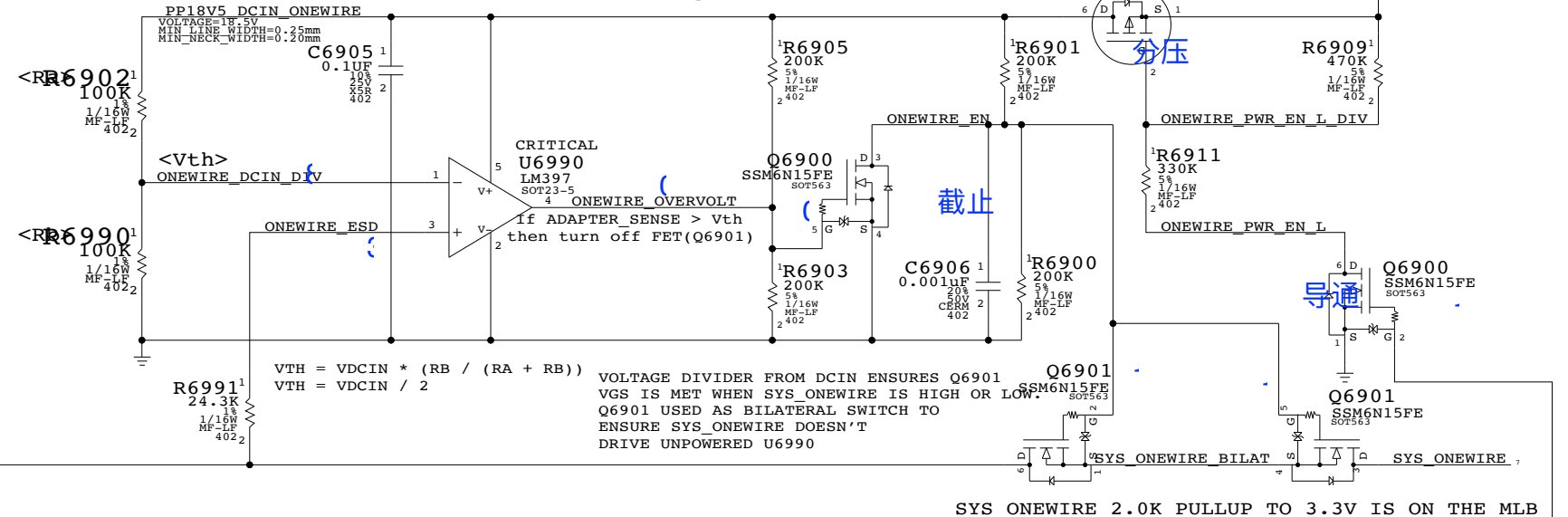
APPLE COMPUTER INC.	SIZE	DRAWING NUMBER	REV.
	D	051-7226	A
SCALE	SHT OF		
NONE	14		20

DC Power Jack

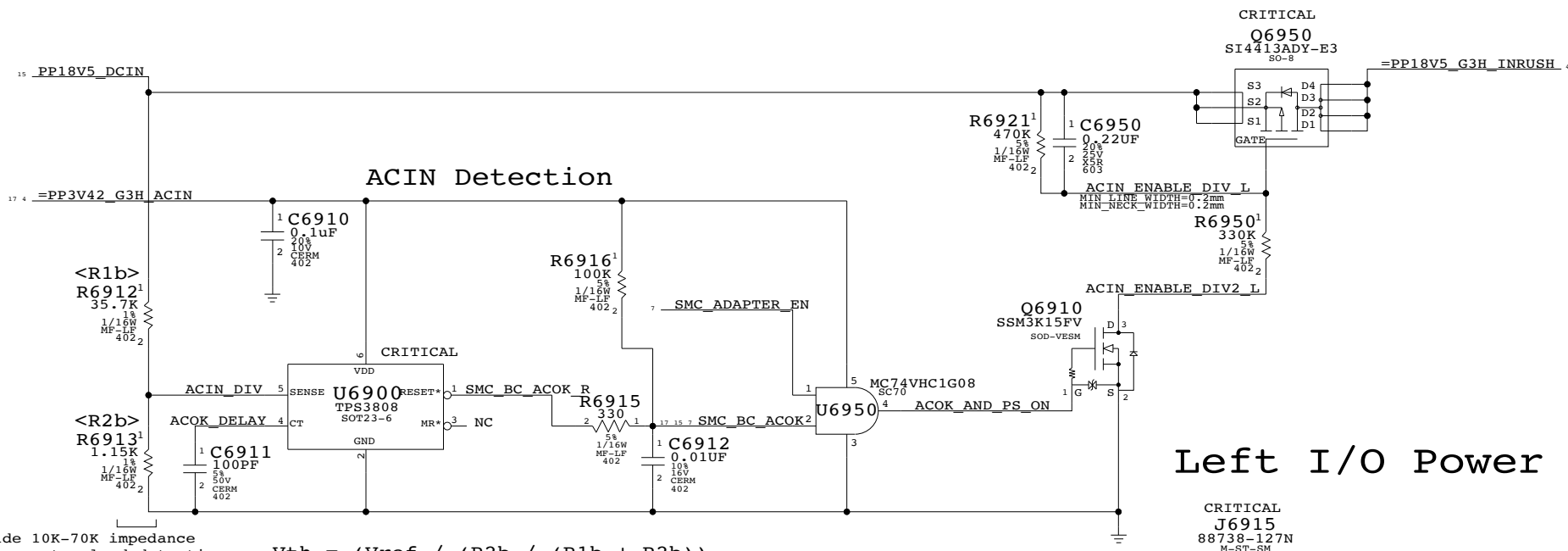


R6904 should be stuffed if GND_CHASSIS_DCIN_JACK does not have another connection to digital GND in the system, such as in an acrylic. The chassis ground will otherwise float and can send transients onto ADAPTER_SENSE when AC is connected.

1-Wire OverVoltage Protection

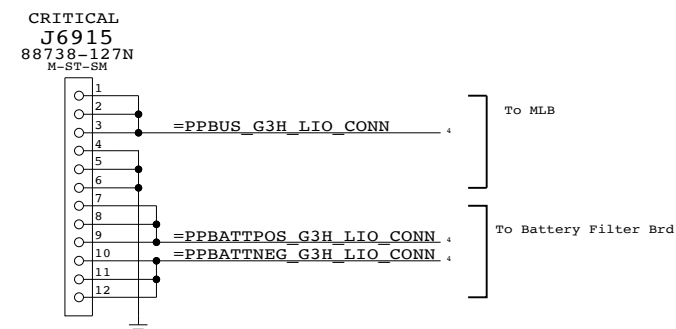


Inrush Limiter



System must provide 10K-70K impedance to A52 adapter for system load detection. REQ OF R6912 & R6913 IS 36.9K.

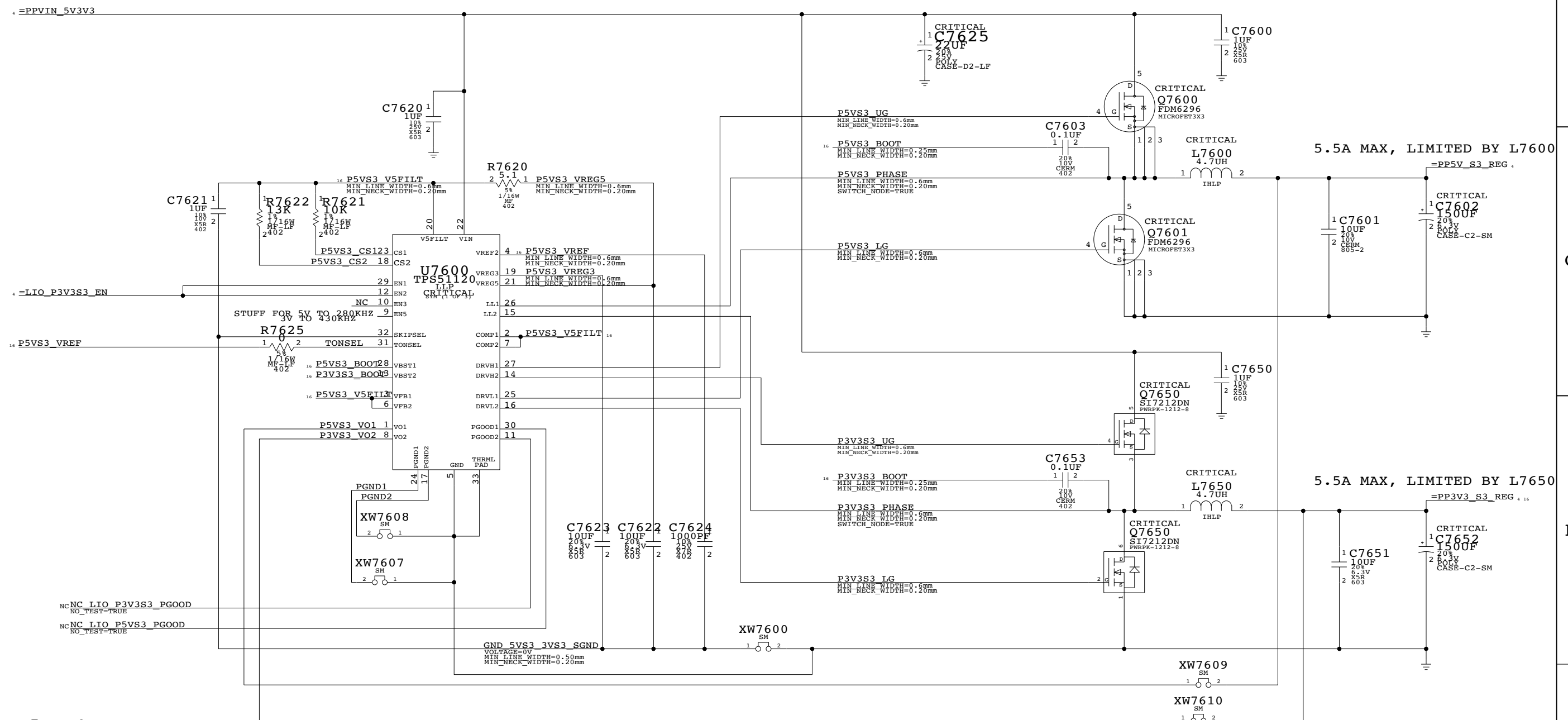
Left I/O Power Connector



DC-In & Battery Connectors	
SYNC_MASTER=(Master)	SYNC_DATE=(Master)
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APPLE COMPUTER INC.	SIZE	DRAWING NUMBER	REV.
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SCALE	SHT OF		
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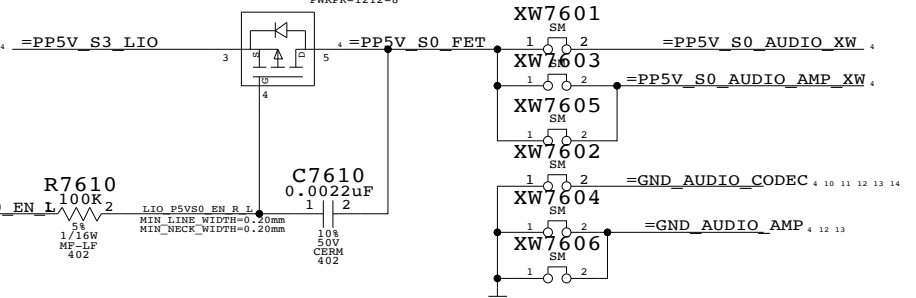
5V/3.3V POWER SUPPLY



5V S0 FET

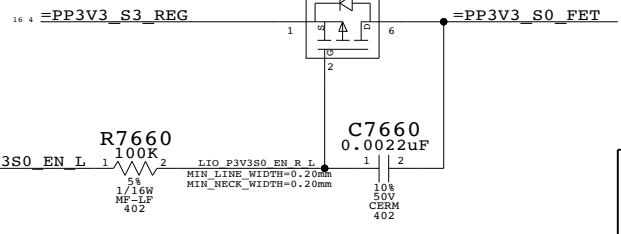
CRITICAL
Q7610
SI7913DN
PWRPK-1212-8

PLACE XW7601 TO XW76010 CLOSE TO 5V SWITCHER AND S0 FET



3.3V S0 FET

CRITICAL
Q7610
SI7913DN
PWRPK-1212-8



5V/3.3V SUPPLY

SYNC_MASTER=<MASTER> SYNC_DATE=<MASTER>

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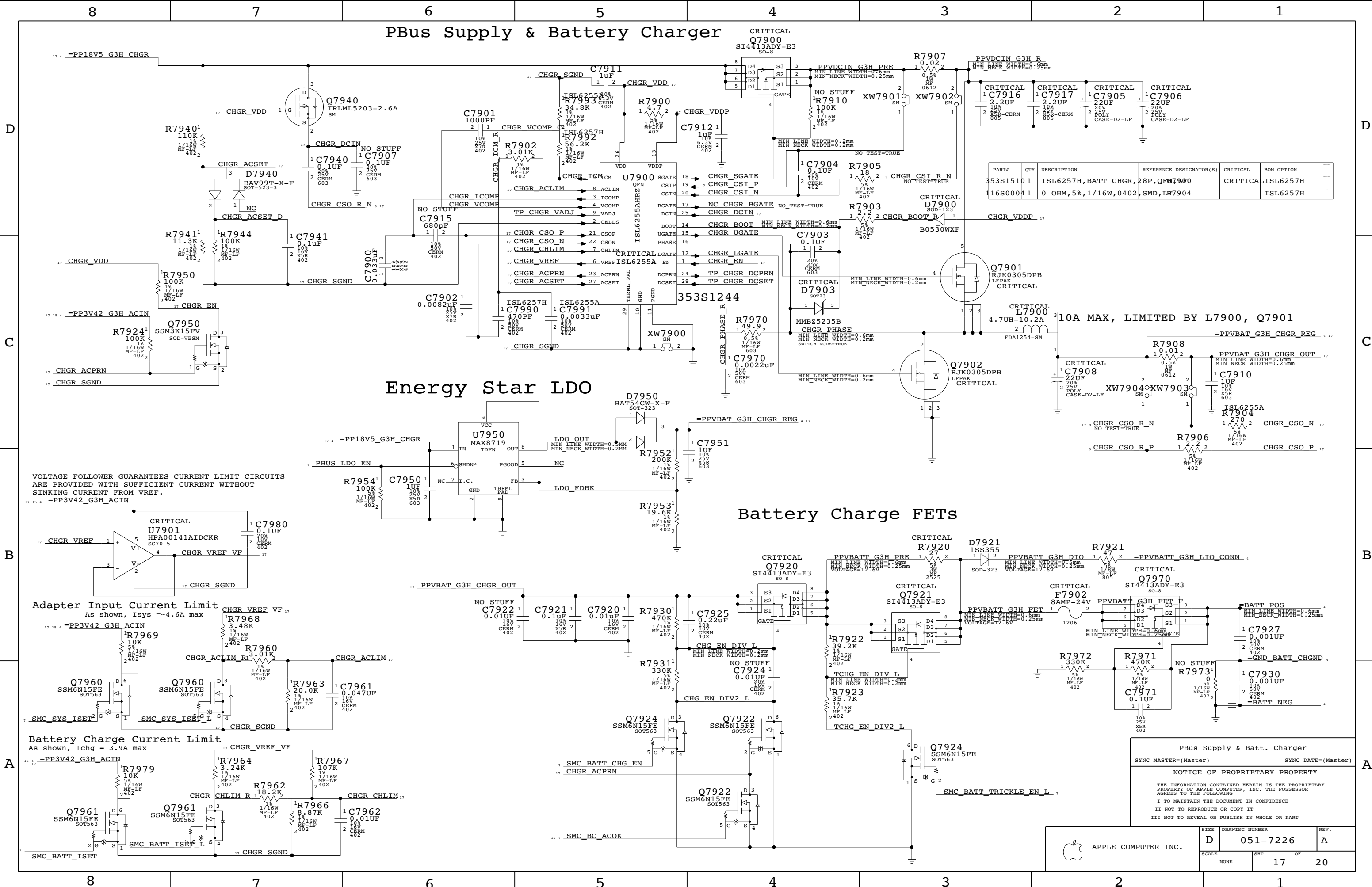
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	D	051-7226	A
SCALE	SHT OF		
NONE	16		20

PBus Supply & Battery Charger



Energy Star LDO

Battery Charge FETs

VOLTAGE FOLLOWER GUARANTEES CURRENT LIMIT CIRCUITS ARE PROVIDED WITH SUFFICIENT CURRENT WITHOUT SINKING CURRENT FROM VREF.

Adapter Input Current Limit

As shown, Isys = -4.6A max

Battery Charge Current Limit

As shown, Ichg = 3.9A max

PART#	QTY	DESCRIPTION	REFERENCE DESIGNATOR(S)	CRITICAL	BOM OPTION
353S1510	1	ISL6257H, BATT CHGR, 28P, QFN	U7900	CRITICAL	ISL6257H
116S0004	1	0 OHM, 5%, 1/16W, 0402	R7904		ISL6257H

PBus Supply & Batt. Charger

SYNC_MASTER=(Master) SYNC_DATE=(Master)

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SCALE	SHEET	OF	
NONE	17	20	

8

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C

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A

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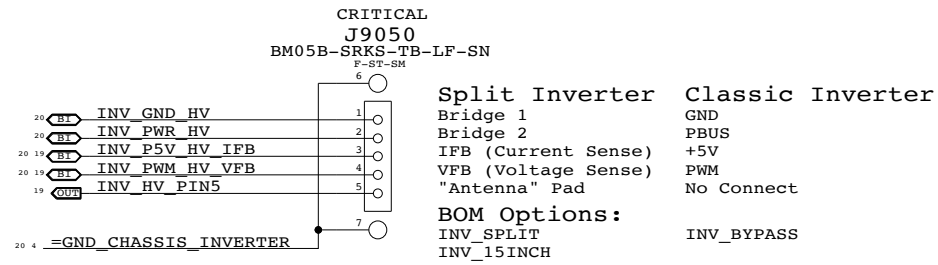
4

3

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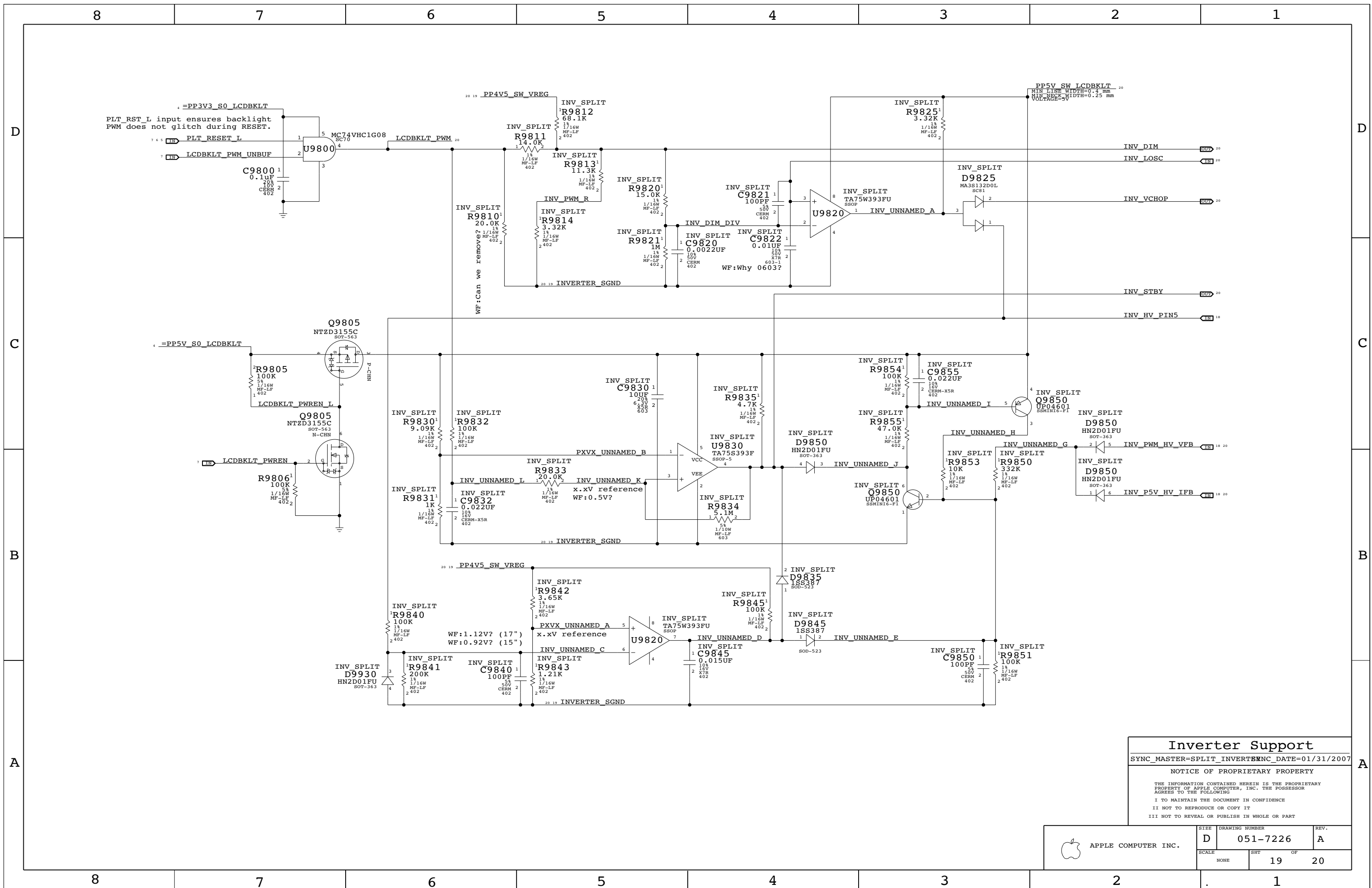
Inverter Connector



Inverter Connector
 SYNC_MASTER=SPLIT_INVERTER DATE=12/06/2006

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SCALE	SHT OF		
NONE	18	20	



Inverter Support

SYNC_MASTER=SPLIT_INVERTER DATE=01/31/2007

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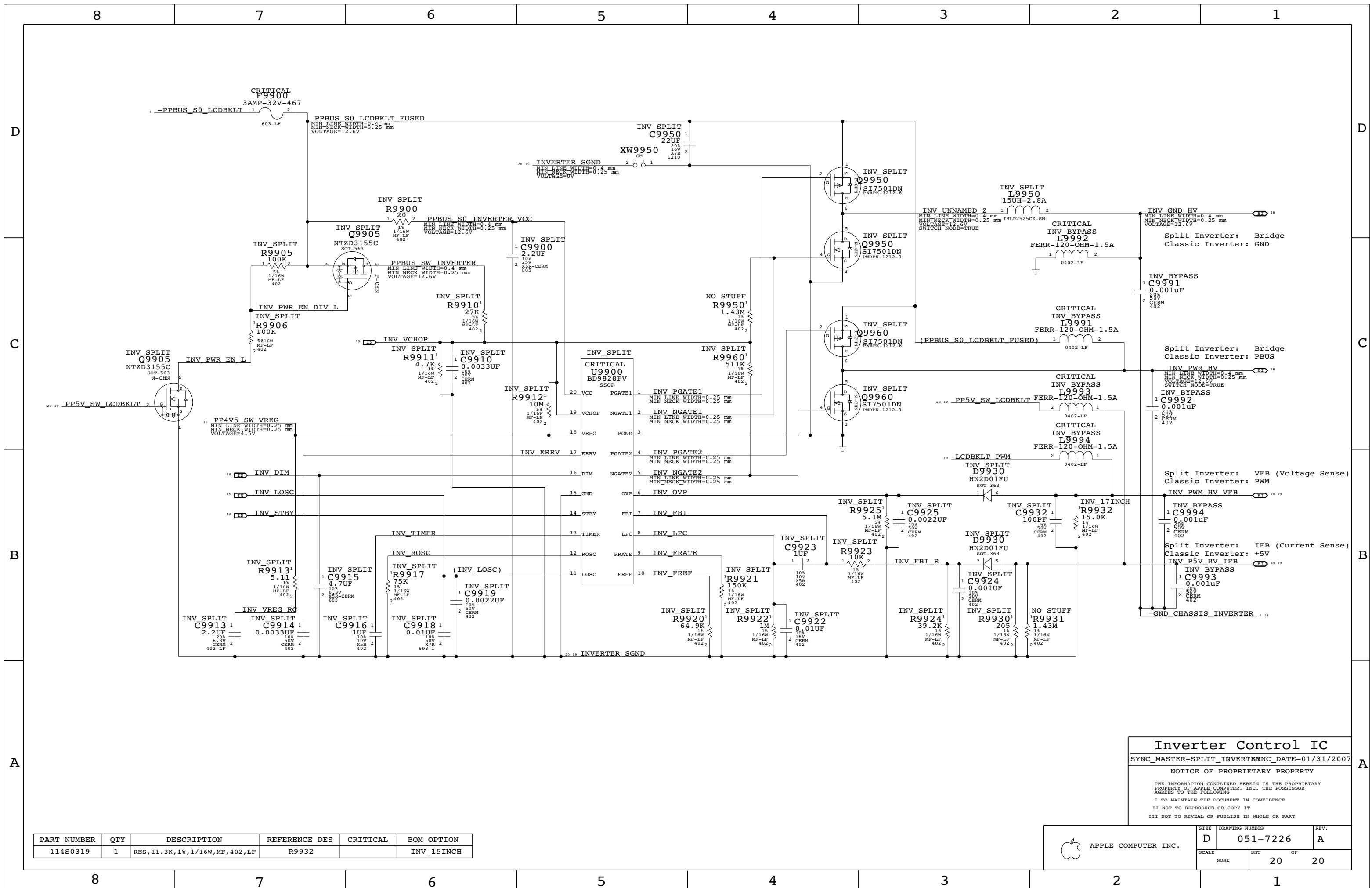
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	SIZE D	DRAWING NUMBER 051-7226	REV. A
	SCALE NONE	SHT 19	OF 20



PART NUMBER	QTY	DESCRIPTION	REFERENCE DES	CRITICAL	BOM OPTION
114S0319	1	RES, 11.3K, 1%, 1/16W, MF, 402, LF	R9932		INV_15INCH

Inverter Control IC

SYNC_MASTER=SPLIT_INVERTER;MNC_DATE=01/31/2007

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APPLE COMPUTER INC.	SIZE	DRAWING NUMBER	REV.
	D	051-7226	A
SCALE	SHT OF		
NONE	20		20