

8		7		6		5		4		3		2		1	
<div>1. ALL RESISTANCE VALUES ARE IN OHMS, 0.1 WATT +/- 5%.</div> <div>2. ALL CAPACITANCE VALUES ARE IN MICROFARADS.</div> <div>3. ALL CRYSTALS & OSCILLATOR VALUES ARE IN HERTZ.</div>												REV	ECN	DESCRIPTION OF REVISION	CK APPD DATE
												6	0021824637	ENGINEERING RELEASED	2020-01-24
<div>X1782 MLB SCHEMATIC</div> <div>www.laptoprepairsecrets.com</div>															
D	PAGE	CSA	CONTENTS	SYNC	DATE	PAGE	CSA	CONTENTS	SYNC	DATE					
	1	1	TABLE OF CONTENTS			61	67	KEYBOARD & TRACKPAD 1	X1412_SHAN	05/17/2019					
	2	2	SYSTEM PCB SUMMARY			62	68	KEYBOARD & TRACKPAD 2							
	3	4	PD PARTS			63	69	BATTERY CONN, 3V3 G3H RTC VR							
	4	5	CPU GFX			64	70	PBUS SUPPLY & BATTERY CHARGER							
	5	6	CPU MISC/JTAG/CFG/RSVD			65	71	VR CORE & SA IMVP CTRL							
	6	7	CPU LPDDR3 INTERFACE			66	72	VR CORE & SA IMVP							
	7	8	CPU & PCH POWER			67	74	VR GT & GTX IMVP							
	8	9	CPU & PCH GROUNDS			68	76	VR 5V, 3V3							
	9	10	CPU CORE DECOUPLING			69	77	VR EOPIO EDRAM							
C	10	11	CPU GT DECOUPLING			70	78	PMIC BUCKS AND SWS							
	11	12	PCH DECOUPLING			71	79	PMIC LDOS							
	12	13	PCH AUDIO/LPC/SPI/SMBUS			72	80	PMIC GPIOS & CONTROL							
	13	14	PCH POWER MANAGEMENT			73	81	VR VDDQ VCCIO							
	14	15	PCH PCIE/USB/CLKS			74	82	POWER FETS							
	15	16	PCH SPI/UART/GPIO			75	84	LCD BACKLIGHT DRIVER							
	16	18	CPU/PCH MERGED XDP			76	85	EDP DISPLAY CONNECTOR							
	17	19	CHIPSET SUPPORT 1			77	86	S4E<0>							
	18	20	CHIPSET SUPPORT 2			78	87	S4E<1>							
	19	22	LPDDR3 VREF MARGINING			79	88	S4E<2>							
B	20	23	LPDDR3 DRAM CHANNEL A (00-31)			80	89	S4E<3>							
	21	24	LPDDR3 DRAM CHANNEL A (32-63)			81	90	OCARINA PMIC & NAND VCC VR & VDDIO1 SWCH							
	22	25	LPDDR3 DRAM CHANNEL B (00-31)			82	96	SSD SUPPORT							
	23	26	LPDDR3 DRAM CHANNEL B (32-63)			83	124	FCT							
	24	27	LPDDR3 DRAM TERMINATION			84	125	PROBE POINTS							
	25	28	USB-C HIGH SPEED 1			85	135	DESENSE 1							
	26	29	USB-C HIGH SPEED 2			86	136	DESENSE 2							
	27	30	USB-C SUPPORT			87	137	DESENSE 3							
	28	31	USB-C PORT CONTROLLER A			88	138	DESENSE 4							
	29	32	USB-C PORT CONTROLLER B			89	140	DEV SUPPORT 1							
A	30	33	USB-C CONNECTOR A			90	141	DEV SUPPORT 2							
	31	36	WIFI/BT SUPPORT	J223_METE	05/14/2019	91	400	BOM CONFIGURATION							
	32	37	WIFI/BT MODULE 1	J223_METE	05/14/2019	92	401	BOM CONFIGURATION							
	33	38	WIFI/BT MODULE 2	J223_METE	05/14/2019	93	403	BOM GROUPS							
	34	39	SOC GPIO/SEP/USB/DDR/TEST			94	405	BOM VARIANT TABLES							
	35	40	SOC AOP/AON/SMC			95	406	BOM VARIANT TABLES							
	36	41	SOC ISP/I2C/UART/SPI/I2S			96	407	BOM VARIANT TABLES							
	37	42	SOC PCIE			97	410	BOM ALTERNATES							
	38	43	SOC POWER 1			98	500	BOARD RULES							
	39	44	SOC POWER 2												
<div>www.laptoprepairsecrets.com</div>															
	40	45	SOC POWER 3												
	41	46	SOC GROUND												
	42	47	SOC SHARED SUPPORT												
	43	48	SOC PROJECT SUPPORT												
	44	49	T151												
	45	50	SECURE ELEMENT												
	46	51	T139 SUPPORT												
	47	52	I2C CONNECTIONS 1												
	48	53	I2C CONNECTIONS 2												
	49	54	POWER SENSORS HIGH SIDE												
	50	55	POWER SENSORS LOAD SIDE												
	51	56	POWER SENSORS EXTENDED												
	52	57	POWER SENSORS EXTENDED 2												
	53	58	THERMAL SENSORS												
	54	59	POWER SENSORS EXTENDED 3												
	55	60	FANS/SMC/AMUX SUPPORT												
	56	62	AUDIO PLACEHOLDER												
	57	63	AUDIO JACK CODEC												
	58	64	AUDIO LEFT AMPLIFIERS												
	59	65	AUDIO RIGHT AMPLIFIERS												
60	66	AUDIO FLEX CONNECTORS													
<div>www.laptoprepairsecrets.com</div>															
LAST_MODIFICATION=Fri Jan 17 17:25:04 2020															
8		7		6		5		4		3		2		1	

DRAWING TITLE

SCHEM,MLB,X1782

 Apple Inc.

DRAWING NUMBER

051-05309

REVISION

6.0.0

BRANCH

pvt

PAGE


1 OF 500

SHEET

1 OF 98


NOTICE OF PROPRIETARY PROPERTY:

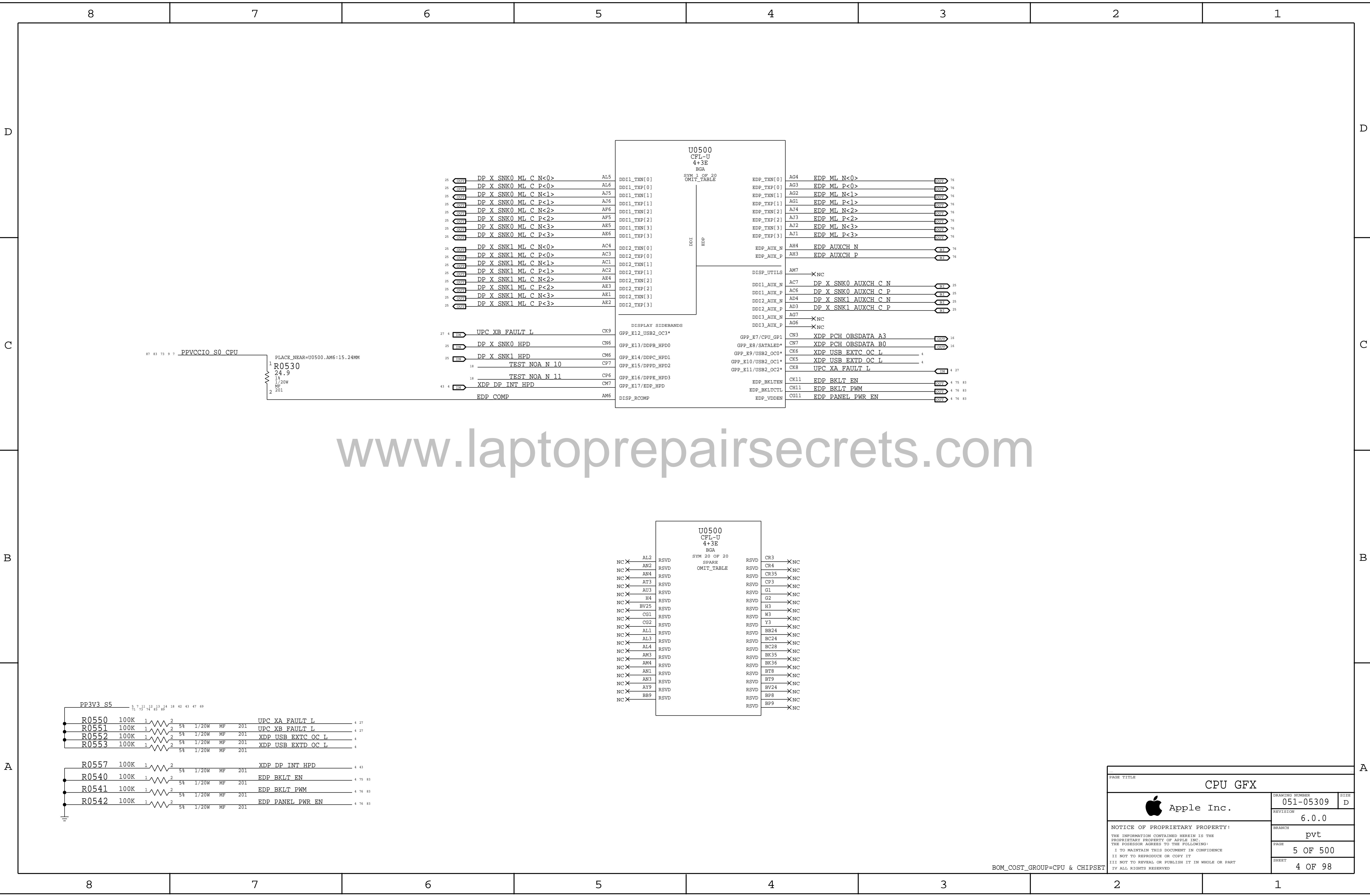
THE INFORMATION CONTAINED HEREIN IS THE PROPRIETARY PROPERTY OF APPLE INC. THE POSSESSOR AGREES TO THE FOLLOWING:
I TO MAINTAIN THIS DOCUMENT IN CONFIDENCE
II NOT TO REPRODUCE OR COPY IT
III NOT TO REVEAL OR PUBLISH IT IN WHOLE OR PART
IV ALL RIGHTS RESERVED

DRAWING TITLE			SCHEM,MLB,X1782		
 Apple Inc.		DRAWING NUMBER	051-05309	SIZE	
		REVISION	6.0.0	D	
NOTICE OF PROPRIETARY PROPERTY: THE INFORMATION CONTAINED HEREIN IS THE PROPRIETARY PROPERTY OF APPLE INC. THE POSSESSOR AGREES TO THE FOLLOWING: I TO MAINTAIN THIS DOCUMENT IN CONFIDENCE I1 NOT TO REPRODUCE OR COPY IT I11 NOT TO REVEAL OR PUBLISH IT IN WHOLE OR PART I1V ALL RIGHTS RESERVED			BRANCH	pvt	
			PAGE	1 OF 500	
			SHEET	1 OF 98	

	8	7	6	5	4	3	2	1
D								
C								
B								
A								

DESIGN	DESCRIPTION	SCHEMATIC	BOARD	MCO	PANEL
J223/MLB	POR CFL MLB	051-05309	820-01987	056-09380	057-01595-D
J213/FLEX_AUDIOJACK	AUDIO JACK AMR, AND MESA	051-04122	821-02091	056-07548-27	N/A
J680/FLEX_USBC	LEFT SIDE USB TONGUE FLEX	051-03140	821-01646	056-05483-A	N/A
J130/FLEX_BMU_SIGNAL	SIGNALS TO BMU	051-01247	821-01726	056-05589-A	N/A
J130/FLEX_BMU_PWR	POWER TO/FROM BMU	051-01195	821-00583	056-02919-A	N/A
J130/FLEX_TCON_MLB_A	DISPLAYPORT FROM MLB TO TCON	051-01897	821-00981	056-02852-A	N/A
J213/FLEX_TRACKPAD	MLB TO TRACKPAD	051-04335	821-02218	056-07655-08	N/A
J130/FLEX_KB	KB FLEX FOR ALL 3 KB TYPES	051-02011	821-01046	056-03725-B	N/A
J213/FLEX_3MIC	MIC FLEX	051-04441	821-02265	056-07754-24	N/A
J79/GRAPE_FLEX	DFR TOUCH FLEX	051-01338	821-00681	056-02220-A	N/A
DFR DAUGHTER FLEX	DFR DAUGHTER FLEX	VENDOR	VENDOR	099-14398	N/A

PAGE TITLE			SYSTEM PCB SUMMARY		
 Apple Inc.		DRAWING NUMBER	051-05309	SIZE	D
		REVISION	6.0.0		
NOTICE OF PROPRIETARY PROPERTY: THE INFORMATION CONTAINED HEREIN IS THE PROPRIETARY PROPERTY OF APPLE INC. THE POSSESSOR AGREES TO THE FOLLOWING: I TO MAINTAIN THIS DOCUMENT IN CONFIDENCE II NOT TO REPRODUCE OR COPY IT III NOT TO REVEAL OR PUBLISH IT IN WHOLE OR PART IV ALL RIGHTS RESERVED		BRANCH	pvt		
		PAGE	2 OF 500		
		SHEET	2 OF 98		



D

D

C

C


B

B

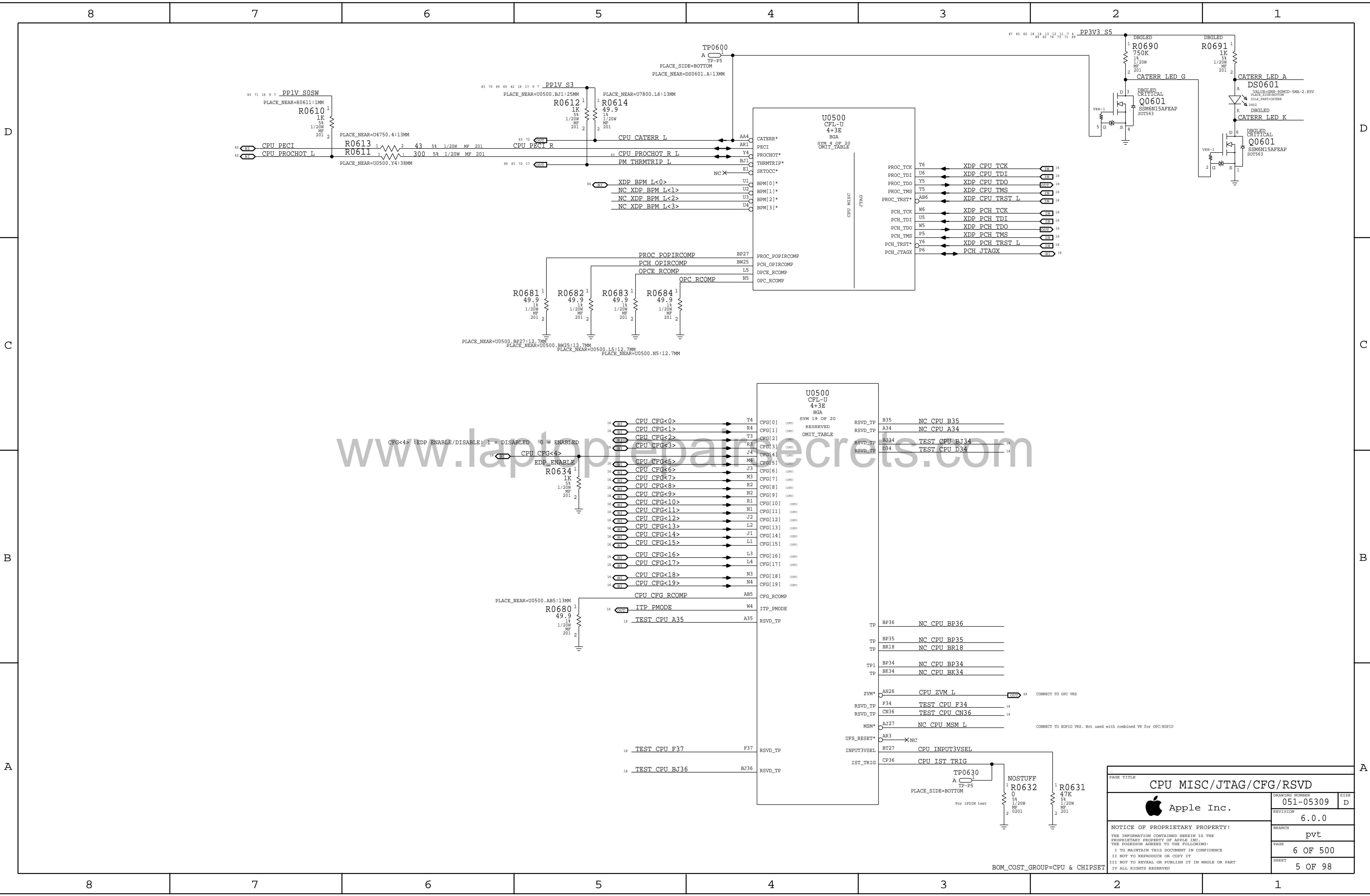
A

A

www.laptoprepairsecrets.com

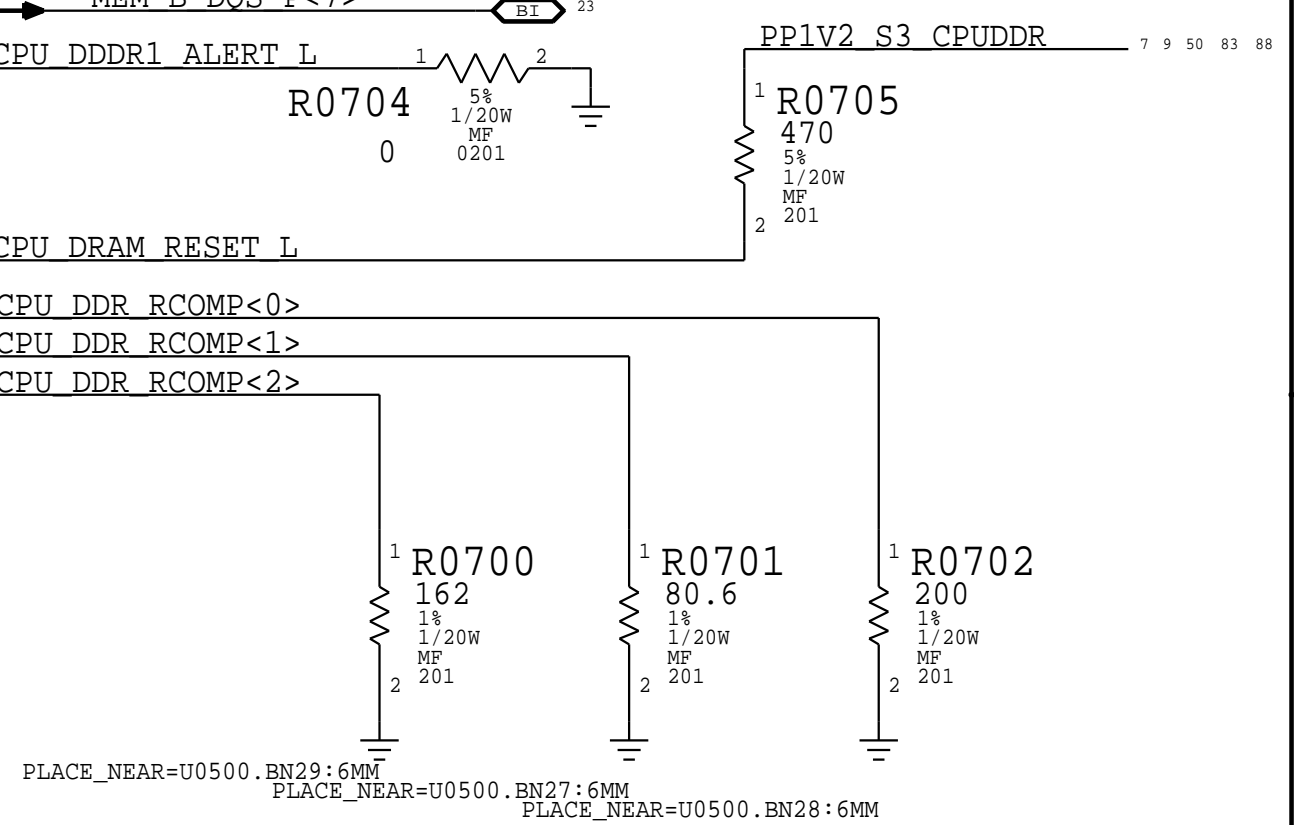
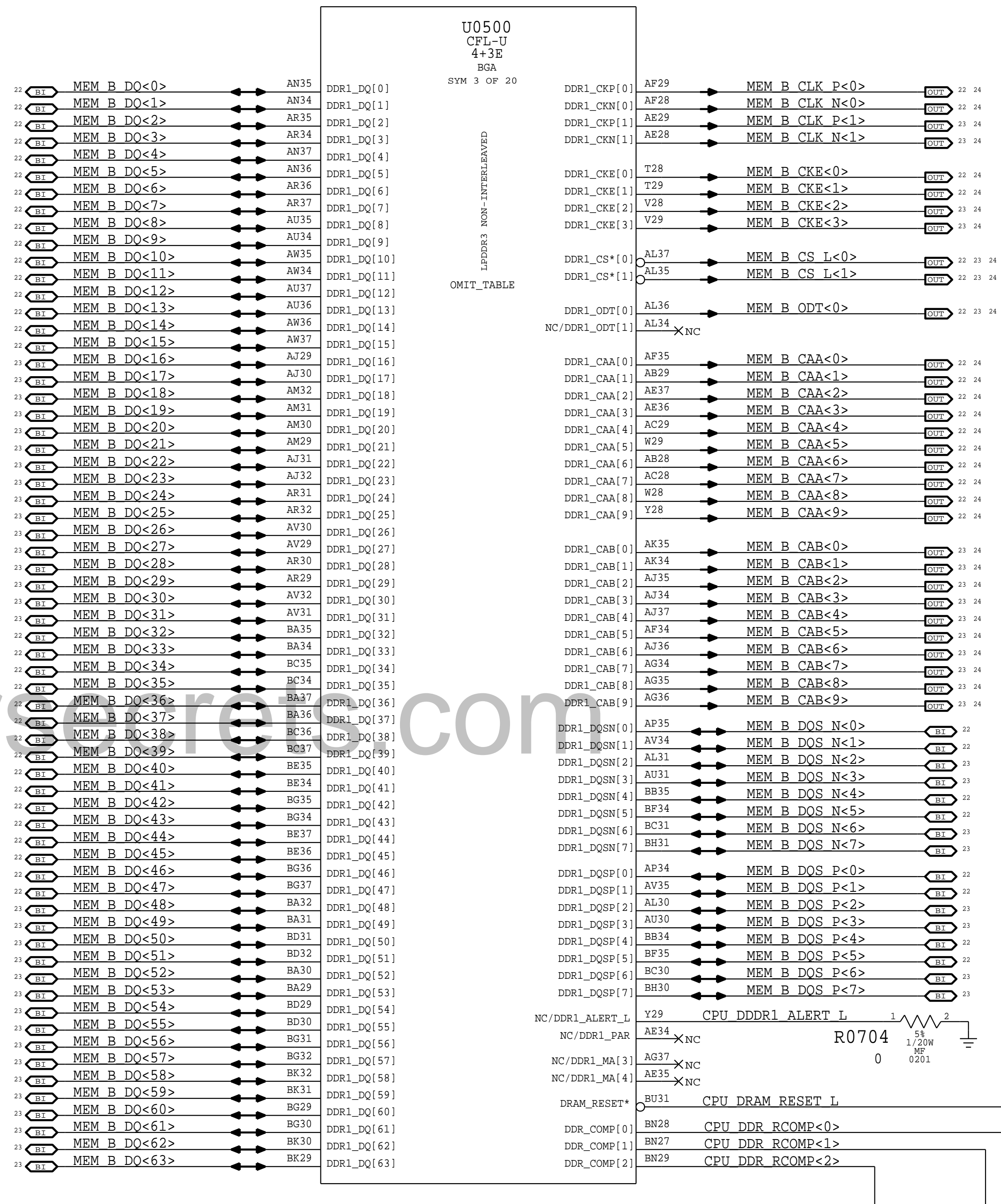
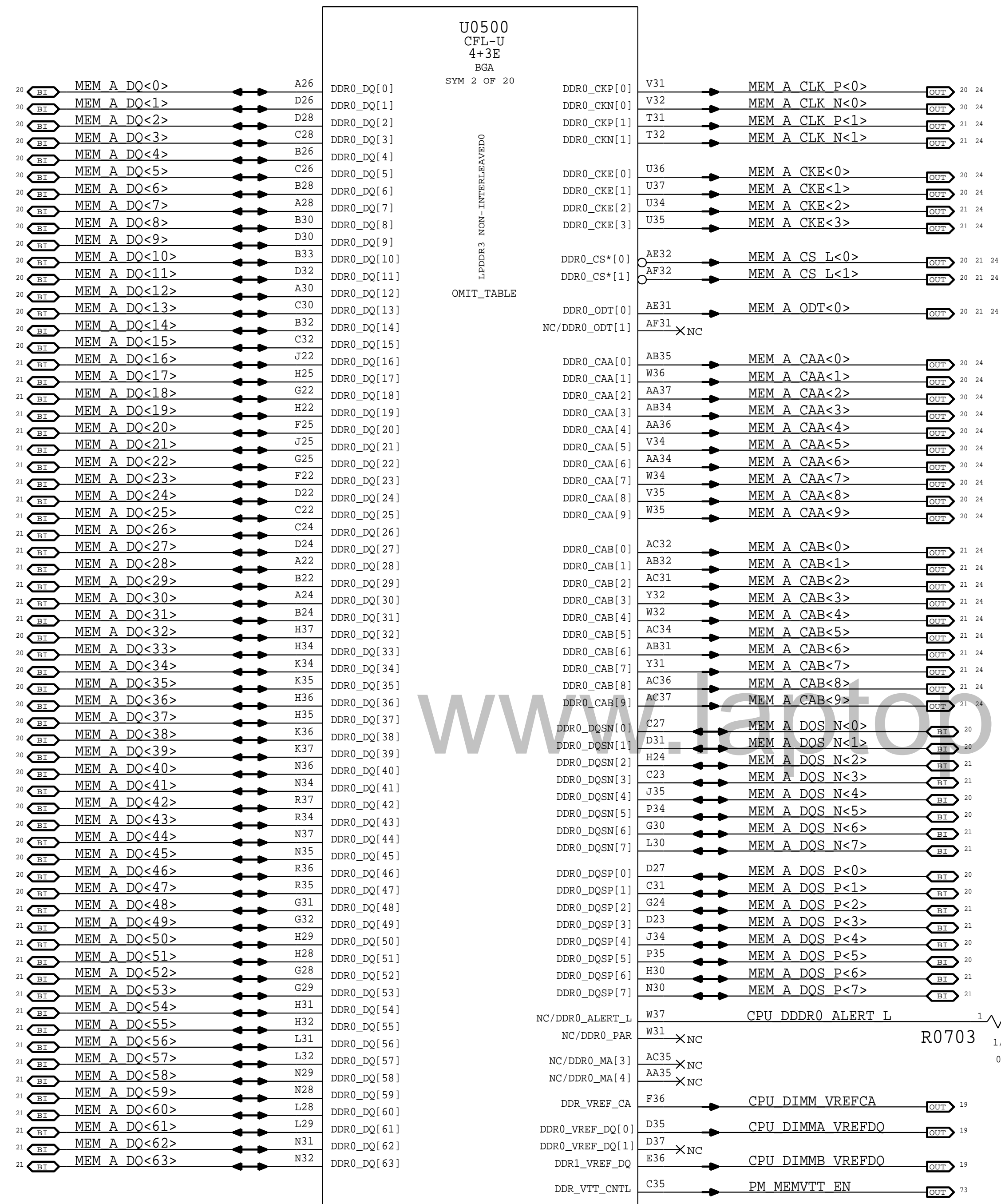
PAGE TITLE		
CPU GFX		
 Apple Inc.	DRAWING NUMBER	051-05309
	REVISION	6.0.0
	BRANCH	pvt
	PAGE	5 OF 500
NOTICE OF PROPRIETARY PROPERTY: THE INFORMATION CONTAINED HEREIN IS THE PROPRIETARY PROPERTY OF APPLE INC. THE POSSESSOR AGREES TO THE FOLLOWING: I TO MAINTAIN THIS DOCUMENT IN CONFIDENCE I1 NOT TO REPRODUCE OR COPY IT I11 NOT TO REVEAL OR PUBLISH IT IN WHOLE OR PART I1V ALL RIGHTS RESERVED		SHEET 4 OF 98


BOM_COST_GROUP=CPU & CHIPSET



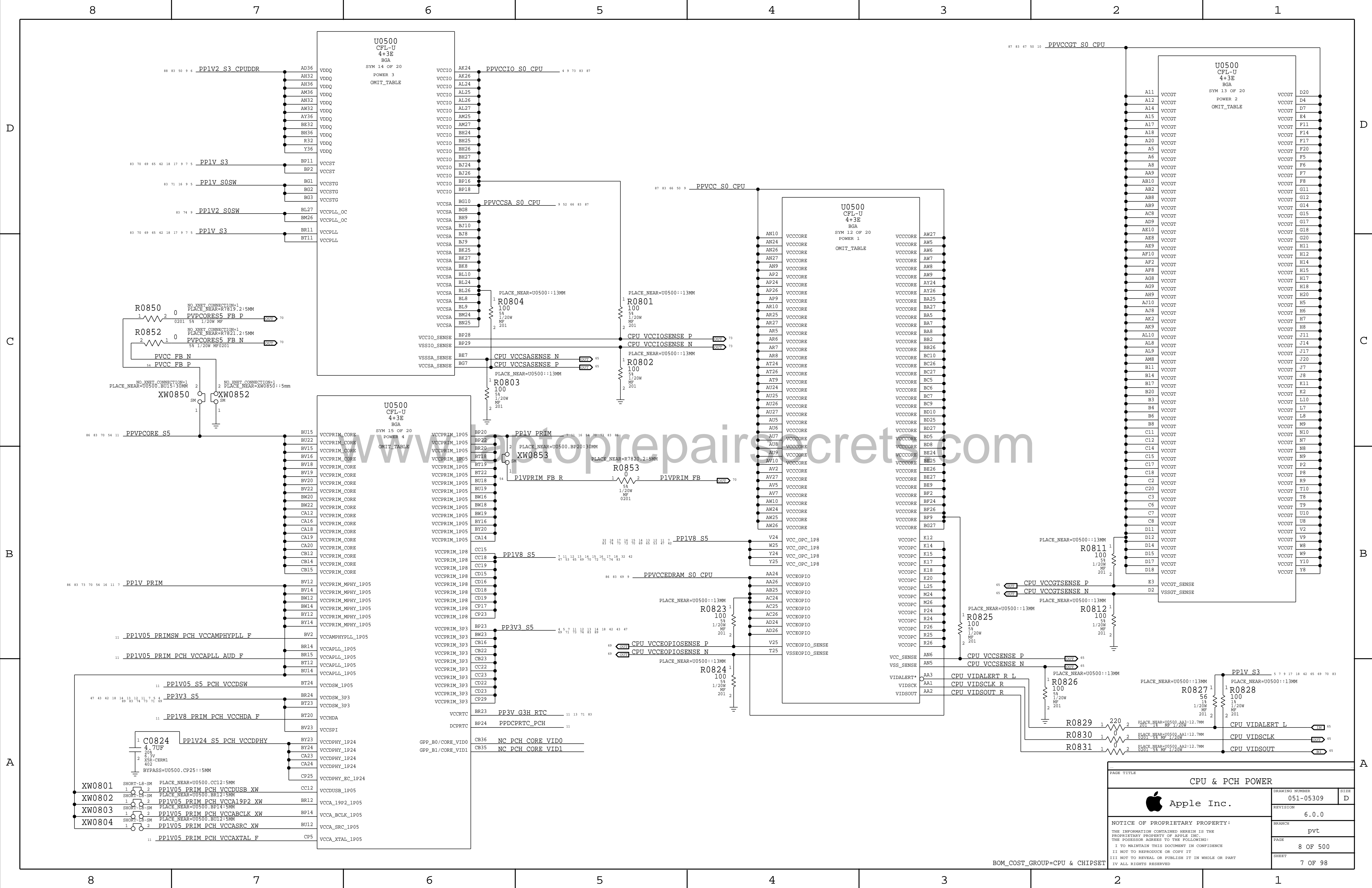
www.laptoprepairsecrets.com

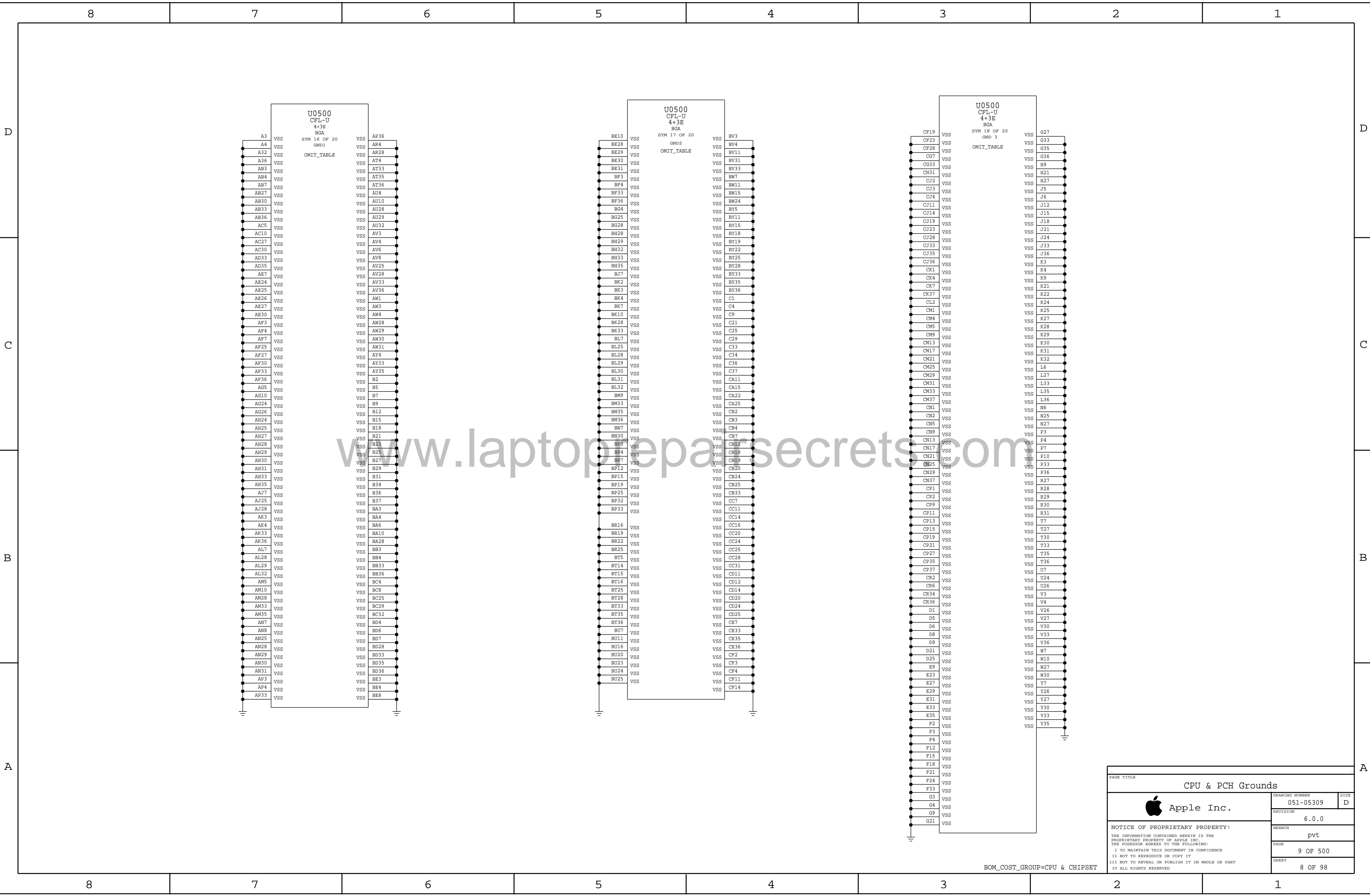
PAGE TITLE		
CPU MISC/JTAG/CFG/RSVD		
	DRAWING NUMBER	051-05309
	REVISION	6.0.0
	BRANCH	pvt
	PAGE	6 OF 500
NOTICE OF PROPRIETARY PROPERTY: THE INFORMATION CONTAINED HEREIN IS THE PROPRIETARY PROPERTY OF APPLE INC. THE POSSESSOR AGREES TO THE FOLLOWING: I TO MAINTAIN THIS DOCUMENT IN CONFIDENCE I1 NOT TO REPRODUCE OR COPY IT I11 NOT TO REVEAL OR PUBLISH IT IN WHOLE OR PART I1V ALL RIGHTS RESERVED		SHEET 5 OF 98



PAGE TITLE			
CPU LPDDR3 INTERFACE			
 Apple Inc.	DRAWING NUMBER		SIZE
	051-05309		D
	REVISION		
	6.0.0		
NOTICE OF PROPRIETARY PROPERTY:			
THE INFORMATION CONTAINED HEREIN IS THE PROPRIETARY PROPERTY OF APPLE INC. THE POSSESSOR AGREES TO THE FOLLOWING:			
I TO MAINTAIN THIS DOCUMENT IN CONFIDENCE I NOT TO REPRODUCE OR COPY IT I NOT TO REVEAL OR PUBLISH IT IN WHOLE OR PART I ALL RIGHTS RESERVED			
BRANCH		pvt	
PAGE		7 OF 500	
SHEET		6 OF 98	

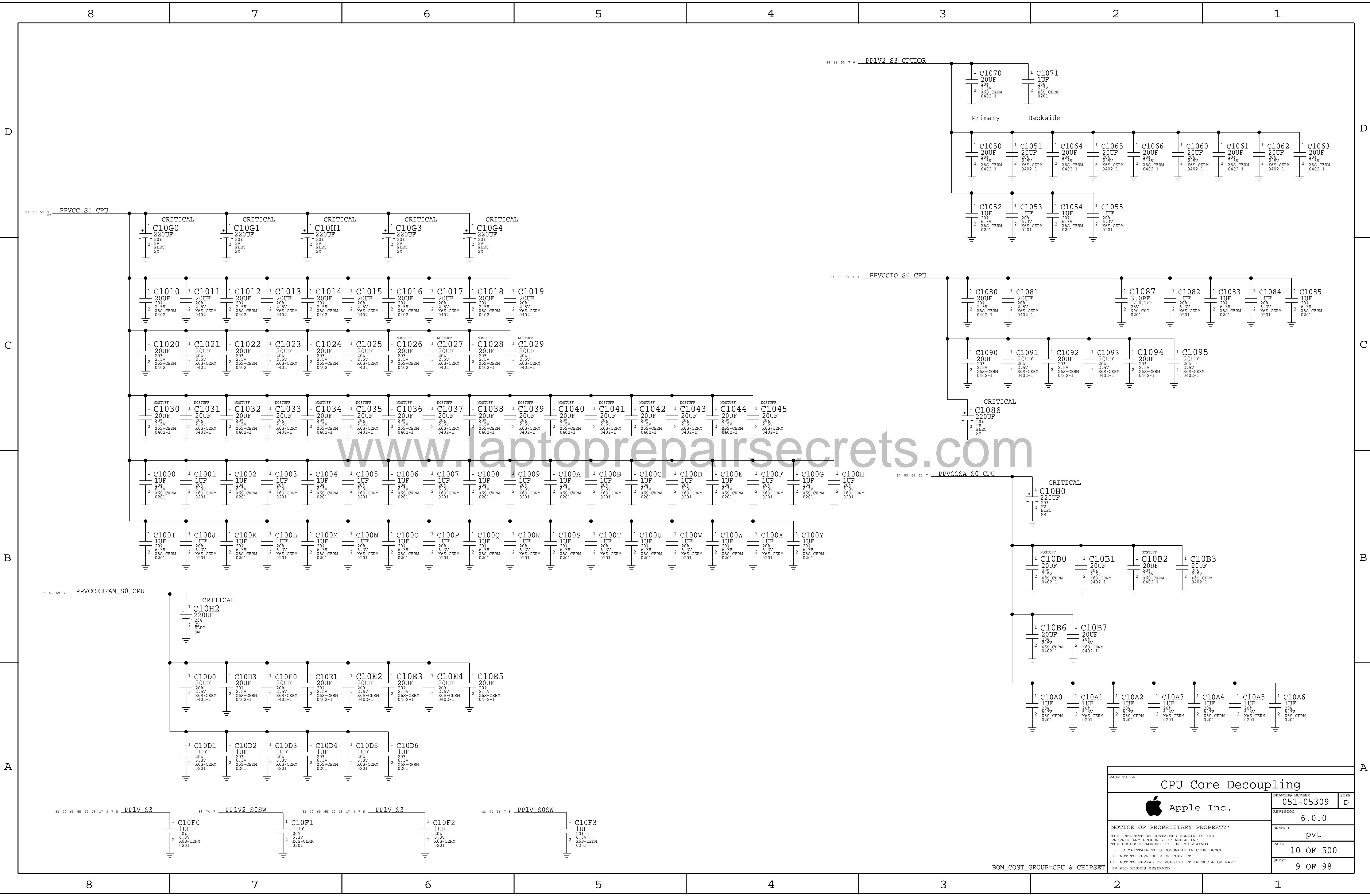
BOM_COST_GROUP=CPU & CHIPSET

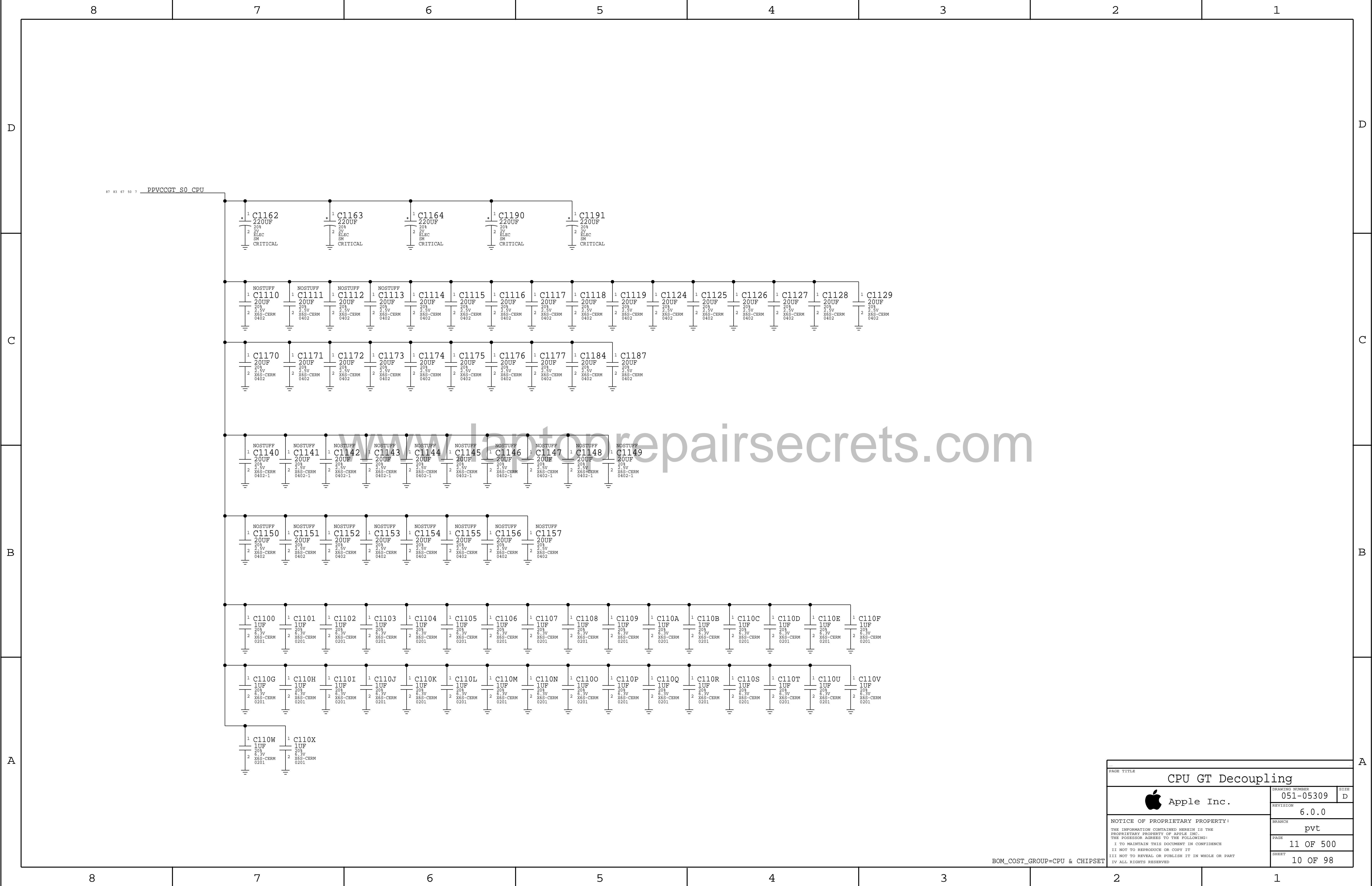




PAGE TITLE		
CPU & PCH Grounds		
	DRAWING NUMBER	051-05309
	REVISION	6.0.0
	BRANCH	pvt
NOTICE OF PROPRIETARY PROPERTY: THE INFORMATION CONTAINED HEREIN IS THE PROPRIETARY PROPERTY OF APPLE INC. THE POSSESSOR AGREES TO THE FOLLOWING: I TO MAINTAIN THIS DOCUMENT IN CONFIDENCE I1 NOT TO REPRODUCE OR COPY IT I11 NOT TO REVEAL OR PUBLISH IT IN WHOLE OR PART I1V ALL RIGHTS RESERVED		PAGE 9 OF 500
		SHEET 8 OF 98

BOM_COST_GROUP=CPU & CHIPSET





Apple Inc.

051-05309

6.0.0

pvt

11 OF 500

10 OF 98

NOTICE OF PROPRIETARY PROPERTY:

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

I TO MAINTAIN THIS DOCUMENT IN CONFIDENCE

II NOT TO REPRODUCE OR COPY IT

III NOT TO REVEAL OR PUBLISH IT IN WHOLE OR PART

IV ALL RIGHTS RESERVED

CPU GT Decoupling

DRAWING NUMBER

REVISION

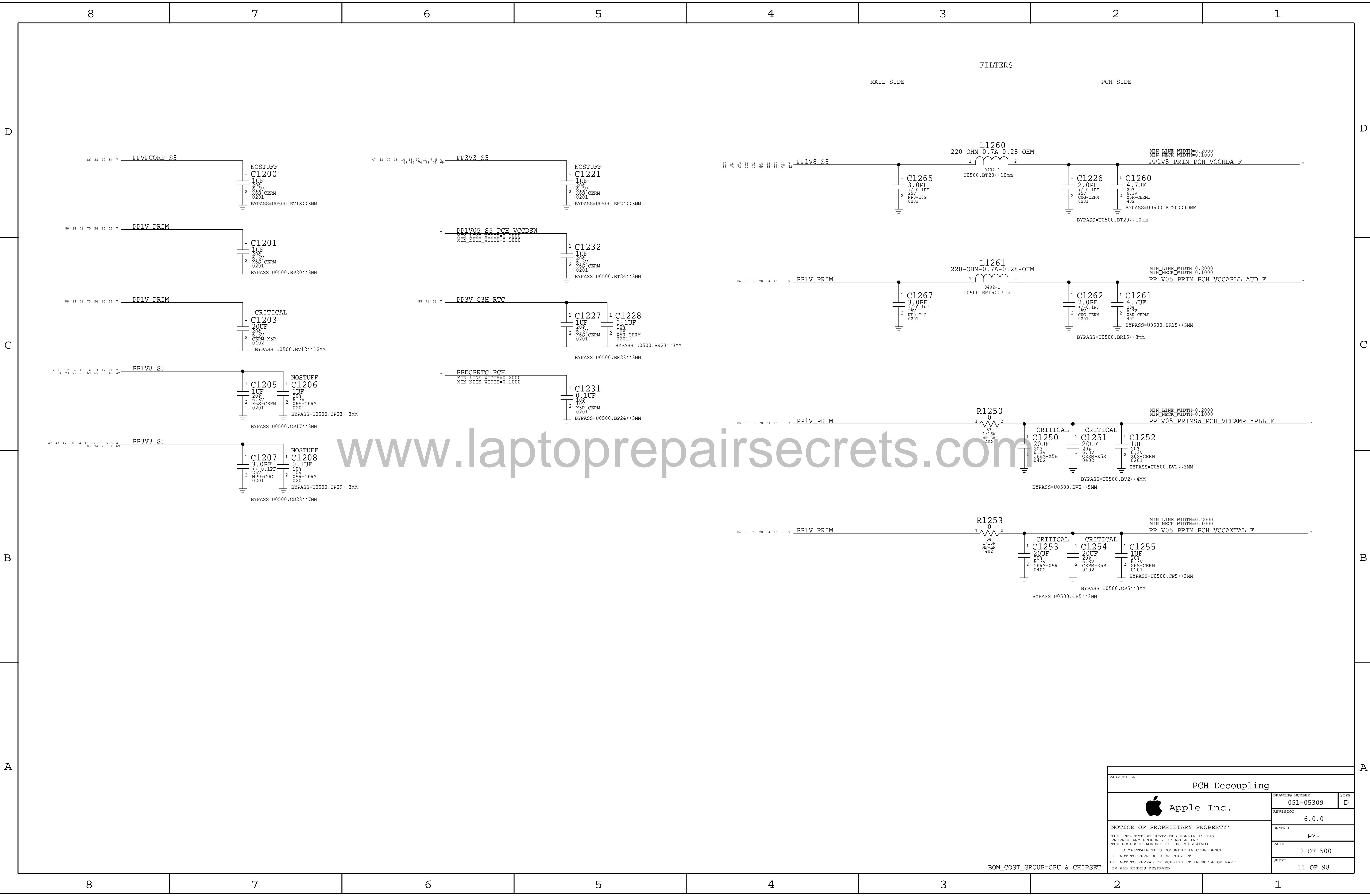
BRANCH


PAGE

SHEET

SIZE

D



PAGE TITLE		
PCH Decoupling		
 Apple Inc.	DRAWING NUMBER	051-05309
	REVISION	6.0.0
NOTICE OF PROPRIETARY PROPERTY: THE INFORMATION CONTAINED HEREIN IS THE PROPRIETARY PROPERTY OF APPLE INC. THE POSSESSOR AGREES TO THE FOLLOWING: I TO MAINTAIN THIS DOCUMENT IN CONFIDENCE II NOT TO REPRODUCE OR COPY IT III NOT TO REVEAL OR PUBLISH IT IN WHOLE OR PART IV ALL RIGHTS RESERVED	BRANCH	pvt
	PAGE	12 OF 500
	SHEET	11 OF 98



D

C

B

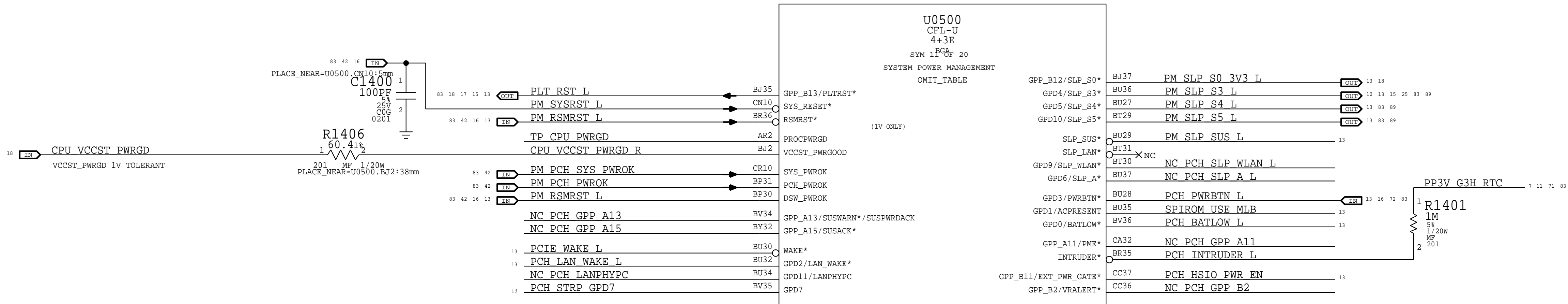
A

D

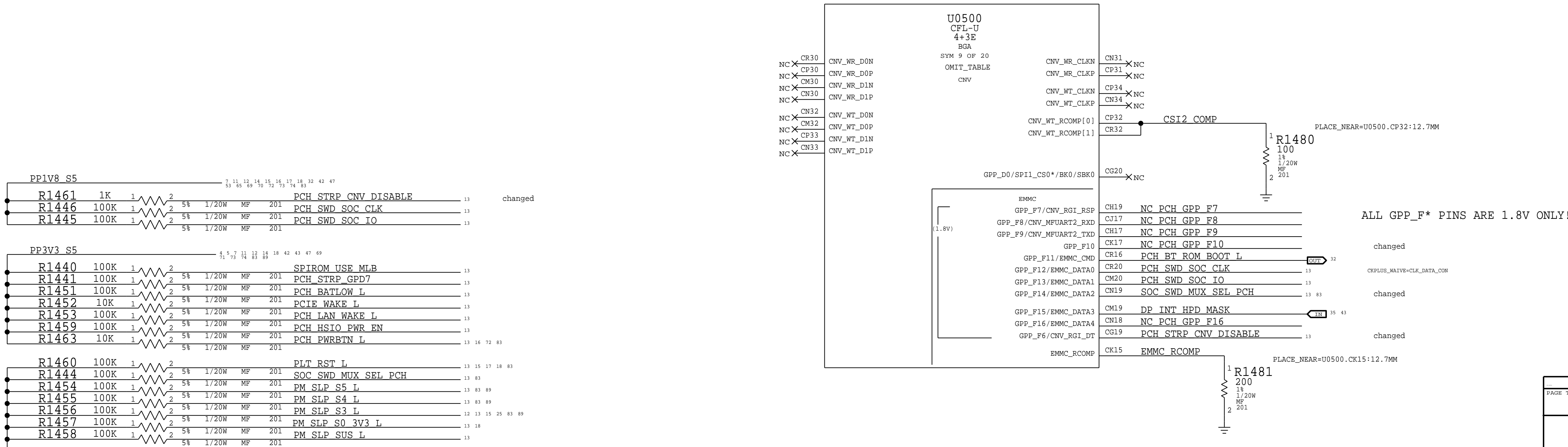
C

B

A



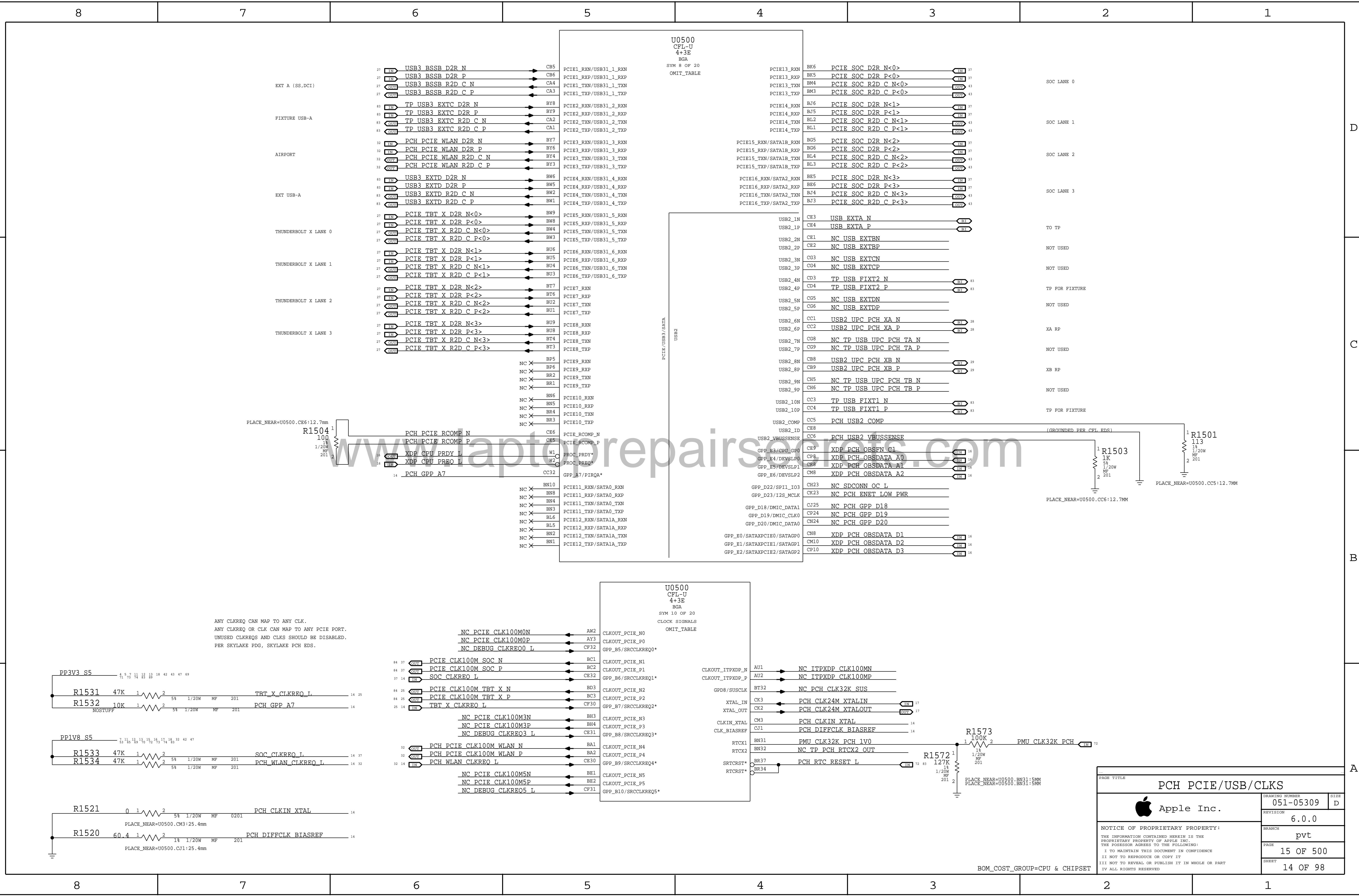
www.laptoprepairsecrets.com

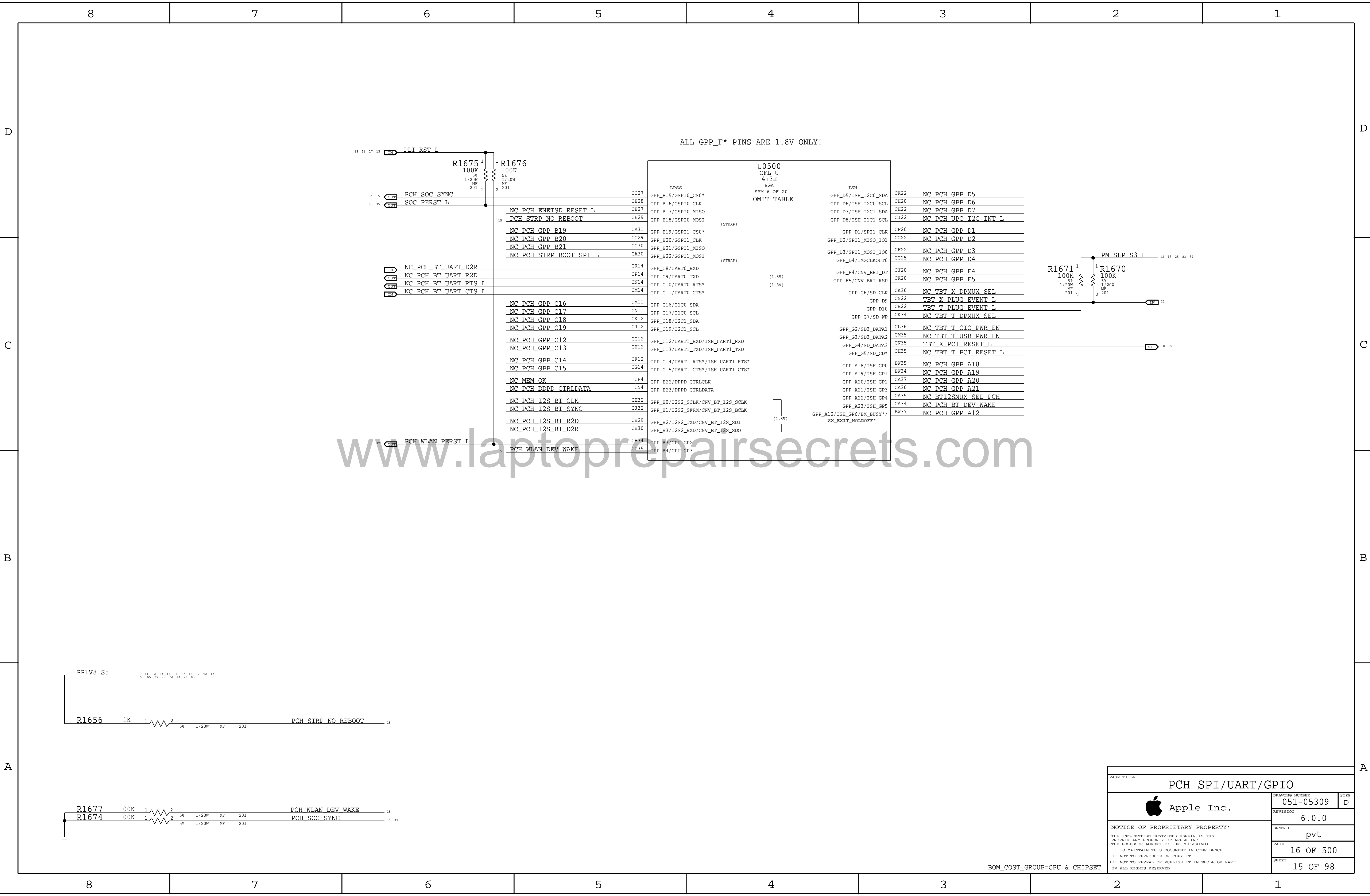


NOTE: =PM_SLP_S0_L HAS INTERNAL PULL-UP BEFORE RSMRST_L IS RELEASED.
THIS CAUSES A VOLTAGE DIVIDER WITH THE PULL-DOWN HERE.
THE SIGNAL IS DRIVEN HI AFTER RSMRST_L IS RELEASED.

BOM_COST_GROUP=CPU & CHIPSET

PAGE TITLE		
PCH POWER MANAGEMENT		
	DRAWING NUMBER	051-05309
	REVISION	6.0.0
NOTICE OF PROPRIETARY PROPERTY: THE INFORMATION CONTAINED HEREIN IS THE PROPRIETARY PROPERTY OF APPLE INC. THE POSSESSOR AGREES TO THE FOLLOWING: I TO MAINTAIN THIS DOCUMENT IN CONFIDENCE I NOT TO REPRODUCE OR COPY IT I NOT TO REVEAL OR PUBLISH IT IN WHOLE OR PART I ALL RIGHTS RESERVED	BRANCH	pvt
	PAGE	14 OF 500
	SHEET	13 OF 98





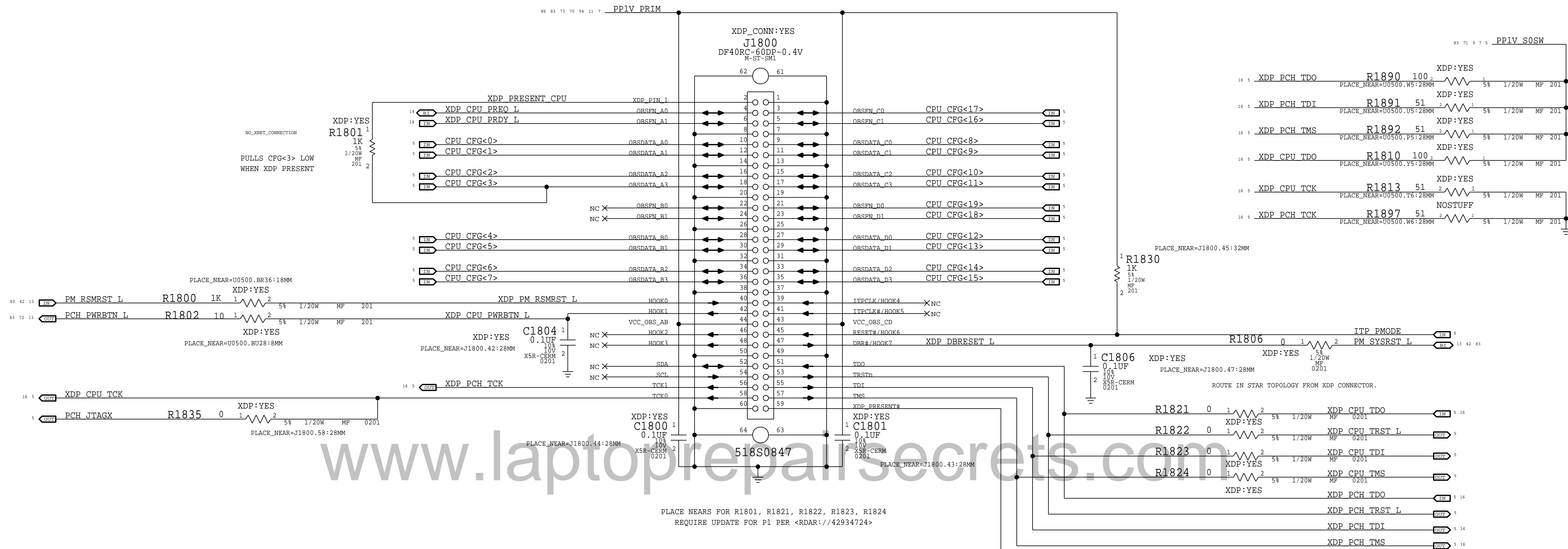
PAGE TITLE		
PCH SPI/UART/GPIO		
	DRAWING NUMBER	051-05309
	REVISION	6.0.0
NOTICE OF PROPRIETARY PROPERTY: THE INFORMATION CONTAINED HEREIN IS THE PROPRIETARY PROPERTY OF APPLE INC. THE POSSESSOR AGREES TO THE FOLLOWING: I TO MAINTAIN THIS DOCUMENT IN CONFIDENCE II NOT TO REPRODUCE OR COPY IT III NOT TO REVEAL OR PUBLISH IT IN WHOLE OR PART IV ALL RIGHTS RESERVED	BRANCH	pvt
	PAGE	16 OF 500
	SHEET	15 OF 98

BOM_COST_GROUP=CPU & CHIPSET



Primary / Merged (CPU/PCH) Micro2-XDP

NOTE: This is not the standard XDP pinout.
Use with 921-0133 Adapter Flex to
support chipset debug.




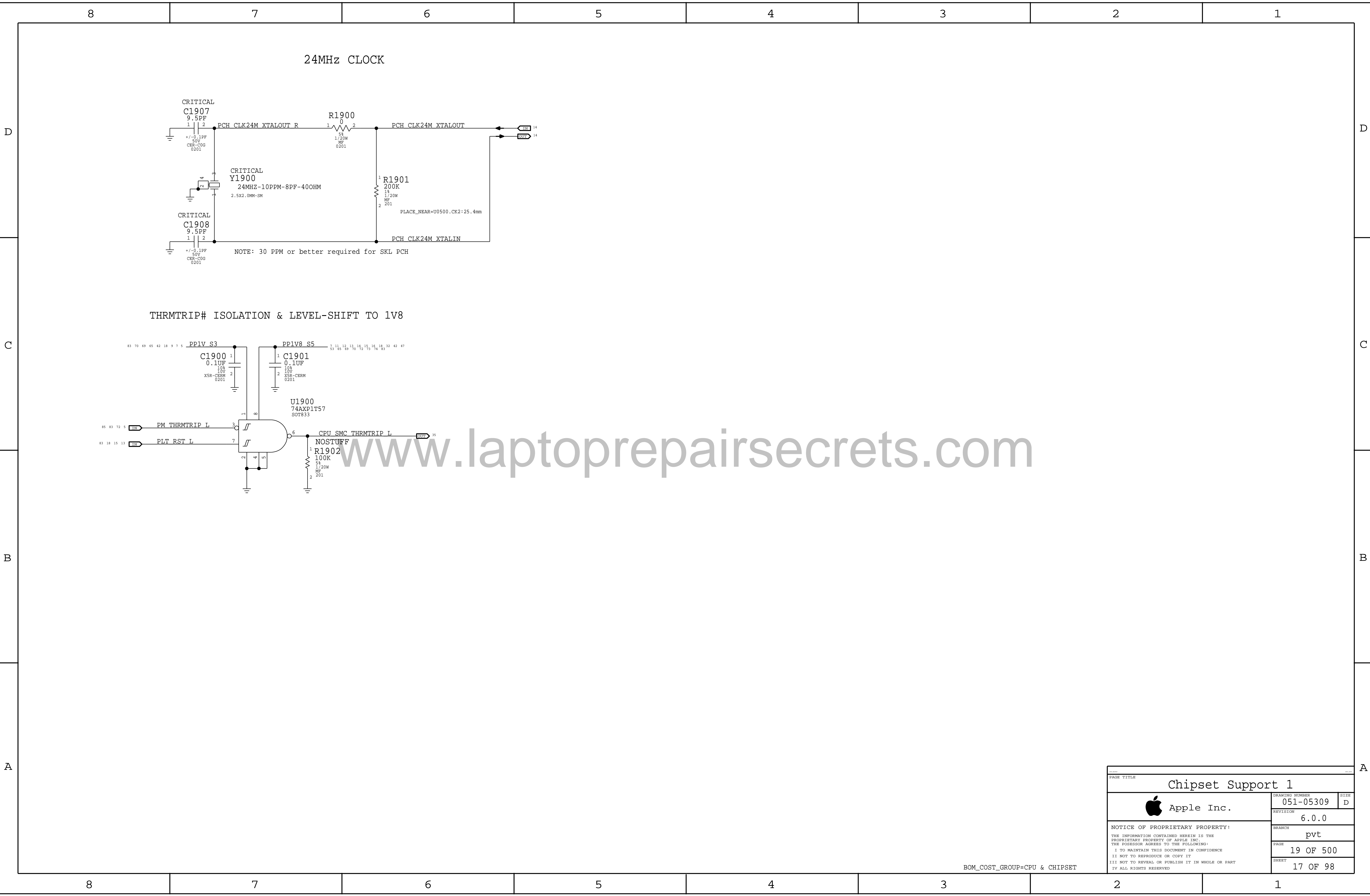
PCH XDP Signals


These signals do not connect to the Primary (Merged) XDP connector in this architecture.
The PDG puts them on a secondary XDP connector that is only needed in some PCH debugging situation.
They are listed here to show their secondary XDP functions and to provide test points for signals that are not used elsewhere.

PCH/XDP Signals			
14	B1	XDP_PCH_OBSDATA_A0	TP-P6 TP1868
14	B1	XDP_PCH_OBSDATA_A1	TP-P6 TP1869
14	B1	XDP_PCH_OBSDATA_A2	TP-P6 TP1870
14	B1	XDP_PCH_OBSDATA_A3	TP-P6 TP1871
14	B1	XDP_PCH_OBSDATA_B0	TP-P6 TP1872
14	B1	XDP_PCH_OBSDATA_D1	TP-P6 TP1878
14	B1	XDP_PCH_OBSDATA_D2	TP-P6 TP1879
14	B1	XDP_PCH_OBSDATA_D3	TP-P6 TP1880
14	B1	XDP_PCH_OBSFN_C1	TP-P6 TP1881

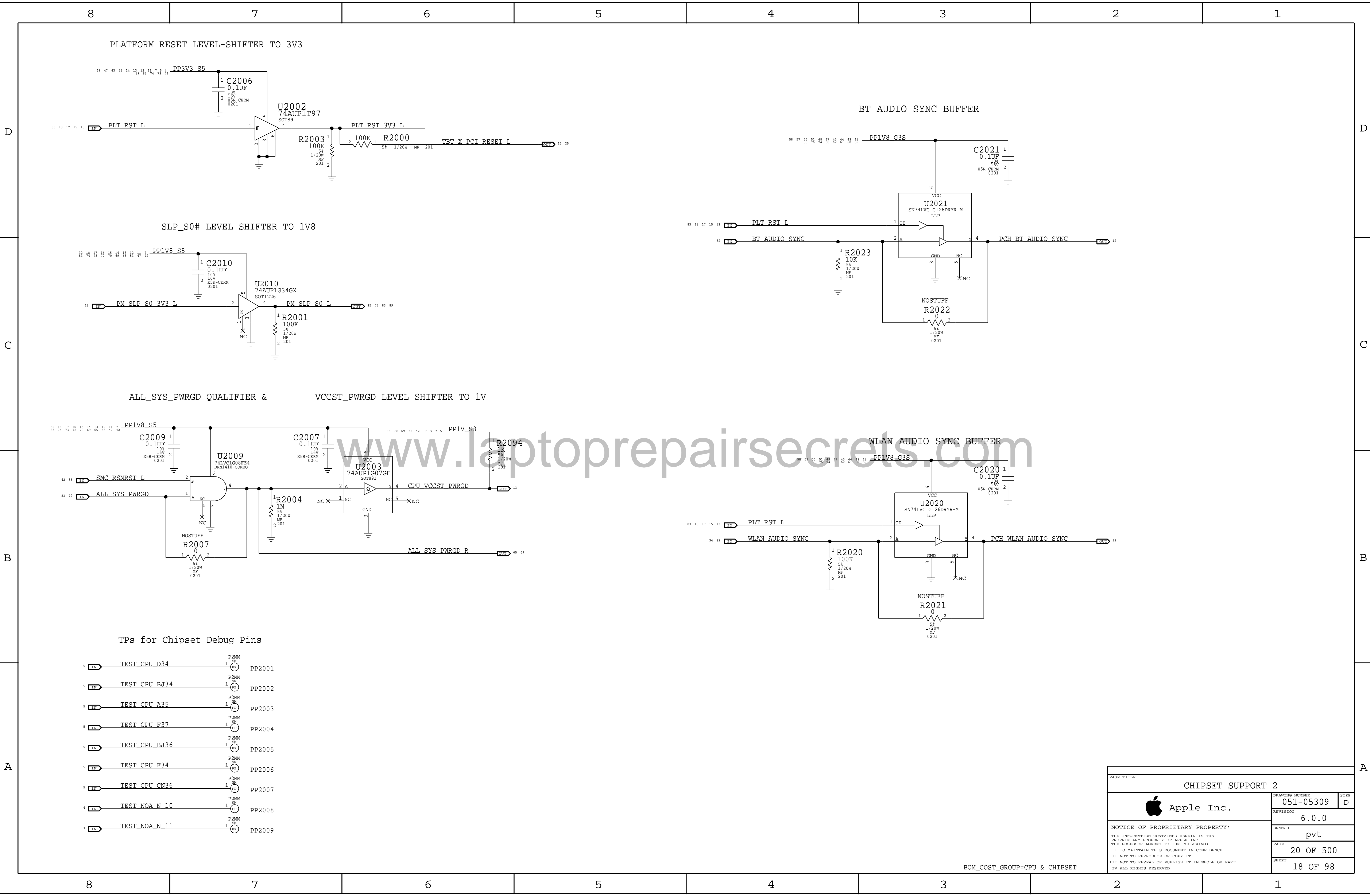
Unused GPIOs have TPs.


PAGE TITLE			
CPU/PCH Merged XDP			
 Apple Inc.	DRAWING NUMBER		SIZE
	051-05309		D
	REVISION 6.0.0		
NOTICE OF PROPRIETARY PROPERTY:		BRANCH	
THE INFORMATION CONTAINED HEREIN IS THE PROPRIETARY PROPERTY OF APPLE INC. THE POSSESSOR AGREES TO THE FOLLOWING:		pvt	
I TO MAINTAIN THIS DOCUMENT IN CONFIDENCE II NOT TO REPRODUCE OR COPY IT		PAGE	
III NOT TO REVEAL OR PUBLISH IT IN WHOLE OR PART IV ALL RIGHTS RESERVED		18 OF 500	
		SHEET	
		16 OF 98	



PAGE TITLE Chipset Support 1		
 Apple Inc.	DRAWING NUMBER 051-05309	SIZE D
	REVISION 6.0.0	BRANCH pvt
	PAGE 19 OF 500	SHEET 17 OF 98
NOTICE OF PROPRIETARY PROPERTY: THE INFORMATION CONTAINED HEREIN IS THE PROPRIETARY PROPERTY OF APPLE INC. THE POSSESSOR AGREES TO THE FOLLOWING: I TO MAINTAIN THIS DOCUMENT IN CONFIDENCE II NOT TO REPRODUCE OR COPY IT III NOT TO REVEAL OR PUBLISH IT IN WHOLE OR PART IV ALL RIGHTS RESERVED		

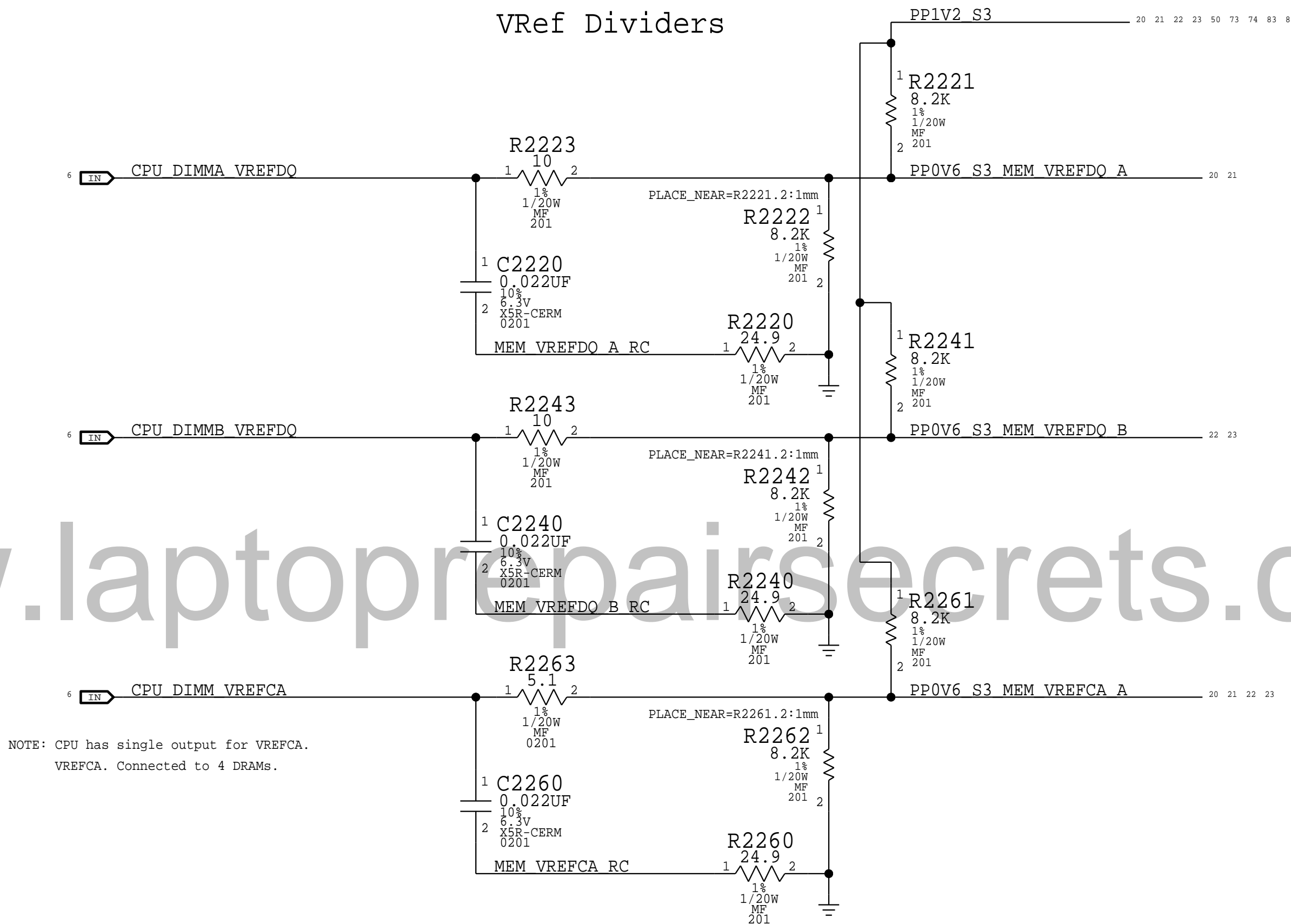
BOM_COST_GROUP=CPU & CHIPSET



PAGE TITLE		
CHIPSET SUPPORT 2		
 Apple Inc.	DRAWING NUMBER	051-05309
	REVISION	6.0.0
NOTICE OF PROPRIETARY PROPERTY: THE INFORMATION CONTAINED HEREIN IS THE PROPRIETARY PROPERTY OF APPLE INC. THE POSSESSOR AGREES TO THE FOLLOWING: I TO MAINTAIN THIS DOCUMENT IN CONFIDENCE I NOT TO REPRODUCE OR COPY IT I NOT TO REVEAL OR PUBLISH IT IN WHOLE OR PART I ALL RIGHTS RESERVED	BRANCH	pvt
	PAGE	20 OF 500
	SHEET	18 OF 98

BOM_COST_GROUP=CPU & CHIPSET

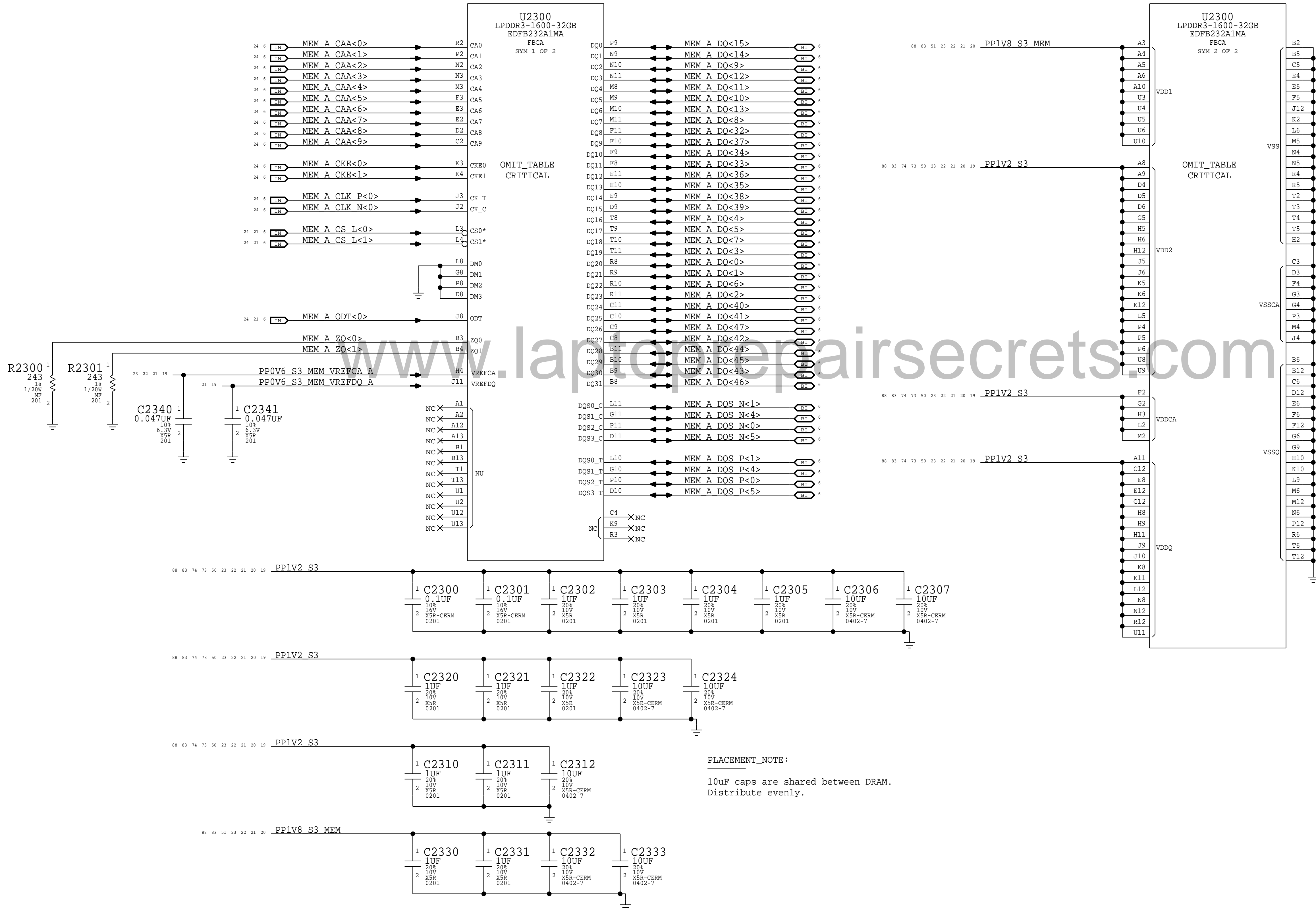
CPU-Based Margining



PAGE TITLE		
LPDDR3 VREF MARGINING		
	DRAWING NUMBER	051-05309
	REVISION	6.0.0
NOTICE OF PROPRIETARY PROPERTY: THE INFORMATION CONTAINED HEREIN IS THE PROPRIETARY PROPERTY OF APPLE INC. THE POSSESSOR AGREES TO THE FOLLOWING: I TO MAINTAIN THIS DOCUMENT IN CONFIDENCE I NOT TO REPRODUCE OR COPY IT I NOT TO REVEAL OR PUBLISH IT IN WHOLE OR PART I ALL RIGHTS RESERVED	BRANCH	pvt
	PAGE	22 OF 500
	SHEET	19 OF 98

BOM_COST_GROUP=CPU & CHIPSET

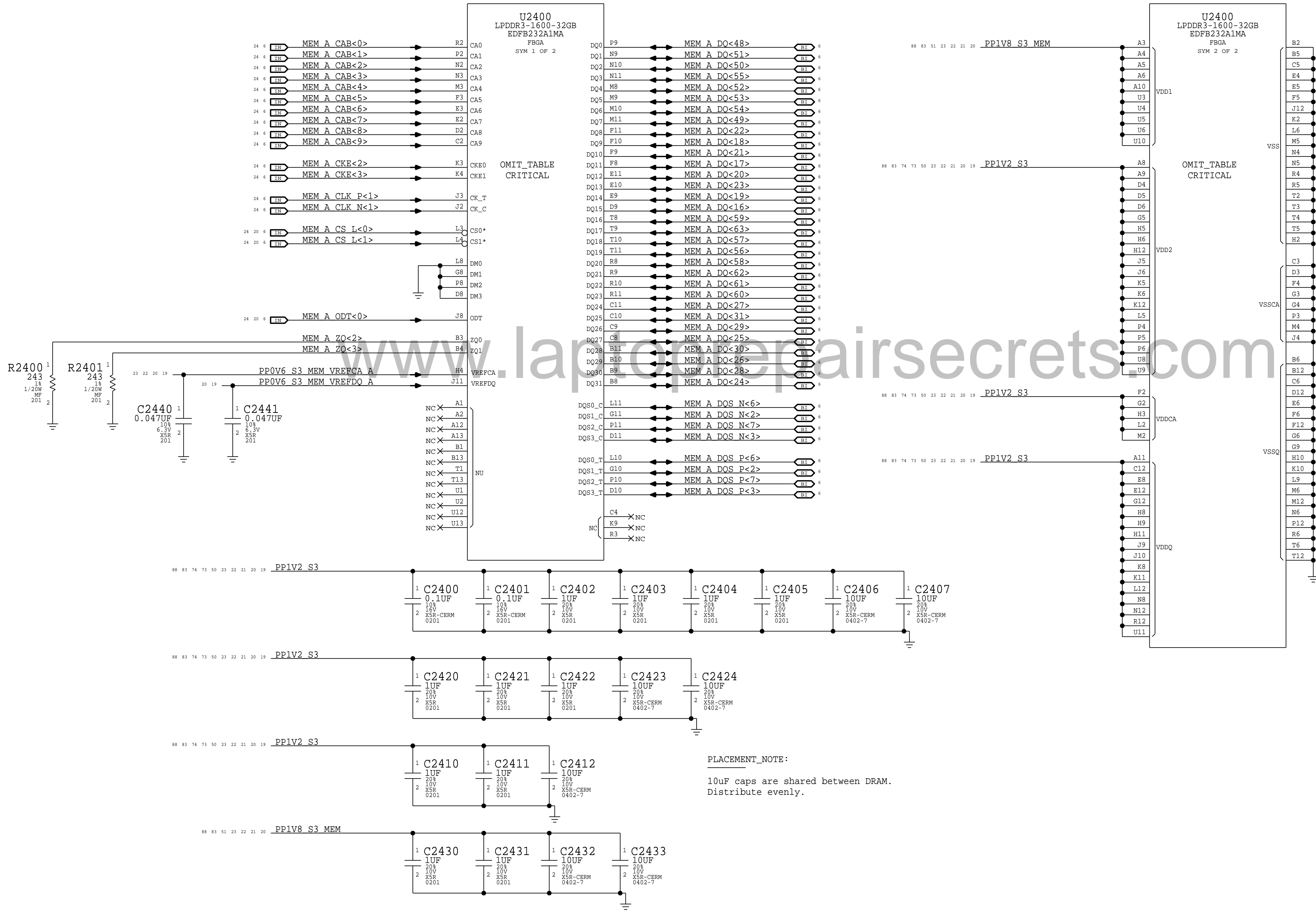
LPDDR3 CHANNEL A (0-31)



PAGE TITLE		PAGE TITLE	
LPDDR3 DRAM Channel A (00-31)		LPDDR3 DRAM Channel A (00-31)	
	DRAWING NUMBER	051-05309	SIZE
	REVISION	6.0.0	D
NOTICE OF PROPRIETARY PROPERTY:		BRANCH	
THE INFORMATION CONTAINED HEREIN IS THE PROPRIETARY PROPERTY OF APPLE INC. THE POSSESSOR AGREES TO THE FOLLOWING:		pvt	
I TO MAINTAIN THIS DOCUMENT IN CONFIDENCE		PAGE	
I1 NOT TO REPRODUCE OR COPY IT		23 OF 500	
I11 NOT TO REVEAL OR PUBLISH IT IN WHOLE OR PART		SHEET	
I1V ALL RIGHTS RESERVED		20 OF 98	

BOM_COST_GROUP=DRAM

LPDDR3 CHANNEL A (32-63)



PAGE TITLE		PAGE TITLE	
LPDDR3 DRAM Channel A (32-63)		LPDDR3 DRAM Channel A (32-63)	
		DRAWING NUMBER	051-05309
		REVISION	6.0.0
NOTICE OF PROPRIETARY PROPERTY: THE INFORMATION CONTAINED HEREIN IS THE PROPRIETARY PROPERTY OF APPLE INC. THE POSSESSOR AGREES TO THE FOLLOWING: I TO MAINTAIN THIS DOCUMENT IN CONFIDENCE I NOT TO REPRODUCE OR COPY IT I NOT TO REVEAL OR PUBLISH IT IN WHOLE OR PART I ALL RIGHTS RESERVED		BRANCH	pvt
		PAGE	24 OF 500
		SHEET	21 OF 98

D



C

B

A

D

A

D

C

B

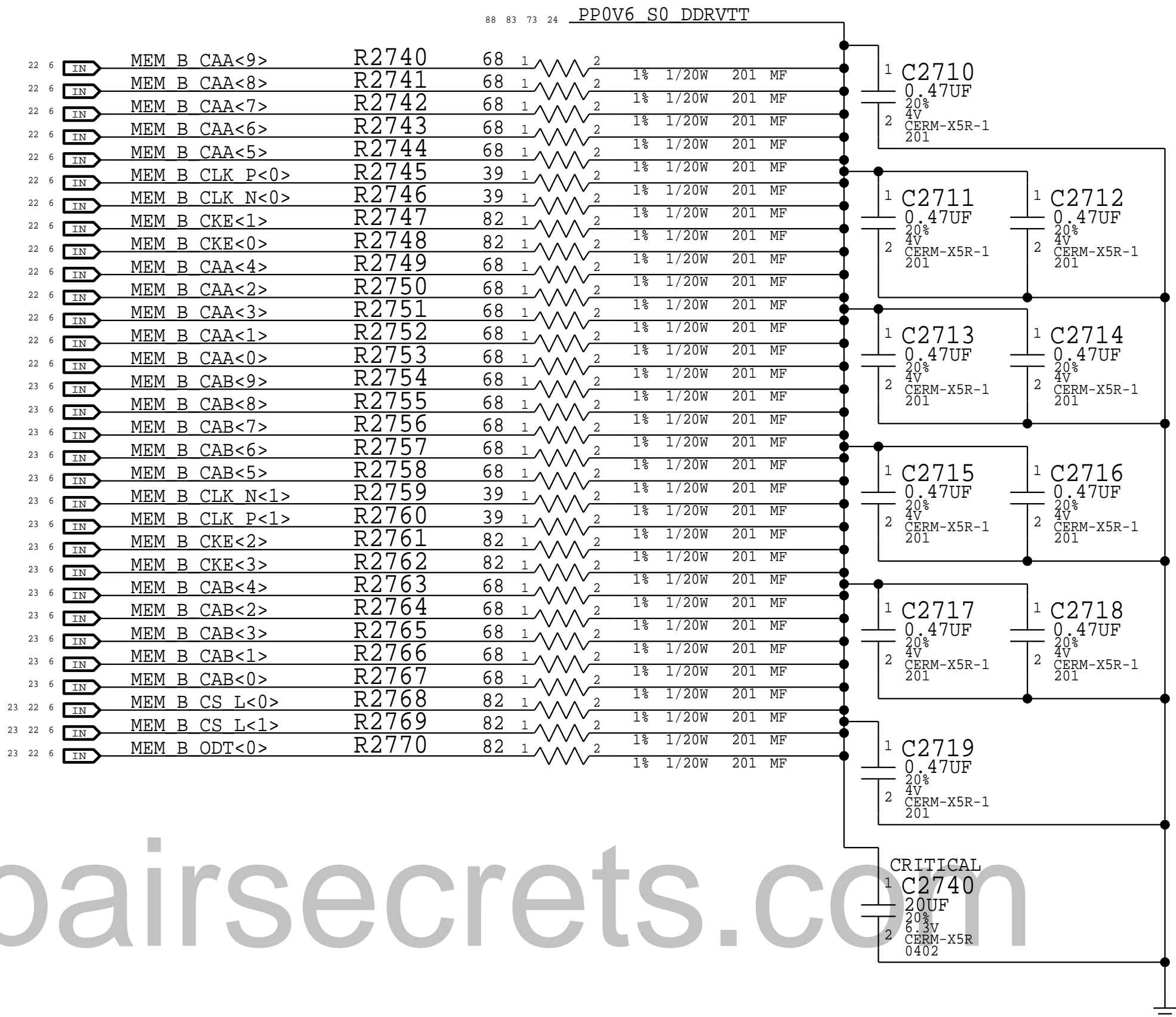
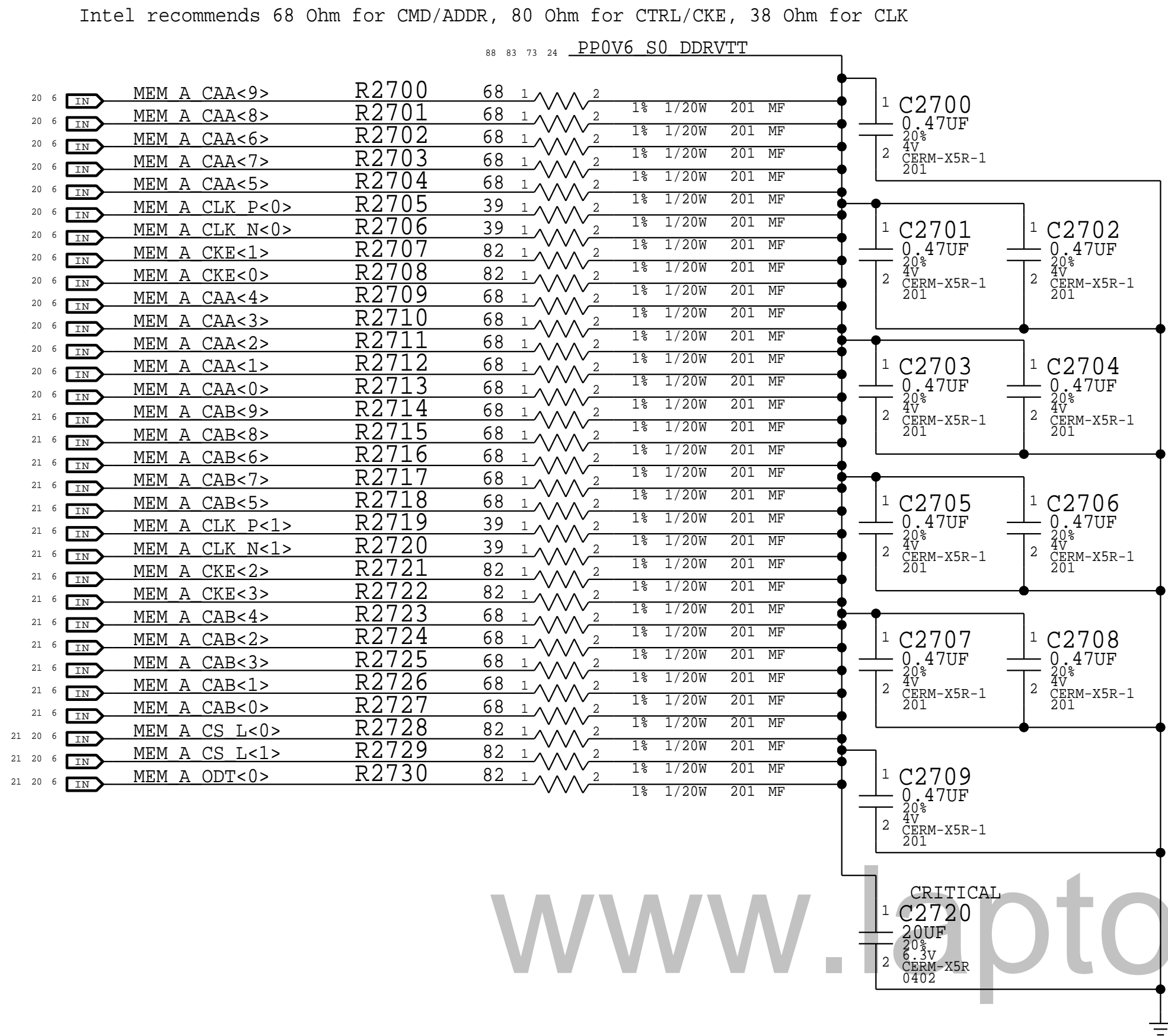
A

D


C

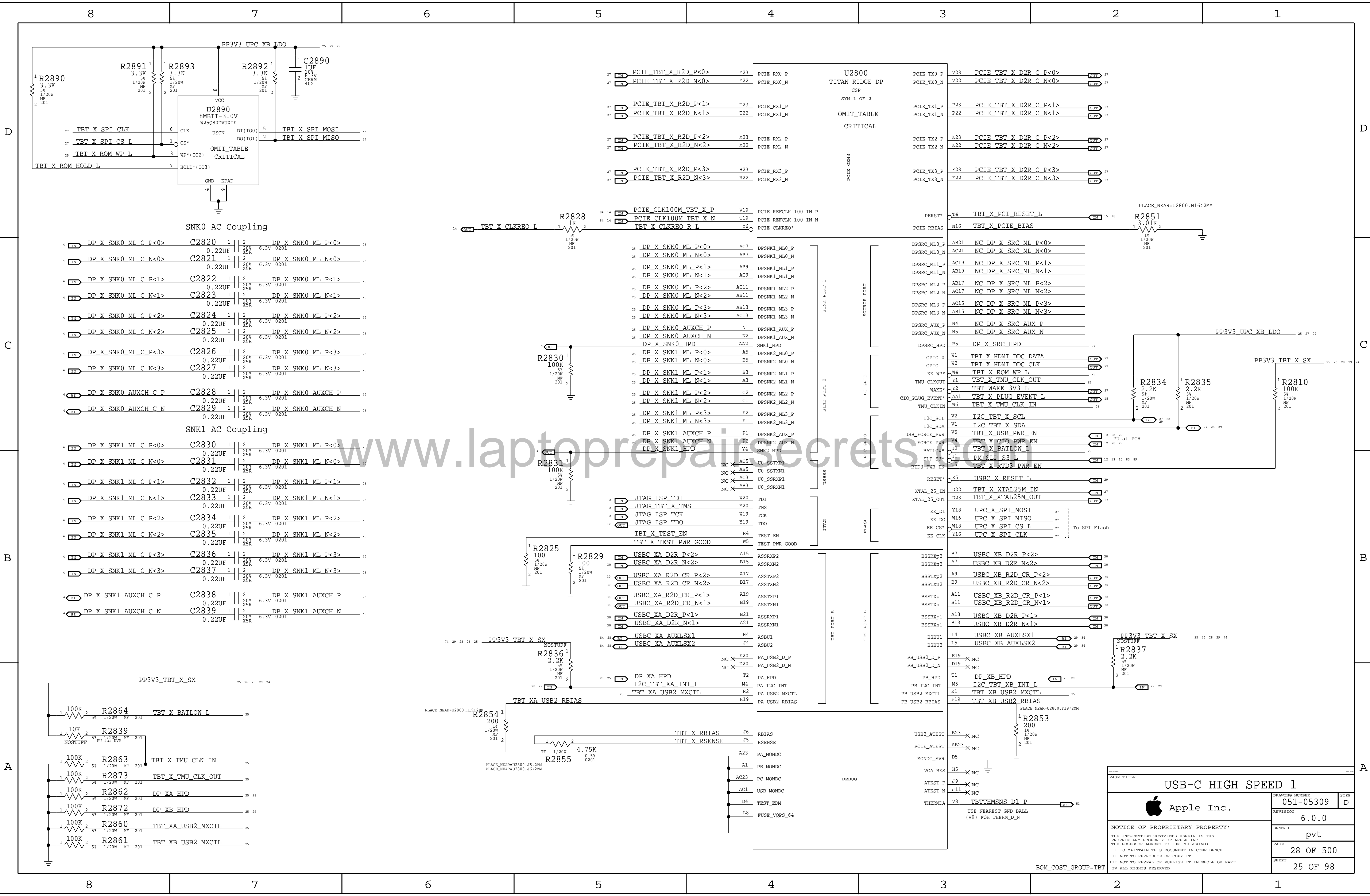
B

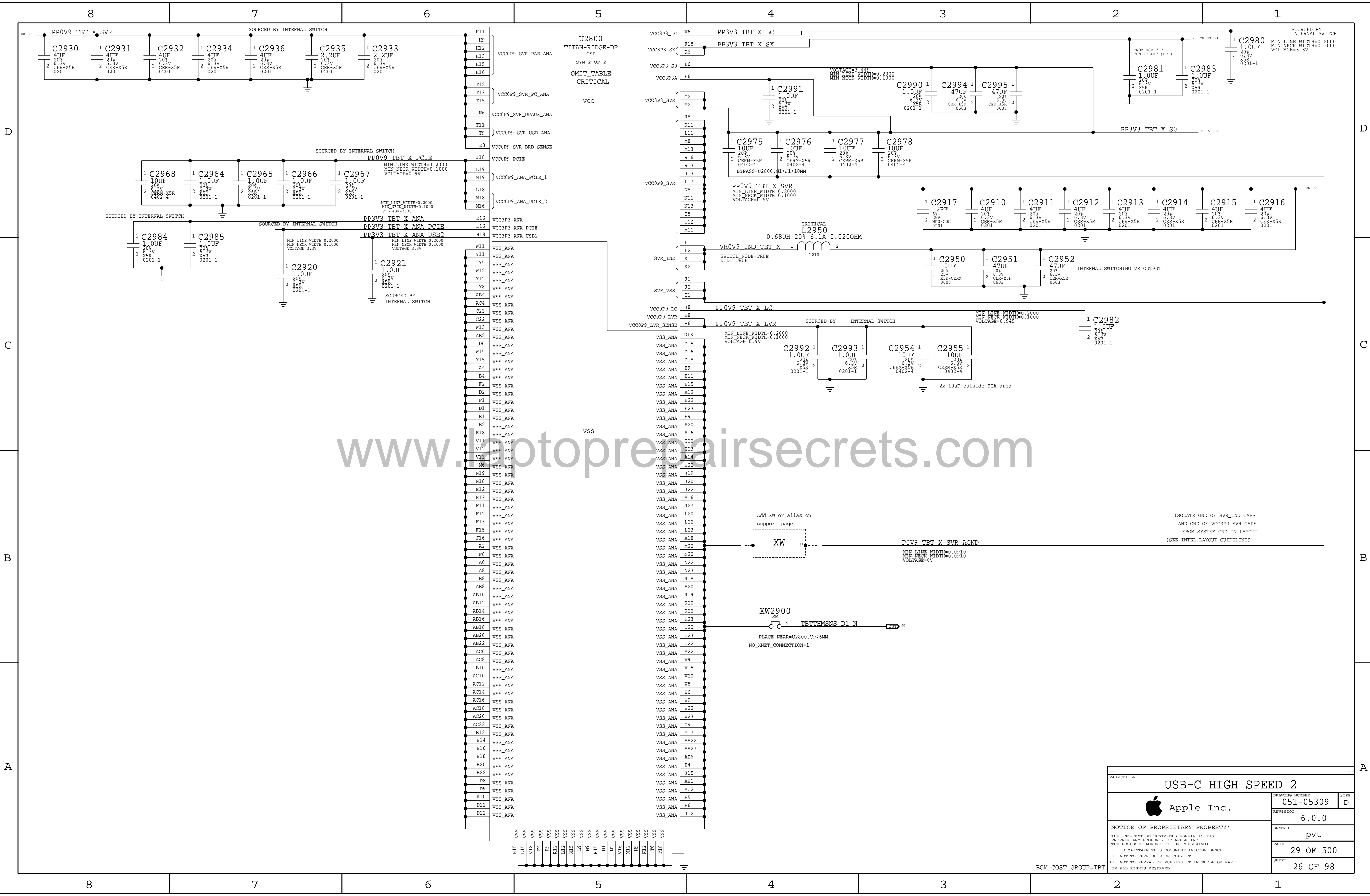
A




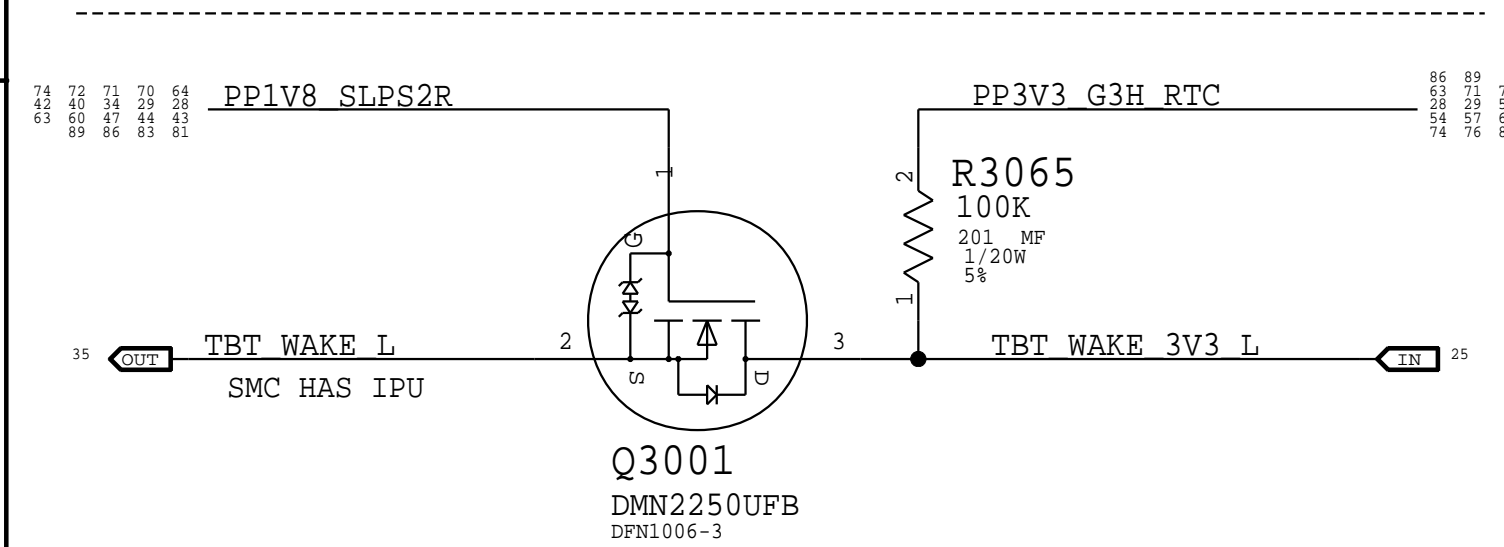
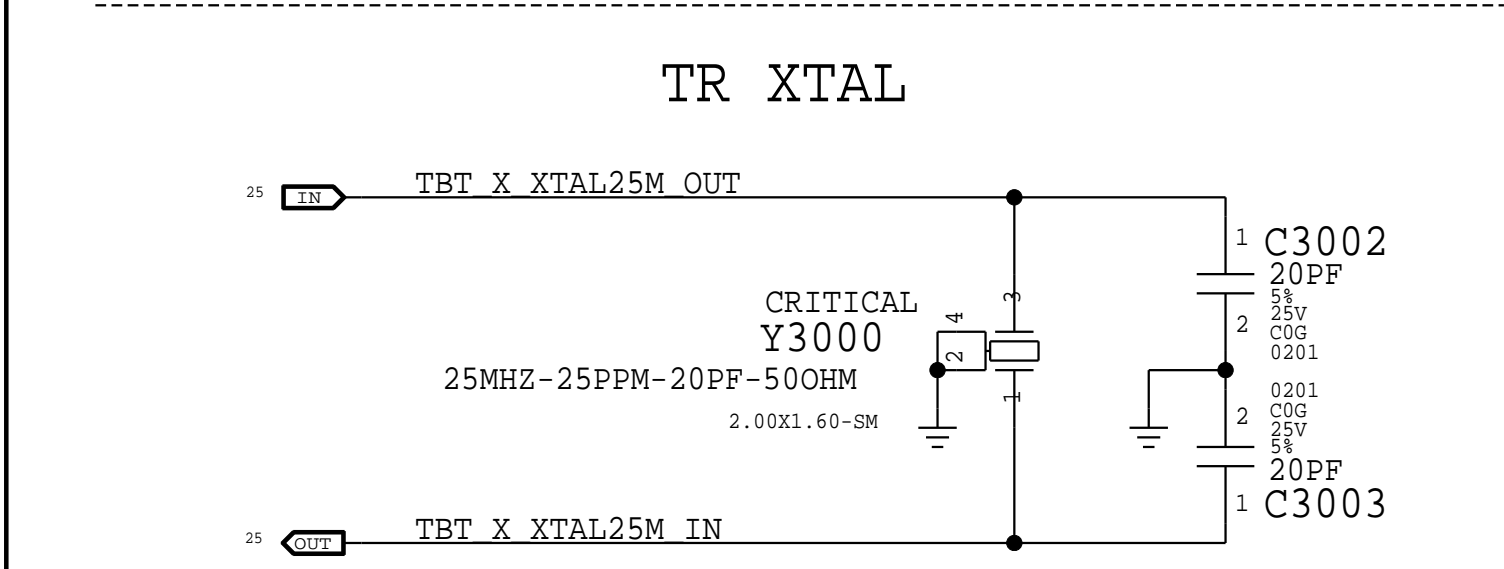
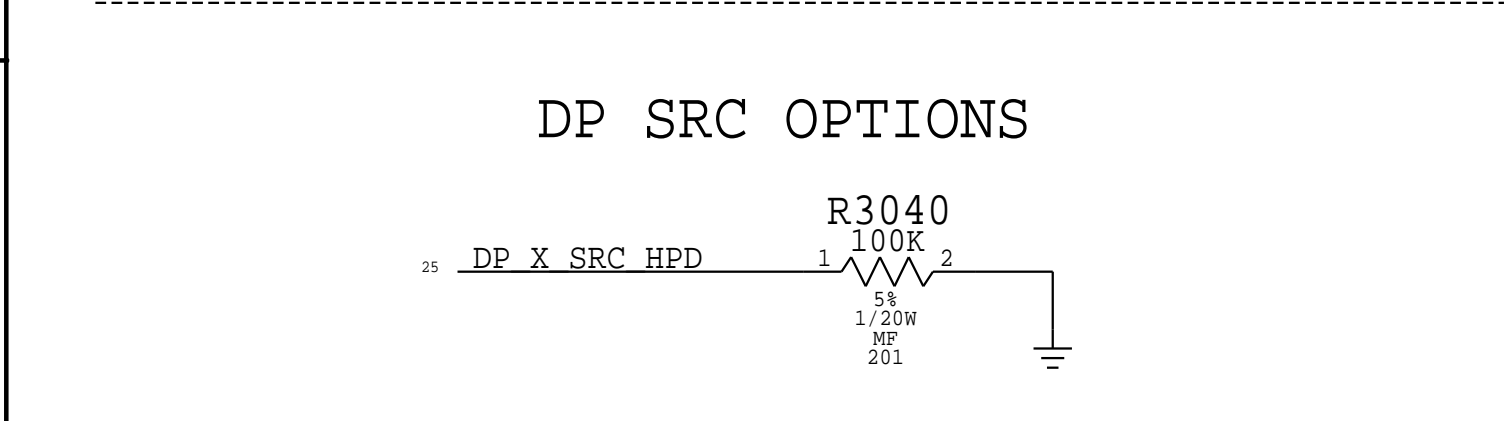
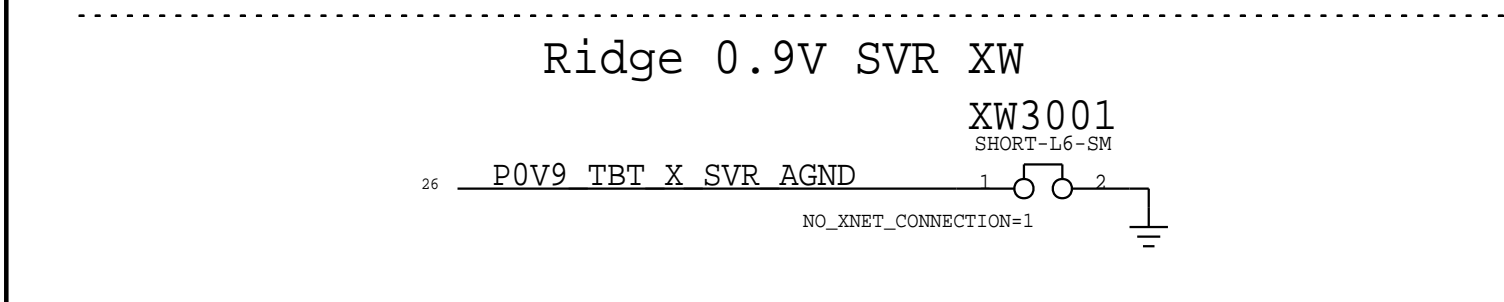
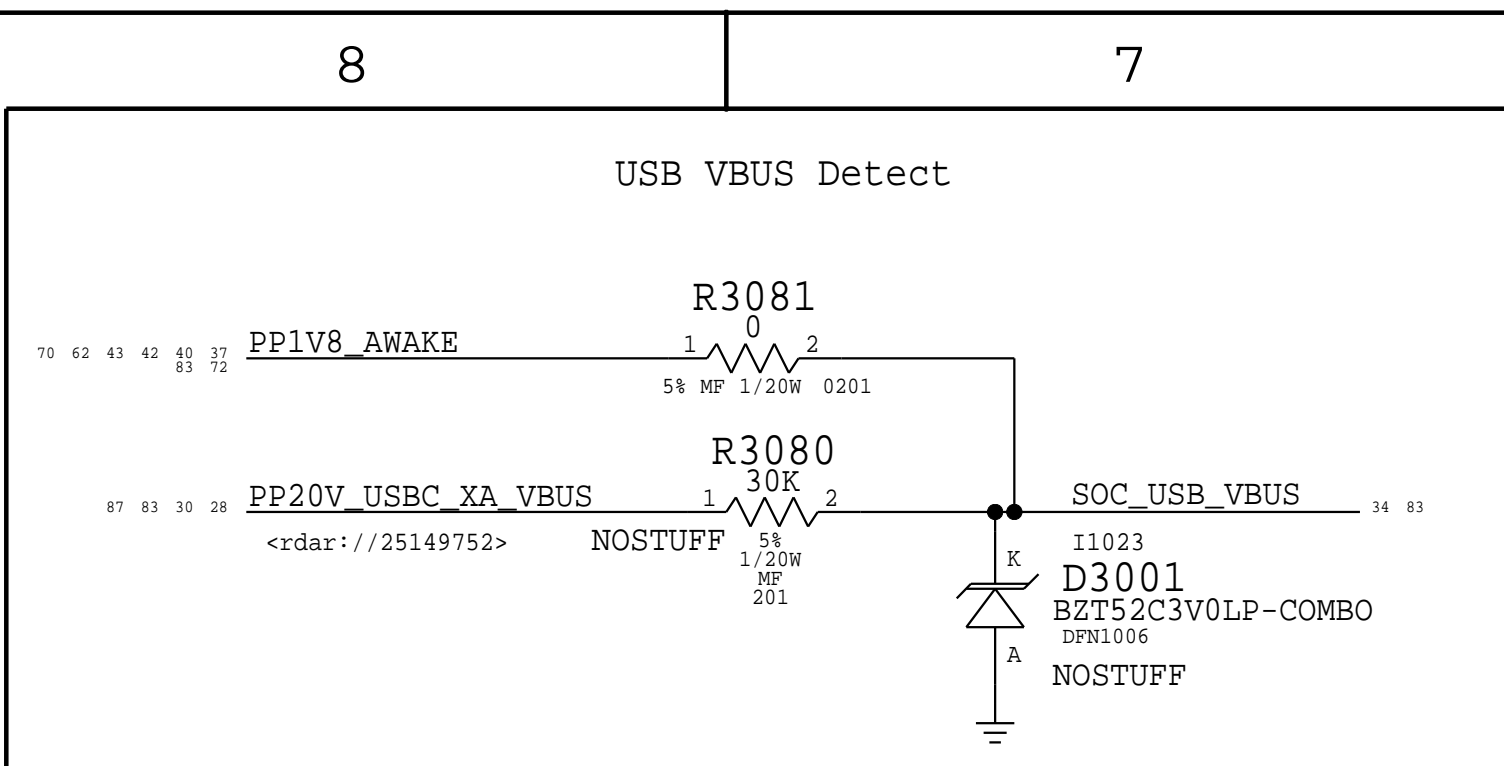
BOM_COST_GROUP=DRAM

SYNC_MASTER=		SYNC_DATE=	
PAGE TITLE			
LPDDR3 DRAM Termination			
 Apple Inc.	DRAWING NUMBER	051-05309	SIZE D
	REVISION	6.0.0	
NOTICE OF PROPRIETARY PROPERTY: THE INFORMATION CONTAINED HEREIN IS THE PROPRIETARY PROPERTY OF APPLE INC. THE POSSESSOR AGREES TO THE FOLLOWING: I I TO MAINTAIN THIS DOCUMENT IN CONFIDENCE II NOT TO REPRODUCE OR COPY IT III NOT TO REVEAL OR PUBLISH IT IN WHOLE OR PART IV ALL RIGHTS RESERVED		BRANCH	pvt
		PAGE	27 OF 500
		SHEET	24 OF 98





PAGE TITLE		
USB-C HIGH SPEED 2		
 Apple Inc.	DRAWING NUMBER	051-05309
	REVISION	6.0.0
NOTICE OF PROPRIETARY PROPERTY: THE INFORMATION CONTAINED HEREIN IS THE PROPRIETARY PROPERTY OF APPLE INC. THE POSSESSOR AGREES TO THE FOLLOWING: I TO MAINTAIN THIS DOCUMENT IN CONFIDENCE I NOT TO REPRODUCE OR COPY IT I NOT TO REVEAL OR PUBLISH IT IN WHOLE OR PART I ALL RIGHTS RESERVED	BRANCH	pvt
	PAGE	29 OF 500
	SHEET	26 OF 98

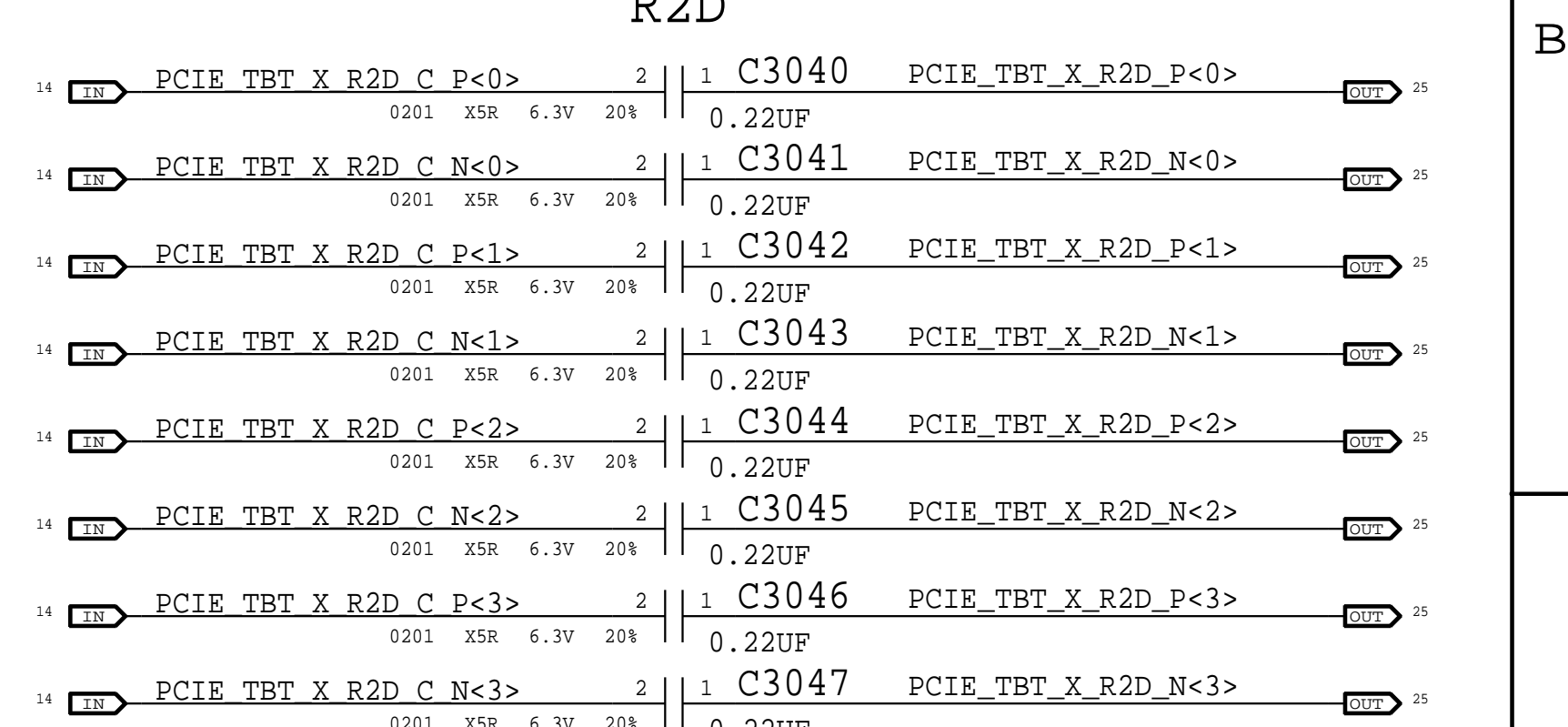
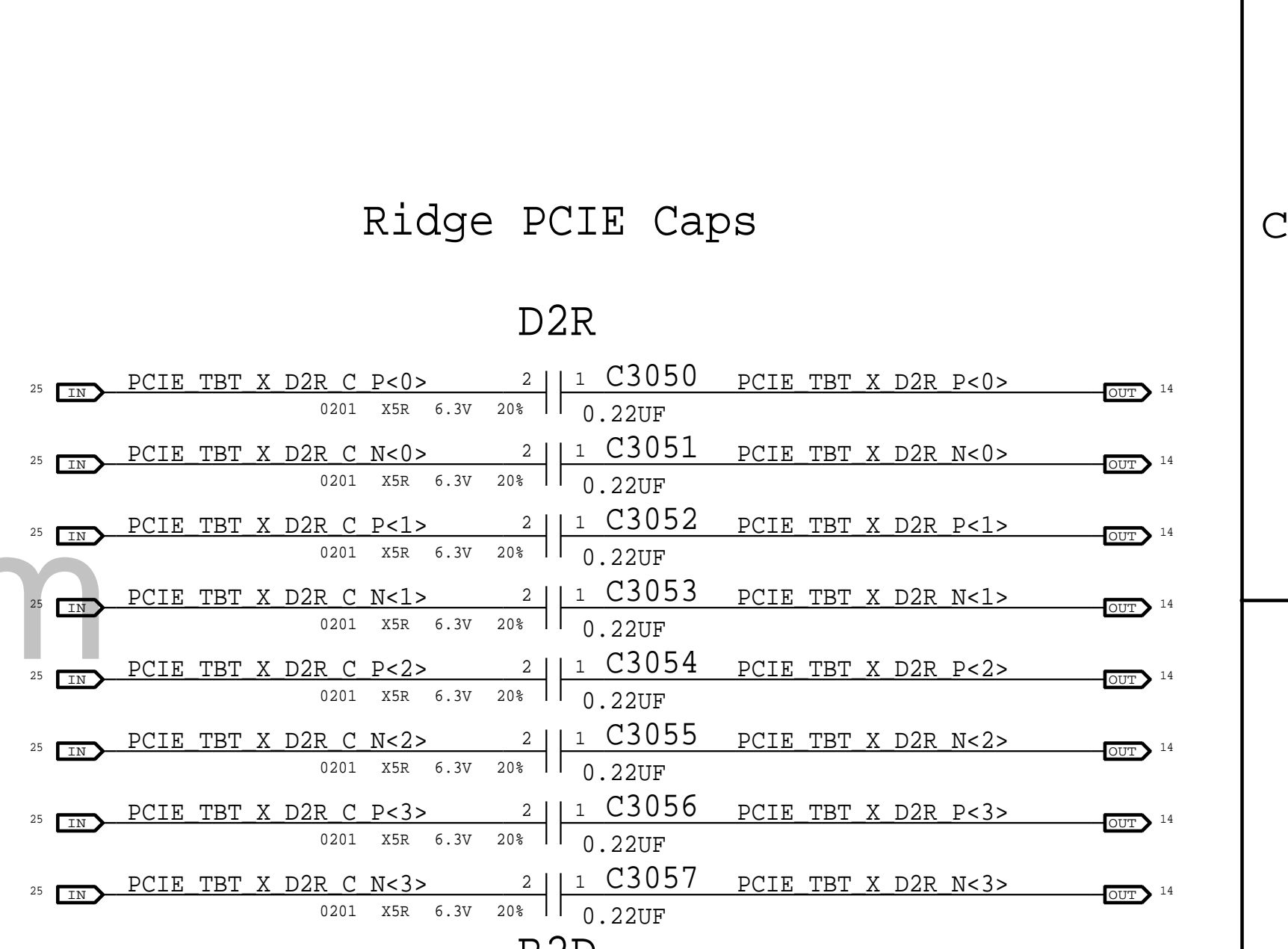
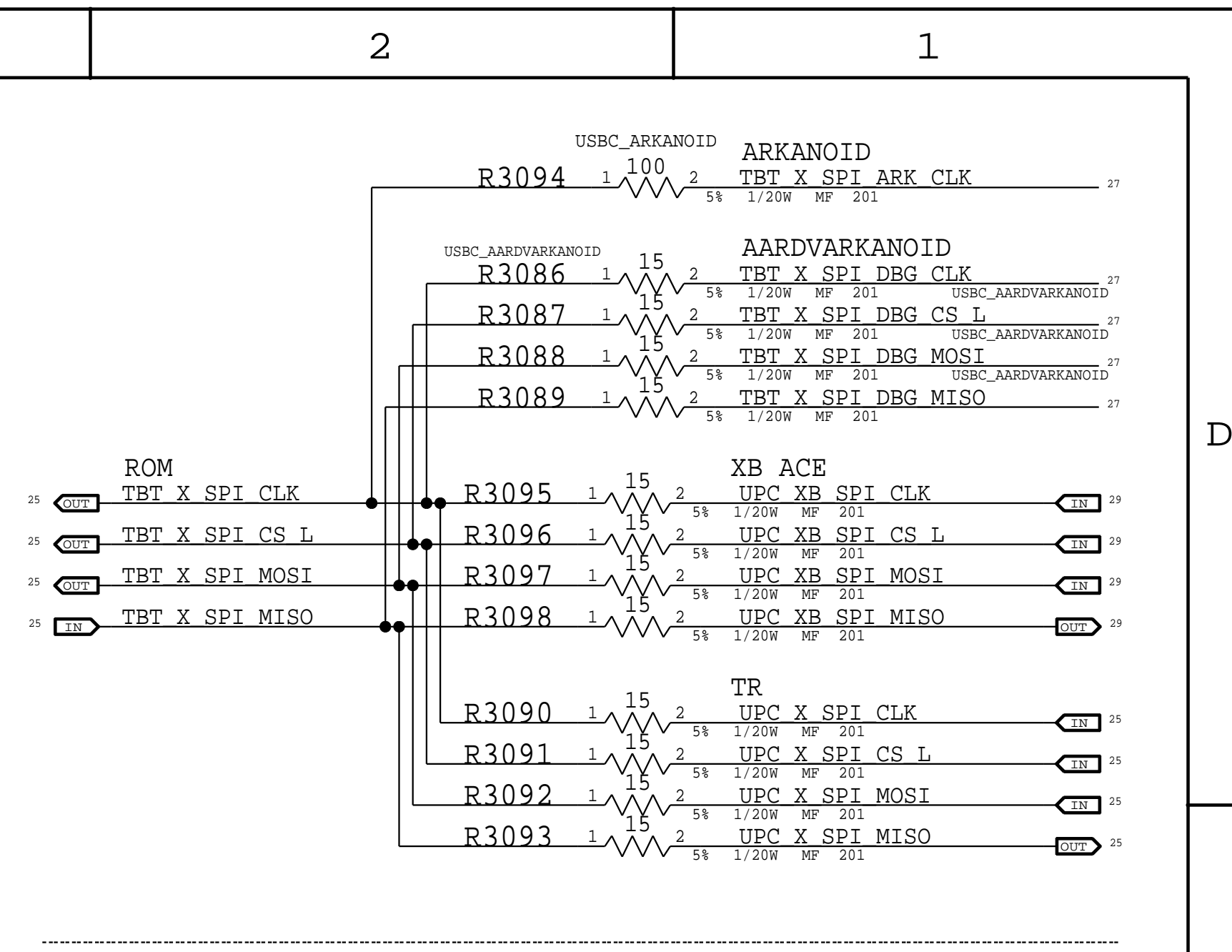
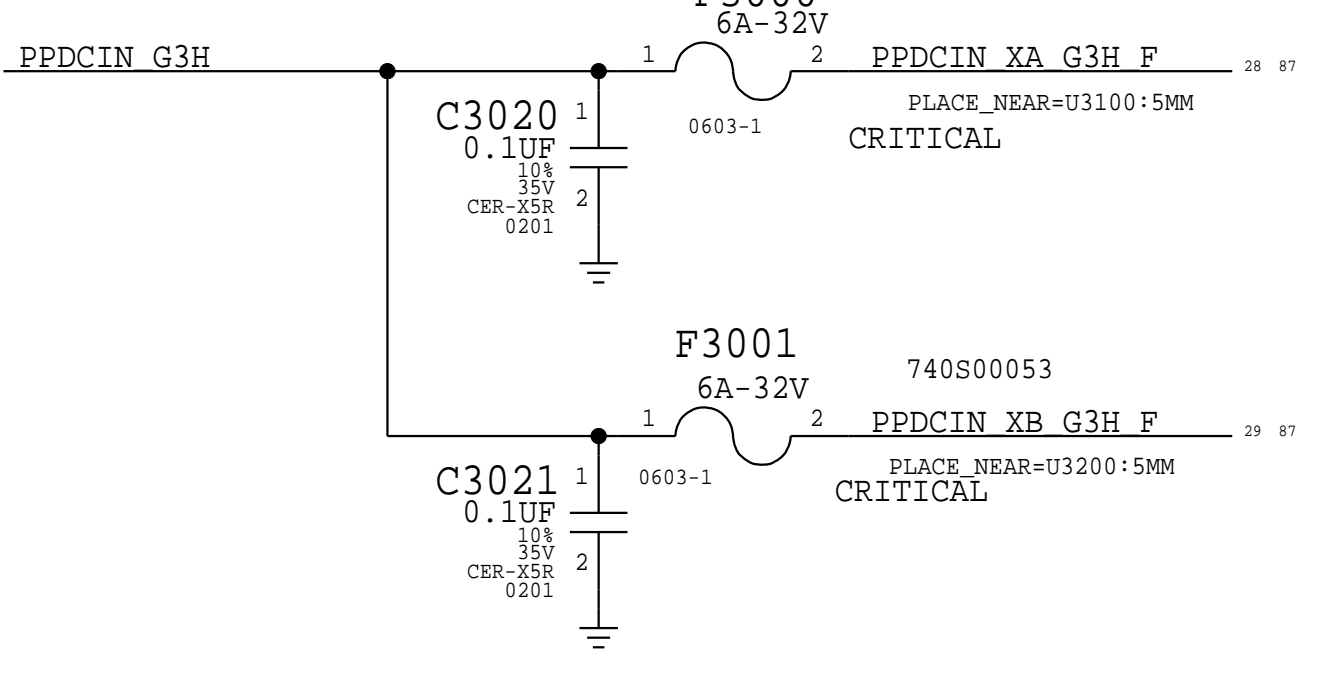
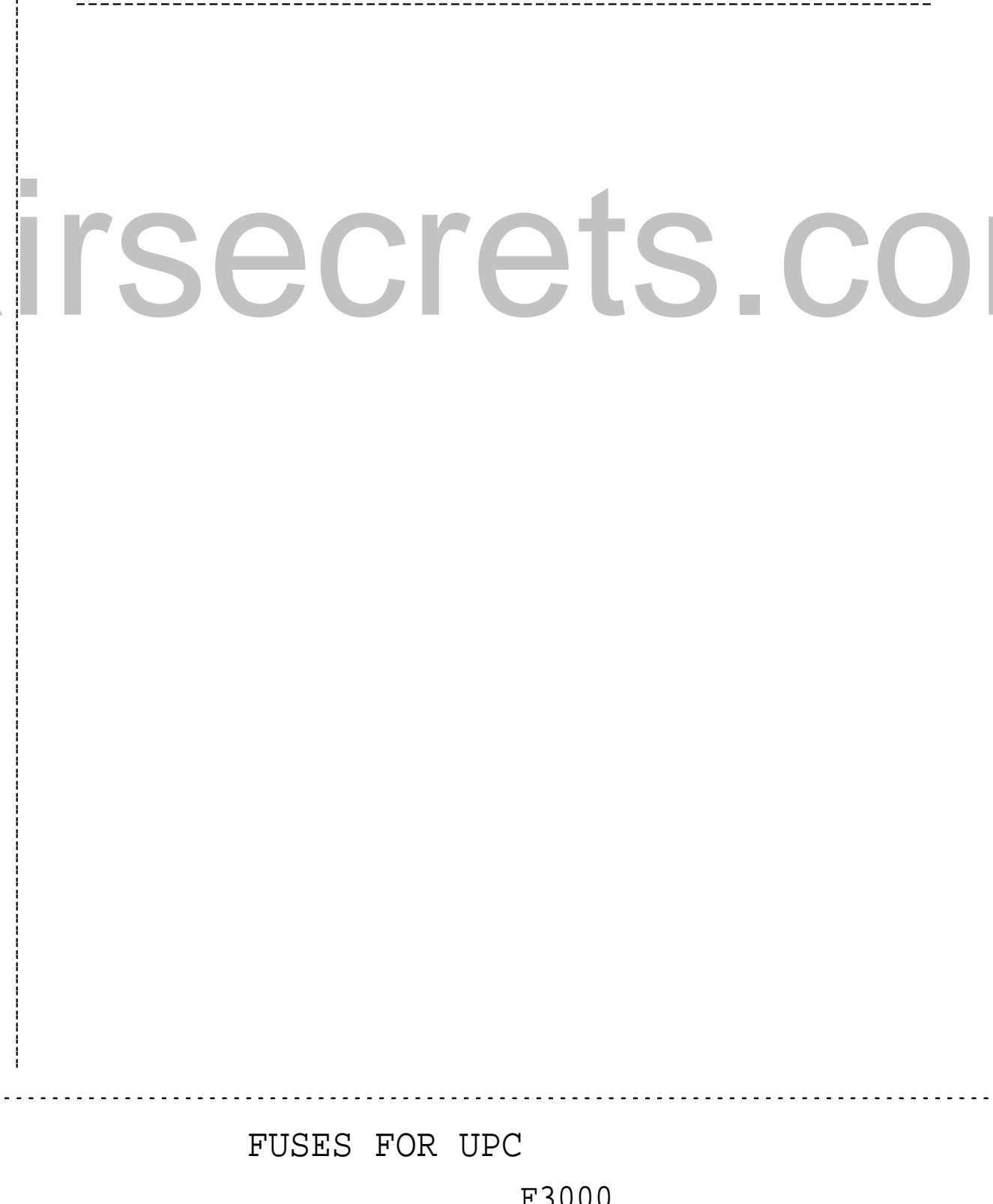
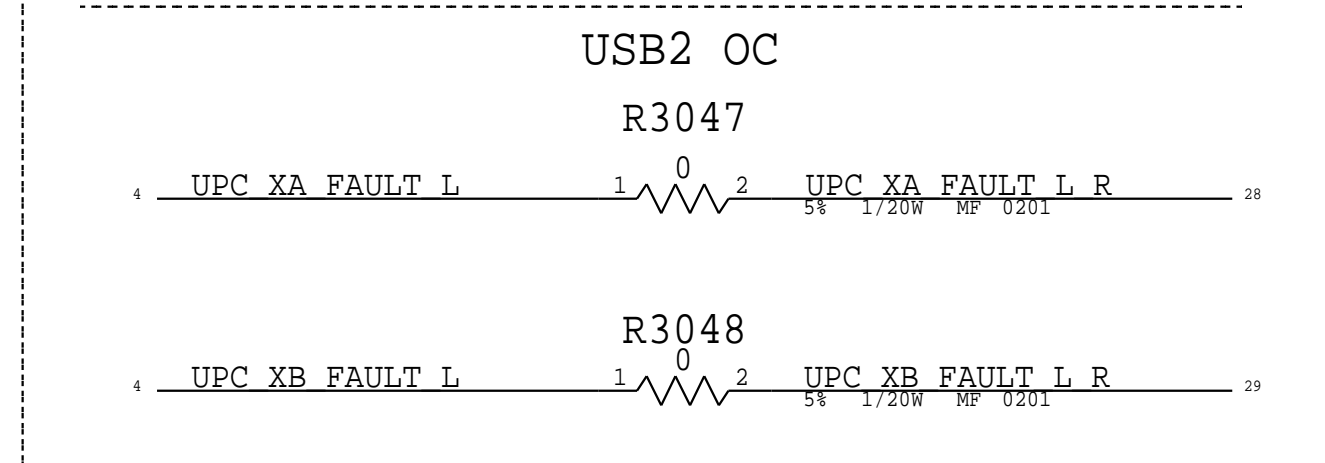
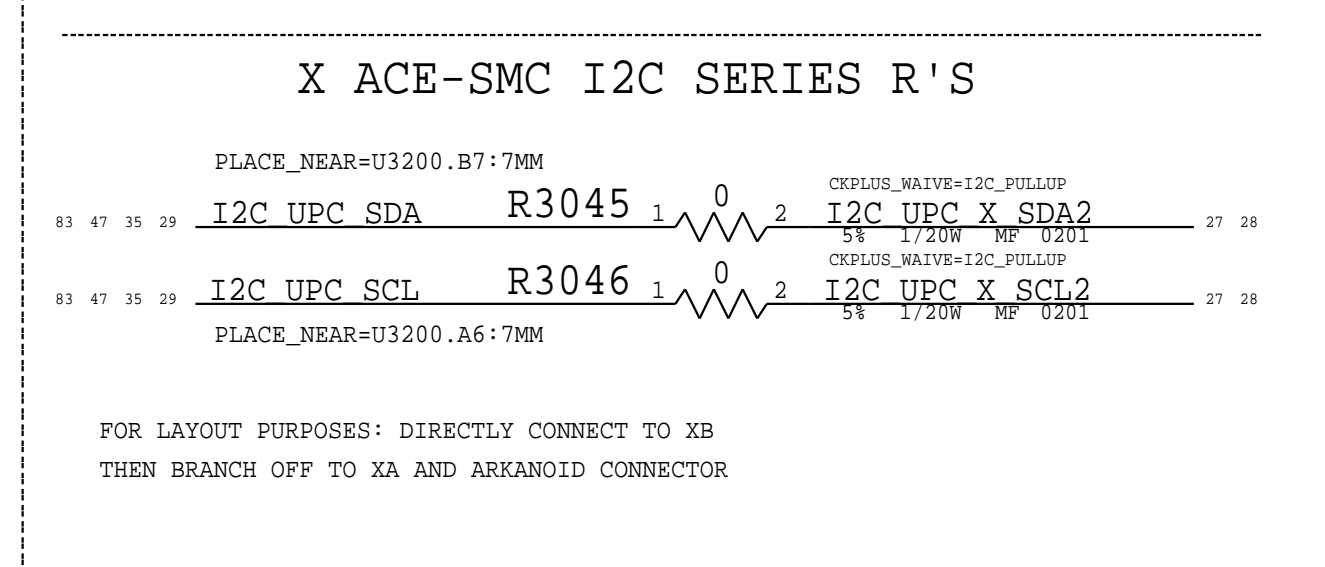
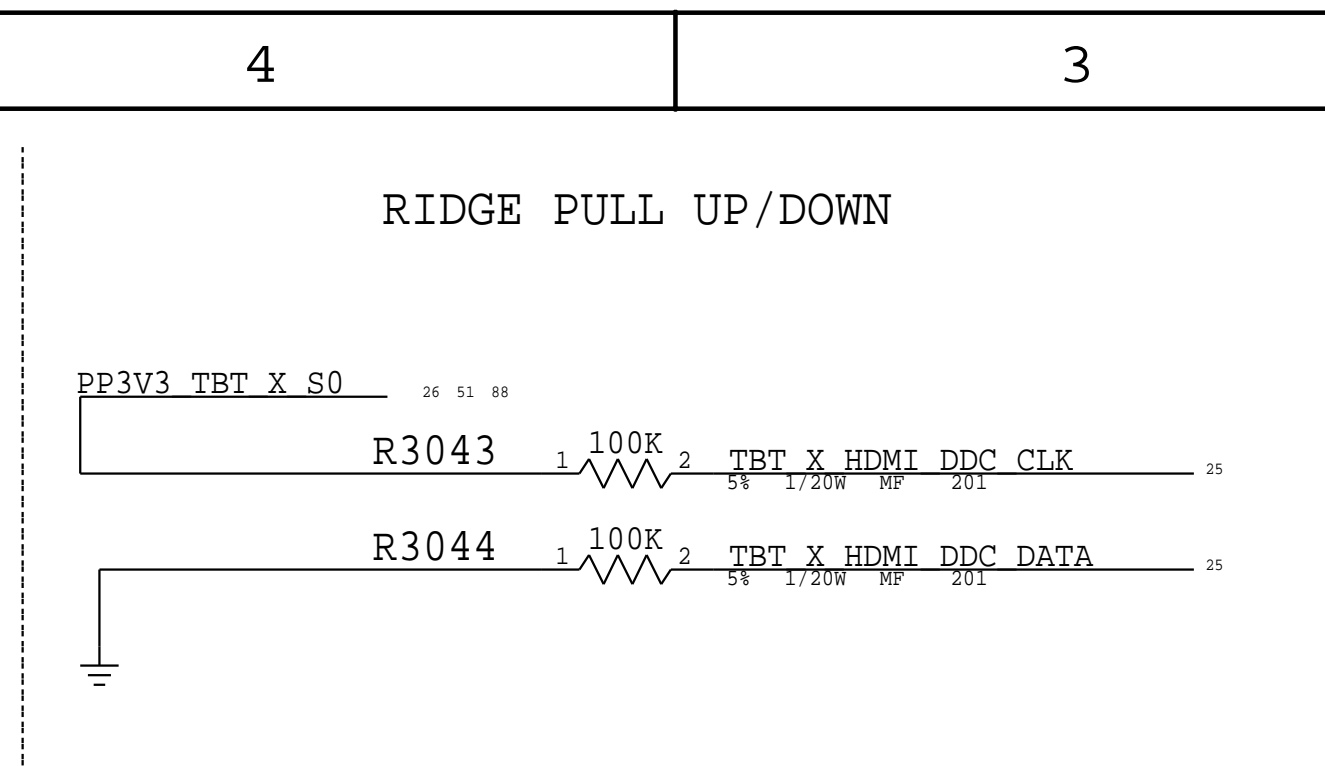
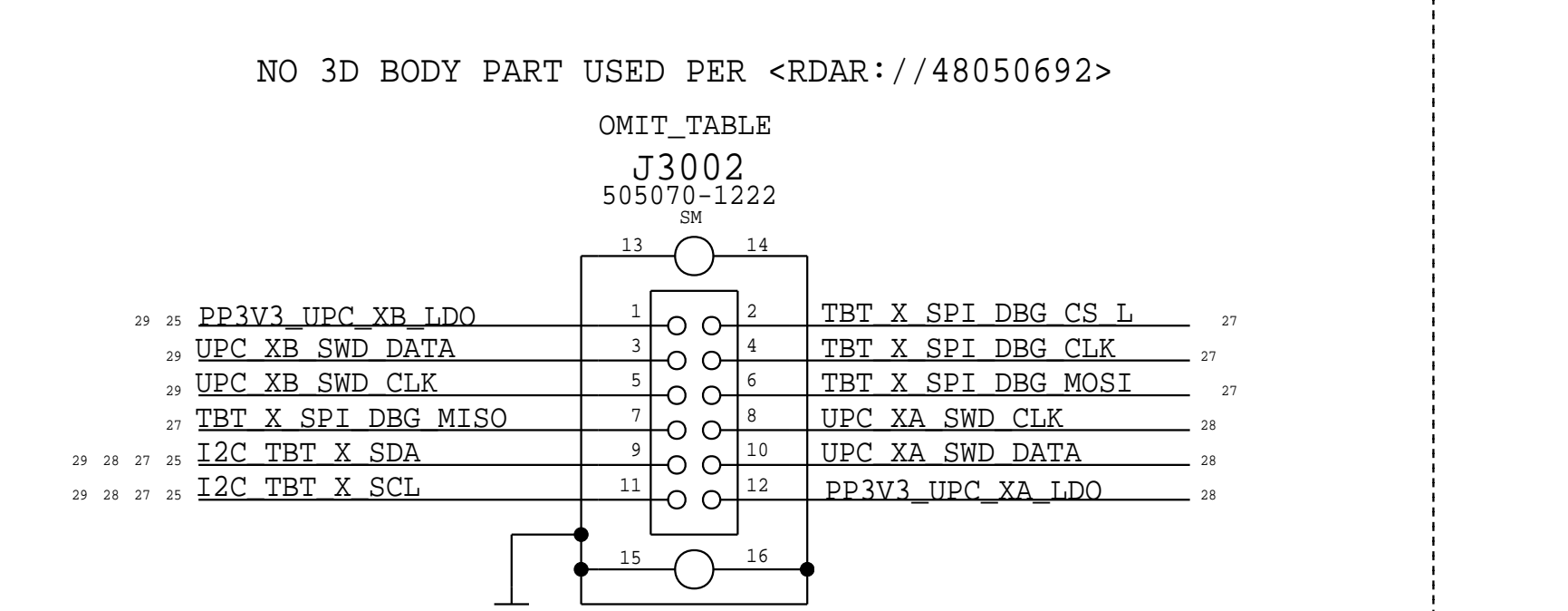
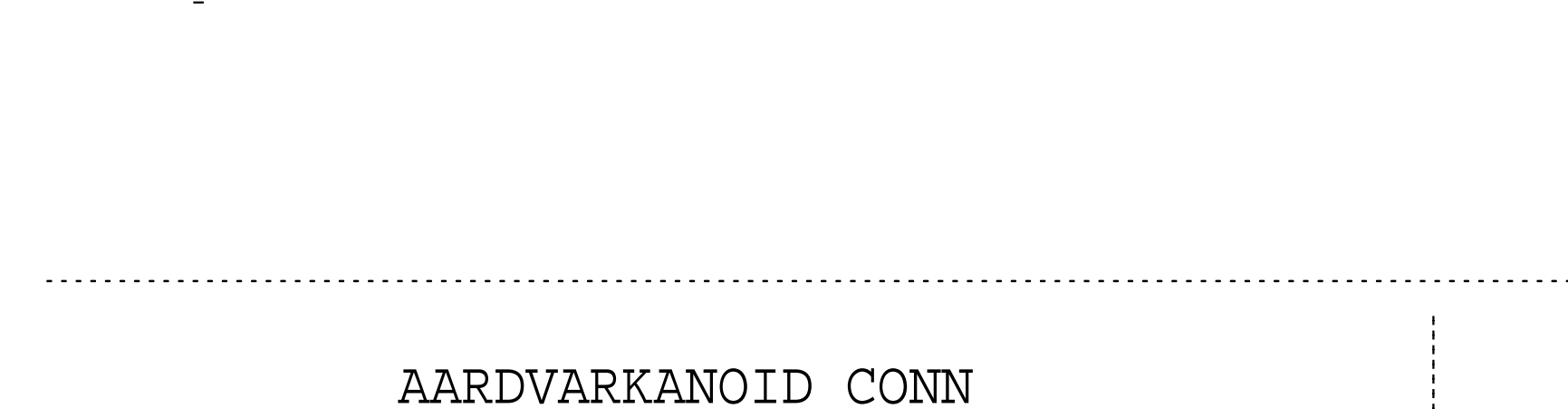
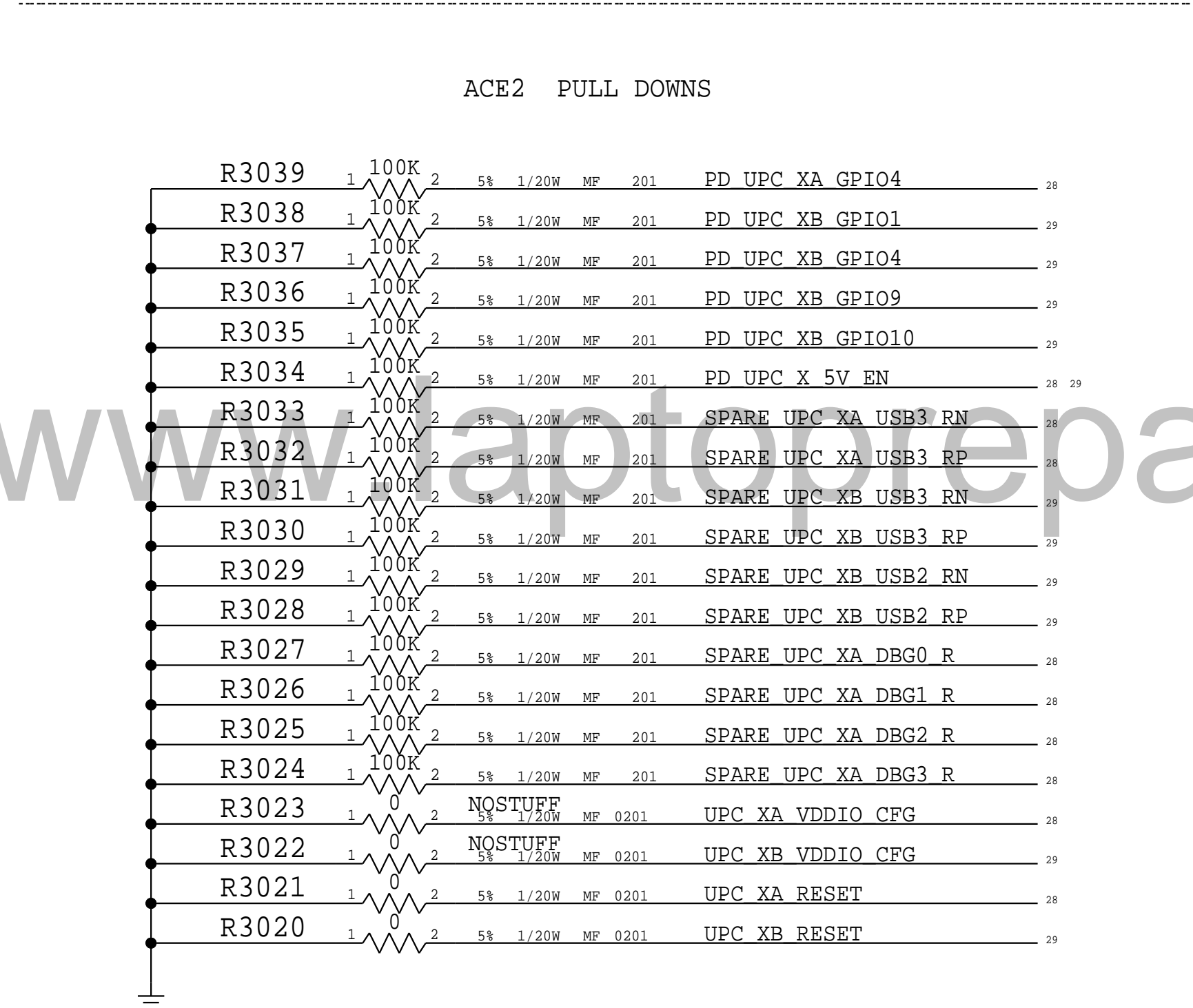
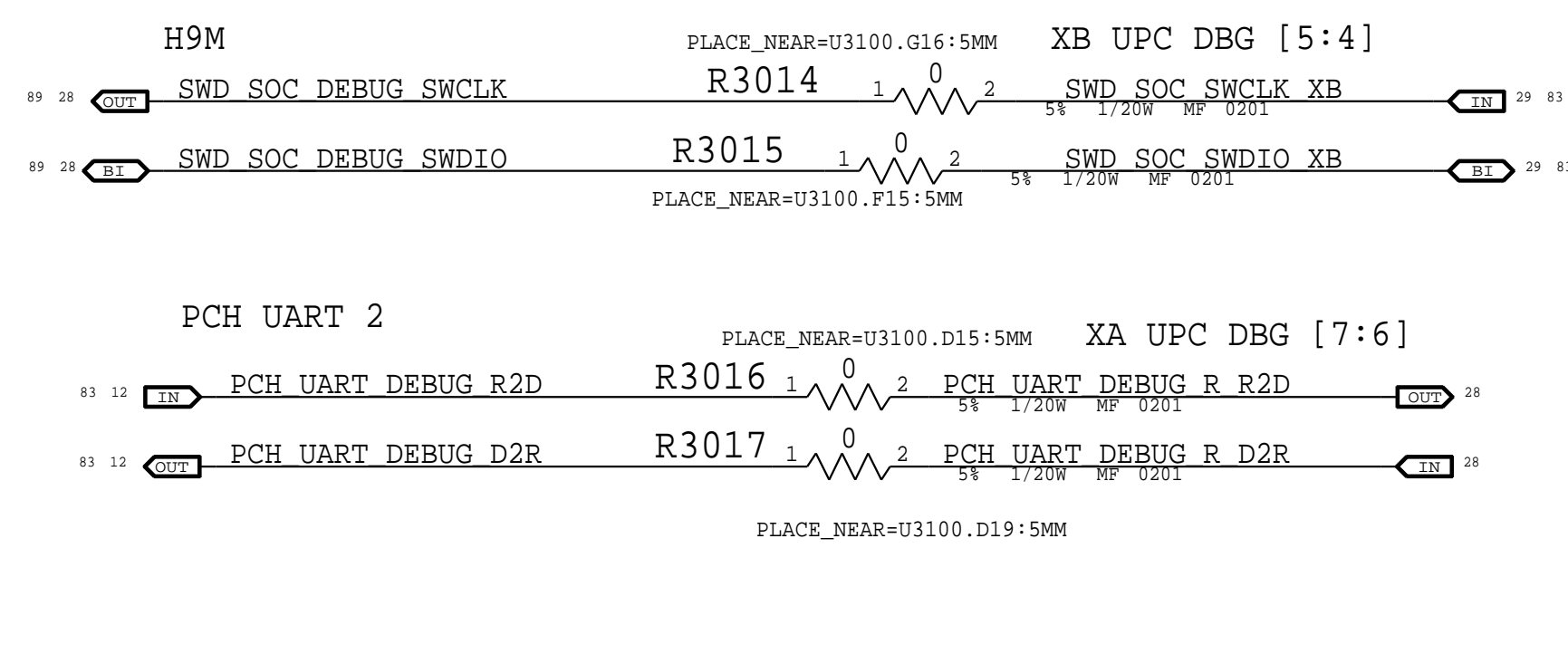
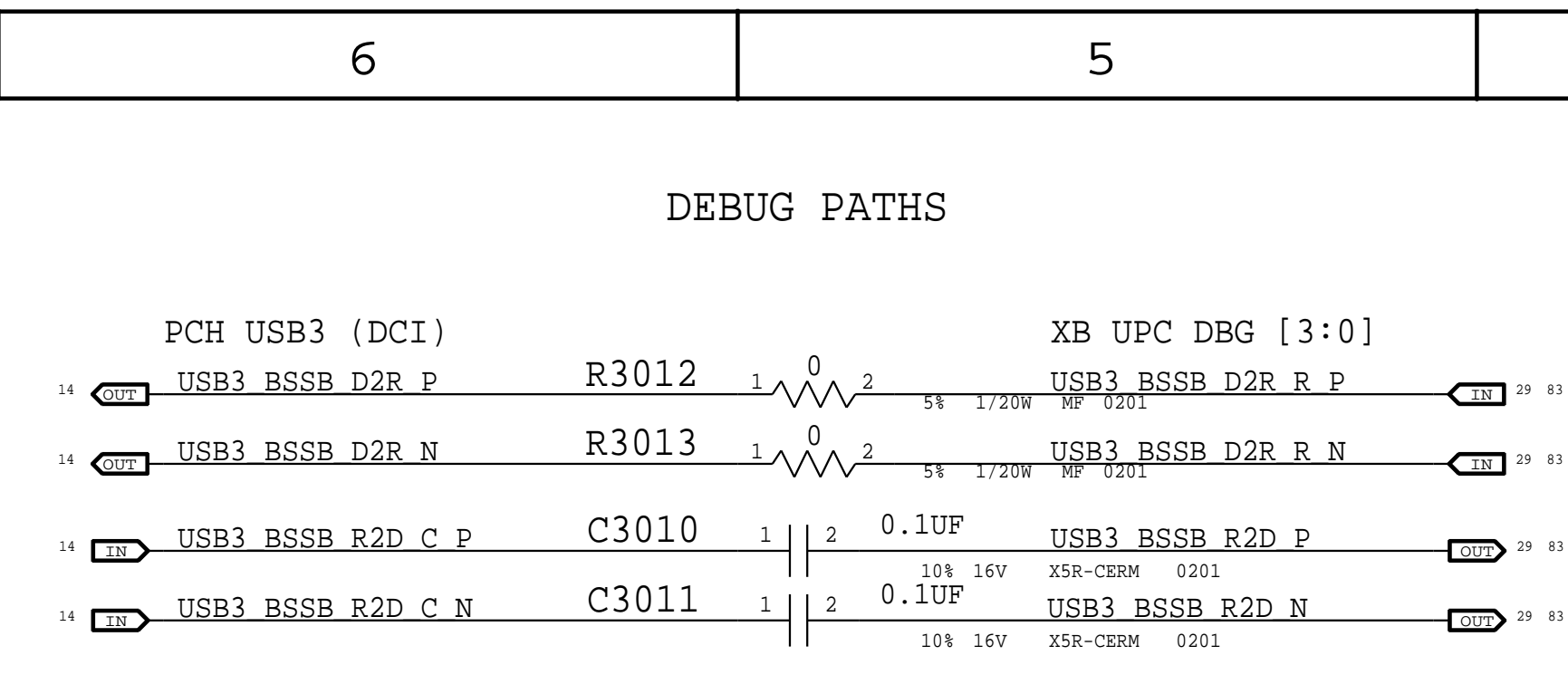
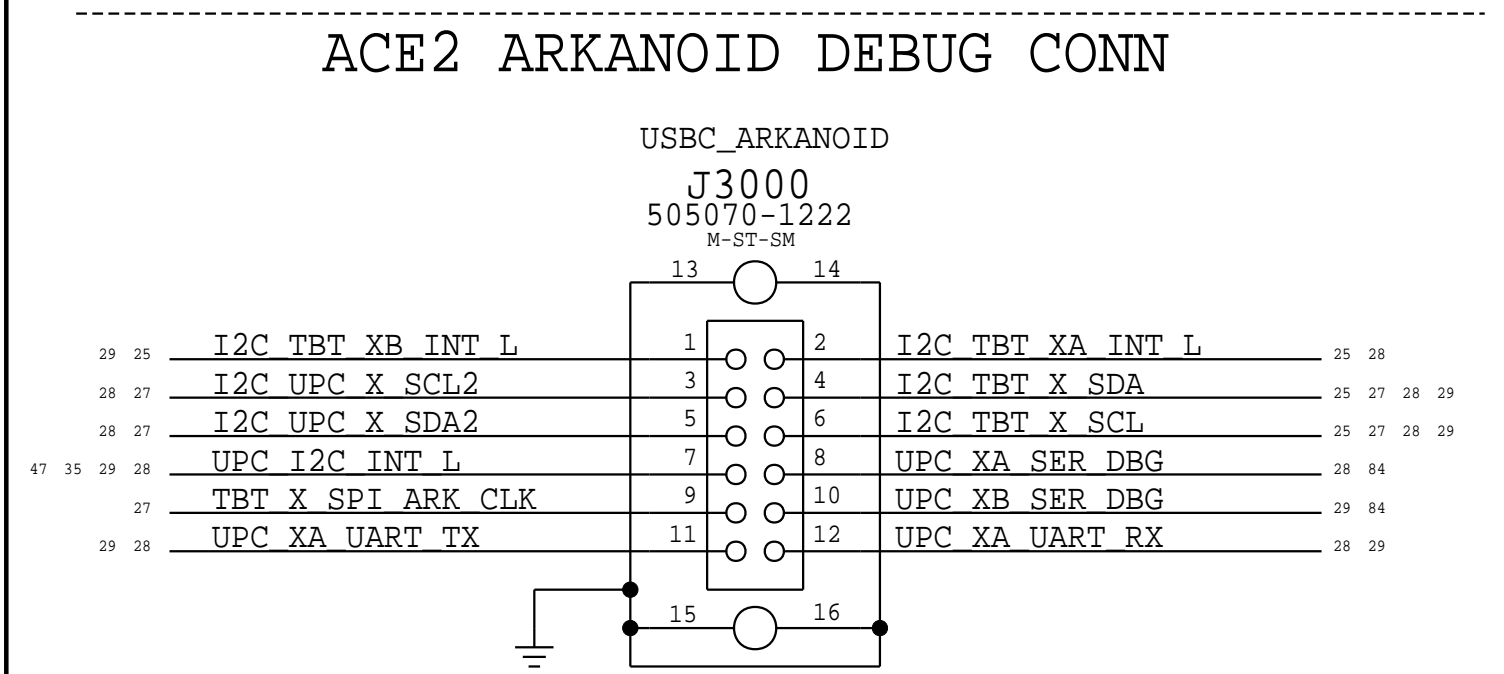


RIDGE TBT X ARKANOID CONN

NOTE: J3001 IS DELETED DUE

TO SPACE LIMITATION.

SIGNALS CAN BE CONNECTED AT ICT TP



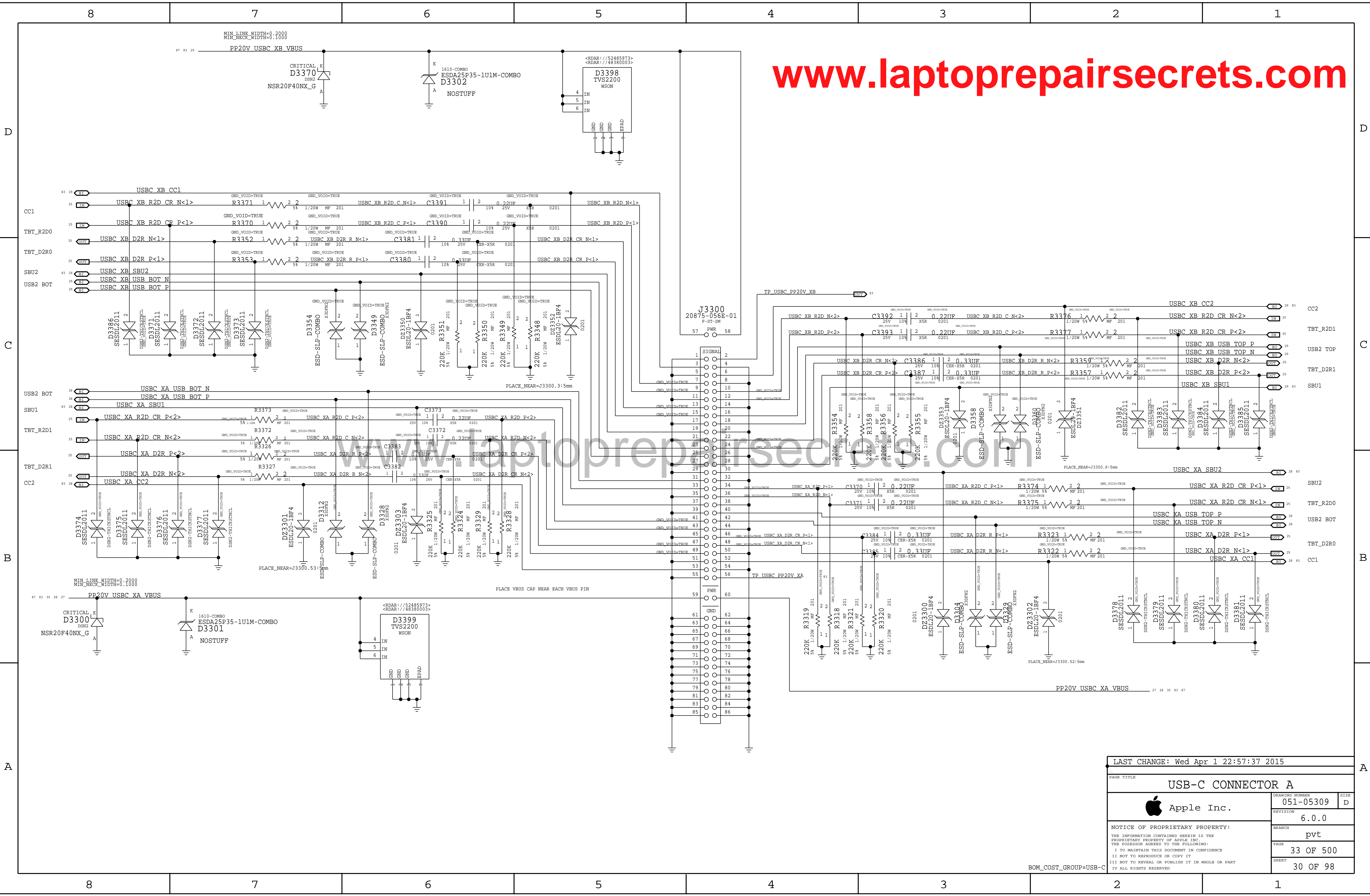
D


A

D



BOM_COST_GROUP=USB-C



LAST CHANGE: Wed Apr 1 22:57:37 2015			
PAGE TITLE			
USB-C CONNECTOR A			
 Apple Inc.	DRAWING NUMBER		SIZE
	051-05309		D
	REVISION		
	6.0.0		
NOTICE OF PROPRIETARY PROPERTY:		BRANCH	
THE INFORMATION CONTAINED HEREIN IS THE PROPRIETARY PROPERTY OF APPLE INC. THE POSSESSOR AGREES TO THE FOLLOWING: I TO MAINTAIN THIS DOCUMENT IN CONFIDENCE II NOT TO REPRODUCE OR COPY IT III NOT TO REPRODUCE OR PUBLISH IT IN WHOLE OR PART IV ALL RIGHTS RESERVED		PAGE	pvt 33 OF 500
		SHEET	30 OF 98

8		7		6		5		4		3		2		1	
D														D	
C														C	
B														B	
A														A	
8		7		6		5		4		3		2		1	

Apple Inc.

NOTICE OF PROPRIETARY PROPERTY:
THE INFORMATION CONTAINED HEREIN IS THE PROPRIETARY PROPERTY OF APPLE INC.
THE POSSESSOR AGREES TO THE FOLLOWING:
I TO MAINTAIN THIS DOCUMENT IN CONFIDENCE
II NOT TO REPRODUCE OR COPY IT
III NOT TO REVEAL OR PUBLISH IT IN WHOLE OR PART
IV ALL RIGHTS RESERVED

DRAWING NUMBER

051-05309

SIZE

D

REVISION

6.0.0

BRANCH

pvt

PAGE

36 OF 500

SHEET


31 OF 98

BOM_COST_GROUP=WIRELESS

WIFI/BT SUPPORT

www.laptoprepairsecrets.com

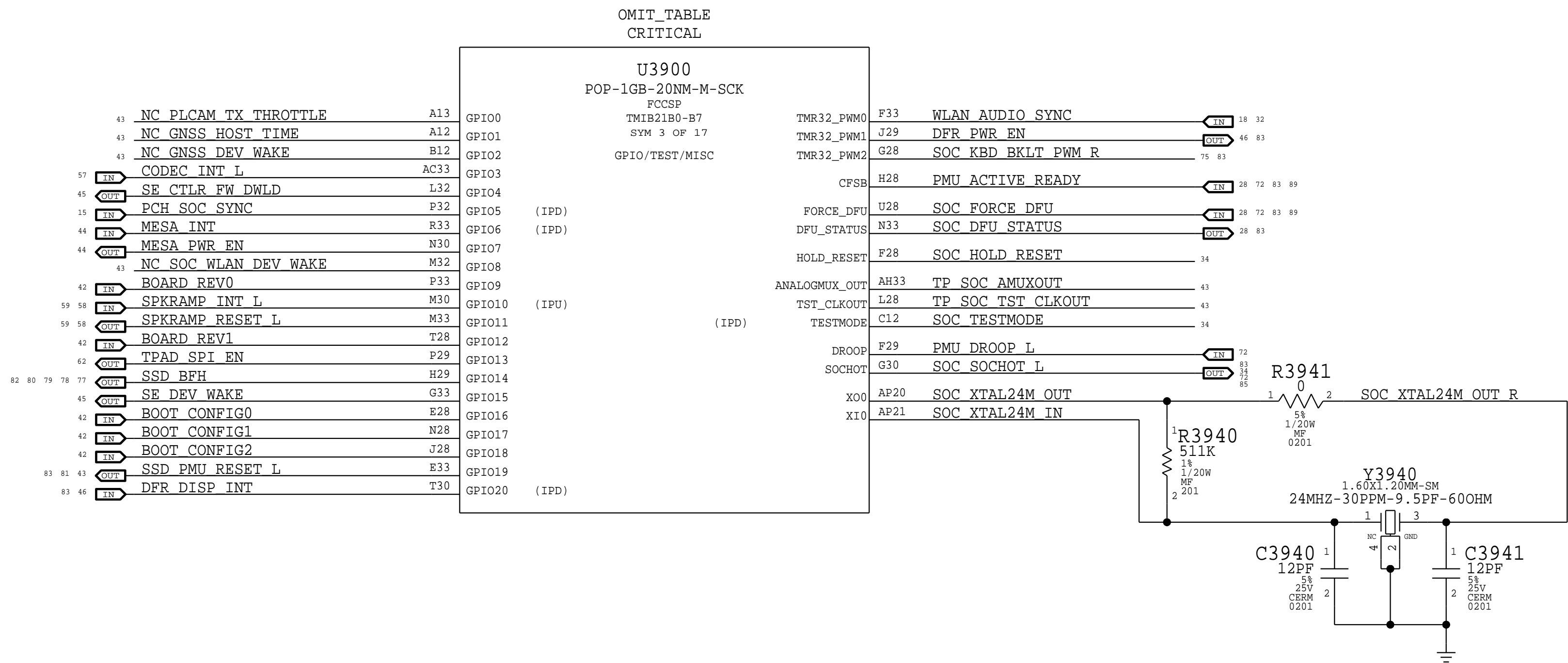
www.laptoprepairsecrets.com

PAGE TITLE			WIFI/BT SUPPORT		
 Apple Inc.		DRAWING NUMBER		SIZE	
		051-05309		D	
NOTICE OF PROPRIETARY PROPERTY: THE INFORMATION CONTAINED HEREIN IS THE PROPRIETARY PROPERTY OF APPLE INC. THE POSSESSOR AGREES TO THE FOLLOWING: I TO MAINTAIN THIS DOCUMENT IN CONFIDENCE II NOT TO REPRODUCE OR COPY IT III NOT TO REVEAL OR PUBLISH IT IN WHOLE OR PART IV ALL RIGHTS RESERVED		REVISION		6.0.0	
		BRANCH		pvt	
		PAGE		36 OF 500	
		SHEET		31 OF 98	

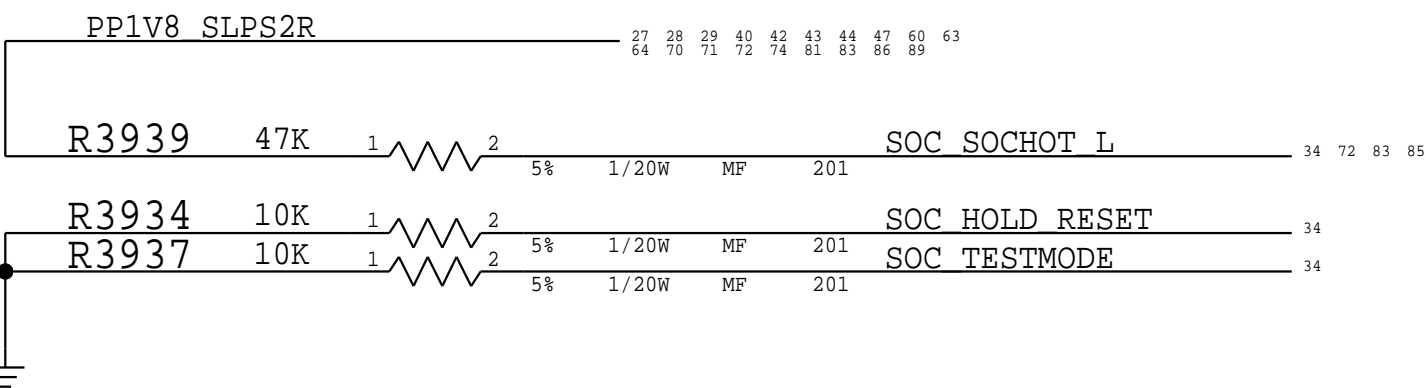
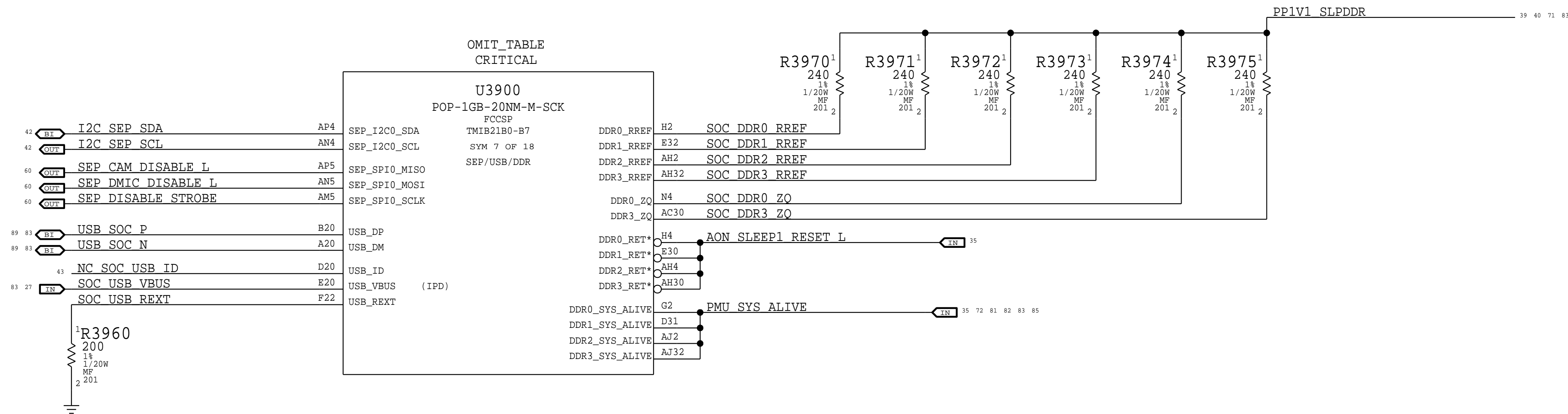
BOM_COST_GROUP=WIRELESS




Note IPU/IPD represents SW configured state, not HW default

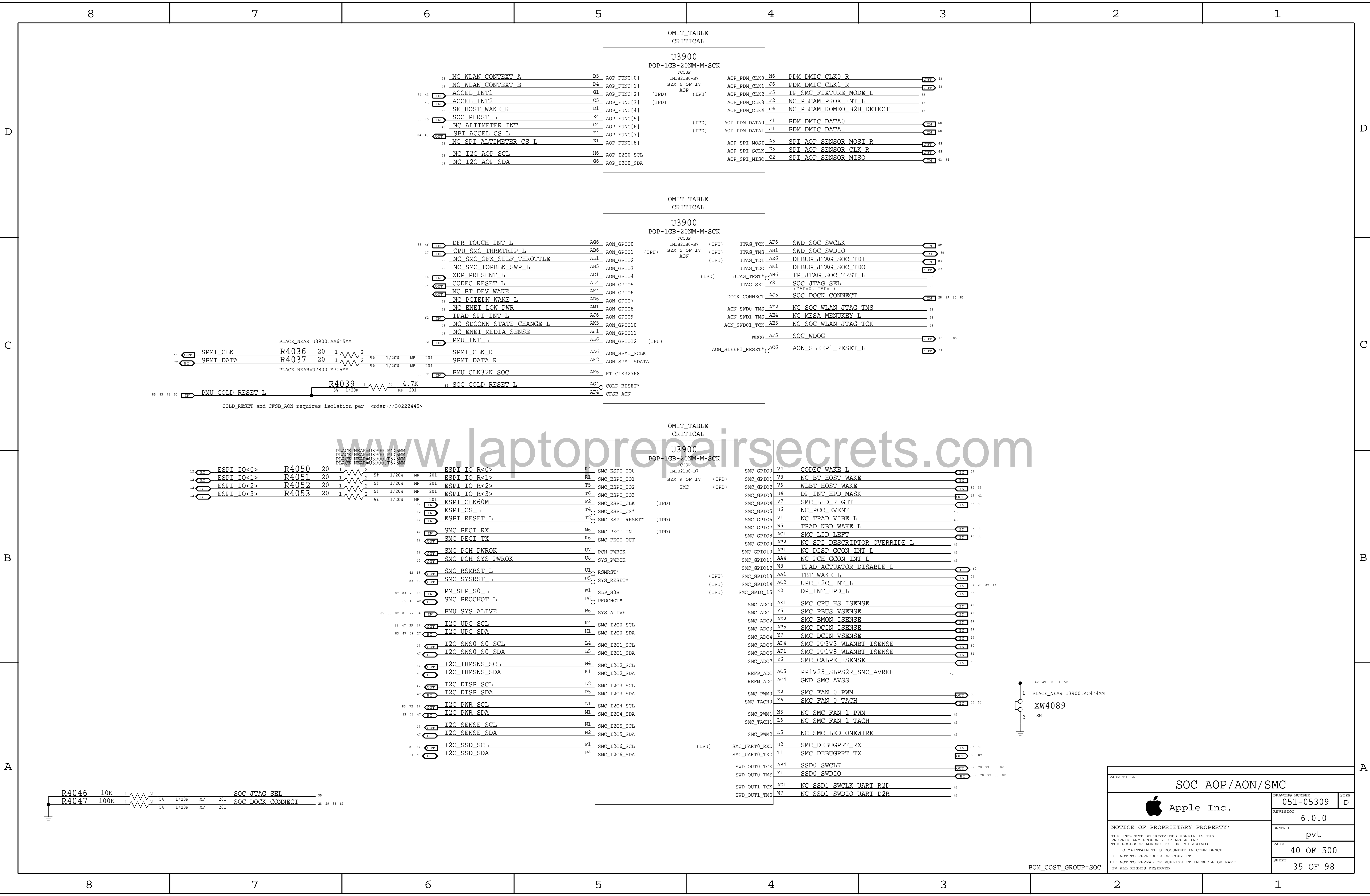



www.laptoprepairsecrets.com

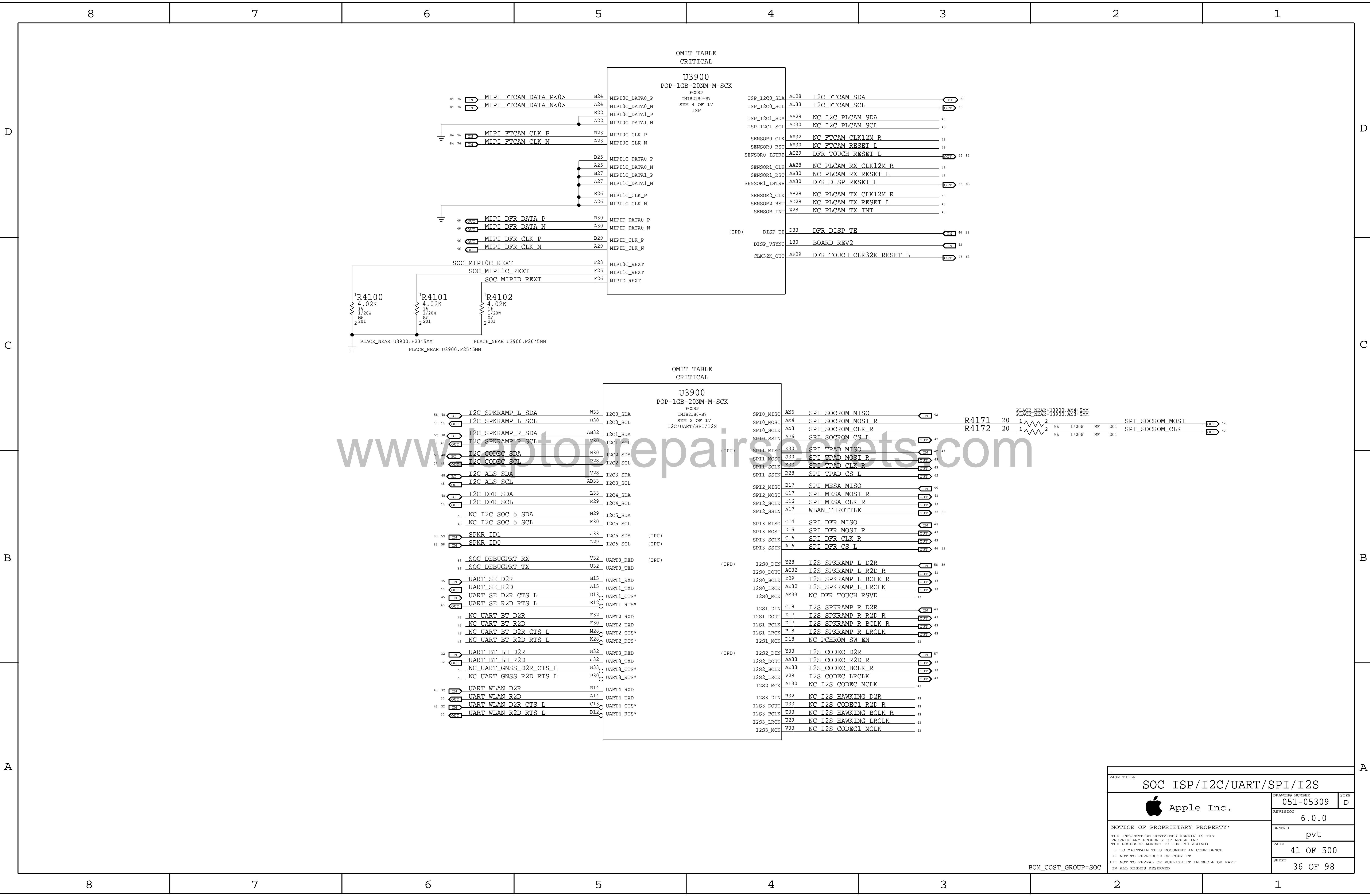



BOM_COST_GROUP=SOC

PAGE TITLE		
SOC GPIO/SEP/USB/DDR/TEST		
 Apple Inc.	DRAWING NUMBER	051-05309
	REVISION	6.0.0
NOTICE OF PROPRIETARY PROPERTY: THE INFORMATION CONTAINED HEREIN IS THE PROPRIETARY PROPERTY OF APPLE INC. THE POSSESSOR AGREES TO THE FOLLOWING: I TO MAINTAIN THIS DOCUMENT IN CONFIDENCE I NOT TO REPRODUCE OR COPY IT I NOT TO REVEAL OR PUBLISH IT IN WHOLE OR PART I ALL RIGHTS RESERVED	BRANCH	pvt
	PAGE	39 OF 500
	SHEET	34 OF 98



PAGE TITLE		
SOC AOP/AON/SMC		
 Apple Inc.	DRAWING NUMBER	051-05309
	REVISION	6.0.0
	BRANCH	pvt
	PAGE	40 OF 500
NOTICE OF PROPRIETARY PROPERTY: THE INFORMATION CONTAINED HEREIN IS THE PROPRIETARY PROPERTY OF APPLE INC. THE POSSESSOR AGREES TO THE FOLLOWING: I TO MAINTAIN THIS DOCUMENT IN CONFIDENCE I NOT TO REPRODUCE OR COPY IT I NOT TO REVEAL OR PUBLISH IT IN WHOLE OR PART I ALL RIGHTS RESERVED		SHEET 35 OF 98

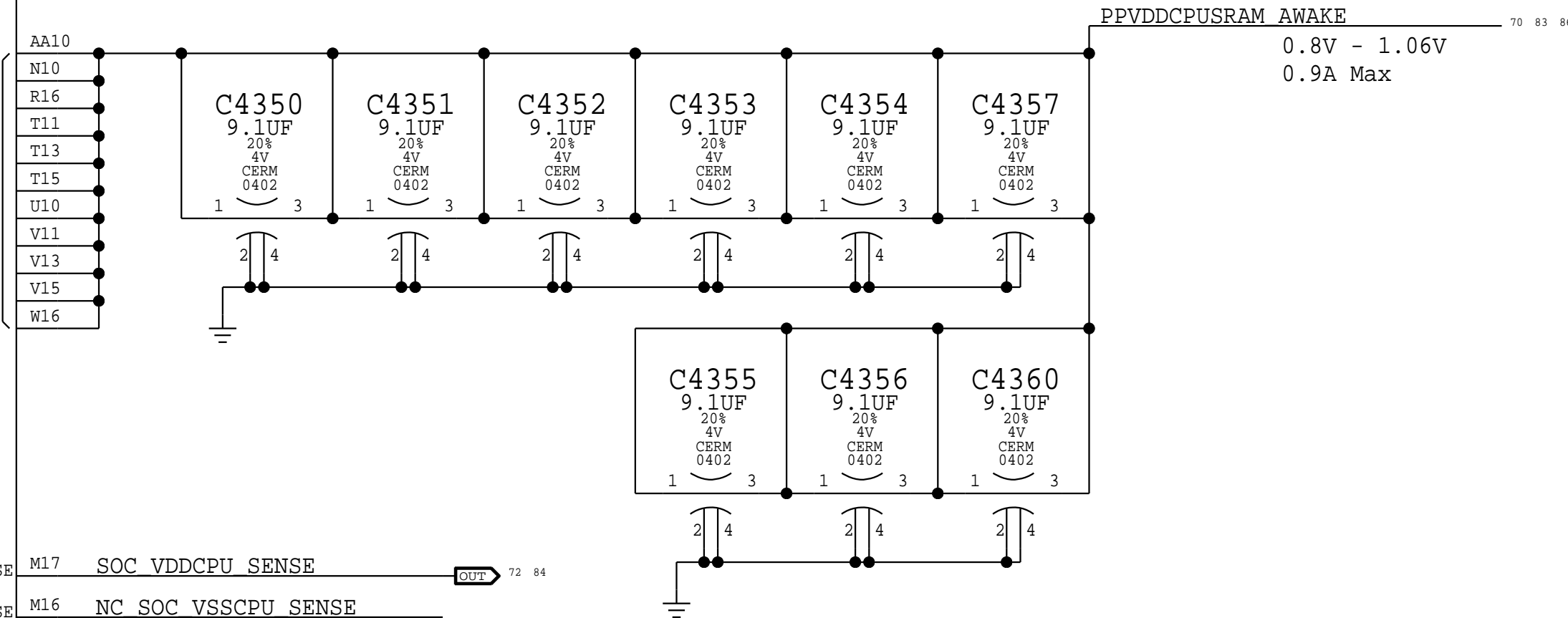
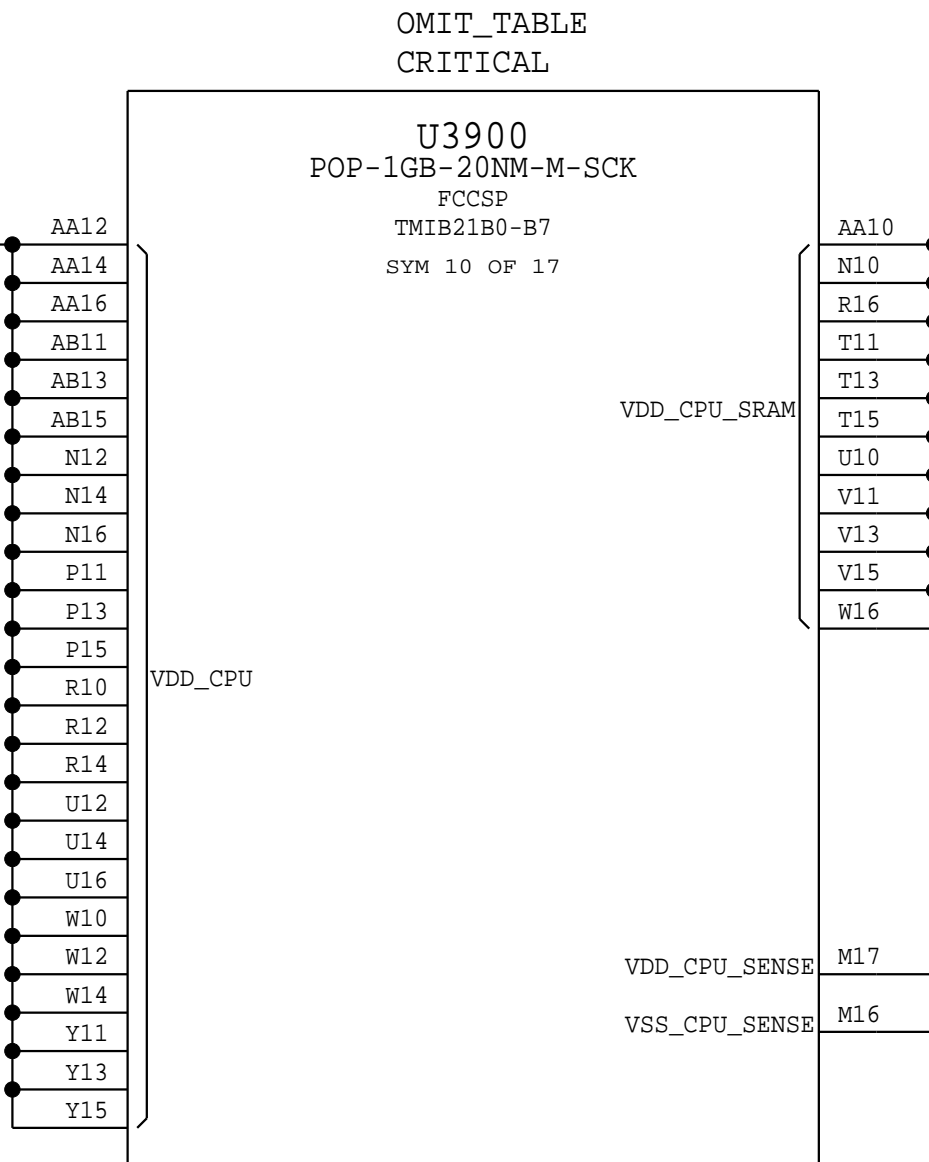
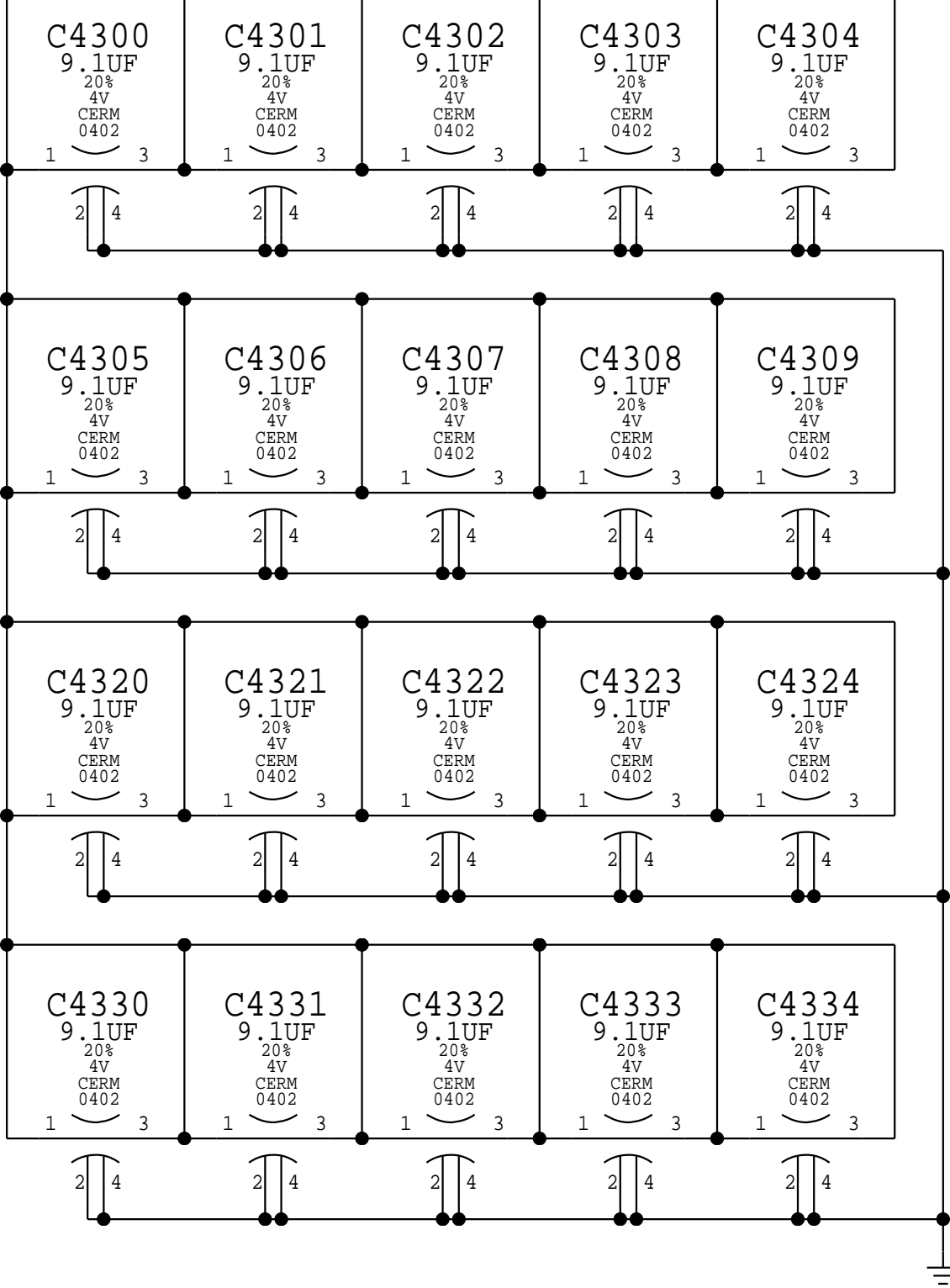


PAGE TITLE		
SOC ISP/I2C/UART/SPI/I2S		
 Apple Inc.	DRAWING NUMBER	051-05309
	REVISION	6.0.0
NOTICE OF PROPRIETARY PROPERTY: THE INFORMATION CONTAINED HEREIN IS THE PROPRIETARY PROPERTY OF APPLE INC. THE POSSESSOR AGREES TO THE FOLLOWING: I TO MAINTAIN THIS DOCUMENT IN CONFIDENCE I1 NOT TO REPRODUCE OR COPY IT I11 NOT TO REVEAL OR PUBLISH IT IN WHOLE OR PART I1V ALL RIGHTS RESERVED	BRANCH	pvt
	PAGE	41 OF 500
	SHEET	36 OF 98

BOM_COST_GROUP=SOC

Current estimates @ 105C & 2GB from Gibraltar Power Specification Rev 0.5.3

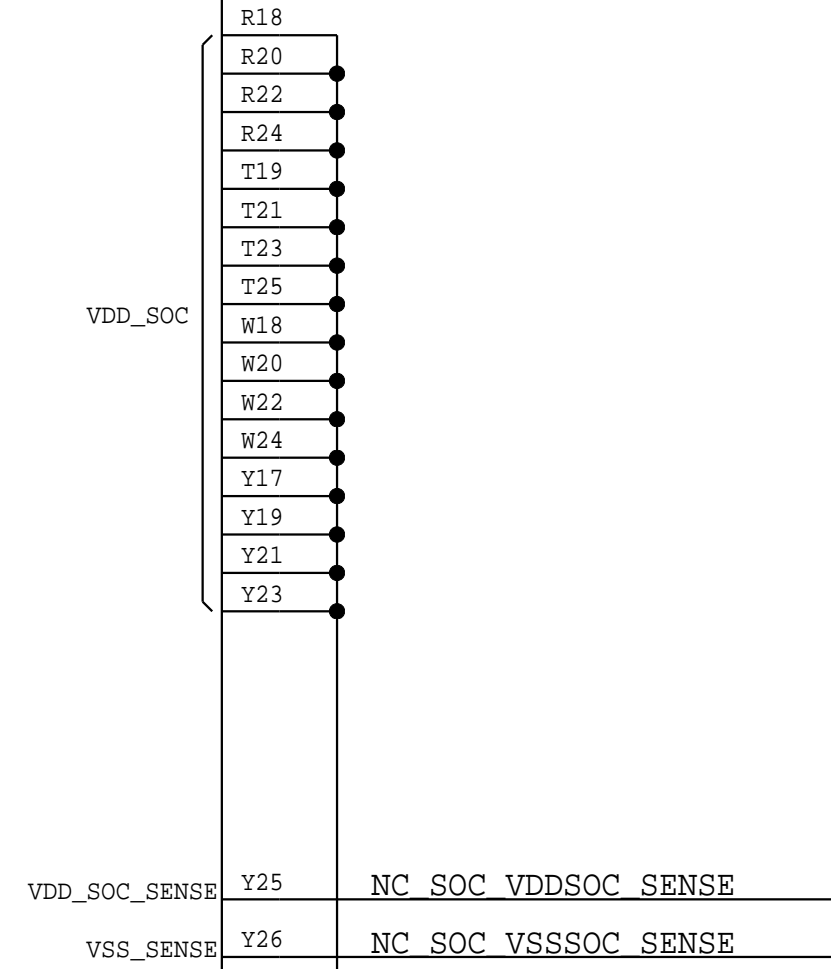
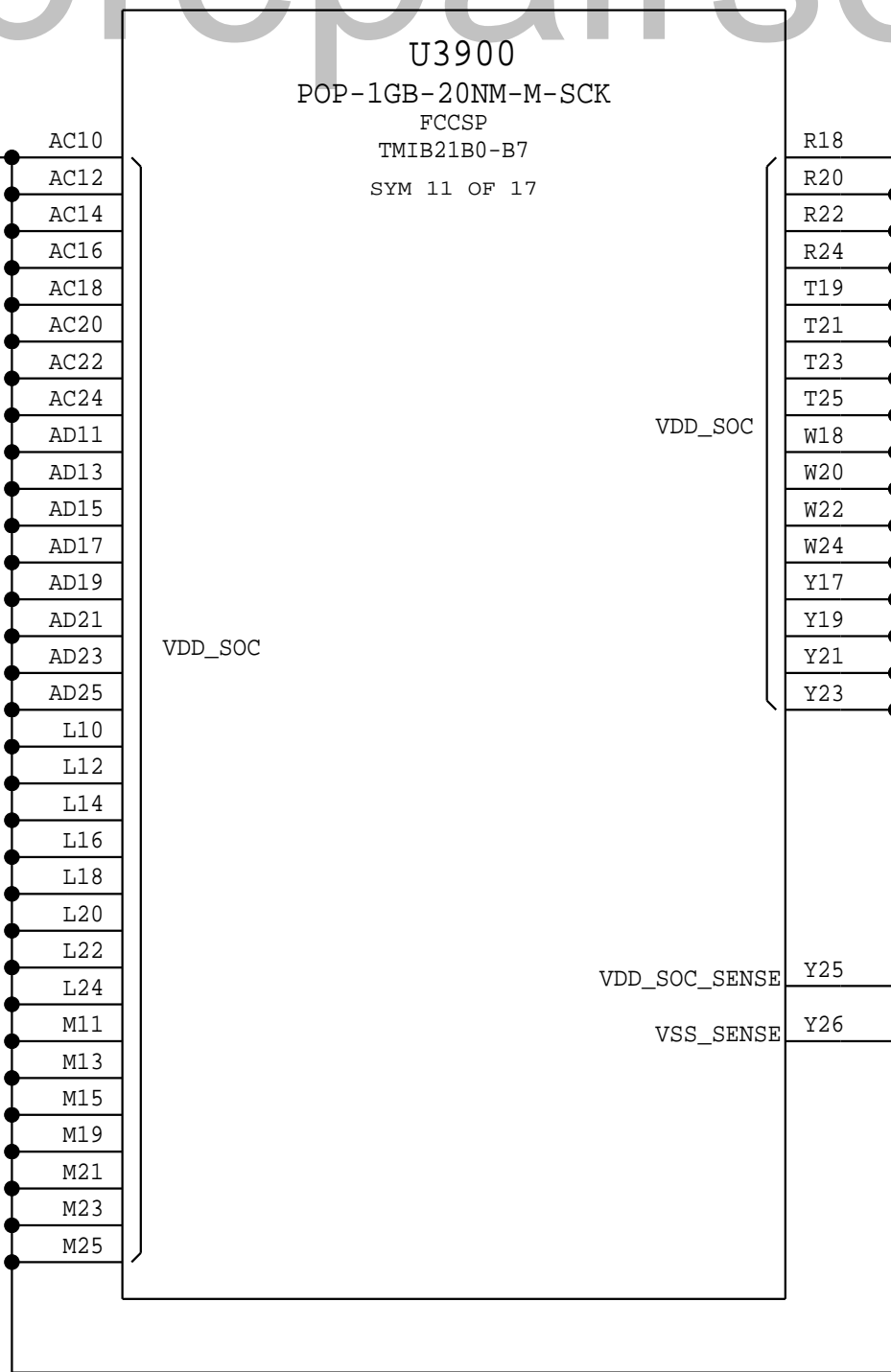
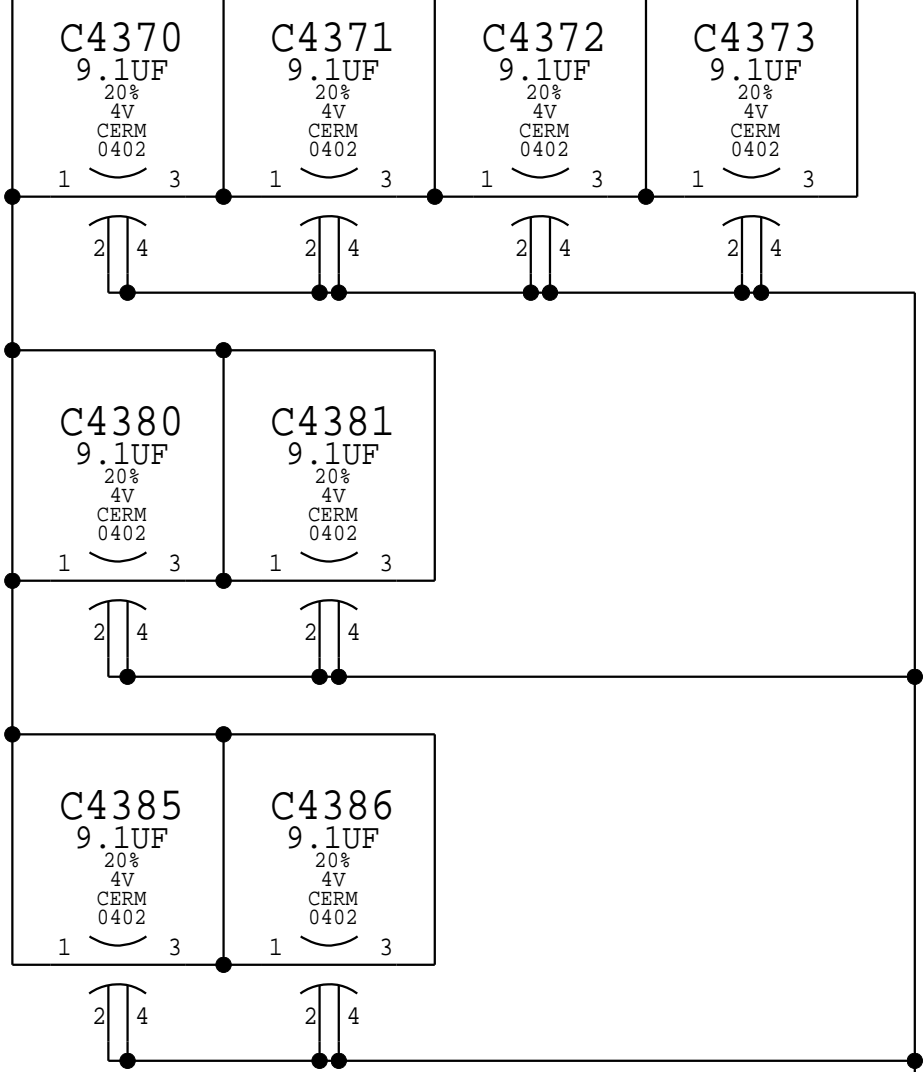
86 83 70 43 PPVDDCPU AWAKE
0.625V - 1.06V
11.6A Max



70 83 86 PPVDDCPUSRAM AWAKE
0.8V - 1.06V
0.9A Max

www.laptoprepairsecrets.com

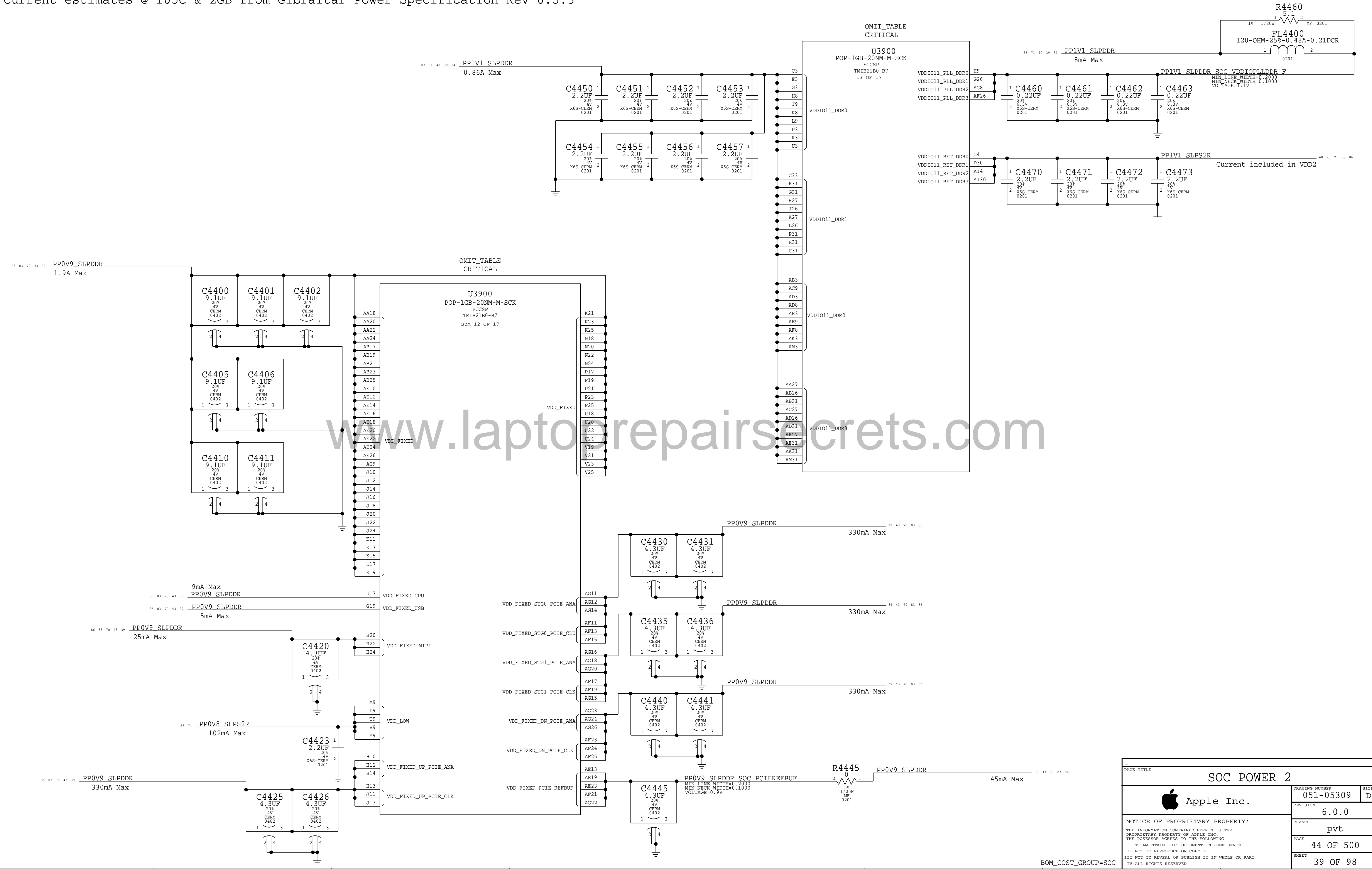
86 83 70 43 PP0V82_SLPDDR
5.6A Max




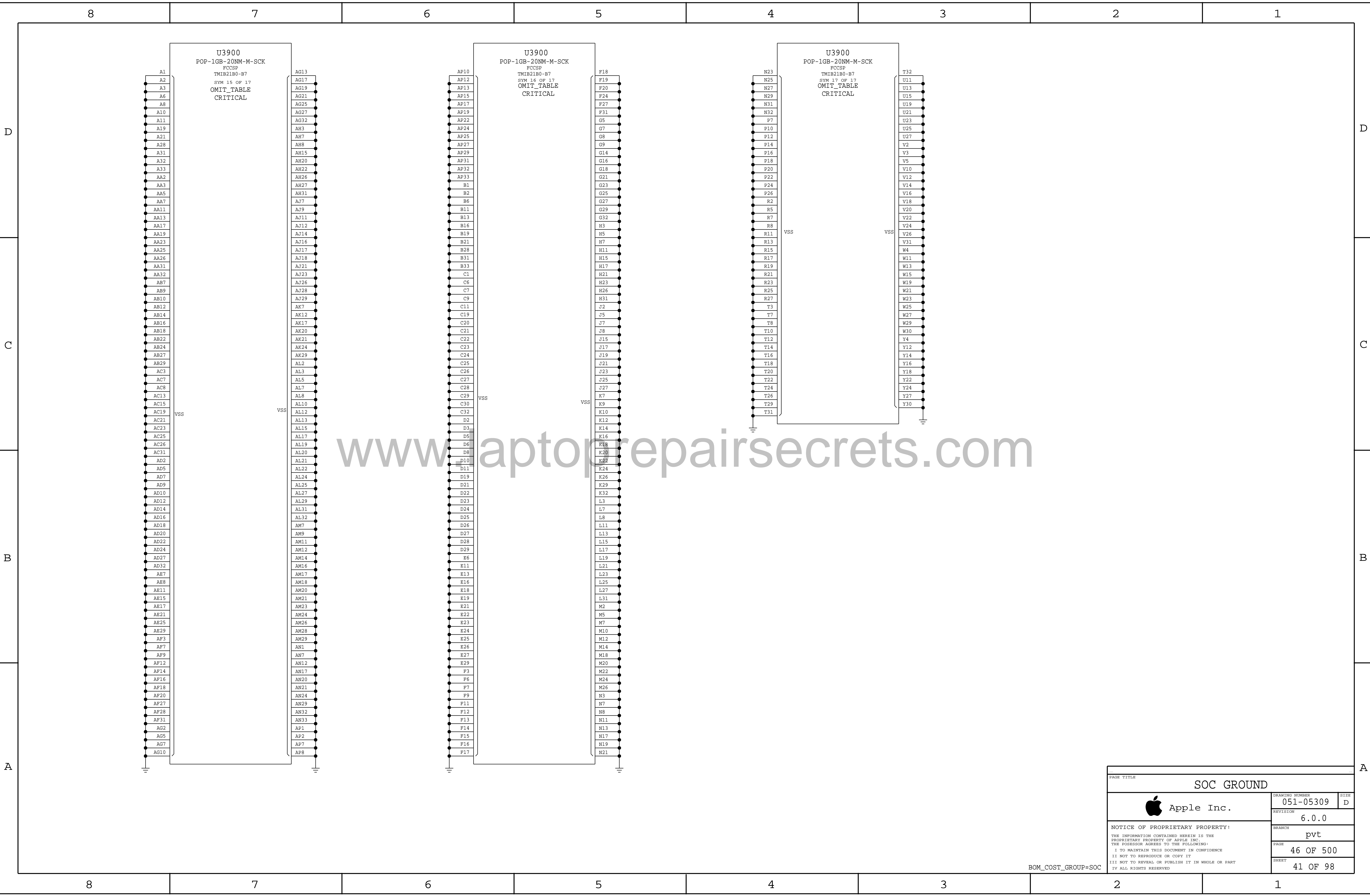
PAGE TITLE		
SOC POWER 1		
	DRAWING NUMBER	051-05309
	REVISION	6.0.0
NOTICE OF PROPRIETARY PROPERTY: THE INFORMATION CONTAINED HEREIN IS THE PROPRIETARY PROPERTY OF APPLE INC. THE POSSESSOR AGREES TO THE FOLLOWING: I TO MAINTAIN THIS DOCUMENT IN CONFIDENCE I NOT TO REPRODUCE OR COPY IT I NOT TO REVEAL OR PUBLISH IT IN WHOLE OR PART I ALL RIGHTS RESERVED	BRANCH	pvt
	PAGE	43 OF 500
	SHEET	38 OF 98

BOM_COST_GROUP=SOC

Current estimates @ 105C & 2GB from Gibraltar Power Specification Rev 0.5.3

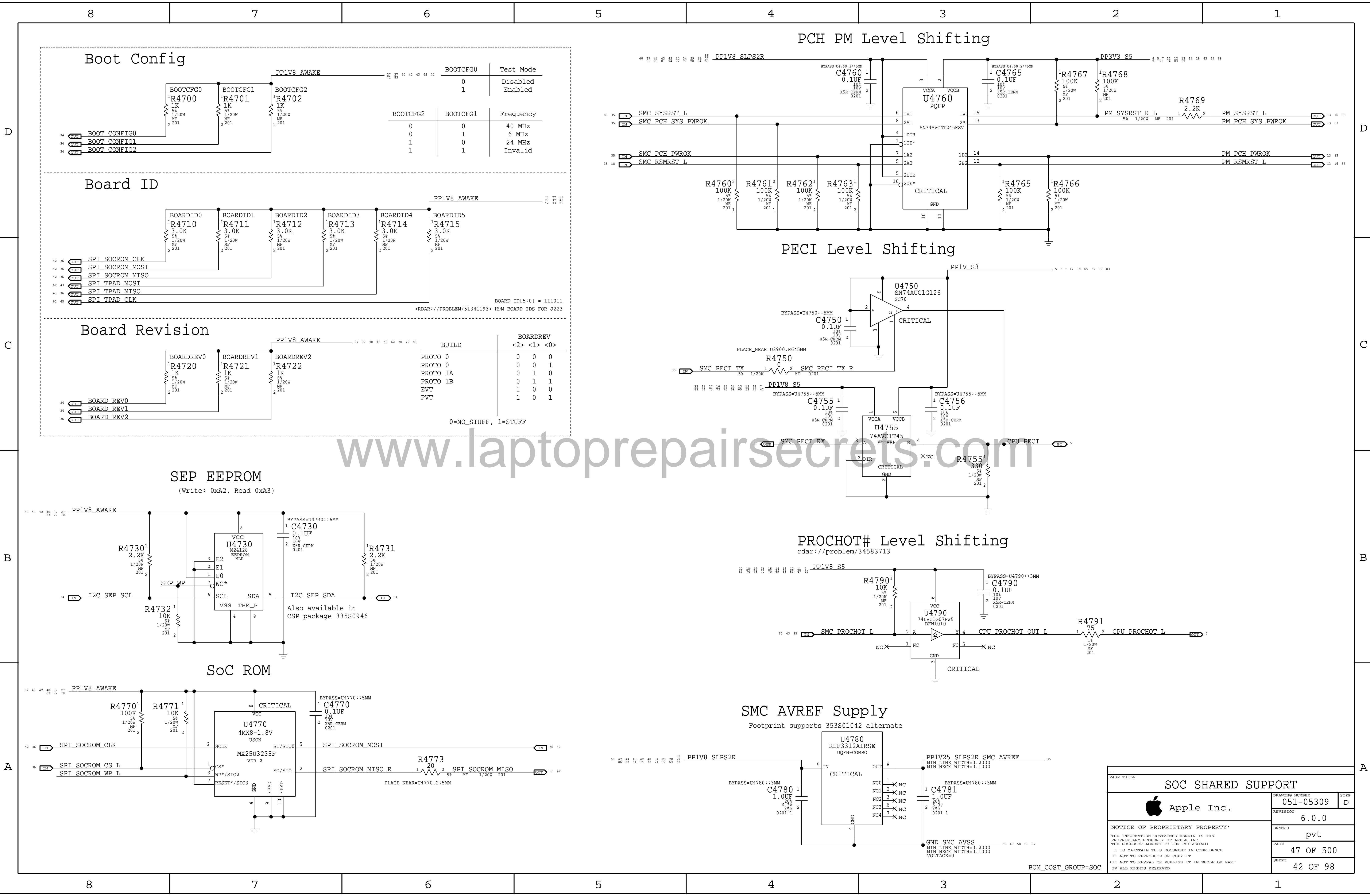


PAGE TITLE		
SOC POWER 2		
 Apple Inc.	DRAWING NUMBER	051-05309
	REVISION	6.0.0
NOTICE OF PROPRIETARY PROPERTY: THE INFORMATION CONTAINED HEREIN IS THE PROPRIETARY PROPERTY OF APPLE INC. THE POSSESSOR AGREES TO THE FOLLOWING: I TO MAINTAIN THIS DOCUMENT IN CONFIDENCE I NOT TO REPRODUCE OR COPY IT I NOT TO REVEAL OR PUBLISH IT IN WHOLE OR PART I ALL RIGHTS RESERVED	BRANCH	pvt
	PAGE	44 OF 500
	SHEET	39 OF 98



PAGE TITLE		
SOC GROUND		
	DRAWING NUMBER	051-05309
	REVISION	6.0.0
NOTICE OF PROPRIETARY PROPERTY: THE INFORMATION CONTAINED HEREIN IS THE PROPRIETARY PROPERTY OF APPLE INC. THE POSSESSOR AGREES TO THE FOLLOWING: I TO MAINTAIN THIS DOCUMENT IN CONFIDENCE I NOT TO REPRODUCE OR COPY IT I NOT TO REVEAL OR PUBLISH IT IN WHOLE OR PART I ALL RIGHTS RESERVED	BRANCH	pvt
	PAGE	46 OF 500
	SHEET	41 OF 98

BOM_COST_GROUP=SOC



D

C

B


A

D

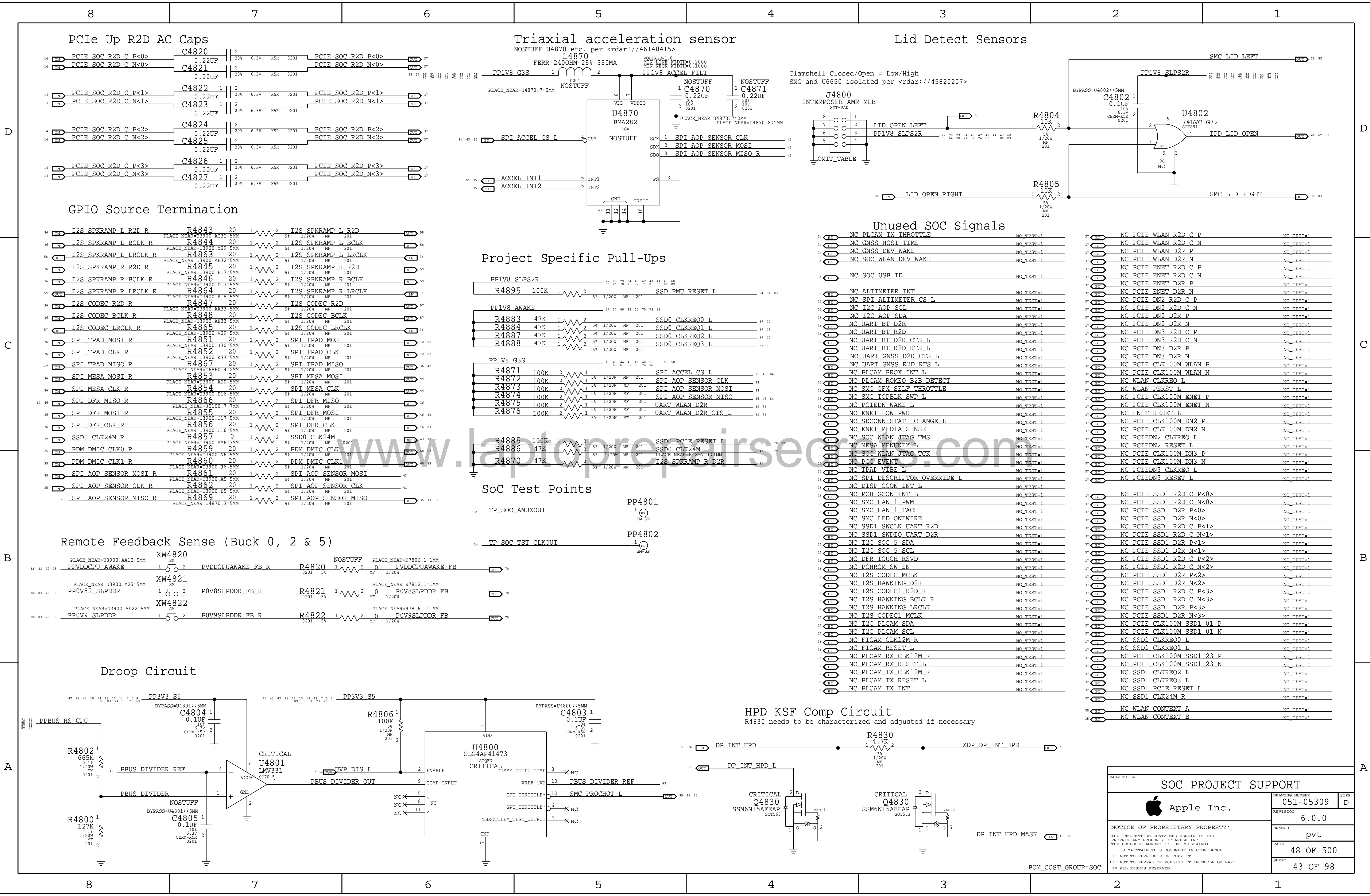
C

B

A

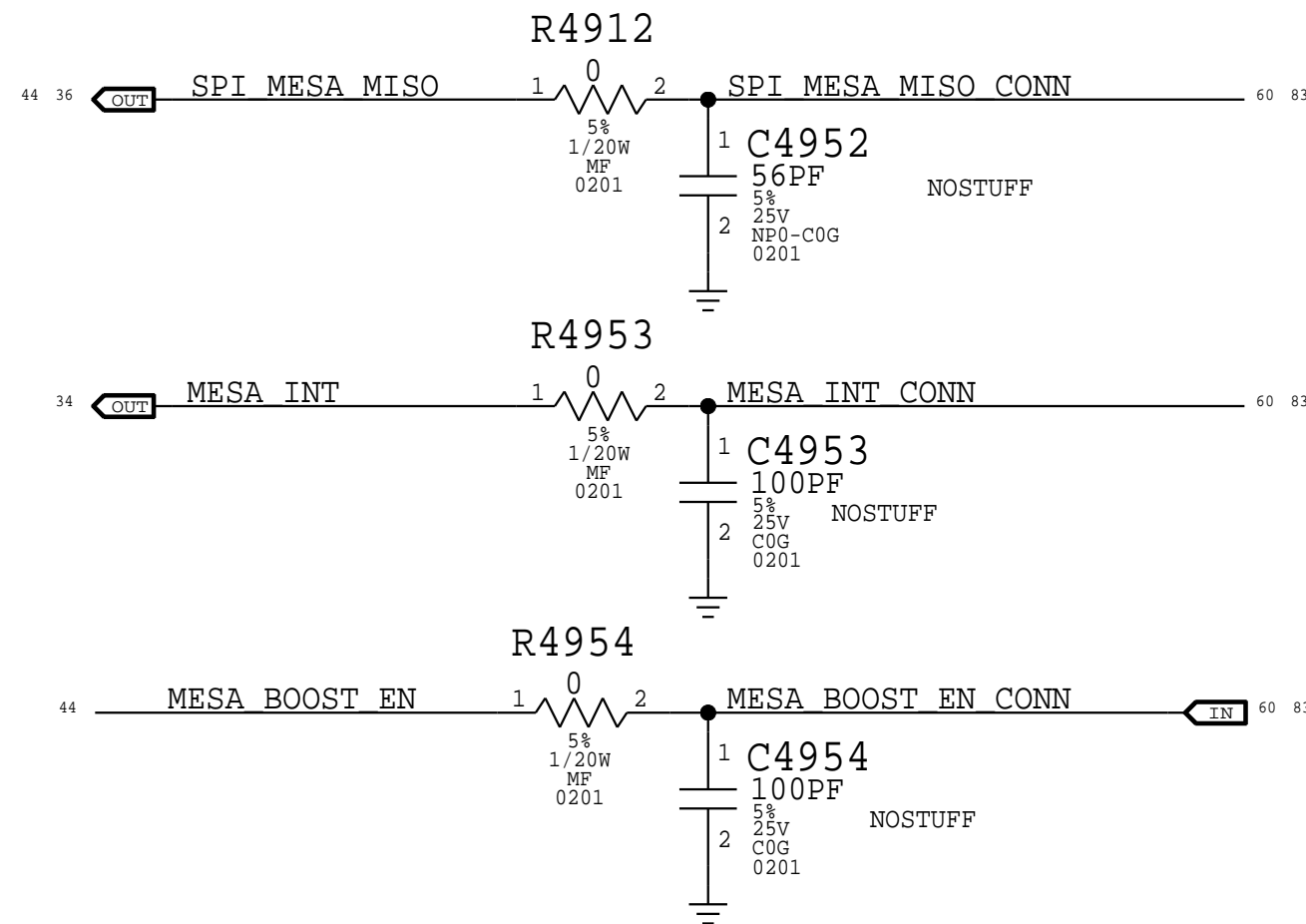
PAGE TITLE			
SOC SHARED SUPPORT			
 Apple Inc.	DRAWING NUMBER	051-05309	SIZE
	REVISION	6.0.0	D
NOTICE OF PROPRIETARY PROPERTY: THE INFORMATION CONTAINED HEREIN IS THE PROPRIETARY PROPERTY OF APPLE INC. THE POSSESSOR AGREES TO THE FOLLOWING: 1 TO MAINTAIN THIS DOCUMENT IN CONFIDENCE 11 NOT TO REPRODUCE OR COPY IT 111 NOT TO REVEAL OR PUBLISH IT IN WHOLE OR PART 1V ALL RIGHTS RESERVED	BRANCH	pvt	
	PAGE	47 OF 500	
	SHEET	42 OF 98	

BOM_COST_GROUP=SOC



ISOLATE FROM OTHER COMPONENTS/NETS AS MUCH AS POSSIBLE

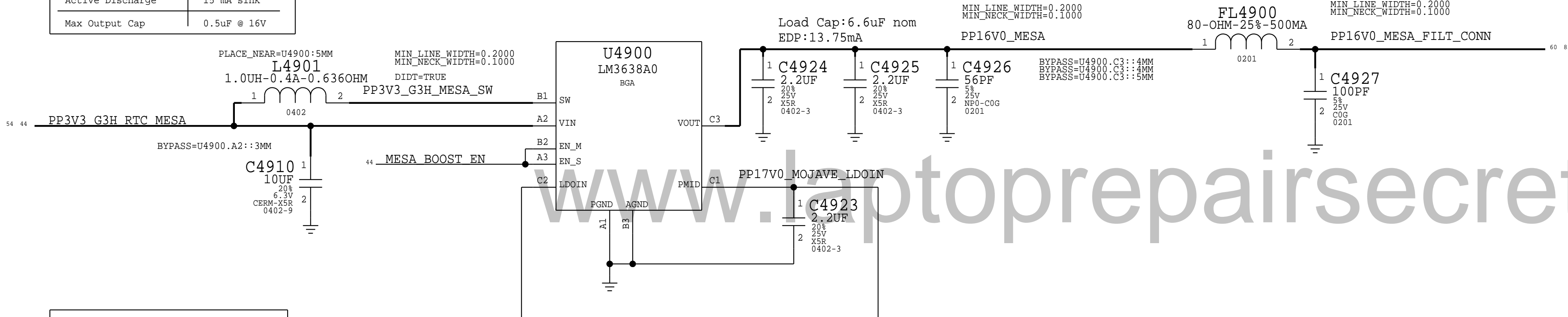
ESD Filters



Mesa Power Sequencing Requirements

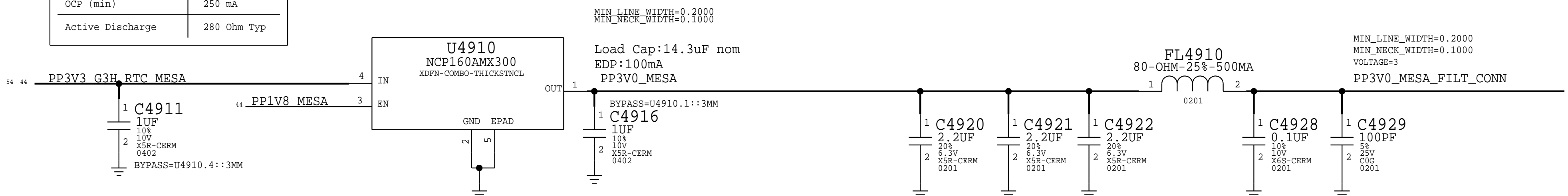
Power On: 1V8 -> 3V3 -> 16V0

MOJAVE 16V BOOST



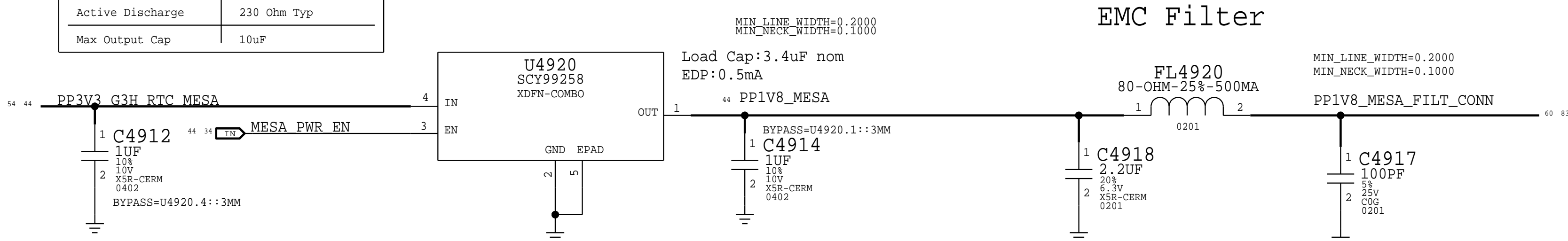
Output Voltage	16.0V +/- 2%
Iout (max avg)	6mA
OCP (min)	13 mA
Active Discharge	15 mA sink
Max Output Cap	0.5uF @ 16V

3.0V MESA



Output Voltage	3.0V +/- 2%
Iout (max avg)	250mA
Dropout Voltage	155mV
OCP (min)	250 mA
Active Discharge	280 Ohm Typ

1.85V MESA

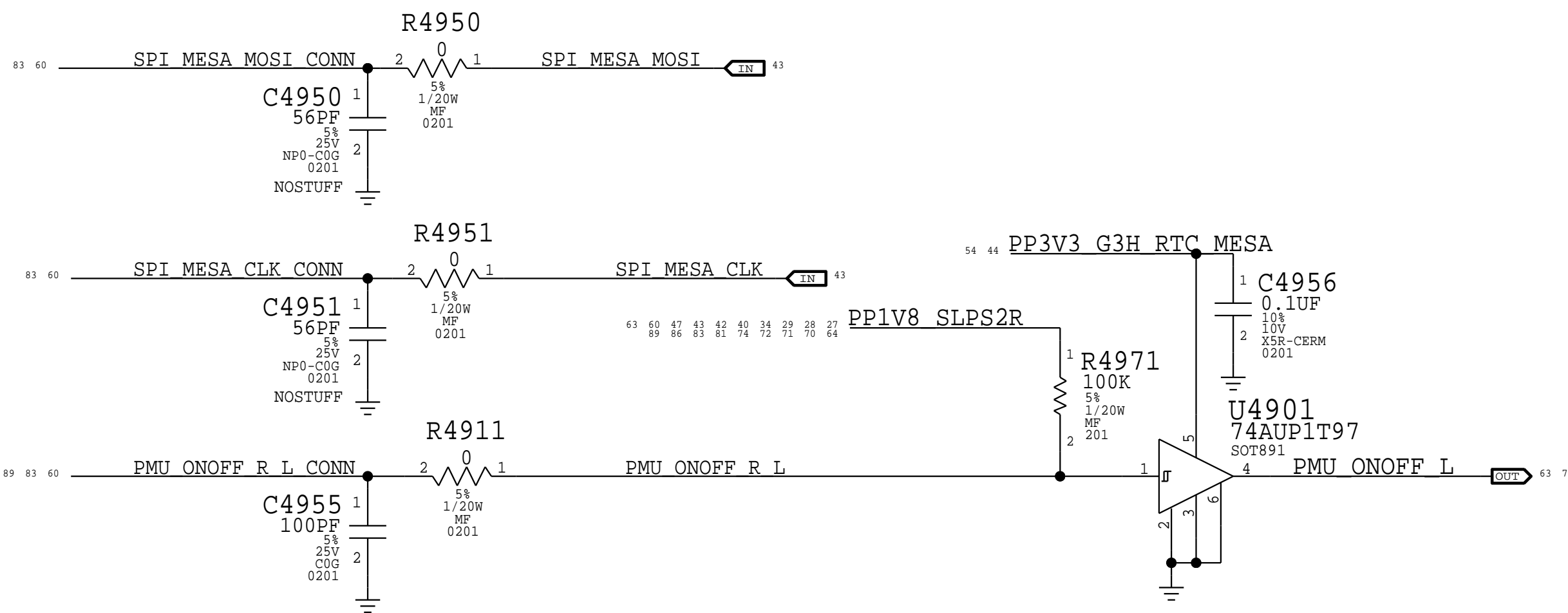


Output Voltage	1.85V +/- 2%
Iout (max avg)	250mA
Dropout Voltage	50mV Typ @ 100mA
OCP (min)	250 mA
Active Discharge	230 Ohm Typ
Max Output Cap	10uF

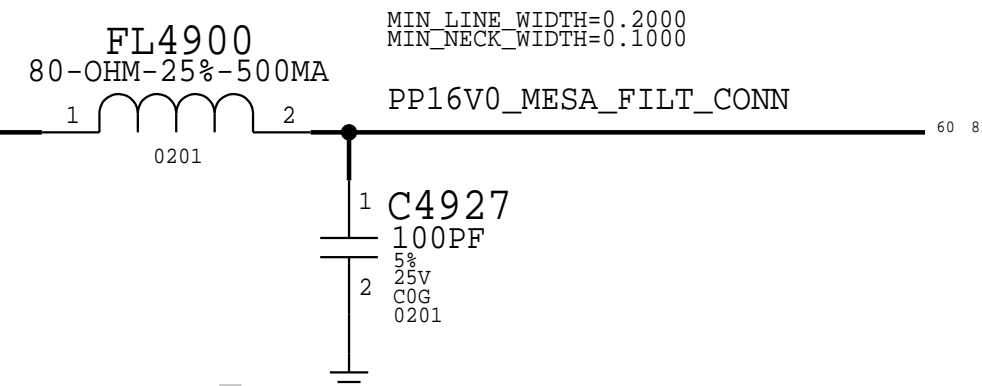
T151 FLEX CONNECTOR

ISOLATE FROM OTHER COMPONENTS/NETS AS MUCH AS POSSIBLE

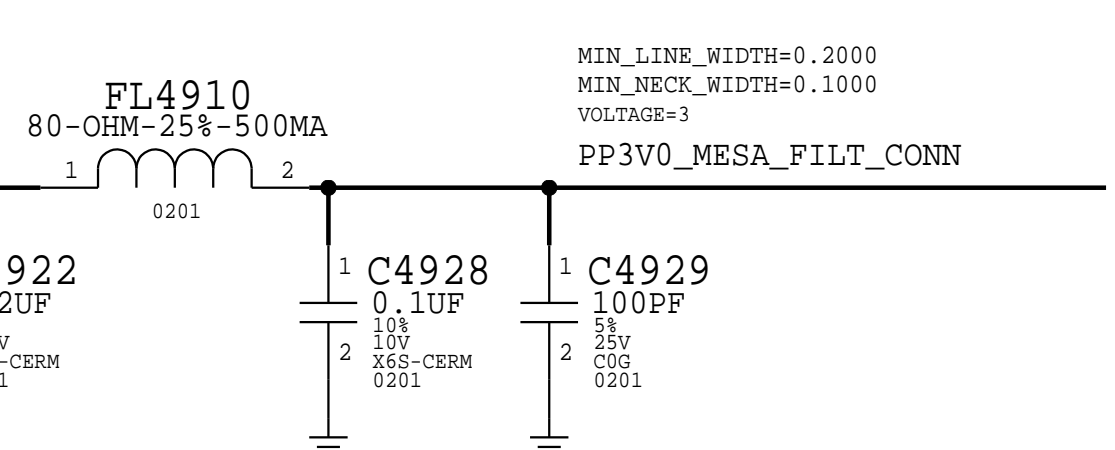
ESD Filters



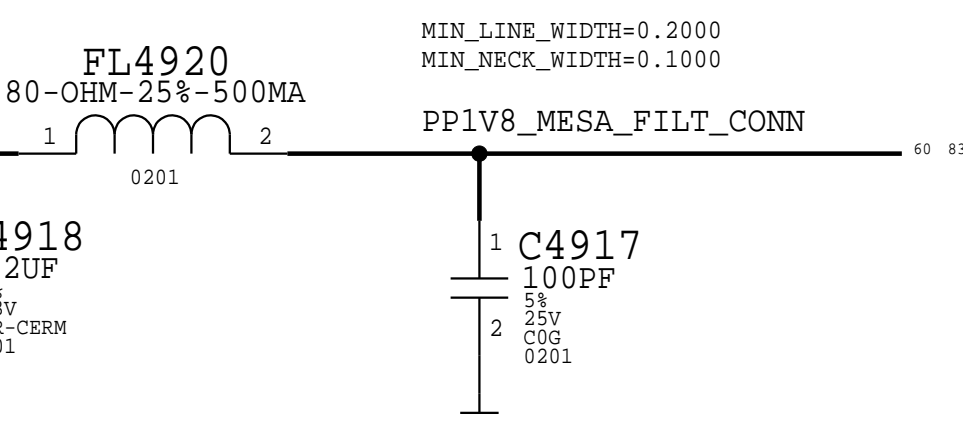
EMC Filter



EMC Filter



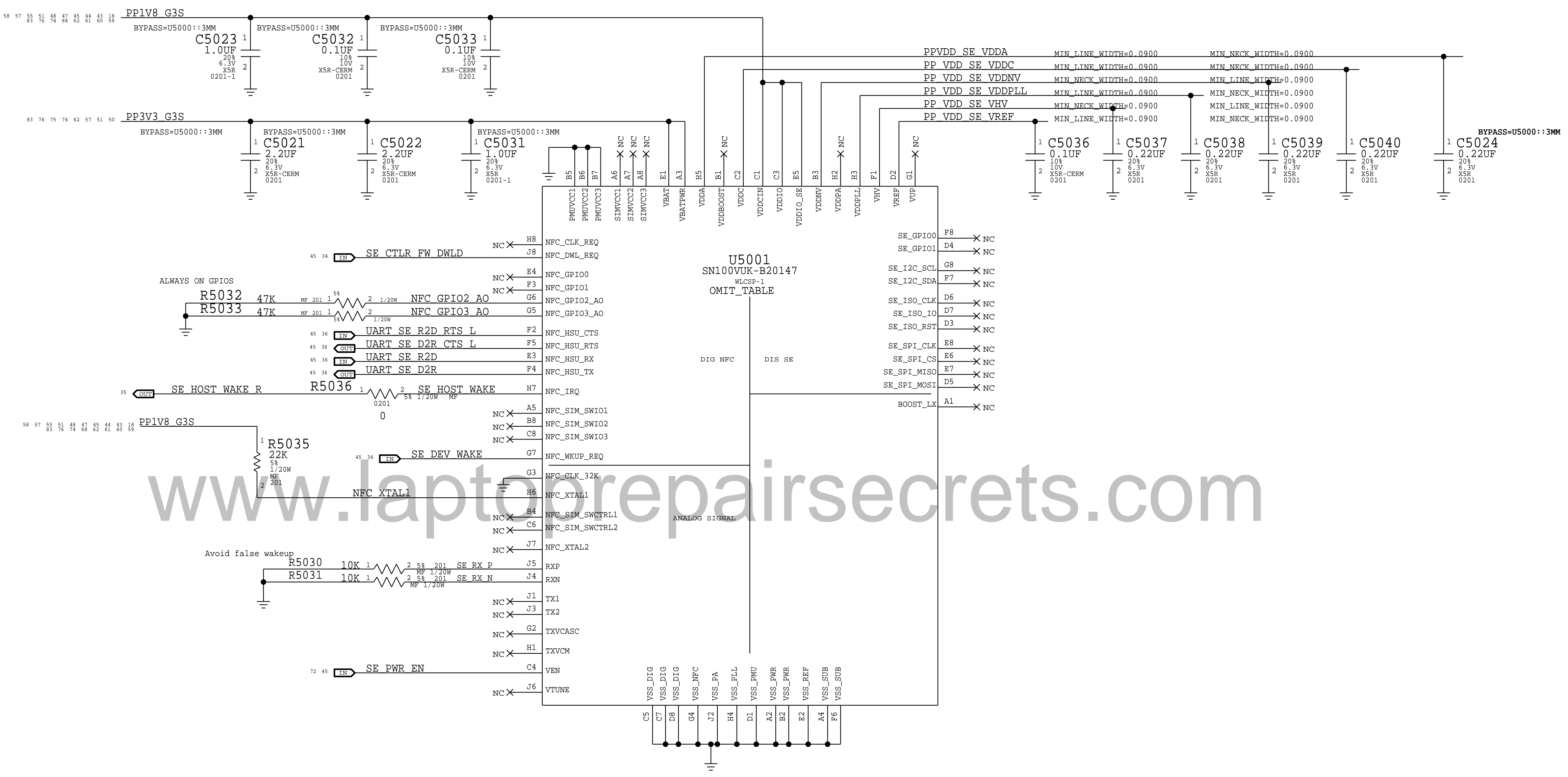
EMC Filter



BOM_COST_GROUP=MESA

PAGE TITLE		
T151		
	DRAWING NUMBER	051-05309
	REVISION	6.0.0
NOTICE OF PROPRIETARY PROPERTY: THE INFORMATION CONTAINED HEREIN IS THE PROPRIETARY PROPERTY OF APPLE INC. THE POSSESSOR AGREES TO THE FOLLOWING: I TO MAINTAIN THIS DOCUMENT IN CONFIDENCE I NOT TO REPRODUCE OR COPY IT I NOT TO REVEAL OR PUBLISH IT IN WHOLE OR PART I ALL RIGHTS RESERVED	BRANCH	pvt
	PAGE	49 OF 500
	SHEET	44 OF 98

VENUS



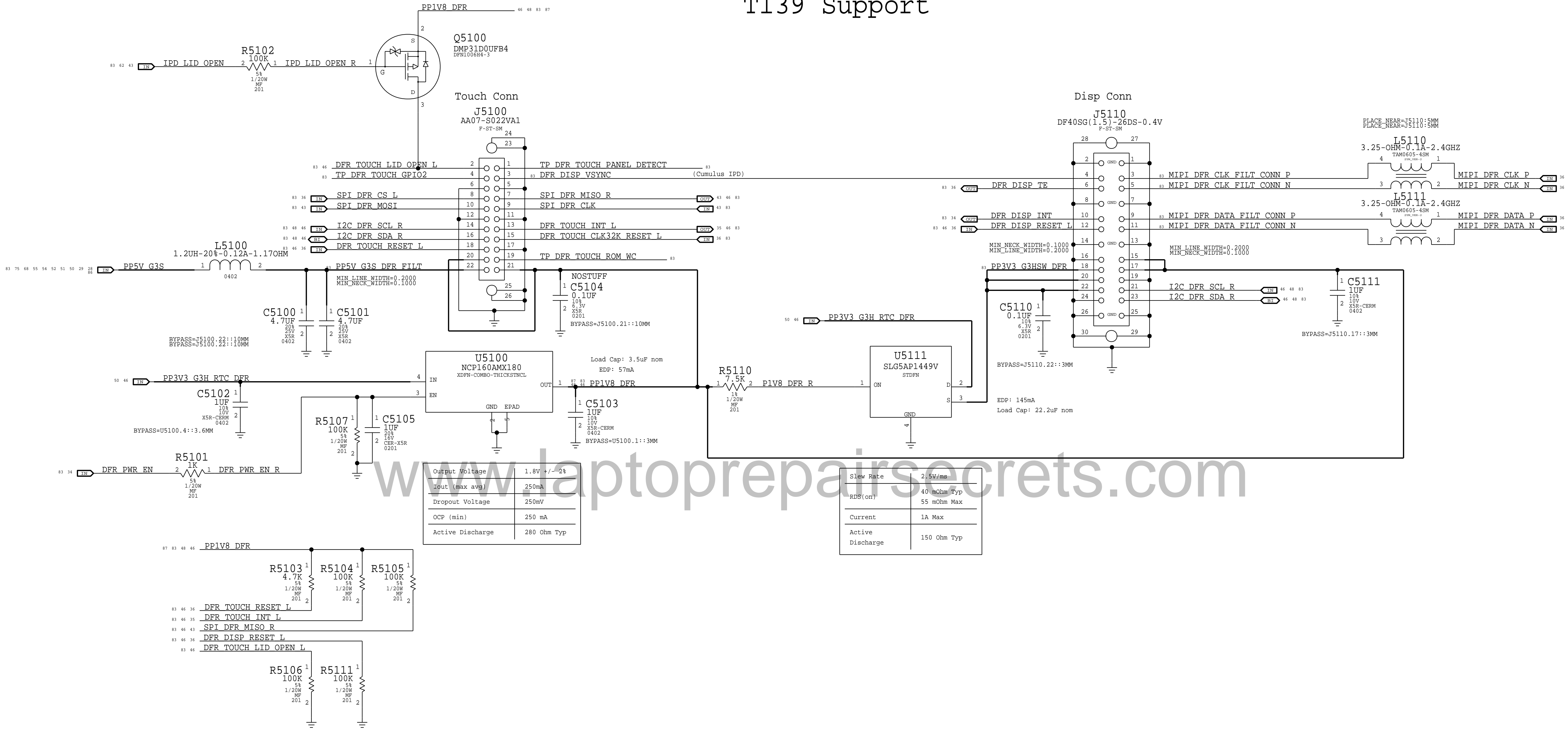
PP1V8 G3S									
R5021	100K	1	2	5%	1/20W	MF	201	UART SE R2D	36 45
R5022	100K	1	2	5%	1/20W	MF	201	UART SE D2R	36 45
R5023	100K	1	2	5%	1/20W	MF	201	UART SE R2D RTS L	36 45
R5024	100K	1	2	5%	1/20W	MF	201	UART SE D2R CTS L	36 45
R5020	100K	1	2	5%	1/20W	MF	201	SE_CTLR_FW_DWLD	34 45
R5025	100K	1	2	5%	1/20W	MF	201	SE_DEV_WAKE	34 45
R5026	100K	1	2	5%	1/20W	MF	201	SE_PWR_EN	45 72

www.laptoprepairsecrets.com

PAGE TITLE		
SECURE ELEMENT		
	DRAWING NUMBER	051-05309
	REVISION	6.0.0
NOTICE OF PROPRIETARY PROPERTY: THE INFORMATION CONTAINED HEREIN IS THE PROPRIETARY PROPERTY OF APPLE INC. THE POSSESSOR AGREES TO THE FOLLOWING: I TO MAINTAIN THIS DOCUMENT IN CONFIDENCE I NOT TO REPRODUCE OR COPY IT I NOT TO REVEAL OR PUBLISH IT IN WHOLE OR PART I ALL RIGHTS RESERVED	BRANCH	pvt
	PAGE	50 OF 500
	SHEET	45 OF 98


BOM_COST_GROUP=SOC

T139 Support

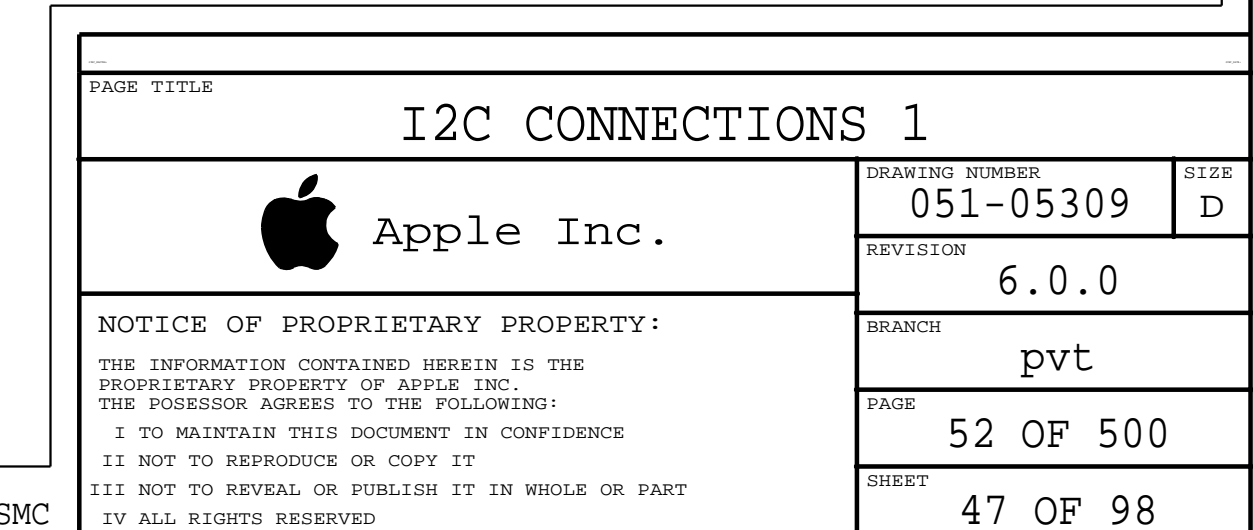
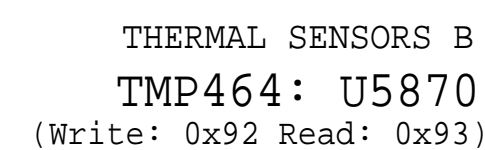
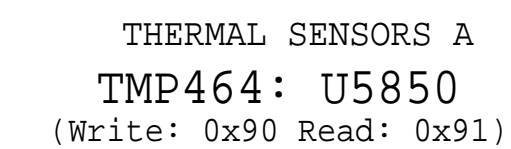
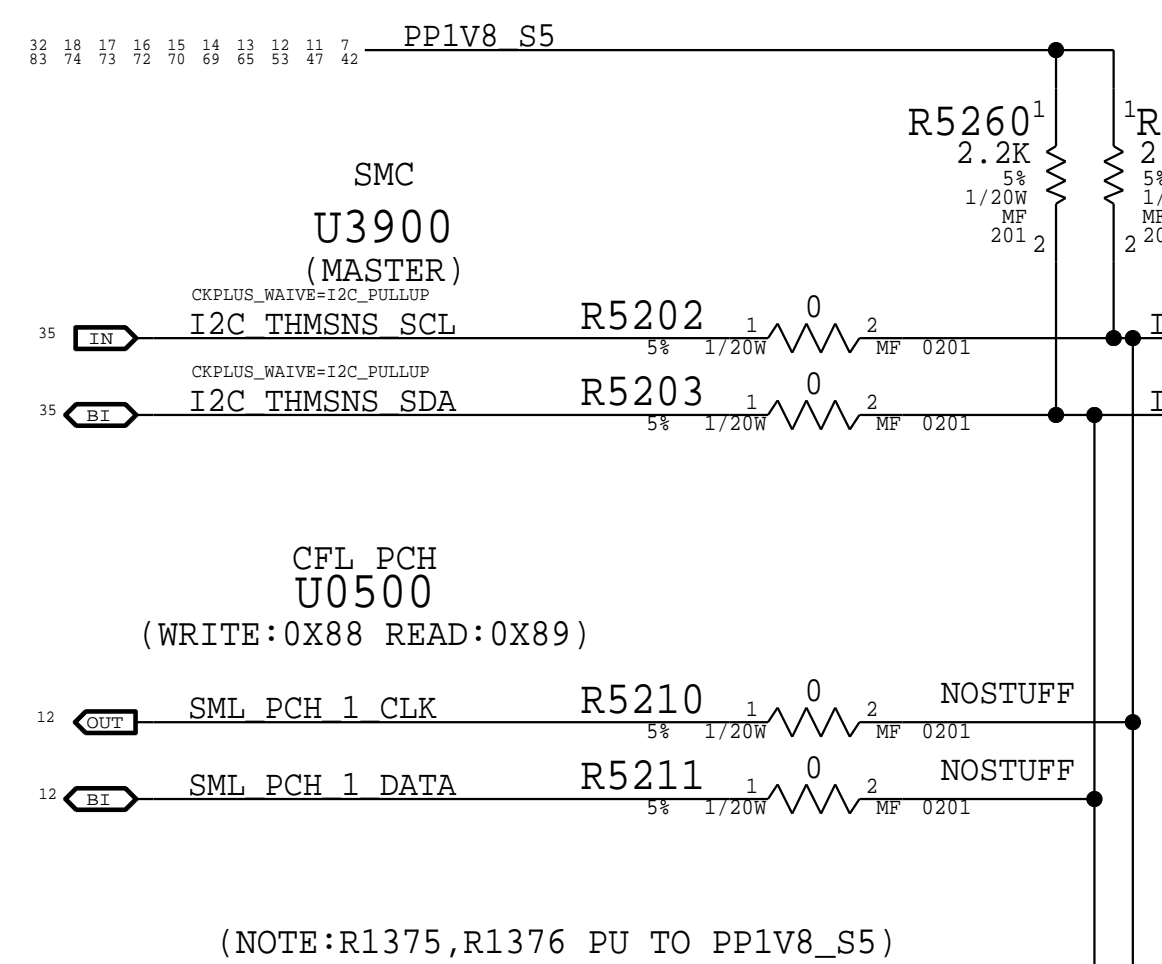
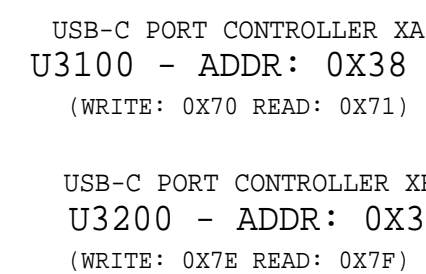
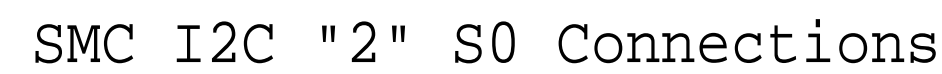
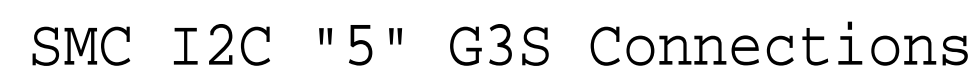
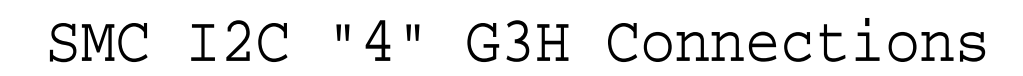
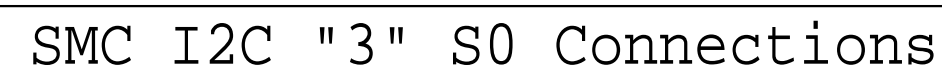
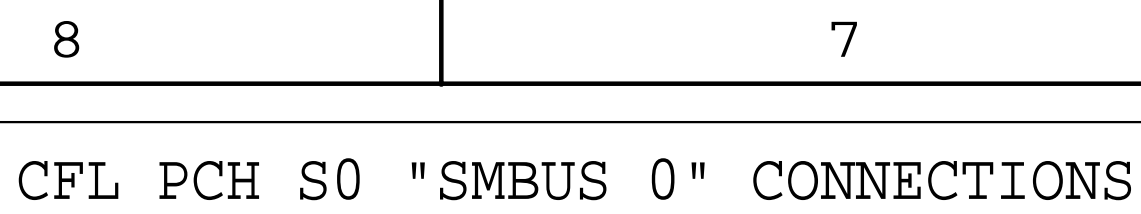


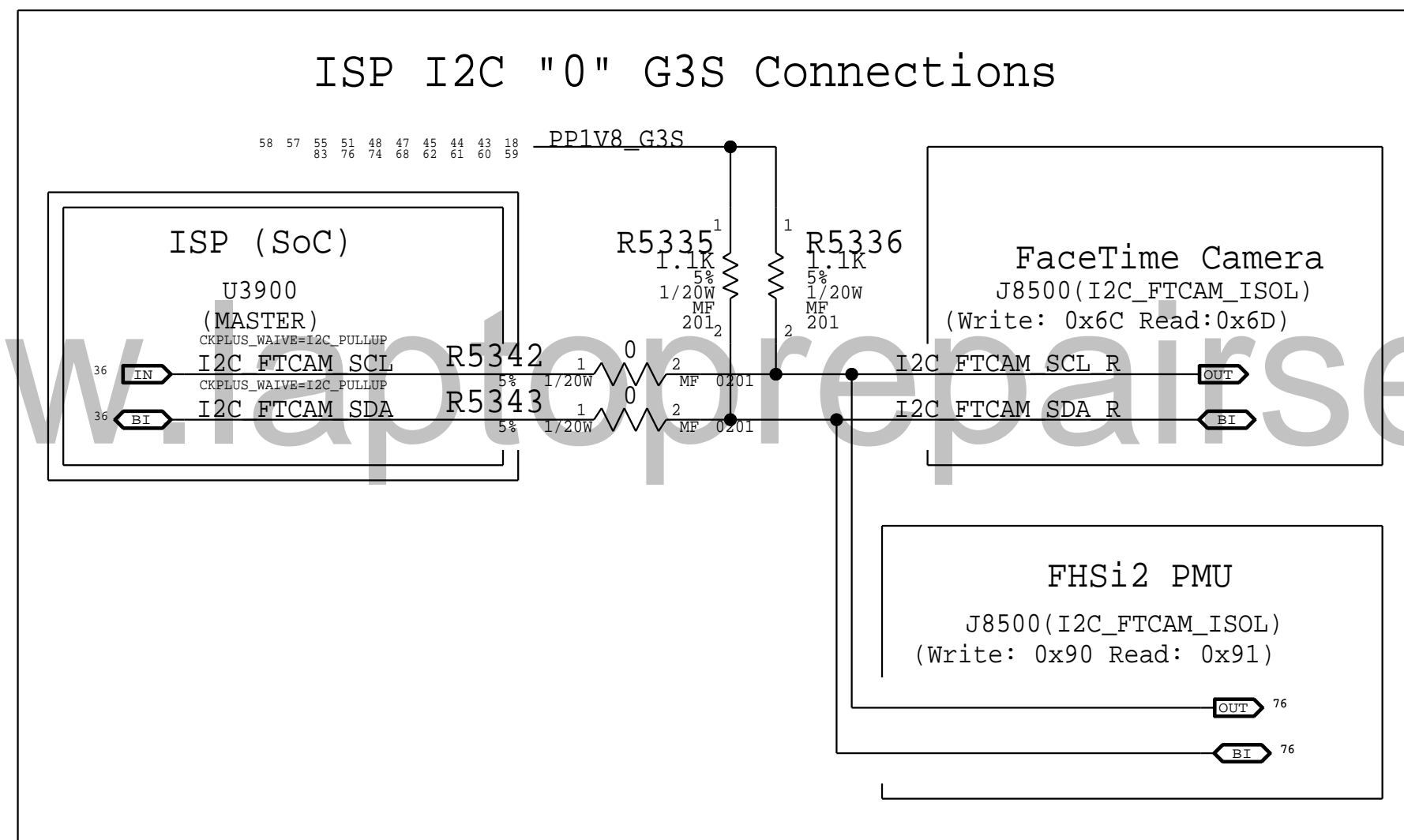
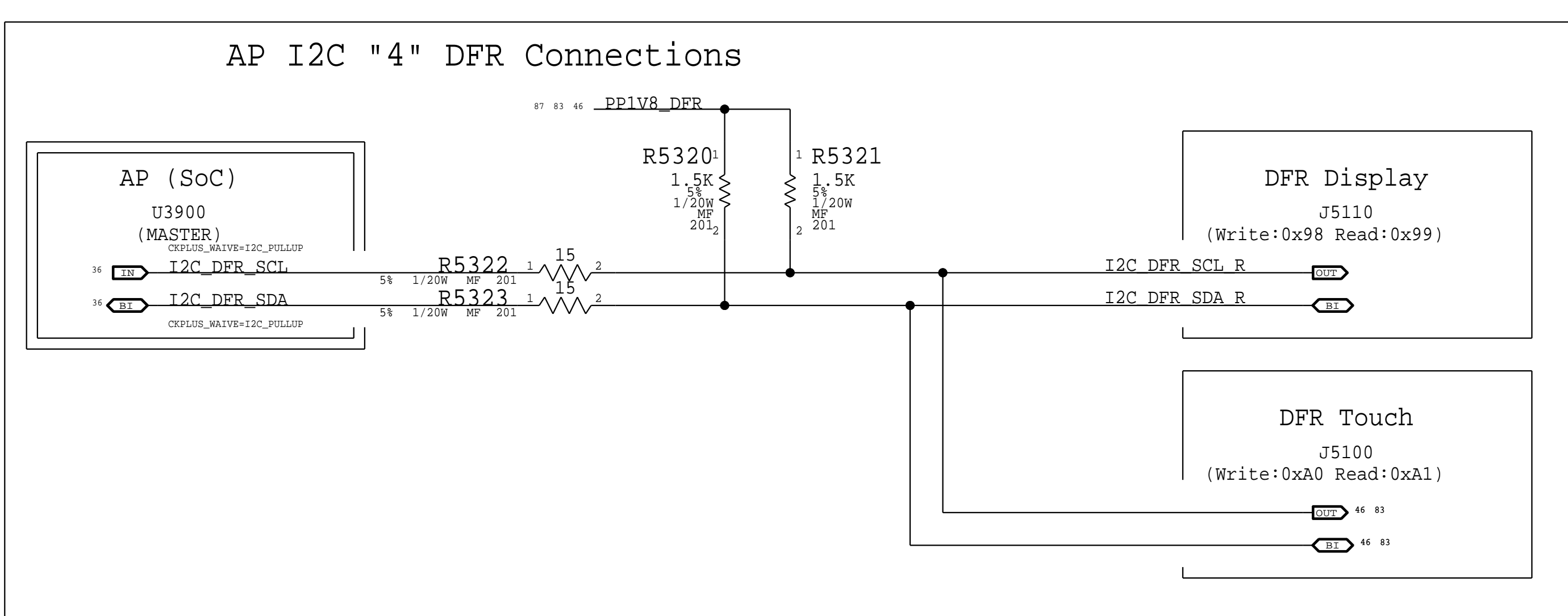
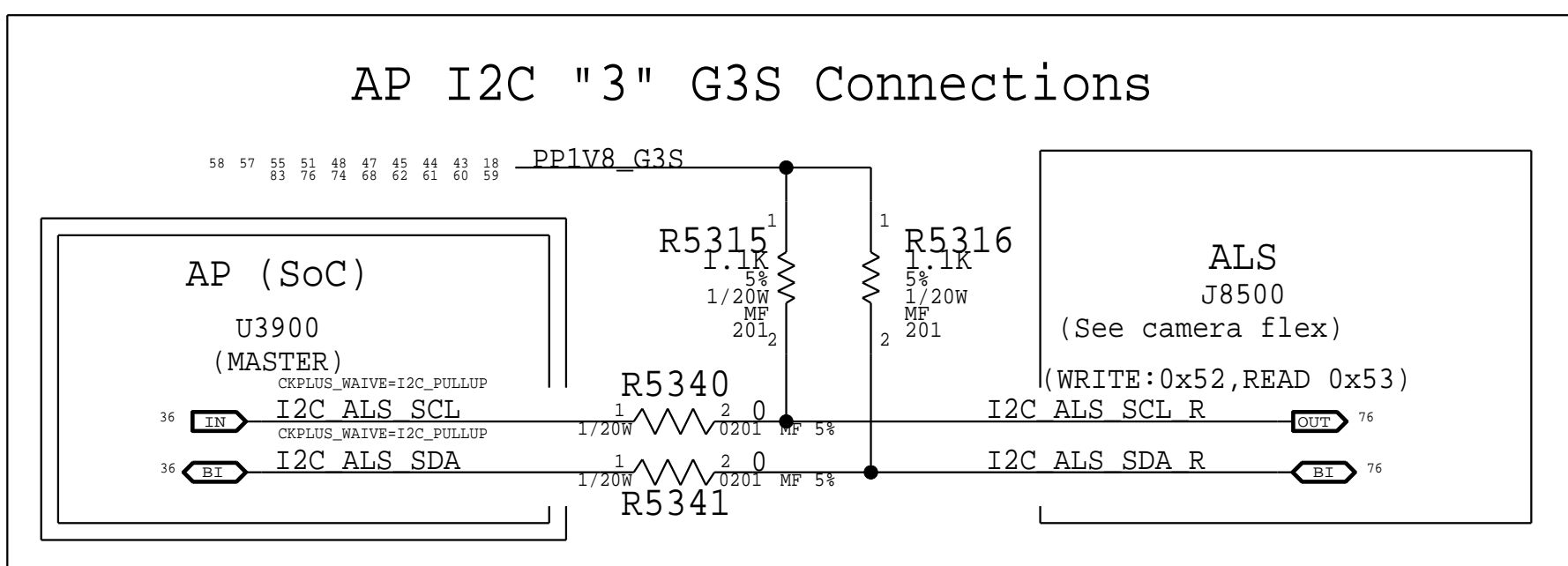
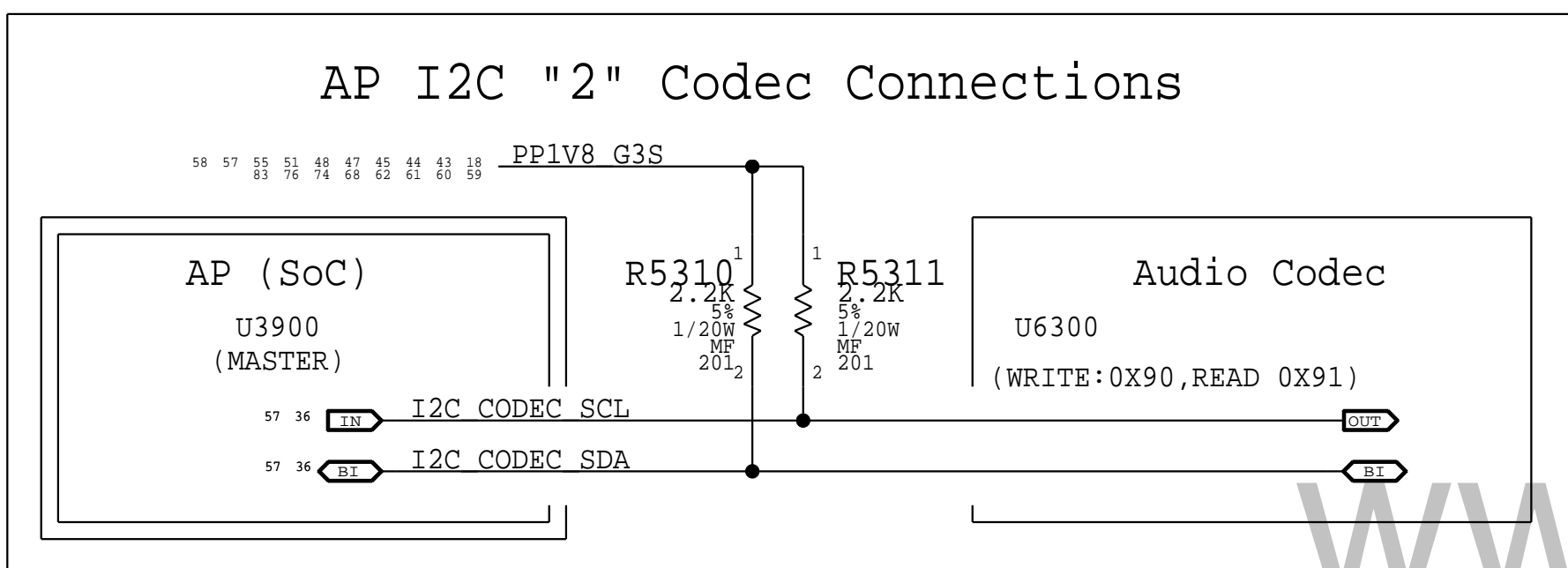
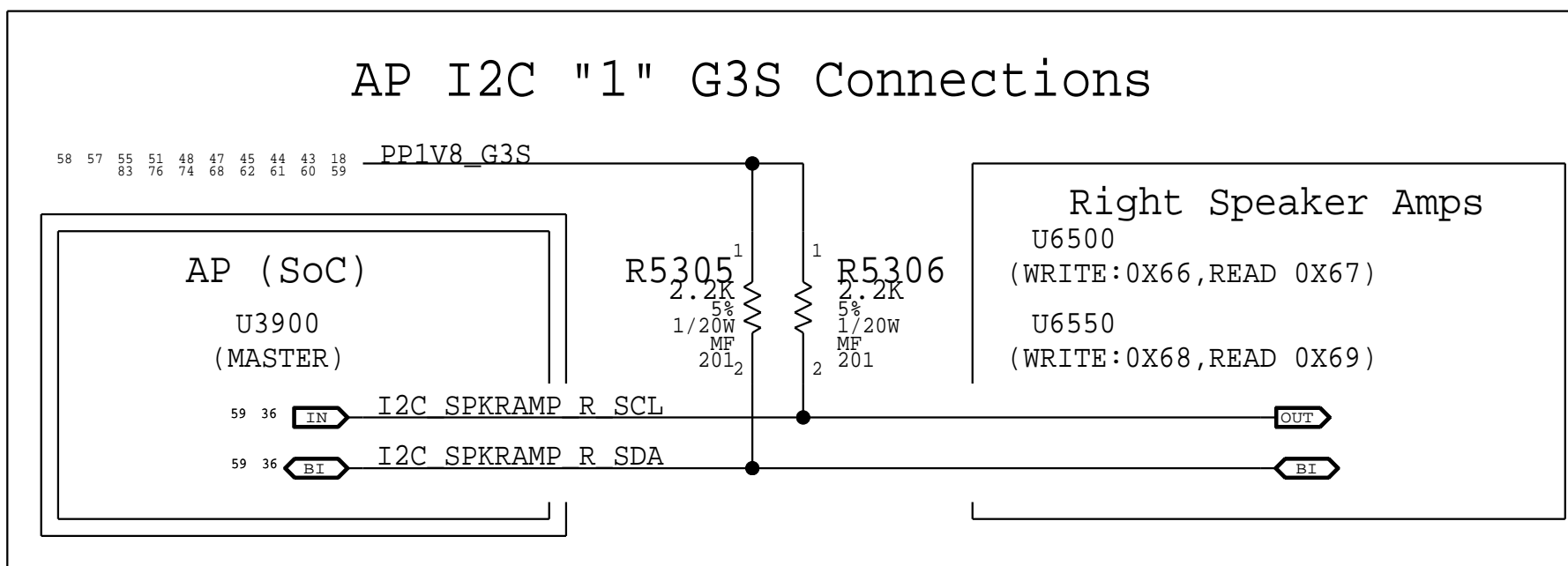
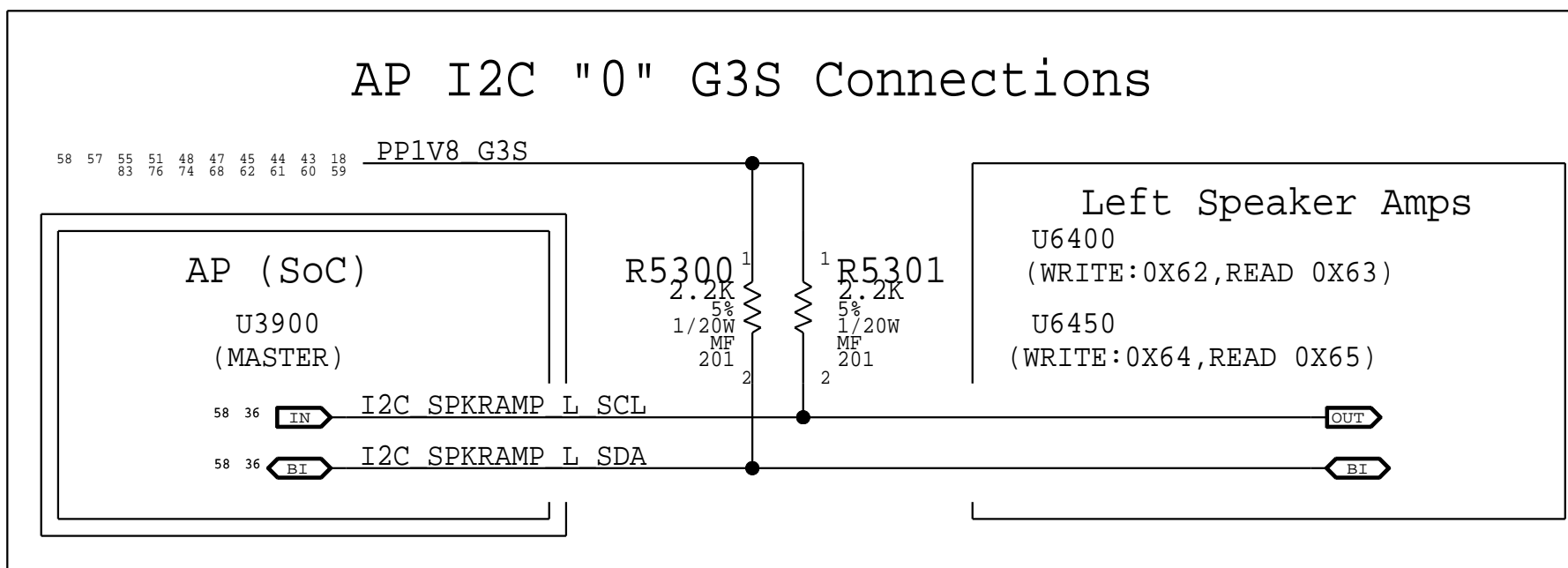
Output Voltage	1.8V +/- 2%
Iout (max avg)	250mA
Dropout Voltage	250mV
OCV (min)	250 mA
Active Discharge	280 Ohm Typ

Slew Rate	2.5V/ms
RDS(on)	40 mOhm Typ 55 mOhm Max
Current	1A Max
Active Discharge	150 Ohm Typ


PAGE TITLE		
T139 SUPPORT		
 Apple Inc.	DRAWING NUMBER	051-05309
	REVISION	6.0.0
NOTICE OF PROPRIETARY PROPERTY: THE INFORMATION CONTAINED HEREIN IS THE PROPRIETARY PROPERTY OF APPLE INC. THE POSSESSOR AGREES TO THE FOLLOWING: I TO MAINTAIN THIS DOCUMENT IN CONFIDENCE I NOT TO REPRODUCE OR COPY IT I NOT TO REVEAL OR PUBLISH IT IN WHOLE OR PART I ALL RIGHTS RESERVED	BRANCH	pvt
	PAGE	51 OF 500
	SHEET	46 OF 98

BOM_COST_GROUP=DFR



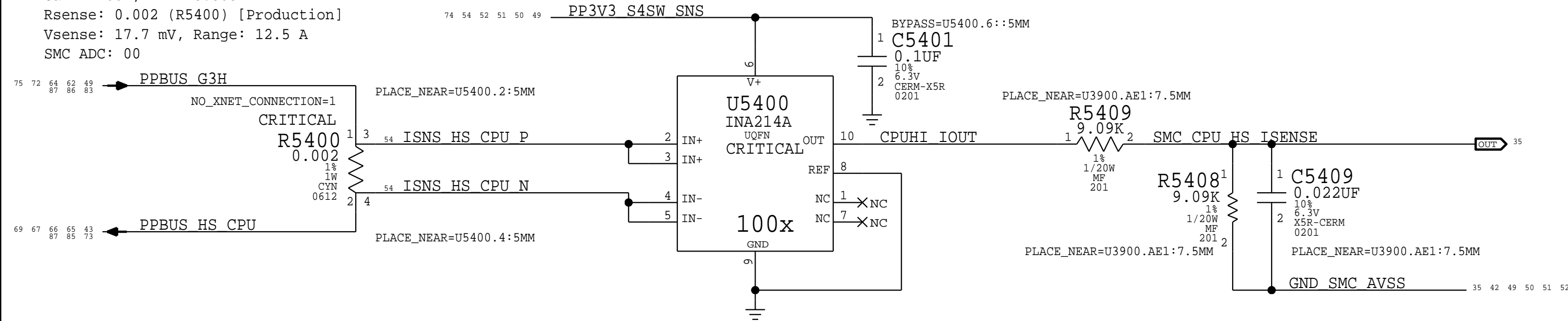


Device	SMC IF	ADDR. (8b)
ACE XA	I2C0	0X70/1
ACE XB	I2C0	0X7E/F
NC.	I2C1	
TEMP. SENSOR A	I2C2	0X90/1
TEMP. SENSOR B	I2C2	0X92/3
TCON	I2C3	0X10-1F
Charger	I2C4	0X12/3
Battery	I2C4	0X16/7
Calpe	I2C4	0XE8/9
Trackpad	I2C5	0X98/9
EADC1	I2C5	0X10/1
EADC2	I2C5	0X12/3
SSD	I2C6	0XF2/3
SOC IF (AP)		
Left Spkr Amp.(U6400)	I2C0	0X62/3
Left Spkr Amp.(U6450)	I2C0	0X64/5
Right Spkr Amp.(U6500)	I2C1	0X66/7
Right Spkr Amp.(U6550)	I2C1	0X68/9
Audio Codec	I2C2	0X90/1
ALS	I2C3	0X52/3
DFR Display	I2C4	0X98/9
DFR Touch	I2C4	0XA0/1
NC.	I2C5	
Spkr ID1	I2C6	
Spkr ID0	I2C6	
SIP IF (ISP)		
FT Camera	I2C0	0X6C/D
FHSi2	I2C0	0X90/1
NC.	I2C1	
AOP IF		
NC.	I2C0	

PAGE TITLE			
I2C CONNECTIONS 2			
 Apple Inc.	DRAWING NUMBER		SIZE
	051-05309		D
NOTICE OF PROPRIETARY PROPERTY: THE INFORMATION CONTAINED HEREIN IS THE PROPERTY OF APPLE INC. THE POSSESSOR AGREES TO THE FOLLOWING: I TO MAINTAIN THIS DOCUMENT IN CONFIDENCE I/1 NOT TO REPRODUCE OR COPY IT I/2 NOT TO REVEAL OR PUBLISH IT IN WHOLE OR PART I/3 ALL RIGHTS RESERVED	REVISION		
	6.0.0		
	BRANCH		
	pvt		
	PAGE		
	53 OF 500		
	SHEET		
	48 OF 98		

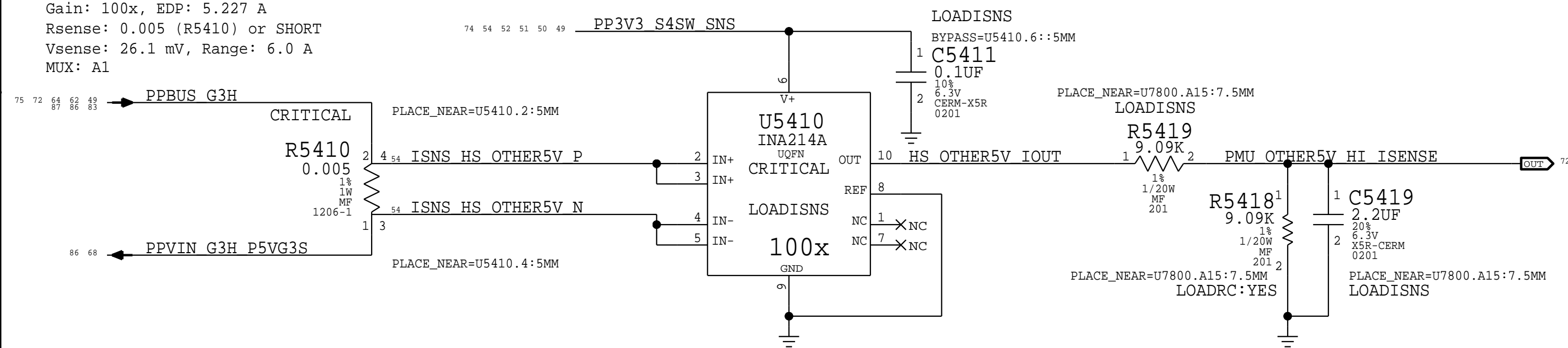
CPU High Side Current Sense (IC0R)

Gain: 100x, EDP: 8.868 A
Rsense: 0.002 (R5400) [Production]
Vsense: 17.7 mV, Range: 12.5 A
SMC ADC: 00



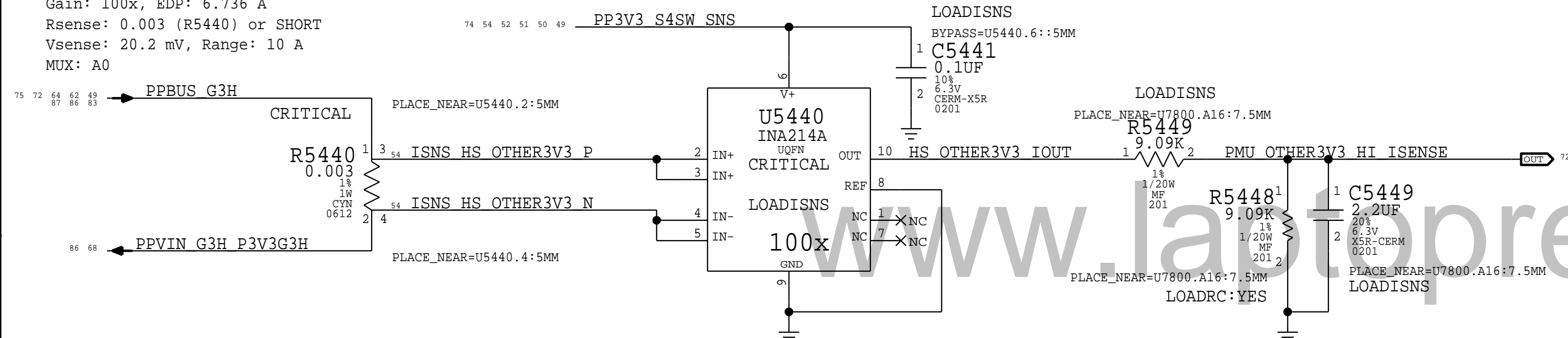
OTHER 5V High Side Current Sense (IO5R)

Gain: 100x, EDP: 5.227 A
Rsense: 0.005 (R5410) or SHORT
Vsense: 26.1 mV, Range: 6.0 A
MUX: A1



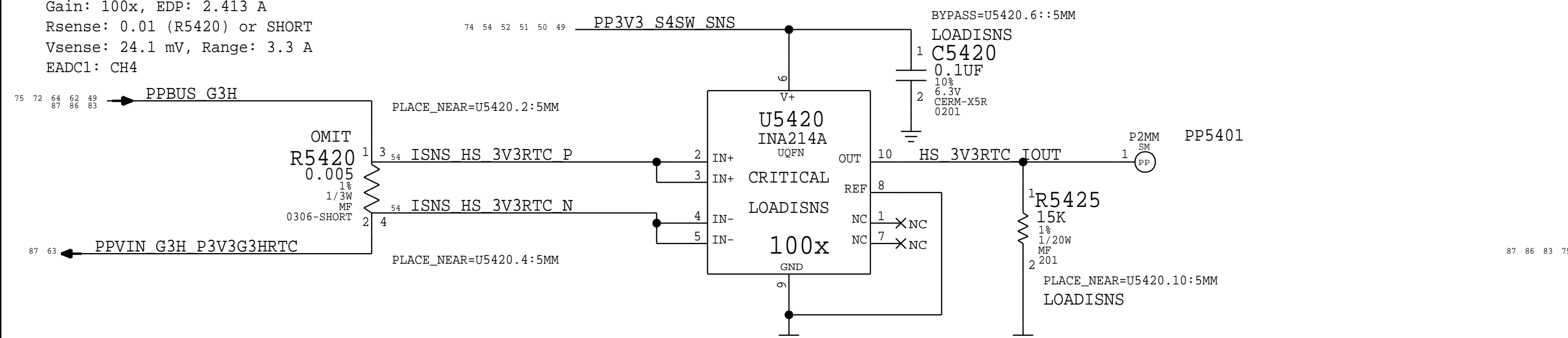
OTHER 3.3V High Side Current Sense (IO3R)

Gain: 100x, EDP: 6.736 A
Rsense: 0.003 (R5440) or SHORT
Vsense: 20.2 mV, Range: 10 A
MUX: A0



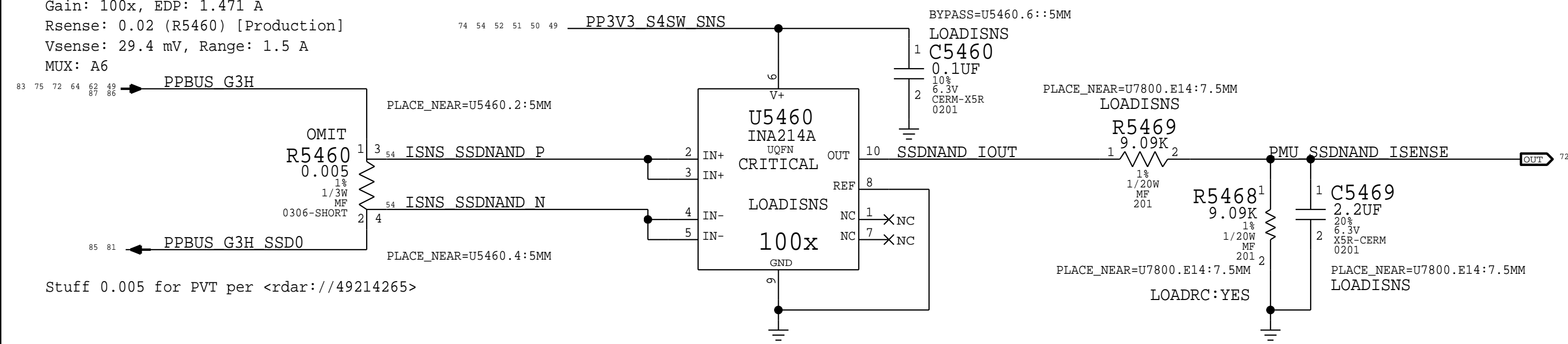
3.3V RTC High Side Current Sense (IR3R)

Gain: 100x, EDP: 2.413 A
Rsense: 0.01 (R5420) or SHORT
Vsense: 24.1 mV, Range: 3.3 A
EADC1: CH4



NAND Current Sense (IHNR)

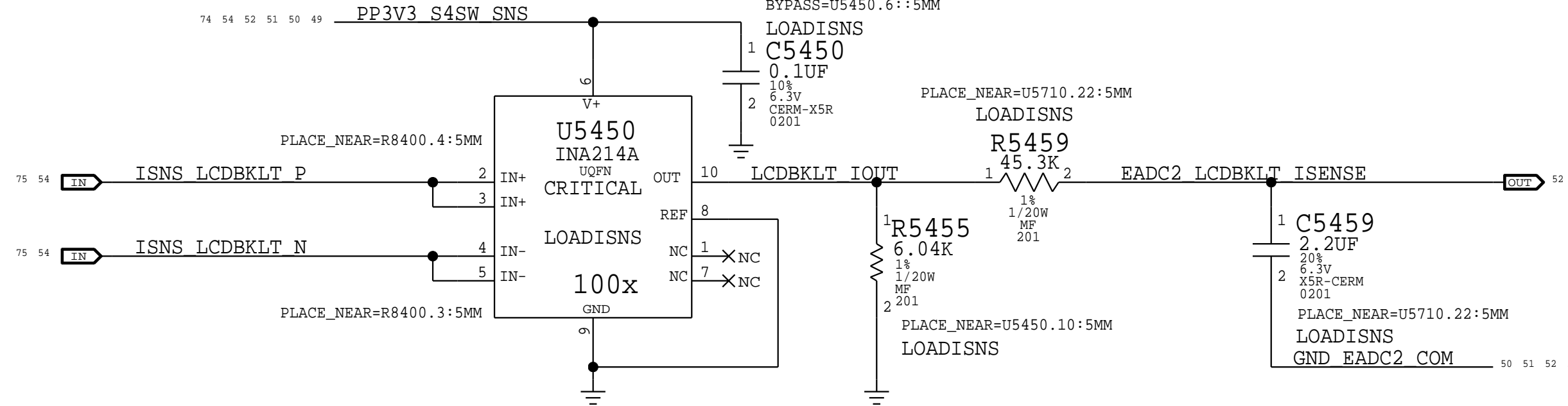
Gain: 100x, EDP: 1.471 A
Rsense: 0.02 (R5460) [Production]
Vsense: 29.4 mV, Range: 1.5 A
MUX: A6



Stuff 0.005 for PVT per <rdar://49214265>

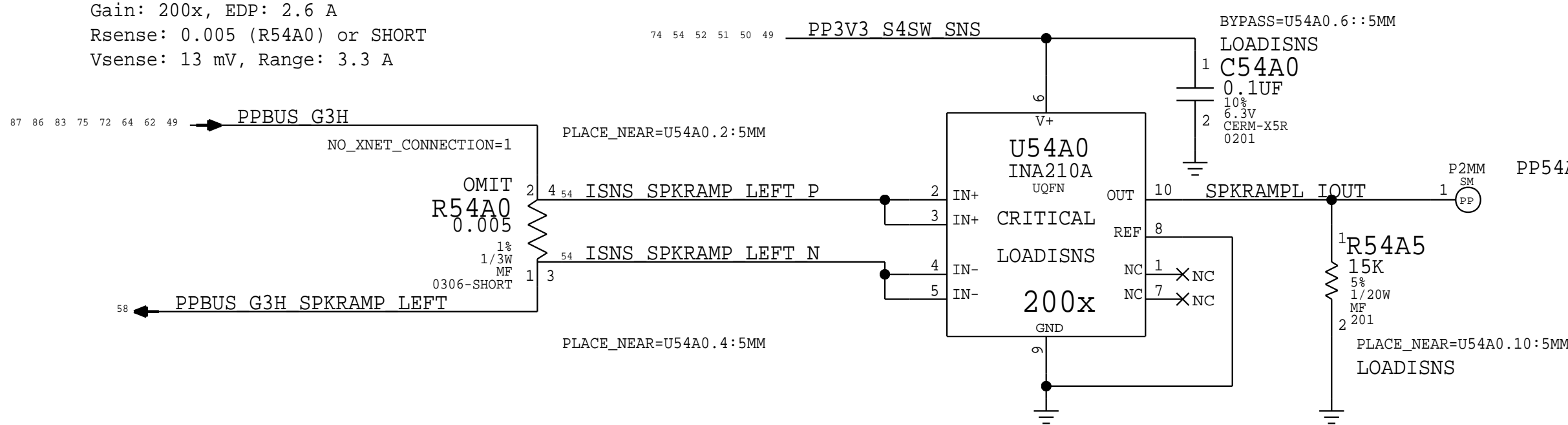
LCD Backlight Current Sense (IBLR)

Gain: 100x, EDP: 0.902 A
Rsense: 0.025 (R8400)
Vsense: 22.6 mV, Range: 1.32 A



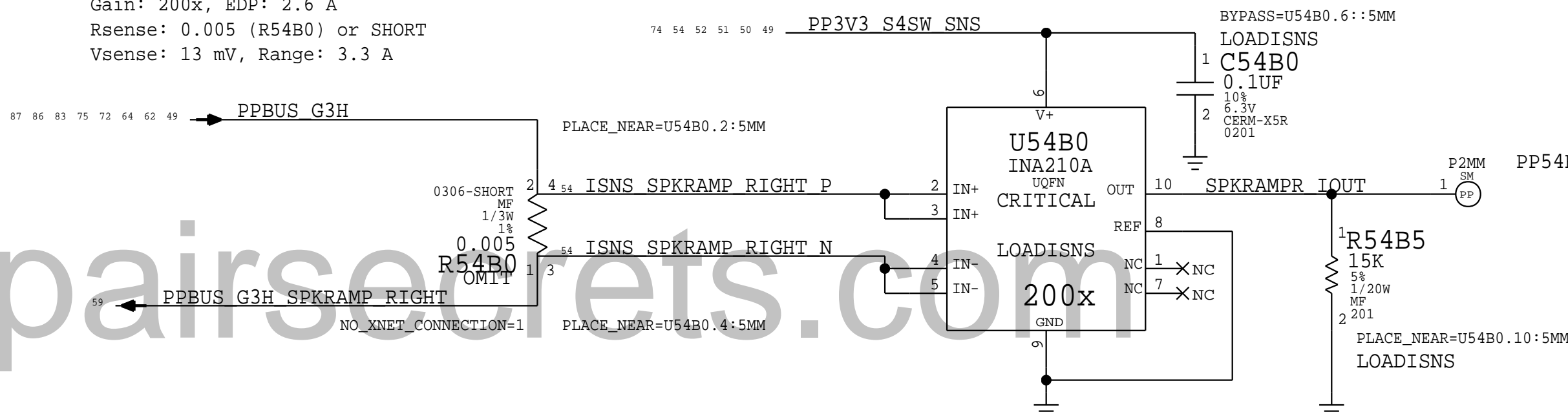
Left AMP Current Sense (IALR)

Gain: 200x, EDP: 2.6 A
Rsense: 0.005 (R54A0) or SHORT
Vsense: 13 mV, Range: 3.3 A



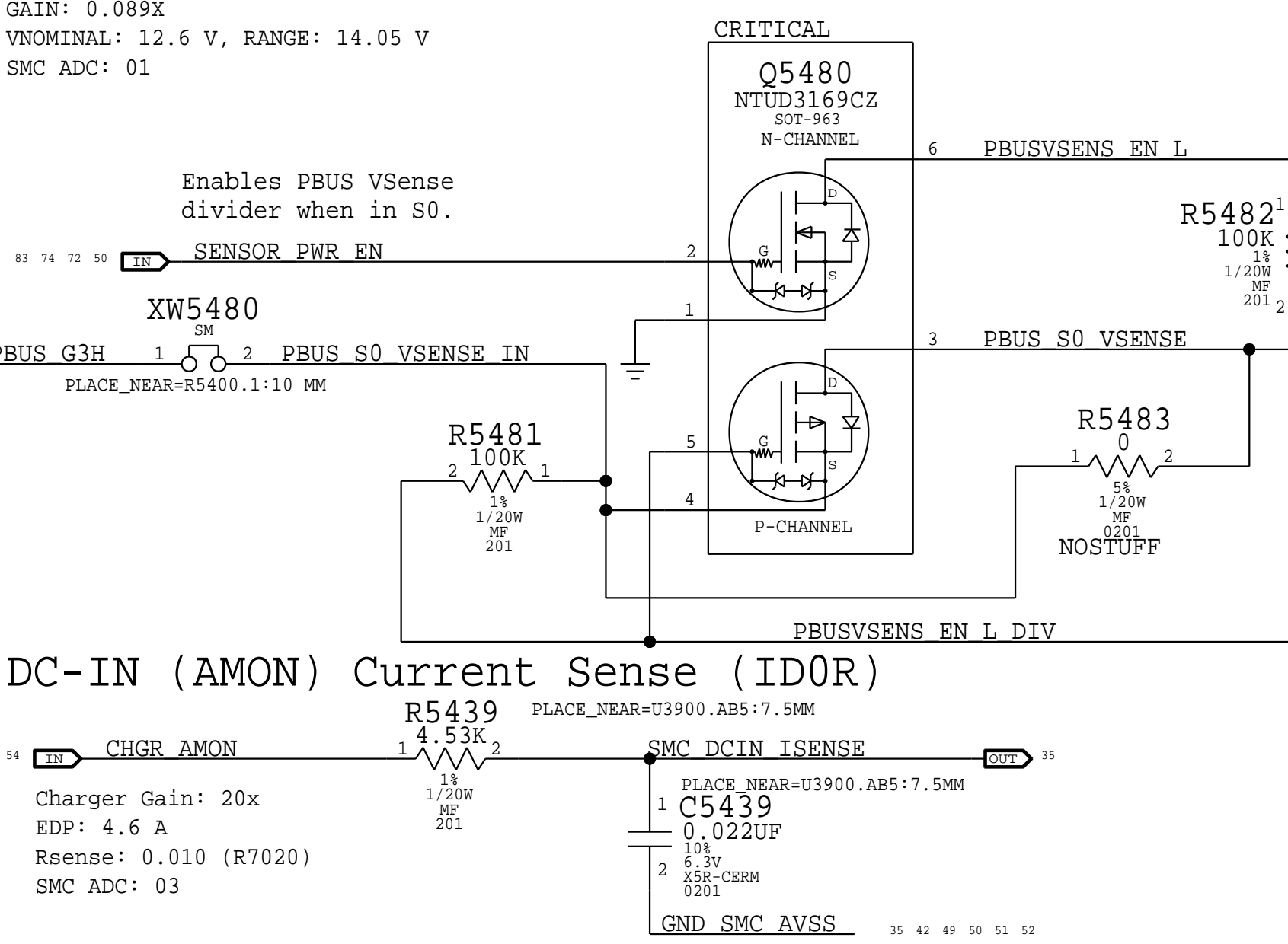
Right AMP Current Sense (IARR)

Gain: 200x, EDP: 2.6 A
Rsense: 0.005 (R54B0) or SHORT
Vsense: 13 mV, Range: 3.3 A



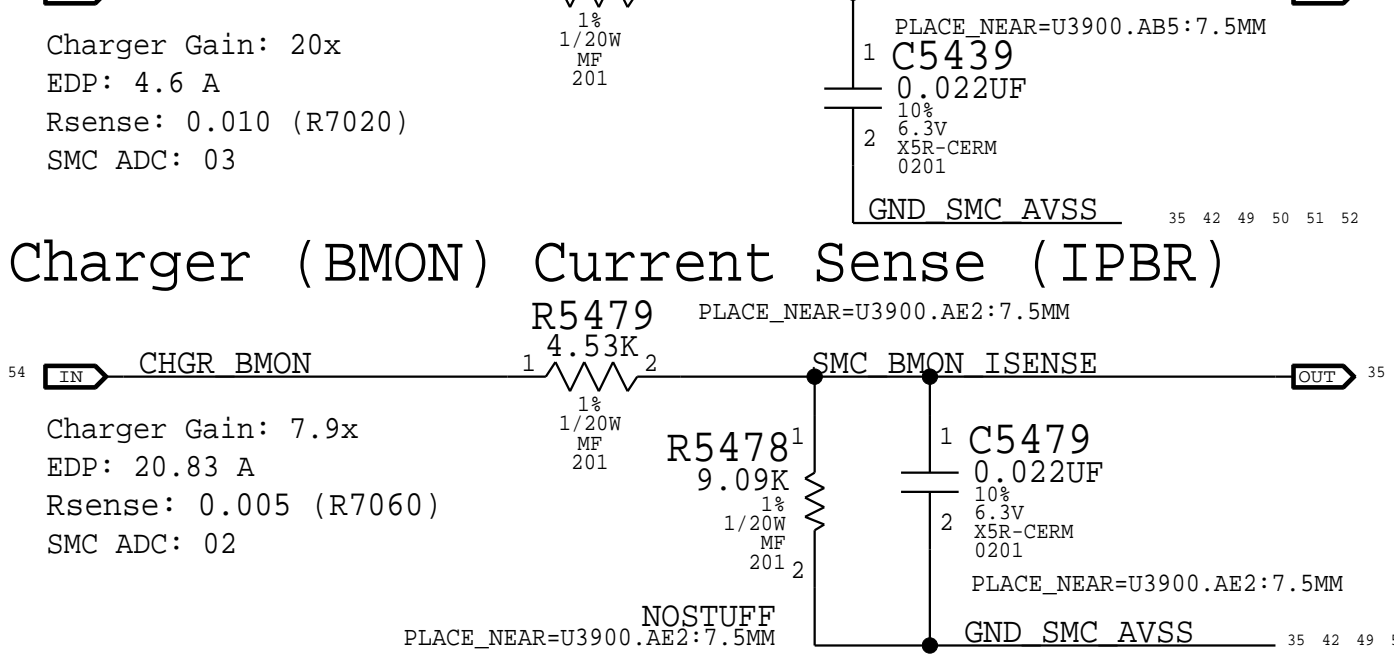
PBUS Voltage Sense & Enable (VP0R)

GAIN: 0.089X
VNOMINAL: 12.6 V, RANGE: 14.05 V
SMC ADC: 01



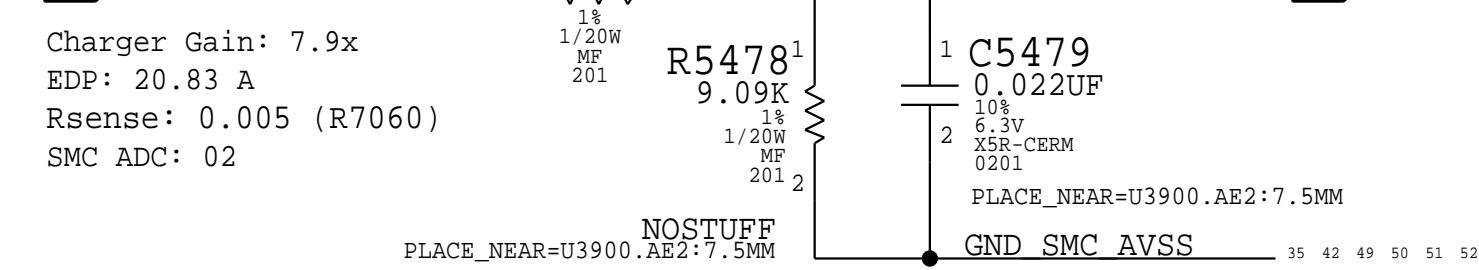
DC-IN (AMON) Current Sense (ID0R)

Charger Gain: 20x
EDP: 4.6 A
Rsense: 0.010 (R7020)
SMC ADC: 03



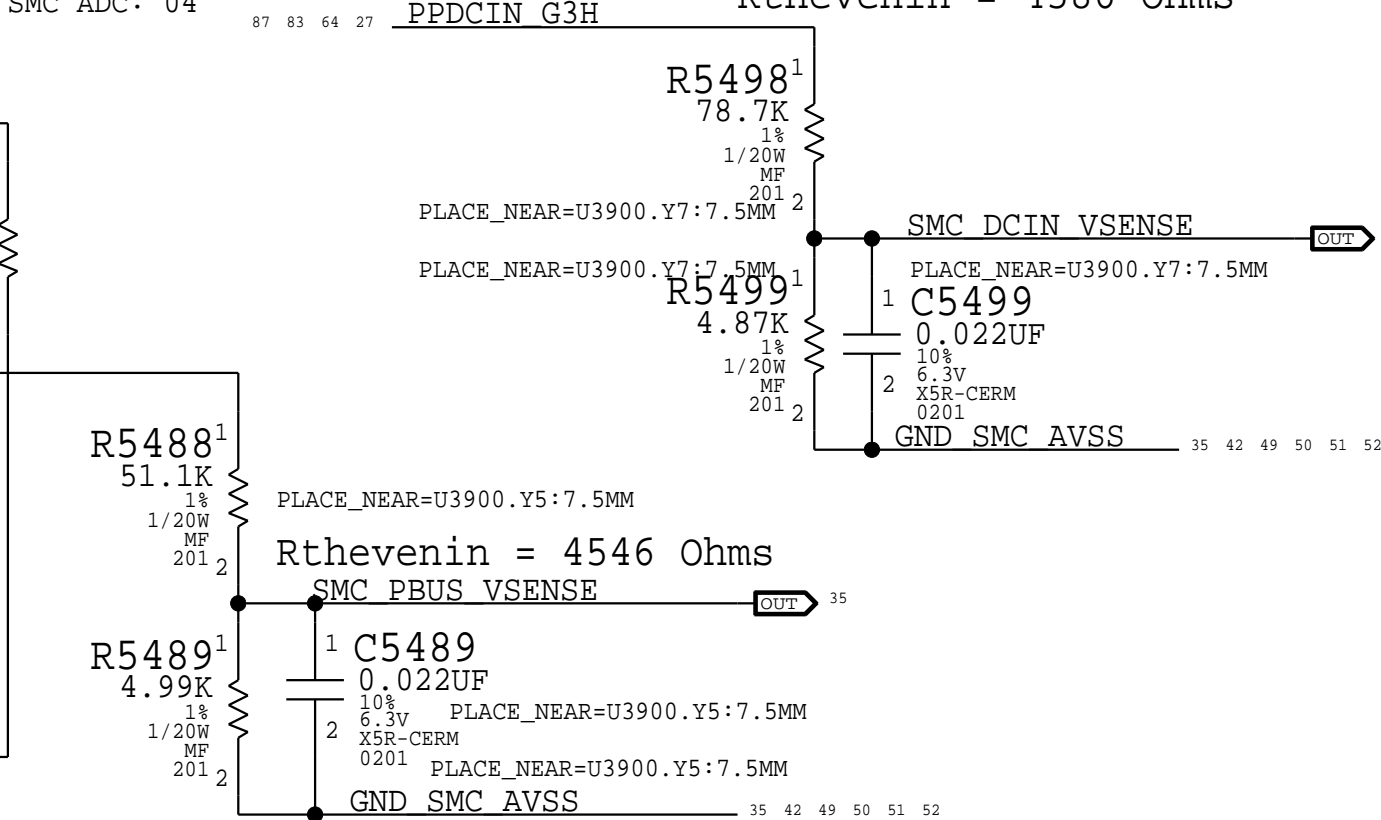
Charger (BMON) Current Sense (IPBR)

Charger Gain: 7.9x
EDP: 20.83 A
Rsense: 0.005 (R7060)
SMC ADC: 02



DC In Voltage Sense (VD0R)

GAIN: 0.058X
VNOMINAL: 16.5 V, RANGE: 21.45 V
SMC ADC: 04



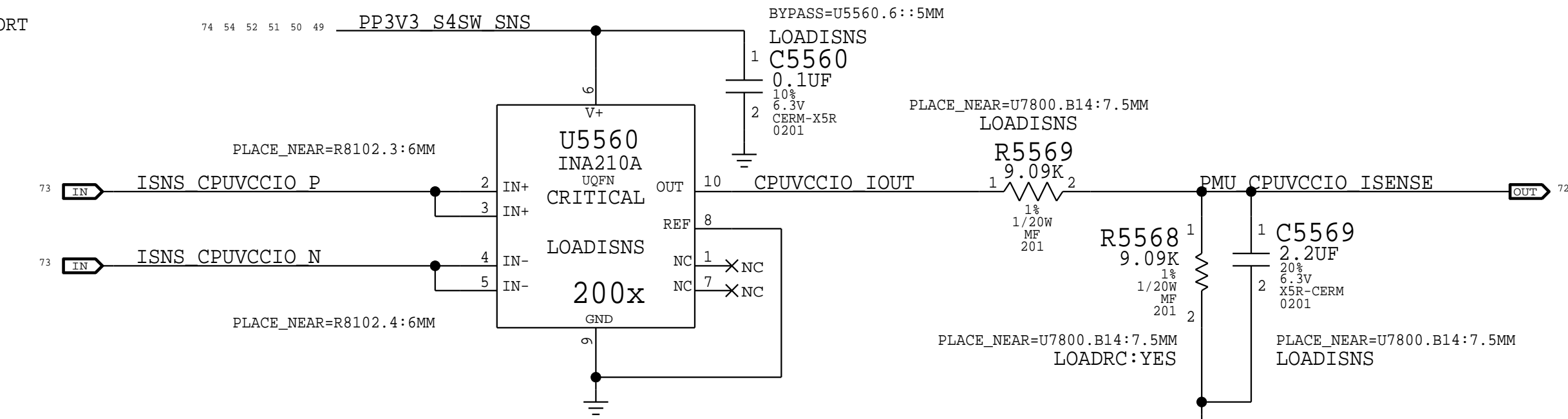
PART NUMBER	QTY	DESCRIPTION	REFERENCE DES	CRITICAL	BOM OPTION
117S0008	3	RES,MTL FLIM,100K,1/16W,0201,SMD,LFR5418,R5448, R5468			LOADRC:NO

BOM_COST_GROUP=SENSORS

PAGE TITLE		
POWER SENSORS HIGH SIDE		
DRAWING NUMBER		051-05309
REVISION		6.0.0
BRANCH		pvt
PAGE		54 OF 500
SHEET		49 OF 98

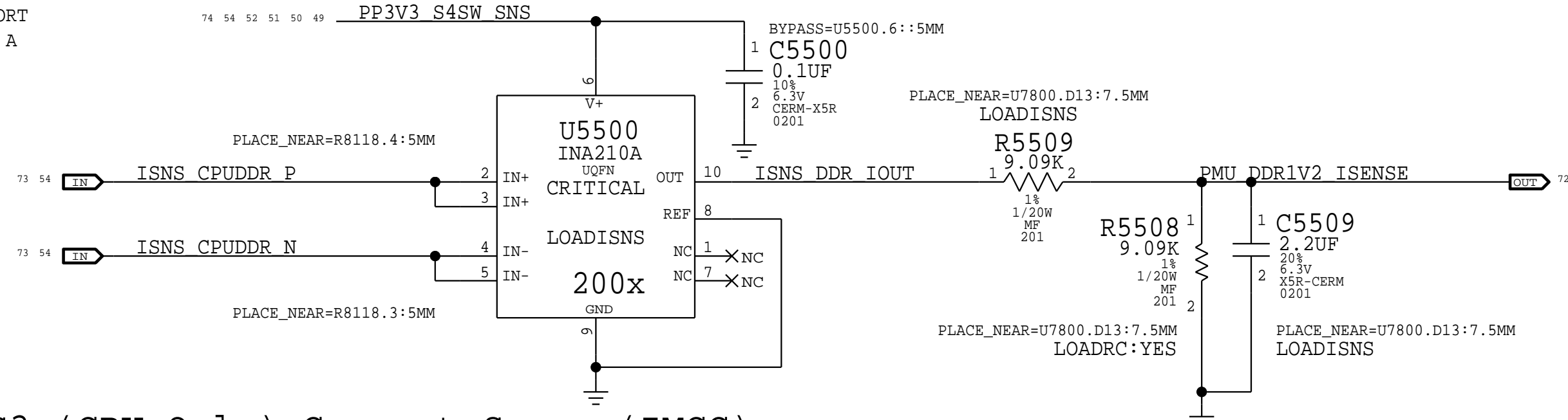
CPU VCCIO Current Sense (IC1C)

Gain: 200x, EDP: 3.6 A
Rsense: 0.003 (R8102) or SHORT
Vsense: 10.8 mV, Range: 5 A
PMU AMUX: A3



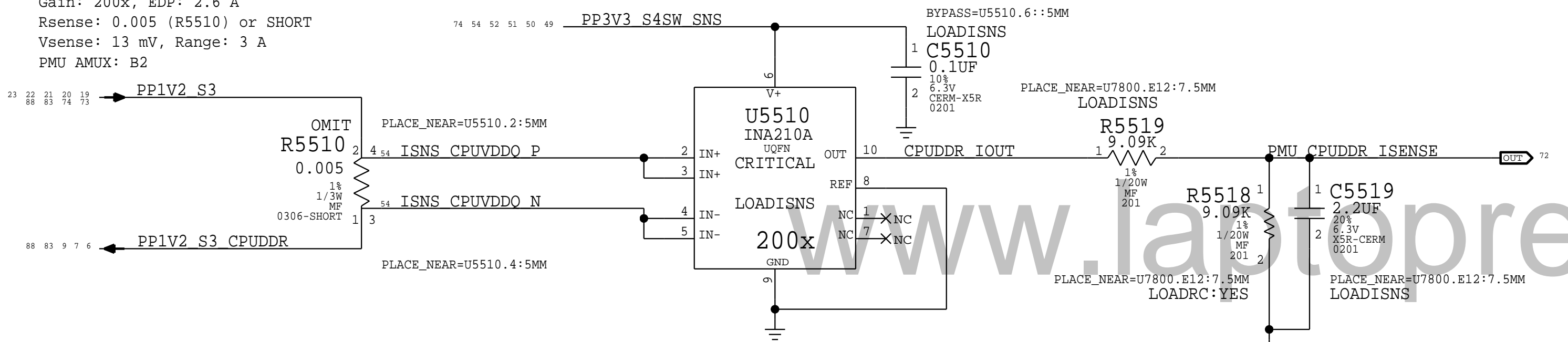
DDR 1.2V S3 (CPU & Memory) Current Sense (IM0C)

Gain: 200x, EDP: 6.9 A
Rsense: 0.002 (R8118) or SHORT
Vsense: 13.8 mV, Range: 7.5 A
PMU AMUX: A4



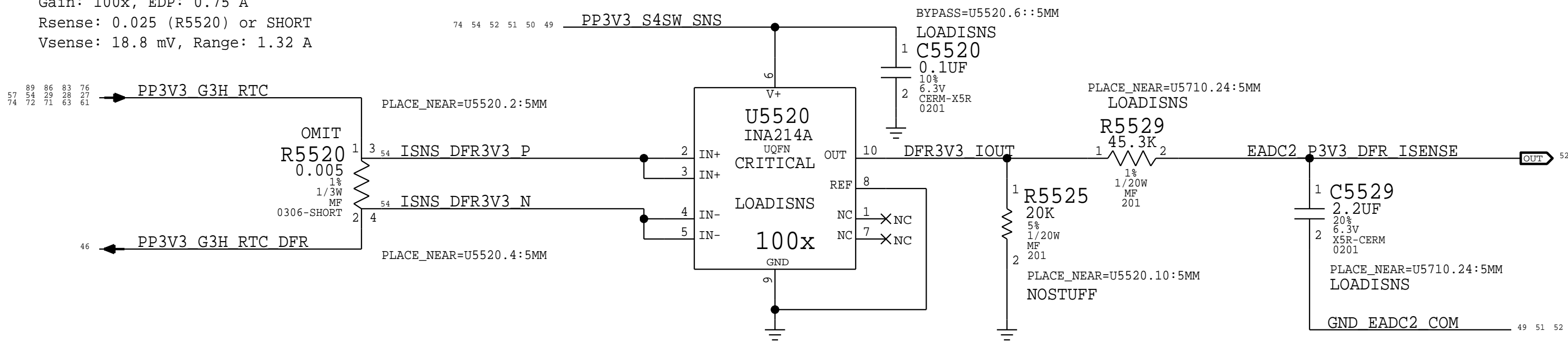
CPU DDR 1.2V S3 (CPU Only) Current Sense (IMCC)

Gain: 200x, EDP: 2.6 A
Rsense: 0.005 (R5510) or SHORT
Vsense: 13 mV, Range: 3 A
PMU AMUX: B2



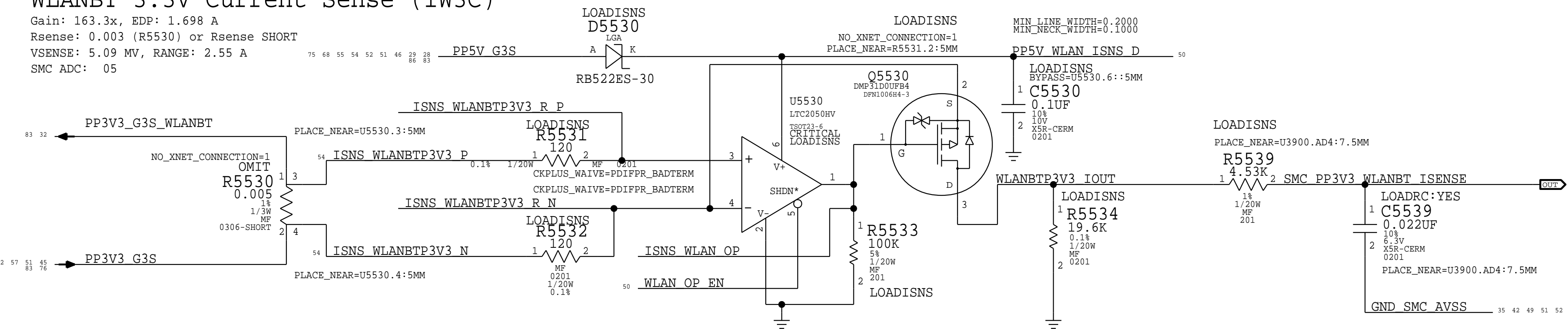
DFR Current Sense (IF3C)

Gain: 100x, EDP: 0.75 A
Rsense: 0.025 (R5520) or SHORT
Vsense: 18.8 mV, Range: 1.32 A



WLANBT 3.3V Current Sense (IW3C)

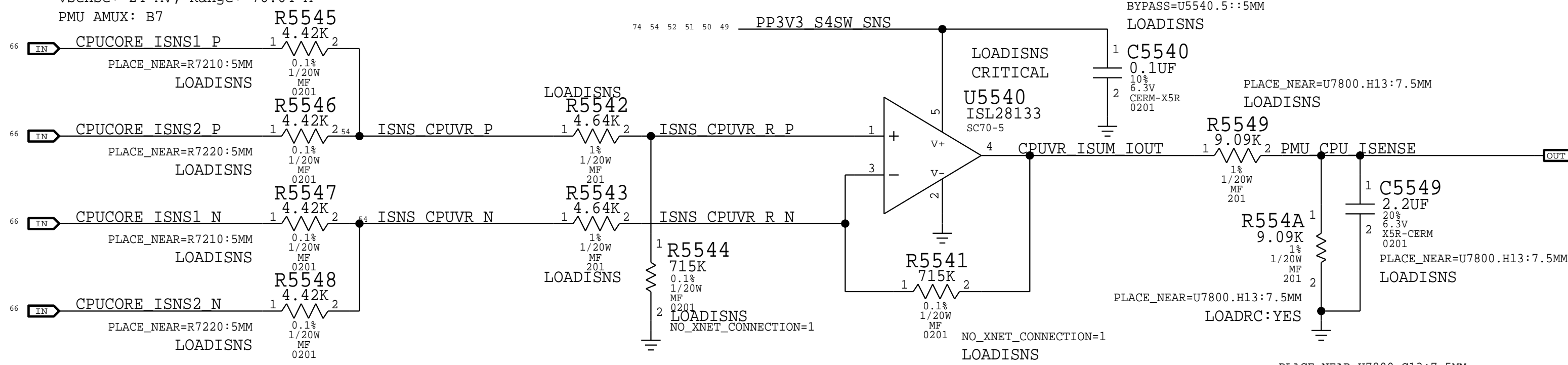
Gain: 163.3x, EDP: 1.698 A
Rsense: 0.003 (R5530) or Rsense SHORT
Vsense: 5.09 mV, RANGE: 2.55 A
SMC ADC: 05



PART NUMBER	QTY	DESCRIPTION	REFERENCE DES	CRITICAL	BOM OPTION
117S0008	6	RES,MTL,FLIM,100K,1/16W,0201,SMD,LF	R5508,R5518,R5568,R5548,R5588,C5539		LOADRC:NO

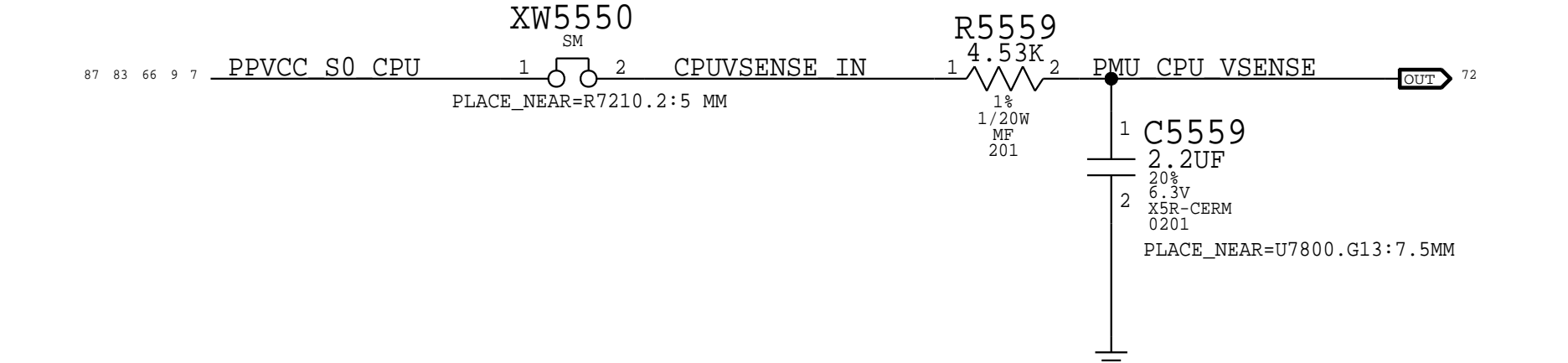
CPU Core Current Sense (ICAC)

Gain: 104.38x, EDP: 64 A
Rsense: 2x of 0.00075 (R7310, R7320), Rsum: 0.000375
Vsense: 24 mV, Range: 76.64 A
PMU AMUX: B7



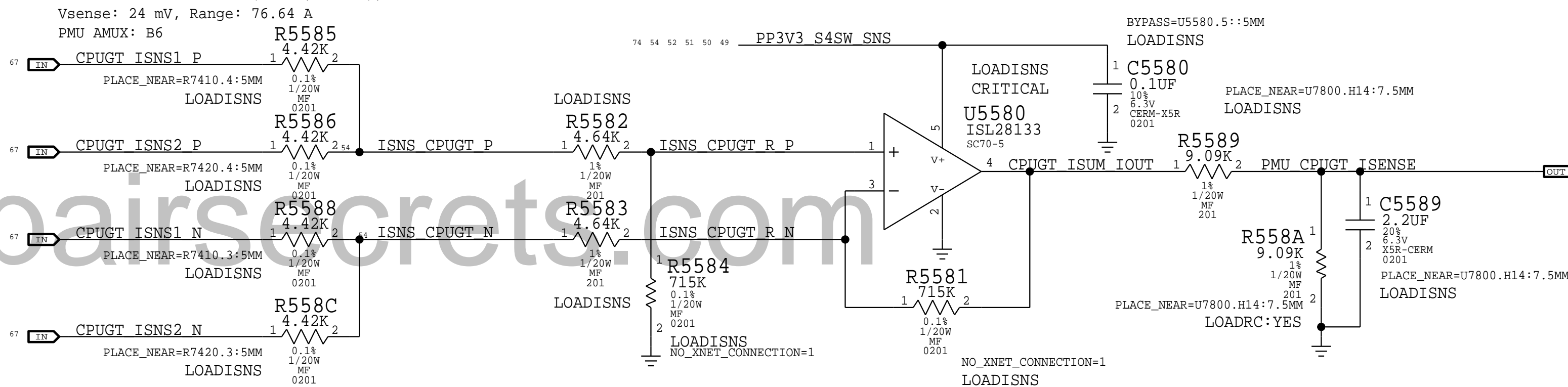
CPU Core Voltage Sense (VCAC)

PMU AMUX: B4



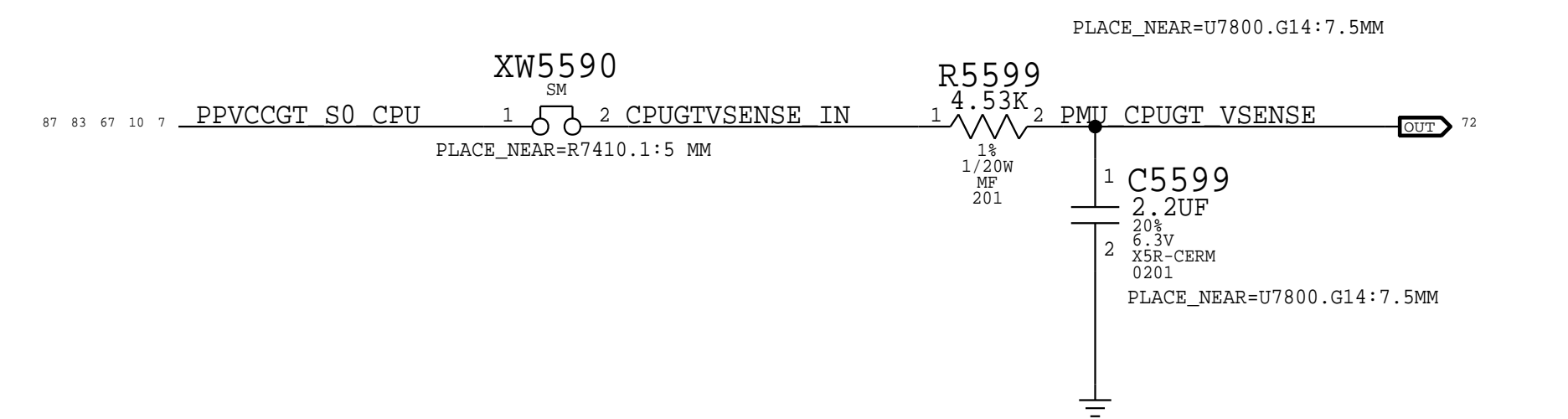
CPU GT+GTx Current Sense (ICGC)

Gain: 104.38x, EDP: 64 A
Rsense: 2x of 0.00075 (R7410, R7420), Rsum: 0.000375
Vsense: 24 mV, Range: 76.64 A
PMU AMUX: B6



CPU GT Voltage Sense (VCGC)

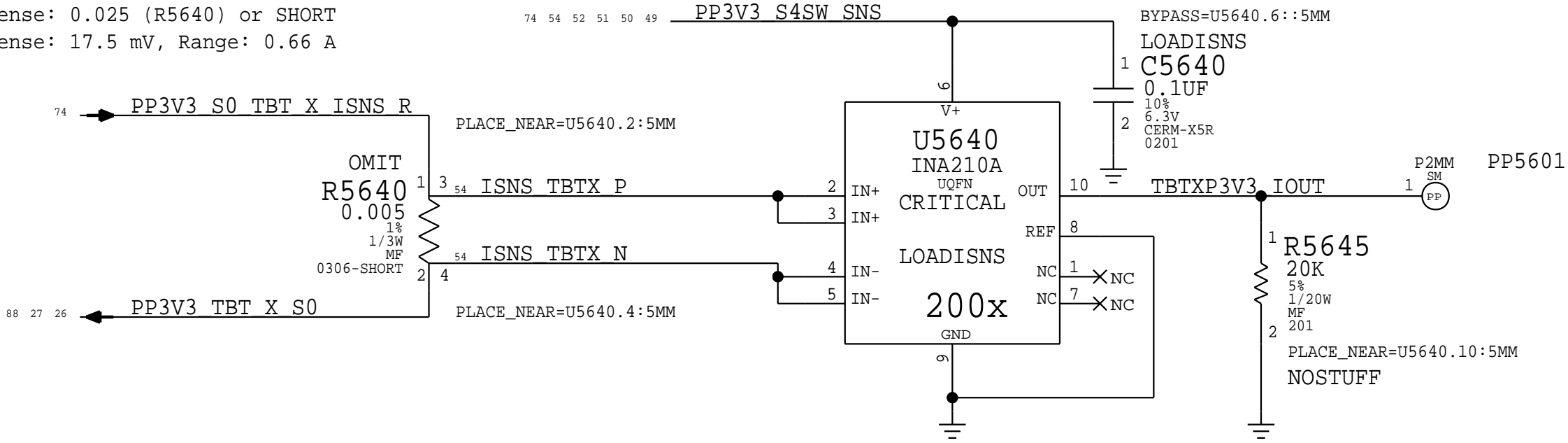
PMU AMUX: B5



PAGE TITLE		
POWER SENSORS LOAD SIDE		
	DRAWING NUMBER	051-05309
	REVISION	6.0.0
	BRANCH	pvt
	PAGE	55 OF 500
NOTICE OF PROPRIETARY PROPERTY: THE INFORMATION CONTAINED HEREIN IS THE PROPRIETARY PROPERTY OF APPLE INC. THE POSSESSOR AGREES TO THE FOLLOWING: 1 TO MAINTAIN THIS DOCUMENT IN CONFIDENCE 11 NOT TO REPRODUCE OR COPY IT 111 NOT TO REVEAL OR PUBLISH IT IN WHOLE OR PART 1V ALL RIGHTS RESERVED		SHEET 50 OF 98

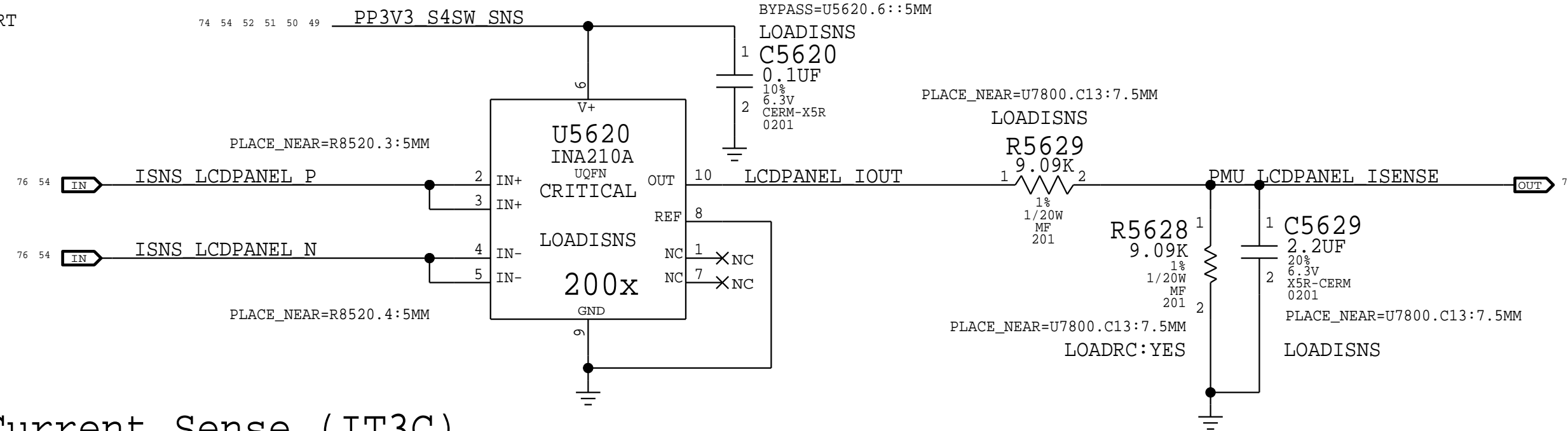
Thunderbolt TBD Left Current Sense (IULC)

Gain: 200x. EDP: 0.7 A
Rsense: 0.025 (R5640) or SHORT
Vsense: 17.5 mV, Range: 0.66 A



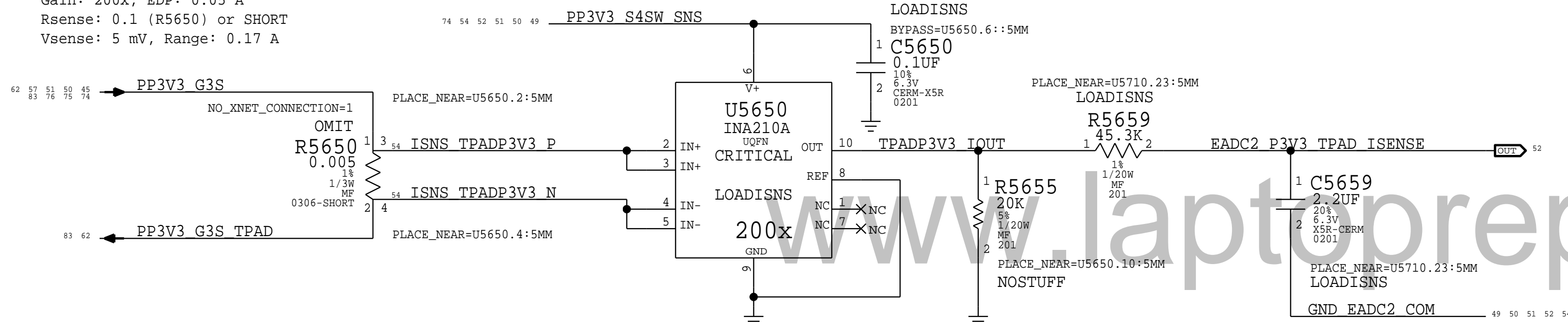
LCD Panel 3.3V Current Sense (ILDC)

Gain: 200x. EDP: 1 A
RSENSE: 0.01 (R5620) or SHORT
Vsense: 10 mV, Range: 1.5 A



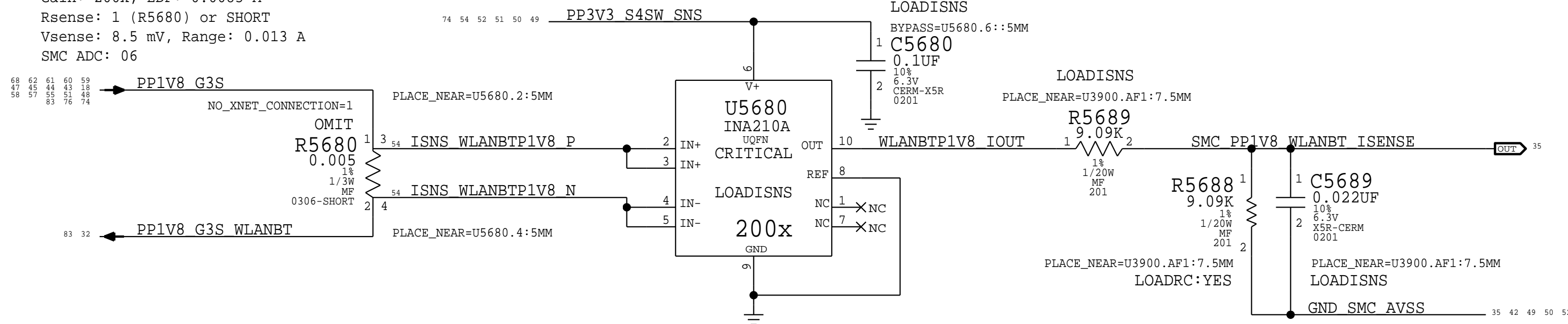
Trackpad 3V Current Sense (IT3C)

Gain: 200x. EDP: 0.05 A
Rsense: 0.1 (R5650) or SHORT
Vsense: 5 mV, Range: 0.17 A



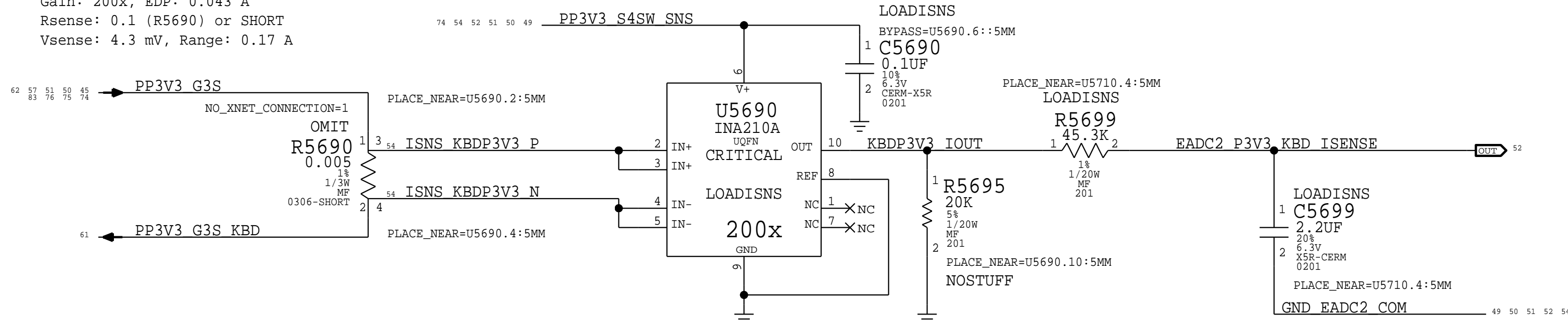
WLANBT 1.8V Current Sense (IW2C)

Gain: 200x. EDP: 0.0085 A
Rsense: 1 (R5680) or SHORT
Vsense: 8.5 mV, Range: 0.013 A
SMC ADC: 06



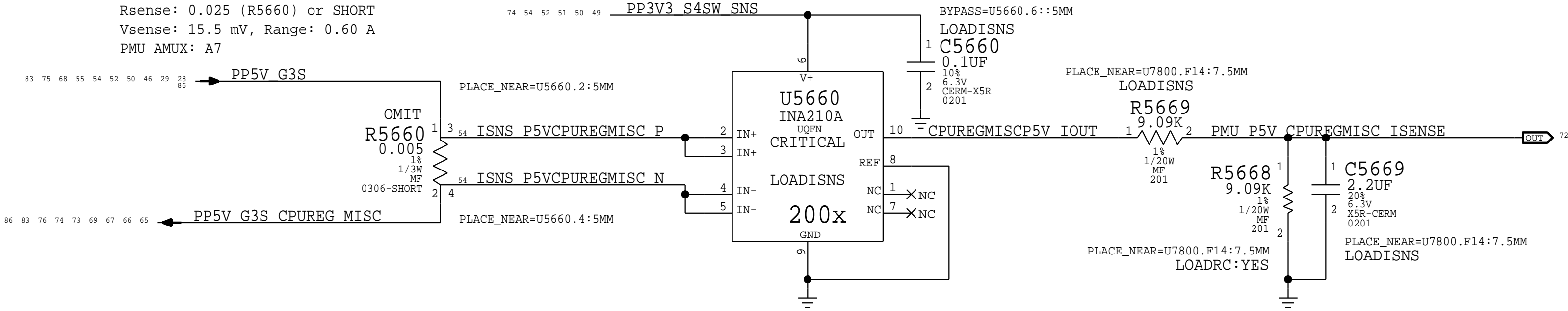
Keyboard 3.3V Current Sense (IK3C)

Gain: 200x. EDP: 0.043 A
Rsense: 0.1 (R5690) or SHORT
Vsense: 4.3 mV, Range: 0.17 A



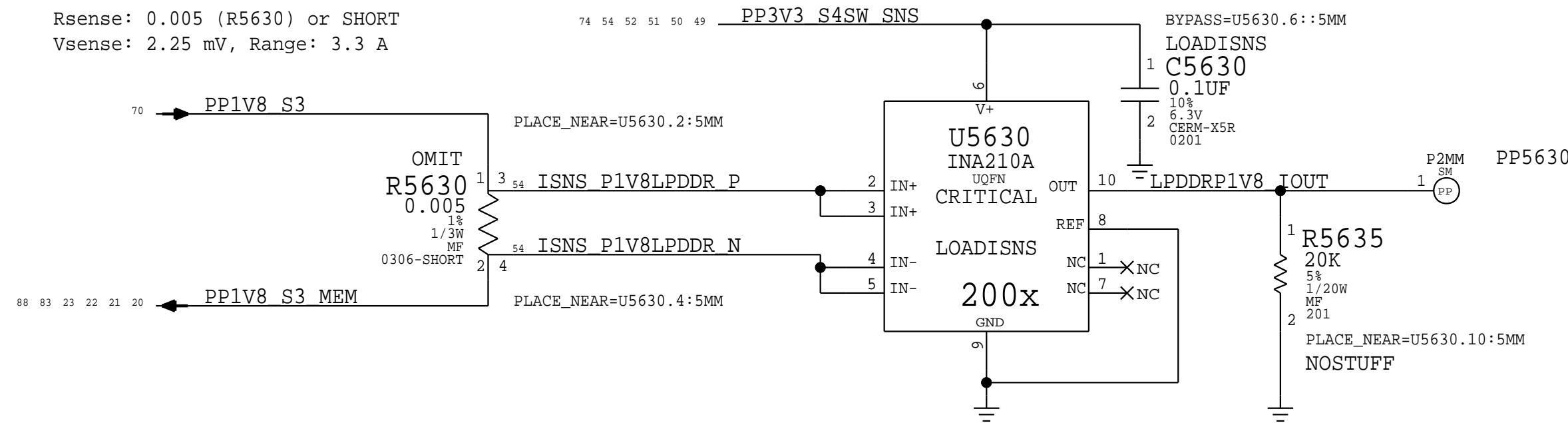
CPU Reg. ALSCAM, LCD 5V Current Sense (IC5C)

Gain: 200x. EDP: 0.42+0.1+0.1 A
Rsense: 0.025 (R5660) or SHORT
Vsense: 15.5 mV, Range: 0.60 A
PMU AMUX: A7



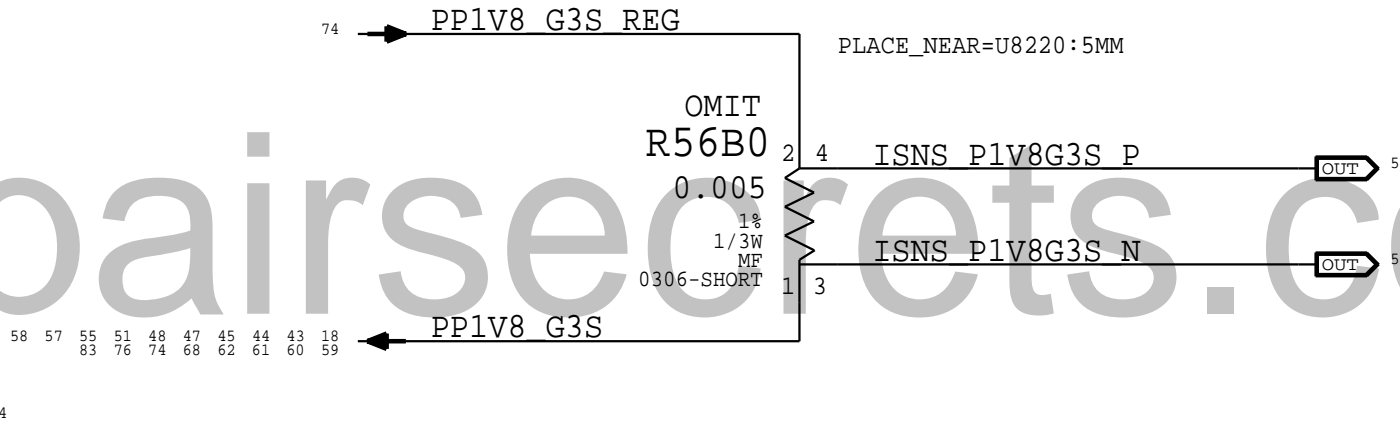
LpDDR 1.8V Current Sense (IM1C)

Gain: 200x. EDP: 0.45 A
Rsense: 0.005 (R5630) or SHORT
Vsense: 2.25 mV, Range: 3.3 A



1.8V Standby Current Sense

Gain: None. EDP: 0.65 A
Rsense: 0.025 (R56B0) or SHORT
Vsense: 16.25 mV



PART NUMBER	QTY	DESCRIPTION	REFERENCE DES	CRITICAL	BOM OPTION
117S0008	3	RES,MTL,FLIM,100K,1/16W,0201,SMD,LF	R5628,R5668,R5688		LOADRC:NO

BOM_COST_GROUP=SENSORS

PAGE TITLE		
POWER SENSORS EXTENDED		
	DRAWING NUMBER	051-05309
	REVISION	6.0.0
NOTICE OF PROPRIETARY PROPERTY: THE INFORMATION CONTAINED HEREIN IS THE PROPRIETARY PROPERTY OF APPLE INC. THE POSSESSOR AGREES TO THE FOLLOWING: I TO MAINTAIN THIS DOCUMENT IN CONFIDENCE I NOT TO REPRODUCE OR COPY IT I NOT TO REVEAL OR PUBLISH IT IN WHOLE OR PART I ALL RIGHTS RESERVED	BRANCH	pvt
	PAGE	56 OF 500
	SHEET	51 OF 98

Calpe 3.3V Input Current Left (IP3C)

Gain: 100x, EDP: 10.224 A
Rsense: 0.002 (R5780)
Vsense: 20.448 mV, Range: 12.5 A

D

KB backlite Current Sense (IKBC)

Gain: 200x, EDP: 0.17 A
Rsense: 0.05 (R5730)
Vsense: 8.5 mV, Range: 0.33 A

C

CPU SA Current Sense (ICSC)

Gain: 100X, EDP: 9.5 A
Rsense: 0.002 (R7270)
Vsense: 19 mV, Range: 15 A
PMU AMUX: B1

CPU SA Voltage Sense (VCSC)

PMU AMUX: B3

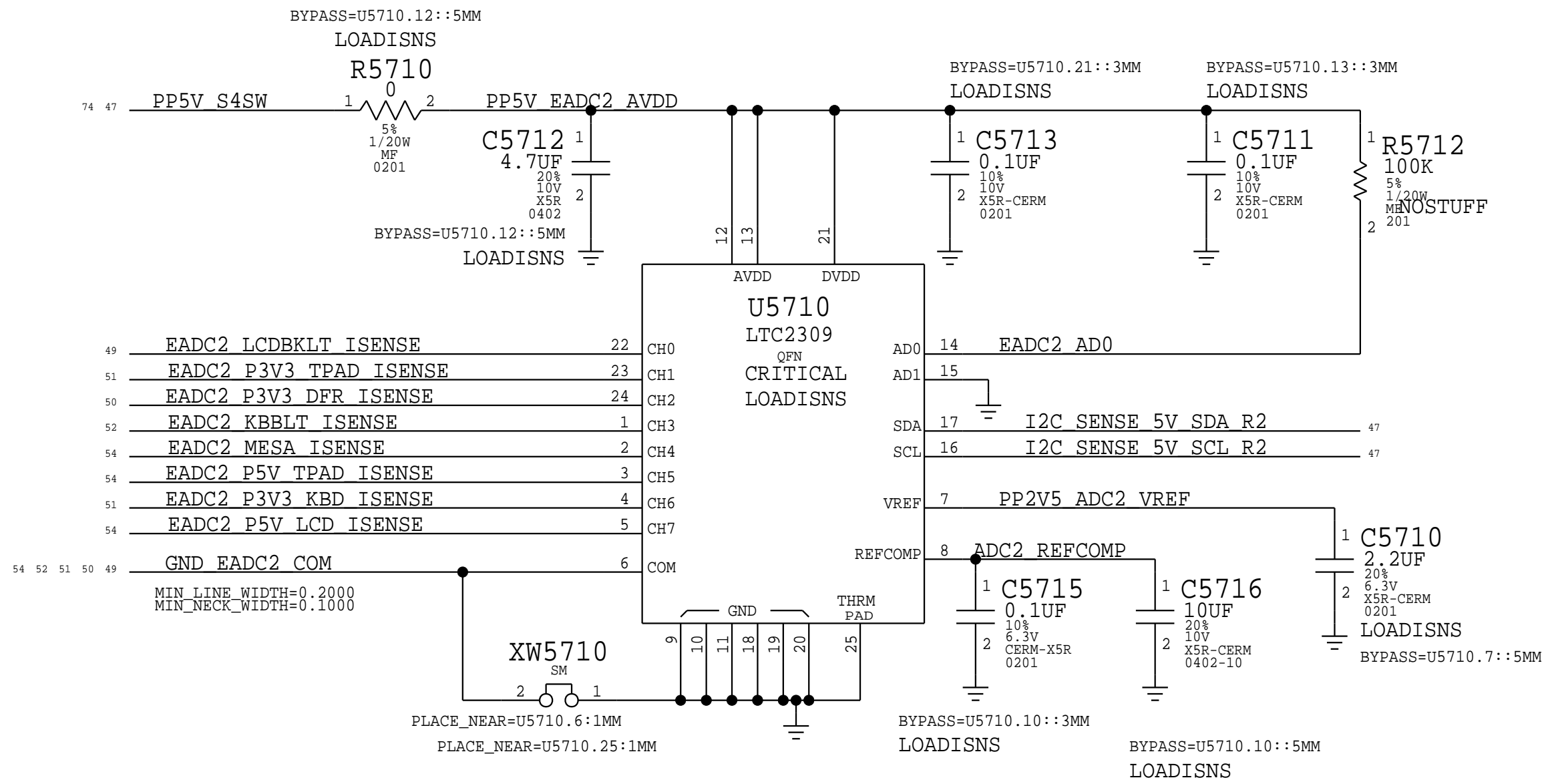
CPU EDRAM Current Sense (ICEC)

Gain: 200x, EDP: 6.2 A
Rsense: 0.002 (R7702) or SHORT
Vsense: 12.4 mV, Range: 7.5 A
PMU AMUX: A2

www.laptoprepairsecrets.com

EADC2

(Write: 0x12 Read: 0x13)



PART NUMBER	QTY	DESCRIPTION	REFERENCE DES	CRITICAL	BOM OPTION
117S0008	3	RES,MTL,FLIM,100K,1/16W,0201,SMD,LF	R5777,R5788,R5798		LOADRC:NO

POWER SENSORS EXTENDED 2		
	DRAWING NUMBER	051-05309
	REVISION	6.0.0
NOTICE OF PROPRIETARY PROPERTY: THE INFORMATION CONTAINED HEREIN IS THE PROPRIETARY PROPERTY OF APPLE INC. THE POSSESSOR AGREES TO THE FOLLOWING: I TO MAINTAIN THIS DOCUMENT IN CONFIDENCE I1 NOT TO REPRODUCE OR COPY IT I11 NOT TO REVEAL OR PUBLISH IT IN WHOLE OR PART I1V ALL RIGHTS RESERVED	BRANCH	pvt
	PAGE	57 OF 500
	SHEET	52 OF 98

Thermal Sensor A:
TBT Die, NAND, WIFI, I/O proximity

I2C Write: 0x90, I2C Read: 0x91

TBT Die Thermal Diode (TTLD)

Placement Note:
The P leg connects to THERMDA of TBT die.
The N leg connectd to GND pin close to THERMDA.

WIFI Proximity (TW0P)

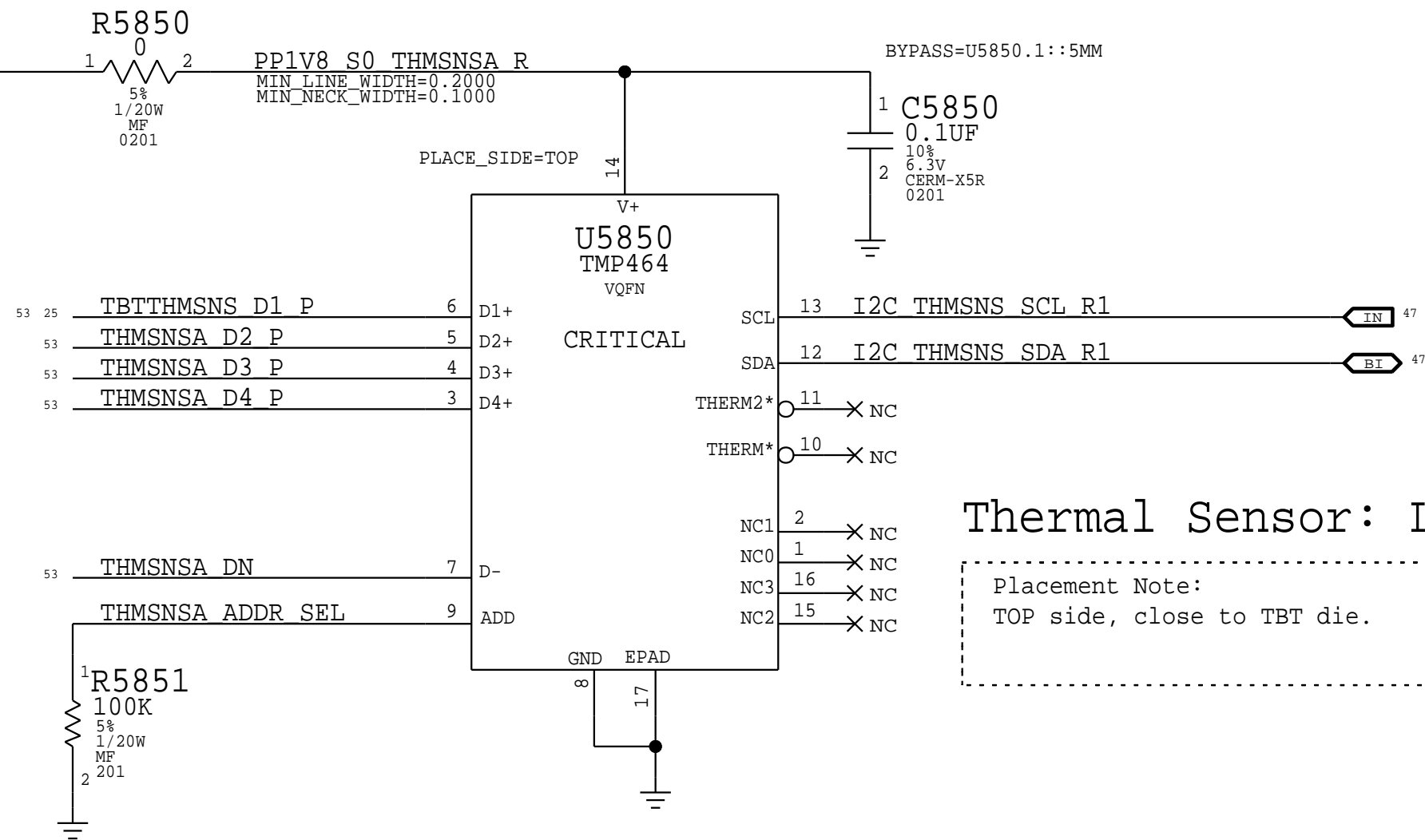
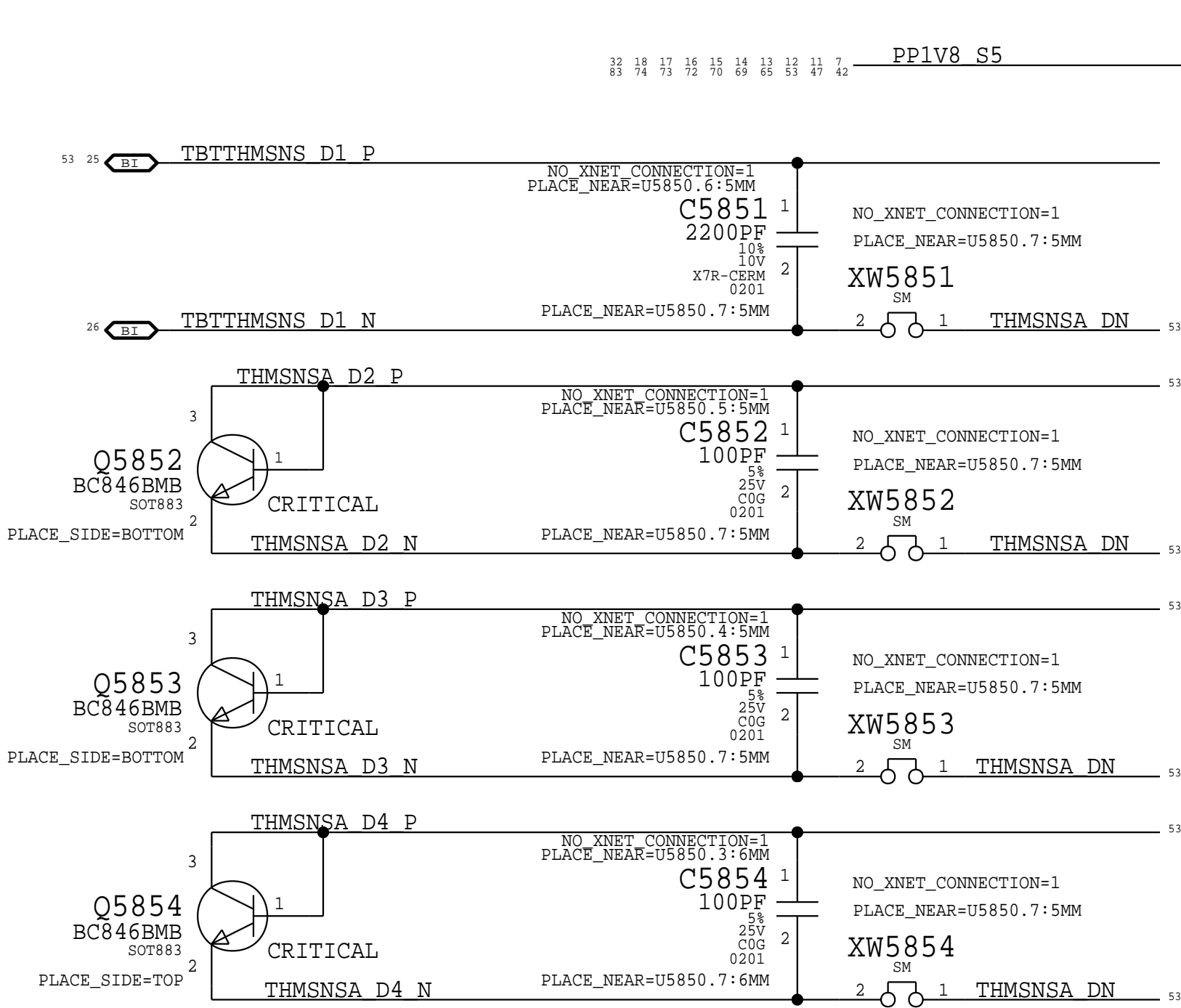
Placement Note:
BOTTOM side of WIFI/BT module

NAND Proximity #1 (TH0b)

Placement note:
BOTTOM side between NAND devices

NAND Proximity #2 (TH0a)

Placement note:
TOP side between NAND devices



Thermal Sensor: LEFT IO proximity (TI0P)

Placement Note:
TOP side, close to TBT die.

Thermal Sensor B
Fin Stack, CPU Proximity, Memory Proximity, and CPU VR

I2C Write: 0x92, I2C Read: 0x93

Thermal Diode: Ambient (TMLB)

Placement Note:
Airflow thermal indicator, TOP side.

CPU Proximity (TC0P)

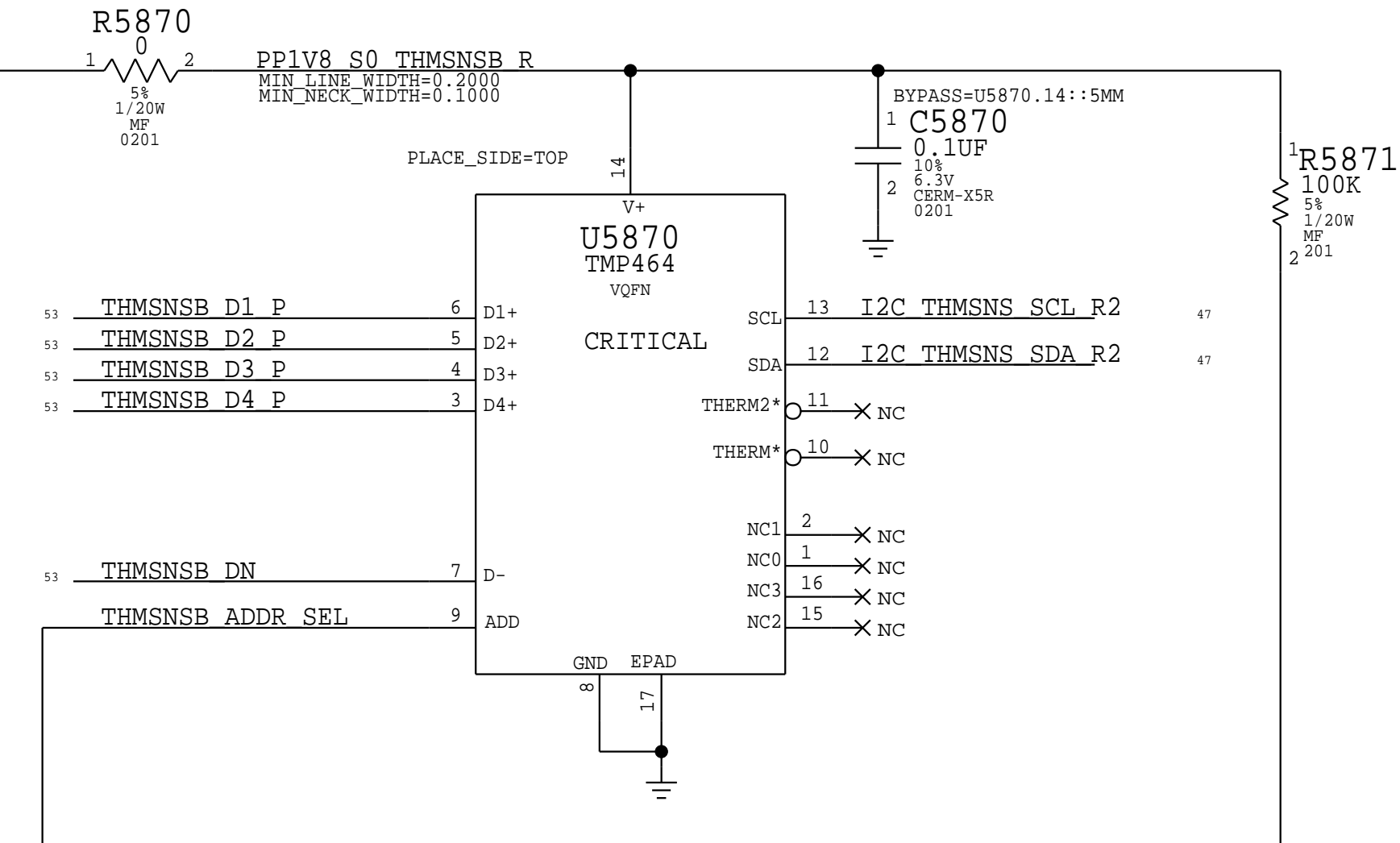
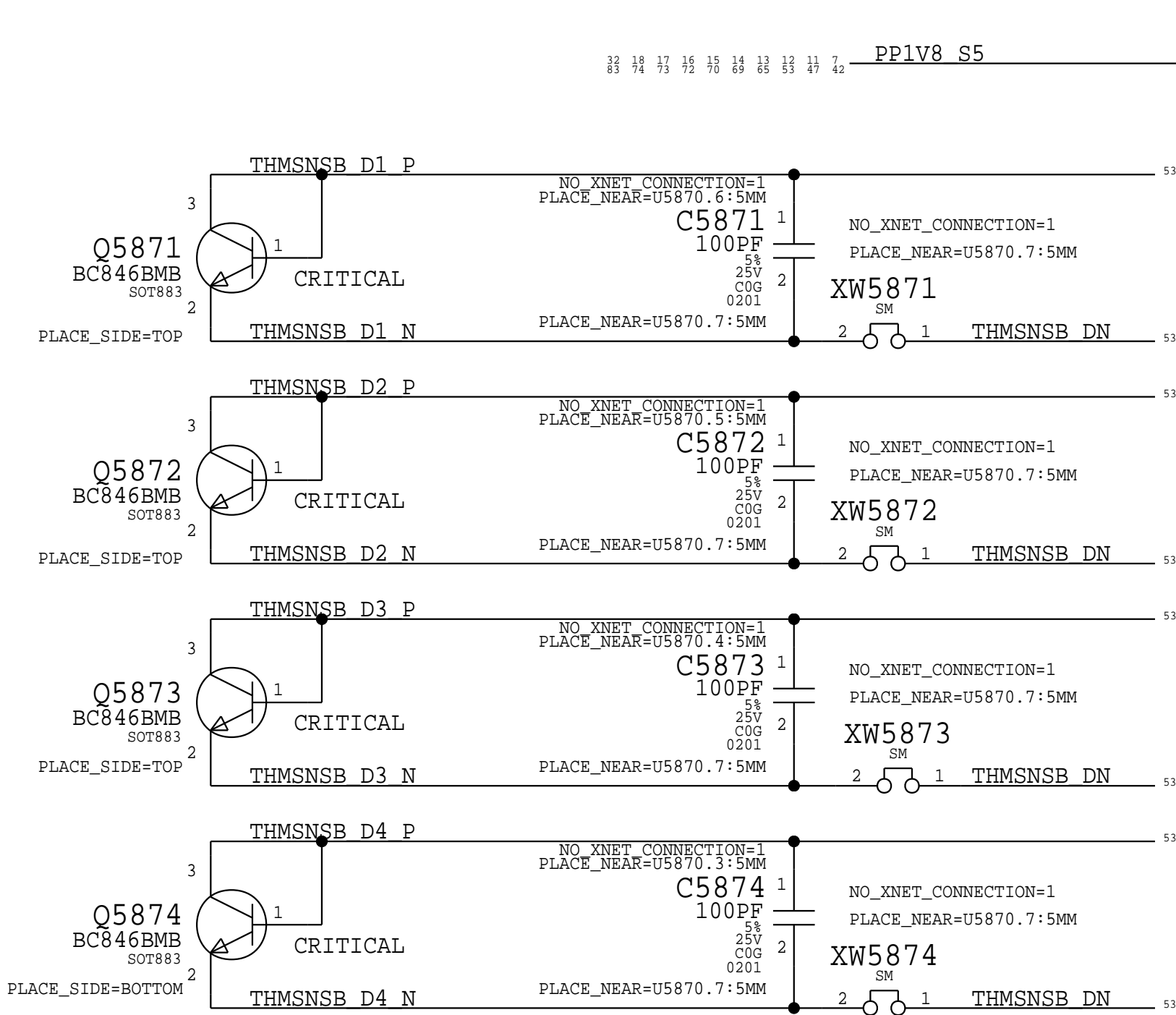
Placement Note:
TOP side of CPU.

Memory Proximity (TM0P)

Placement Note:
TOP side between main memory devices.

Memory Proximity (TM1P)


Placement Note:
BOTTOM side between main memory devices.



Thermal Sensor: Fin Stack (Th1H)

Placement Note:
TOP side, top right of MLB.

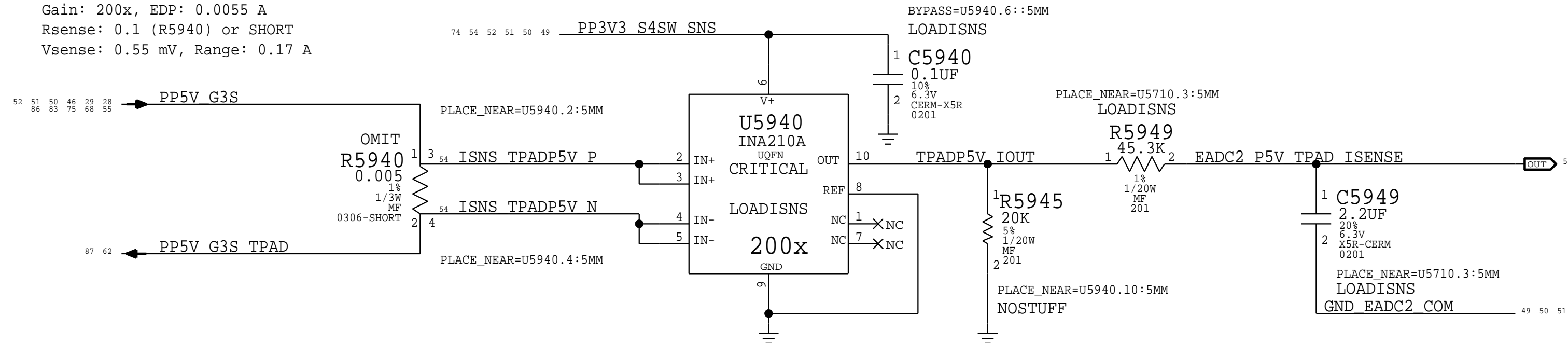
www.laptoprepairsecrets.com

PAGE TITLE		
THERMAL SENSORS		
 Apple Inc.	DRAWING NUMBER	051-05309
	REVISION	6.0.0
NOTICE OF PROPRIETARY PROPERTY: THE INFORMATION CONTAINED HEREIN IS THE PROPRIETARY PROPERTY OF APPLE INC. THE POSSESSOR AGREES TO THE FOLLOWING: I TO MAINTAIN THIS DOCUMENT IN CONFIDENCE I NOT TO REPRODUCE OR COPY IT I NOT TO REVEAL OR PUBLISH IT IN WHOLE OR PART I ALL RIGHTS RESERVED	BRANCH	pvt
	PAGE	58 OF 500
	SHEET	53 OF 98

BOM_COST_GROUP=SENSORS

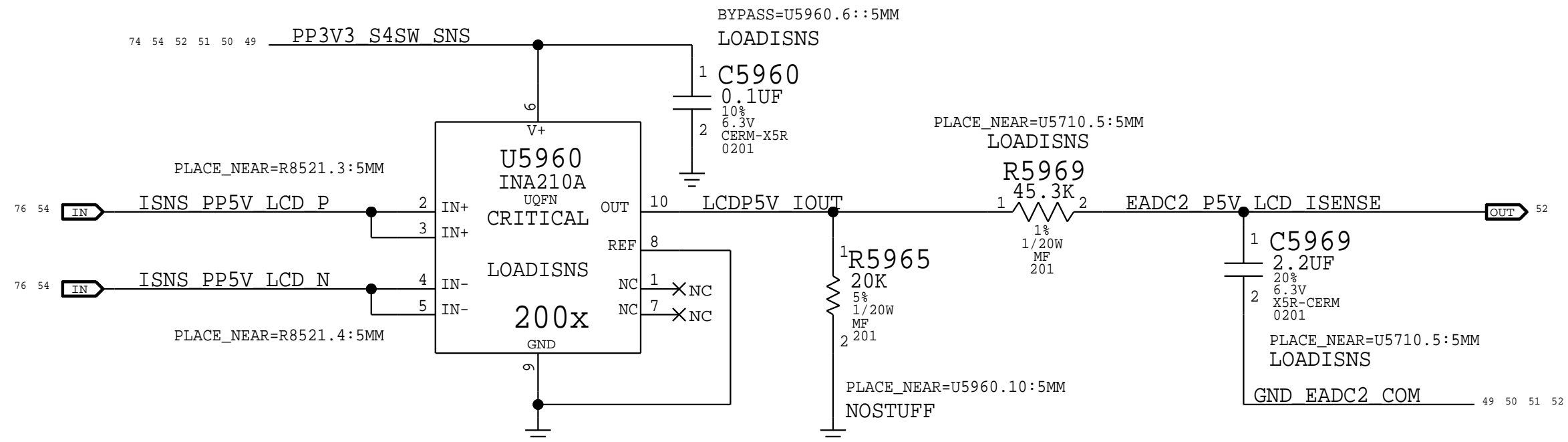
Trackpad 5V Current Sense (IT5C)

Gain: 200x, EDP: 0.0055 A
Rsense: 0.1 (R5940) or SHORT
Vsense: 0.55 mV, Range: 0.17 A



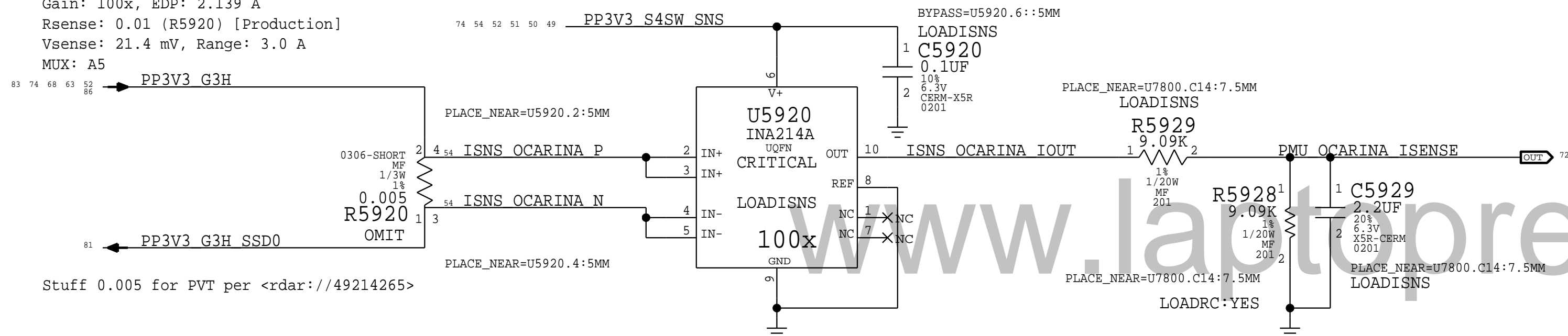
LCD Panel 5V Current Sense (IL5C)

Gain: 200x, EDP: 0.1 A
Rsense: 0.1 (R8521) or SHORT
Vsense: 10 mV, Range: 0.17 A



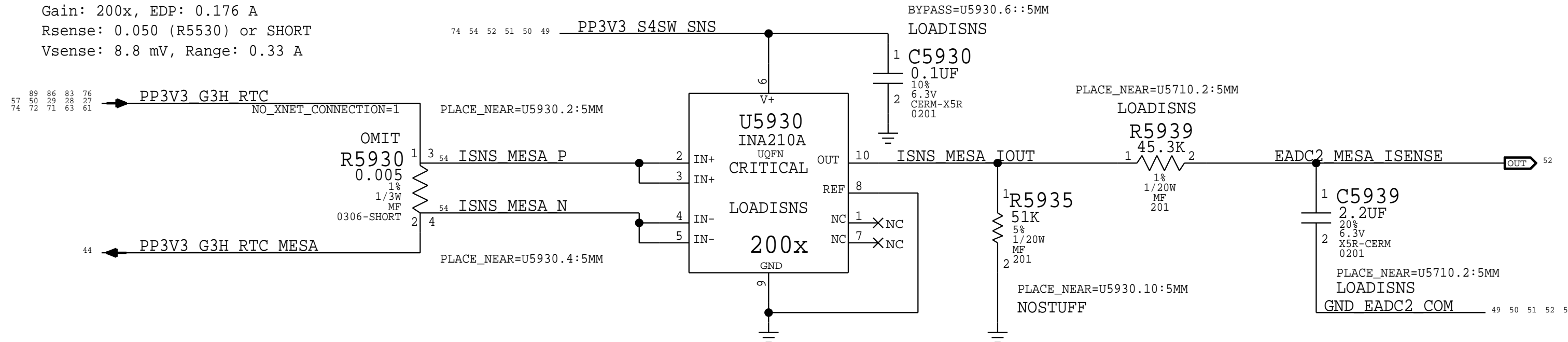
Ocarina Current Sense (IHCC)

Gain: 100x, EDP: 2.139 A
Rsense: 0.01 (R5920) [Production]
Vsense: 21.4 mV, Range: 3.0 A
MUX: A5



MESA Current Sense (IIDC)

Gain: 200x, EDP: 0.176 A
Rsense: 0.050 (R5530) or SHORT
Vsense: 8.8 mV, Range: 0.33 A



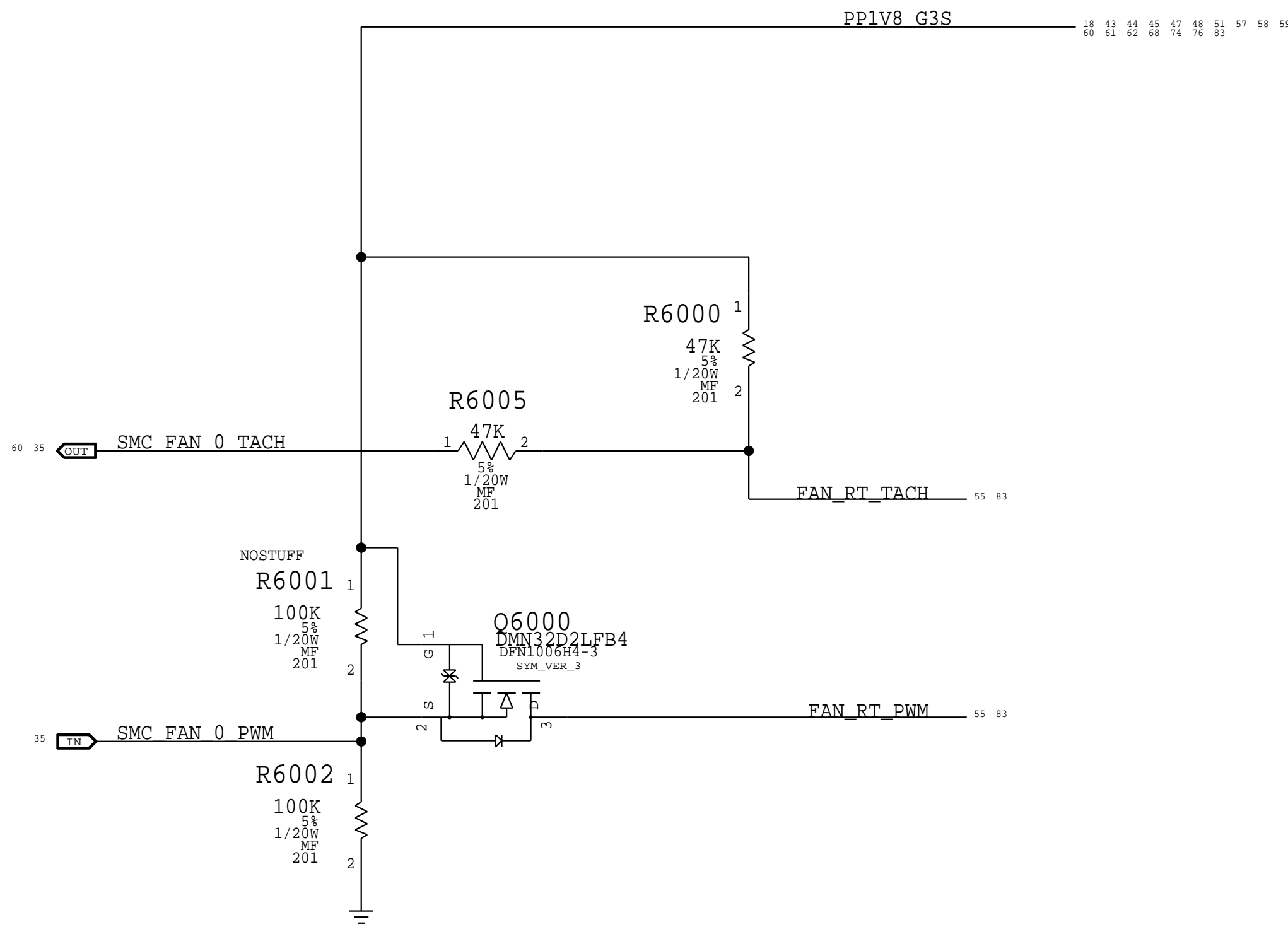
Probe Points for Power Validation

TP5901	ISNS HS CPU P	TP5901	ISNS HS CPU P	TP5939	ISNS LCDPANEL P
TP5902	ISNS HS CPU N	TP5902	ISNS HS CPU N	TP5940	ISNS LCDPANEL N
TP5903	ISNS HS OTHER5V P	TP5903	ISNS HS OTHER5V P	TP5941	ISNS TPADP3V3 P
TP5904	ISNS HS OTHER5V N	TP5904	ISNS HS OTHER5V N	TP5942	ISNS TPADP3V3 N
TP5905	ISNS HS OTHER3V3 P	TP5905	ISNS HS OTHER3V3 P	TP5943	ISNS WLANBTP1V8 P
TP5906	ISNS HS OTHER3V3 N	TP5906	ISNS HS OTHER3V3 N	TP5944	ISNS WLANBTP1V8 N
TP5907	ISNS HS 3V3RTC P	TP5907	ISNS HS 3V3RTC P	TP5945	ISNS CALPE P
TP5908	ISNS HS 3V3RTC N	TP5908	ISNS HS 3V3RTC N	TP5946	ISNS CALPE N
TP5909	ISNS SSDNAND P	TP5909	ISNS SSDNAND P	TP5947	ISNS KBLT P
TP5910	ISNS SSDNAND N	TP5910	ISNS SSDNAND N	TP5948	ISNS KBLT N
TP5911	ISNS LCDBKLT P	TP5911	ISNS LCDBKLT P	TP5949	CPUSA ISNS R P
TP5912	ISNS LCDBKLT N	TP5912	ISNS LCDBKLT N	TP5950	CPUSA ISNS R N
TP5913	ISNS SPKRAMP LEFT P	TP5913	ISNS SPKRAMP LEFT P	TP5951	ISNS CPUEDRAM P
TP5914	ISNS SPKRAMP LEFT N	TP5914	ISNS SPKRAMP LEFT N	TP5952	ISNS CPUEDRAM N
TP5915	ISNS SPKRAMP RIGHT P	TP5915	ISNS SPKRAMP RIGHT P	TP5953	ISNS TPADP5V P
TP5916	ISNS SPKRAMP RIGHT N	TP5916	ISNS SPKRAMP RIGHT N	TP5954	ISNS TPADP5V N
TP5917	CHGR CSI R P	TP5917	CHGR CSI R P	TP5955	ISNS PP5V LCD P
TP5918	CHGR CSI R N	TP5918	CHGR CSI R N	TP5956	ISNS PP5V LCD N
TP5919	CHGR AMON	TP5919	CHGR AMON	TP5957	ISNS OCARINA P
TP5981	CHGR CSO R P	TP5981	CHGR CSO R P	TP5958	ISNS OCARINA N
TP5920	CHGR CSO R P	TP5920	CHGR CSO R P	TP5959	ISNS MESA P
TP5921	CHGR CSO R N	TP5921	CHGR CSO R N	TP5960	ISNS MESA N
TP5922	CHGR BMON	TP5922	CHGR BMON	TP5961	PPVPCORE S5
TP5982	PVCCIOS0 CS P	TP5982	PVCCIOS0 CS P	TP5962	PVCC FB P
TP5923	PVCCIOS0 CS N	TP5923	PVCCIOS0 CS N	TP5963	PPIV PRIM
TP5924	ISNS CPUDDR P	TP5924	ISNS CPUDDR P	TP5964	P1VPRIM FB R
TP5925	ISNS CPUDDR N	TP5925	ISNS CPUDDR N	TP5965	ISNS KBDP3V3 P
TP5926	ISNS CPUVDDO P	TP5926	ISNS CPUVDDO P	TP5966	ISNS KBDP3V3 N
TP5927	ISNS CPUVDDO N	TP5927	ISNS CPUVDDO N	TP5967	ISNS P5VCPUREGMISC P
TP5928	ISNS DFR3V3 P	TP5928	ISNS DFR3V3 P	TP5968	ISNS P5VCPUREGMISC N
TP5929	ISNS DFR3V3 N	TP5929	ISNS DFR3V3 N	TP5969	ISNS P1V8LPDDR P
TP5930	ISNS WLANBTP3V3 P	TP5930	ISNS WLANBTP3V3 P	TP5970	ISNS P1V8LPDDR N
TP5931	ISNS WLANBTP3V3 N	TP5931	ISNS WLANBTP3V3 N	TP5971	ISNS P1V8G3S P
TP5932	ISNS CPUVR P	TP5932	ISNS CPUVR P	TP5972	ISNS P1V8G3S N
TP5933	ISNS CPUVR N	TP5933	ISNS CPUVR N		
TP5934	ISNS CPUGT P	TP5934	ISNS CPUGT P		
TP5935	ISNS CPUGT N	TP5935	ISNS CPUGT N		
TP5936	ISNS TBXT P	TP5936	ISNS TBXT P		
TP5937	ISNS TBXT N	TP5937	ISNS TBXT N		
TP5938		TP5938			

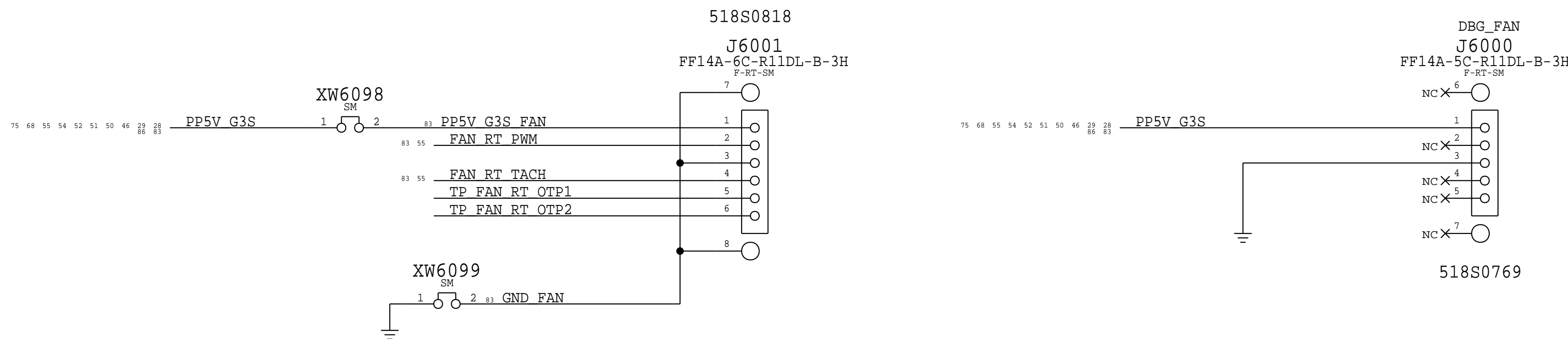
PART NUMBER	QTY	DESCRIPTION	REFERENCE DES	CRITICAL	BOM OPTION
117S0008	1	RES,MTL,FLIM,100K,1/16W,0201,SMD,LF	R5928		LOADRC:NO


POWER SENSORS EXTENDED 3		
	DRAWING NUMBER	051-05309
	REVISION	6.0.0
NOTICE OF PROPRIETARY PROPERTY: THE INFORMATION CONTAINED HEREIN IS THE PROPRIETARY PROPERTY OF APPLE INC. THE POSSESSOR AGREES TO THE FOLLOWING: I TO MAINTAIN THIS DOCUMENT IN CONFIDENCE I NOT TO REPRODUCE OR COPY IT I NOT TO REVEAL OR PUBLISH IT IN WHOLE OR PART I ALL RIGHTS RESERVED	BRANCH	pvt
	PAGE	59 OF 500
	SHEET	54 OF 98

FAN CONTROL



www.laptoprepairsecrets.com



PAGE TITLE		
Fans/SMC/AMUX Support		
 Apple Inc.	DRAWING NUMBER	051-05309
	REVISION	6.0.0
NOTICE OF PROPRIETARY PROPERTY: THE INFORMATION CONTAINED HEREIN IS THE PROPRIETARY PROPERTY OF APPLE INC. THE POSSESSOR AGREES TO THE FOLLOWING: I TO MAINTAIN THIS DOCUMENT IN CONFIDENCE II NOT TO REPRODUCE OR COPY IT III NOT TO REVEAL OR PUBLISH IT IN WHOLE OR PART IV ALL RIGHTS RESERVED	BRANCH	pvt
	PAGE	60 OF 500
	SHEET	55 OF 98

BOM_COST_GROUP=FAN

8		7		6		5		4		3		2		1	
D														D	
C														C	
B														B	
A														A	
8		7		6		5		4		3		2		1	

Apple Inc.

NOTICE OF PROPRIETARY PROPERTY:
THE INFORMATION CONTAINED HEREIN IS THE PROPRIETARY PROPERTY OF APPLE INC.
THE POSSESSOR AGREES TO THE FOLLOWING:
I TO MAINTAIN THIS DOCUMENT IN CONFIDENCE
II NOT TO REPRODUCE OR COPY IT
III NOT TO REVEAL OR PUBLISH IT IN WHOLE OR PART
IV ALL RIGHTS RESERVED

DRAWING NUMBER

051-05309

REVISION

6.0.0

BRANCH

pvt

PAGE

62 OF 500

SHEET

56 OF 98

SYNC_MASTER=


SYNC_DATE=

PAGE TITLE

AUDIO PLACEHOLDER

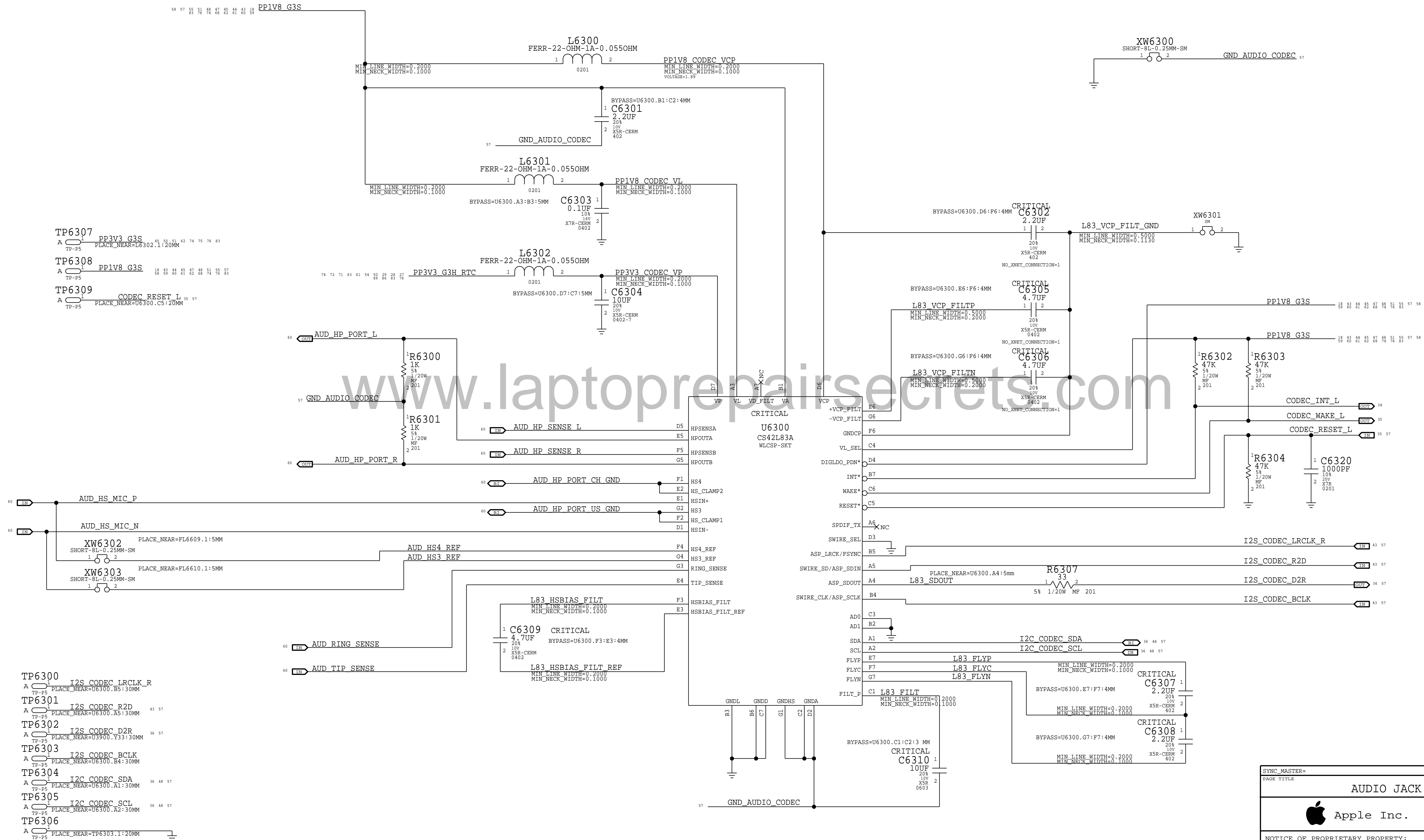
BOM_COST_GROUP=AUDIO


www.laptoprepairsecrets.com

SYNC_MASTER=		SYNC_DATE=	
PAGE TITLE		AUDIO PLACEHOLDER	
 Apple Inc.	DRAWING NUMBER	051-05309	SIZE
	REVISION	6.0.0	D
NOTICE OF PROPRIETARY PROPERTY: THE INFORMATION CONTAINED HEREIN IS THE PROPRIETARY PROPERTY OF APPLE INC. THE POSSESSOR AGREES TO THE FOLLOWING: I TO MAINTAIN THIS DOCUMENT IN CONFIDENCE II NOT TO REPRODUCE OR COPY IT III NOT TO REVEAL OR PUBLISH IT IN WHOLE OR PART IV ALL RIGHTS RESERVED		BRANCH	pvt
		PAGE	62 OF 500
		SHEET	56 OF 98

BOM_COST_GROUP=AUDIO

AUDIO JACK	CODEC I2C	ADDRESS
AD1	AD0	ADDRESS
GND	GND	0x48 ---
GND	1.8V	0x49
1.8V	GND	0x4A
1.8V	1.8V	0x4B

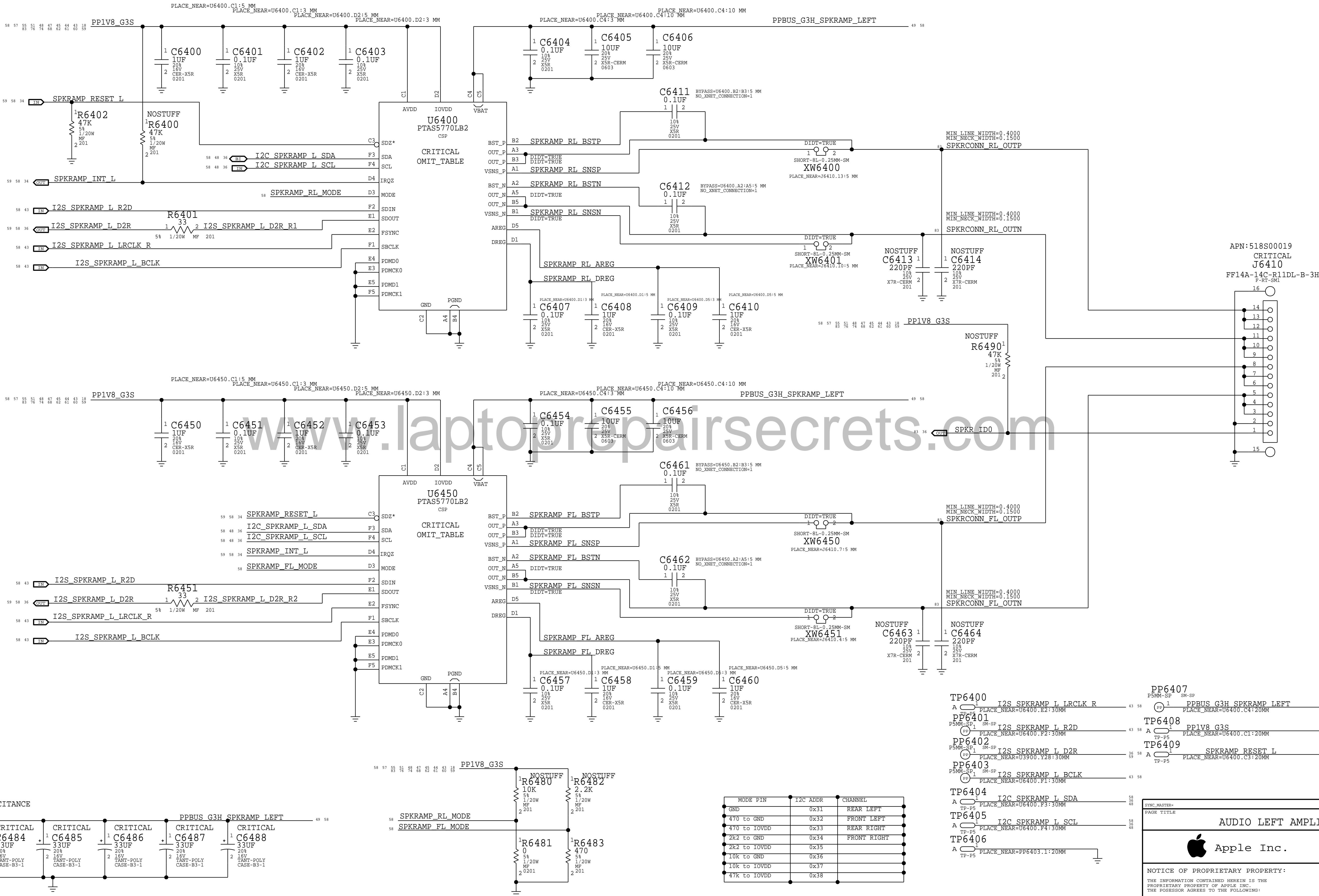


SYNC_MASTER=		SYNC_DATE=	
PAGE TITLE			
AUDIO JACK CODEC			
 Apple Inc.	DRAWING NUMBER		SIZE
	051-05309		D
NOTICE OF PROPRIETARY PROPERTY: THE INFORMATION CONTAINED HEREIN IS THE PROPRIETARY PROPERTY OF APPLE INC. THE POSSESSOR AGREES TO THE FOLLOWING: I 1 TO MAINTAIN THIS DOCUMENT IN CONFIDENCE II 2 NOT TO REPRODUCE OR COPY IT III NOT TO REVEAL OR PUBLISH IT IN WHOLE OR PART IV ALL RIGHTS RESERVED	REVISION		
	6.0.0		
	BRANCH		
	pvt		
	PAGE	63 OF 500	
	SHEET	57 OF 98	

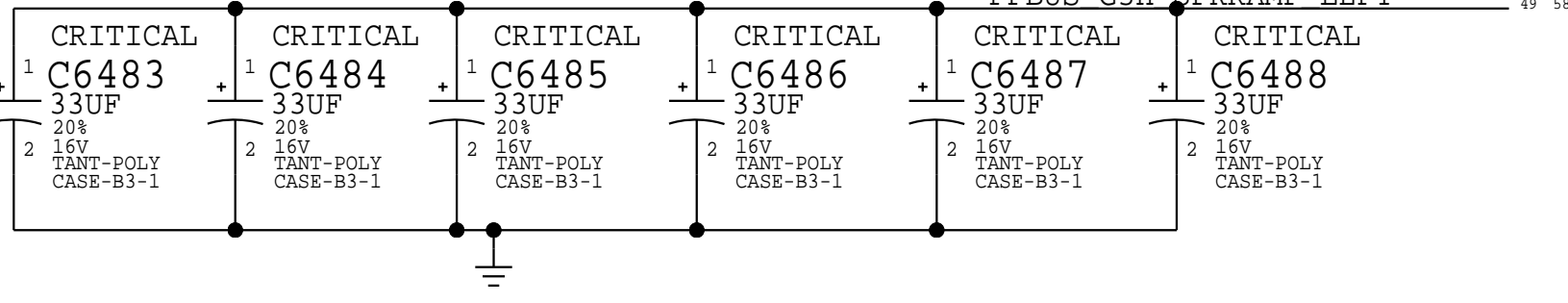
2X MONO SPEAKER LEFT AMPLIFIERS

APN: 353S01252

GAIN: 0DBFS = xxVRMS



LEFT BULK CAPACITANCE



MODE	PIN	I2C ADDR	CHANNEL
GND	0x31		REAR LEFT
470 to GND	0x32		FRONT LEFT
470 to IOVDD	0x33		REAR RIGHT
2K2 to IOVDD	0x34		FRONT RIGHT
10K to GND	0x35		
10K to IOVDD	0x36		
10K to IOVDD	0x37		
47K to IOVDD	0x38		

BOM_COST_GROUP=AUDIO

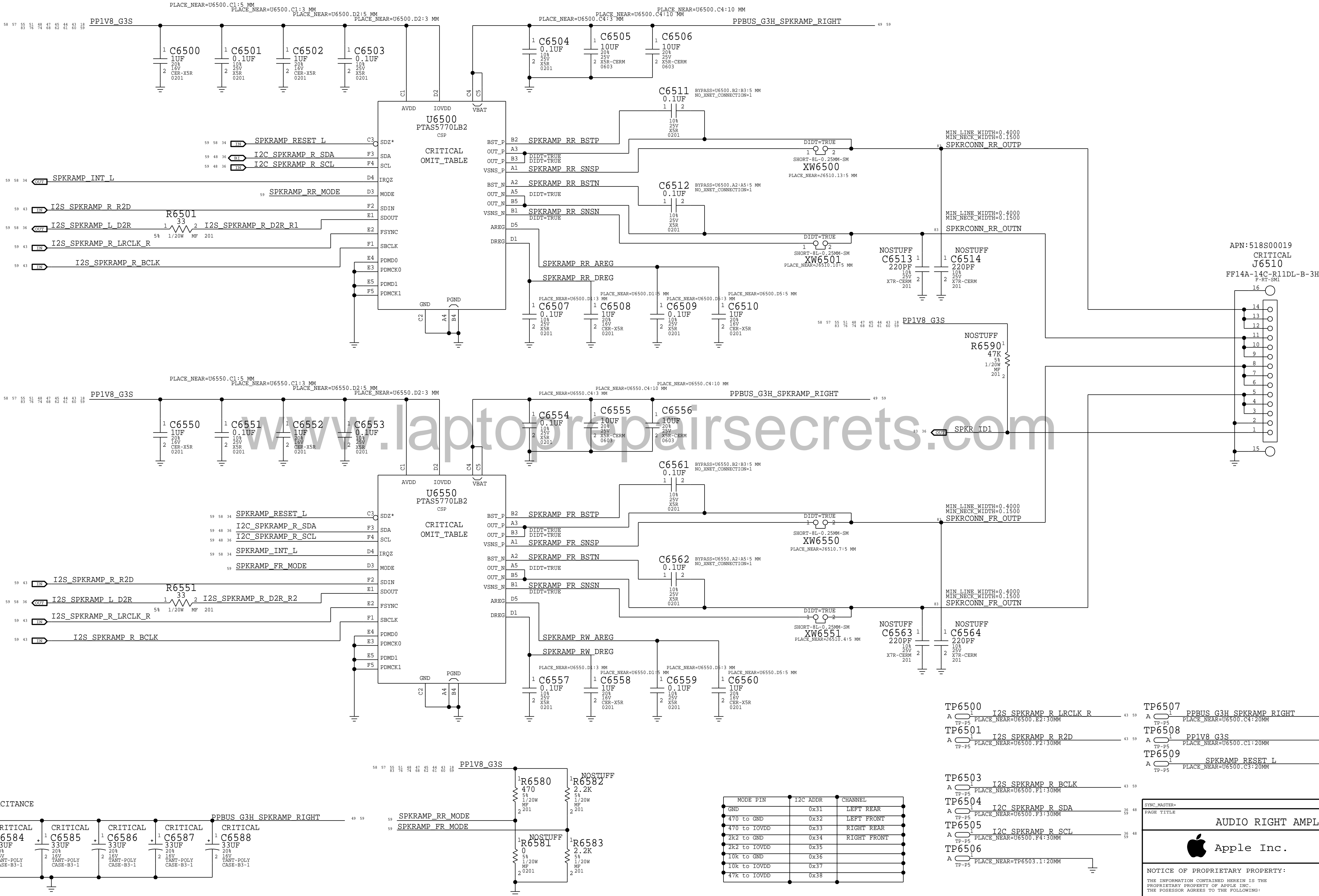
TP6400	I2S_SPKRAMP_L_LRCLK_R	43	58
TP6401	I2S_SPKRAMP_L_R2D	43	58
TP6402	I2S_SPKRAMP_L_D2R	36	58
TP6403	I2S_SPKRAMP_L_BCLK	43	58
TP6404	I2C_SPKRAMP_L_SDA	58	48
TP6405	I2C_SPKRAMP_L_SCL	58	48
TP6406			

PP6407	PPBUS_G3H_SPKRAMP_LEFT	49	58
PP6408	PP1V8_G3S	58	43
PP6409	SPKRAMP_RESET_L	34	58

AUDIO LEFT AMPLIFIERS		
Apple Inc.	DRAWING NUMBER	051-05309
	REVISION	6.0.0
NOTICE OF PROPRIETARY PROPERTY:	BRANCH	pvt
THE INFORMATION CONTAINED HEREIN IS THE PROPRIETARY PROPERTY OF APPLE INC. THE POSSESSOR AGREES TO THE FOLLOWING:	PAGE	64 OF 500
I TO MAINTAIN THIS DOCUMENT IN CONFIDENCE	SHEET	58 OF 98
II NOT TO REPRODUCE OR COPY IT		
III NOT TO REVEAL OR PUBLISH IT IN WHOLE OR PART		
IV ALL RIGHTS RESERVED		

2X MONO SPEAKER RIGHT AMPLIFIERS

APN: 353S01252
GAIN: 0DBFS = xxVRMS



Apple Inc.

NOTICE OF PROPRIETARY PROPERTY:
THE INFORMATION CONTAINED HEREIN IS THE
PROPRIETARY PROPERTY OF APPLE INC.
THE POSSESSOR AGREES TO THE FOLLOWING:
I TO MAINTAIN THIS DOCUMENT IN CONFIDENCE
II NOT TO REPRODUCE OR COPY IT
III NOT TO REVEAL OR PUBLISH IT IN WHOLE OR PART
IV ALL RIGHTS RESERVED

DRAWING NUMBER
051-05309

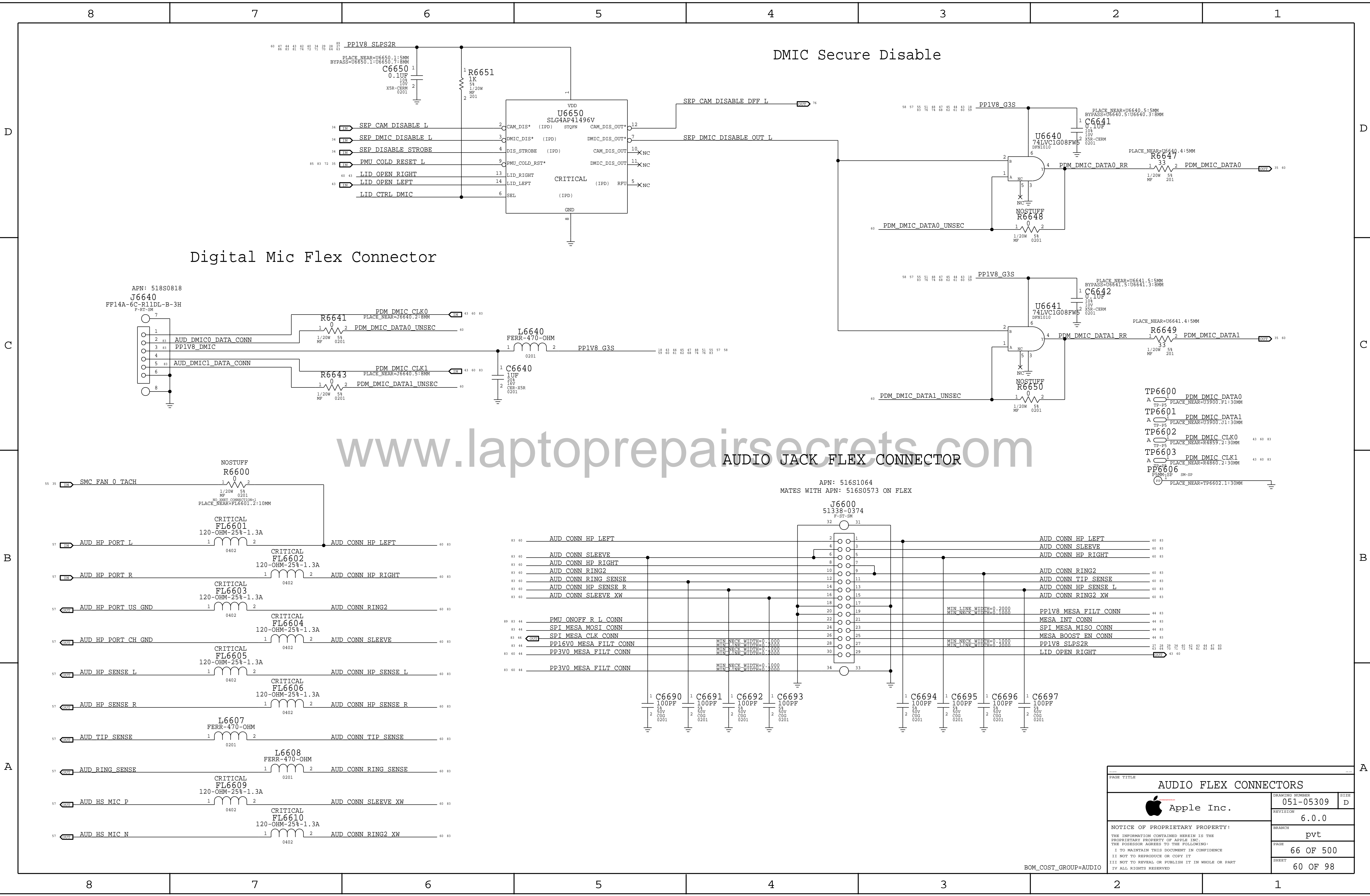
REVISION
6.0.0

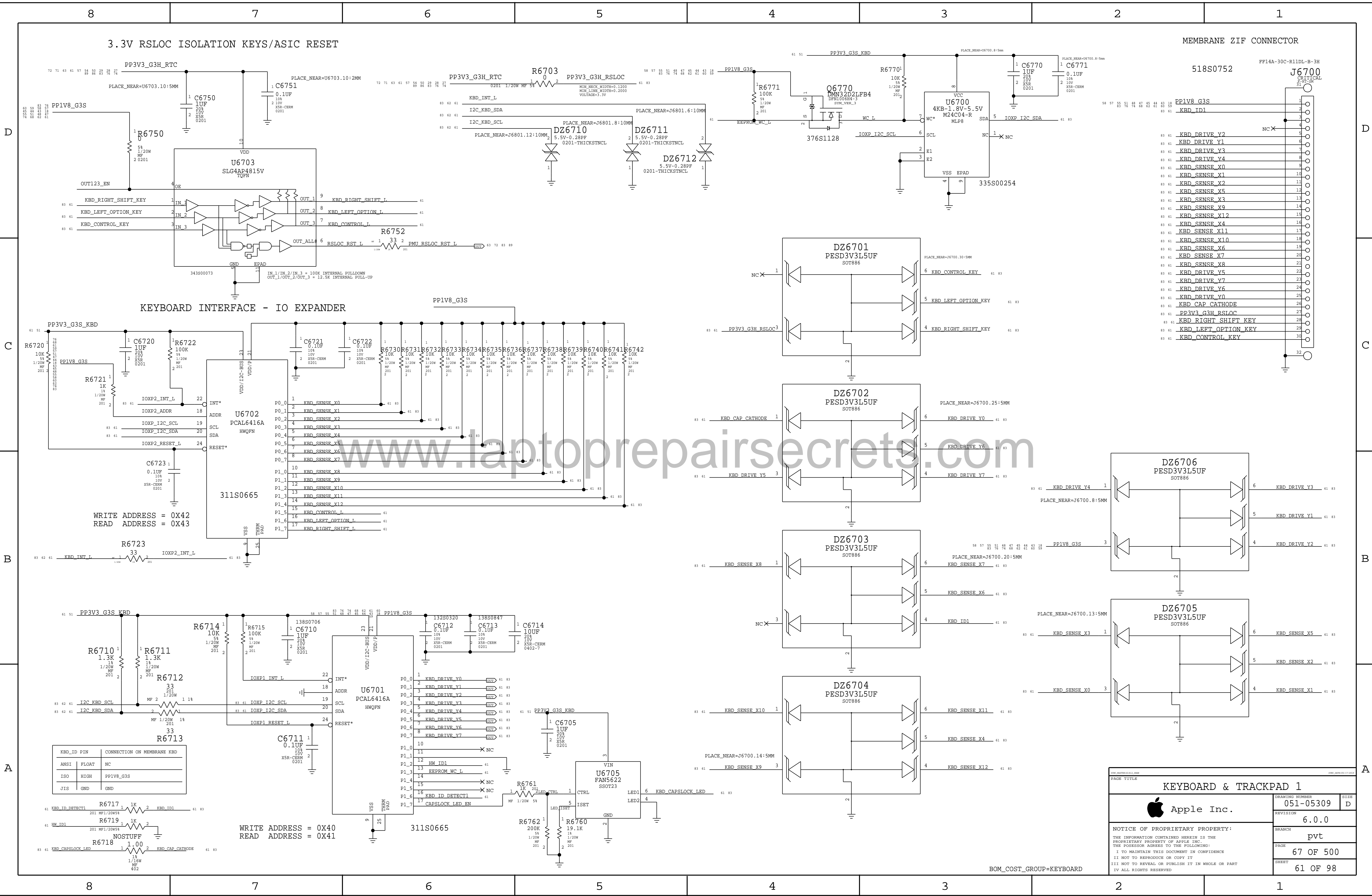
BRANCH
pvt

PAGE
65 OF 500

SHEET
59 OF 98

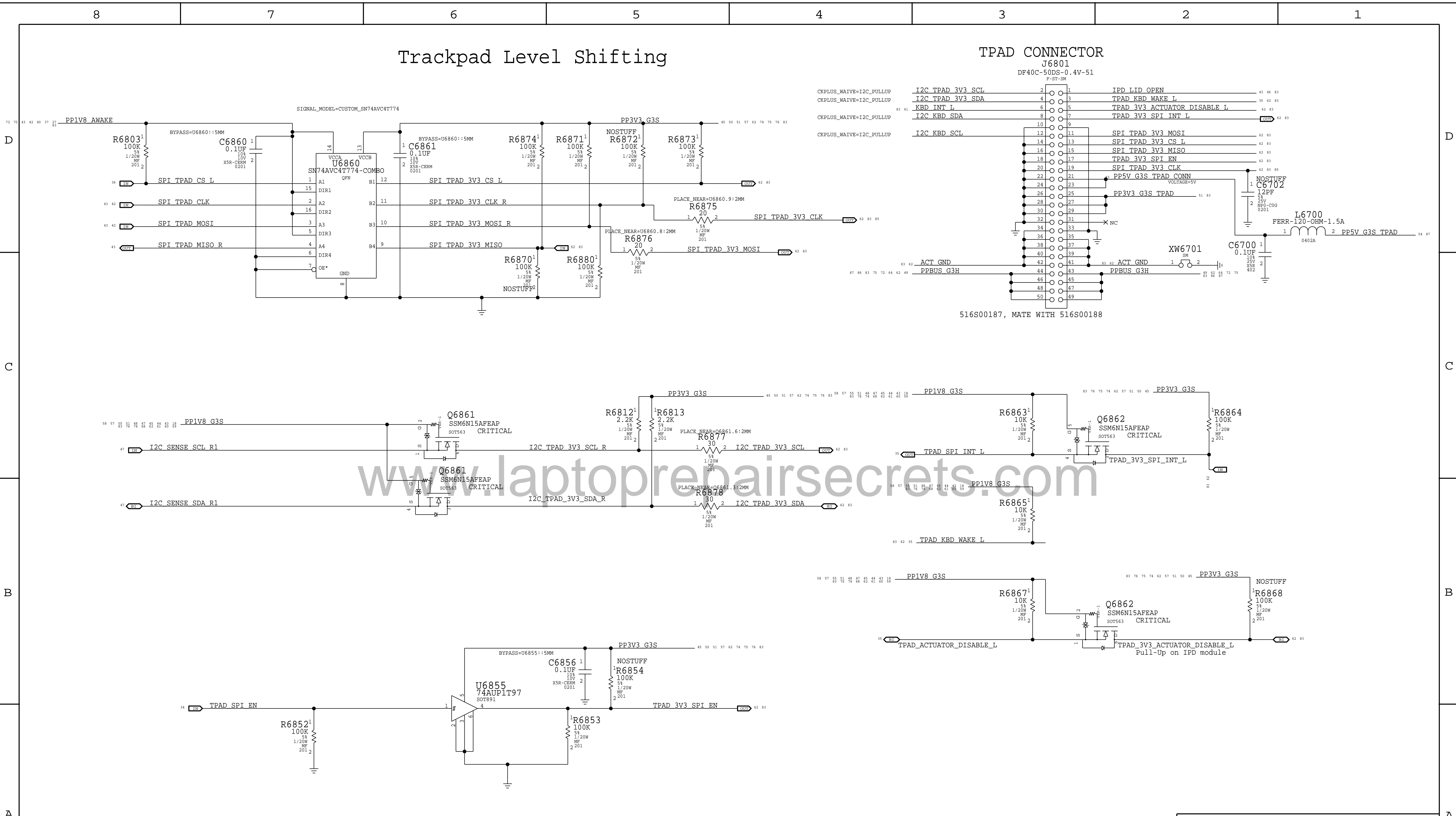
BOM_COST_GROUP=AUDIO






Trackpad Level Shifting

TPAD CONNECTOR



www.laptoprepairsecrets.com

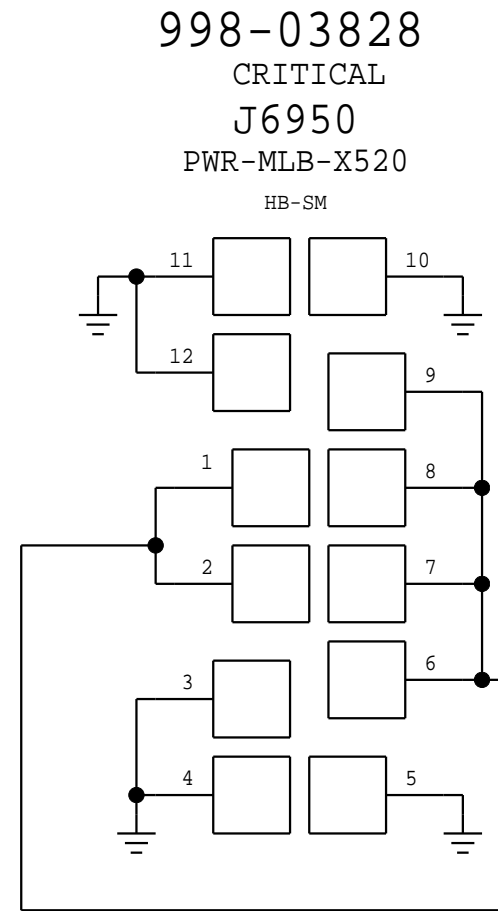
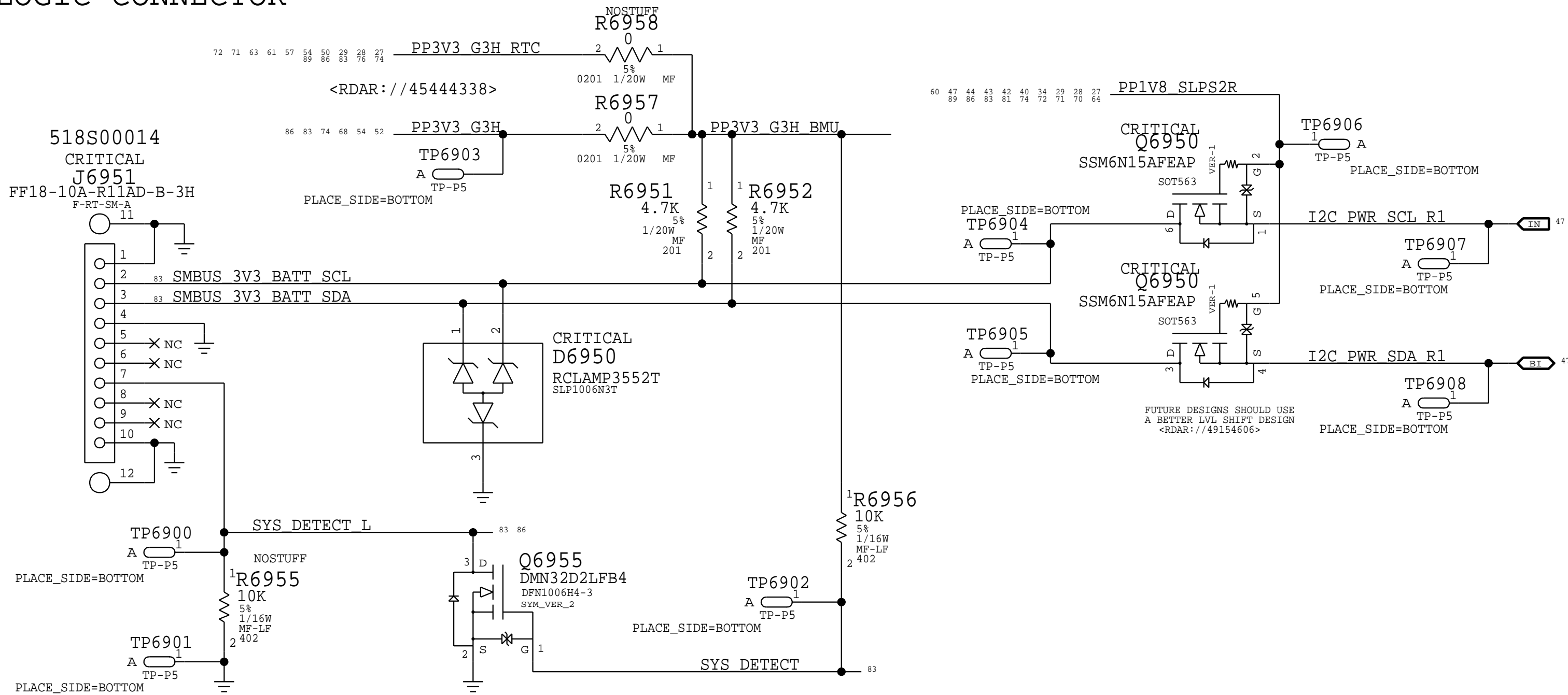
Keyboard & Trackpad 2		
 Apple Inc.	DRAWING NUMBER	051-05309
	REVISION	6.0.0
NOTICE OF PROPRIETARY PROPERTY: THE INFORMATION CONTAINED HEREIN IS THE PROPRIETARY PROPERTY OF APPLE INC. THE POSSESSOR AGREES TO THE FOLLOWING: I TO MAINTAIN THIS DOCUMENT IN CONFIDENCE I NOT TO REPRODUCE OR COPY IT I NOT TO REVEAL OR PUBLISH IT IN WHOLE OR PART I ALL RIGHTS RESERVED	BRANCH	pvt
	PAGE	68 OF 500
	SHEET	62 OF 98

BOM_COST_GROUP=TRACKPAD

BMU LOGIC CONNECTOR

BATTERY (BMU) FLEX SOLDER PADS

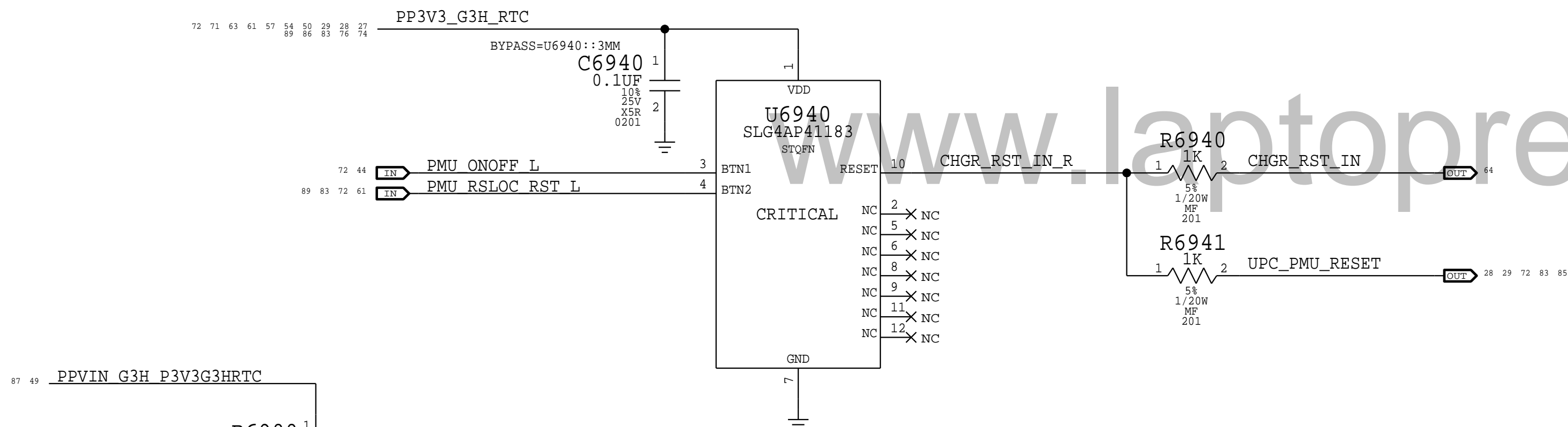
BMU POWER FLEX IS SOLDERED TO MLB.



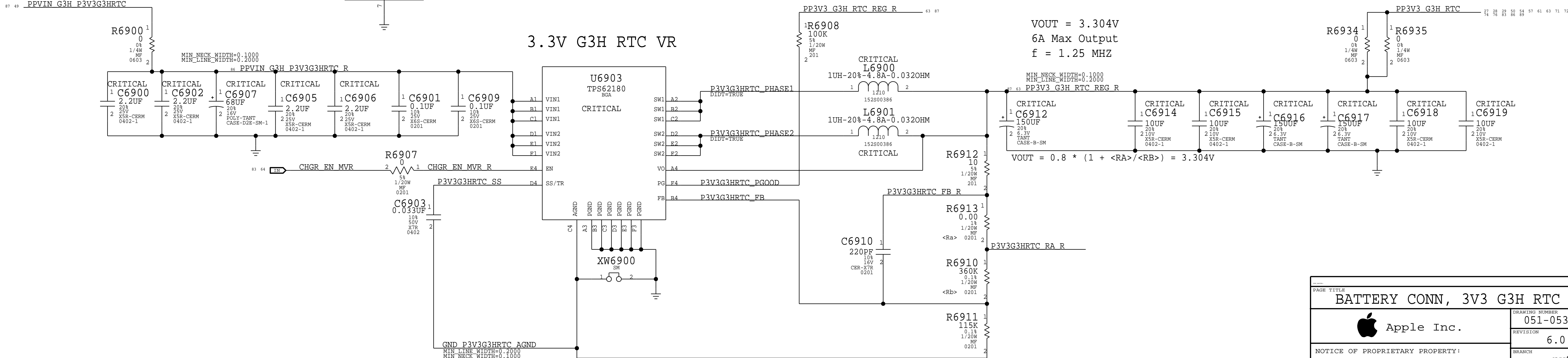
PART NUMBER	QTY	DESCRIPTION	REFERENCE DES	CRITICAL	BOM OPTION
632-00731	1	PCBA,FLEX,BMU PWR,X502	J6950	CRITICAL	

SMC Reset Circuit

Right Shift & Left Option Control followed by ON OFF button press.

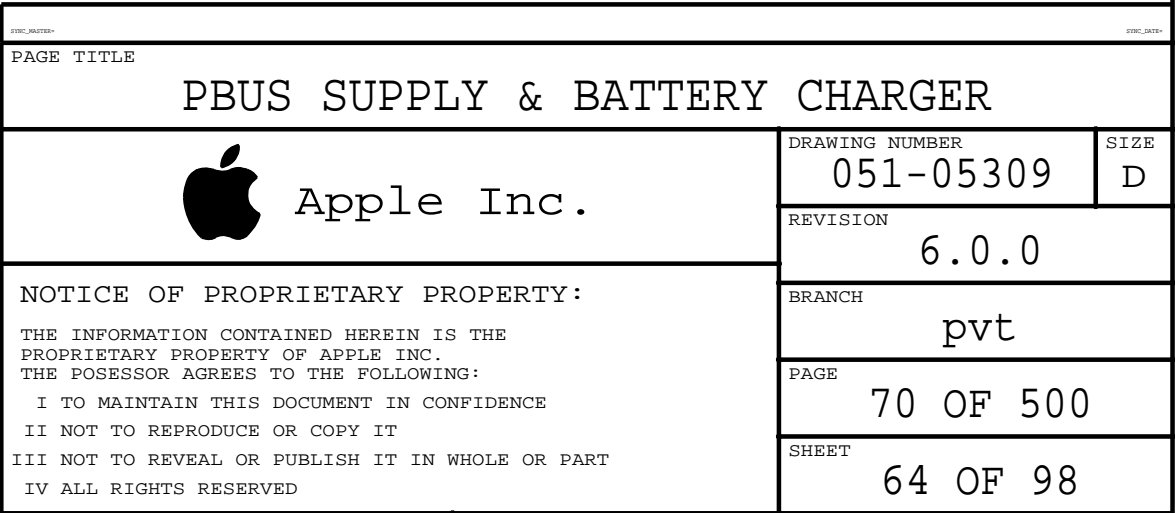


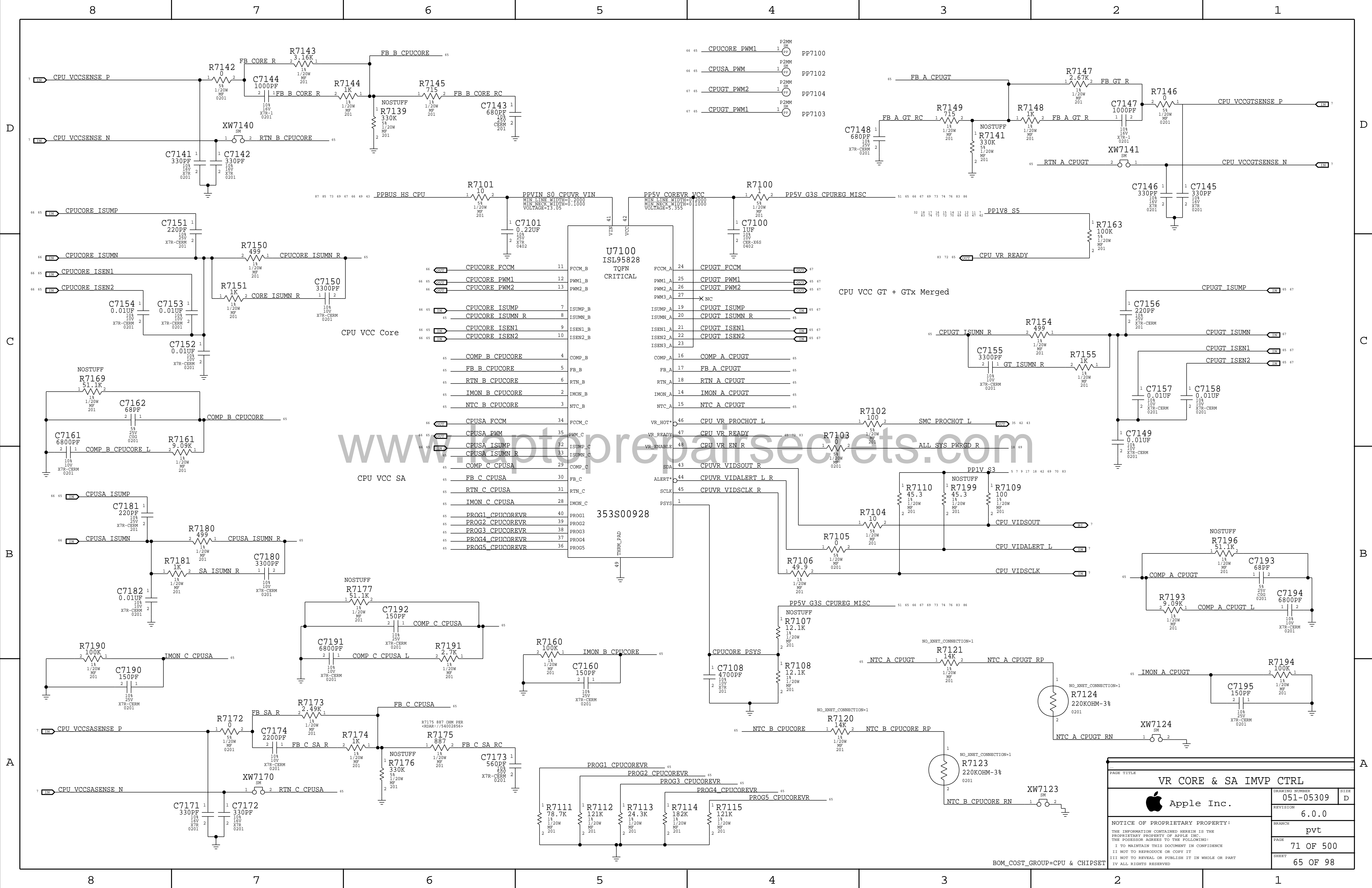
3.3V G3H RTC VR

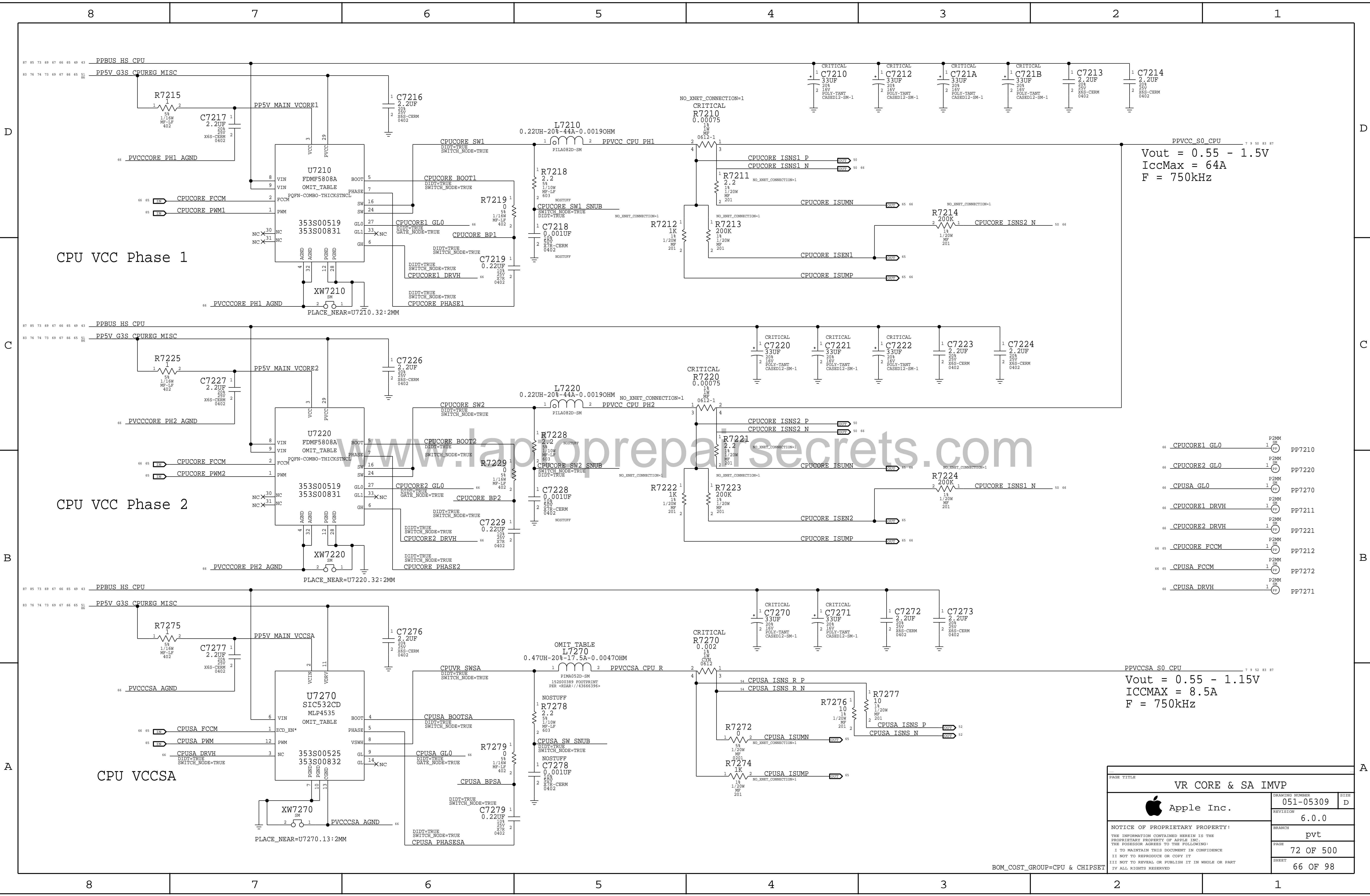


PAGE TITLE		
BATTERY CONN, 3V3 G3H RTC VR		
	DRAWING NUMBER	051-05309
	REVISION	6.0.0
	BRANCH	pvt
	PAGE	69 OF 500
NOTICE OF PROPRIETARY PROPERTY: THE INFORMATION CONTAINED HEREIN IS THE PROPRIETARY PROPERTY OF APPLE INC. THE POSSESSOR AGREES TO THE FOLLOWING: I TO MAINTAIN THIS DOCUMENT IN CONFIDENCE I NOT TO REPRODUCE OR COPY IT I NOT TO REVEAL OR PUBLISH IT IN WHOLE OR PART I ALL RIGHTS RESERVED		SHEET 63 OF 98

BOM_COST_GROUP=PLATFORM POWER







Vout = 0.55 - 1.5V
IccMax = 64A
F = 750kHz

- CPUCORE1 GL0 PP7210
- CPUCORE2 GL0 PP7220
- CPUSA GL0 PP7270
- CPUCORE1 DRVH PP7211
- CPUCORE2 DRVH PP7221
- CPUCORE FCCM PP7212
- CPUSA FCCM PP7272
- CPUSA DRVH PP7271

Vout = 0.55 - 1.15V
ICCMAX = 8.5A
F = 750kHz

PAGE TITLE		
VR CORE & SA IMVP		
	DRAWING NUMBER	051-05309
	REVISION	6.0.0
NOTICE OF PROPRIETARY PROPERTY: THE INFORMATION CONTAINED HEREIN IS THE PROPRIETARY PROPERTY OF APPLE INC. THE POSSESSOR AGREES TO THE FOLLOWING: I TO MAINTAIN THIS DOCUMENT IN CONFIDENCE I NOT TO REPRODUCE OR COPY IT I NOT TO REVEAL OR PUBLISH IT IN WHOLE OR PART I ALL RIGHTS RESERVED	BRANCH	pvt
	PAGE	72 OF 500
	SHEET	66 OF 98

BOM_COST_GROUP=CPU & CHIPSET

8

7

6

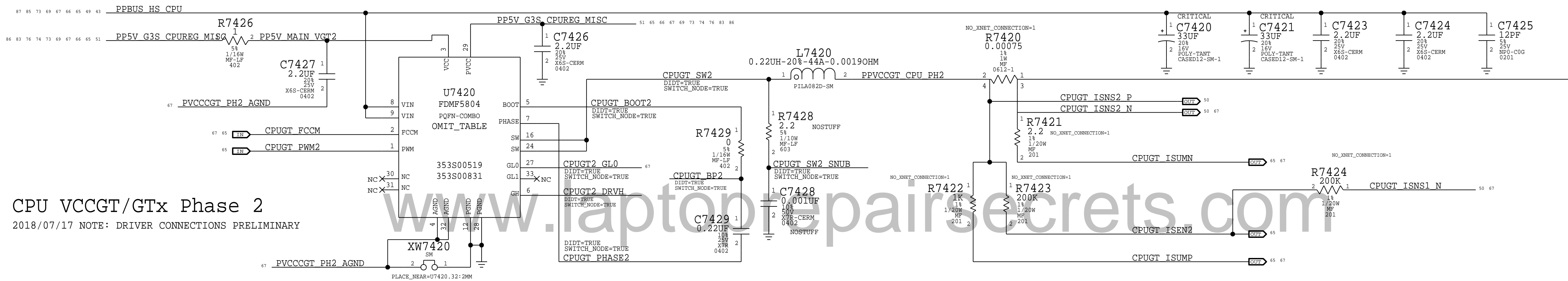
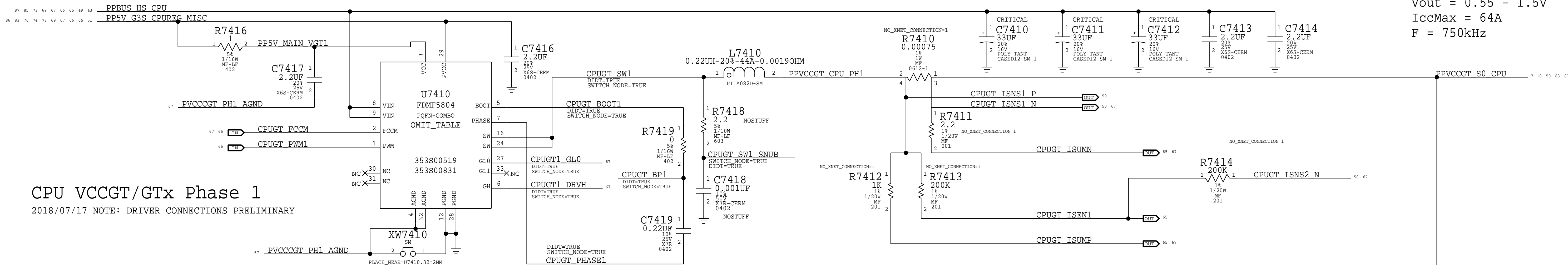
5

4

3

2

1



67	CPUGT1 GL0	P2MM SH	PP7433
67 65	CPUGT FCCM	P2MM SH	PP7412
67	CPUGT1 DRVH	P2MM SH	PP7411
67	CPUGT2 GL0	P2MM SH	PP7430

BOM_COST_GROUP=CPU & CHIPSET

PAGE TITLE		
VR GT & GTX IMVP		
	DRAWING NUMBER	051-05309
	REVISION	6.0.0
NOTICE OF PROPRIETARY PROPERTY: THE INFORMATION CONTAINED HEREIN IS THE PROPRIETARY PROPERTY OF APPLE INC. THE POSSESSOR AGREES TO THE FOLLOWING: I TO MAINTAIN THIS DOCUMENT IN CONFIDENCE I NOT TO REPRODUCE OR COPY IT I NOT TO REVEAL OR PUBLISH IT IN WHOLE OR PART I ALL RIGHTS RESERVED	BRANCH	pvt
	PAGE	74 OF 500
	SHEET	67 OF 98

8

7

6

5

4

3

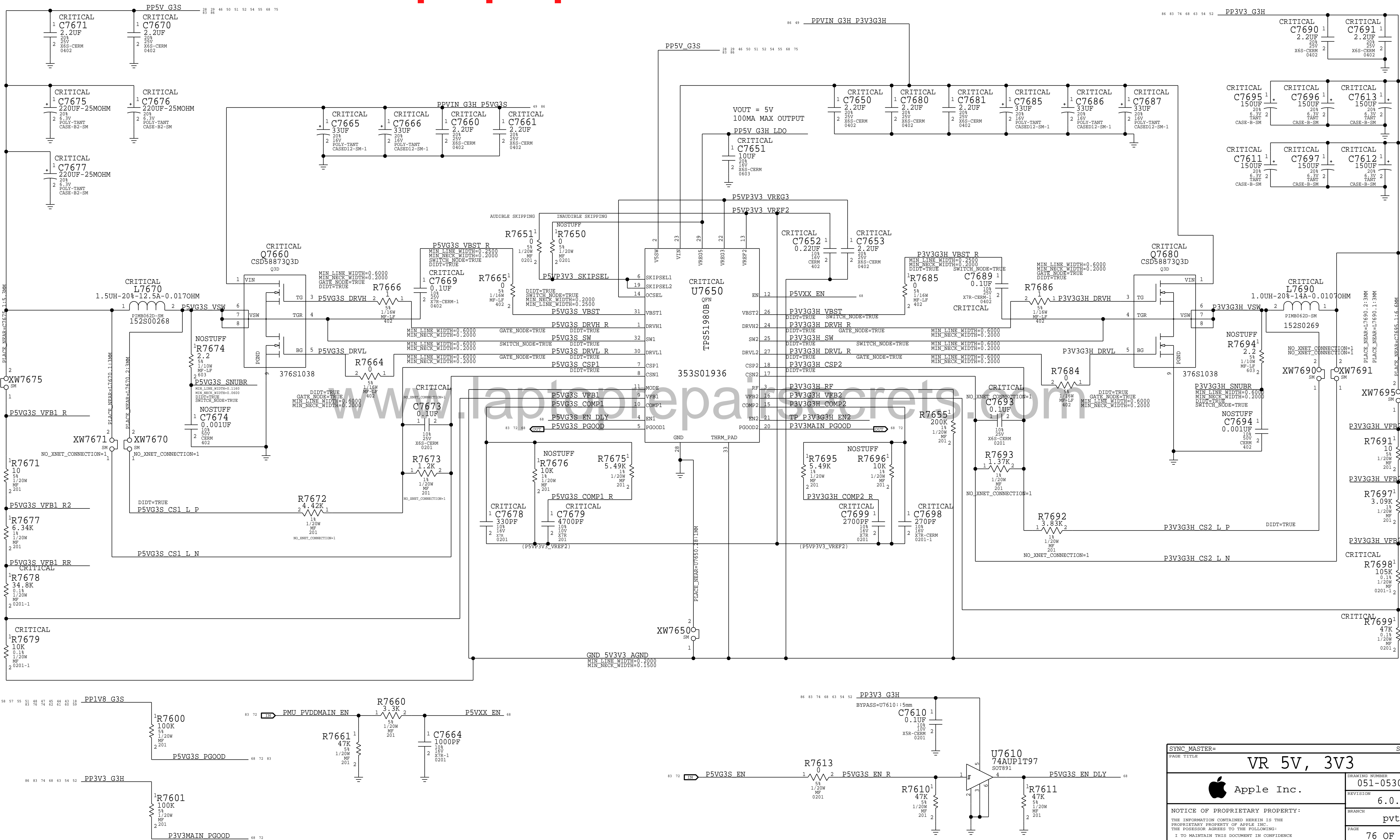
2

1


Vout = 5.1V
IOUT MAX = 7.997A
F = 500 KHZ

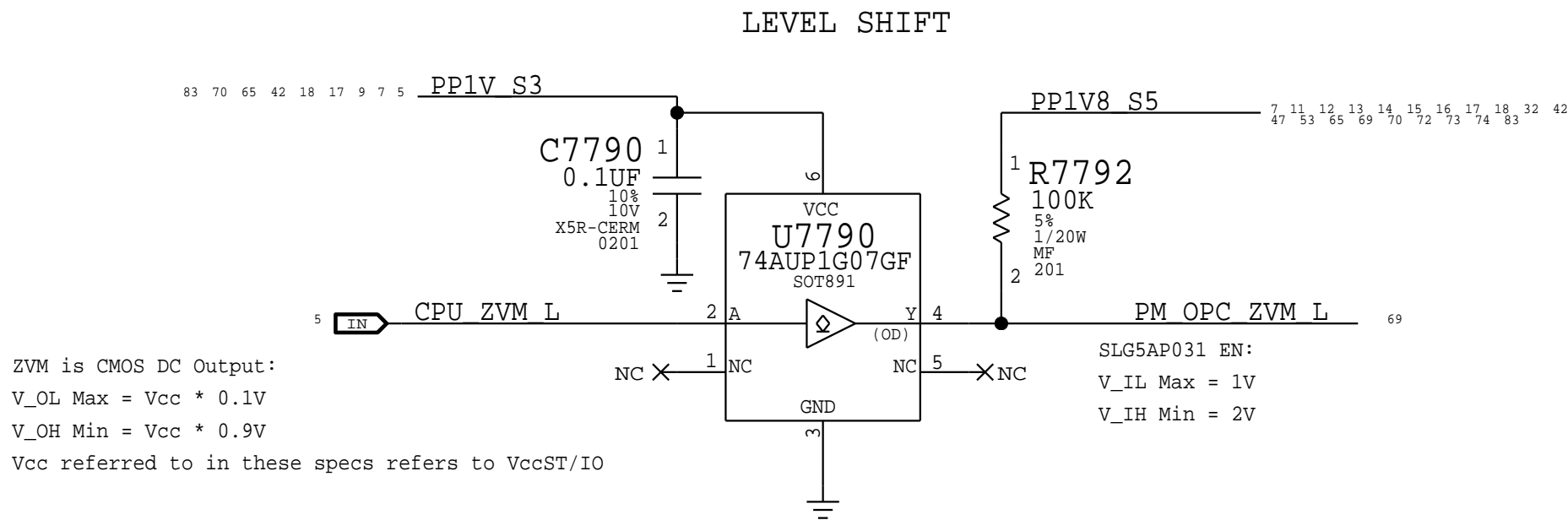
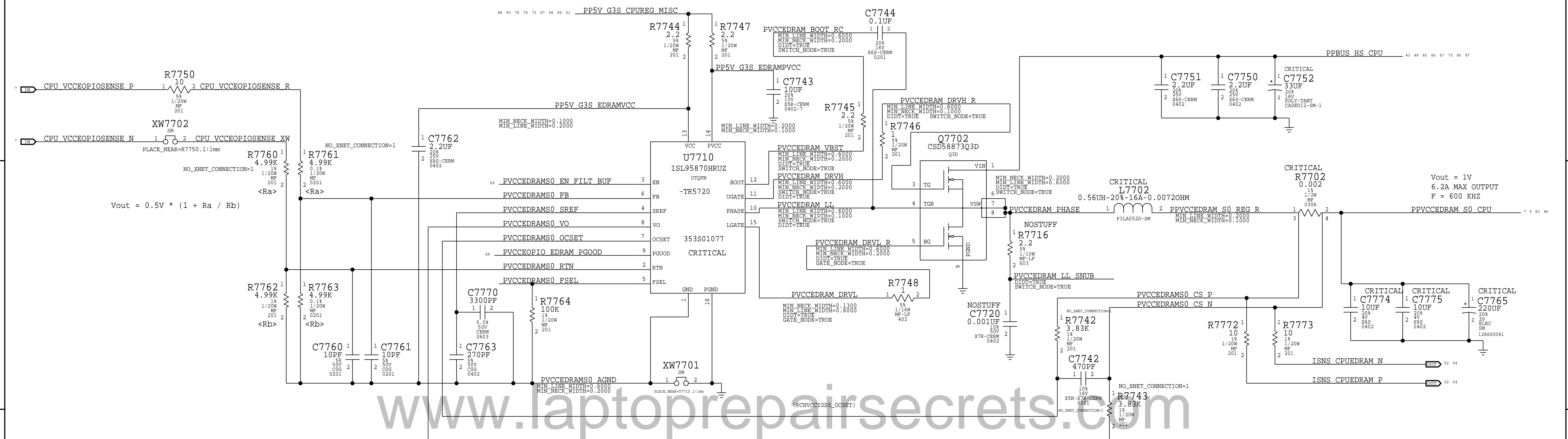
Vout = 3.3V
Iout Max = 10.9A
F = 500 KHZ

www.laptoprepairsecrets.com

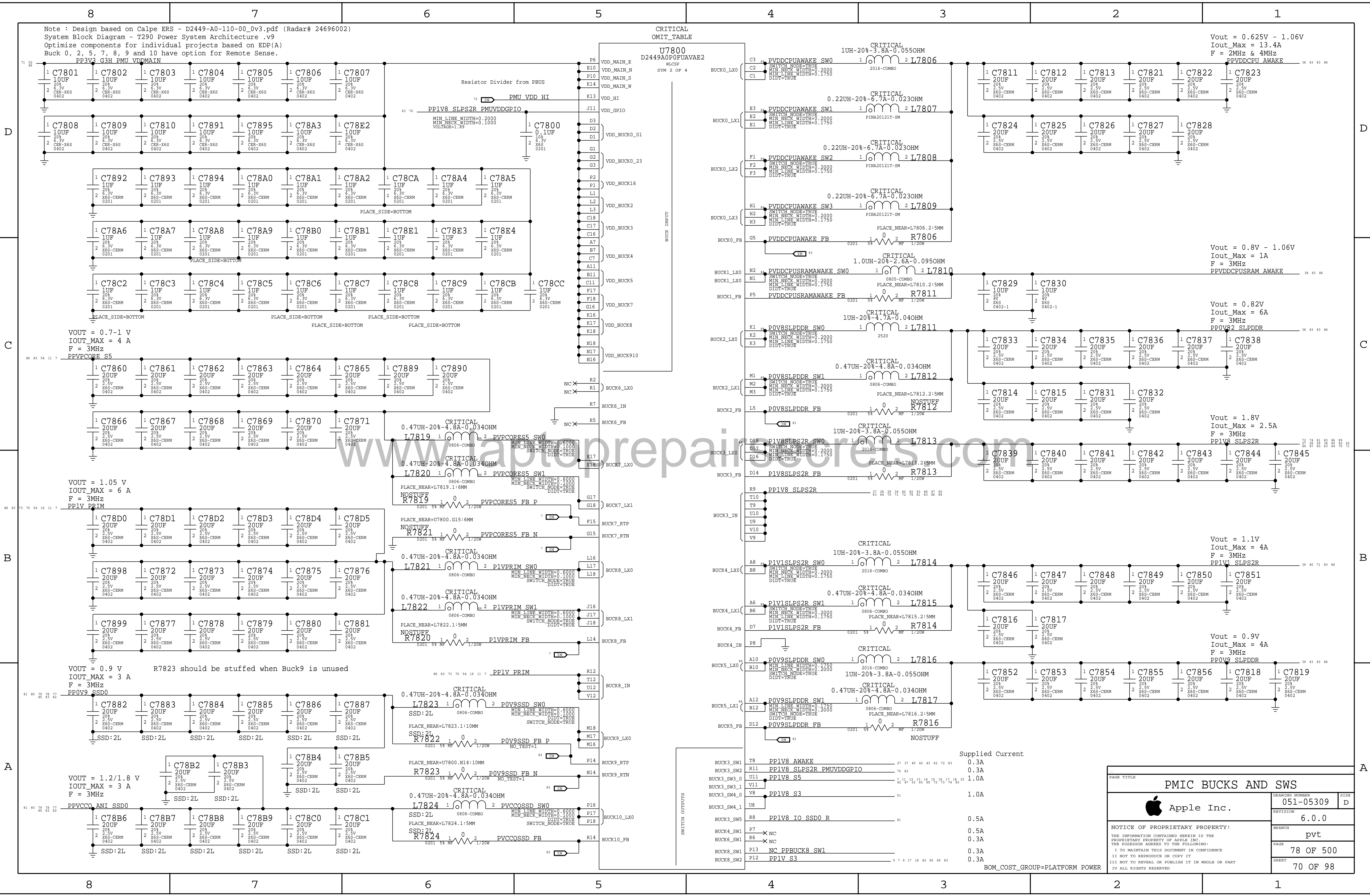


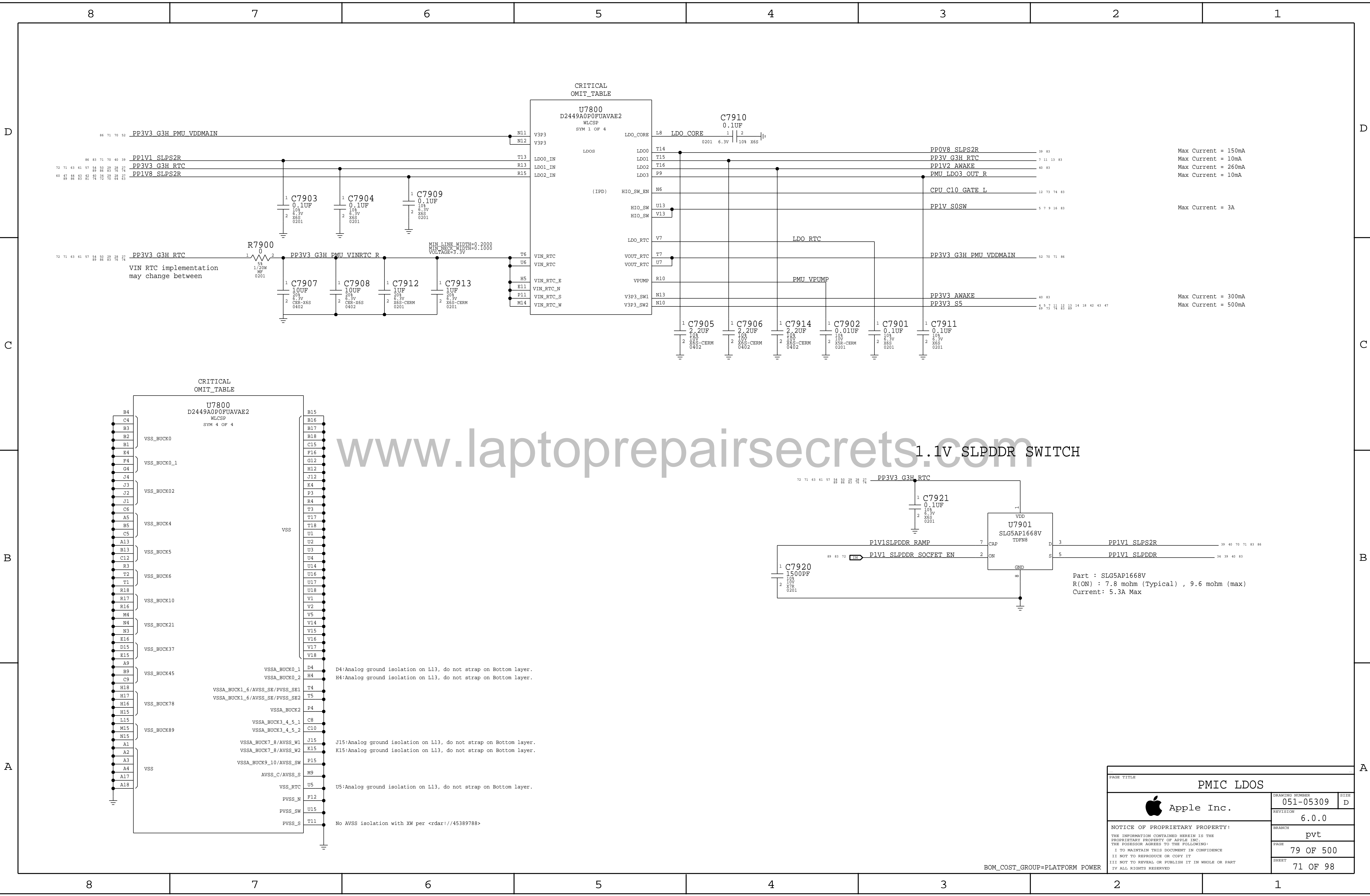
BOM_COST_GROUP=PLATFORM POWER

SYNC_MASTER=		SYNC_DATE=	
PAGE TITLE			
VR 5V, 3V3			
 Apple Inc.		DRAWING NUMBER	SIZE
		051-05309	D
NOTICE OF PROPRIETARY PROPERTY: THE INFORMATION CONTAINED HEREIN IS THE PROPRIETARY PROPERTY OF APPLE INC. THE POSSESSOR AGREES TO THE FOLLOWING: I TO MAINTAIN THIS DOCUMENT IN CONFIDENCE II NOT TO REPRODUCE OR COPY IT III NOT TO REVEAL OR PUBLISH IT IN WHOLE OR PART IV ALL RIGHTS RESERVED		REVISION	
		6.0.0	
		BRANCH	pvt
		PAGE	
		76 OF 500	
		SHEET	
		68 OF 98	



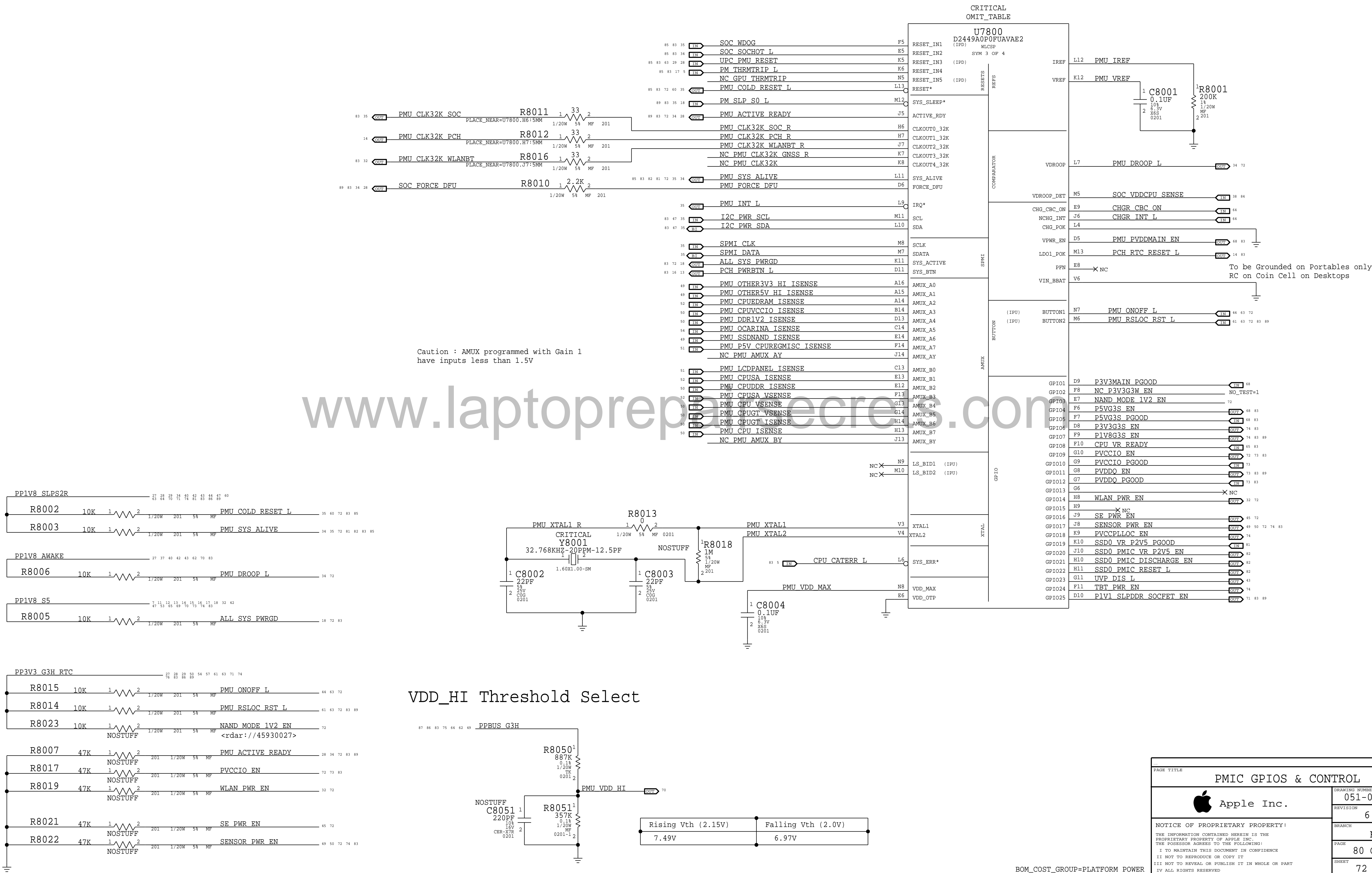
BOM_COST_GROUP=CPU & CHIPSET





PAGE TITLE		
PMIC LDOS		
	DRAWING NUMBER	051-05309
	REVISION	6.0.0
	BRANCH	pvt
	PAGE	79 OF 500
NOTICE OF PROPRIETARY PROPERTY: THE INFORMATION CONTAINED HEREIN IS THE PROPRIETARY PROPERTY OF APPLE INC. THE POSSESSOR AGREES TO THE FOLLOWING: I TO MAINTAIN THIS DOCUMENT IN CONFIDENCE I1 NOT TO REPRODUCE OR COPY IT I11 NOT TO REVEAL OR PUBLISH IT IN WHOLE OR PART I1V ALL RIGHTS RESERVED		SHEET 71 OF 98

BOM_COST_GROUP=PLATFORM POWER



1.2V VDDQ & 0.6V VTT

D

C

B

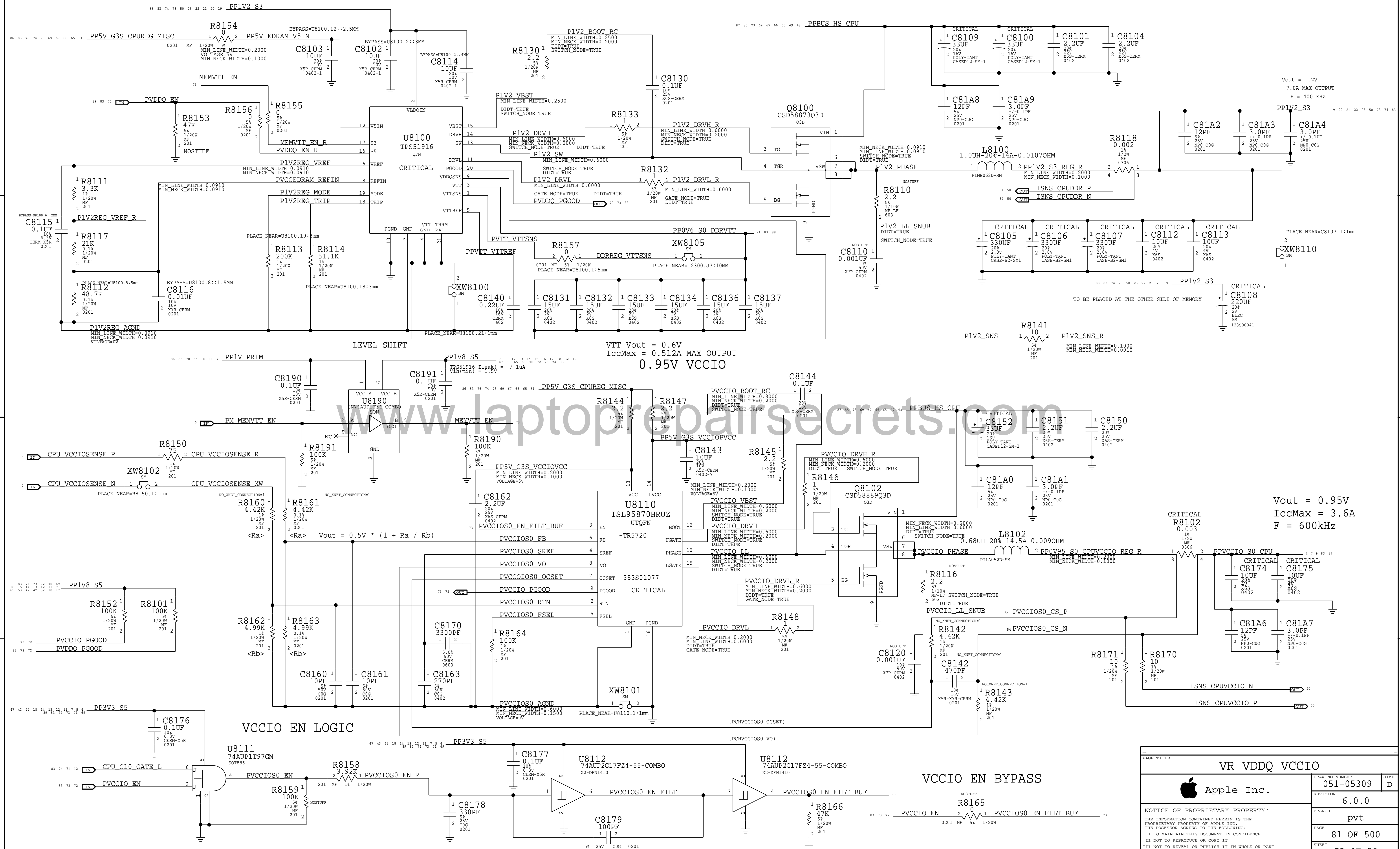
A


D

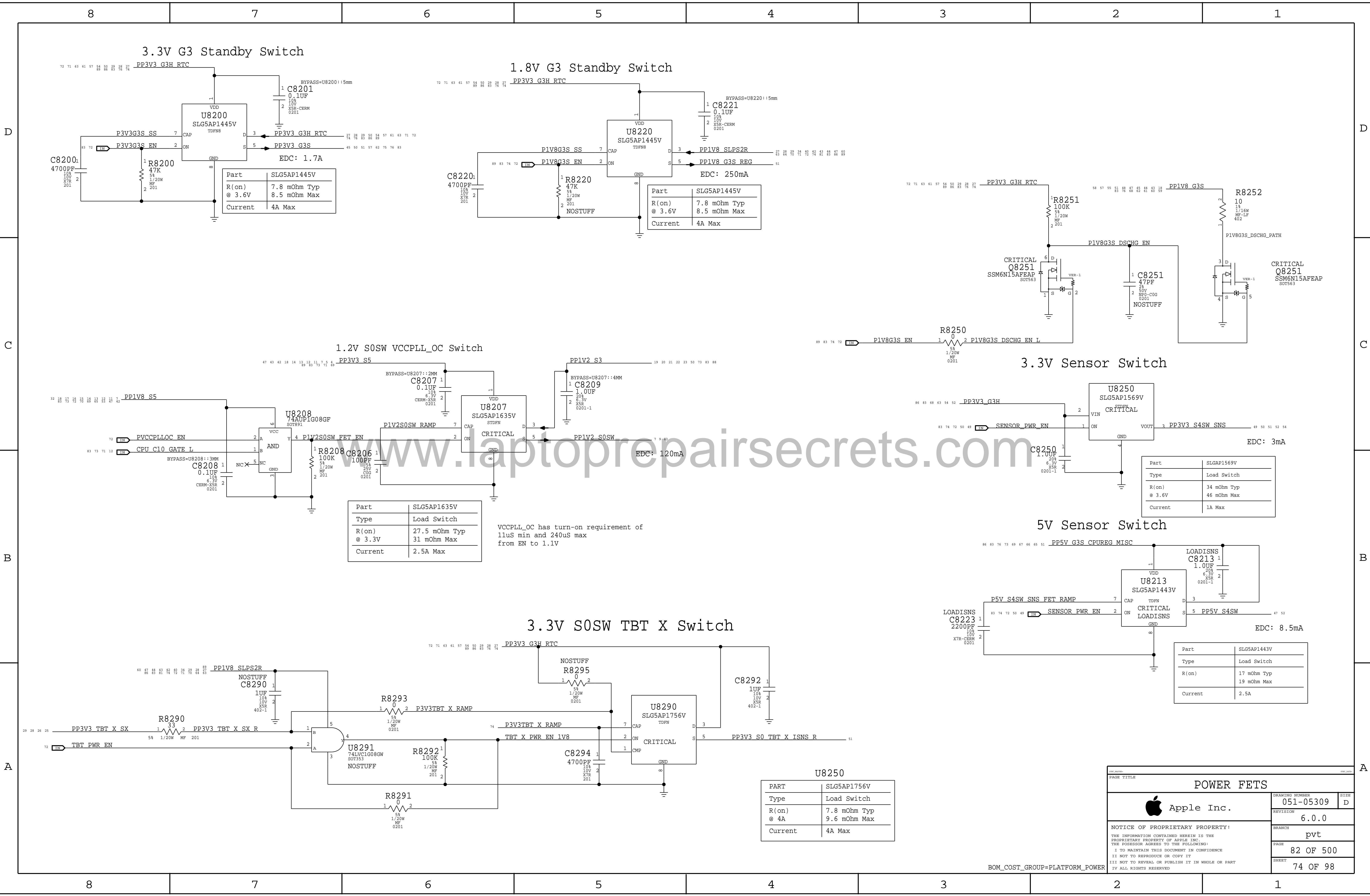
C

B

A



PAGE TITLE		
VR VDDQ VCCIO		
 Apple Inc.	DRAWING NUMBER	051-05309
	REVISION	6.0.0
	BRANCH	pvt
	PAGE	81 OF 500
NOTICE OF PROPRIETARY PROPERTY: THE INFORMATION CONTAINED HEREIN IS THE PROPRIETARY PROPERTY OF APPLE INC. THE POSSESSOR AGREES TO THE FOLLOWING: 1. TO MAINTAIN THIS DOCUMENT IN CONFIDENCE 11. NOT TO REPRODUCE OR COPY IT 111. NOT TO REVEAL OR PUBLISH IT IN WHOLE OR PART 1V ALL RIGHTS RESERVED		SHEET 73 OF 98



D

C

B

A


D

C

B


A

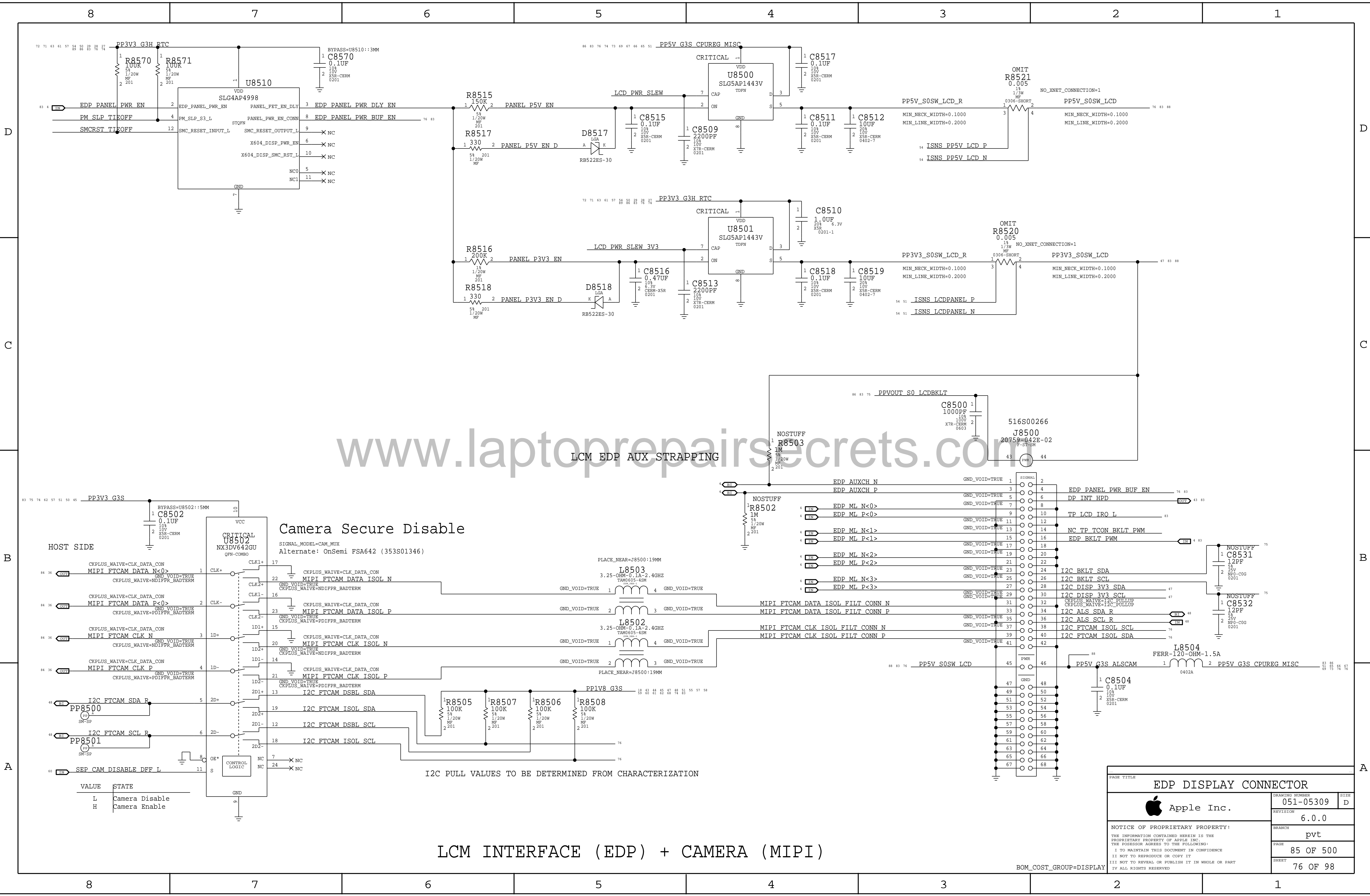
PART	SLG5AP1756V
Type	Load Switch
R(on) @ 4A	7.8 mOhm Typ 9.6 mOhm Max
Current	4A Max

POWER FETS		
 Apple Inc.	DRAWING NUMBER	051-05309
	REVISION	6.0.0
NOTICE OF PROPRIETARY PROPERTY: THE INFORMATION CONTAINED HEREIN IS THE PROPRIETARY PROPERTY OF APPLE INC. THE POSSESSOR AGREES TO THE FOLLOWING: I TO MAINTAIN THIS DOCUMENT IN CONFIDENCE I NOT TO REPRODUCE OR COPY IT I NOT TO REVEAL OR PUBLISH IT IN WHOLE OR PART IV ALL RIGHTS RESERVED	BRANCH	pvt
	PAGE	82 OF 500
	SHEET	74 OF 98

BOM_COST_GROUP=PLATFORM_POWER



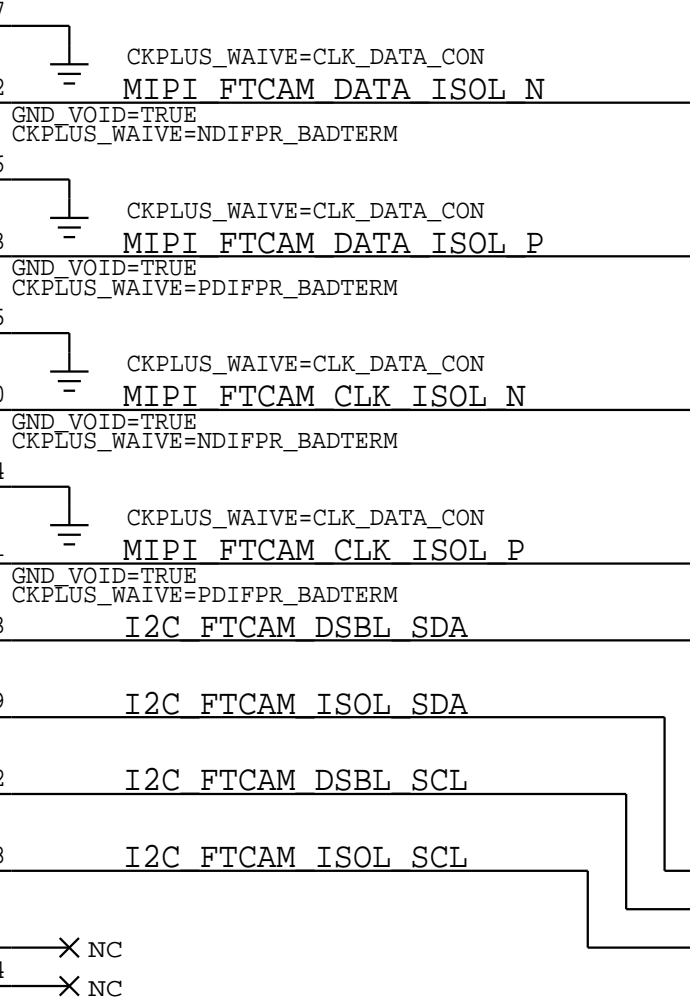
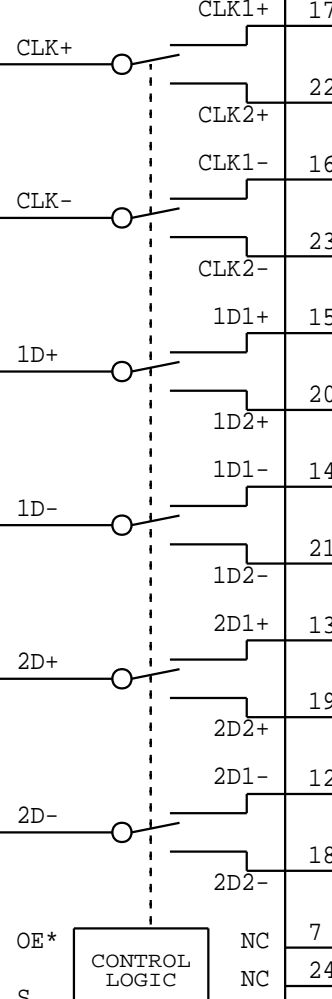
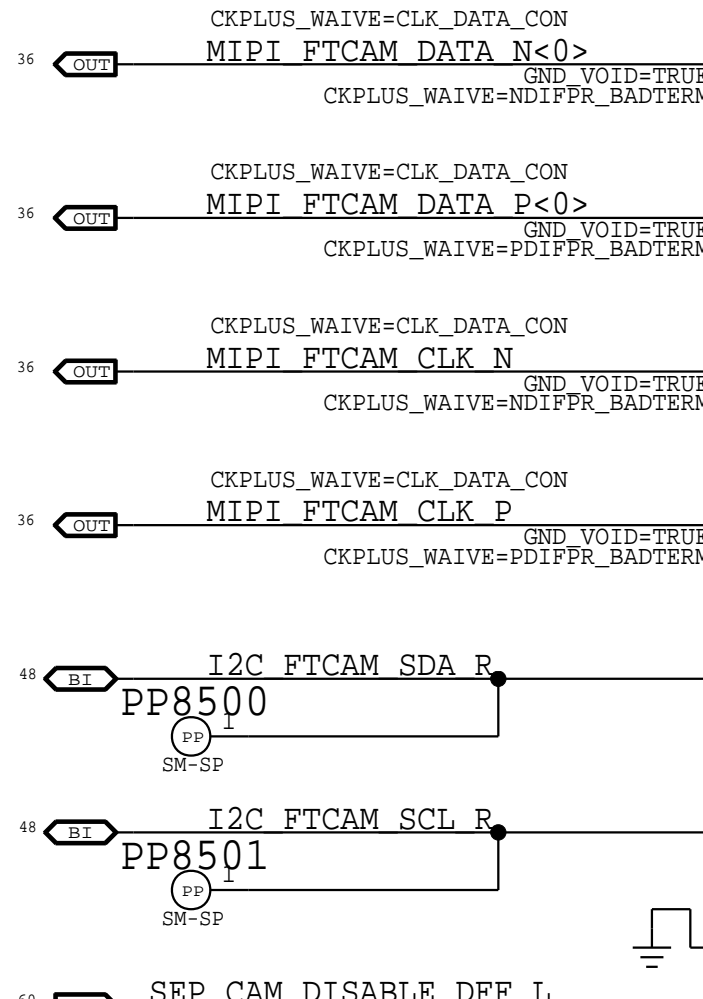
PAGE TITLE				LCD BACKLIGHT DRIVER			
 Apple Inc.				DRAWING NUMBER		SIZE	
				051-05309		D	
NOTICE OF PROPRIETARY PROPERTY: THE INFORMATION CONTAINED HEREIN IS THE PROPRIETARY PROPERTY OF APPLE INC. THE POSSESSOR AGREES TO THE FOLLOWING: I TO MAINTAIN THIS DOCUMENT IN CONFIDENCE II NOT TO REPRODUCE OR COPY IT III NOT TO REVEAL OR PUBLISH IT IN WHOLE OR PART IV ALL RIGHTS RESERVED				REVISION		6.0.0	
				BRANCH		pvt	
				PAGE		84 OF 500	
				SHEET		75 OF 98	



Camera Secure Disable

SIGNAL_MODEL=CAM_MUX
Alternate: OnSemi FSA642 (353S01346)

HOST SIDE



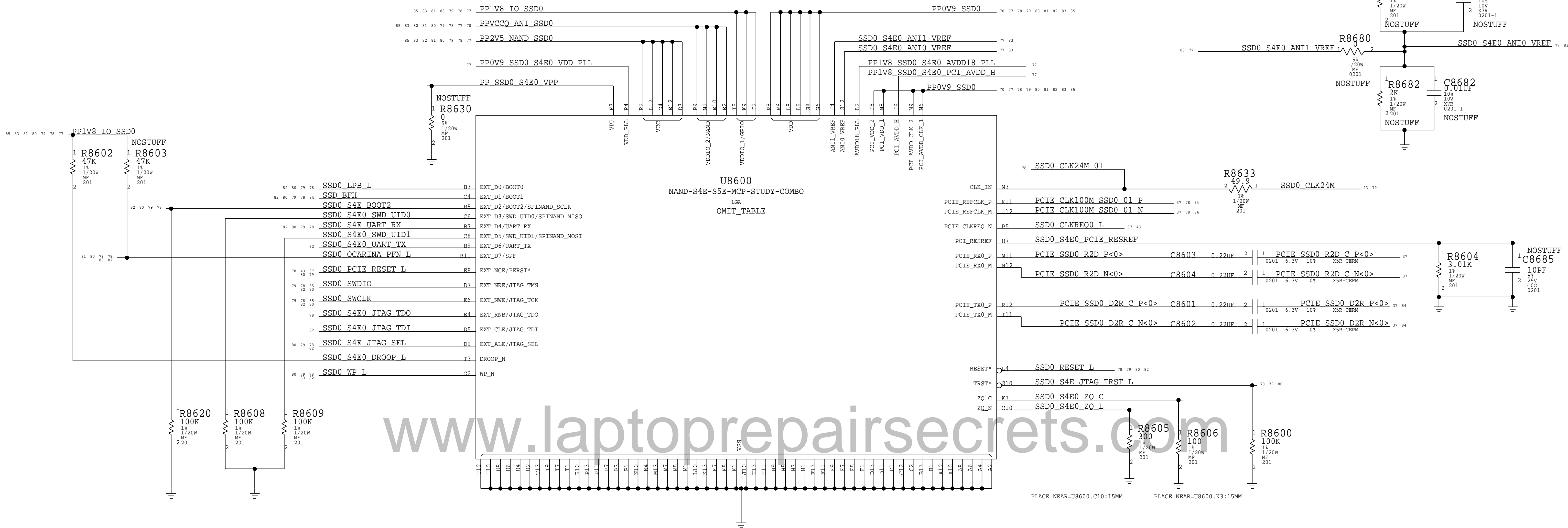
VALUE	STATE
L	Camera Disable
H	Camera Enable

I2C PULL VALUES TO BE DETERMINED FROM CHARACTERIZATION

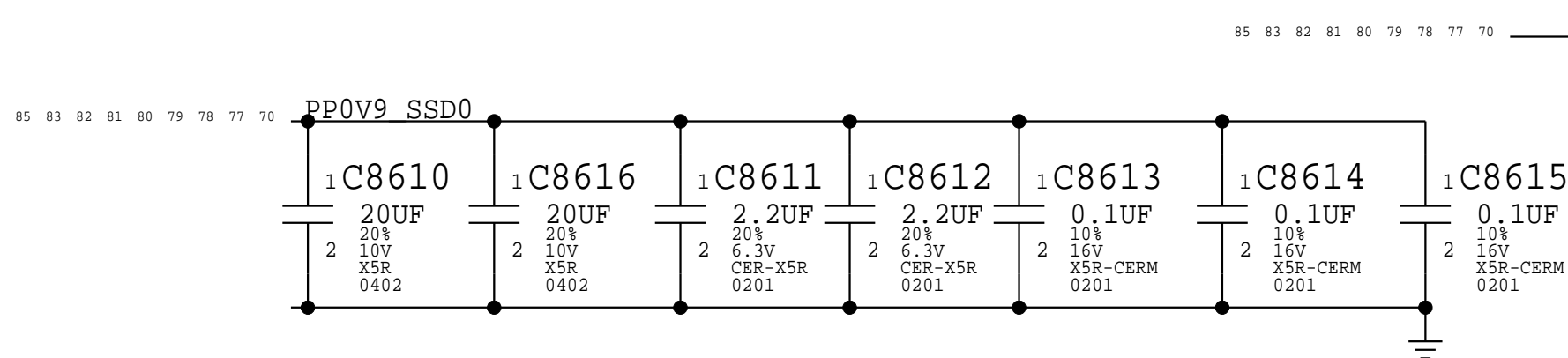
LCM INTERFACE (EDP) + CAMERA (MIPI)

PAGE TITLE		
EDP DISPLAY CONNECTOR		
	DRAWING NUMBER	051-05309
	REVISION	6.0.0
NOTICE OF PROPRIETARY PROPERTY: THE INFORMATION CONTAINED HEREIN IS THE PROPRIETARY PROPERTY OF APPLE INC. THE POSSESSOR AGREES TO THE FOLLOWING: I TO MAINTAIN THIS DOCUMENT IN CONFIDENCE I NOT TO REPRODUCE OR COPY IT I NOT TO REVEAL OR PUBLISH IT IN WHOLE OR PART IV ALL RIGHTS RESERVED	BRANCH	pvt
	PAGE	85 OF 500
	SHEET	76 OF 98

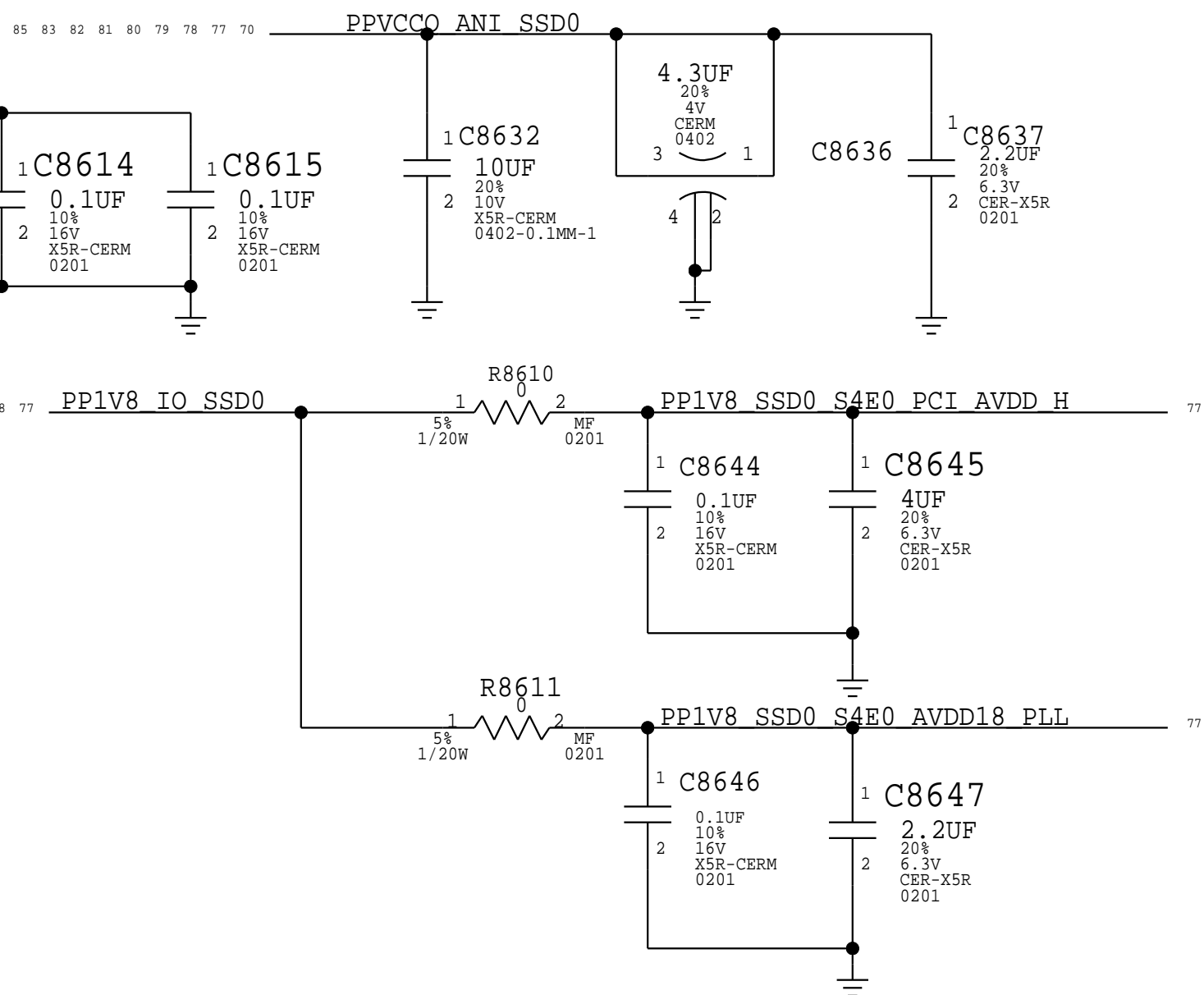
S4E0



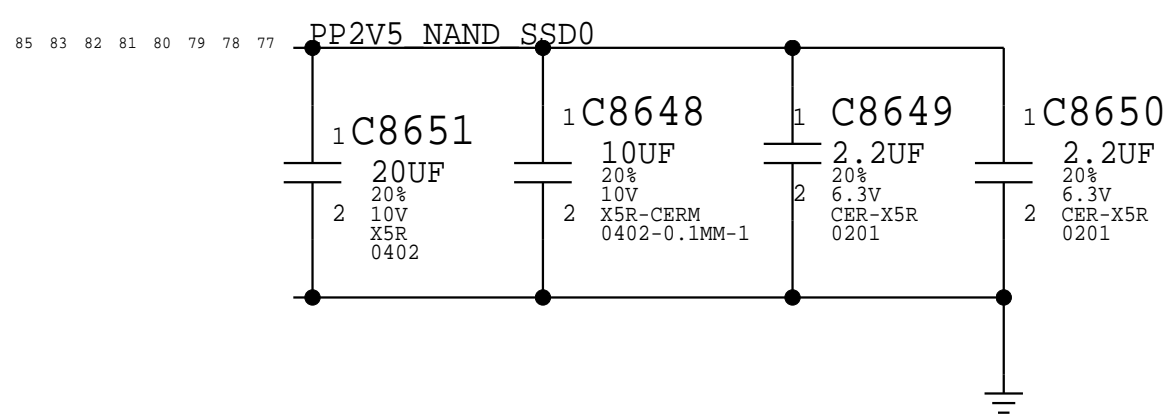
S4E VDD



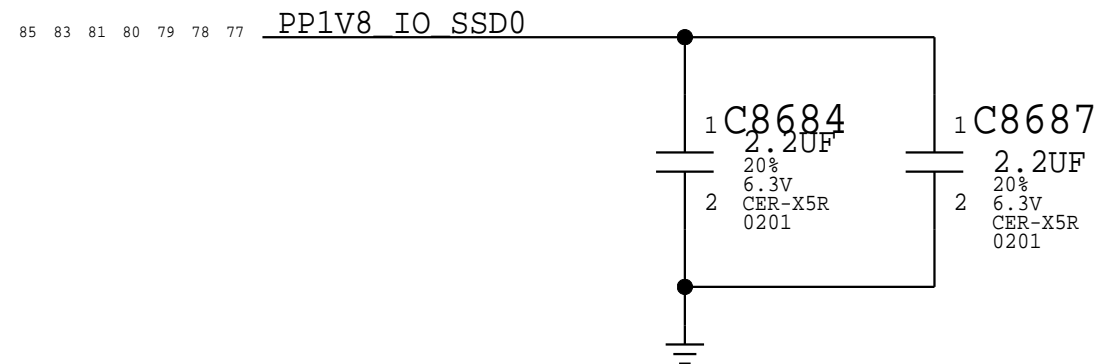
S4E VDDIO_2



VCC CAP



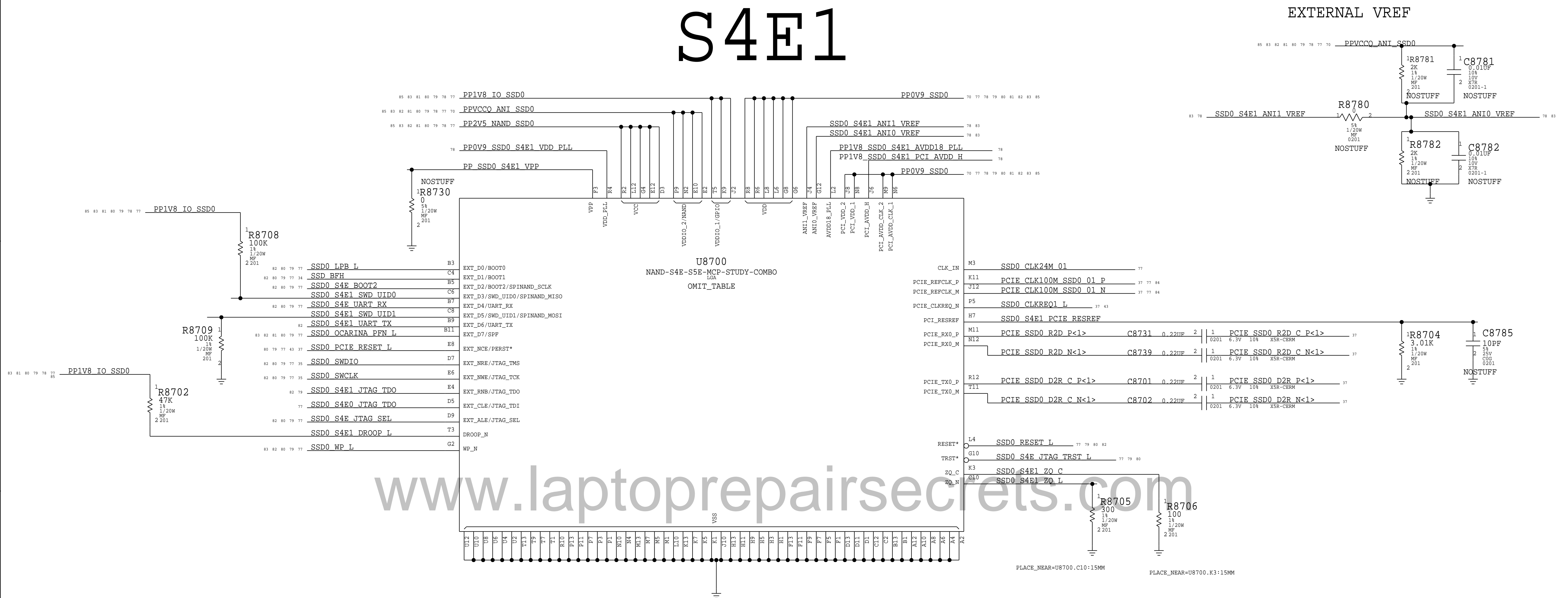
S4E VDDIO_1



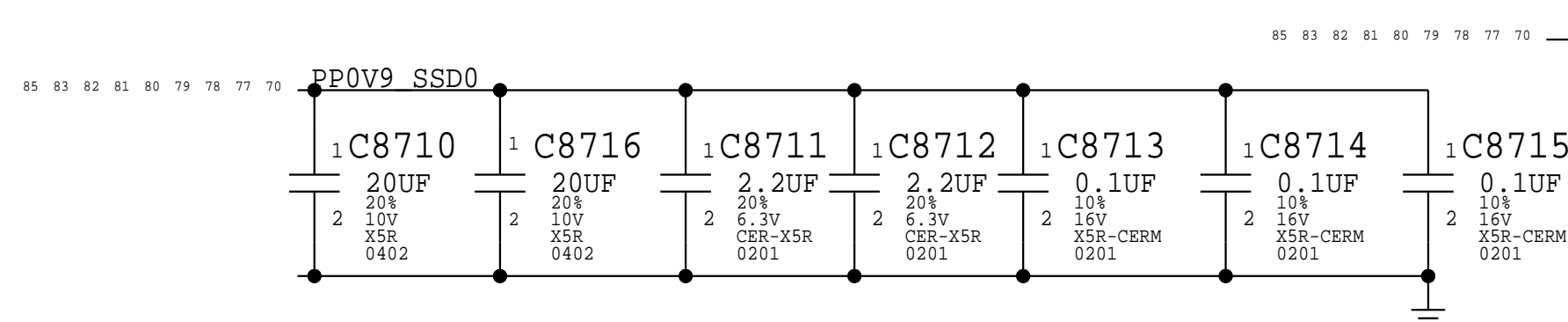
BOM_COST_GROUP=SSD

PAGE TITLE		
S4E<0>		
	DRAWING NUMBER	051-05309
	REVISION	6.0.0
NOTICE OF PROPRIETARY PROPERTY: THE INFORMATION CONTAINED HEREIN IS THE PROPRIETARY PROPERTY OF APPLE INC. THE POSSESSOR AGREES TO THE FOLLOWING: I TO MAINTAIN THIS DOCUMENT IN CONFIDENCE I NOT TO REPRODUCE OR COPY IT I NOT TO REVEAL OR PUBLISH IT IN WHOLE OR PART I ALL RIGHTS RESERVED	BRANCH	pvt
	PAGE	86 OF 500
	SHEET	77 OF 98

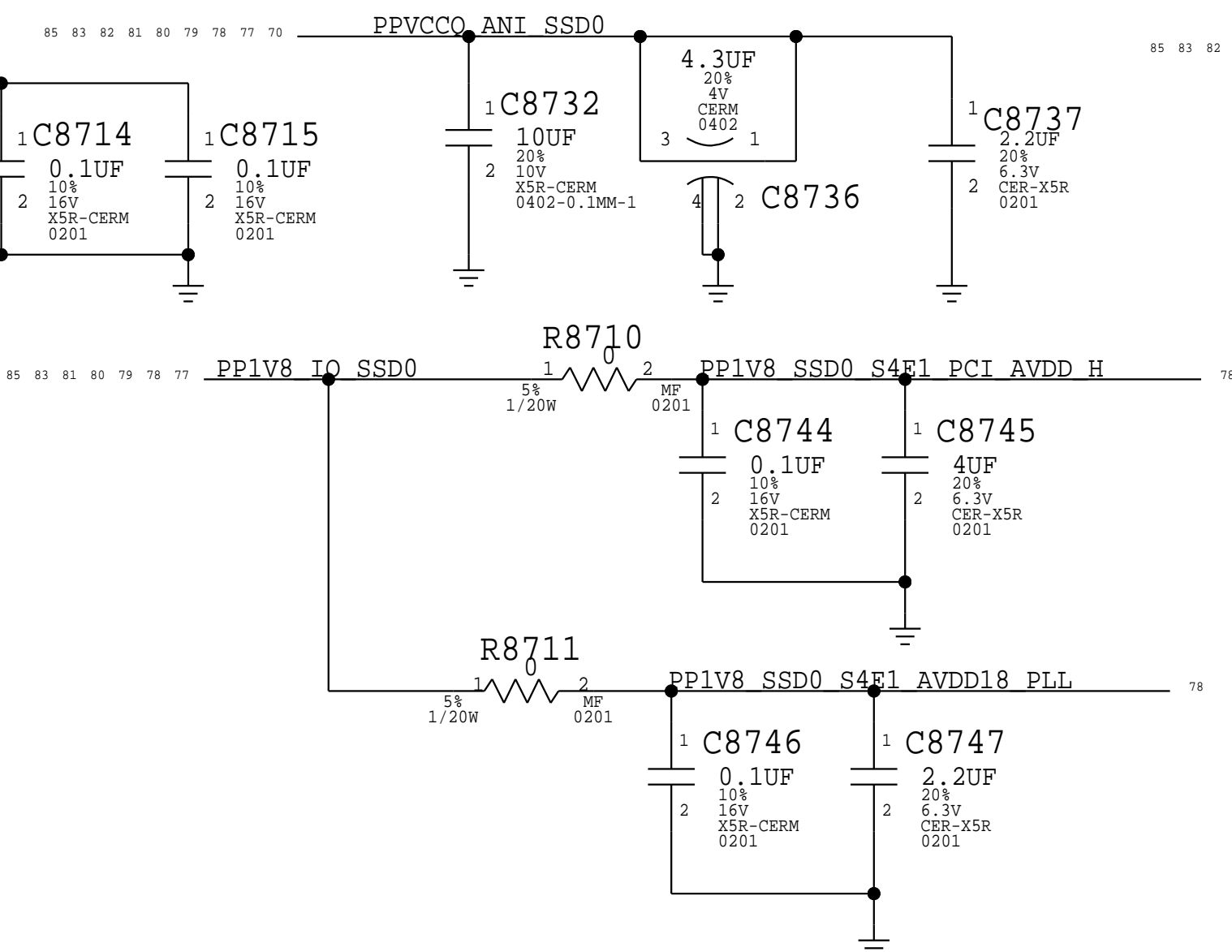
S4E1



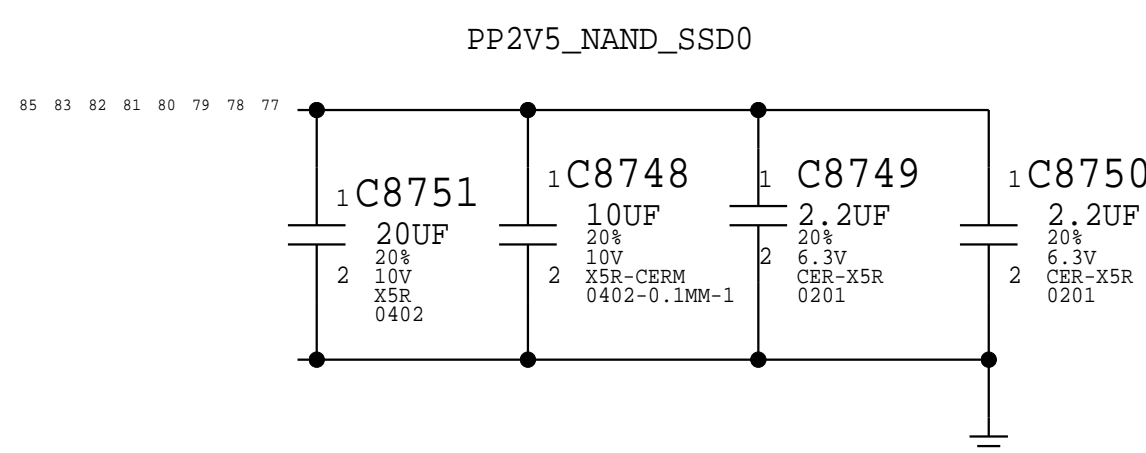
S4E VDD



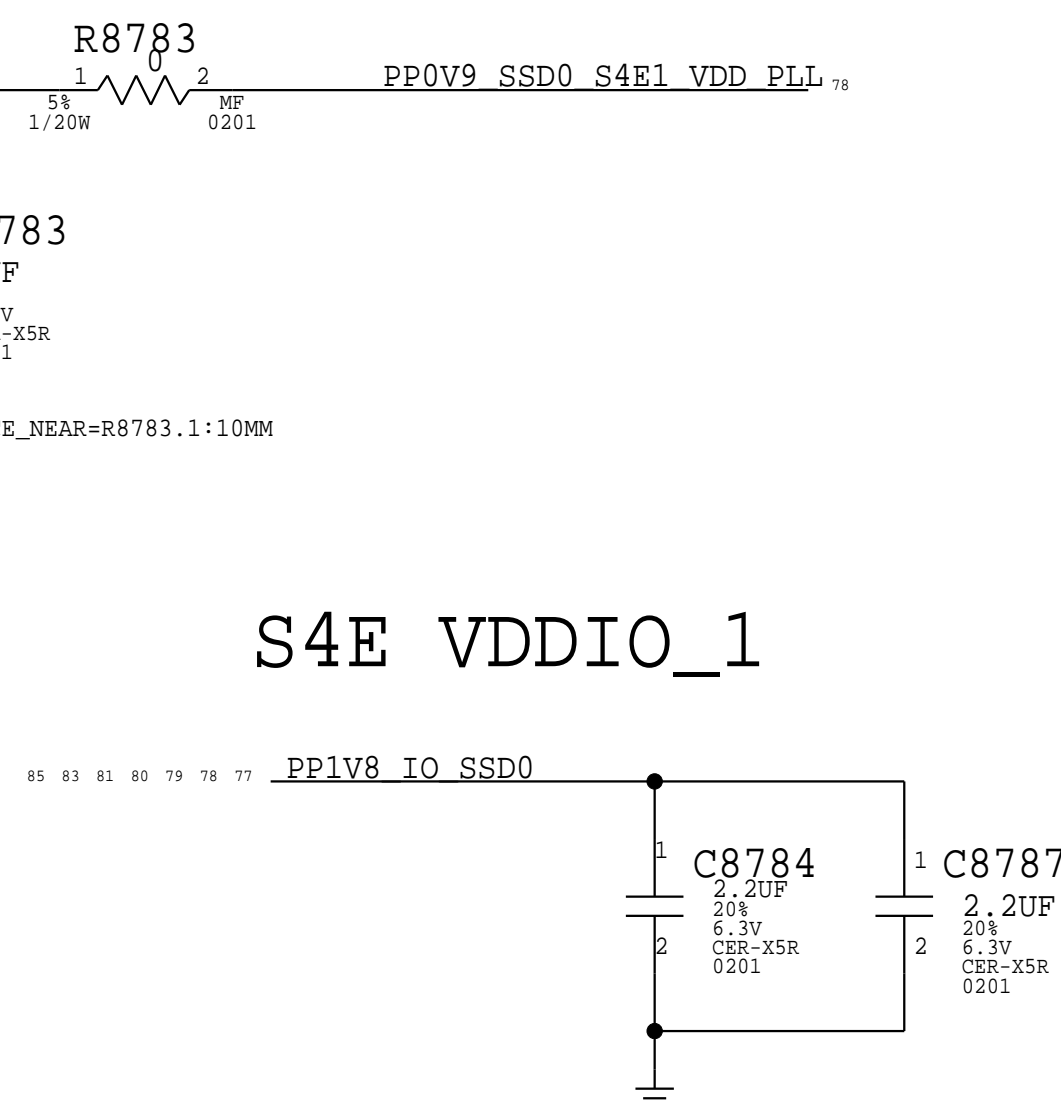
S4E VDDIO_2




VCC CAP

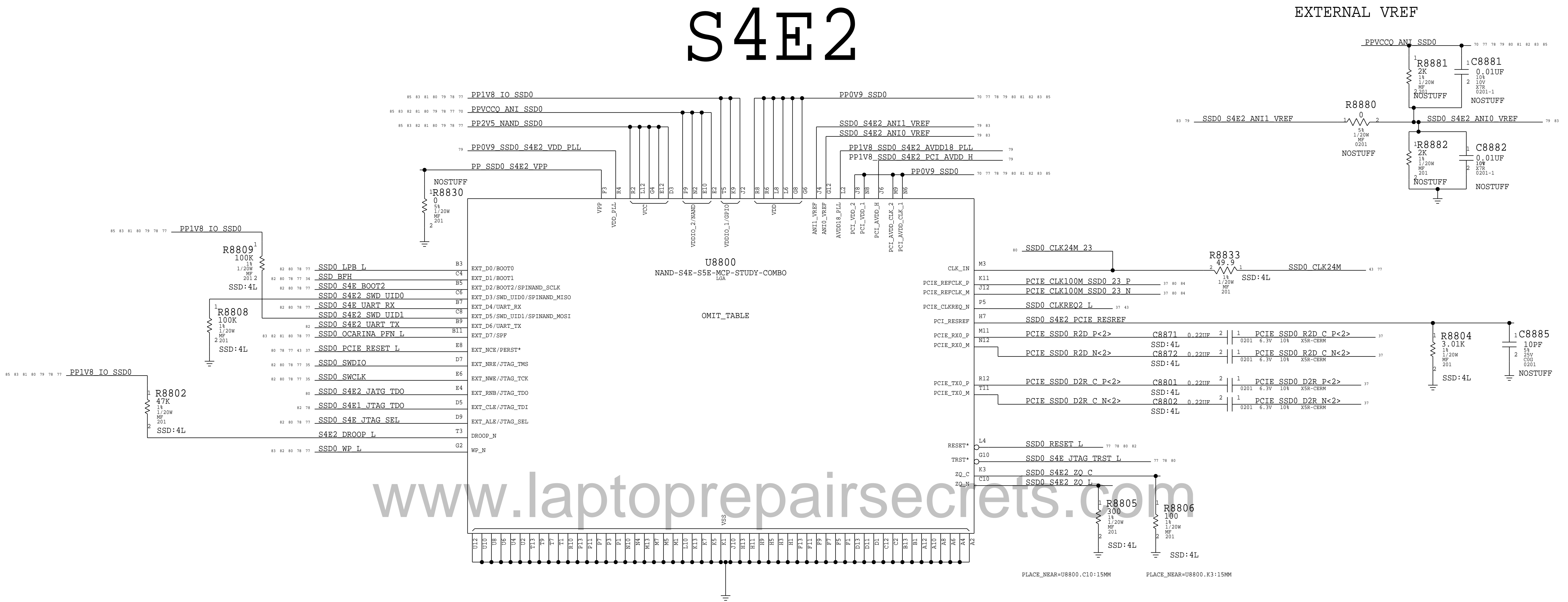


S4E VDDIO_1

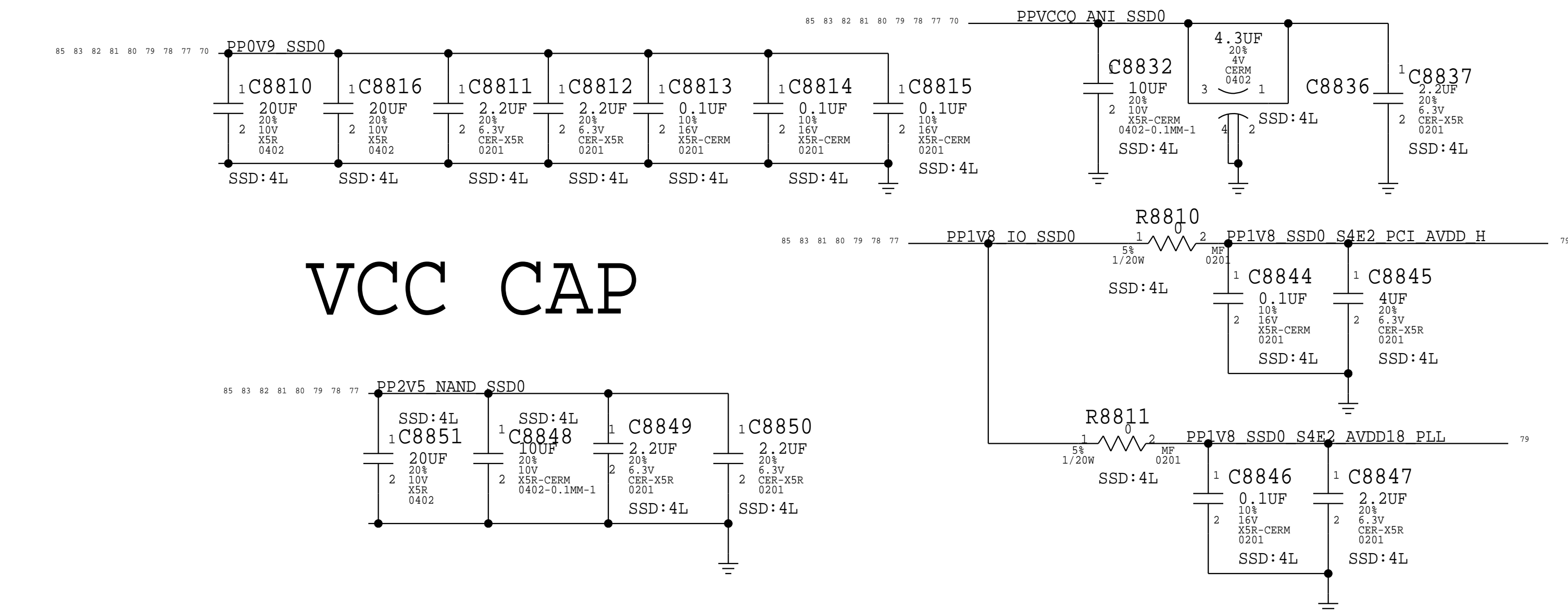


PAGE TITLE		S4E<1>	
 Apple Inc.	DRAWING NUMBER	SIZE	
	051-05309	D	
	REVISION	6.0.0	
NOTICE OF PROPRIETARY PROPERTY:	BRANCH		
THE INFORMATION CONTAINED HEREIN IS THE PROPRIETARY PROPERTY OF APPLE INC. THE POSSESSOR AGREES TO THE FOLLOWING: I TO MAINTAIN THIS DOCUMENT IN CONFIDENCE II NOT TO REPRODUCE OR COPY IT III NOT TO REVEAL OR PUBLISH IT IN WHOLE OR PART IV ALL RIGHTS RESERVED	pvt		
	PAGE		
	87 OF 500		
	SHEET		
	78 OF 98		

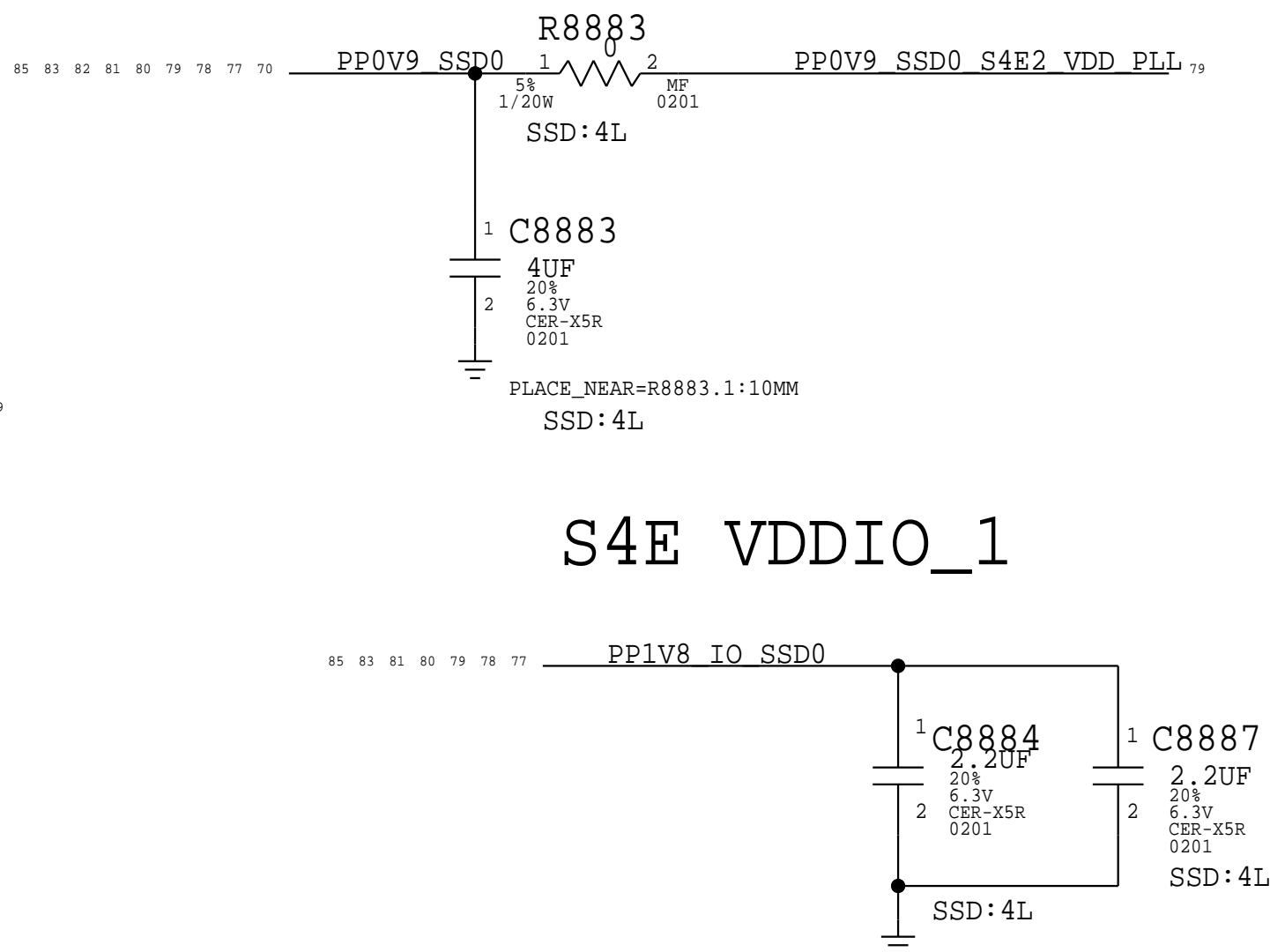
S4E2




S4E VDDIO_2



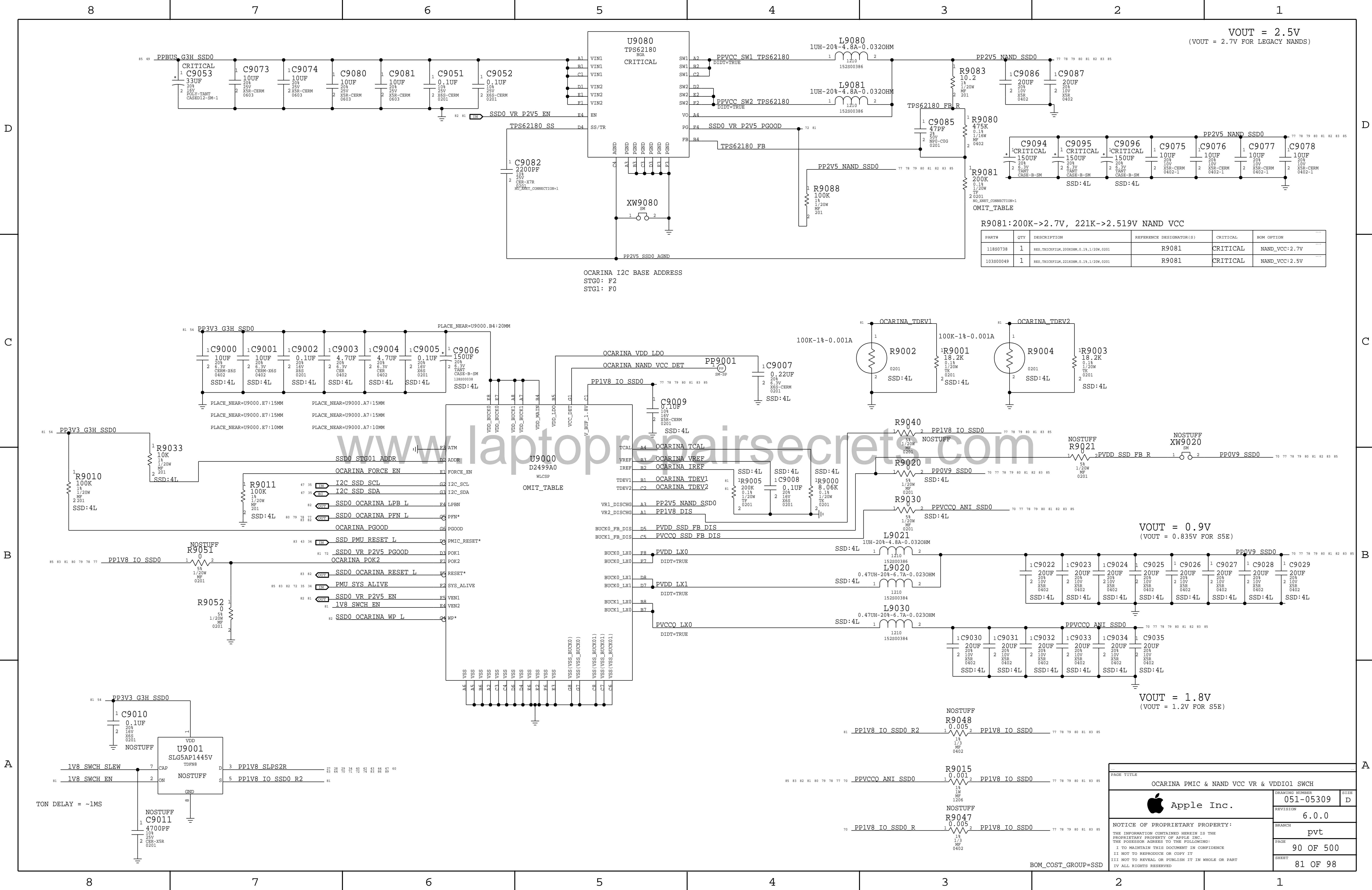
VCC CAP



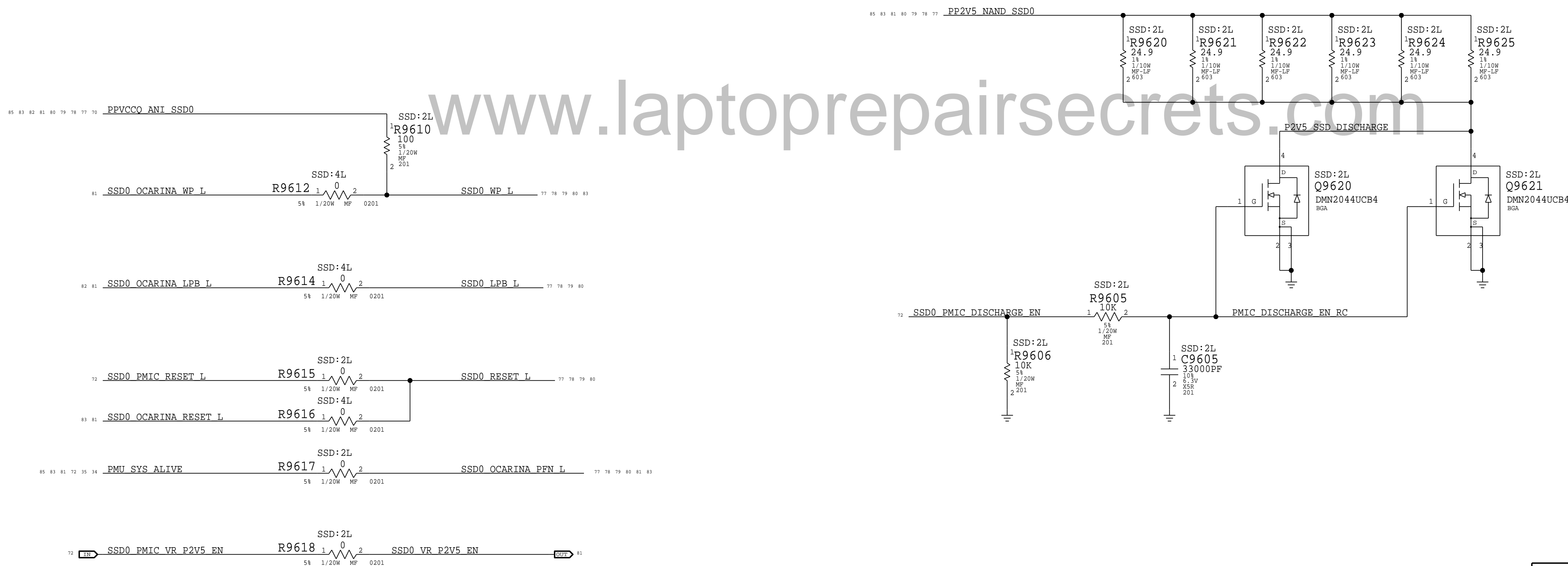
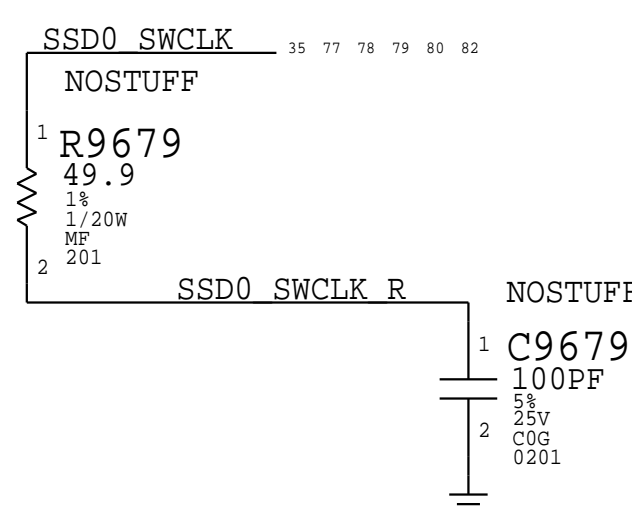
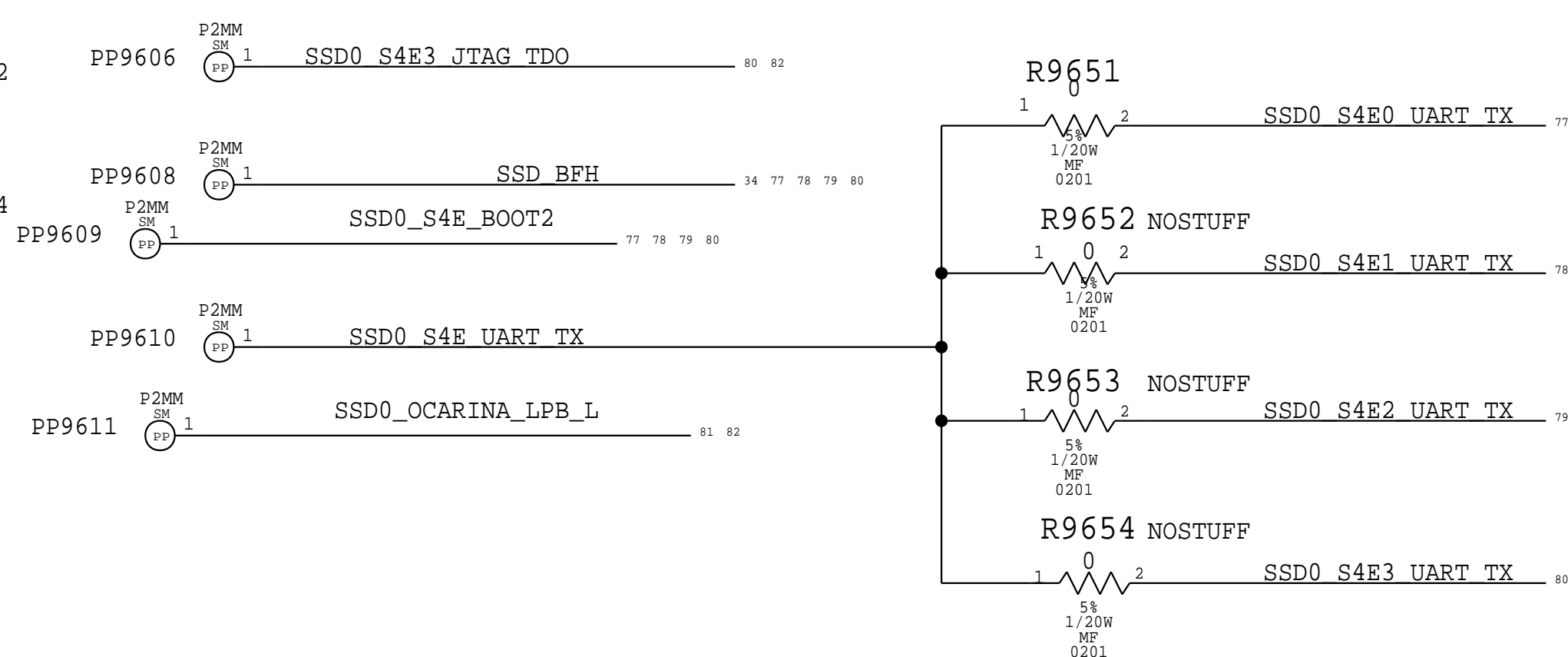
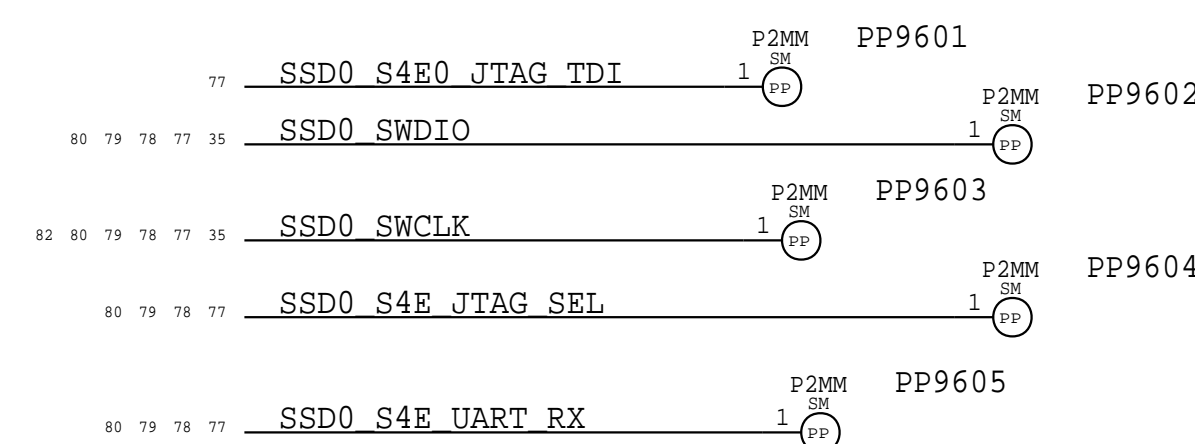
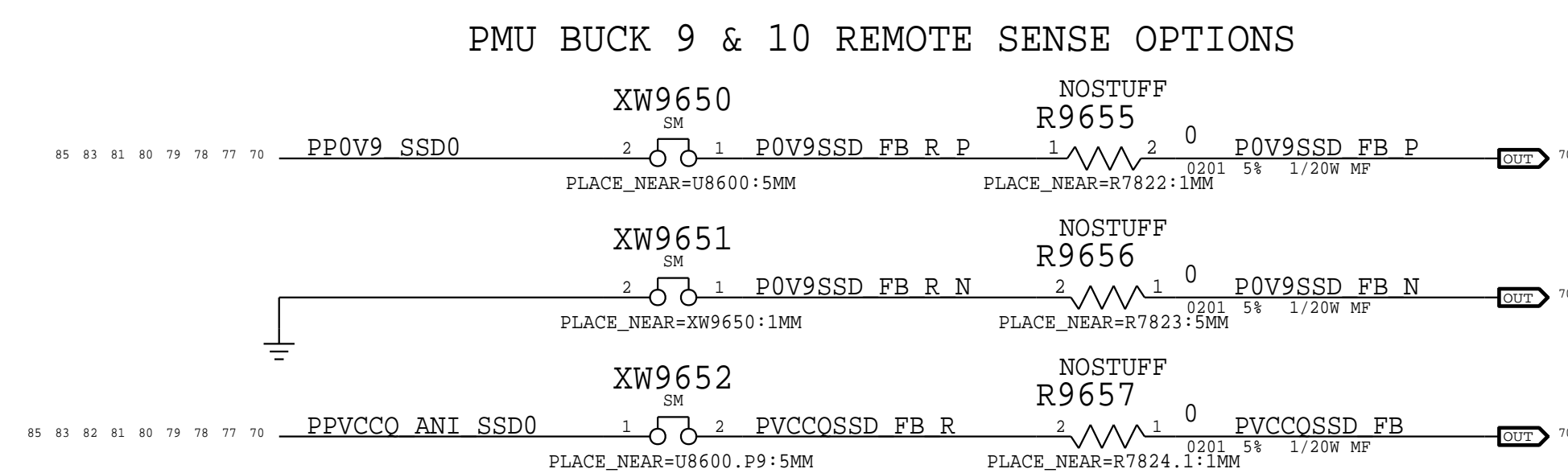
S4E VDDIO_1


PAGE TITLE			
S4E<2>			
 Apple Inc.	DRAWING NUMBER		SIZE
	051-05309		D
	REVISION		
NOTICE OF PROPRIETARY PROPERTY: THE INFORMATION CONTAINED HEREIN IS THE PROPRIETARY PROPERTY OF APPLE INC. THE POSSESSOR AGREES TO THE FOLLOWING: I TO MAINTAIN THIS DOCUMENT IN CONFIDENCE II NOT TO REPRODUCE OR COPY IT III NOT TO REVEAL OR PUBLISH IT IN WHOLE OR PART IV ALL RIGHTS RESERVED		6.0.0	
		BRANCH	
		pvt	
		PAGE	88 OF 500
		SHEET	79 OF 98

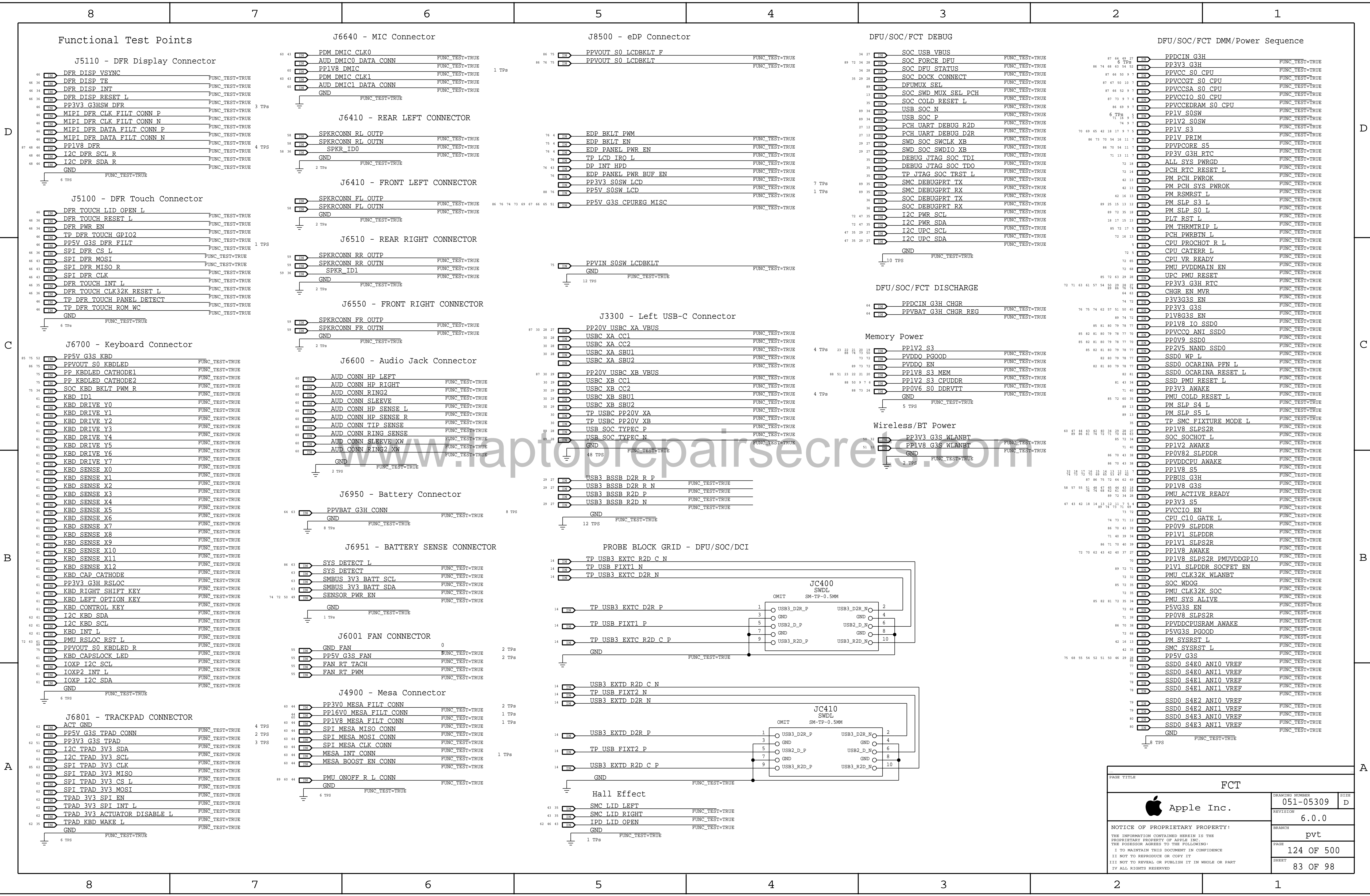
BOM_COST_GROUP=SSD

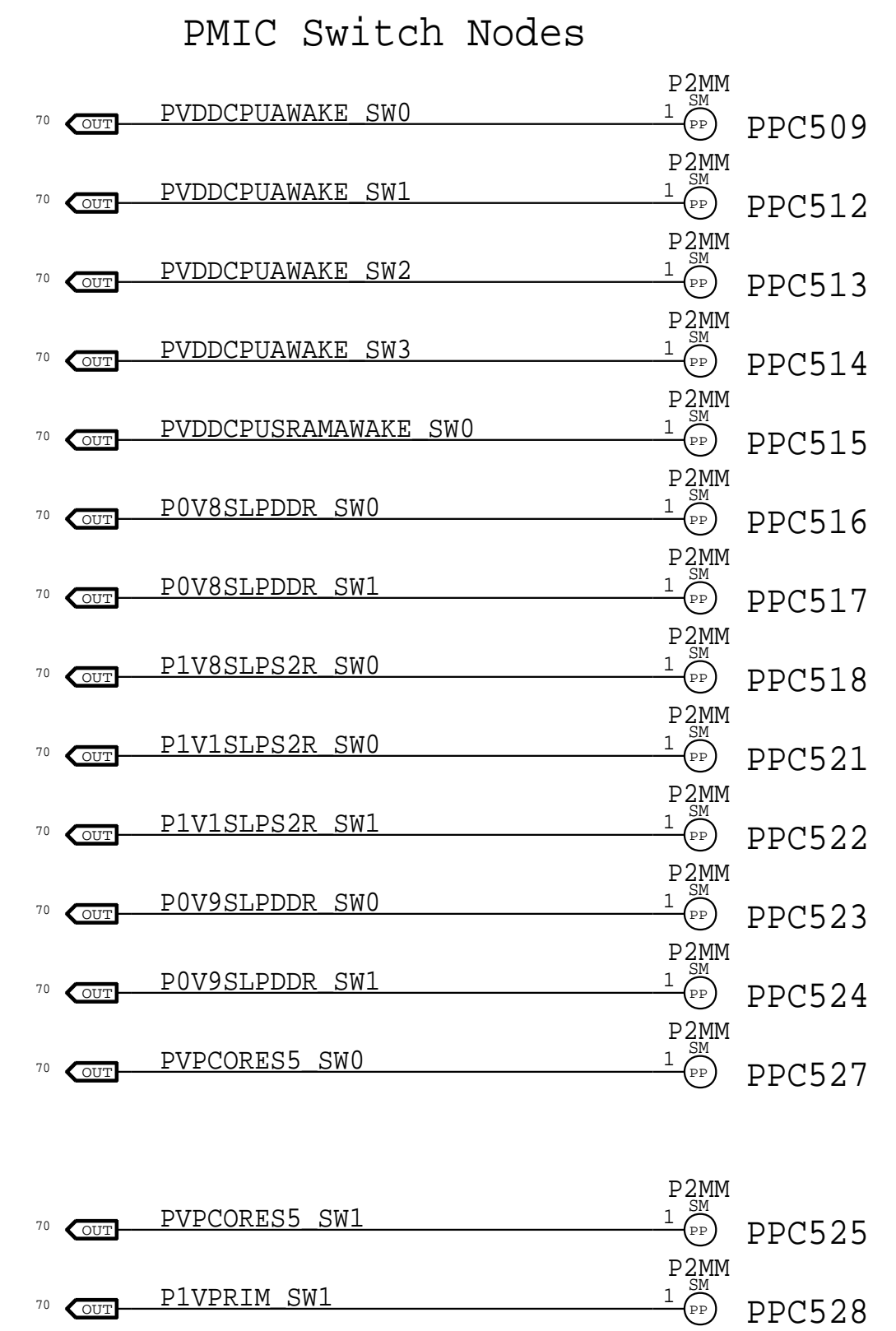
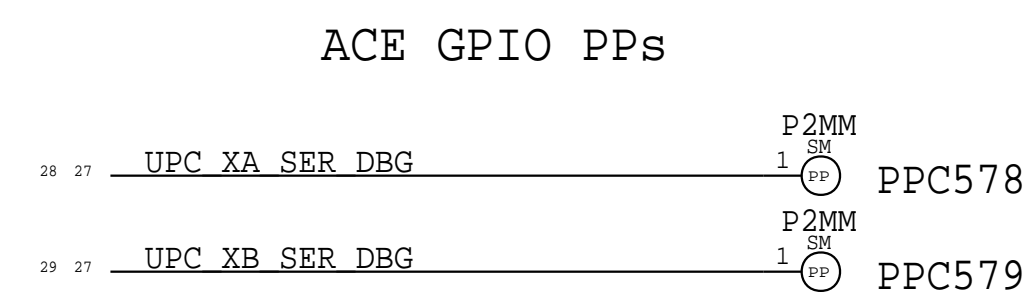
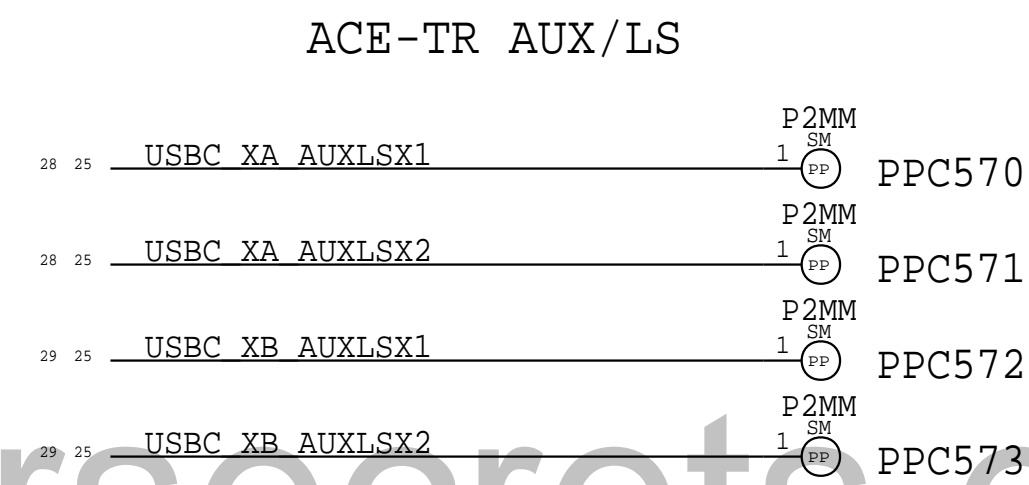
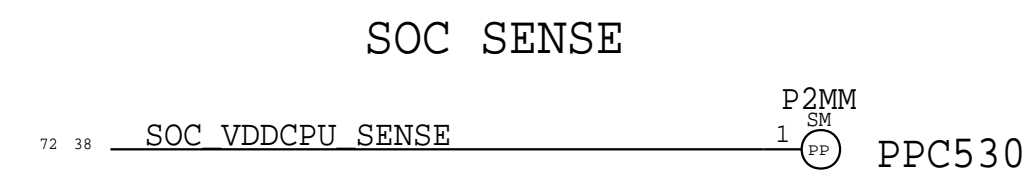
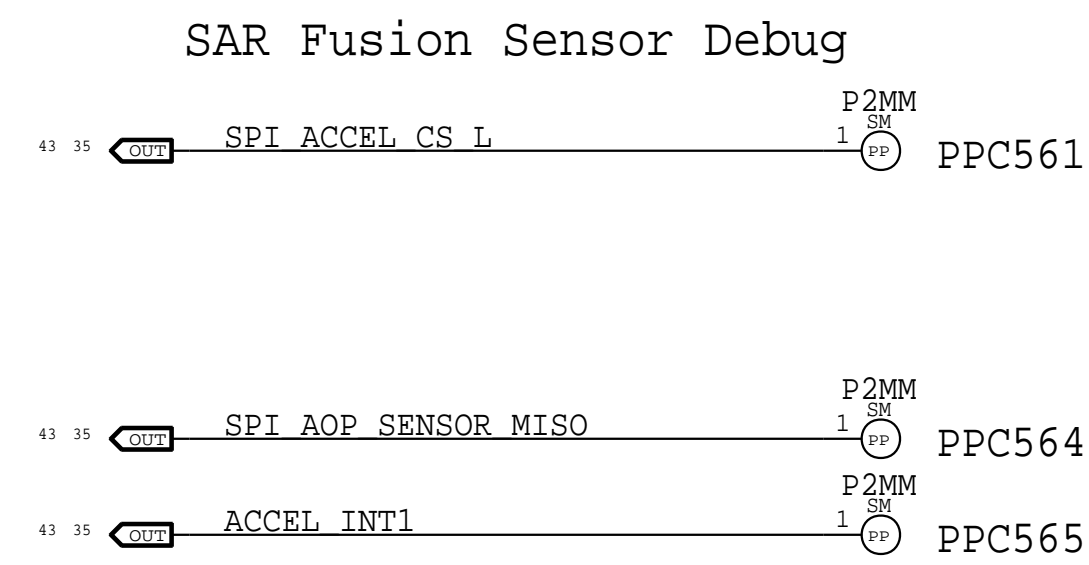
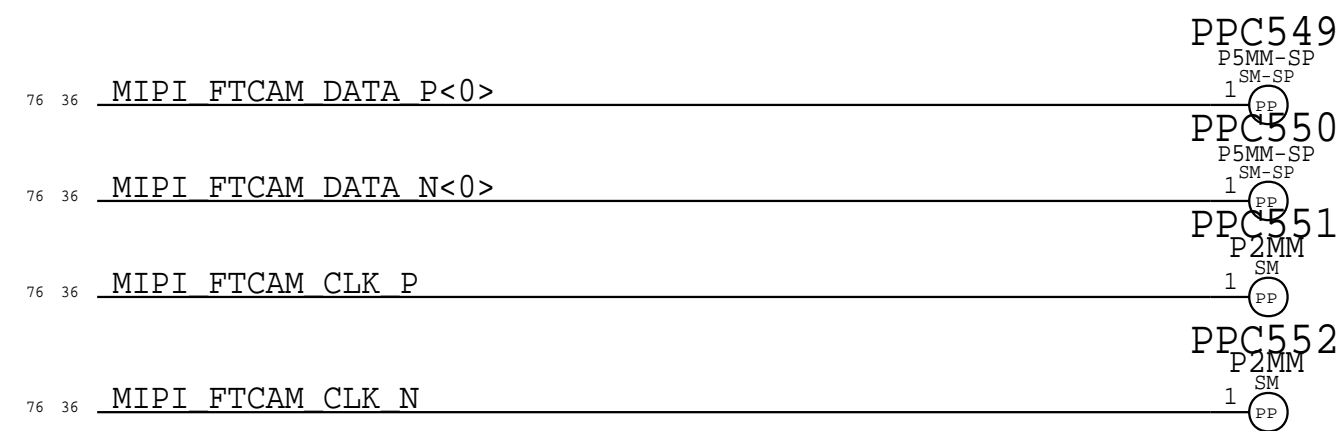
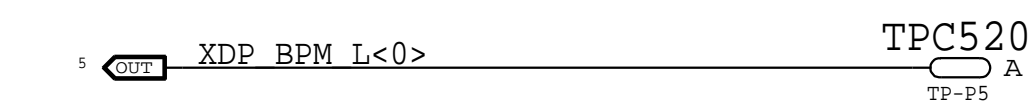
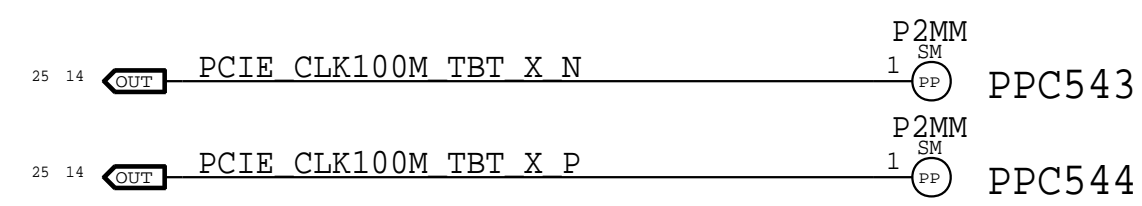
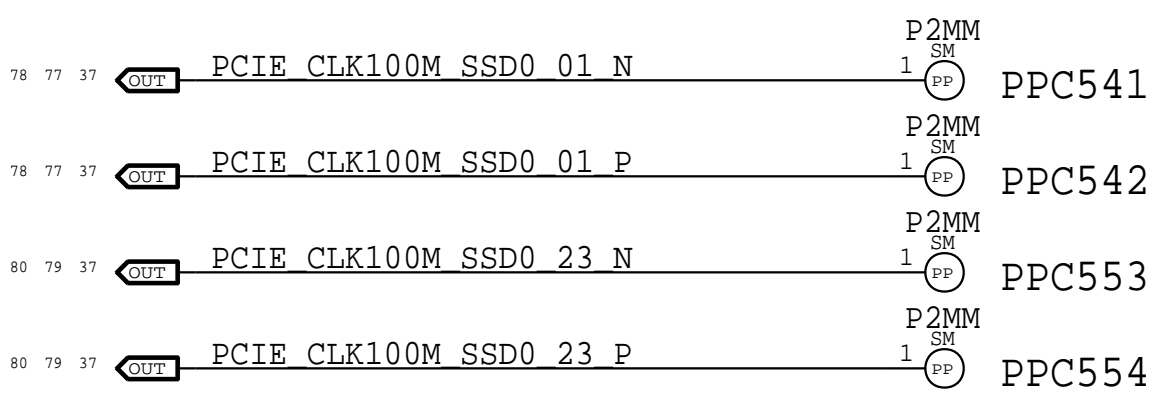
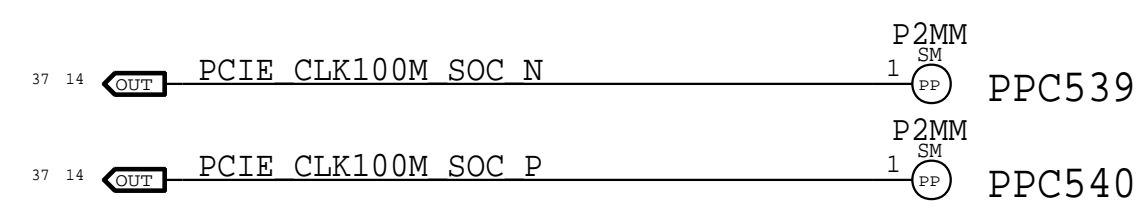
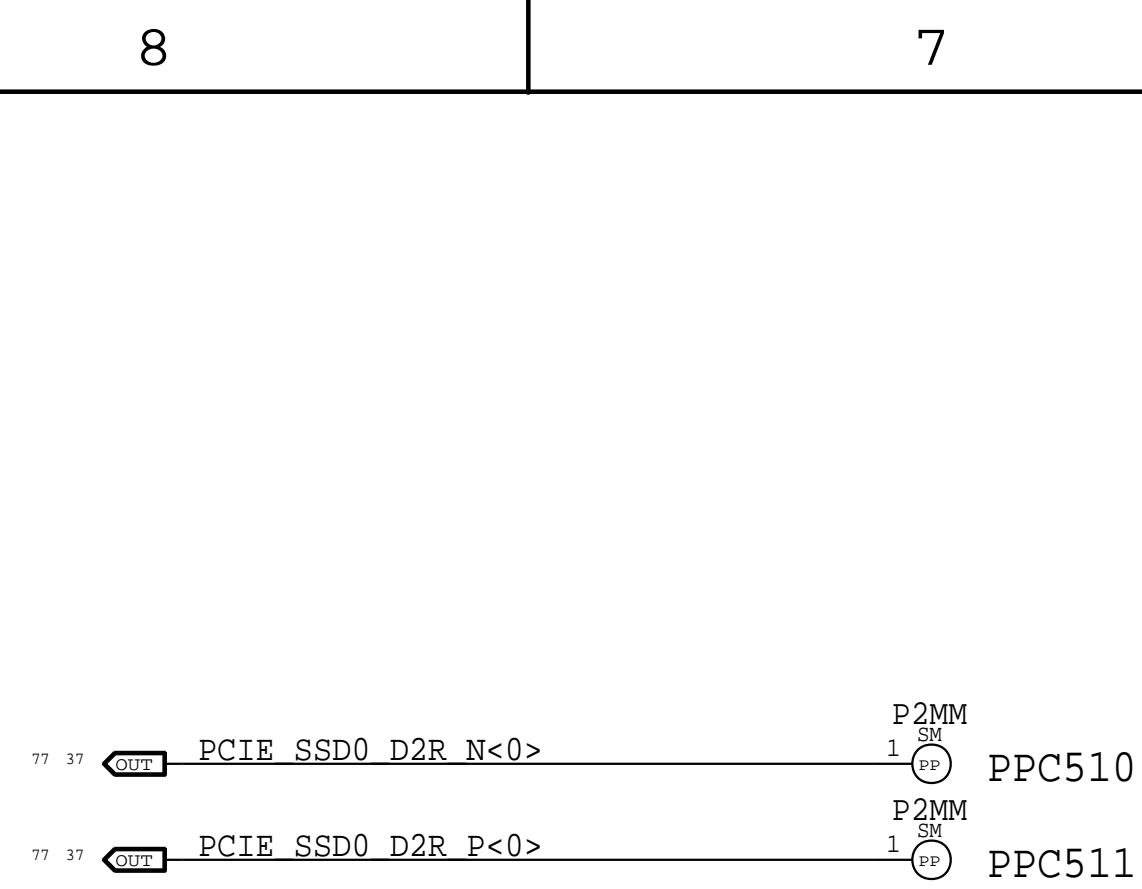



PAGE TITLE		
OCARINA PMIC & NAND VCC VR & VDDIO1 SWCH		
	DRAWING NUMBER	051-05309
	REVISION	6.0.0
NOTICE OF PROPRIETARY PROPERTY: THE INFORMATION CONTAINED HEREIN IS THE PROPRIETARY PROPERTY OF APPLE INC. THE POSSESSOR AGREES TO THE FOLLOWING: I TO MAINTAIN THIS DOCUMENT IN CONFIDENCE I NOT TO REPRODUCE OR COPY IT I NOT TO REVEAL OR PUBLISH IT IN WHOLE OR PART I ALL RIGHTS RESERVED	BRANCH	pvt
	PAGE	90 OF 500
	SHEET	81 OF 98

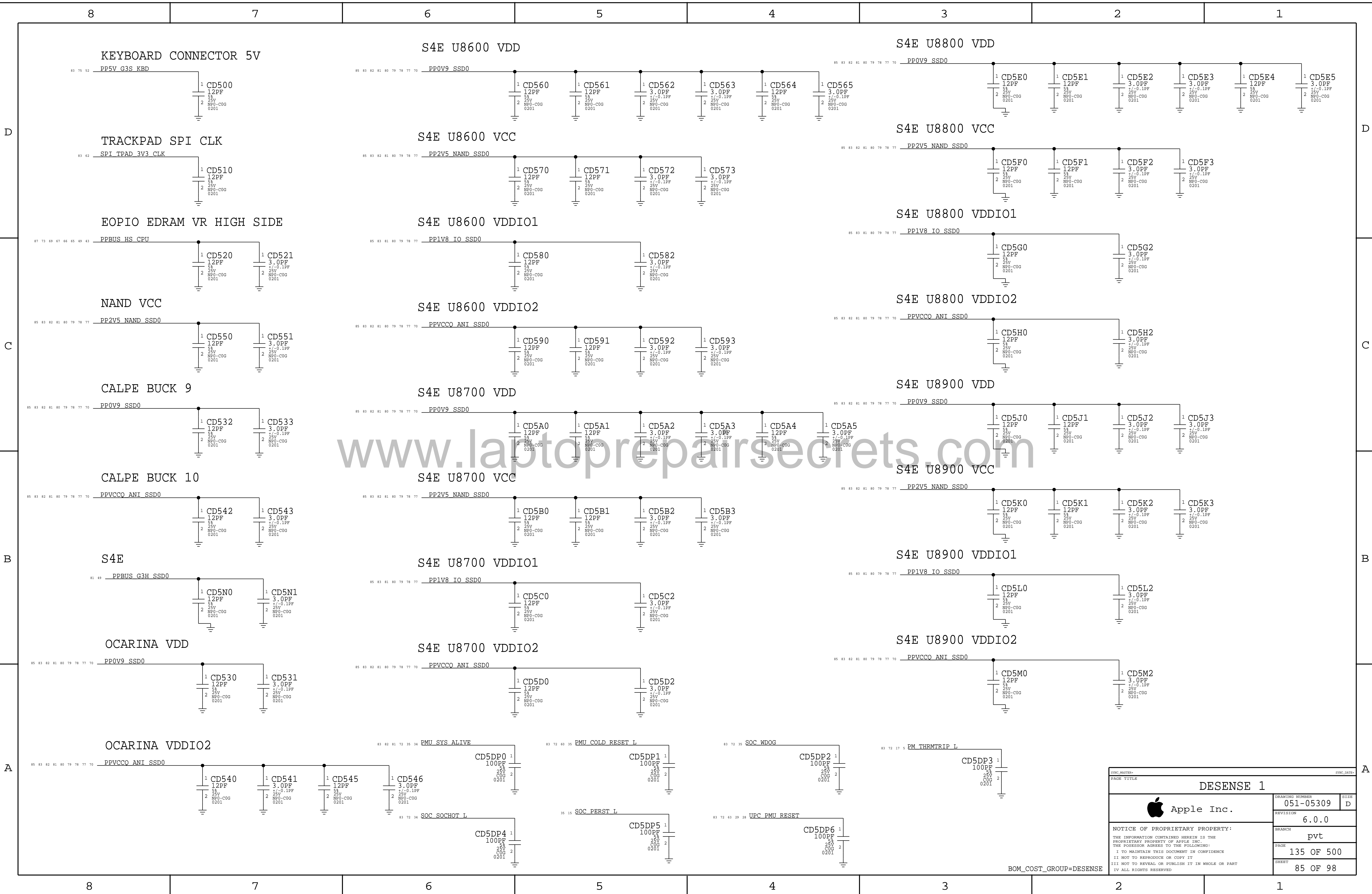


PAGE TITLE				
SSD SUPPORT				
 Apple Inc.	DRAWING NUMBER		051-05309	SIZE
	REVISION		6.0.0	
	BRANCH		pvt	
	PAGE		96 OF 500	
NOTICE OF PROPRIETARY PROPERTY:		SHEET		82 OF 98
THE INFORMATION CONTAINED HEREIN IS THE PROPRIETARY PROPERTY OF APPLE INC.				
THE POSSESSOR AGREES TO THE FOLLOWING:				
I TO MAINTAIN THIS DOCUMENT IN CONFIDENCE				
I I NOT TO REPRODUCE OR COPY IT				
I I I NOT TO REVEAL OR PUBLISH IT IN WHOLE OR PART				
I V ALL RIGHTS RESERVED				





PAGE TITLE		PROBE POINTS	
 Apple Inc.	DRAWING NUMBER 051-05309	SIZE D	
	REVISION 6.0.0		
	BRANCH pvt		
NOTICE OF PROPRIETARY PROPERTY:			
THE INFORMATION CONTAINED HEREIN IS THE PROPRIETARY PROPERTY OF APPLE INC. THE POSSESSOR AGREES TO THE FOLLOWING: I TO MAINTAIN THIS DOCUMENT IN CONFIDENCE I I NOT TO REPRODUCE OR COPY IT I I I NOT TO REVEAL OR PUBLISH IT IN WHOLE OR PART I V ALL RIGHTS RESERVED			
PAGE 125 OF 500		SHEET 84 OF 98	



D

D

C

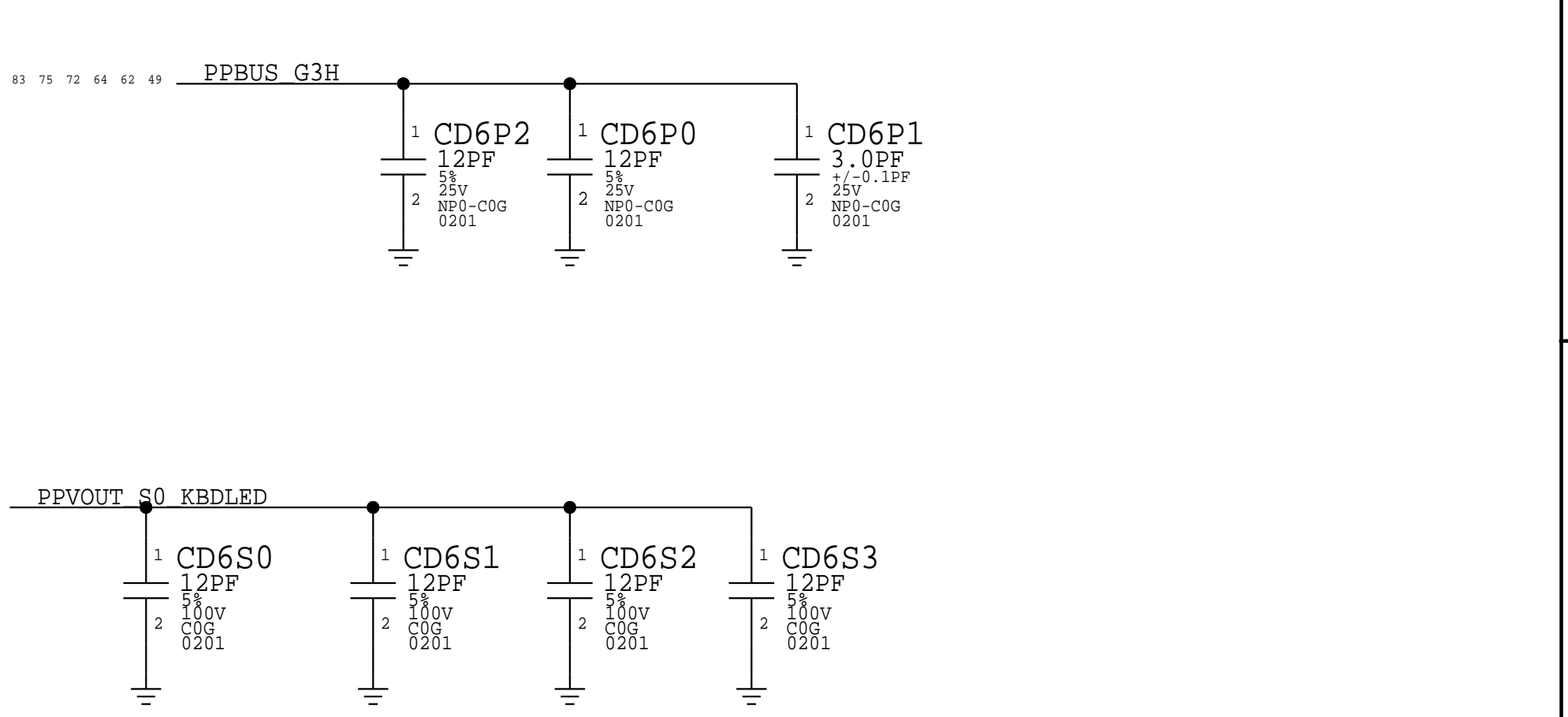
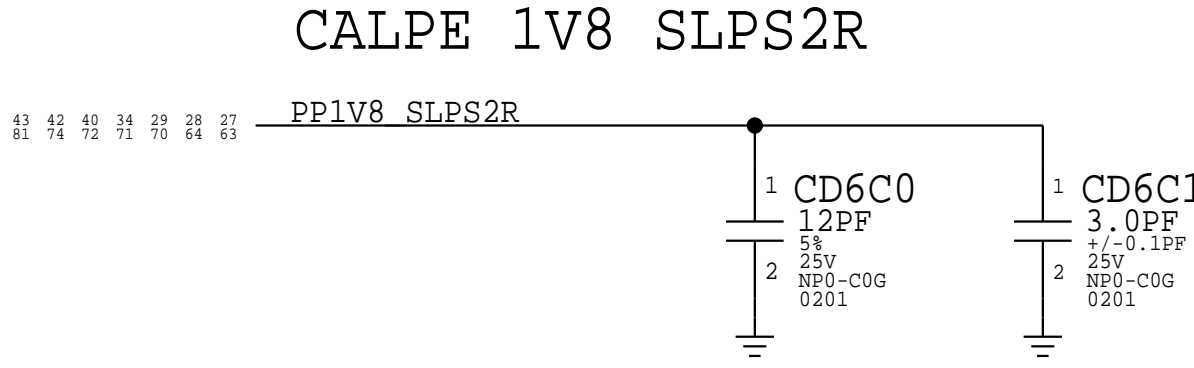
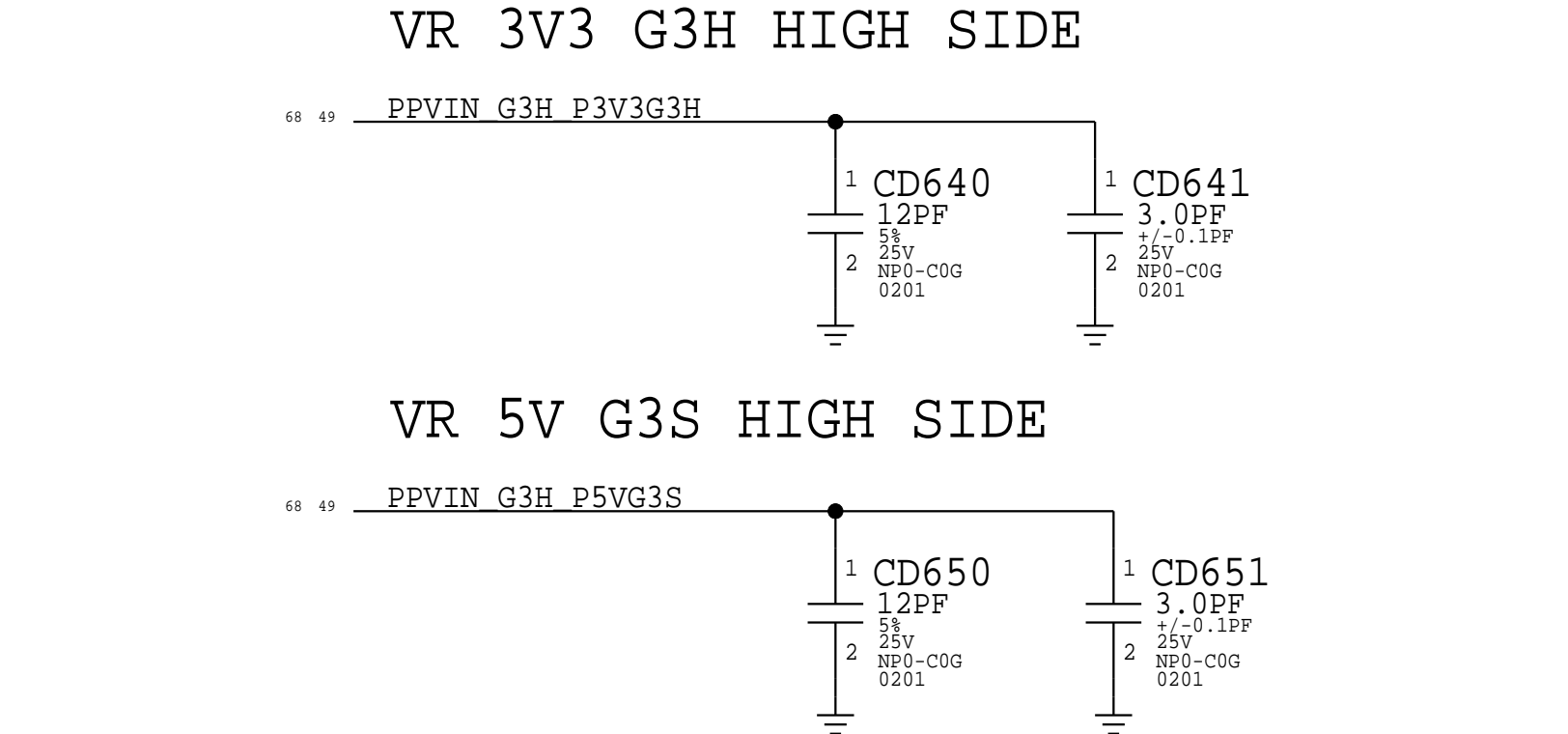
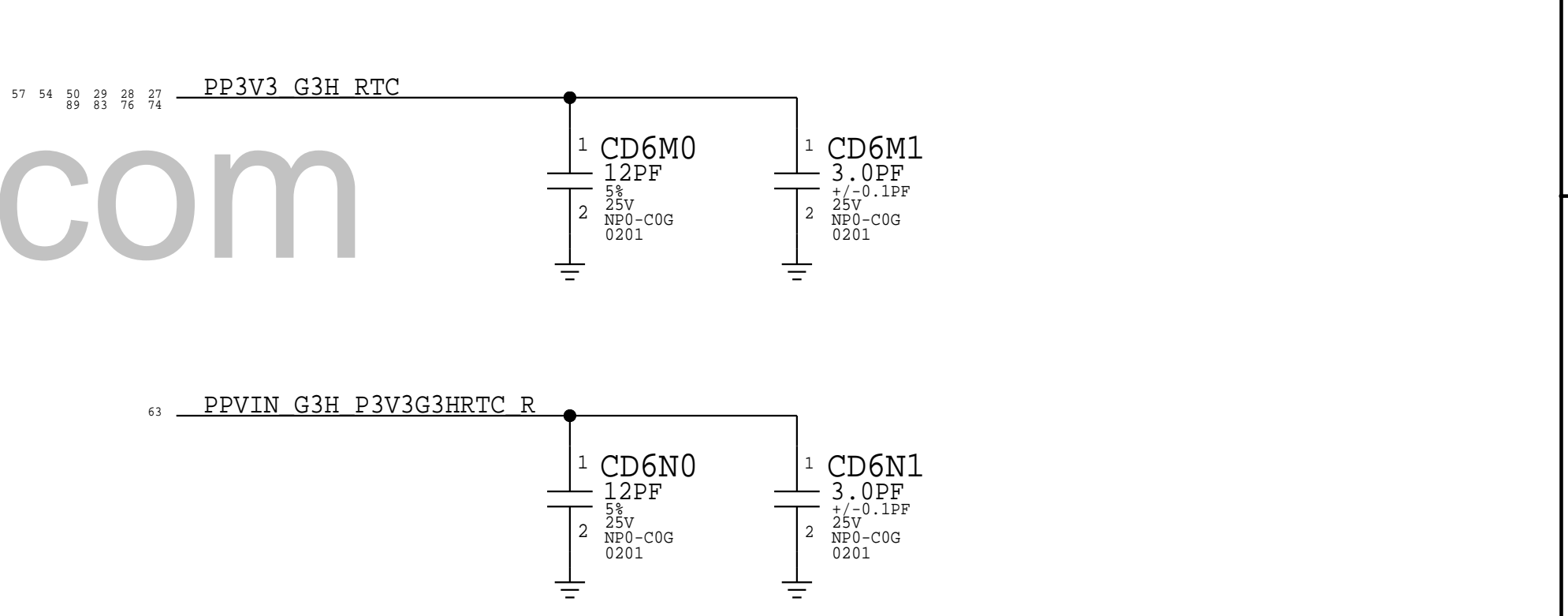
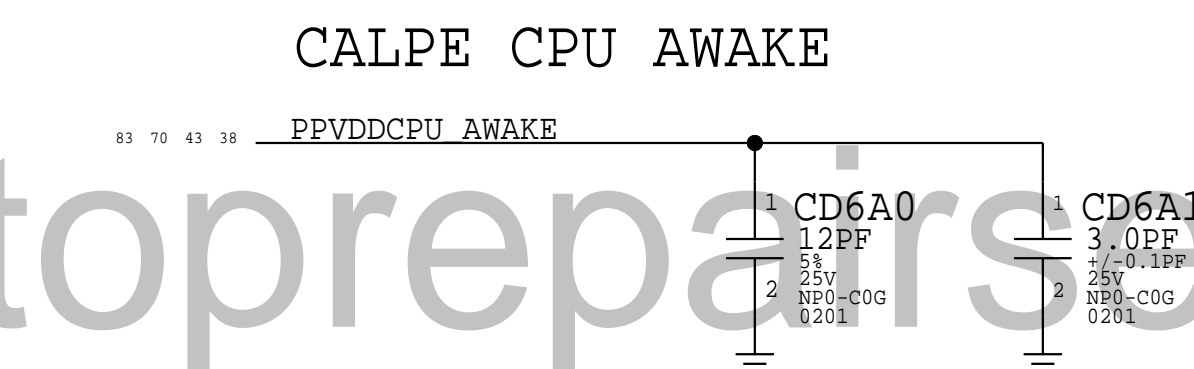
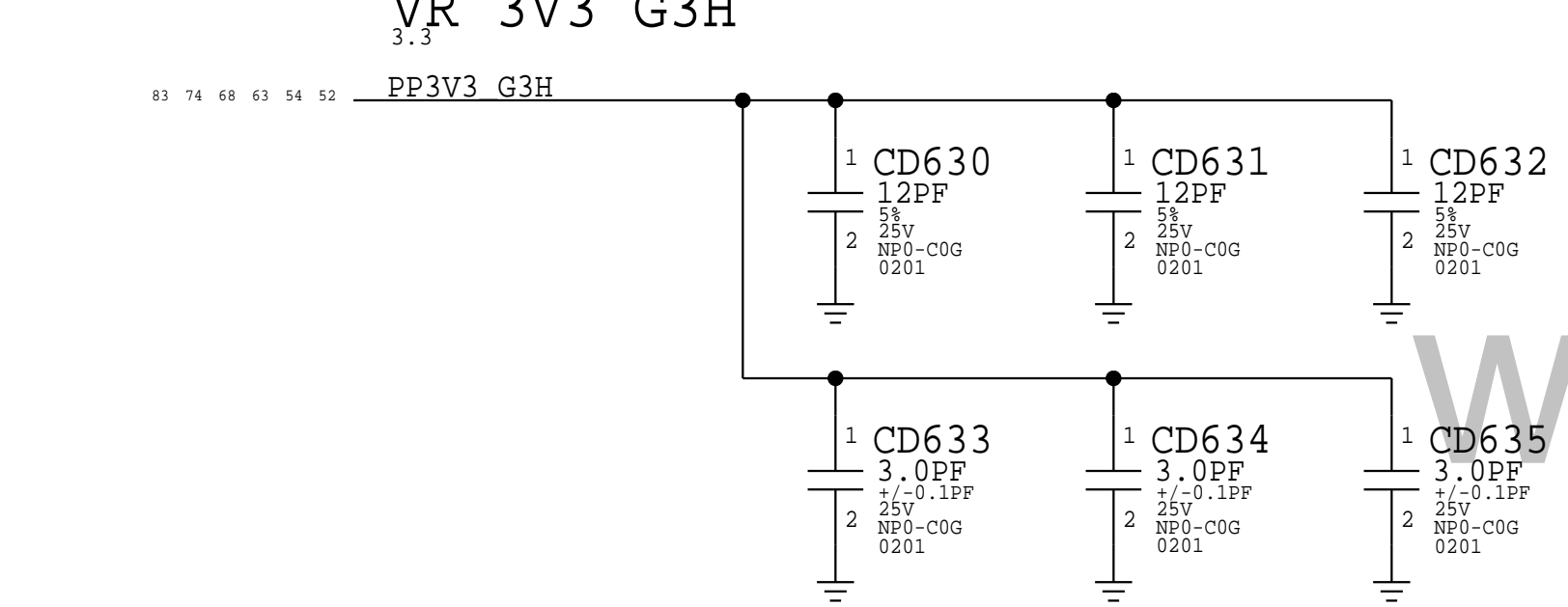
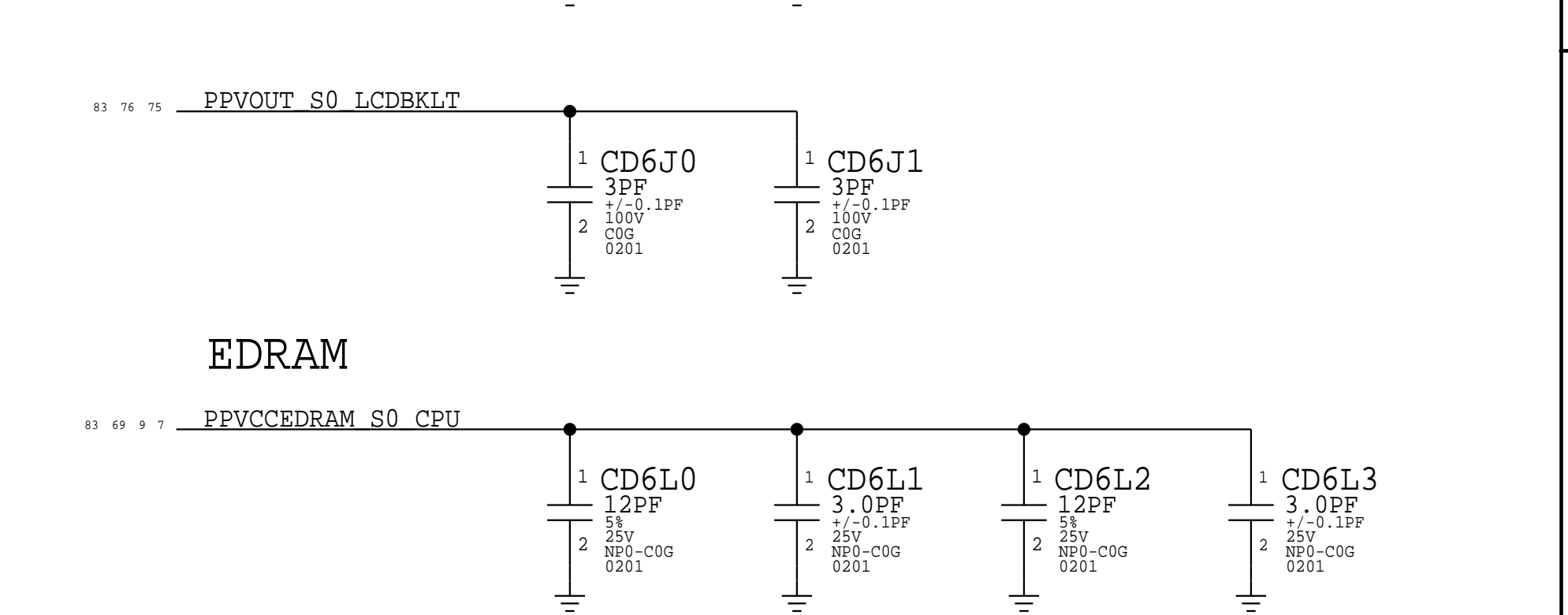
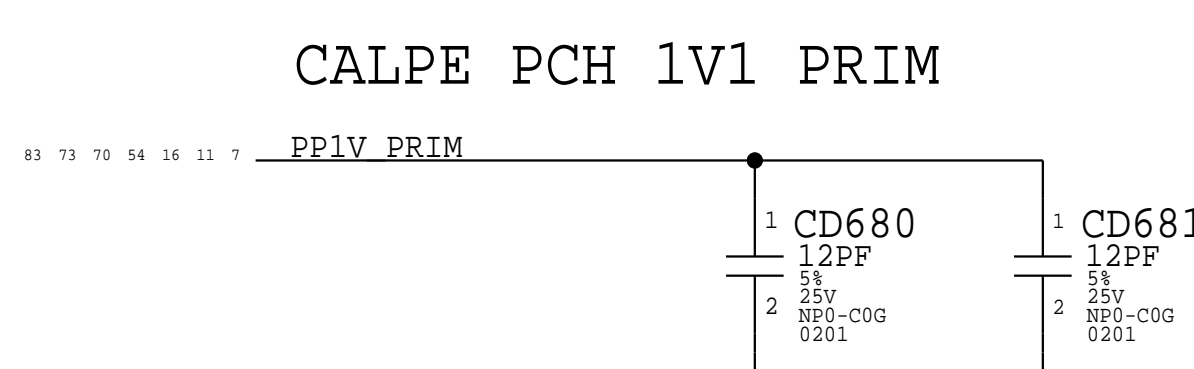
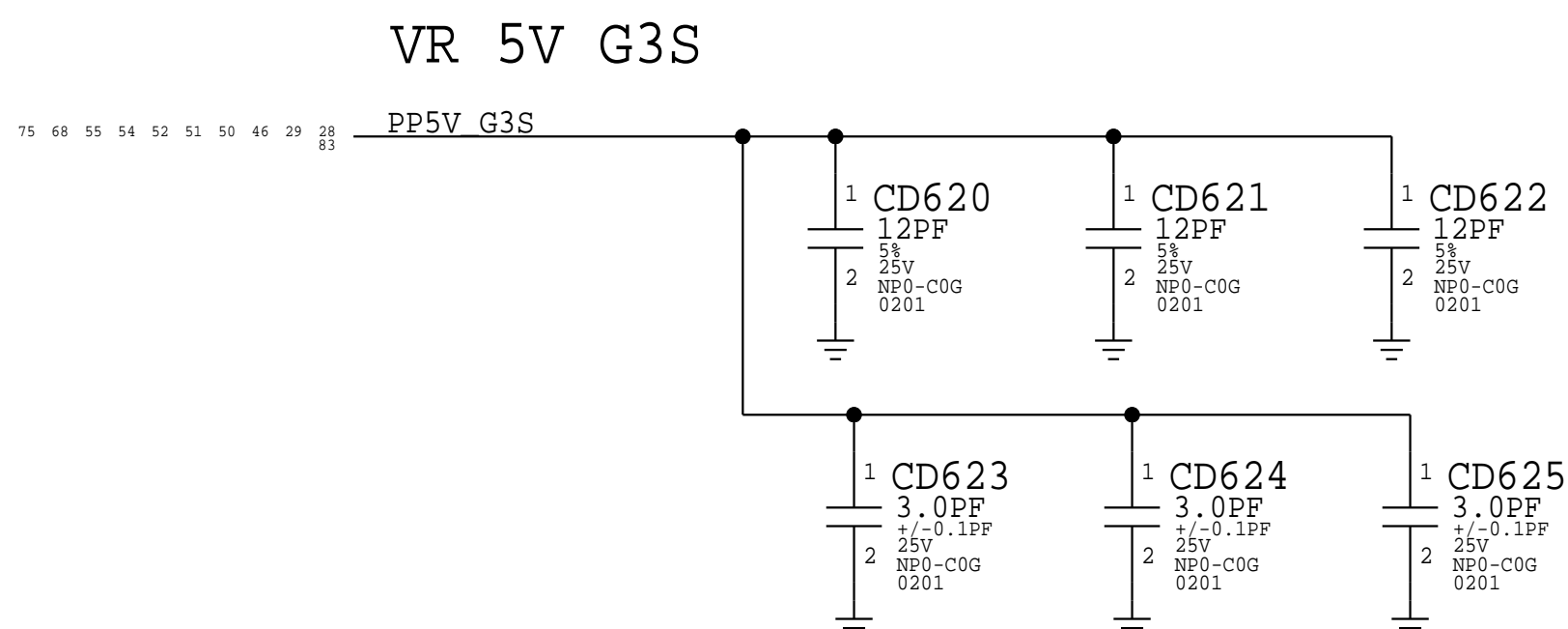
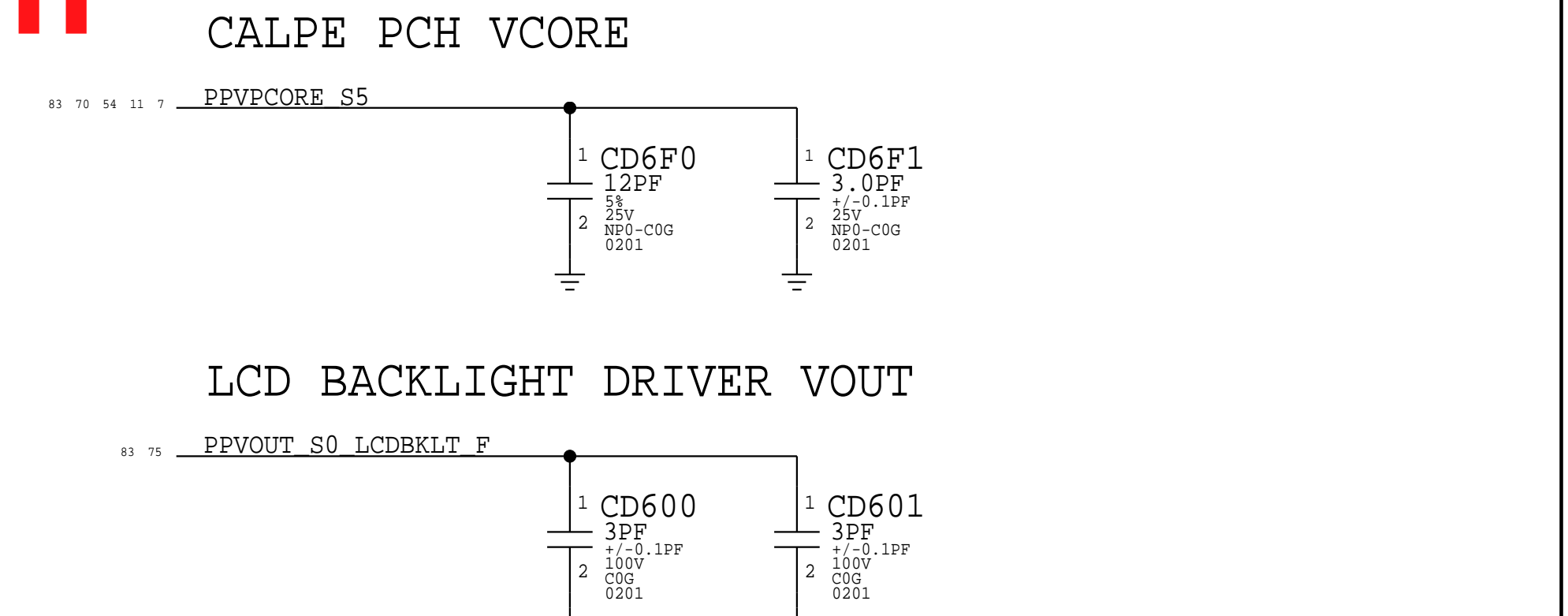
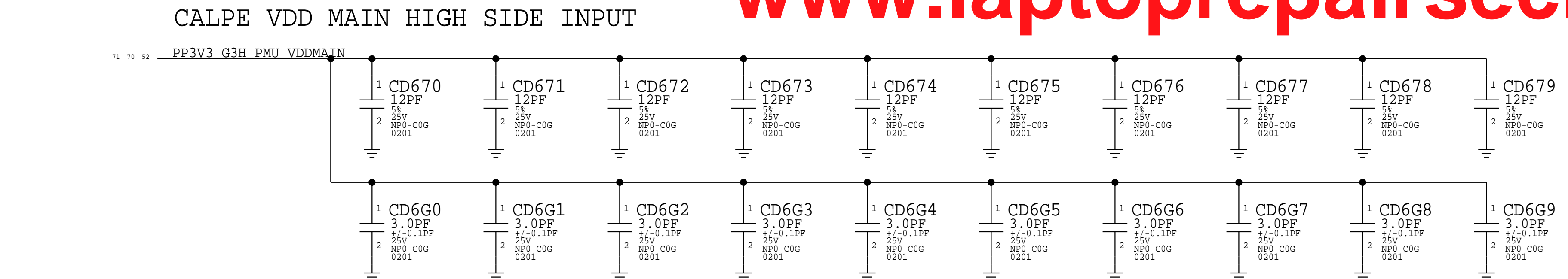
C

B

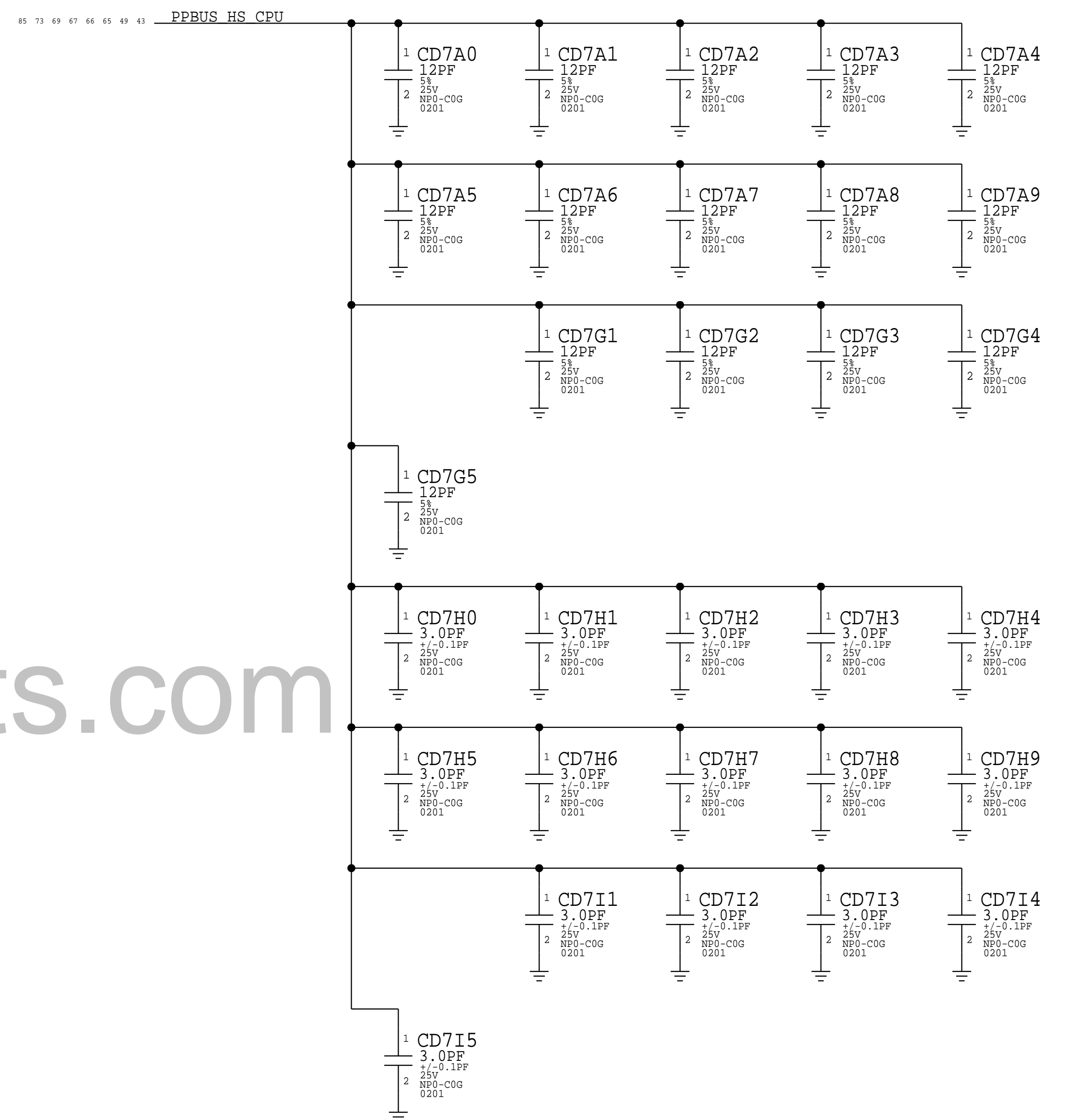
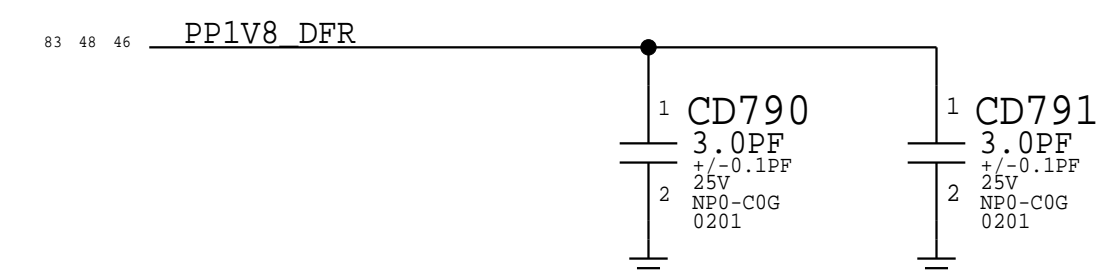
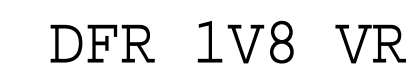
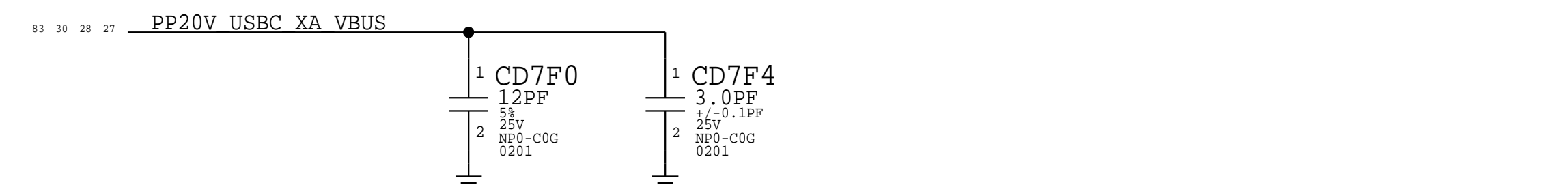
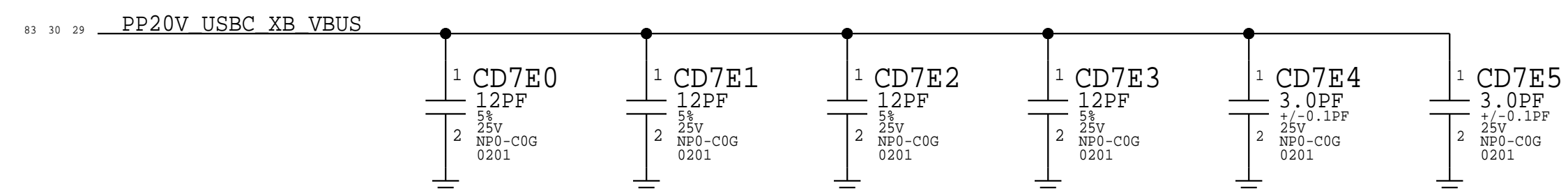
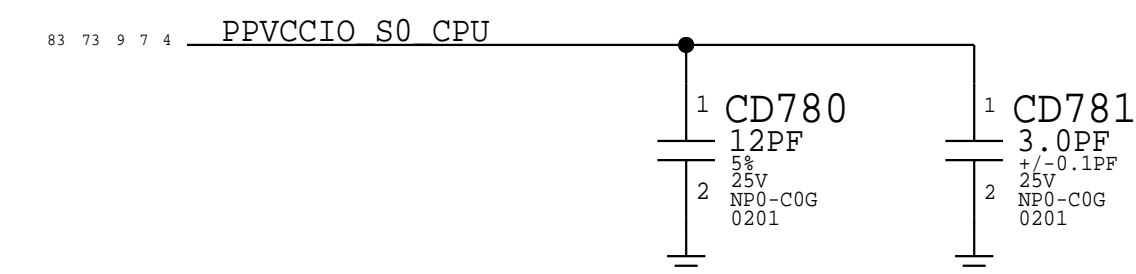
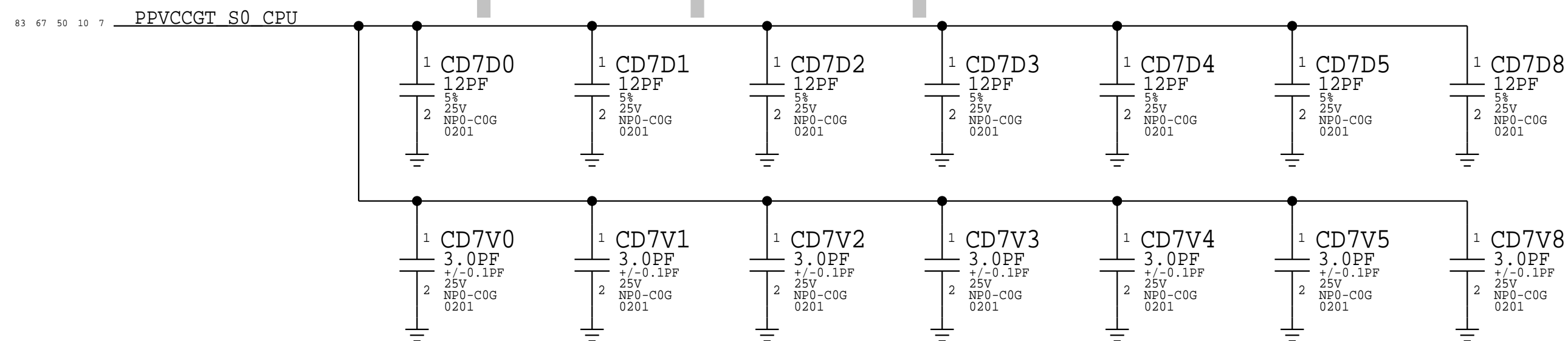
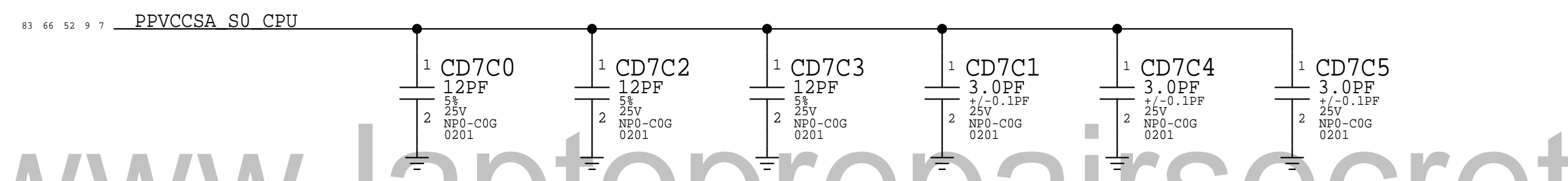
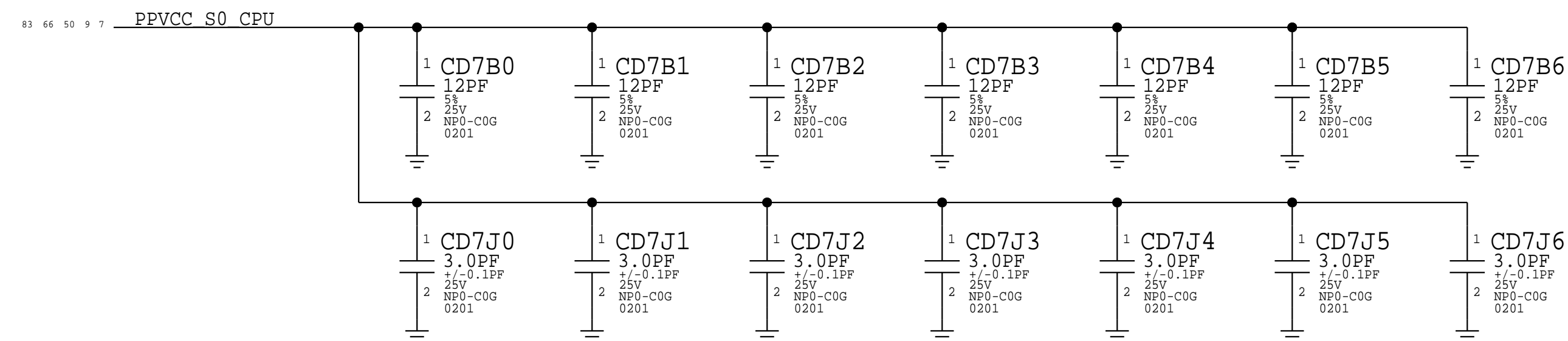
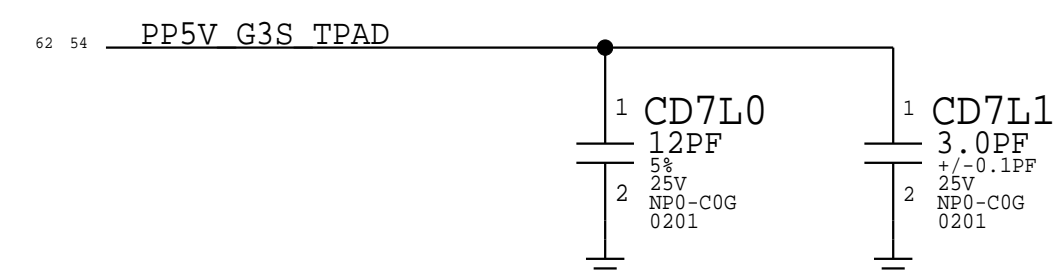
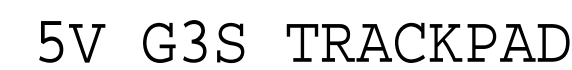
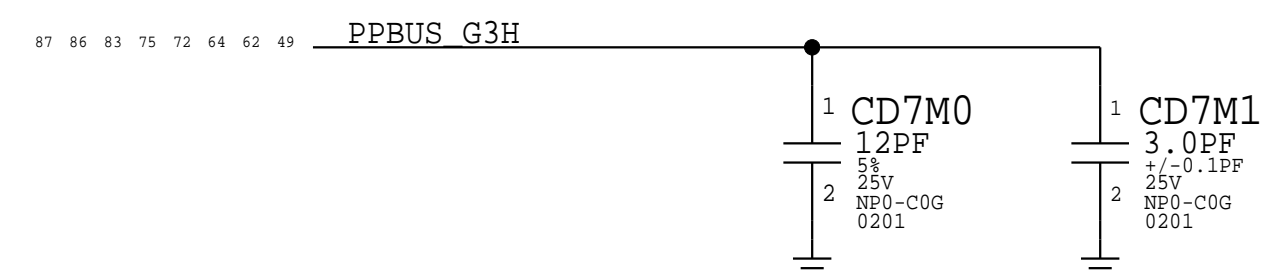
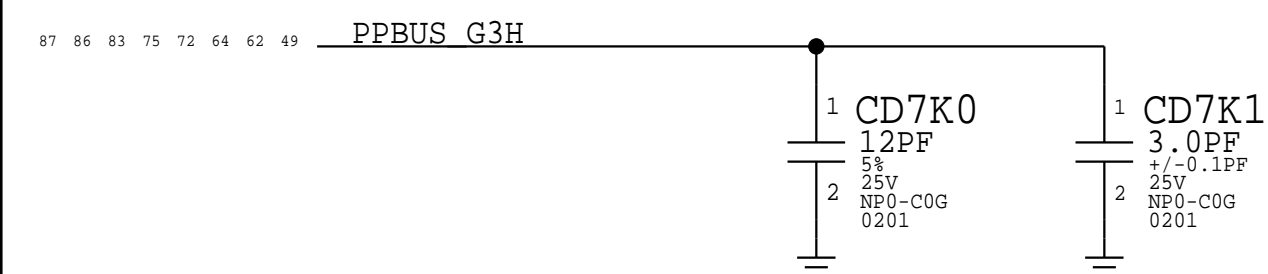
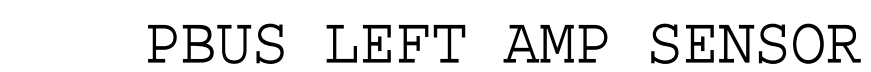
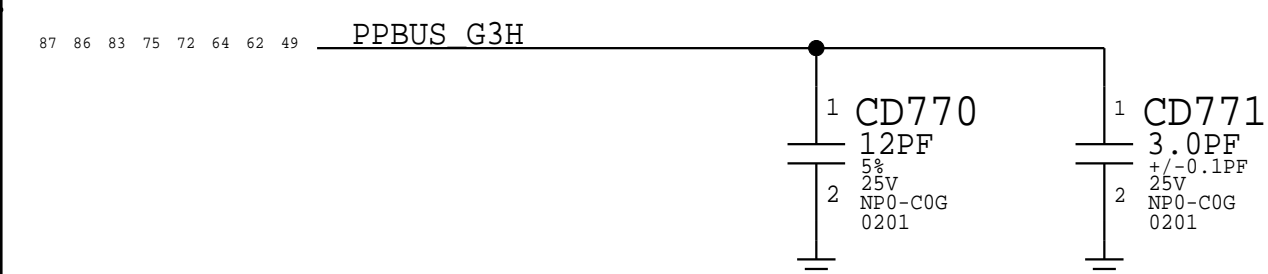
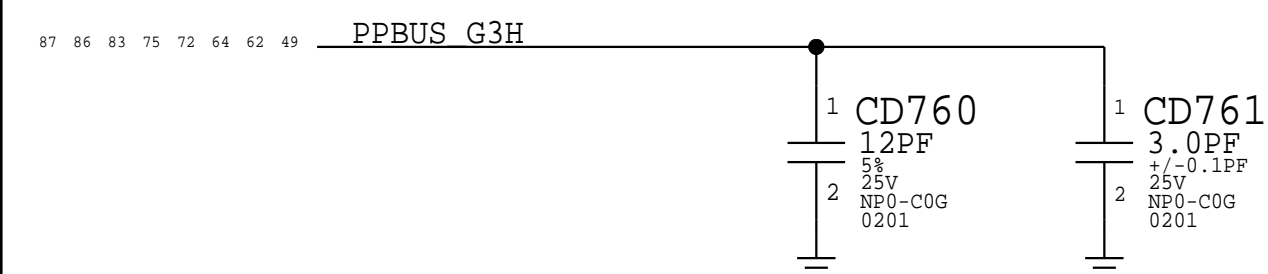
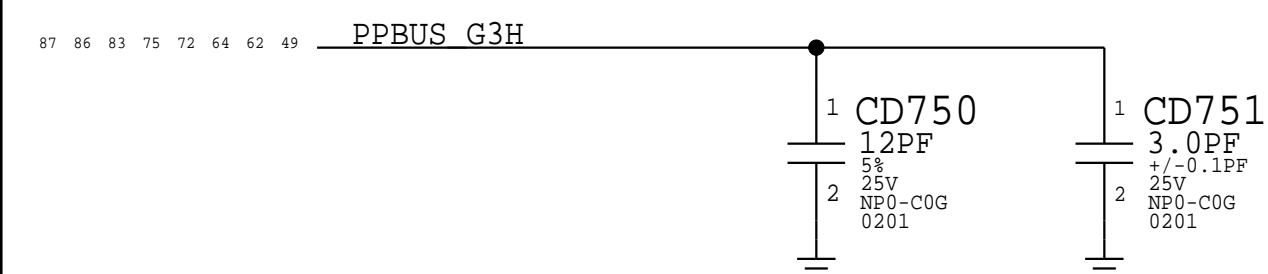
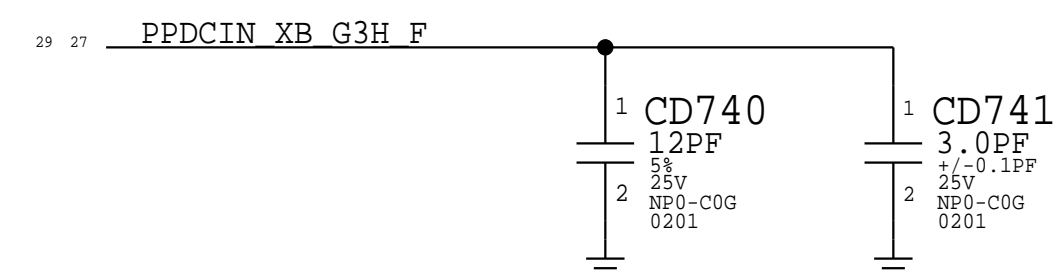
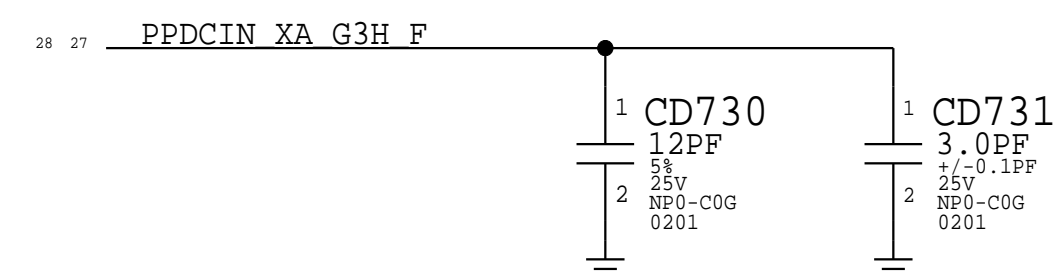
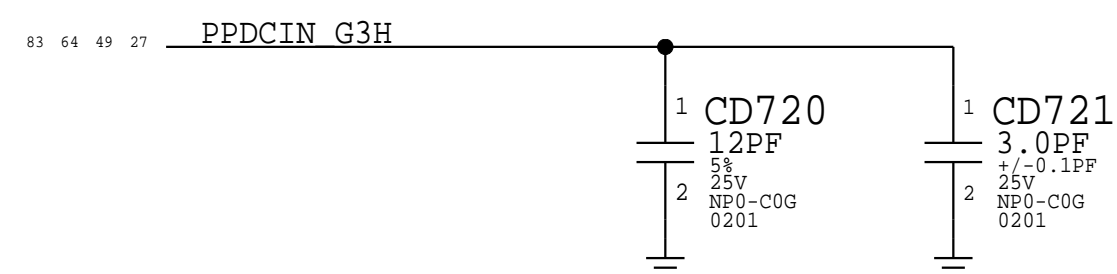
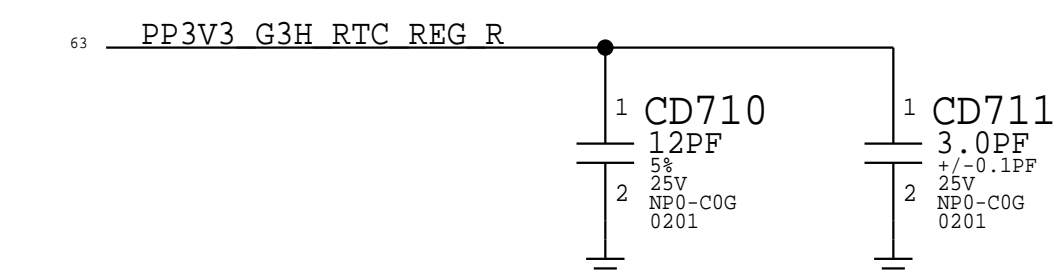
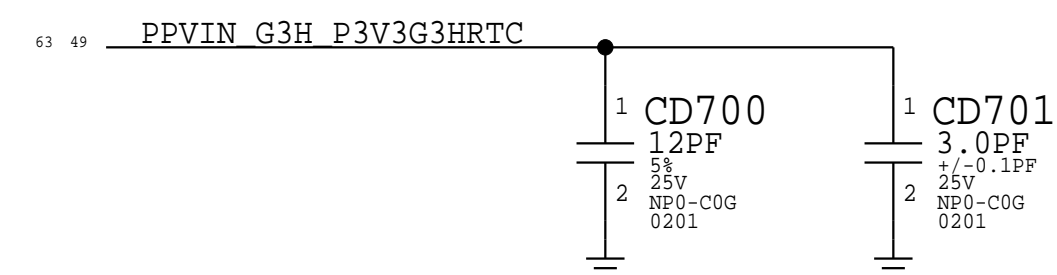
B


A

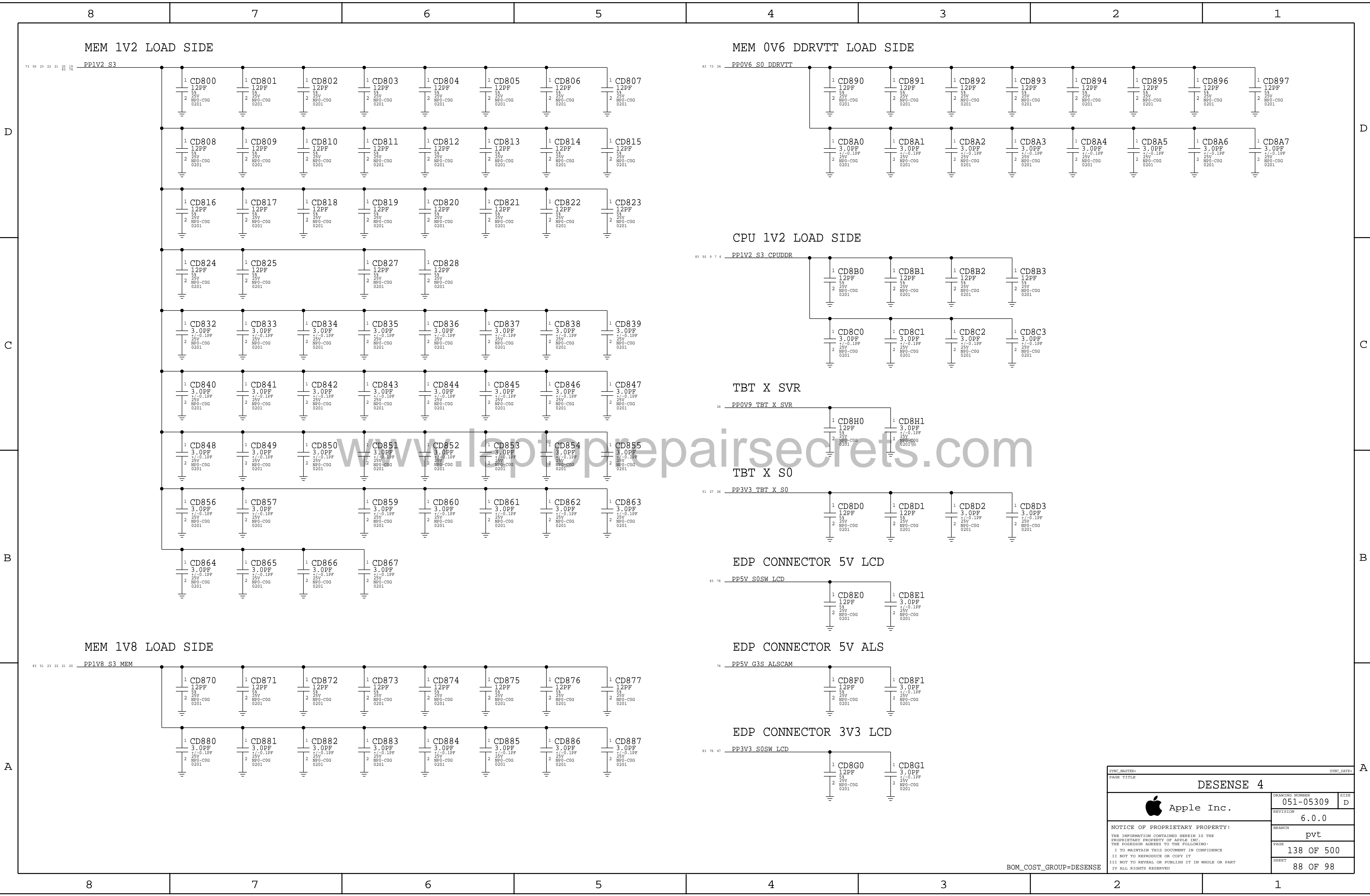
A




DRAWING NUMBER			SIZE	
051-05309			D	
REVISION			6.0.0	
BRANCH			pvt	
PAGE			136 OF 500	
SHEET			86 OF 98	

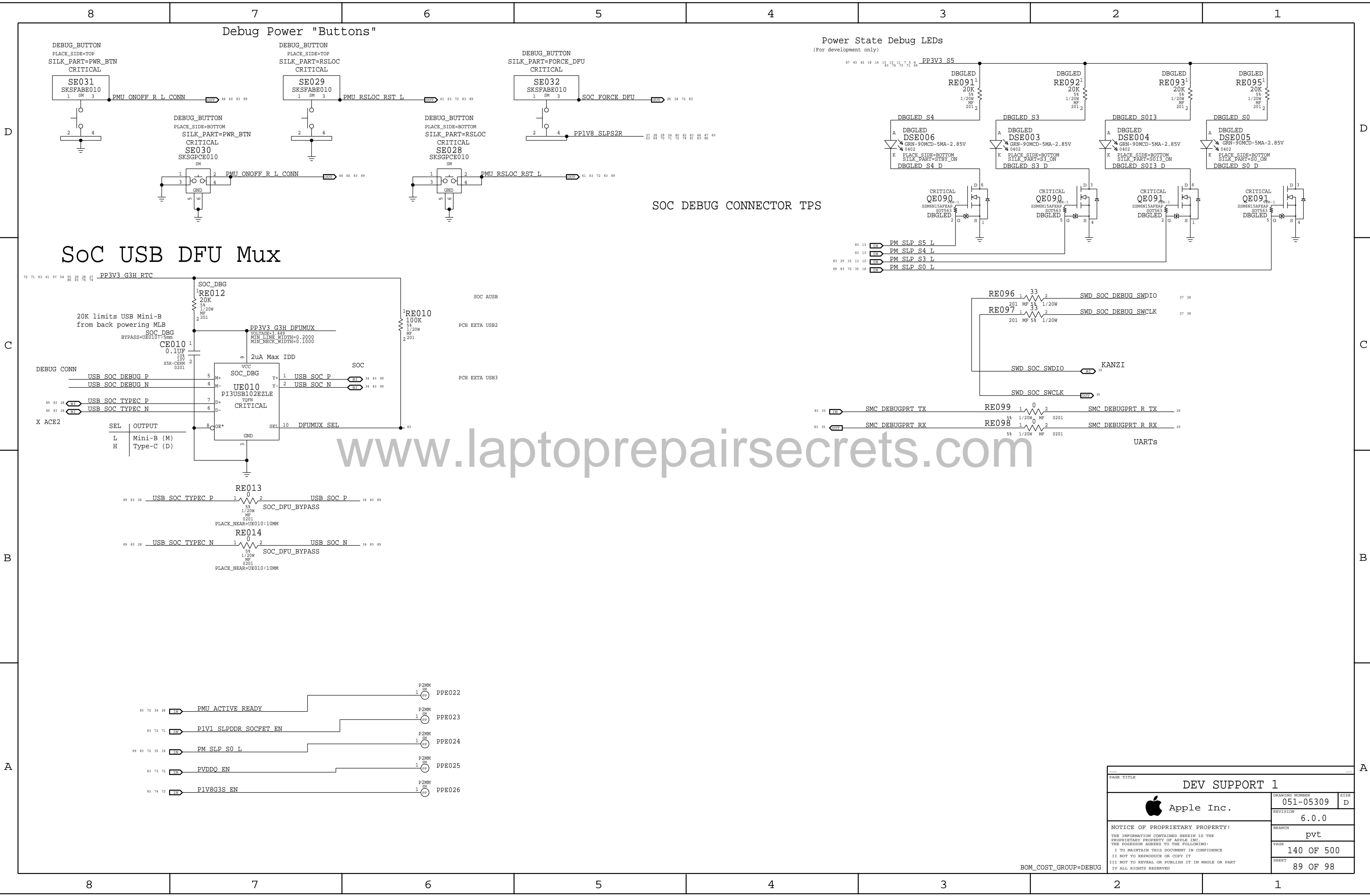



SYNC MASTER+ PAGE TITLE		SYNC MASTER+ PAGE TITLE	
<h1>DESENSE 3</h1>			
 Apple Inc.		DRAWING NUMBER	SIZE
		051-05309	D
		REVISION	
		6.0.0	
NOTICE OF PROPRIETARY PROPERTY:		BRANCH	
THE INFORMATION CONTAINED HEREIN IS THE PROPRIETARY PROPERTY OF APPLE INC. THE POSSESSOR AGREES TO THE FOLLOWING: I TO MAINTAIN THIS DOCUMENT IN CONFIDENCE II NOT TO REPRODUCE OR COPY IT III NOT TO REVEAL OR PUBLISH IT IN WHOLE OR PART IV ALL RIGHTS RESERVED		pvt PAGE	137 OF 500
		SHEET	87 OF 98





SYNC_MASTER=		SYNC_DATA=			
PAGE TITLE					
DESENSE 4					
 Apple Inc.	DRAWING NUMBER	051-05309	SIZE		
	REVISION	6.0.0	D		
	BRANCH	pvt			
NOTICE OF PROPRIETARY PROPERTY: THE INFORMATION CONTAINED HEREIN IS THE PROPRIETARY PROPERTY OF APPLE INC. THE POSSESSOR AGREES TO THE FOLLOWING: I TO MAINTAIN THIS DOCUMENT IN CONFIDENCE I NOT TO REPRODUCE OR COPY IT I NOT TO REVEAL OR PUBLISH IT IN WHOLE OR PART I ALL RIGHTS RESERVED		PAGE	138 OF 500		
		SHEET	88 OF 98		


BOM_COST_GROUP=DESENSE




PAGE TITLE		
DEV SUPPORT 1		
 Apple Inc.	DRAWING NUMBER	051-05309
	REVISION	6.0.0
	BRANCH	pvt
	PAGE	140 OF 500
NOTICE OF PROPRIETARY PROPERTY: THE INFORMATION CONTAINED HEREIN IS THE PROPRIETARY PROPERTY OF APPLE INC. THE POSSESSOR AGREES TO THE FOLLOWING: I TO MAINTAIN THIS DOCUMENT IN CONFIDENCE I NOT TO REPRODUCE OR COPY IT I NOT TO REVEAL OR PUBLISH IT IN WHOLE OR PART I ALL RIGHTS RESERVED		SHEET 89 OF 98

	8	7	6	5	4	3	2	1																																										
D	CPU																																																	
	<table><tr><th>PART NUMBER</th><th>QTY</th><th>DESCRIPTION</th><th>REFERENCE DES</th><th>CRITICAL</th><th>BOM OPTION</th></tr><tr><td>337S00574</td><td>1</td><td>CPU,CFLU,SRCUU,QS,D0,2,3,28W,1.05,BGA1528</td><td>U0500</td><td>CRITICAL</td><td>CPU:28W_2P3G_SRCUU</td></tr><tr><td>337S00572</td><td>1</td><td>CPU,CFLU,SRCK5,QS,D0,2,7,28W,1.2,BGA1528</td><td>U0500</td><td>CRITICAL</td><td>CPU:28W_2P7G_SRCK5</td></tr><tr><td>337S00693</td><td>1</td><td>CPU,CFLU,QRH7,QS,D0,1,4,1.05,BGA1528</td><td>U0500</td><td>CRITICAL</td><td>CPU:15W_1P4G_QRH7</td></tr><tr><td>337S00692</td><td>1</td><td>CPU,CFLU,QRH6,QS,D0,1,7,1.15,BGA1528</td><td>U0500</td><td>CRITICAL</td><td>CPU:15W_1P7G_QRH6</td></tr><tr><td>337S00717</td><td>1</td><td>CPU,CFLU,SREZ2,PRQ,D0,1,4,4C,1.05,BGA1528</td><td>U0500</td><td>CRITICAL</td><td>CPU:15W_1P4G_SREZ2</td></tr><tr><td>337S00716</td><td>1</td><td>CPU,CFLU,SREZ1,PRQ,D0,1,7,4C,1.15,BGA1528</td><td>U0500</td><td>CRITICAL</td><td>CPU:15W_1P7G_SREZ1</td></tr></table>						PART NUMBER	QTY	DESCRIPTION	REFERENCE DES	CRITICAL	BOM OPTION	337S00574	1	CPU,CFLU,SRCUU,QS,D0,2,3,28W,1.05,BGA1528	U0500	CRITICAL	CPU:28W_2P3G_SRCUU	337S00572	1	CPU,CFLU,SRCK5,QS,D0,2,7,28W,1.2,BGA1528	U0500	CRITICAL	CPU:28W_2P7G_SRCK5	337S00693	1	CPU,CFLU,QRH7,QS,D0,1,4,1.05,BGA1528	U0500	CRITICAL	CPU:15W_1P4G_QRH7	337S00692	1	CPU,CFLU,QRH6,QS,D0,1,7,1.15,BGA1528	U0500	CRITICAL	CPU:15W_1P7G_QRH6	337S00717	1	CPU,CFLU,SREZ2,PRQ,D0,1,4,4C,1.05,BGA1528	U0500	CRITICAL	CPU:15W_1P4G_SREZ2	337S00716	1	CPU,CFLU,SREZ1,PRQ,D0,1,7,4C,1.15,BGA1528	U0500	CRITICAL	CPU:15W_1P7G_SREZ1		
	PART NUMBER	QTY	DESCRIPTION	REFERENCE DES	CRITICAL	BOM OPTION																																												
	337S00574	1	CPU,CFLU,SRCUU,QS,D0,2,3,28W,1.05,BGA1528	U0500	CRITICAL	CPU:28W_2P3G_SRCUU																																												
	337S00572	1	CPU,CFLU,SRCK5,QS,D0,2,7,28W,1.2,BGA1528	U0500	CRITICAL	CPU:28W_2P7G_SRCK5																																												
	337S00693	1	CPU,CFLU,QRH7,QS,D0,1,4,1.05,BGA1528	U0500	CRITICAL	CPU:15W_1P4G_QRH7																																												
	337S00692	1	CPU,CFLU,QRH6,QS,D0,1,7,1.15,BGA1528	U0500	CRITICAL	CPU:15W_1P7G_QRH6																																												
	337S00717	1	CPU,CFLU,SREZ2,PRQ,D0,1,4,4C,1.05,BGA1528	U0500	CRITICAL	CPU:15W_1P4G_SREZ2																																												
	337S00716	1	CPU,CFLU,SREZ1,PRQ,D0,1,7,4C,1.15,BGA1528	U0500	CRITICAL	CPU:15W_1P7G_SREZ1																																												
	SOC																																																	
<table><tr><th>PART NUMBER</th><th>QTY</th><th>DESCRIPTION</th><th>REFERENCE DES</th><th>CRITICAL</th><th>BOM OPTION</th></tr><tr><td>339S00386</td><td>1</td><td>POP,G1BRALTAR+1GB 20NM,M,DEV,SCX,CSP1122</td><td>U3900</td><td>CRITICAL</td><td>SOC:DEV_1G</td></tr><tr><td>339S00388</td><td>1</td><td>POP,G1BRALTAR+2GB 20NM,M,DEV,SCX,CSP1122</td><td>U3900</td><td>CRITICAL</td><td>SOC:DEV_2G</td></tr><tr><td>339S00601</td><td>1</td><td>POP,G1BRALTAR_L+1GB 16NM,M,B0,SKC,C1122</td><td>U3900</td><td>CRITICAL</td><td>SOC:PROD_B0_1G</td></tr><tr><td>339S00605</td><td>1</td><td>POP,G1BRALTAR_L+2GB 16NM,M,B0,SKC,C1122</td><td>U3900</td><td>CRITICAL</td><td>SOC:PROD_B0_2G</td></tr></table>						PART NUMBER	QTY	DESCRIPTION	REFERENCE DES	CRITICAL	BOM OPTION	339S00386	1	POP,G1BRALTAR+1GB 20NM,M,DEV,SCX,CSP1122	U3900	CRITICAL	SOC:DEV_1G	339S00388	1	POP,G1BRALTAR+2GB 20NM,M,DEV,SCX,CSP1122	U3900	CRITICAL	SOC:DEV_2G	339S00601	1	POP,G1BRALTAR_L+1GB 16NM,M,B0,SKC,C1122	U3900	CRITICAL	SOC:PROD_B0_1G	339S00605	1	POP,G1BRALTAR_L+2GB 16NM,M,B0,SKC,C1122	U3900	CRITICAL	SOC:PROD_B0_2G															
PART NUMBER	QTY	DESCRIPTION	REFERENCE DES	CRITICAL	BOM OPTION																																													
339S00386	1	POP,G1BRALTAR+1GB 20NM,M,DEV,SCX,CSP1122	U3900	CRITICAL	SOC:DEV_1G																																													
339S00388	1	POP,G1BRALTAR+2GB 20NM,M,DEV,SCX,CSP1122	U3900	CRITICAL	SOC:DEV_2G																																													
339S00601	1	POP,G1BRALTAR_L+1GB 16NM,M,B0,SKC,C1122	U3900	CRITICAL	SOC:PROD_B0_1G																																													
339S00605	1	POP,G1BRALTAR_L+2GB 16NM,M,B0,SKC,C1122	U3900	CRITICAL	SOC:PROD_B0_2G																																													
AMR ASSEMBLY																																																		
<table><tr><th>PART NUMBER</th><th>QTY</th><th>DESCRIPTION</th><th>REFERENCE DES</th><th>CRITICAL</th><th>BOM OPTION</th></tr><tr><td>677-19902</td><td>1</td><td>SUBASSY (76R) PCBA,AMR INTERPOSER,X941</td><td>J4800</td><td>CRITICAL</td><td>AMR:POC</td></tr></table>						PART NUMBER	QTY	DESCRIPTION	REFERENCE DES	CRITICAL	BOM OPTION	677-19902	1	SUBASSY (76R) PCBA,AMR INTERPOSER,X941	J4800	CRITICAL	AMR:POC																																	
PART NUMBER	QTY	DESCRIPTION	REFERENCE DES	CRITICAL	BOM OPTION																																													
677-19902	1	SUBASSY (76R) PCBA,AMR INTERPOSER,X941	J4800	CRITICAL	AMR:POC																																													
C	TBT																																																	
	<table><tr><th>PART NUMBER</th><th>QTY</th><th>DESCRIPTION</th><th>REFERENCE DES</th><th>CRITICAL</th><th>BOM OPTION</th></tr><tr><td>338S00441</td><td>1</td><td>IC,TBT,TITAN RIDGE DP,SLMBS,PRQ,C1,CSP337</td><td>U2800</td><td>CRITICAL</td><td>TBT:TR_C1_PRQ</td></tr></table>						PART NUMBER	QTY	DESCRIPTION	REFERENCE DES	CRITICAL	BOM OPTION	338S00441	1	IC,TBT,TITAN RIDGE DP,SLMBS,PRQ,C1,CSP337	U2800	CRITICAL	TBT:TR_C1_PRQ																																
	PART NUMBER	QTY	DESCRIPTION	REFERENCE DES	CRITICAL	BOM OPTION																																												
	338S00441	1	IC,TBT,TITAN RIDGE DP,SLMBS,PRQ,C1,CSP337	U2800	CRITICAL	TBT:TR_C1_PRQ																																												
	UPC																																																	
	<table><tr><th>PART NUMBER</th><th>QTY</th><th>DESCRIPTION</th><th>REFERENCE DES</th><th>CRITICAL</th><th>BOM OPTION</th></tr><tr><td>353S02158</td><td>4</td><td>IC,CD3217,ACE2,B2,USB PWR SW W/HV,BGA123</td><td>U3100,U3200</td><td>CRITICAL</td><td>UPC:ACE2_B2</td></tr></table>						PART NUMBER	QTY	DESCRIPTION	REFERENCE DES	CRITICAL	BOM OPTION	353S02158	4	IC,CD3217,ACE2,B2,USB PWR SW W/HV,BGA123	U3100,U3200	CRITICAL	UPC:ACE2_B2																																
	PART NUMBER	QTY	DESCRIPTION	REFERENCE DES	CRITICAL	BOM OPTION																																												
	353S02158	4	IC,CD3217,ACE2,B2,USB PWR SW W/HV,BGA123	U3100,U3200	CRITICAL	UPC:ACE2_B2																																												
	WIRELESS																																																	
	<table><tr><th>PART NUMBER</th><th>QTY</th><th>DESCRIPTION</th><th>REFERENCE DES</th><th>CRITICAL</th><th>BOM OPTION</th></tr><tr><td>339S00586</td><td>1</td><td>MODULE,WIFI/BT,SAPFORO,ES2,1,M,LGA451</td><td>U3701</td><td>CRITICAL</td><td>MODULE:MUR_ES_2P1</td></tr><tr><td>339S00599</td><td>1</td><td>MODULE,WIFI/BT,SAPFORO,ES23,M,LGA451</td><td>U3701</td><td>CRITICAL</td><td>MODULE:MUR_ES_2P3</td></tr><tr><td>339S00616</td><td>1</td><td>MODULE,WIFI/BT,SAPFORO,ES3,1,M,LGA451</td><td>U3701</td><td>CRITICAL</td><td>MODULE:MUR_ES_3P1</td></tr><tr><td>339S00628</td><td>1</td><td>MODULE,WIFI/BT,SAPFORO,ES2,3,U,LGA451</td><td>U3701</td><td>CRITICAL</td><td>MODULE:USI_ES_2P3</td></tr><tr><td>339S00632</td><td>1</td><td>MODULE,WIFI/BT,SAPFORO,ES3,1,U,LGA451</td><td>U3701</td><td>CRITICAL</td><td>MODULE:USI_ES_3P1</td></tr><tr><td>339S00750</td><td>1</td><td>MODULE,WIFI/BT,SAPFORO,ES3,3,U,LGA451</td><td>U3701</td><td>CRITICAL</td><td>MODULE:USI_ES_3P1</td></tr></table>						PART NUMBER	QTY	DESCRIPTION	REFERENCE DES	CRITICAL	BOM OPTION	339S00586	1	MODULE,WIFI/BT,SAPFORO,ES2,1,M,LGA451	U3701	CRITICAL	MODULE:MUR_ES_2P1	339S00599	1	MODULE,WIFI/BT,SAPFORO,ES23,M,LGA451	U3701	CRITICAL	MODULE:MUR_ES_2P3	339S00616	1	MODULE,WIFI/BT,SAPFORO,ES3,1,M,LGA451	U3701	CRITICAL	MODULE:MUR_ES_3P1	339S00628	1	MODULE,WIFI/BT,SAPFORO,ES2,3,U,LGA451	U3701	CRITICAL	MODULE:USI_ES_2P3	339S00632	1	MODULE,WIFI/BT,SAPFORO,ES3,1,U,LGA451	U3701	CRITICAL	MODULE:USI_ES_3P1	339S00750	1	MODULE,WIFI/BT,SAPFORO,ES3,3,U,LGA451	U3701	CRITICAL	MODULE:USI_ES_3P1		
PART NUMBER	QTY	DESCRIPTION	REFERENCE DES	CRITICAL	BOM OPTION																																													
339S00586	1	MODULE,WIFI/BT,SAPFORO,ES2,1,M,LGA451	U3701	CRITICAL	MODULE:MUR_ES_2P1																																													
339S00599	1	MODULE,WIFI/BT,SAPFORO,ES23,M,LGA451	U3701	CRITICAL	MODULE:MUR_ES_2P3																																													
339S00616	1	MODULE,WIFI/BT,SAPFORO,ES3,1,M,LGA451	U3701	CRITICAL	MODULE:MUR_ES_3P1																																													
339S00628	1	MODULE,WIFI/BT,SAPFORO,ES2,3,U,LGA451	U3701	CRITICAL	MODULE:USI_ES_2P3																																													
339S00632	1	MODULE,WIFI/BT,SAPFORO,ES3,1,U,LGA451	U3701	CRITICAL	MODULE:USI_ES_3P1																																													
339S00750	1	MODULE,WIFI/BT,SAPFORO,ES3,3,U,LGA451	U3701	CRITICAL	MODULE:USI_ES_3P1																																													
PMU																																																		
<table><tr><th>PART NUMBER</th><th>QTY</th><th>DESCRIPTION</th><th>REFERENCE DES</th><th>CRITICAL</th><th>BOM OPTION</th></tr><tr><td>338S00466</td><td>1</td><td>IC,PMU,CALPE-L,D2249AA0,OTP-BC,CSP324</td><td>U7800</td><td>CRITICAL</td><td>CALPE_L:OTP_BC</td></tr></table>						PART NUMBER	QTY	DESCRIPTION	REFERENCE DES	CRITICAL	BOM OPTION	338S00466	1	IC,PMU,CALPE-L,D2249AA0,OTP-BC,CSP324	U7800	CRITICAL	CALPE_L:OTP_BC																																	
PART NUMBER	QTY	DESCRIPTION	REFERENCE DES	CRITICAL	BOM OPTION																																													
338S00466	1	IC,PMU,CALPE-L,D2249AA0,OTP-BC,CSP324	U7800	CRITICAL	CALPE_L:OTP_BC																																													
B	CHARGER IC																																																	
	<table><tr><th>PART NUMBER</th><th>QTY</th><th>DESCRIPTION</th><th>REFERENCE DES</th><th>CRITICAL</th><th>BOM OPTION</th></tr><tr><td>353S01525</td><td>1</td><td>IC,ISL9240HIB02,PMU,SUONA,WCP540,2,1X3,3</td><td>U7000</td><td>CRITICAL</td><td>CHARGER_IC:POC</td></tr></table>						PART NUMBER	QTY	DESCRIPTION	REFERENCE DES	CRITICAL	BOM OPTION	353S01525	1	IC,ISL9240HIB02,PMU,SUONA,WCP540,2,1X3,3	U7000	CRITICAL	CHARGER_IC:POC																																
	PART NUMBER	QTY	DESCRIPTION	REFERENCE DES	CRITICAL	BOM OPTION																																												
	353S01525	1	IC,ISL9240HIB02,PMU,SUONA,WCP540,2,1X3,3	U7000	CRITICAL	CHARGER_IC:POC																																												
	DRAM																																																	
	<table><tr><th>PART NUMBER</th><th>QTY</th><th>DESCRIPTION</th><th>REFERENCE DES</th><th>CRITICAL</th><th>BOM OPTION</th></tr><tr><td>333S00125</td><td>4</td><td>IC,SDRAM,LPDDR3-2133,16GBIT,21NM,H,BGA178</td><td>U2300,U2400,U2500,U2600</td><td>CRITICAL</td><td>DRAM:08GB_HY</td></tr><tr><td>333S00246</td><td>4</td><td>IC,SDRAM,LPDDR3-2133,16GBIT,18NM,BGA178</td><td>U2300,U2400,U2500,U2600</td><td>CRITICAL</td><td>DRAM:08GB_SS_D</td></tr><tr><td>333S00126</td><td>4</td><td>IC,SDRAM,LPDDR3-2133,32GBIT,21NM,H,BGA178</td><td>U2300,U2400,U2500,U2600</td><td>CRITICAL</td><td>DRAM:16GB_HY</td></tr><tr><td>333S00247</td><td>4</td><td>IC,SDRAM,LPDDR3-2133,32GBIT,18NM,BGA178</td><td>U2300,U2400,U2500,U2600</td><td>CRITICAL</td><td>DRAM:16GB_SS_D</td></tr></table>						PART NUMBER	QTY	DESCRIPTION	REFERENCE DES	CRITICAL	BOM OPTION	333S00125	4	IC,SDRAM,LPDDR3-2133,16GBIT,21NM,H,BGA178	U2300,U2400,U2500,U2600	CRITICAL	DRAM:08GB_HY	333S00246	4	IC,SDRAM,LPDDR3-2133,16GBIT,18NM,BGA178	U2300,U2400,U2500,U2600	CRITICAL	DRAM:08GB_SS_D	333S00126	4	IC,SDRAM,LPDDR3-2133,32GBIT,21NM,H,BGA178	U2300,U2400,U2500,U2600	CRITICAL	DRAM:16GB_HY	333S00247	4	IC,SDRAM,LPDDR3-2133,32GBIT,18NM,BGA178	U2300,U2400,U2500,U2600	CRITICAL	DRAM:16GB_SS_D														
	PART NUMBER	QTY	DESCRIPTION	REFERENCE DES	CRITICAL	BOM OPTION																																												
	333S00125	4	IC,SDRAM,LPDDR3-2133,16GBIT,21NM,H,BGA178	U2300,U2400,U2500,U2600	CRITICAL	DRAM:08GB_HY																																												
	333S00246	4	IC,SDRAM,LPDDR3-2133,16GBIT,18NM,BGA178	U2300,U2400,U2500,U2600	CRITICAL	DRAM:08GB_SS_D																																												
	333S00126	4	IC,SDRAM,LPDDR3-2133,32GBIT,21NM,H,BGA178	U2300,U2400,U2500,U2600	CRITICAL	DRAM:16GB_HY																																												
333S00247	4	IC,SDRAM,LPDDR3-2133,32GBIT,18NM,BGA178	U2300,U2400,U2500,U2600	CRITICAL	DRAM:16GB_SS_D																																													
SE																																																		
<table><tr><th>PART NUMBER</th><th>QTY</th><th>DESCRIPTION</th><th>REFERENCE DES</th><th>CRITICAL</th><th>BOM OPTION</th></tr><tr><td>998-15216</td><td>1</td><td>IC,SH100V,VENUS,DEV KEY,B2,S/W-M,WLCSP72</td><td>U5001</td><td>CRITICAL</td><td>SE:DEV_2019</td></tr><tr><td>338S00445</td><td>1</td><td>IC,SH100V,VENUS,PROD KEY,B2,SW-N,WLCSP72</td><td>U5001</td><td>CRITICAL</td><td>SE:PROD_2019</td></tr></table>						PART NUMBER	QTY	DESCRIPTION	REFERENCE DES	CRITICAL	BOM OPTION	998-15216	1	IC,SH100V,VENUS,DEV KEY,B2,S/W-M,WLCSP72	U5001	CRITICAL	SE:DEV_2019	338S00445	1	IC,SH100V,VENUS,PROD KEY,B2,SW-N,WLCSP72	U5001	CRITICAL	SE:PROD_2019																											
PART NUMBER	QTY	DESCRIPTION	REFERENCE DES	CRITICAL	BOM OPTION																																													
998-15216	1	IC,SH100V,VENUS,DEV KEY,B2,S/W-M,WLCSP72	U5001	CRITICAL	SE:DEV_2019																																													
338S00445	1	IC,SH100V,VENUS,PROD KEY,B2,SW-N,WLCSP72	U5001	CRITICAL	SE:PROD_2019																																													
OCARINA																																																		
<table><tr><th>PART NUMBER</th><th>QTY</th><th>DESCRIPTION</th><th>REFERENCE DES</th><th>CRITICAL</th><th>BOM OPTION</th></tr><tr><td>338S00410</td><td>1</td><td>IC,PMU,OCARINA,D2499AA0,OTP-AG,WLCSP56</td><td>U9000</td><td>CRITICAL</td><td>SSD:4L</td></tr></table>						PART NUMBER	QTY	DESCRIPTION	REFERENCE DES	CRITICAL	BOM OPTION	338S00410	1	IC,PMU,OCARINA,D2499AA0,OTP-AG,WLCSP56	U9000	CRITICAL	SSD:4L																																	
PART NUMBER	QTY	DESCRIPTION	REFERENCE DES	CRITICAL	BOM OPTION																																													
338S00410	1	IC,PMU,OCARINA,D2499AA0,OTP-AG,WLCSP56	U9000	CRITICAL	SSD:4L																																													
A	VR INDUCTOR VCCSA																																																	
	<table><tr><th>PART NUMBER</th><th>QTY</th><th>DESCRIPTION</th><th>REFERENCE DES</th><th>CRITICAL</th><th>BOM OPTION</th></tr><tr><td>152S00689</td><td>1</td><td>IND,MLD,0.47UH,4.7MO,17.5A,5.6X5.2X2.4MM</td><td>L7270</td><td>CRITICAL</td><td>IND_VCCSA:CYNTEC</td></tr></table>						PART NUMBER	QTY	DESCRIPTION	REFERENCE DES	CRITICAL	BOM OPTION	152S00689	1	IND,MLD,0.47UH,4.7MO,17.5A,5.6X5.2X2.4MM	L7270	CRITICAL	IND_VCCSA:CYNTEC																																
	PART NUMBER	QTY	DESCRIPTION	REFERENCE DES	CRITICAL	BOM OPTION																																												
	152S00689	1	IND,MLD,0.47UH,4.7MO,17.5A,5.6X5.2X2.4MM	L7270	CRITICAL	IND_VCCSA:CYNTEC																																												
	BACKLIGHT VOUT FILTER																																																	
	<table><tr><th>PART NUMBER</th><th>QTY</th><th>DESCRIPTION</th><th>REFERENCE DES</th><th>CRITICAL</th><th>BOM OPTION</th></tr><tr><td>116S00006</td><td>1</td><td>RES,MFL FILM,0 OHM,TIGHT TOL,3A,0402</td><td>L8420</td><td>CRITICAL</td><td>BKLT_FILT:ZERO_OHM</td></tr></table>						PART NUMBER	QTY	DESCRIPTION	REFERENCE DES	CRITICAL	BOM OPTION	116S00006	1	RES,MFL FILM,0 OHM,TIGHT TOL,3A,0402	L8420	CRITICAL	BKLT_FILT:ZERO_OHM																																
	PART NUMBER	QTY	DESCRIPTION	REFERENCE DES	CRITICAL	BOM OPTION																																												
	116S00006	1	RES,MFL FILM,0 OHM,TIGHT TOL,3A,0402	L8420	CRITICAL	BKLT_FILT:ZERO_OHM																																												
	USBC AARDVARKANOID																																																	
	<table><tr><th>PART NUMBER</th><th>QTY</th><th>DESCRIPTION</th><th>REFERENCE DES</th><th>CRITICAL</th><th>BOM OPTION</th></tr><tr><td>516S00115</td><td>1</td><td>CONN,PLUG,B2B,12+2P,P=0.35MM,H=0.6MM</td><td>J3002</td><td>CRITICAL</td><td>USBC_AARDVARKANOID</td></tr></table>						PART NUMBER	QTY	DESCRIPTION	REFERENCE DES	CRITICAL	BOM OPTION	516S00115	1	CONN,PLUG,B2B,12+2P,P=0.35MM,H=0.6MM	J3002	CRITICAL	USBC_AARDVARKANOID																																
PART NUMBER	QTY	DESCRIPTION	REFERENCE DES	CRITICAL	BOM OPTION																																													
516S00115	1	CONN,PLUG,B2B,12+2P,P=0.35MM,H=0.6MM	J3002	CRITICAL	USBC_AARDVARKANOID																																													
TBT ROM																																																		
<table><tr><th>PART NUMBER</th><th>QTY</th><th>DESCRIPTION</th><th>REFERENCE DES</th><th>CRITICAL</th><th>BOM OPTION</th></tr><tr><td>341S01553</td><td>1</td><td>ROM,BBR/ACE(V48.2) PROTO-1-B,X1782</td><td>U2890</td><td>CRITICAL</td><td>TBT_ROM:P1B</td></tr><tr><td>341S01591</td><td>1</td><td>ROM,BBR/ACE(V41.13) EVT,X1782</td><td>U2890</td><td>CRITICAL</td><td>TBT_ROM:EVT</td></tr><tr><td>341S01632</td><td>1</td><td>ROM,BBR/ACB(V51.2) PVT,X1782</td><td>U2890</td><td>CRITICAL</td><td>TBT_ROM:PVT</td></tr></table>						PART NUMBER	QTY	DESCRIPTION	REFERENCE DES	CRITICAL	BOM OPTION	341S01553	1	ROM,BBR/ACE(V48.2) PROTO-1-B,X1782	U2890	CRITICAL	TBT_ROM:P1B	341S01591	1	ROM,BBR/ACE(V41.13) EVT,X1782	U2890	CRITICAL	TBT_ROM:EVT	341S01632	1	ROM,BBR/ACB(V51.2) PVT,X1782	U2890	CRITICAL	TBT_ROM:PVT																					
PART NUMBER	QTY	DESCRIPTION	REFERENCE DES	CRITICAL	BOM OPTION																																													
341S01553	1	ROM,BBR/ACE(V48.2) PROTO-1-B,X1782	U2890	CRITICAL	TBT_ROM:P1B																																													
341S01591	1	ROM,BBR/ACE(V41.13) EVT,X1782	U2890	CRITICAL	TBT_ROM:EVT																																													
341S01632	1	ROM,BBR/ACB(V51.2) PVT,X1782	U2890	CRITICAL	TBT_ROM:PVT																																													
BT ROM																																																		
<table><tr><th>PART NUMBER</th><th>QTY</th><th>DESCRIPTION</th><th>REFERENCE DES</th><th>CRITICAL</th><th>BOM OPTION</th></tr><tr><td>335S00348</td><td>1</td><td>IC,SPI SERIAL FLASH,4M BIT,1.8V,US0N8</td><td>U3750</td><td>CRITICAL</td><td>BT_ROM:BLANK_WINBOND</td></tr><tr><td>335S00400</td><td>1</td><td>IC,SPI SERIAL FLASH,4M BIT,1.8V,US0N8</td><td>U3750</td><td>CRITICAL</td><td>BT_ROM:BLANK_MACRONIX</td></tr><tr><td>341S01184</td><td>1</td><td>BT SFLASH ROM (V2) PROTO-0,X1536</td><td>U3750</td><td>CRITICAL</td><td>BT_ROM:P0</td></tr><tr><td>341S01260</td><td>1</td><td>ROM,BT SFLASH (VXX) PROTO-1,X1536</td><td>U3750</td><td>CRITICAL</td><td>BT_ROM:P1</td></tr><tr><td>341S01638</td><td>1</td><td>ROM,BT SFLASH (V3.17.43) PVT,X1783</td><td>U3750</td><td>CRITICAL</td><td>BT_ROM:PVT</td></tr></table>						PART NUMBER	QTY	DESCRIPTION	REFERENCE DES	CRITICAL	BOM OPTION	335S00348	1	IC,SPI SERIAL FLASH,4M BIT,1.8V,US0N8	U3750	CRITICAL	BT_ROM:BLANK_WINBOND	335S00400	1	IC,SPI SERIAL FLASH,4M BIT,1.8V,US0N8	U3750	CRITICAL	BT_ROM:BLANK_MACRONIX	341S01184	1	BT SFLASH ROM (V2) PROTO-0,X1536	U3750	CRITICAL	BT_ROM:P0	341S01260	1	ROM,BT SFLASH (VXX) PROTO-1,X1536	U3750	CRITICAL	BT_ROM:P1	341S01638	1	ROM,BT SFLASH (V3.17.43) PVT,X1783	U3750	CRITICAL	BT_ROM:PVT									
PART NUMBER	QTY	DESCRIPTION	REFERENCE DES	CRITICAL	BOM OPTION																																													
335S00348	1	IC,SPI SERIAL FLASH,4M BIT,1.8V,US0N8	U3750	CRITICAL	BT_ROM:BLANK_WINBOND																																													
335S00400	1	IC,SPI SERIAL FLASH,4M BIT,1.8V,US0N8	U3750	CRITICAL	BT_ROM:BLANK_MACRONIX																																													
341S01184	1	BT SFLASH ROM (V2) PROTO-0,X1536	U3750	CRITICAL	BT_ROM:P0																																													
341S01260	1	ROM,BT SFLASH (VXX) PROTO-1,X1536	U3750	CRITICAL	BT_ROM:P1																																													
341S01638	1	ROM,BT SFLASH (V3.17.43) PVT,X1783	U3750	CRITICAL	BT_ROM:PVT																																													
WIFI ROM																																																		
<table><tr><th>PART NUMBER</th><th>QTY</th><th>DESCRIPTION</th><th>REFERENCE DES</th><th>CRITICAL</th><th>BOM OPTION</th></tr><tr><td>335S00214</td><td>1</td><td>IC,EEPROM,SER,UNIRE,16K,1.8V,DFN8</td><td>U3710</td><td>CRITICAL</td><td>WIFI_ROM:BLANK_ON</td></tr><tr><td>335S00216</td><td>1</td><td>IC,EEPROM,SER,UNIRE,16K,1.8V,DFN8</td><td>U3710</td><td>CRITICAL</td><td>WIFI_ROM:BLANK_ROHM</td></tr><tr><td>341S01087</td><td>1</td><td>IC,WIFI ROM (V1) WW1,X1536</td><td>U3710</td><td>CRITICAL</td><td>WIFI_ROM:V00</td></tr><tr><td>341S01394</td><td>1</td><td>ROM,WIFI (VXX) (NEW FOR DVT) WW1,X1536</td><td>U3710</td><td>CRITICAL</td><td>WIFI_ROM:DVT</td></tr><tr><td>341S01637</td><td>1</td><td>ROM,WIFI (V1.1) WW1,X1783</td><td>U3710</td><td>CRITICAL</td><td>WIFI_ROM:PVT</td></tr></table>						PART NUMBER	QTY	DESCRIPTION	REFERENCE DES	CRITICAL	BOM OPTION	335S00214	1	IC,EEPROM,SER,UNIRE,16K,1.8V,DFN8	U3710	CRITICAL	WIFI_ROM:BLANK_ON	335S00216	1	IC,EEPROM,SER,UNIRE,16K,1.8V,DFN8	U3710	CRITICAL	WIFI_ROM:BLANK_ROHM	341S01087	1	IC,WIFI ROM (V1) WW1,X1536	U3710	CRITICAL	WIFI_ROM:V00	341S01394	1	ROM,WIFI (VXX) (NEW FOR DVT) WW1,X1536	U3710	CRITICAL	WIFI_ROM:DVT	341S01637	1	ROM,WIFI (V1.1) WW1,X1783	U3710	CRITICAL	WIFI_ROM:PVT									
PART NUMBER	QTY	DESCRIPTION	REFERENCE DES	CRITICAL	BOM OPTION																																													
335S00214	1	IC,EEPROM,SER,UNIRE,16K,1.8V,DFN8	U3710	CRITICAL	WIFI_ROM:BLANK_ON																																													
335S00216	1	IC,EEPROM,SER,UNIRE,16K,1.8V,DFN8	U3710	CRITICAL	WIFI_ROM:BLANK_ROHM																																													
341S01087	1	IC,WIFI ROM (V1) WW1,X1536	U3710	CRITICAL	WIFI_ROM:V00																																													
341S01394	1	ROM,WIFI (VXX) (NEW FOR DVT) WW1,X1536	U3710	CRITICAL	WIFI_ROM:DVT																																													
341S01637	1	ROM,WIFI (V1.1) WW1,X1783	U3710	CRITICAL	WIFI_ROM:PVT																																													
SPEAKER AMP																																																		
<table><tr><th>PART NUMBER</th><th>QTY</th><th>DESCRIPTION</th><th>REFERENCE DES</th><th>CRITICAL</th><th>BOM OPTION</th></tr><tr><td>353S01629</td><td>4</td><td>IC,TAS5770L,B2,CLASS D AMP,CSP30</td><td>U6400,U6450,U6500,U6550</td><td>CRITICAL</td><td>SPEAKER_AMP:B2</td></tr><tr><td>353S01871</td><td>4</td><td>IC,TAS5770L,C0,CLASS D AMP,CSP30</td><td>U6400,U6450,U6500,U6550</td><td>CRITICAL</td><td>SPEAKER_AMP:C0</td></tr></table>						PART NUMBER	QTY	DESCRIPTION	REFERENCE DES	CRITICAL	BOM OPTION	353S01629	4	IC,TAS5770L,B2,CLASS D AMP,CSP30	U6400,U6450,U6500,U6550	CRITICAL	SPEAKER_AMP:B2	353S01871	4	IC,TAS5770L,C0,CLASS D AMP,CSP30	U6400,U6450,U6500,U6550	CRITICAL	SPEAKER_AMP:C0																											
PART NUMBER	QTY	DESCRIPTION	REFERENCE DES	CRITICAL	BOM OPTION																																													
353S01629	4	IC,TAS5770L,B2,CLASS D AMP,CSP30	U6400,U6450,U6500,U6550	CRITICAL	SPEAKER_AMP:B2																																													
353S01871	4	IC,TAS5770L,C0,CLASS D AMP,CSP30	U6400,U6450,U6500,U6550	CRITICAL	SPEAKER_AMP:C0																																													
VR DRIVER CPU CORE																																																		
<table><tr><th>PART NUMBER</th><th>QTY</th><th>DESCRIPTION</th><th>REFERENCE DES</th><th>CRITICAL</th><th>BOM OPTION</th></tr><tr><td>353S00519</td><td>2</td><td>IC,SIC621,DR MOS,IMVP-8,60A,PQFN31,5X5MM</td><td>U7210,U7220</td><td>CRITICAL</td><td>DR_MOS_CORE:VISHAY</td></tr></table>						PART NUMBER	QTY	DESCRIPTION	REFERENCE DES	CRITICAL	BOM OPTION	353S00519	2	IC,SIC621,DR MOS,IMVP-8,60A,PQFN31,5X5MM	U7210,U7220	CRITICAL	DR_MOS_CORE:VISHAY																																	
PART NUMBER	QTY	DESCRIPTION	REFERENCE DES	CRITICAL	BOM OPTION																																													
353S00519	2	IC,SIC621,DR MOS,IMVP-8,60A,PQFN31,5X5MM	U7210,U7220	CRITICAL	DR_MOS_CORE:VISHAY																																													
VR DRIVER CPU VCCSA																																																		
<table><tr><th>PART NUMBER</th><th>QTY</th><th>DESCRIPTION</th><th>REFERENCE DES</th><th>CRITICAL</th><th>BOM OPTION</th></tr><tr><td>353S00525</td><td>1</td><td>IC,SIC532,DR MOS,IMVP-8,30A,PQFN24,45X35</td><td>U7270</td><td>CRITICAL</td><td>DR_MOS_VCCSA:VISHAY</td></tr></table>						PART NUMBER	QTY	DESCRIPTION	REFERENCE DES	CRITICAL	BOM OPTION	353S00525	1	IC,SIC532,DR MOS,IMVP-8,30A,PQFN24,45X35	U7270	CRITICAL	DR_MOS_VCCSA:VISHAY																																	
PART NUMBER	QTY	DESCRIPTION	REFERENCE DES	CRITICAL	BOM OPTION																																													
353S00525	1	IC,SIC532,DR MOS,IMVP-8,30A,PQFN24,45X35	U7270	CRITICAL	DR_MOS_VCCSA:VISHAY																																													
VR DRIVER CPU GT																																																		
<table><tr><th>PART NUMBER</th><th>QTY</th><th>DESCRIPTION</th><th>REFERENCE DES</th><th>CRITICAL</th><th>BOM OPTION</th></tr><tr><td>353S00519</td><td>2</td><td>IC,SIC621,DR MOS,IMVP-8,60A,PQFN31,5X5MM</td><td>U7410,U7420</td><td>CRITICAL</td><td>DR_MOS_GT:VISHAY</td></tr></table>						PART NUMBER	QTY	DESCRIPTION	REFERENCE DES	CRITICAL	BOM OPTION	353S00519	2	IC,SIC621,DR MOS,IMVP-8,60A,PQFN31,5X5MM	U7410,U7420	CRITICAL	DR_MOS_GT:VISHAY																																	
PART NUMBER	QTY	DESCRIPTION	REFERENCE DES	CRITICAL	BOM OPTION																																													
353S00519	2	IC,SIC621,DR MOS,IMVP-8,60A,PQFN31,5X5MM	U7410,U7420	CRITICAL	DR_MOS_GT:VISHAY																																													
BOM CONFIGURATION																																																		
SYNC_MASTER=PAGE TITLE						SYNC_DATE=																																												
 Apple Inc.						DRAWING NUMBER	051-05309																																											
						REVISION	6.0.0																																											
NOTICE OF PROPRIETARY PROPERTY: THE INFORMATION CONTAINED HEREIN IS THE PROPRIETARY PROPERTY OF APPLE INC. THE POSSESSOR AGREES TO THE FOLLOWING: 1 TO MAINTAIN THIS DOCUMENT IN CONFIDENCE 11 NOT TO REPRODUCE OR COPY IT 111 NOT TO REVEAL OR PUBLISH IT IN WHOLE OR PART 1V ALL RIGHTS RESERVED						BRANCH	pvt																																											
						PAGE	400 OF 500																																											
						SHEET	91 OF 98																																											

	8	7	6	5	4	3	2	1																																																																																																																
D	<div>COMMON BOM GROUPS</div> <table><tr><th>BOM GROUP</th><th>BOM OPTIONS</th></tr><tr><td>X1782_COMMON_PARTS</td><td>SCH,PCB,ALT_CMN,COMMON,ALTERNATE:PART,X1782_USB,X1782_WIFI_MISC,X1782_X86,X1782_MISC,X1782_T290,SENSE_PROD</td></tr><tr><td>X1782_USB</td><td>TBT:TR_C1_PRQ,UPC:ACE2_B2,TBT_ROM:PVT,USBC_SHLD</td></tr><tr><td>X1782_WIFI_MISC</td><td>MODULE:MUR_ES_3P1,WIFI_ROM:PVT,BT_ROM:PVT,STANDOFFS_TOP,STANDOFFS_BOT,CPU_SLEDS</td></tr><tr><td>X1782_X86</td><td>EDP_ENABLE,DR_MOS_CORE:VISHAY,DR_MOS_VCCSA:VISHAY,DR_MOS_GT:VISHAY,IND_VCCSA:CYNTEC,DRAM_TOP_FENC,DRAM_BOT_CAN</td></tr><tr><td>X1782_T290</td><td>BOARDID0,BOARDID1,BOARDID3,BOARDID4,BOARDID5,BOARDREV2,CALPE_L:OTP_BC,SE:PROD_2019,NAND_VCC:2.5V,MEGA_SHLD</td></tr><tr><td>X1782_MISC</td><td>CHARGER_IC:POC,AMR:POC,SPEAKER_AMP:CO,SOC_DFU_BYPASS,BKLT_FILT:ZERO_OHM,XDP:YES,WASHER_DFR,LOADRC:NO</td></tr></table> <div>DEBUG BOM PARTS</div> <table><tr><th>BOM GROUP</th><th>BOM OPTIONS</th></tr><tr><td>X1782_DEV_1</td><td>XDP_CONN:YES</td></tr><tr><td>X1782_DEV_2</td><td>USBC_AARDVARKANOID,USBC_ARKANOID</td></tr></table> <div>DRAM AND SPD</div> <table><tr><th>BOM GROUP</th><th>BOM OPTIONS</th></tr><tr><td>X1782_08GB_HY</td><td>DRAM:08GB_HY,RAMCFG4_L,RAMCFG3_L,RAMCFG2_L,RAMCFG1_L,RAMCFG0_L</td></tr><tr><td>X1782_08GB_SS</td><td>DRAM:08GB_SS_D,RAMCFG2_L,RAMCFG0_L</td></tr><tr><td>X1782_16GB_HY</td><td>DRAM:16GB_HY,RAMCFG4_L,RAMCFG3_L,RAMCFG1_L,RAMCFG0_L</td></tr><tr><td>X1782_16GB_SS</td><td>DRAM:16GB_SS_D,RAMCFG0_L</td></tr><tr><td>X1782_NO_DRAM</td><td>DRAM:OFF</td></tr></table> <div>CPU</div> <table><tr><th>BOM GROUP</th><th>BOM OPTIONS</th></tr><tr><td>X1782_CPU_1P4GHZ</td><td>CPU:15W_1P4G_SREZ2</td></tr><tr><td>X1782_CPU_1P7GHZ</td><td>CPU:15W_1P7G_SREZ1</td></tr><tr><td>X1782_CPU_NO_CPU</td><td>CPU:OFF</td></tr></table> <div>SOC AND NAND</div> <table><tr><th>BOM GROUP</th><th>BOM OPTIONS</th></tr><tr><td>X1782_TLC_128GB_HY</td><td>SOC:PROD_B0_1G,SSD:2L,NAND_U8600:2DP_HY_SLT,NAND_U8700:2DP_HY_SLT</td></tr><tr><td>X1782_TLC_128GB_TS</td><td>SOC:PROD_B0_1G,SSD:2L,NAND_U8600:2DP_TS_SLT,NAND_U8700:2DP_TS_SLT</td></tr><tr><td>X1782_TLC_256GB_HY</td><td>SOC:PROD_B0_1G,SSD:4L,NAND_U8600:4DP_HY_SLT,NAND_U8700:2DP_HY_SLT,NAND_U8800:2DP_HY_SLT,NAND_U8900:2DP_HY_SLT</td></tr><tr><td>X1782_TLC_256GB_TS</td><td>SOC:PROD_B0_1G,SSD:4L,NAND_U8600:4DP_TS_SLT,NAND_U8700:2DP_TS_SLT,NAND_U8800:2DP_TS_SLT,NAND_U8900:2DP_TS_SLT</td></tr><tr><td>X1782_TLC_256GB_SS</td><td>SOC:PROD_B0_1G,SSD:4L,NAND_U8600:4DP_SS_SLT,NAND_U8700:2DP_SS_SLT,NAND_U8800:2DP_SS_SLT,NAND_U8900:2DP_SS_SLT</td></tr><tr><td>X1782_TLC_512GB_HY</td><td>SOC:PROD_B0_1G,SSD:4L,NAND_U8600:6DP_HY_SLT,NAND_U8700:6DP_HY_SLT,NAND_U8800:4DP_HY_SLT,NAND_U8900:4DP_HY_SLT</td></tr><tr><td>X1782_TLC_512GB_TS</td><td>SOC:PROD_B0_1G,SSD:4L,NAND_U8600:6DP_TS_SLT,NAND_U8700:6DP_TS_SLT,NAND_U8800:4DP_TS_SLT,NAND_U8900:4DP_TS_SLT</td></tr><tr><td>X1782_TLC_001TB_HY</td><td>SOC:PROD_B0_2G,SSD:4L,NAND_U8600:10DP_HY_SLT,NAND_U8700:10DP_HY_SLT,NAND_U8800:8DP_HY_SLT,NAND_U8900:8DP_HY_SLT</td></tr><tr><td>X1782_TLC_001TB_TS</td><td>SOC:PROD_B0_2G,SSD:4L,NAND_U8600:10DP_TS_SLT,NAND_U8700:10DP_TS_SLT,NAND_U8800:8DP_TS_SLT,NAND_U8900:8DP_TS_SLT</td></tr><tr><td>X1782_TLC_002TB_HY</td><td>SOC:PROD_B0_2G,SSD:4L,NAND_U8600:16DP_HY_SLT,NAND_U8700:16DP_HY_SLT,NAND_U8800:16DP_HY_SLT,NAND_U8900:16DP_HY_SLT</td></tr><tr><td>X1782_TLC_002TB_WD</td><td>SOC:PROD_B0_2G,SSD:4L,NAND_U8600:16DP_WD_SLT,NAND_U8700:16DP_WD_SLT,NAND_U8800:16DP_WD_SLT,NAND_U8900:16DP_WD_SLT</td></tr><tr><td>X1782_NO_NAND_2_LD</td><td>SOC:OFF,SSD:2L,NAND_U8600:OFF,NAND_U8700:OFF,NAND_U8800:OFF,NAND_U8900:OFF</td></tr><tr><td>X1782_NO_NAND_4_LD</td><td>SOC:OFF,SSD:4L,NAND_U8600:OFF,NAND_U8700:OFF,NAND_U8800:OFF,NAND_U8900:OFF</td></tr></table> <div>NOTES:</div> <div>"SENSOR:DEV" IS FOR SENSE RESISTORS. WHEN CURRENT SENSING IS REMOVED AT DVT, THESE RESISTORS WILL BE REPLACED WITH A SPECIAL SYMBOL, A COPPER SHAPE SHORTING THE TWO TERMINALS</div> <div>"LOADSENS" ARE CIRCUITS ONLY REQUIRED UNTIL DVT TO MEASURE/SENSE CURRENT. SENSE CIRCUITS REQUIRED BY SMC WILL NOT HAVE THIS OPTION SINCE THEY WILL STAY TILL DVT</div> <div>"LOADRC:YES/NO" RC FILTERS INTO ADC WILL BE REPLACED BY 100K PD ONCE THE SENSE CIRCUITS GO AWAY</div> <div>CPU DRAM CFG[4:0] CHART</div> <table><tr><td>DIE REV</td><td>CFG 4</td><td>VENDOR</td><td>CFG 1</td><td>CFG 0</td></tr><tr><td>A</td><td>0</td><td>HYNIX</td><td>0</td><td>0</td></tr><tr><td>B</td><td>1</td><td>MICRON</td><td>0</td><td>1</td></tr><tr><td></td><td></td><td>SAMSUNG</td><td>1</td><td>0</td></tr><tr><td></td><td></td><td>N/A</td><td>1</td><td>1</td></tr></table> <table><tr><td>SPEED</td><td>CFG 3</td></tr><tr><td>2133</td><td>0</td></tr><tr><td>1866</td><td>1</td></tr></table> <table><tr><td>CAPACITY</td><td>CFG 2</td></tr><tr><td>8GB</td><td>0</td></tr><tr><td>16GB</td><td>1</td></tr></table>								BOM GROUP	BOM OPTIONS	X1782_COMMON_PARTS	SCH,PCB,ALT_CMN,COMMON,ALTERNATE:PART,X1782_USB,X1782_WIFI_MISC,X1782_X86,X1782_MISC,X1782_T290,SENSE_PROD	X1782_USB	TBT:TR_C1_PRQ,UPC:ACE2_B2,TBT_ROM:PVT,USBC_SHLD	X1782_WIFI_MISC	MODULE:MUR_ES_3P1,WIFI_ROM:PVT,BT_ROM:PVT,STANDOFFS_TOP,STANDOFFS_BOT,CPU_SLEDS	X1782_X86	EDP_ENABLE,DR_MOS_CORE:VISHAY,DR_MOS_VCCSA:VISHAY,DR_MOS_GT:VISHAY,IND_VCCSA:CYNTEC,DRAM_TOP_FENC,DRAM_BOT_CAN	X1782_T290	BOARDID0,BOARDID1,BOARDID3,BOARDID4,BOARDID5,BOARDREV2,CALPE_L:OTP_BC,SE:PROD_2019,NAND_VCC:2.5V,MEGA_SHLD	X1782_MISC	CHARGER_IC:POC,AMR:POC,SPEAKER_AMP:CO,SOC_DFU_BYPASS,BKLT_FILT:ZERO_OHM,XDP:YES,WASHER_DFR,LOADRC:NO	BOM GROUP	BOM OPTIONS	X1782_DEV_1	XDP_CONN:YES	X1782_DEV_2	USBC_AARDVARKANOID,USBC_ARKANOID	BOM GROUP	BOM OPTIONS	X1782_08GB_HY	DRAM:08GB_HY,RAMCFG4_L,RAMCFG3_L,RAMCFG2_L,RAMCFG1_L,RAMCFG0_L	X1782_08GB_SS	DRAM:08GB_SS_D,RAMCFG2_L,RAMCFG0_L	X1782_16GB_HY	DRAM:16GB_HY,RAMCFG4_L,RAMCFG3_L,RAMCFG1_L,RAMCFG0_L	X1782_16GB_SS	DRAM:16GB_SS_D,RAMCFG0_L	X1782_NO_DRAM	DRAM:OFF	BOM GROUP	BOM OPTIONS	X1782_CPU_1P4GHZ	CPU:15W_1P4G_SREZ2	X1782_CPU_1P7GHZ	CPU:15W_1P7G_SREZ1	X1782_CPU_NO_CPU	CPU:OFF	BOM GROUP	BOM OPTIONS	X1782_TLC_128GB_HY	SOC:PROD_B0_1G,SSD:2L,NAND_U8600:2DP_HY_SLT,NAND_U8700:2DP_HY_SLT	X1782_TLC_128GB_TS	SOC:PROD_B0_1G,SSD:2L,NAND_U8600:2DP_TS_SLT,NAND_U8700:2DP_TS_SLT	X1782_TLC_256GB_HY	SOC:PROD_B0_1G,SSD:4L,NAND_U8600:4DP_HY_SLT,NAND_U8700:2DP_HY_SLT,NAND_U8800:2DP_HY_SLT,NAND_U8900:2DP_HY_SLT	X1782_TLC_256GB_TS	SOC:PROD_B0_1G,SSD:4L,NAND_U8600:4DP_TS_SLT,NAND_U8700:2DP_TS_SLT,NAND_U8800:2DP_TS_SLT,NAND_U8900:2DP_TS_SLT	X1782_TLC_256GB_SS	SOC:PROD_B0_1G,SSD:4L,NAND_U8600:4DP_SS_SLT,NAND_U8700:2DP_SS_SLT,NAND_U8800:2DP_SS_SLT,NAND_U8900:2DP_SS_SLT	X1782_TLC_512GB_HY	SOC:PROD_B0_1G,SSD:4L,NAND_U8600:6DP_HY_SLT,NAND_U8700:6DP_HY_SLT,NAND_U8800:4DP_HY_SLT,NAND_U8900:4DP_HY_SLT	X1782_TLC_512GB_TS	SOC:PROD_B0_1G,SSD:4L,NAND_U8600:6DP_TS_SLT,NAND_U8700:6DP_TS_SLT,NAND_U8800:4DP_TS_SLT,NAND_U8900:4DP_TS_SLT	X1782_TLC_001TB_HY	SOC:PROD_B0_2G,SSD:4L,NAND_U8600:10DP_HY_SLT,NAND_U8700:10DP_HY_SLT,NAND_U8800:8DP_HY_SLT,NAND_U8900:8DP_HY_SLT	X1782_TLC_001TB_TS	SOC:PROD_B0_2G,SSD:4L,NAND_U8600:10DP_TS_SLT,NAND_U8700:10DP_TS_SLT,NAND_U8800:8DP_TS_SLT,NAND_U8900:8DP_TS_SLT	X1782_TLC_002TB_HY	SOC:PROD_B0_2G,SSD:4L,NAND_U8600:16DP_HY_SLT,NAND_U8700:16DP_HY_SLT,NAND_U8800:16DP_HY_SLT,NAND_U8900:16DP_HY_SLT	X1782_TLC_002TB_WD	SOC:PROD_B0_2G,SSD:4L,NAND_U8600:16DP_WD_SLT,NAND_U8700:16DP_WD_SLT,NAND_U8800:16DP_WD_SLT,NAND_U8900:16DP_WD_SLT	X1782_NO_NAND_2_LD	SOC:OFF,SSD:2L,NAND_U8600:OFF,NAND_U8700:OFF,NAND_U8800:OFF,NAND_U8900:OFF	X1782_NO_NAND_4_LD	SOC:OFF,SSD:4L,NAND_U8600:OFF,NAND_U8700:OFF,NAND_U8800:OFF,NAND_U8900:OFF	DIE REV	CFG 4	VENDOR	CFG 1	CFG 0	A	0	HYNIX	0	0	B	1	MICRON	0	1			SAMSUNG	1	0			N/A	1	1	SPEED	CFG 3	2133	0	1866	1	CAPACITY	CFG 2	8GB	0	16GB	1							
BOM GROUP	BOM OPTIONS																																																																																																																							
X1782_COMMON_PARTS	SCH,PCB,ALT_CMN,COMMON,ALTERNATE:PART,X1782_USB,X1782_WIFI_MISC,X1782_X86,X1782_MISC,X1782_T290,SENSE_PROD																																																																																																																							
X1782_USB	TBT:TR_C1_PRQ,UPC:ACE2_B2,TBT_ROM:PVT,USBC_SHLD																																																																																																																							
X1782_WIFI_MISC	MODULE:MUR_ES_3P1,WIFI_ROM:PVT,BT_ROM:PVT,STANDOFFS_TOP,STANDOFFS_BOT,CPU_SLEDS																																																																																																																							
X1782_X86	EDP_ENABLE,DR_MOS_CORE:VISHAY,DR_MOS_VCCSA:VISHAY,DR_MOS_GT:VISHAY,IND_VCCSA:CYNTEC,DRAM_TOP_FENC,DRAM_BOT_CAN																																																																																																																							
X1782_T290	BOARDID0,BOARDID1,BOARDID3,BOARDID4,BOARDID5,BOARDREV2,CALPE_L:OTP_BC,SE:PROD_2019,NAND_VCC:2.5V,MEGA_SHLD																																																																																																																							
X1782_MISC	CHARGER_IC:POC,AMR:POC,SPEAKER_AMP:CO,SOC_DFU_BYPASS,BKLT_FILT:ZERO_OHM,XDP:YES,WASHER_DFR,LOADRC:NO																																																																																																																							
BOM GROUP	BOM OPTIONS																																																																																																																							
X1782_DEV_1	XDP_CONN:YES																																																																																																																							
X1782_DEV_2	USBC_AARDVARKANOID,USBC_ARKANOID																																																																																																																							
BOM GROUP	BOM OPTIONS																																																																																																																							
X1782_08GB_HY	DRAM:08GB_HY,RAMCFG4_L,RAMCFG3_L,RAMCFG2_L,RAMCFG1_L,RAMCFG0_L																																																																																																																							
X1782_08GB_SS	DRAM:08GB_SS_D,RAMCFG2_L,RAMCFG0_L																																																																																																																							
X1782_16GB_HY	DRAM:16GB_HY,RAMCFG4_L,RAMCFG3_L,RAMCFG1_L,RAMCFG0_L																																																																																																																							
X1782_16GB_SS	DRAM:16GB_SS_D,RAMCFG0_L																																																																																																																							
X1782_NO_DRAM	DRAM:OFF																																																																																																																							
BOM GROUP	BOM OPTIONS																																																																																																																							
X1782_CPU_1P4GHZ	CPU:15W_1P4G_SREZ2																																																																																																																							
X1782_CPU_1P7GHZ	CPU:15W_1P7G_SREZ1																																																																																																																							
X1782_CPU_NO_CPU	CPU:OFF																																																																																																																							
BOM GROUP	BOM OPTIONS																																																																																																																							
X1782_TLC_128GB_HY	SOC:PROD_B0_1G,SSD:2L,NAND_U8600:2DP_HY_SLT,NAND_U8700:2DP_HY_SLT																																																																																																																							
X1782_TLC_128GB_TS	SOC:PROD_B0_1G,SSD:2L,NAND_U8600:2DP_TS_SLT,NAND_U8700:2DP_TS_SLT																																																																																																																							
X1782_TLC_256GB_HY	SOC:PROD_B0_1G,SSD:4L,NAND_U8600:4DP_HY_SLT,NAND_U8700:2DP_HY_SLT,NAND_U8800:2DP_HY_SLT,NAND_U8900:2DP_HY_SLT																																																																																																																							
X1782_TLC_256GB_TS	SOC:PROD_B0_1G,SSD:4L,NAND_U8600:4DP_TS_SLT,NAND_U8700:2DP_TS_SLT,NAND_U8800:2DP_TS_SLT,NAND_U8900:2DP_TS_SLT																																																																																																																							
X1782_TLC_256GB_SS	SOC:PROD_B0_1G,SSD:4L,NAND_U8600:4DP_SS_SLT,NAND_U8700:2DP_SS_SLT,NAND_U8800:2DP_SS_SLT,NAND_U8900:2DP_SS_SLT																																																																																																																							
X1782_TLC_512GB_HY	SOC:PROD_B0_1G,SSD:4L,NAND_U8600:6DP_HY_SLT,NAND_U8700:6DP_HY_SLT,NAND_U8800:4DP_HY_SLT,NAND_U8900:4DP_HY_SLT																																																																																																																							
X1782_TLC_512GB_TS	SOC:PROD_B0_1G,SSD:4L,NAND_U8600:6DP_TS_SLT,NAND_U8700:6DP_TS_SLT,NAND_U8800:4DP_TS_SLT,NAND_U8900:4DP_TS_SLT																																																																																																																							
X1782_TLC_001TB_HY	SOC:PROD_B0_2G,SSD:4L,NAND_U8600:10DP_HY_SLT,NAND_U8700:10DP_HY_SLT,NAND_U8800:8DP_HY_SLT,NAND_U8900:8DP_HY_SLT																																																																																																																							
X1782_TLC_001TB_TS	SOC:PROD_B0_2G,SSD:4L,NAND_U8600:10DP_TS_SLT,NAND_U8700:10DP_TS_SLT,NAND_U8800:8DP_TS_SLT,NAND_U8900:8DP_TS_SLT																																																																																																																							
X1782_TLC_002TB_HY	SOC:PROD_B0_2G,SSD:4L,NAND_U8600:16DP_HY_SLT,NAND_U8700:16DP_HY_SLT,NAND_U8800:16DP_HY_SLT,NAND_U8900:16DP_HY_SLT																																																																																																																							
X1782_TLC_002TB_WD	SOC:PROD_B0_2G,SSD:4L,NAND_U8600:16DP_WD_SLT,NAND_U8700:16DP_WD_SLT,NAND_U8800:16DP_WD_SLT,NAND_U8900:16DP_WD_SLT																																																																																																																							
X1782_NO_NAND_2_LD	SOC:OFF,SSD:2L,NAND_U8600:OFF,NAND_U8700:OFF,NAND_U8800:OFF,NAND_U8900:OFF																																																																																																																							
X1782_NO_NAND_4_LD	SOC:OFF,SSD:4L,NAND_U8600:OFF,NAND_U8700:OFF,NAND_U8800:OFF,NAND_U8900:OFF																																																																																																																							
DIE REV	CFG 4	VENDOR	CFG 1	CFG 0																																																																																																																				
A	0	HYNIX	0	0																																																																																																																				
B	1	MICRON	0	1																																																																																																																				
		SAMSUNG	1	0																																																																																																																				
		N/A	1	1																																																																																																																				
SPEED	CFG 3																																																																																																																							
2133	0																																																																																																																							
1866	1																																																																																																																							
CAPACITY	CFG 2																																																																																																																							
8GB	0																																																																																																																							
16GB	1																																																																																																																							
A	<div>SYNC_MASTER=</div> <div>SYNC_DATE=</div> <div>PAGE</div> <div>TITLE</div> <div>BOM GROUPS</div> <div><div><div>Apple Inc.</div><div>NOTICE OF PROPRIETARY PROPERTY: THE INFORMATION CONTAINED HEREIN IS THE PROPRIETARY PROPERTY OF APPLE INC. THE POSSESSOR AGREES TO THE FOLLOWING: I TO MAINTAIN THIS DOCUMENT IN CONFIDENCE II NOT TO REPRODUCE OR COPY IT III NOT TO REVEAL OR PUBLISH IT IN WHOLE OR PART IV ALL RIGHTS RESERVED</div></div><div><div>DRAWING NUMBER</div><div>051-05309</div><div>REVISION</div><div>6.0.0</div><div>BRANCH</div><div>pvt</div><div>PAGE</div><div>403 OF 500</div><div>SHEET</div><div>93 OF 98</div></div></div>																																																																																																																							
	8	7	6	5	4	3	2	1																																																																																																																

	8	7	6	5	4	3	2	1																																																																																																																																								
D	<div>POR BOMS - MLB-1 (1.4 GHZ CPU)</div> <table><tr><th>BOM NUMBER</th><th>BOM NAME</th><th>BOM OPTIONS</th></tr><tr><td>639-09103</td><td>MLB-1,SS-8GB,TS-128GB,X1782</td><td>ALT_OWN,ALTERNATE:PART,X1782_COMMON_BOM,X1782_CPU_1P4GHZ,X1782_08GB_SS,X1782_TLC_128GB_TS</td></tr><tr><td>639-09102</td><td>MLB-1,HY-8GB,TS-128GB,X1782</td><td>ALT_OWN,ALTERNATE:PART,X1782_COMMON_BOM,X1782_CPU_1P4GHZ,X1782_08GB_HY,X1782_TLC_128GB_TS</td></tr><tr><td>639-10001</td><td>MLB-1,SS-8GB,HY-128GB,X1782</td><td>ALT_OWN,ALTERNATE:PART,X1782_COMMON_BOM,X1782_CPU_1P4GHZ,X1782_08GB_SS,X1782_TLC_128GB_HY</td></tr><tr><td>639-10002</td><td>MLB-1,HY-8GB,HY-128GB,X1782</td><td>ALT_OWN,ALTERNATE:PART,X1782_COMMON_BOM,X1782_CPU_1P4GHZ,X1782_08GB_HY,X1782_TLC_128GB_HY</td></tr><tr><td>639-10003</td><td>MLB-1,SS-16GB,HY-128GB,X1782</td><td>ALT_OWN,ALTERNATE:PART,X1782_COMMON_BOM,X1782_CPU_1P4GHZ,X1782_16GB_SS,X1782_TLC_128GB_HY</td></tr><tr><td>639-10004</td><td>MLB-1,SS-16GB,TS-128GB,X1782</td><td>ALT_OWN,ALTERNATE:PART,X1782_COMMON_BOM,X1782_CPU_1P4GHZ,X1782_16GB_SS,X1782_TLC_128GB_TS</td></tr><tr><td>639-10005</td><td>MLB-1,HY-16GB,HY-128GB,X1782</td><td>ALT_OWN,ALTERNATE:PART,X1782_COMMON_BOM,X1782_CPU_1P4GHZ,X1782_16GB_HY,X1782_TLC_128GB_HY</td></tr><tr><td>639-10006</td><td>MLB-1,HY-16GB,TS-128GB,X1782</td><td>ALT_OWN,ALTERNATE:PART,X1782_COMMON_BOM,X1782_CPU_1P4GHZ,X1782_16GB_HY,X1782_TLC_128GB_TS</td></tr><tr><td>639-10007</td><td>MLB-1,SS-8GB,HY-256GB,X1782</td><td>ALT_OWN,ALTERNATE:PART,X1782_COMMON_BOM,X1782_CPU_1P4GHZ,X1782_08GB_SS,X1782_TLC_256GB_HY</td></tr><tr><td>639-10008</td><td>MLB-1,SS-8GB,SS-256GB,X1782</td><td>ALT_OWN,ALTERNATE:PART,X1782_COMMON_BOM,X1782_CPU_1P4GHZ,X1782_08GB_SS,X1782_TLC_256GB_SS</td></tr><tr><td>639-10009</td><td>MLB-1,SS-8GB,TS-256GB,X1782</td><td>ALT_OWN,ALTERNATE:PART,X1782_COMMON_BOM,X1782_CPU_1P4GHZ,X1782_08GB_SS,X1782_TLC_256GB_TS</td></tr><tr><td>639-10010</td><td>MLB-1,HY-8GB,HY-256GB,X1782</td><td>ALT_OWN,ALTERNATE:PART,X1782_COMMON_BOM,X1782_CPU_1P4GHZ,X1782_08GB_HY,X1782_TLC_256GB_HY</td></tr><tr><td>639-10011</td><td>MLB-1,HY-8GB,SS-256GB,X1782</td><td>ALT_OWN,ALTERNATE:PART,X1782_COMMON_BOM,X1782_CPU_1P4GHZ,X1782_08GB_HY,X1782_TLC_256GB_SS</td></tr><tr><td>639-10012</td><td>MLB-1,HY-8GB,TS-256GB,X1782</td><td>ALT_OWN,ALTERNATE:PART,X1782_COMMON_BOM,X1782_CPU_1P4GHZ,X1782_08GB_HY,X1782_TLC_256GB_TS</td></tr><tr><td>639-10013</td><td>MLB-1,SS-16GB,HY-256GB,X1782</td><td>ALT_OWN,ALTERNATE:PART,X1782_COMMON_BOM,X1782_CPU_1P4GHZ,X1782_16GB_SS,X1782_TLC_256GB_HY</td></tr><tr><td>639-10014</td><td>MLB-1,SS-16GB,SS-256GB,X1782</td><td>ALT_OWN,ALTERNATE:PART,X1782_COMMON_BOM,X1782_CPU_1P4GHZ,X1782_16GB_SS,X1782_TLC_256GB_SS</td></tr><tr><td>639-10015</td><td>MLB-1,SS-16GB,TS-256GB,X1782</td><td>ALT_OWN,ALTERNATE:PART,X1782_COMMON_BOM,X1782_CPU_1P4GHZ,X1782_16GB_SS,X1782_TLC_256GB_TS</td></tr><tr><td>639-10016</td><td>MLB-1,HY-16GB,HY-256GB,X1782</td><td>ALT_OWN,ALTERNATE:PART,X1782_COMMON_BOM,X1782_CPU_1P4GHZ,X1782_16GB_HY,X1782_TLC_256GB_HY</td></tr><tr><td>639-10017</td><td>MLB-1,HY-16GB,SS-256GB,X1782</td><td>ALT_OWN,ALTERNATE:PART,X1782_COMMON_BOM,X1782_CPU_1P4GHZ,X1782_16GB_HY,X1782_TLC_256GB_SS</td></tr><tr><td>639-10018</td><td>MLB-1,HY-16GB,TS-256GB,X1782</td><td>ALT_OWN,ALTERNATE:PART,X1782_COMMON_BOM,X1782_CPU_1P4GHZ,X1782_16GB_HY,X1782_TLC_256GB_TS</td></tr><tr><td>639-10019</td><td>MLB-1,SS-8GB,TS-512GB,X1782</td><td>ALT_OWN,ALTERNATE:PART,X1782_COMMON_BOM,X1782_CPU_1P4GHZ,X1782_08GB_SS,X1782_TLC_512GB_TS</td></tr><tr><td>639-10020</td><td>MLB-1,HY-8GB,HY-512GB,X1782</td><td>ALT_OWN,ALTERNATE:PART,X1782_COMMON_BOM,X1782_CPU_1P4GHZ,X1782_08GB_HY,X1782_TLC_512GB_HY</td></tr><tr><td>639-10021</td><td>MLB-1,HY-8GB,TS-512GB,X1782</td><td>ALT_OWN,ALTERNATE:PART,X1782_COMMON_BOM,X1782_CPU_1P4GHZ,X1782_08GB_HY,X1782_TLC_512GB_TS</td></tr><tr><td>639-10022</td><td>MLB-1,SS-16GB,HY-512GB,X1782</td><td>ALT_OWN,ALTERNATE:PART,X1782_COMMON_BOM,X1782_CPU_1P4GHZ,X1782_16GB_SS,X1782_TLC_512GB_HY</td></tr><tr><td>639-10023</td><td>MLB-1,SS-16GB,TS-512GB,X1782</td><td>ALT_OWN,ALTERNATE:PART,X1782_COMMON_BOM,X1782_CPU_1P4GHZ,X1782_16GB_SS,X1782_TLC_512GB_TS</td></tr><tr><td>639-10024</td><td>MLB-1,HY-16GB,HY-512GB,X1782</td><td>ALT_OWN,ALTERNATE:PART,X1782_COMMON_BOM,X1782_CPU_1P4GHZ,X1782_16GB_HY,X1782_TLC_512GB_HY</td></tr><tr><td>639-10025</td><td>MLB-1,HY-16GB,TS-512GB,X1782</td><td>ALT_OWN,ALTERNATE:PART,X1782_COMMON_BOM,X1782_CPU_1P4GHZ,X1782_16GB_HY,X1782_TLC_512GB_TS</td></tr><tr><td>639-10026</td><td>MLB-1,SS-8GB,HY-1TB,X1782</td><td>ALT_OWN,ALTERNATE:PART,X1782_COMMON_BOM,X1782_CPU_1P4GHZ,X1782_08GB_SS,X1782_TLC_001TB_HY</td></tr><tr><td>639-10027</td><td>MLB-1,SS-8GB,TS-1TB,X1782</td><td>ALT_OWN,ALTERNATE:PART,X1782_COMMON_BOM,X1782_CPU_1P4GHZ,X1782_08GB_SS,X1782_TLC_001TB_TS</td></tr><tr><td>639-10028</td><td>MLB-1,HY-8GB,HY-1TB,X1782</td><td>ALT_OWN,ALTERNATE:PART,X1782_COMMON_BOM,X1782_CPU_1P4GHZ,X1782_08GB_HY,X1782_TLC_001TB_HY</td></tr><tr><td>639-10029</td><td>MLB-1,HY-8GB,TS-1TB,X1782</td><td>ALT_OWN,ALTERNATE:PART,X1782_COMMON_BOM,X1782_CPU_1P4GHZ,X1782_08GB_HY,X1782_TLC_001TB_TS</td></tr><tr><td>639-10030</td><td>MLB-1,SS-16GB,HY-1TB,X1782</td><td>ALT_OWN,ALTERNATE:PART,X1782_COMMON_BOM,X1782_CPU_1P4GHZ,X1782_16GB_SS,X1782_TLC_001TB_HY</td></tr><tr><td>639-10031</td><td>MLB-1,SS-16GB,TS-1TB,X1782</td><td>ALT_OWN,ALTERNATE:PART,X1782_COMMON_BOM,X1782_CPU_1P4GHZ,X1782_16GB_SS,X1782_TLC_001TB_TS</td></tr><tr><td>639-10032</td><td>MLB-1,HY-16GB,HY-1TB,X1782</td><td>ALT_OWN,ALTERNATE:PART,X1782_COMMON_BOM,X1782_CPU_1P4GHZ,X1782_16GB_HY,X1782_TLC_001TB_HY</td></tr><tr><td>639-10033</td><td>MLB-1,HY-16GB,TS-1TB,X1782</td><td>ALT_OWN,ALTERNATE:PART,X1782_COMMON_BOM,X1782_CPU_1P4GHZ,X1782_16GB_HY,X1782_TLC_001TB_TS</td></tr><tr><td>639-10034</td><td>MLB-1,SS-8GB,HY-2TB,X1782</td><td>ALT_OWN,ALTERNATE:PART,X1782_COMMON_BOM,X1782_CPU_1P4GHZ,X1782_08GB_SS,X1782_TLC_002TB_HY</td></tr><tr><td>639-10035</td><td>MLB-1,SS-8GB,HY-512GB,X1782</td><td>ALT_OWN,ALTERNATE:PART,X1782_COMMON_BOM,X1782_CPU_1P4GHZ,X1782_08GB_SS,X1782_TLC_512GB_HY</td></tr><tr><td>639-10036</td><td>MLB-1,HY-8GB,HY-2TB,X1782</td><td>ALT_OWN,ALTERNATE:PART,X1782_COMMON_BOM,X1782_CPU_1P4GHZ,X1782_08GB_HY,X1782_TLC_002TB_HY</td></tr><tr><td>639-10037</td><td>MLB-1,HY-8GB,WD-2TB,X1782</td><td>ALT_OWN,ALTERNATE:PART,X1782_COMMON_BOM,X1782_CPU_1P4GHZ,X1782_08GB_HY,X1782_TLC_002TB_WD</td></tr><tr><td>639-10038</td><td>MLB-1,SS-16GB,HY-2TB,X1782</td><td>ALT_OWN,ALTERNATE:PART,X1782_COMMON_BOM,X1782_CPU_1P4GHZ,X1782_16GB_SS,X1782_TLC_002TB_HY</td></tr><tr><td>639-10039</td><td>MLB-1,SS-16GB,WD-2TB,X1782</td><td>ALT_OWN,ALTERNATE:PART,X1782_COMMON_BOM,X1782_CPU_1P4GHZ,X1782_16GB_SS,X1782_TLC_002TB_WD</td></tr><tr><td>639-10040</td><td>MLB-1,HY-16GB,HY-2TB,X1782</td><td>ALT_OWN,ALTERNATE:PART,X1782_COMMON_BOM,X1782_CPU_1P4GHZ,X1782_16GB_HY,X1782_TLC_002TB_HY</td></tr><tr><td>639-10041</td><td>MLB-1,HY-16GB,WD-2TB,X1782</td><td>ALT_OWN,ALTERNATE:PART,X1782_COMMON_BOM,X1782_CPU_1P4GHZ,X1782_16GB_HY,X1782_TLC_002TB_WD</td></tr><tr><td>639-10084</td><td>MLB-1,SS-8GB,WD-2TB,X1782</td><td>ALT_OWN,ALTERNATE:PART,X1782_COMMON_BOM,X1782_CPU_1P4GHZ,X1782_08GB_SS,X1782_TLC_002TB_WD</td></tr></table>								BOM NUMBER	BOM NAME	BOM OPTIONS	639-09103	MLB-1,SS-8GB,TS-128GB,X1782	ALT_OWN,ALTERNATE:PART,X1782_COMMON_BOM,X1782_CPU_1P4GHZ,X1782_08GB_SS,X1782_TLC_128GB_TS	639-09102	MLB-1,HY-8GB,TS-128GB,X1782	ALT_OWN,ALTERNATE:PART,X1782_COMMON_BOM,X1782_CPU_1P4GHZ,X1782_08GB_HY,X1782_TLC_128GB_TS	639-10001	MLB-1,SS-8GB,HY-128GB,X1782	ALT_OWN,ALTERNATE:PART,X1782_COMMON_BOM,X1782_CPU_1P4GHZ,X1782_08GB_SS,X1782_TLC_128GB_HY	639-10002	MLB-1,HY-8GB,HY-128GB,X1782	ALT_OWN,ALTERNATE:PART,X1782_COMMON_BOM,X1782_CPU_1P4GHZ,X1782_08GB_HY,X1782_TLC_128GB_HY	639-10003	MLB-1,SS-16GB,HY-128GB,X1782	ALT_OWN,ALTERNATE:PART,X1782_COMMON_BOM,X1782_CPU_1P4GHZ,X1782_16GB_SS,X1782_TLC_128GB_HY	639-10004	MLB-1,SS-16GB,TS-128GB,X1782	ALT_OWN,ALTERNATE:PART,X1782_COMMON_BOM,X1782_CPU_1P4GHZ,X1782_16GB_SS,X1782_TLC_128GB_TS	639-10005	MLB-1,HY-16GB,HY-128GB,X1782	ALT_OWN,ALTERNATE:PART,X1782_COMMON_BOM,X1782_CPU_1P4GHZ,X1782_16GB_HY,X1782_TLC_128GB_HY	639-10006	MLB-1,HY-16GB,TS-128GB,X1782	ALT_OWN,ALTERNATE:PART,X1782_COMMON_BOM,X1782_CPU_1P4GHZ,X1782_16GB_HY,X1782_TLC_128GB_TS	639-10007	MLB-1,SS-8GB,HY-256GB,X1782	ALT_OWN,ALTERNATE:PART,X1782_COMMON_BOM,X1782_CPU_1P4GHZ,X1782_08GB_SS,X1782_TLC_256GB_HY	639-10008	MLB-1,SS-8GB,SS-256GB,X1782	ALT_OWN,ALTERNATE:PART,X1782_COMMON_BOM,X1782_CPU_1P4GHZ,X1782_08GB_SS,X1782_TLC_256GB_SS	639-10009	MLB-1,SS-8GB,TS-256GB,X1782	ALT_OWN,ALTERNATE:PART,X1782_COMMON_BOM,X1782_CPU_1P4GHZ,X1782_08GB_SS,X1782_TLC_256GB_TS	639-10010	MLB-1,HY-8GB,HY-256GB,X1782	ALT_OWN,ALTERNATE:PART,X1782_COMMON_BOM,X1782_CPU_1P4GHZ,X1782_08GB_HY,X1782_TLC_256GB_HY	639-10011	MLB-1,HY-8GB,SS-256GB,X1782	ALT_OWN,ALTERNATE:PART,X1782_COMMON_BOM,X1782_CPU_1P4GHZ,X1782_08GB_HY,X1782_TLC_256GB_SS	639-10012	MLB-1,HY-8GB,TS-256GB,X1782	ALT_OWN,ALTERNATE:PART,X1782_COMMON_BOM,X1782_CPU_1P4GHZ,X1782_08GB_HY,X1782_TLC_256GB_TS	639-10013	MLB-1,SS-16GB,HY-256GB,X1782	ALT_OWN,ALTERNATE:PART,X1782_COMMON_BOM,X1782_CPU_1P4GHZ,X1782_16GB_SS,X1782_TLC_256GB_HY	639-10014	MLB-1,SS-16GB,SS-256GB,X1782	ALT_OWN,ALTERNATE:PART,X1782_COMMON_BOM,X1782_CPU_1P4GHZ,X1782_16GB_SS,X1782_TLC_256GB_SS	639-10015	MLB-1,SS-16GB,TS-256GB,X1782	ALT_OWN,ALTERNATE:PART,X1782_COMMON_BOM,X1782_CPU_1P4GHZ,X1782_16GB_SS,X1782_TLC_256GB_TS	639-10016	MLB-1,HY-16GB,HY-256GB,X1782	ALT_OWN,ALTERNATE:PART,X1782_COMMON_BOM,X1782_CPU_1P4GHZ,X1782_16GB_HY,X1782_TLC_256GB_HY	639-10017	MLB-1,HY-16GB,SS-256GB,X1782	ALT_OWN,ALTERNATE:PART,X1782_COMMON_BOM,X1782_CPU_1P4GHZ,X1782_16GB_HY,X1782_TLC_256GB_SS	639-10018	MLB-1,HY-16GB,TS-256GB,X1782	ALT_OWN,ALTERNATE:PART,X1782_COMMON_BOM,X1782_CPU_1P4GHZ,X1782_16GB_HY,X1782_TLC_256GB_TS	639-10019	MLB-1,SS-8GB,TS-512GB,X1782	ALT_OWN,ALTERNATE:PART,X1782_COMMON_BOM,X1782_CPU_1P4GHZ,X1782_08GB_SS,X1782_TLC_512GB_TS	639-10020	MLB-1,HY-8GB,HY-512GB,X1782	ALT_OWN,ALTERNATE:PART,X1782_COMMON_BOM,X1782_CPU_1P4GHZ,X1782_08GB_HY,X1782_TLC_512GB_HY	639-10021	MLB-1,HY-8GB,TS-512GB,X1782	ALT_OWN,ALTERNATE:PART,X1782_COMMON_BOM,X1782_CPU_1P4GHZ,X1782_08GB_HY,X1782_TLC_512GB_TS	639-10022	MLB-1,SS-16GB,HY-512GB,X1782	ALT_OWN,ALTERNATE:PART,X1782_COMMON_BOM,X1782_CPU_1P4GHZ,X1782_16GB_SS,X1782_TLC_512GB_HY	639-10023	MLB-1,SS-16GB,TS-512GB,X1782	ALT_OWN,ALTERNATE:PART,X1782_COMMON_BOM,X1782_CPU_1P4GHZ,X1782_16GB_SS,X1782_TLC_512GB_TS	639-10024	MLB-1,HY-16GB,HY-512GB,X1782	ALT_OWN,ALTERNATE:PART,X1782_COMMON_BOM,X1782_CPU_1P4GHZ,X1782_16GB_HY,X1782_TLC_512GB_HY	639-10025	MLB-1,HY-16GB,TS-512GB,X1782	ALT_OWN,ALTERNATE:PART,X1782_COMMON_BOM,X1782_CPU_1P4GHZ,X1782_16GB_HY,X1782_TLC_512GB_TS	639-10026	MLB-1,SS-8GB,HY-1TB,X1782	ALT_OWN,ALTERNATE:PART,X1782_COMMON_BOM,X1782_CPU_1P4GHZ,X1782_08GB_SS,X1782_TLC_001TB_HY	639-10027	MLB-1,SS-8GB,TS-1TB,X1782	ALT_OWN,ALTERNATE:PART,X1782_COMMON_BOM,X1782_CPU_1P4GHZ,X1782_08GB_SS,X1782_TLC_001TB_TS	639-10028	MLB-1,HY-8GB,HY-1TB,X1782	ALT_OWN,ALTERNATE:PART,X1782_COMMON_BOM,X1782_CPU_1P4GHZ,X1782_08GB_HY,X1782_TLC_001TB_HY	639-10029	MLB-1,HY-8GB,TS-1TB,X1782	ALT_OWN,ALTERNATE:PART,X1782_COMMON_BOM,X1782_CPU_1P4GHZ,X1782_08GB_HY,X1782_TLC_001TB_TS	639-10030	MLB-1,SS-16GB,HY-1TB,X1782	ALT_OWN,ALTERNATE:PART,X1782_COMMON_BOM,X1782_CPU_1P4GHZ,X1782_16GB_SS,X1782_TLC_001TB_HY	639-10031	MLB-1,SS-16GB,TS-1TB,X1782	ALT_OWN,ALTERNATE:PART,X1782_COMMON_BOM,X1782_CPU_1P4GHZ,X1782_16GB_SS,X1782_TLC_001TB_TS	639-10032	MLB-1,HY-16GB,HY-1TB,X1782	ALT_OWN,ALTERNATE:PART,X1782_COMMON_BOM,X1782_CPU_1P4GHZ,X1782_16GB_HY,X1782_TLC_001TB_HY	639-10033	MLB-1,HY-16GB,TS-1TB,X1782	ALT_OWN,ALTERNATE:PART,X1782_COMMON_BOM,X1782_CPU_1P4GHZ,X1782_16GB_HY,X1782_TLC_001TB_TS	639-10034	MLB-1,SS-8GB,HY-2TB,X1782	ALT_OWN,ALTERNATE:PART,X1782_COMMON_BOM,X1782_CPU_1P4GHZ,X1782_08GB_SS,X1782_TLC_002TB_HY	639-10035	MLB-1,SS-8GB,HY-512GB,X1782	ALT_OWN,ALTERNATE:PART,X1782_COMMON_BOM,X1782_CPU_1P4GHZ,X1782_08GB_SS,X1782_TLC_512GB_HY	639-10036	MLB-1,HY-8GB,HY-2TB,X1782	ALT_OWN,ALTERNATE:PART,X1782_COMMON_BOM,X1782_CPU_1P4GHZ,X1782_08GB_HY,X1782_TLC_002TB_HY	639-10037	MLB-1,HY-8GB,WD-2TB,X1782	ALT_OWN,ALTERNATE:PART,X1782_COMMON_BOM,X1782_CPU_1P4GHZ,X1782_08GB_HY,X1782_TLC_002TB_WD	639-10038	MLB-1,SS-16GB,HY-2TB,X1782	ALT_OWN,ALTERNATE:PART,X1782_COMMON_BOM,X1782_CPU_1P4GHZ,X1782_16GB_SS,X1782_TLC_002TB_HY	639-10039	MLB-1,SS-16GB,WD-2TB,X1782	ALT_OWN,ALTERNATE:PART,X1782_COMMON_BOM,X1782_CPU_1P4GHZ,X1782_16GB_SS,X1782_TLC_002TB_WD	639-10040	MLB-1,HY-16GB,HY-2TB,X1782	ALT_OWN,ALTERNATE:PART,X1782_COMMON_BOM,X1782_CPU_1P4GHZ,X1782_16GB_HY,X1782_TLC_002TB_HY	639-10041	MLB-1,HY-16GB,WD-2TB,X1782	ALT_OWN,ALTERNATE:PART,X1782_COMMON_BOM,X1782_CPU_1P4GHZ,X1782_16GB_HY,X1782_TLC_002TB_WD	639-10084	MLB-1,SS-8GB,WD-2TB,X1782	ALT_OWN,ALTERNATE:PART,X1782_COMMON_BOM,X1782_CPU_1P4GHZ,X1782_08GB_SS,X1782_TLC_002TB_WD	
BOM NUMBER	BOM NAME	BOM OPTIONS																																																																																																																																														
639-09103	MLB-1,SS-8GB,TS-128GB,X1782	ALT_OWN,ALTERNATE:PART,X1782_COMMON_BOM,X1782_CPU_1P4GHZ,X1782_08GB_SS,X1782_TLC_128GB_TS																																																																																																																																														
639-09102	MLB-1,HY-8GB,TS-128GB,X1782	ALT_OWN,ALTERNATE:PART,X1782_COMMON_BOM,X1782_CPU_1P4GHZ,X1782_08GB_HY,X1782_TLC_128GB_TS																																																																																																																																														
639-10001	MLB-1,SS-8GB,HY-128GB,X1782	ALT_OWN,ALTERNATE:PART,X1782_COMMON_BOM,X1782_CPU_1P4GHZ,X1782_08GB_SS,X1782_TLC_128GB_HY																																																																																																																																														
639-10002	MLB-1,HY-8GB,HY-128GB,X1782	ALT_OWN,ALTERNATE:PART,X1782_COMMON_BOM,X1782_CPU_1P4GHZ,X1782_08GB_HY,X1782_TLC_128GB_HY																																																																																																																																														
639-10003	MLB-1,SS-16GB,HY-128GB,X1782	ALT_OWN,ALTERNATE:PART,X1782_COMMON_BOM,X1782_CPU_1P4GHZ,X1782_16GB_SS,X1782_TLC_128GB_HY																																																																																																																																														
639-10004	MLB-1,SS-16GB,TS-128GB,X1782	ALT_OWN,ALTERNATE:PART,X1782_COMMON_BOM,X1782_CPU_1P4GHZ,X1782_16GB_SS,X1782_TLC_128GB_TS																																																																																																																																														
639-10005	MLB-1,HY-16GB,HY-128GB,X1782	ALT_OWN,ALTERNATE:PART,X1782_COMMON_BOM,X1782_CPU_1P4GHZ,X1782_16GB_HY,X1782_TLC_128GB_HY																																																																																																																																														
639-10006	MLB-1,HY-16GB,TS-128GB,X1782	ALT_OWN,ALTERNATE:PART,X1782_COMMON_BOM,X1782_CPU_1P4GHZ,X1782_16GB_HY,X1782_TLC_128GB_TS																																																																																																																																														
639-10007	MLB-1,SS-8GB,HY-256GB,X1782	ALT_OWN,ALTERNATE:PART,X1782_COMMON_BOM,X1782_CPU_1P4GHZ,X1782_08GB_SS,X1782_TLC_256GB_HY																																																																																																																																														
639-10008	MLB-1,SS-8GB,SS-256GB,X1782	ALT_OWN,ALTERNATE:PART,X1782_COMMON_BOM,X1782_CPU_1P4GHZ,X1782_08GB_SS,X1782_TLC_256GB_SS																																																																																																																																														
639-10009	MLB-1,SS-8GB,TS-256GB,X1782	ALT_OWN,ALTERNATE:PART,X1782_COMMON_BOM,X1782_CPU_1P4GHZ,X1782_08GB_SS,X1782_TLC_256GB_TS																																																																																																																																														
639-10010	MLB-1,HY-8GB,HY-256GB,X1782	ALT_OWN,ALTERNATE:PART,X1782_COMMON_BOM,X1782_CPU_1P4GHZ,X1782_08GB_HY,X1782_TLC_256GB_HY																																																																																																																																														
639-10011	MLB-1,HY-8GB,SS-256GB,X1782	ALT_OWN,ALTERNATE:PART,X1782_COMMON_BOM,X1782_CPU_1P4GHZ,X1782_08GB_HY,X1782_TLC_256GB_SS																																																																																																																																														
639-10012	MLB-1,HY-8GB,TS-256GB,X1782	ALT_OWN,ALTERNATE:PART,X1782_COMMON_BOM,X1782_CPU_1P4GHZ,X1782_08GB_HY,X1782_TLC_256GB_TS																																																																																																																																														
639-10013	MLB-1,SS-16GB,HY-256GB,X1782	ALT_OWN,ALTERNATE:PART,X1782_COMMON_BOM,X1782_CPU_1P4GHZ,X1782_16GB_SS,X1782_TLC_256GB_HY																																																																																																																																														
639-10014	MLB-1,SS-16GB,SS-256GB,X1782	ALT_OWN,ALTERNATE:PART,X1782_COMMON_BOM,X1782_CPU_1P4GHZ,X1782_16GB_SS,X1782_TLC_256GB_SS																																																																																																																																														
639-10015	MLB-1,SS-16GB,TS-256GB,X1782	ALT_OWN,ALTERNATE:PART,X1782_COMMON_BOM,X1782_CPU_1P4GHZ,X1782_16GB_SS,X1782_TLC_256GB_TS																																																																																																																																														
639-10016	MLB-1,HY-16GB,HY-256GB,X1782	ALT_OWN,ALTERNATE:PART,X1782_COMMON_BOM,X1782_CPU_1P4GHZ,X1782_16GB_HY,X1782_TLC_256GB_HY																																																																																																																																														
639-10017	MLB-1,HY-16GB,SS-256GB,X1782	ALT_OWN,ALTERNATE:PART,X1782_COMMON_BOM,X1782_CPU_1P4GHZ,X1782_16GB_HY,X1782_TLC_256GB_SS																																																																																																																																														
639-10018	MLB-1,HY-16GB,TS-256GB,X1782	ALT_OWN,ALTERNATE:PART,X1782_COMMON_BOM,X1782_CPU_1P4GHZ,X1782_16GB_HY,X1782_TLC_256GB_TS																																																																																																																																														
639-10019	MLB-1,SS-8GB,TS-512GB,X1782	ALT_OWN,ALTERNATE:PART,X1782_COMMON_BOM,X1782_CPU_1P4GHZ,X1782_08GB_SS,X1782_TLC_512GB_TS																																																																																																																																														
639-10020	MLB-1,HY-8GB,HY-512GB,X1782	ALT_OWN,ALTERNATE:PART,X1782_COMMON_BOM,X1782_CPU_1P4GHZ,X1782_08GB_HY,X1782_TLC_512GB_HY																																																																																																																																														
639-10021	MLB-1,HY-8GB,TS-512GB,X1782	ALT_OWN,ALTERNATE:PART,X1782_COMMON_BOM,X1782_CPU_1P4GHZ,X1782_08GB_HY,X1782_TLC_512GB_TS																																																																																																																																														
639-10022	MLB-1,SS-16GB,HY-512GB,X1782	ALT_OWN,ALTERNATE:PART,X1782_COMMON_BOM,X1782_CPU_1P4GHZ,X1782_16GB_SS,X1782_TLC_512GB_HY																																																																																																																																														
639-10023	MLB-1,SS-16GB,TS-512GB,X1782	ALT_OWN,ALTERNATE:PART,X1782_COMMON_BOM,X1782_CPU_1P4GHZ,X1782_16GB_SS,X1782_TLC_512GB_TS																																																																																																																																														
639-10024	MLB-1,HY-16GB,HY-512GB,X1782	ALT_OWN,ALTERNATE:PART,X1782_COMMON_BOM,X1782_CPU_1P4GHZ,X1782_16GB_HY,X1782_TLC_512GB_HY																																																																																																																																														
639-10025	MLB-1,HY-16GB,TS-512GB,X1782	ALT_OWN,ALTERNATE:PART,X1782_COMMON_BOM,X1782_CPU_1P4GHZ,X1782_16GB_HY,X1782_TLC_512GB_TS																																																																																																																																														
639-10026	MLB-1,SS-8GB,HY-1TB,X1782	ALT_OWN,ALTERNATE:PART,X1782_COMMON_BOM,X1782_CPU_1P4GHZ,X1782_08GB_SS,X1782_TLC_001TB_HY																																																																																																																																														
639-10027	MLB-1,SS-8GB,TS-1TB,X1782	ALT_OWN,ALTERNATE:PART,X1782_COMMON_BOM,X1782_CPU_1P4GHZ,X1782_08GB_SS,X1782_TLC_001TB_TS																																																																																																																																														
639-10028	MLB-1,HY-8GB,HY-1TB,X1782	ALT_OWN,ALTERNATE:PART,X1782_COMMON_BOM,X1782_CPU_1P4GHZ,X1782_08GB_HY,X1782_TLC_001TB_HY																																																																																																																																														
639-10029	MLB-1,HY-8GB,TS-1TB,X1782	ALT_OWN,ALTERNATE:PART,X1782_COMMON_BOM,X1782_CPU_1P4GHZ,X1782_08GB_HY,X1782_TLC_001TB_TS																																																																																																																																														
639-10030	MLB-1,SS-16GB,HY-1TB,X1782	ALT_OWN,ALTERNATE:PART,X1782_COMMON_BOM,X1782_CPU_1P4GHZ,X1782_16GB_SS,X1782_TLC_001TB_HY																																																																																																																																														
639-10031	MLB-1,SS-16GB,TS-1TB,X1782	ALT_OWN,ALTERNATE:PART,X1782_COMMON_BOM,X1782_CPU_1P4GHZ,X1782_16GB_SS,X1782_TLC_001TB_TS																																																																																																																																														
639-10032	MLB-1,HY-16GB,HY-1TB,X1782	ALT_OWN,ALTERNATE:PART,X1782_COMMON_BOM,X1782_CPU_1P4GHZ,X1782_16GB_HY,X1782_TLC_001TB_HY																																																																																																																																														
639-10033	MLB-1,HY-16GB,TS-1TB,X1782	ALT_OWN,ALTERNATE:PART,X1782_COMMON_BOM,X1782_CPU_1P4GHZ,X1782_16GB_HY,X1782_TLC_001TB_TS																																																																																																																																														
639-10034	MLB-1,SS-8GB,HY-2TB,X1782	ALT_OWN,ALTERNATE:PART,X1782_COMMON_BOM,X1782_CPU_1P4GHZ,X1782_08GB_SS,X1782_TLC_002TB_HY																																																																																																																																														
639-10035	MLB-1,SS-8GB,HY-512GB,X1782	ALT_OWN,ALTERNATE:PART,X1782_COMMON_BOM,X1782_CPU_1P4GHZ,X1782_08GB_SS,X1782_TLC_512GB_HY																																																																																																																																														
639-10036	MLB-1,HY-8GB,HY-2TB,X1782	ALT_OWN,ALTERNATE:PART,X1782_COMMON_BOM,X1782_CPU_1P4GHZ,X1782_08GB_HY,X1782_TLC_002TB_HY																																																																																																																																														
639-10037	MLB-1,HY-8GB,WD-2TB,X1782	ALT_OWN,ALTERNATE:PART,X1782_COMMON_BOM,X1782_CPU_1P4GHZ,X1782_08GB_HY,X1782_TLC_002TB_WD																																																																																																																																														
639-10038	MLB-1,SS-16GB,HY-2TB,X1782	ALT_OWN,ALTERNATE:PART,X1782_COMMON_BOM,X1782_CPU_1P4GHZ,X1782_16GB_SS,X1782_TLC_002TB_HY																																																																																																																																														
639-10039	MLB-1,SS-16GB,WD-2TB,X1782	ALT_OWN,ALTERNATE:PART,X1782_COMMON_BOM,X1782_CPU_1P4GHZ,X1782_16GB_SS,X1782_TLC_002TB_WD																																																																																																																																														
639-10040	MLB-1,HY-16GB,HY-2TB,X1782	ALT_OWN,ALTERNATE:PART,X1782_COMMON_BOM,X1782_CPU_1P4GHZ,X1782_16GB_HY,X1782_TLC_002TB_HY																																																																																																																																														
639-10041	MLB-1,HY-16GB,WD-2TB,X1782	ALT_OWN,ALTERNATE:PART,X1782_COMMON_BOM,X1782_CPU_1P4GHZ,X1782_16GB_HY,X1782_TLC_002TB_WD																																																																																																																																														
639-10084	MLB-1,SS-8GB,WD-2TB,X1782	ALT_OWN,ALTERNATE:PART,X1782_COMMON_BOM,X1782_CPU_1P4GHZ,X1782_08GB_SS,X1782_TLC_002TB_WD																																																																																																																																														
C									C																																																																																																																																							
B									B																																																																																																																																							
A	<div><div><div>8</div><div>7</div><div>6</div><div>5</div><div>4</div><div>3</div><div>2</div><div>1</div></div><div><div>SYNC_MASTER=</div><div>SYNC_DATE=</div><div>PAGE TITLE</div><div>BOM VARIANT TABLES</div><div><div><div><div></div><div>Apple Inc.</div></div><div><div>DRAWING NUMBER</div><div>051-05309</div><div>SIZE</div><div>D</div></div><div><div>REVISION</div><div>6.0.0</div></div></div><div><div>NOTICE OF PROPRIETARY PROPERTY: THE INFORMATION CONTAINED HEREIN IS THE PROPRIETARY PROPERTY OF APPLE INC. THE POSSESSOR AGREES TO THE FOLLOWING: I TO MAINTAIN THIS DOCUMENT IN CONFIDENCE II NOT TO REPRODUCE OR COPY IT III NOT TO REVEAL OR PUBLISH IT IN WHOLE OR PART IV ALL RIGHTS RESERVED</div><div><div>BRANCH</div><div>pvt</div><div>PAGE</div><div>405 OF 500</div><div>SHEET</div><div>94 OF 98</div></div></div></div></div></div>																																																																																																																																															
	8	7	6	5	4	3	2	1																																																																																																																																								

	8	7	6	5	4	3	2	1																																																																																																																																								
D	<div>POR BOMS - MLB-2 (1.7 GHZ CPU)</div> <table><tr><th>BOM NUMBER</th><th>BOM NAME</th><th>BOM OPTIONS</th></tr><tr><td>639-09104</td><td>MLB-2,SS-16GB,TS-256GB,X1782</td><td>ALT_OWN,ALTERNATE:PART,X1782_COMMON_BOM,X1782_CPU_1P7GHZ,X1782_16GB_SS,X1782_TLC_256GB_TS</td></tr><tr><td>639-09105</td><td>MLB-2,HY-16GB,TS-1TB,X1782</td><td>ALT_OWN,ALTERNATE:PART,X1782_COMMON_BOM,X1782_CPU_1P7GHZ,X1782_16GB_HY,X1782_TLC_001TB_TS</td></tr><tr><td>639-10042</td><td>MLB-2,SS-8GB,HY-128GB,X1782</td><td>ALT_OWN,ALTERNATE:PART,X1782_COMMON_BOM,X1782_CPU_1P7GHZ,X1782_08GB_SS,X1782_TLC_128GB_HY</td></tr><tr><td>639-10043</td><td>MLB-2,SS-8GB,TS-128GB,X1782</td><td>ALT_OWN,ALTERNATE:PART,X1782_COMMON_BOM,X1782_CPU_1P7GHZ,X1782_08GB_SS,X1782_TLC_128GB_TS</td></tr><tr><td>639-10044</td><td>MLB-2,HY-8GB,HY-128GB,X1782</td><td>ALT_OWN,ALTERNATE:PART,X1782_COMMON_BOM,X1782_CPU_1P7GHZ,X1782_08GB_HY,X1782_TLC_128GB_HY</td></tr><tr><td>639-10045</td><td>MLB-2,HY-8GB,TS-128GB,X1782</td><td>ALT_OWN,ALTERNATE:PART,X1782_COMMON_BOM,X1782_CPU_1P7GHZ,X1782_08GB_HY,X1782_TLC_128GB_TS</td></tr><tr><td>639-10046</td><td>MLB-2,SS-16GB,HY-128GB,X1782</td><td>ALT_OWN,ALTERNATE:PART,X1782_COMMON_BOM,X1782_CPU_1P7GHZ,X1782_16GB_SS,X1782_TLC_128GB_HY</td></tr><tr><td>639-10047</td><td>MLB-2,SS-16GB,TS-128GB,X1782</td><td>ALT_OWN,ALTERNATE:PART,X1782_COMMON_BOM,X1782_CPU_1P7GHZ,X1782_16GB_SS,X1782_TLC_128GB_TS</td></tr><tr><td>639-10048</td><td>MLB-2,HY-16GB,HY-128GB,X1782</td><td>ALT_OWN,ALTERNATE:PART,X1782_COMMON_BOM,X1782_CPU_1P7GHZ,X1782_16GB_HY,X1782_TLC_128GB_HY</td></tr><tr><td>639-10049</td><td>MLB-2,HY-16GB,TS-128GB,X1782</td><td>ALT_OWN,ALTERNATE:PART,X1782_COMMON_BOM,X1782_CPU_1P7GHZ,X1782_16GB_HY,X1782_TLC_128GB_TS</td></tr><tr><td>639-10050</td><td>MLB-2,SS-8GB,HY-256GB,X1782</td><td>ALT_OWN,ALTERNATE:PART,X1782_COMMON_BOM,X1782_CPU_1P7GHZ,X1782_08GB_SS,X1782_TLC_256GB_HY</td></tr><tr><td>639-10051</td><td>MLB-2,SS-8GB,SS-256GB,X1782</td><td>ALT_OWN,ALTERNATE:PART,X1782_COMMON_BOM,X1782_CPU_1P7GHZ,X1782_08GB_SS,X1782_TLC_256GB_SS</td></tr><tr><td>639-10052</td><td>MLB-2,SS-8GB,TS-256GB,X1782</td><td>ALT_OWN,ALTERNATE:PART,X1782_COMMON_BOM,X1782_CPU_1P7GHZ,X1782_08GB_SS,X1782_TLC_256GB_TS</td></tr><tr><td>639-10053</td><td>MLB-2,HY-8GB,HY-256GB,X1782</td><td>ALT_OWN,ALTERNATE:PART,X1782_COMMON_BOM,X1782_CPU_1P7GHZ,X1782_08GB_HY,X1782_TLC_256GB_HY</td></tr><tr><td>639-10054</td><td>MLB-2,HY-8GB,SS-256GB,X1782</td><td>ALT_OWN,ALTERNATE:PART,X1782_COMMON_BOM,X1782_CPU_1P7GHZ,X1782_08GB_HY,X1782_TLC_256GB_SS</td></tr><tr><td>639-10055</td><td>MLB-2,HY-8GB,TS-256GB,X1782</td><td>ALT_OWN,ALTERNATE:PART,X1782_COMMON_BOM,X1782_CPU_1P7GHZ,X1782_08GB_HY,X1782_TLC_256GB_TS</td></tr><tr><td>639-10056</td><td>MLB-2,SS-16GB,HY-256GB,X1782</td><td>ALT_OWN,ALTERNATE:PART,X1782_COMMON_BOM,X1782_CPU_1P7GHZ,X1782_16GB_SS,X1782_TLC_256GB_HY</td></tr><tr><td>639-10057</td><td>MLB-2,SS-16GB,SS-256GB,X1782</td><td>ALT_OWN,ALTERNATE:PART,X1782_COMMON_BOM,X1782_CPU_1P7GHZ,X1782_16GB_SS,X1782_TLC_256GB_SS</td></tr><tr><td>639-10058</td><td>MLB-2,HY-16GB,HY-256GB,X1782</td><td>ALT_OWN,ALTERNATE:PART,X1782_COMMON_BOM,X1782_CPU_1P7GHZ,X1782_16GB_HY,X1782_TLC_256GB_HY</td></tr><tr><td>639-10059</td><td>MLB-2,HY-16GB,SS-256GB,X1782</td><td>ALT_OWN,ALTERNATE:PART,X1782_COMMON_BOM,X1782_CPU_1P7GHZ,X1782_16GB_HY,X1782_TLC_256GB_SS</td></tr><tr><td>639-10060</td><td>MLB-2,HY-16GB,TS-256GB,X1782</td><td>ALT_OWN,ALTERNATE:PART,X1782_COMMON_BOM,X1782_CPU_1P7GHZ,X1782_16GB_HY,X1782_TLC_256GB_TS</td></tr><tr><td>639-10061</td><td>MLB-2,SS-8GB,HY-512GB,X1782</td><td>ALT_OWN,ALTERNATE:PART,X1782_COMMON_BOM,X1782_CPU_1P7GHZ,X1782_08GB_SS,X1782_TLC_512GB_HY</td></tr><tr><td>639-10062</td><td>MLB-2,SS-8GB,TS-512GB,X1782</td><td>ALT_OWN,ALTERNATE:PART,X1782_COMMON_BOM,X1782_CPU_1P7GHZ,X1782_08GB_SS,X1782_TLC_512GB_TS</td></tr><tr><td>639-10063</td><td>MLB-2,HY-8GB,HY-512GB,X1782</td><td>ALT_OWN,ALTERNATE:PART,X1782_COMMON_BOM,X1782_CPU_1P7GHZ,X1782_08GB_HY,X1782_TLC_512GB_HY</td></tr><tr><td>639-10064</td><td>MLB-2,HY-8GB,TS-512GB,X1782</td><td>ALT_OWN,ALTERNATE:PART,X1782_COMMON_BOM,X1782_CPU_1P7GHZ,X1782_08GB_HY,X1782_TLC_512GB_TS</td></tr><tr><td>639-10065</td><td>MLB-2,SS-16GB,HY-512GB,X1782</td><td>ALT_OWN,ALTERNATE:PART,X1782_COMMON_BOM,X1782_CPU_1P7GHZ,X1782_16GB_SS,X1782_TLC_512GB_HY</td></tr><tr><td>639-10066</td><td>MLB-2,SS-16GB,TS-512GB,X1782</td><td>ALT_OWN,ALTERNATE:PART,X1782_COMMON_BOM,X1782_CPU_1P7GHZ,X1782_16GB_SS,X1782_TLC_512GB_TS</td></tr><tr><td>639-10067</td><td>MLB-2,HY-16GB,HY-512GB,X1782</td><td>ALT_OWN,ALTERNATE:PART,X1782_COMMON_BOM,X1782_CPU_1P7GHZ,X1782_16GB_HY,X1782_TLC_512GB_HY</td></tr><tr><td>639-10068</td><td>MLB-2,HY-16GB,TS-512GB,X1782</td><td>ALT_OWN,ALTERNATE:PART,X1782_COMMON_BOM,X1782_CPU_1P7GHZ,X1782_16GB_HY,X1782_TLC_512GB_TS</td></tr><tr><td>639-10069</td><td>MLB-2,SS-8GB,HY-1TB,X1782</td><td>ALT_OWN,ALTERNATE:PART,X1782_COMMON_BOM,X1782_CPU_1P7GHZ,X1782_08GB_SS,X1782_TLC_001TB_HY</td></tr><tr><td>639-10070</td><td>MLB-2,SS-8GB,TS-1TB,X1782</td><td>ALT_OWN,ALTERNATE:PART,X1782_COMMON_BOM,X1782_CPU_1P7GHZ,X1782_08GB_SS,X1782_TLC_001TB_TS</td></tr><tr><td>639-10071</td><td>MLB-2,HY-8GB,HY-1TB,X1782</td><td>ALT_OWN,ALTERNATE:PART,X1782_COMMON_BOM,X1782_CPU_1P7GHZ,X1782_08GB_HY,X1782_TLC_001TB_HY</td></tr><tr><td>639-10072</td><td>MLB-2,HY-8GB,TS-1TB,X1782</td><td>ALT_OWN,ALTERNATE:PART,X1782_COMMON_BOM,X1782_CPU_1P7GHZ,X1782_08GB_HY,X1782_TLC_001TB_TS</td></tr><tr><td>639-10073</td><td>MLB-2,SS-16GB,HY-1TB,X1782</td><td>ALT_OWN,ALTERNATE:PART,X1782_COMMON_BOM,X1782_CPU_1P7GHZ,X1782_16GB_SS,X1782_TLC_001TB_HY</td></tr><tr><td>639-10074</td><td>MLB-2,SS-16GB,TS-1TB,X1782</td><td>ALT_OWN,ALTERNATE:PART,X1782_COMMON_BOM,X1782_CPU_1P7GHZ,X1782_16GB_SS,X1782_TLC_001TB_TS</td></tr><tr><td>639-10075</td><td>MLB-2,HY-16GB,HY-1TB,X1782</td><td>ALT_OWN,ALTERNATE:PART,X1782_COMMON_BOM,X1782_CPU_1P7GHZ,X1782_16GB_HY,X1782_TLC_001TB_HY</td></tr><tr><td>639-10076</td><td>MLB-2,SS-8GB,HY-2TB,X1782</td><td>ALT_OWN,ALTERNATE:PART,X1782_COMMON_BOM,X1782_CPU_1P7GHZ,X1782_08GB_SS,X1782_TLC_002TB_HY</td></tr><tr><td>639-10077</td><td>MLB-2,SS-8GB,WD-2TB,X1782</td><td>ALT_OWN,ALTERNATE:PART,X1782_COMMON_BOM,X1782_CPU_1P7GHZ,X1782_08GB_SS,X1782_TLC_002TB_WD</td></tr><tr><td>639-10078</td><td>MLB-2,HY-8GB,HY-2TB,X1782</td><td>ALT_OWN,ALTERNATE:PART,X1782_COMMON_BOM,X1782_CPU_1P7GHZ,X1782_08GB_HY,X1782_TLC_002TB_HY</td></tr><tr><td>639-10079</td><td>MLB-2,HY-8GB,WD-2TB,X1782</td><td>ALT_OWN,ALTERNATE:PART,X1782_COMMON_BOM,X1782_CPU_1P7GHZ,X1782_08GB_HY,X1782_TLC_002TB_WD</td></tr><tr><td>639-10080</td><td>MLB-2,SS-16GB,HY-2TB,X1782</td><td>ALT_OWN,ALTERNATE:PART,X1782_COMMON_BOM,X1782_CPU_1P7GHZ,X1782_16GB_SS,X1782_TLC_002TB_HY</td></tr><tr><td>639-10081</td><td>MLB-2,SS-16GB,WD-2TB,X1782</td><td>ALT_OWN,ALTERNATE:PART,X1782_COMMON_BOM,X1782_CPU_1P7GHZ,X1782_16GB_SS,X1782_TLC_002TB_WD</td></tr><tr><td>639-10082</td><td>MLB-2,HY-16GB,HY-2TB,X1782</td><td>ALT_OWN,ALTERNATE:PART,X1782_COMMON_BOM,X1782_CPU_1P7GHZ,X1782_16GB_HY,X1782_TLC_002TB_HY</td></tr><tr><td>639-10083</td><td>MLB-2,HY-16GB,WD-2TB,X1782</td><td>ALT_OWN,ALTERNATE:PART,X1782_COMMON_BOM,X1782_CPU_1P7GHZ,X1782_16GB_HY,X1782_TLC_002TB_WD</td></tr></table>								BOM NUMBER	BOM NAME	BOM OPTIONS	639-09104	MLB-2,SS-16GB,TS-256GB,X1782	ALT_OWN,ALTERNATE:PART,X1782_COMMON_BOM,X1782_CPU_1P7GHZ,X1782_16GB_SS,X1782_TLC_256GB_TS	639-09105	MLB-2,HY-16GB,TS-1TB,X1782	ALT_OWN,ALTERNATE:PART,X1782_COMMON_BOM,X1782_CPU_1P7GHZ,X1782_16GB_HY,X1782_TLC_001TB_TS	639-10042	MLB-2,SS-8GB,HY-128GB,X1782	ALT_OWN,ALTERNATE:PART,X1782_COMMON_BOM,X1782_CPU_1P7GHZ,X1782_08GB_SS,X1782_TLC_128GB_HY	639-10043	MLB-2,SS-8GB,TS-128GB,X1782	ALT_OWN,ALTERNATE:PART,X1782_COMMON_BOM,X1782_CPU_1P7GHZ,X1782_08GB_SS,X1782_TLC_128GB_TS	639-10044	MLB-2,HY-8GB,HY-128GB,X1782	ALT_OWN,ALTERNATE:PART,X1782_COMMON_BOM,X1782_CPU_1P7GHZ,X1782_08GB_HY,X1782_TLC_128GB_HY	639-10045	MLB-2,HY-8GB,TS-128GB,X1782	ALT_OWN,ALTERNATE:PART,X1782_COMMON_BOM,X1782_CPU_1P7GHZ,X1782_08GB_HY,X1782_TLC_128GB_TS	639-10046	MLB-2,SS-16GB,HY-128GB,X1782	ALT_OWN,ALTERNATE:PART,X1782_COMMON_BOM,X1782_CPU_1P7GHZ,X1782_16GB_SS,X1782_TLC_128GB_HY	639-10047	MLB-2,SS-16GB,TS-128GB,X1782	ALT_OWN,ALTERNATE:PART,X1782_COMMON_BOM,X1782_CPU_1P7GHZ,X1782_16GB_SS,X1782_TLC_128GB_TS	639-10048	MLB-2,HY-16GB,HY-128GB,X1782	ALT_OWN,ALTERNATE:PART,X1782_COMMON_BOM,X1782_CPU_1P7GHZ,X1782_16GB_HY,X1782_TLC_128GB_HY	639-10049	MLB-2,HY-16GB,TS-128GB,X1782	ALT_OWN,ALTERNATE:PART,X1782_COMMON_BOM,X1782_CPU_1P7GHZ,X1782_16GB_HY,X1782_TLC_128GB_TS	639-10050	MLB-2,SS-8GB,HY-256GB,X1782	ALT_OWN,ALTERNATE:PART,X1782_COMMON_BOM,X1782_CPU_1P7GHZ,X1782_08GB_SS,X1782_TLC_256GB_HY	639-10051	MLB-2,SS-8GB,SS-256GB,X1782	ALT_OWN,ALTERNATE:PART,X1782_COMMON_BOM,X1782_CPU_1P7GHZ,X1782_08GB_SS,X1782_TLC_256GB_SS	639-10052	MLB-2,SS-8GB,TS-256GB,X1782	ALT_OWN,ALTERNATE:PART,X1782_COMMON_BOM,X1782_CPU_1P7GHZ,X1782_08GB_SS,X1782_TLC_256GB_TS	639-10053	MLB-2,HY-8GB,HY-256GB,X1782	ALT_OWN,ALTERNATE:PART,X1782_COMMON_BOM,X1782_CPU_1P7GHZ,X1782_08GB_HY,X1782_TLC_256GB_HY	639-10054	MLB-2,HY-8GB,SS-256GB,X1782	ALT_OWN,ALTERNATE:PART,X1782_COMMON_BOM,X1782_CPU_1P7GHZ,X1782_08GB_HY,X1782_TLC_256GB_SS	639-10055	MLB-2,HY-8GB,TS-256GB,X1782	ALT_OWN,ALTERNATE:PART,X1782_COMMON_BOM,X1782_CPU_1P7GHZ,X1782_08GB_HY,X1782_TLC_256GB_TS	639-10056	MLB-2,SS-16GB,HY-256GB,X1782	ALT_OWN,ALTERNATE:PART,X1782_COMMON_BOM,X1782_CPU_1P7GHZ,X1782_16GB_SS,X1782_TLC_256GB_HY	639-10057	MLB-2,SS-16GB,SS-256GB,X1782	ALT_OWN,ALTERNATE:PART,X1782_COMMON_BOM,X1782_CPU_1P7GHZ,X1782_16GB_SS,X1782_TLC_256GB_SS	639-10058	MLB-2,HY-16GB,HY-256GB,X1782	ALT_OWN,ALTERNATE:PART,X1782_COMMON_BOM,X1782_CPU_1P7GHZ,X1782_16GB_HY,X1782_TLC_256GB_HY	639-10059	MLB-2,HY-16GB,SS-256GB,X1782	ALT_OWN,ALTERNATE:PART,X1782_COMMON_BOM,X1782_CPU_1P7GHZ,X1782_16GB_HY,X1782_TLC_256GB_SS	639-10060	MLB-2,HY-16GB,TS-256GB,X1782	ALT_OWN,ALTERNATE:PART,X1782_COMMON_BOM,X1782_CPU_1P7GHZ,X1782_16GB_HY,X1782_TLC_256GB_TS	639-10061	MLB-2,SS-8GB,HY-512GB,X1782	ALT_OWN,ALTERNATE:PART,X1782_COMMON_BOM,X1782_CPU_1P7GHZ,X1782_08GB_SS,X1782_TLC_512GB_HY	639-10062	MLB-2,SS-8GB,TS-512GB,X1782	ALT_OWN,ALTERNATE:PART,X1782_COMMON_BOM,X1782_CPU_1P7GHZ,X1782_08GB_SS,X1782_TLC_512GB_TS	639-10063	MLB-2,HY-8GB,HY-512GB,X1782	ALT_OWN,ALTERNATE:PART,X1782_COMMON_BOM,X1782_CPU_1P7GHZ,X1782_08GB_HY,X1782_TLC_512GB_HY	639-10064	MLB-2,HY-8GB,TS-512GB,X1782	ALT_OWN,ALTERNATE:PART,X1782_COMMON_BOM,X1782_CPU_1P7GHZ,X1782_08GB_HY,X1782_TLC_512GB_TS	639-10065	MLB-2,SS-16GB,HY-512GB,X1782	ALT_OWN,ALTERNATE:PART,X1782_COMMON_BOM,X1782_CPU_1P7GHZ,X1782_16GB_SS,X1782_TLC_512GB_HY	639-10066	MLB-2,SS-16GB,TS-512GB,X1782	ALT_OWN,ALTERNATE:PART,X1782_COMMON_BOM,X1782_CPU_1P7GHZ,X1782_16GB_SS,X1782_TLC_512GB_TS	639-10067	MLB-2,HY-16GB,HY-512GB,X1782	ALT_OWN,ALTERNATE:PART,X1782_COMMON_BOM,X1782_CPU_1P7GHZ,X1782_16GB_HY,X1782_TLC_512GB_HY	639-10068	MLB-2,HY-16GB,TS-512GB,X1782	ALT_OWN,ALTERNATE:PART,X1782_COMMON_BOM,X1782_CPU_1P7GHZ,X1782_16GB_HY,X1782_TLC_512GB_TS	639-10069	MLB-2,SS-8GB,HY-1TB,X1782	ALT_OWN,ALTERNATE:PART,X1782_COMMON_BOM,X1782_CPU_1P7GHZ,X1782_08GB_SS,X1782_TLC_001TB_HY	639-10070	MLB-2,SS-8GB,TS-1TB,X1782	ALT_OWN,ALTERNATE:PART,X1782_COMMON_BOM,X1782_CPU_1P7GHZ,X1782_08GB_SS,X1782_TLC_001TB_TS	639-10071	MLB-2,HY-8GB,HY-1TB,X1782	ALT_OWN,ALTERNATE:PART,X1782_COMMON_BOM,X1782_CPU_1P7GHZ,X1782_08GB_HY,X1782_TLC_001TB_HY	639-10072	MLB-2,HY-8GB,TS-1TB,X1782	ALT_OWN,ALTERNATE:PART,X1782_COMMON_BOM,X1782_CPU_1P7GHZ,X1782_08GB_HY,X1782_TLC_001TB_TS	639-10073	MLB-2,SS-16GB,HY-1TB,X1782	ALT_OWN,ALTERNATE:PART,X1782_COMMON_BOM,X1782_CPU_1P7GHZ,X1782_16GB_SS,X1782_TLC_001TB_HY	639-10074	MLB-2,SS-16GB,TS-1TB,X1782	ALT_OWN,ALTERNATE:PART,X1782_COMMON_BOM,X1782_CPU_1P7GHZ,X1782_16GB_SS,X1782_TLC_001TB_TS	639-10075	MLB-2,HY-16GB,HY-1TB,X1782	ALT_OWN,ALTERNATE:PART,X1782_COMMON_BOM,X1782_CPU_1P7GHZ,X1782_16GB_HY,X1782_TLC_001TB_HY	639-10076	MLB-2,SS-8GB,HY-2TB,X1782	ALT_OWN,ALTERNATE:PART,X1782_COMMON_BOM,X1782_CPU_1P7GHZ,X1782_08GB_SS,X1782_TLC_002TB_HY	639-10077	MLB-2,SS-8GB,WD-2TB,X1782	ALT_OWN,ALTERNATE:PART,X1782_COMMON_BOM,X1782_CPU_1P7GHZ,X1782_08GB_SS,X1782_TLC_002TB_WD	639-10078	MLB-2,HY-8GB,HY-2TB,X1782	ALT_OWN,ALTERNATE:PART,X1782_COMMON_BOM,X1782_CPU_1P7GHZ,X1782_08GB_HY,X1782_TLC_002TB_HY	639-10079	MLB-2,HY-8GB,WD-2TB,X1782	ALT_OWN,ALTERNATE:PART,X1782_COMMON_BOM,X1782_CPU_1P7GHZ,X1782_08GB_HY,X1782_TLC_002TB_WD	639-10080	MLB-2,SS-16GB,HY-2TB,X1782	ALT_OWN,ALTERNATE:PART,X1782_COMMON_BOM,X1782_CPU_1P7GHZ,X1782_16GB_SS,X1782_TLC_002TB_HY	639-10081	MLB-2,SS-16GB,WD-2TB,X1782	ALT_OWN,ALTERNATE:PART,X1782_COMMON_BOM,X1782_CPU_1P7GHZ,X1782_16GB_SS,X1782_TLC_002TB_WD	639-10082	MLB-2,HY-16GB,HY-2TB,X1782	ALT_OWN,ALTERNATE:PART,X1782_COMMON_BOM,X1782_CPU_1P7GHZ,X1782_16GB_HY,X1782_TLC_002TB_HY	639-10083	MLB-2,HY-16GB,WD-2TB,X1782	ALT_OWN,ALTERNATE:PART,X1782_COMMON_BOM,X1782_CPU_1P7GHZ,X1782_16GB_HY,X1782_TLC_002TB_WD	D
BOM NUMBER	BOM NAME	BOM OPTIONS																																																																																																																																														
639-09104	MLB-2,SS-16GB,TS-256GB,X1782	ALT_OWN,ALTERNATE:PART,X1782_COMMON_BOM,X1782_CPU_1P7GHZ,X1782_16GB_SS,X1782_TLC_256GB_TS																																																																																																																																														
639-09105	MLB-2,HY-16GB,TS-1TB,X1782	ALT_OWN,ALTERNATE:PART,X1782_COMMON_BOM,X1782_CPU_1P7GHZ,X1782_16GB_HY,X1782_TLC_001TB_TS																																																																																																																																														
639-10042	MLB-2,SS-8GB,HY-128GB,X1782	ALT_OWN,ALTERNATE:PART,X1782_COMMON_BOM,X1782_CPU_1P7GHZ,X1782_08GB_SS,X1782_TLC_128GB_HY																																																																																																																																														
639-10043	MLB-2,SS-8GB,TS-128GB,X1782	ALT_OWN,ALTERNATE:PART,X1782_COMMON_BOM,X1782_CPU_1P7GHZ,X1782_08GB_SS,X1782_TLC_128GB_TS																																																																																																																																														
639-10044	MLB-2,HY-8GB,HY-128GB,X1782	ALT_OWN,ALTERNATE:PART,X1782_COMMON_BOM,X1782_CPU_1P7GHZ,X1782_08GB_HY,X1782_TLC_128GB_HY																																																																																																																																														
639-10045	MLB-2,HY-8GB,TS-128GB,X1782	ALT_OWN,ALTERNATE:PART,X1782_COMMON_BOM,X1782_CPU_1P7GHZ,X1782_08GB_HY,X1782_TLC_128GB_TS																																																																																																																																														
639-10046	MLB-2,SS-16GB,HY-128GB,X1782	ALT_OWN,ALTERNATE:PART,X1782_COMMON_BOM,X1782_CPU_1P7GHZ,X1782_16GB_SS,X1782_TLC_128GB_HY																																																																																																																																														
639-10047	MLB-2,SS-16GB,TS-128GB,X1782	ALT_OWN,ALTERNATE:PART,X1782_COMMON_BOM,X1782_CPU_1P7GHZ,X1782_16GB_SS,X1782_TLC_128GB_TS																																																																																																																																														
639-10048	MLB-2,HY-16GB,HY-128GB,X1782	ALT_OWN,ALTERNATE:PART,X1782_COMMON_BOM,X1782_CPU_1P7GHZ,X1782_16GB_HY,X1782_TLC_128GB_HY																																																																																																																																														
639-10049	MLB-2,HY-16GB,TS-128GB,X1782	ALT_OWN,ALTERNATE:PART,X1782_COMMON_BOM,X1782_CPU_1P7GHZ,X1782_16GB_HY,X1782_TLC_128GB_TS																																																																																																																																														
639-10050	MLB-2,SS-8GB,HY-256GB,X1782	ALT_OWN,ALTERNATE:PART,X1782_COMMON_BOM,X1782_CPU_1P7GHZ,X1782_08GB_SS,X1782_TLC_256GB_HY																																																																																																																																														
639-10051	MLB-2,SS-8GB,SS-256GB,X1782	ALT_OWN,ALTERNATE:PART,X1782_COMMON_BOM,X1782_CPU_1P7GHZ,X1782_08GB_SS,X1782_TLC_256GB_SS																																																																																																																																														
639-10052	MLB-2,SS-8GB,TS-256GB,X1782	ALT_OWN,ALTERNATE:PART,X1782_COMMON_BOM,X1782_CPU_1P7GHZ,X1782_08GB_SS,X1782_TLC_256GB_TS																																																																																																																																														
639-10053	MLB-2,HY-8GB,HY-256GB,X1782	ALT_OWN,ALTERNATE:PART,X1782_COMMON_BOM,X1782_CPU_1P7GHZ,X1782_08GB_HY,X1782_TLC_256GB_HY																																																																																																																																														
639-10054	MLB-2,HY-8GB,SS-256GB,X1782	ALT_OWN,ALTERNATE:PART,X1782_COMMON_BOM,X1782_CPU_1P7GHZ,X1782_08GB_HY,X1782_TLC_256GB_SS																																																																																																																																														
639-10055	MLB-2,HY-8GB,TS-256GB,X1782	ALT_OWN,ALTERNATE:PART,X1782_COMMON_BOM,X1782_CPU_1P7GHZ,X1782_08GB_HY,X1782_TLC_256GB_TS																																																																																																																																														
639-10056	MLB-2,SS-16GB,HY-256GB,X1782	ALT_OWN,ALTERNATE:PART,X1782_COMMON_BOM,X1782_CPU_1P7GHZ,X1782_16GB_SS,X1782_TLC_256GB_HY																																																																																																																																														
639-10057	MLB-2,SS-16GB,SS-256GB,X1782	ALT_OWN,ALTERNATE:PART,X1782_COMMON_BOM,X1782_CPU_1P7GHZ,X1782_16GB_SS,X1782_TLC_256GB_SS																																																																																																																																														
639-10058	MLB-2,HY-16GB,HY-256GB,X1782	ALT_OWN,ALTERNATE:PART,X1782_COMMON_BOM,X1782_CPU_1P7GHZ,X1782_16GB_HY,X1782_TLC_256GB_HY																																																																																																																																														
639-10059	MLB-2,HY-16GB,SS-256GB,X1782	ALT_OWN,ALTERNATE:PART,X1782_COMMON_BOM,X1782_CPU_1P7GHZ,X1782_16GB_HY,X1782_TLC_256GB_SS																																																																																																																																														
639-10060	MLB-2,HY-16GB,TS-256GB,X1782	ALT_OWN,ALTERNATE:PART,X1782_COMMON_BOM,X1782_CPU_1P7GHZ,X1782_16GB_HY,X1782_TLC_256GB_TS																																																																																																																																														
639-10061	MLB-2,SS-8GB,HY-512GB,X1782	ALT_OWN,ALTERNATE:PART,X1782_COMMON_BOM,X1782_CPU_1P7GHZ,X1782_08GB_SS,X1782_TLC_512GB_HY																																																																																																																																														
639-10062	MLB-2,SS-8GB,TS-512GB,X1782	ALT_OWN,ALTERNATE:PART,X1782_COMMON_BOM,X1782_CPU_1P7GHZ,X1782_08GB_SS,X1782_TLC_512GB_TS																																																																																																																																														
639-10063	MLB-2,HY-8GB,HY-512GB,X1782	ALT_OWN,ALTERNATE:PART,X1782_COMMON_BOM,X1782_CPU_1P7GHZ,X1782_08GB_HY,X1782_TLC_512GB_HY																																																																																																																																														
639-10064	MLB-2,HY-8GB,TS-512GB,X1782	ALT_OWN,ALTERNATE:PART,X1782_COMMON_BOM,X1782_CPU_1P7GHZ,X1782_08GB_HY,X1782_TLC_512GB_TS																																																																																																																																														
639-10065	MLB-2,SS-16GB,HY-512GB,X1782	ALT_OWN,ALTERNATE:PART,X1782_COMMON_BOM,X1782_CPU_1P7GHZ,X1782_16GB_SS,X1782_TLC_512GB_HY																																																																																																																																														
639-10066	MLB-2,SS-16GB,TS-512GB,X1782	ALT_OWN,ALTERNATE:PART,X1782_COMMON_BOM,X1782_CPU_1P7GHZ,X1782_16GB_SS,X1782_TLC_512GB_TS																																																																																																																																														
639-10067	MLB-2,HY-16GB,HY-512GB,X1782	ALT_OWN,ALTERNATE:PART,X1782_COMMON_BOM,X1782_CPU_1P7GHZ,X1782_16GB_HY,X1782_TLC_512GB_HY																																																																																																																																														
639-10068	MLB-2,HY-16GB,TS-512GB,X1782	ALT_OWN,ALTERNATE:PART,X1782_COMMON_BOM,X1782_CPU_1P7GHZ,X1782_16GB_HY,X1782_TLC_512GB_TS																																																																																																																																														
639-10069	MLB-2,SS-8GB,HY-1TB,X1782	ALT_OWN,ALTERNATE:PART,X1782_COMMON_BOM,X1782_CPU_1P7GHZ,X1782_08GB_SS,X1782_TLC_001TB_HY																																																																																																																																														
639-10070	MLB-2,SS-8GB,TS-1TB,X1782	ALT_OWN,ALTERNATE:PART,X1782_COMMON_BOM,X1782_CPU_1P7GHZ,X1782_08GB_SS,X1782_TLC_001TB_TS																																																																																																																																														
639-10071	MLB-2,HY-8GB,HY-1TB,X1782	ALT_OWN,ALTERNATE:PART,X1782_COMMON_BOM,X1782_CPU_1P7GHZ,X1782_08GB_HY,X1782_TLC_001TB_HY																																																																																																																																														
639-10072	MLB-2,HY-8GB,TS-1TB,X1782	ALT_OWN,ALTERNATE:PART,X1782_COMMON_BOM,X1782_CPU_1P7GHZ,X1782_08GB_HY,X1782_TLC_001TB_TS																																																																																																																																														
639-10073	MLB-2,SS-16GB,HY-1TB,X1782	ALT_OWN,ALTERNATE:PART,X1782_COMMON_BOM,X1782_CPU_1P7GHZ,X1782_16GB_SS,X1782_TLC_001TB_HY																																																																																																																																														
639-10074	MLB-2,SS-16GB,TS-1TB,X1782	ALT_OWN,ALTERNATE:PART,X1782_COMMON_BOM,X1782_CPU_1P7GHZ,X1782_16GB_SS,X1782_TLC_001TB_TS																																																																																																																																														
639-10075	MLB-2,HY-16GB,HY-1TB,X1782	ALT_OWN,ALTERNATE:PART,X1782_COMMON_BOM,X1782_CPU_1P7GHZ,X1782_16GB_HY,X1782_TLC_001TB_HY																																																																																																																																														
639-10076	MLB-2,SS-8GB,HY-2TB,X1782	ALT_OWN,ALTERNATE:PART,X1782_COMMON_BOM,X1782_CPU_1P7GHZ,X1782_08GB_SS,X1782_TLC_002TB_HY																																																																																																																																														
639-10077	MLB-2,SS-8GB,WD-2TB,X1782	ALT_OWN,ALTERNATE:PART,X1782_COMMON_BOM,X1782_CPU_1P7GHZ,X1782_08GB_SS,X1782_TLC_002TB_WD																																																																																																																																														
639-10078	MLB-2,HY-8GB,HY-2TB,X1782	ALT_OWN,ALTERNATE:PART,X1782_COMMON_BOM,X1782_CPU_1P7GHZ,X1782_08GB_HY,X1782_TLC_002TB_HY																																																																																																																																														
639-10079	MLB-2,HY-8GB,WD-2TB,X1782	ALT_OWN,ALTERNATE:PART,X1782_COMMON_BOM,X1782_CPU_1P7GHZ,X1782_08GB_HY,X1782_TLC_002TB_WD																																																																																																																																														
639-10080	MLB-2,SS-16GB,HY-2TB,X1782	ALT_OWN,ALTERNATE:PART,X1782_COMMON_BOM,X1782_CPU_1P7GHZ,X1782_16GB_SS,X1782_TLC_002TB_HY																																																																																																																																														
639-10081	MLB-2,SS-16GB,WD-2TB,X1782	ALT_OWN,ALTERNATE:PART,X1782_COMMON_BOM,X1782_CPU_1P7GHZ,X1782_16GB_SS,X1782_TLC_002TB_WD																																																																																																																																														
639-10082	MLB-2,HY-16GB,HY-2TB,X1782	ALT_OWN,ALTERNATE:PART,X1782_COMMON_BOM,X1782_CPU_1P7GHZ,X1782_16GB_HY,X1782_TLC_002TB_HY																																																																																																																																														
639-10083	MLB-2,HY-16GB,WD-2TB,X1782	ALT_OWN,ALTERNATE:PART,X1782_COMMON_BOM,X1782_CPU_1P7GHZ,X1782_16GB_HY,X1782_TLC_002TB_WD																																																																																																																																														
C									C																																																																																																																																							
B									B																																																																																																																																							
A	<div><div><div>SYNC_MASTER=</div><div>SYNC_DATE=</div></div><div><div>PAGE TITLE</div><div>BOM VARIANT TABLES</div></div><div><div><div><div>Apple Inc.</div><div>NOTICE OF PROPRIETARY PROPERTY: THE INFORMATION CONTAINED HEREIN IS THE PROPRIETARY PROPERTY OF APPLE INC. THE POSSESSOR AGREES TO THE FOLLOWING: I TO MAINTAIN THIS DOCUMENT IN CONFIDENCE II NOT TO REPRODUCE OR COPY IT III NOT TO REVEAL OR PUBLISH IT IN WHOLE OR PART IV ALL RIGHTS RESERVED</div></div><div><div>DRAWING NUMBER</div><div>051-05309</div><div>SIZE</div><div>D</div></div><div><div>REVISION</div><div>6.0.0</div></div><div><div>BRANCH</div><div>pvt</div></div><div><div>PAGE</div><div>406 OF 500</div></div><div><div>SHEET</div><div>95 OF 98</div></div></div></div></div>								A																																																																																																																																							
	8	7	6	5	4	3	2	1																																																																																																																																								

www.laptoprepairsecrets.com

www.laptoprepairsecrets.com

	8	7	6	5	4	3	2	1																																																																																		
D	DC-DC				SYSTEM EE				D																																																																																	
	<table><tr><th>PART NUMBER</th><th>ALTERNATE FOR PART NUMBER</th><th>BOM OPTION</th><th>REF DES</th><th>COMMENTS:</th></tr><tr><td>152800403</td><td>152800322</td><td>ALT_CMN</td><td>ALL</td><td><RDAR://39801983></td></tr><tr><td>128800042</td><td>12880311</td><td>ALT_CMN</td><td>ALL</td><td><RDAR://40172980></td></tr><tr><td>128800043</td><td>12880311</td><td>ALT_CMN</td><td>ALL</td><td><RDAR://40172980></td></tr><tr><td>12880264</td><td>12880364</td><td>ALT_CMN</td><td>ALL</td><td><RDAR://44394151></td></tr><tr><td>152800726</td><td>152800592</td><td>ALT_CMN</td><td>ALL</td><td><RDAR://40221857></td></tr><tr><td>152800724</td><td>152800311</td><td>ALT_CMN</td><td>ALL</td><td><RDAR://40221450></td></tr><tr><td>152800398</td><td>152800204</td><td>ALT_CMN</td><td>ALL</td><td><RDAR://40221612></td></tr><tr><td>152800725</td><td>152800590</td><td>ALT_CMN</td><td>ALL</td><td><RDAR://40223132></td></tr><tr><td>152800363</td><td>152800048</td><td>ALT_CMN</td><td>ALL</td><td><RDAR://40040471></td></tr><tr><td>376800227</td><td>376800203</td><td>ALT_CMN</td><td>ALL</td><td><RDAR://40169831></td></tr><tr><td>376800204</td><td>376800203</td><td>ALT_CMN</td><td>ALL</td><td><RDAR://40169831></td></tr><tr><td>376800226</td><td>376800203</td><td>ALT_CMN</td><td>ALL</td><td><RDAR://40169831></td></tr><tr><td>376800202</td><td>376800203</td><td>ALT_CMN</td><td>ALL</td><td><RDAR://40169831></td></tr><tr><td>107800015</td><td>107800011</td><td>ALT_CMN</td><td>ALL</td><td><RDAR://40039575></td></tr><tr><td>12880392</td><td>12880445</td><td>ALT_CMN</td><td>ALL</td><td><RDAR://40172491></td></tr><tr><td>353800831</td><td>353800519</td><td>ALT_CMN</td><td>ALL</td><td><RDAR://43065874></td></tr></table>	PART NUMBER	ALTERNATE FOR PART NUMBER	BOM OPTION	REF DES	COMMENTS:	152800403	152800322	ALT_CMN	ALL	<RDAR://39801983>	128800042	12880311	ALT_CMN	ALL	<RDAR://40172980>	128800043	12880311	ALT_CMN	ALL	<RDAR://40172980>	12880264	12880364	ALT_CMN	ALL	<RDAR://44394151>	152800726	152800592	ALT_CMN	ALL	<RDAR://40221857>	152800724	152800311	ALT_CMN	ALL	<RDAR://40221450>	152800398	152800204	ALT_CMN	ALL	<RDAR://40221612>	152800725	152800590	ALT_CMN	ALL	<RDAR://40223132>	152800363	152800048	ALT_CMN	ALL	<RDAR://40040471>	376800227	376800203	ALT_CMN	ALL	<RDAR://40169831>	376800204	376800203	ALT_CMN	ALL	<RDAR://40169831>	376800226	376800203	ALT_CMN	ALL	<RDAR://40169831>	376800202	376800203	ALT_CMN	ALL	<RDAR://40169831>	107800015	107800011	ALT_CMN	ALL	<RDAR://40039575>	12880392	12880445	ALT_CMN	ALL	<RDAR://40172491>	353800831	353800519	ALT_CMN	ALL	<RDAR://43065874>	<p>MURATA PRIMARY, CHILISIN ALT IND,PWR,0.68UH,204,6.3A,260MHZ,3225</p> <p>NCC PRIMARY, KEMET ALTERNATE CAP,TANT,POLY,220UF,6.3V,250MHM,82</p> <p>NCC PRIMARY, PANASONIC ALTERNATE CAP,TANT,POLY,220UF,6.3V,250MHM,82</p> <p>KEMET PRIMARY, PANASONIC ALTERNATE CAP,AL,POLY,68UF,20V,16V,400MHM,D2</p> <p>CYNTEC PRIMARY, CHILISIN ALTERNATE IND,MLD,1UH,2.6A,950MHZ,2012</p> <p>CYNTEC PRIMARY, CHILISIN ALTERNATE IND,MLD,1UH,204,3.5A,550MHZ,2018X1.2MM</p> <p>CYNTEC PRIMARY, TAIYO ALTERNATE IND,PWR,SHLD,0.22UH,6.7A,0.023 OHM,2012</p> <p>CYNTEC PRIMARY, CHILISIN ALTERNATE IND,MLD,0.47UH,4.8A,340MHZ,2016</p> <p>CYNTEC PRIMARY, NCC ALTERNATE IND,MLD,0.22OH,1.9MO,44.8,63X,0X2.4MM</p> <p>VISHAY PRIMARY, FAIRCHILD ALTERNATE MOSFET,DL-N,30V,15.6A,13.8MOHM4.5V,DFN8</p> <p>VISHAY PRIMARY, DIODES ALTERNATE MOSFET,DL-N,30V,15.6A,13.8MOHM4.5V,DFN8</p> <p>VISHAY PRIMARY, VISHAY ALTERNATE MOSFET,DL-N,30V,15.6A,13.8MOHM4.5V,DFN8</p> <p>MURATA PRIMARY, CYNTEC ALTERNATE IND,MLD,1UH,204,4.7A,400MHZ,2520</p> <p>TI PRIMARY, DIODES ALTERNATE MOSFET DUAL-N,30V,20A,9.45/3.6MOHM,3X3DFN</p> <p>VISHAY PRIMARY, AOS ALTERNATE MOSFET,P-CH,20V,40A,0.0039 OHM,8P,PWRPAK</p> <p>VISHAY PRIMARY, FAIRCHILD ALTERNATE MOSFET,P-CH,20V,40A,0.0039 OHM,8P,PWRPAK</p> <p>CYNTEC PRIMARY, TPT ALTERNATE RES,MTL,FILM,0.00075OHM,18,4-L,0612,BLK</p> <p>PANASONIC PRIMARY, PANASONIC ALTERNATE CAP,TANT,POLY,33UF,20V,16V,400MHM,D12</p> <p>VISHAY PRIMARY, FAIRCHILD ALTERNATE IC,SIC621,DR MOS,1MPW-8,60A,PQFN31,5X5MM</p>	<p>KEMET PRIMARY, NCC ALT CAP,TA,POLY,150UF,20V,6.3V,18MO,2A,B2</p> <p>KEMET PRIMARY, PANASONIC ALT CAP,TA,POLY,150UF,20V,6.3V,18MO,2A,B2</p> <p>VISHAY PRIMARY, FAIRCHILD ALT IC,SIC532,DR MOS,1MPW-8,30A,PQFN22,45X35</p> <p>MURATA PRIMARY, CHILISIN ALT IND,MLD,1.0UH,204,320MHZ,4.8A,3225</p> <p>CYNTEC PRIMARY, CHILISIN ALT IND,MLD,0.47UH,4.7MO,17.5A,5.63X5.2X2.4MM</p> <p>TI PRIMARY, DIODES ALT MOSFET DUAL-N,30V,15A,18/5.5MOHM,3X3DFN</p> <p>DIODES PRIMARY, ON SEMI ALT XSTR,FET,N-CH,30V,300MA,3P DFN</p> <p>DIODES PRIMARY, NEXPERIA ALT XSTR,FET,N-CH,30V,300MA,3P DFN</p> <p>SANVO PRIMARY, KEMET ALT CAP,TANT,POLY,330UF,20V,13MOHM,B2</p> <p>SANVO PRIMARY, NCC ALT CAP,TANT,POLY,330UF,20V,13MOHM,B2</p> <p>CYNTEC PRIMARY, CHILISIN ALT IND,MLD,0.58UH,7.2MO,16A,5.43X5.2X2.4MM</p> <p>CYNTEC PRIMARY, CHILISIN ALT IND,MLD,0.68UH,9.0MO,14.5A,5.6X5.2X2.4MM</p> <p>MURATA PRIMARY, TAIYO ALT CAP,XSR,10UF,20V,6.3V,HTZL,MUR,0402</p> <p>MURATA PRIMARY, YAGRO ALT CAP,CER,C0G,330PF,5V,80V,0603</p> <p>TPT PRIMARY, YAGRO ALT RES,MTL,FILM,0.0005OHM,18,4-L,0612,BLK</p> <p>KEMET PRIMARY, NCC ALT CAP,TANT,POLY,6.8UF,20V,35V,500MHM,B1.2</p> <p>KEMET PRIMARY, PANASONIC ALT CAP,TANT,POLY,6.8UF,20V,35V,500MHM,B1.2</p> <p>KEMET PRIMARY, ROHM ALT CAP,TANT,POLY,6.8UF,20V,35V,500MHM,B1.2</p> <p>CYNTEC PRIMARY, YAGRO ALT RES,MF,0.010 OHM,0.5A,0612-4T,BLK</p> <p>CYNTEC PRIMARY, TOKIN ALT IND,MLD,1.0UH,20V,14A,10.7MO,6.63X.6X2.4</p> <p>CYNTEC PRIMARY, NCC-TOKIN ALT IND,MLD,1.0UH,20V,14.5A,17.0MO,7.0X6.6MM</p> <p>138800060 PRIMARY, 138800084 ALT CAP,CER,47UF,20V,6.3V,XSR,0603</p> <p>MURATA PRIMARY, SAMSUNG ALT CAP,CER,2.2UF,20V,25V,XSR,BRZTL,0402,MUR</p> <p>MURATA PRIMARY, TAIYO ALT CAP,CER,2.2UF,20V,25V,XSR,0402,H=0.55MM</p> <p>CYNTEC PRIMARY, VISHAY ALT IND,MLD,2.7UH,19.6MO,12.5A,10.9X10X2.4MM</p> <p>CYNTEC PRIMARY, CHILISIN ALT IND,MLD,2.7UH,19.6MO,12.5A,10.9X10X2.4MM</p> <p>MURATA PRIMARY, TAIYO YUDEN ALT CAP,CER,15UF,20V,2V,X6S,0402,MURATA</p> <p>MURATA PRIMARY, KYOCERA ALT CAP,XSR,20UF,20V,10V,0402,H=0.8MM</p> <p>MURATA PRIMARY, SAMSUNG ALT CAP,CER,XSR,10UF,20V,10V,0402</p> <p>MURATA PRIMARY, TAIYO YUDEN ALT CAP,CER,XSR,10UF,20V,10V,0402</p> <p>CYNTEC PRIMARY, TPT ALT RES,SENSE,0.0020HM,1W,4-TERM,1H,0612,CYN</p> <p>TAIYO YUDEN PRIMARY,MURATA ALT CAP,CER,0.22UF,10V,25V,X7R,0402</p> <p>MURATA PRIMARY,TAIYO ALT CAP,CER,20UF,20V,2.5V,X6S,HRZTL,0402</p> <p>MURATA PRIMARY, KYOCERA ALT CAP,CER,20UF,20V,2.5V,X6S,HRZTL,0402</p> <p>TAIYO PRIMARY,MURATA ALT CAP,CER,X6S,0.1UF,20V,16V,0201</p> <p>DIODES PRIMARY,ON SEMI ALT DIODE,3-TERM,5.6V,250MA,DFN0201</p> <p>MURATA PRIMARY, CHILISIN ALT IND,MLD,0.48UH,20V,250MHZ,6.7A,3225</p> <p>MURATA PRIMARY, TAIYO YUDEN AND SAMSUNG ALT CAP,CER,10UF,20V,16V,X6S,0603</p> <p>CYNTEC PRIMARY, YAGRO ALT RES,MF,4.42K OHM,1/20W,0.14,0201,SMD</p> <p>MURATA PRIMARY, PANASONIC ALT THERMISTOR,NTC,250K,OHM,445K,3A,0201</p> <p>VISHAY PRIMARY, AOS ALT IC,SIC532,DR MOS,1MPW-8,30A,PQFN22,45X35</p> <p>VISHAY, LOWER COST AS ALT IC,SIC532,DR MOS,1MPW-8,30A,PQFN22,45X35</p> <p>VISHAY, LOWER COST AS ALT IC,SIC532,DR MOS,1MPW-8,30A,PQFN22,45X35</p> <p>VISHAY, LOWER COST AS ALT IC,SIC521,DR MOS,1MPW-8,60A,PQFN31,5X5MM</p> <p>PANASONIC PRIMARY,KEMET AS ALT CAP, TANT, POLY,33UF,20V,16V,400MHM,D12</p> <p>JAPAN ONLY PRIMARY, DUAL FLDM AS ALT CAP,AL,POLY,220UF,20V,2V,2.5MOHM,5A,D1</p>	<p>ON SEMI PRIMARY, DIODES ALT XSTR,FET,DUAL COMP,20V,220/200MA,SOT963</p> <p>TI PRIMARY, ON SEMI ALT IC,INA210A,CURRENT SENSE,200V/V,QFN10</p> <p>TI PRIMARY, ST MICRO ALT IC,REF3312,V-REF,1.25V,0.15V,5MA,QFN8</p> <p>DIODES PRIMARY, ROHM ALT XSTR,FET,P-CH,30V,400MA,ENH MODE,SOT883</p> <p>ON SEMI PRIMARY, DIODES ALT DIODE SCHOTTKY,40V,2A,LOW VF,0603</p> <p>ON SEMI PRIMARY, TI ALT IC,NCP160,120 REG,1.8V,0.25A,XDPM5</p> <p>TI PRIMARY, ON SEMI ALT IC,INA214A,CURRENT SENSE,100V/V,QFN10</p> <p>ST PRIMARY, ON SEMI ALT IC,SERIAL 12C EEPROM,128KBIT,8P,MLP8</p> <p>DIODES PRIMARY, NXP ALT IC,P130B102P,DIFF,OSR SW,SPTD,TQFN-10</p> <p>INFINION PRIMARY, STM ALT TYS,DIODE,BIDIR,11LINE,22V,11.5PF,0201</p> <p>ON SEMI PRIMARY, TI ALT IC,NCP160,120 REG,3.0V,0.25A,DFM4</p> <p>TI PRIMARY, NXP ALT IC,74AVC4745,4BIT VOLT TRANSLATOR,QFP16</p> <p>PHILLIPS PRIMARY, DIODES ALT IC,74ALVC1631,SNGL,2-INPT OR GATE,SOT891</p> <p>TI PRIMARY, ON SEMI ALT IC,LMV331,COMP,OPEN COL,2.7V,60UA,SC70</p> <p>DIODES PRIMARY, NXP ALT IC,74ALVC1607,SNGL,BFR W/OD OUT,DFN,6P</p> <p>DIODES PRIMARY, NEXPERIA ALT IC,74ALVC1607,SNGL,BFR W/OD OUT,DFN,6P</p> <p>ROHM PRIMARY, VISHAY ALT RES,MTL,.005 OHM,18,1W,1206</p> <p>MACRONIX PRIMARY, ADTESTO ALT IC,FLASH,SERIAL,SP1,4MB,1.8V,4X3MM,DFN8</p> <p>MURATA PRIMARY, TAIYO ALT CAP,CER,XSR,20UF,20V,6.3V,0402,H=0.7MM</p> <p>MURATA PRIMARY, SAMSUNG ALT CAP,CER,10UF,6.3V,XSR,0.7MM,0402,SAMSUNG</p> <p>MURATA PRIMARY, SAMSUNG ALT CAP,CER,XSR,1UF,10V,10V,0402,MURATA</p> <p>MURATA PRIMARY, TAIYO YUDEN ALT CAP,CER,20UF,20V,2.5V,X6S,LOW NOISE,0402</p> <p>MURATA PRIMARY, YAGRO ALT CAP,CER,0.047UH,10V,50V,X7R,0402</p> <p>NXP PRIMARY, TI ALT IC,VOLT-LEVEL TRANS,W/CONFIG GATE,SOT886</p> <p>TI PRIMARY, NEXPERIA ALT IC,ACVR,BUS,4-BIT,DG,SUPPLY,3-OUT,TQFN16</p> <p>NEXPERIA PRIMARY, DIODES ALT IC,74AUP1007,SNGL,BUFFER W/OD OUT,SOT891</p> <p>TKX PRIMARY, CYNTEC ALT IND,PWR,MULT,1UH,20V,0.4A,0.636 OHM,0402</p> <p>MURATA PRIMARY, TKX ALT FERR,BD,220 OHM,25V,700MA,0.28 DCR,0402</p> <p>TKX PRIMARY, MURATA ALT FERR,BD,22 OHM,25V,1A,55 MOHM DCR,0201</p> <p>MURATA PRIMARY, TAIYO ALT FERR,BD,80 OHM,25V,500MA,0.18 DCR,0201</p> <p>PANASONIC PRIMARY, TAIYO ALT FILTR,COMMON MODE,30 OHM,100MA,0202</p> <p>NXP PRIMARY, TI ALT IC,VOLT-LEVEL TRANS,W/CONFIG GATE,SOT891</p> <p>MURATA PRIMARY, KYOCERA ALT CAP,CER,XSR,20UF,20V,6.3V,0201,H=0.55MM</p> <p>TKX PRIMARY, PANASONIC ALT FILTR,NOISE,2.4MHZ,0.1A,0.65X0.5MM,SMD4</p> <p>TKX PRIMARY, TAIYO YUDEN ALT FILTR,NOISE,2.4MHZ,0.1A,0.65X0.5MM,SMD4</p> <p>TKX PRIMARY, KYOCERA ALT XTAL,24MHZ,10PPM,BFF,40 OHM,2520</p> <p>TKX PRIMARY, NOK ALT XTAL,24MHZ,10PPM,BFF,40 OHM,2520</p> <p>ST MICRO PRIMARY, DIODES ALT TYS,DIODE,UNIDIR,22V,35A,1.8X1.8</p> <p>INFINION PRIMARY, ST ALT SUPPL,TRANS,BIDIR,5.5V,6.2PF,0201</p> <p>DIODES PRIMARY, NXP ALT IC,74ALVC1608,SNGL,2-INPT AND GATE,DFN,6P</p>	<p>155800067</p> <p>13880706</p> <p>13880945</p> <p>152800864</p> <p>138800181</p> <p>371800185</p> <p>311800196</p> <p>377800123</p> <p>376800292</p> <p>107800346</p> <p>31180525</p> <p>116800007</p> <p>10780284</p> <p>10780276</p> <p>132800229</p> <p>377800166</p> <p>107800101</p> <p>13880852</p> <p>152800812</p> <p>138800087</p> <p>353801615</p> <p>107800297</p>
PART NUMBER	ALTERNATE FOR PART NUMBER	BOM OPTION	REF DES	COMMENTS:																																																																																						
152800403	152800322	ALT_CMN	ALL	<RDAR://39801983>																																																																																						
128800042	12880311	ALT_CMN	ALL	<RDAR://40172980>																																																																																						
128800043	12880311	ALT_CMN	ALL	<RDAR://40172980>																																																																																						
12880264	12880364	ALT_CMN	ALL	<RDAR://44394151>																																																																																						
152800726	152800592	ALT_CMN	ALL	<RDAR://40221857>																																																																																						
152800724	152800311	ALT_CMN	ALL	<RDAR://40221450>																																																																																						
152800398	152800204	ALT_CMN	ALL	<RDAR://40221612>																																																																																						
152800725	152800590	ALT_CMN	ALL	<RDAR://40223132>																																																																																						
152800363	152800048	ALT_CMN	ALL	<RDAR://40040471>																																																																																						
376800227	376800203	ALT_CMN	ALL	<RDAR://40169831>																																																																																						
376800204	376800203	ALT_CMN	ALL	<RDAR://40169831>																																																																																						
376800226	376800203	ALT_CMN	ALL	<RDAR://40169831>																																																																																						
376800202	376800203	ALT_CMN	ALL	<RDAR://40169831>																																																																																						
107800015	107800011	ALT_CMN	ALL	<RDAR://40039575>																																																																																						
12880392	12880445	ALT_CMN	ALL	<RDAR://40172491>																																																																																						
353800831	353800519	ALT_CMN	ALL	<RDAR://43065874>																																																																																						
C					SYSTEM EE				C																																																																																	
	<table><tr><th>PART NUMBER</th><th>ALTERNATE FOR PART</th></tr></table>	PART NUMBER	ALTERNATE FOR PART																																																																																							
PART NUMBER	ALTERNATE FOR PART																																																																																									

www.laptoprepairsecrets.com


1/3 OZ, PLATED TO 0.031 MM GND PLANE 1/3 OZ, PLATED TO 0.020 MM SIGNAL 1/3 OZ, PLATED TO 0.030 MM GND PLANE 1/2 OZ, 0.016 MM SIGNAL 1/2 OZ, 0.016 MM GND PLANE 1/2 OZ, 0.016 MM POWER PLANE 1 OZ, 0.031 MM	RULER_RULE_SET=RIGID_2016MANUFACTURING CONFIGURATIONTABLE_REV_NUMBER=1				
	DIELECTRIC BASED SPACING RULES			DEFAULT SPACING MULTIPLES	VOID SPACE RATIO
	MULTIPLES	SMDPIN MAX(UM)	MVIA MAX(UM)		
	1,2,3,4,5,6,7,8,9,10,11,12,13,14	120	120	100	12
	LAYERS	MINIMUM CU WIDTH RATIO		MINIMUM CU SPACING RATIO	MINIMUM TO DEFAULT RATIO
	TOP,BOTTOM	2.0		2.36842	1.2
	ISL2,ISL13	2.25		2.5	1.2
	ISL3,ISL12	2.0		2.25806	1.2
	ISL4,ISL11	2.5		2.5	1.2
	ISL5,ISL10	2.5		2.5	1.2
	ISL6,ISL9	2.5		2.5	1.2
	ISL7,ISL8	2.0		2.25806	1.2

MANUAL EDITS AFTER AUTOGENERATION:
OVERWROTE THROUGH VIA, BB VIA, AND UVIA SPACINGS TO DEFAULT VALUE, THE AUTOGEN ONES ARE TOO HIGH
UPDATE SAME NET SPACING FOR VIA TO HOLE, UVIA TO SMD PIN, FOR DEFAULT AND MIN, TO -1
CHANGED LINE TO SMD SAME NET SPACING FROM 0.1 TO 0.07 ON TOP/BOTTOM LAYERS
CHANGED MAX NECK LENGTH FOR THE DEFAULT PHYSICAL RULE TO 20MM
CHANGED UVIA TO LINE SAME NET SPACING TO 0.05
CHANGED BB VIA TO LINE, ABD BB VIA TO BB VIA SAME NET SPACING TO 0.0
CHANGED BB VIA TO UVIA SAME NET SPACING TO -1
CHANGED LINE TO SHAPE SAME NET SPACING TO 0.05
SET BB VIA STAGGER IN PHYSICAL RULES TO 0.2500 FOR MIN, 0.275 FOR ALL OTHER, FOR LAYERS 3 AND 12
COPIED THE RULES FROM 85 OHM DIFF TO 85 MIN STAGGER
SET ENABLE DRC BY LAYER IN SAME NET SPACING TO TRUE FOR ALL LAYERS
KEEP DEFAULT AS DEFAULT, GENERIC DP AS GENERIC DP
REPLACING ALL SPACINGS EXCEPT LINE TO LINE WITH DEFAULT VALUES
DECREASED NECK GAP FOR DIFF PAIRS TO VALUE FOR GENERIC DP
REASSIGN SPACING AND PHYSICAL REGION RULES AND NET CLASS ASSIGNMENTS
SET UVIA TO SHAPE SAME NET SPACING TO 0.1MM ON TOP/BOTTOM

SYNC_MASTER=SYNC_DATE=

PAGE TITLE

BOARD RULES

 Apple Inc.

DRAWING NUMBER

051-05309

SIZE

D

NOTICE OF PROPRIETARY PROPERTY:
THE INFORMATION CONTAINED HEREIN IS THE
PROPRIETARY PROPERTY OF APPLE INC.
THE POSSESSOR AGREES TO THE FOLLOWING:
I TO MAINTAIN THIS DOCUMENT IN CONFIDENCE
II NOT TO REPRODUCE OR COPY IT
III NOT TO REVEAL OR PUBLISH IT IN WHOLE OR PART
IV ALL RIGHTS RESERVED

REVISION

6.0.0

BRANCH

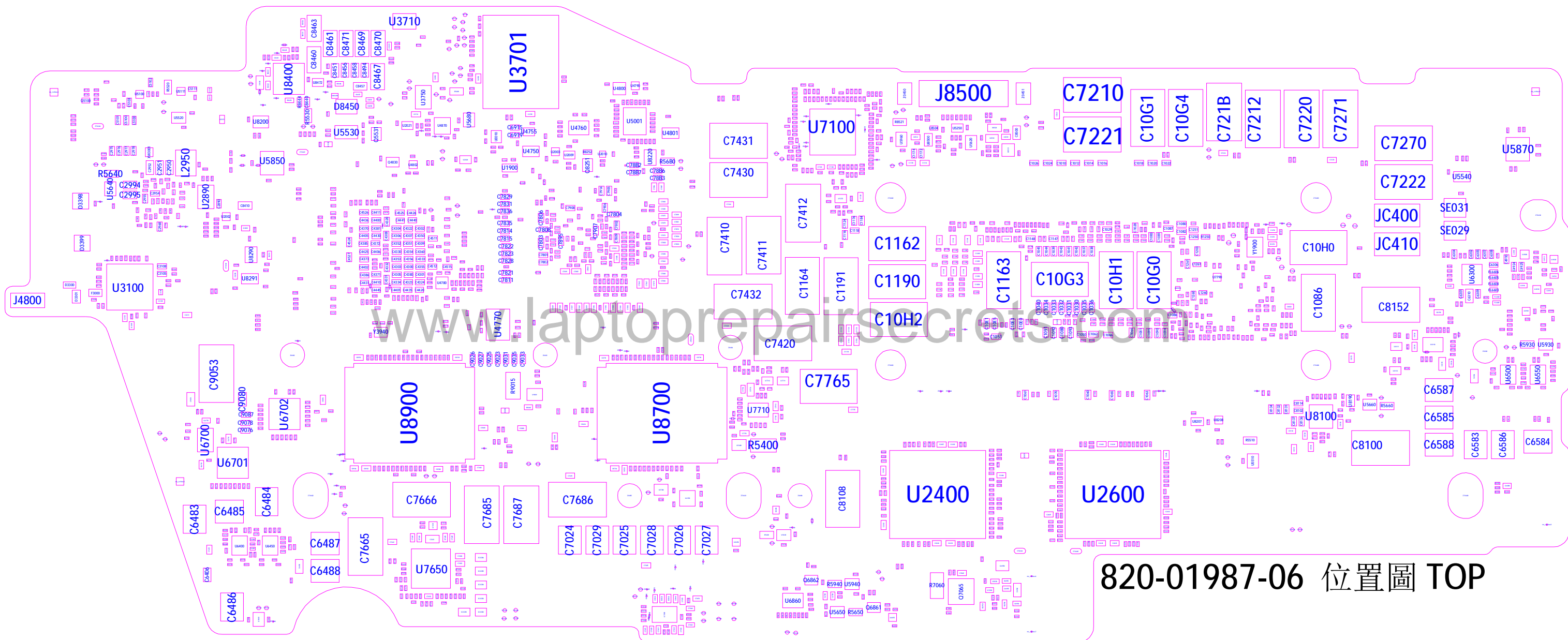
pvt

PAGE

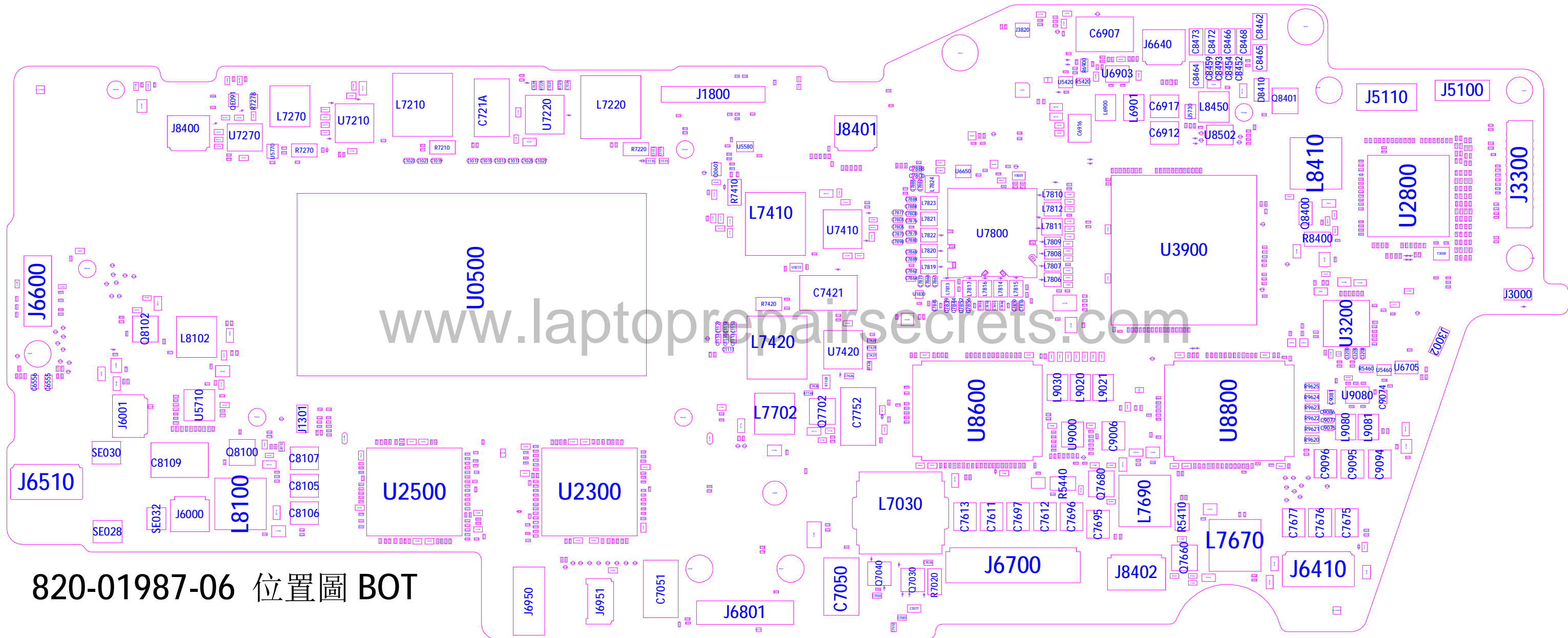
500 OF 500

SHEET

98 OF 98



www.laptoprepairsecrets.com



820-01987-06 位置圖 BOT