

8

7

6

5

4

3

2

1

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

2. ALL CAPACITANCE VALUES ARE IN MICROFARADS.

3. ALL CRYSTALS & OSCILLATOR VALUES ARE IN HERTZ.

X1783

MLB-TKSB

REV

ECN

DESCRIPTION OF REVISION

CK APPD

DATE

2

0018963445

ENGINEERING RELEASED

2019-07-29

LAST\_MODIFICATION=Mon Jul 29 19:28:46 2019

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SYNC

DATE

LKS

11/09/2018

5165Keyboard Backlight

5266Audio Connectors

5367Keyboard & Trackpad 1

5468Keyboard & Trackpad 2

5569DC-In & Battery Connectors

5670PBUS Supply & Battery Charger

5771IMVP9 IC

5872IMVP9 POWER BLOCK

5974VR: VCCIN\_AUX ISL

6076VR - 5V, 3V3

6177VR: VCCPRIM\_1P8

6278PMIC BUCKS AND SWs

6379PMIC LDOs

6480PMIC GPIOs & Control

6581POWER - MEMORY VRs

6682Power FETs

6783Power FETs TBT S0

6884LCD Backlight Driver

6985eDP Display Connector

7086S4E<0>

7187S4E<1>

7290NAND VCC VR

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74120Power Aliases - 1

75121Power Aliases - 2

76122Signal Aliases

77123Memory Bit & Byte Swizzle

78124ICT FCT

79127Desense Caps 1

80128Desense Caps 2

81140Dev Support

82141BOM Variants 1

83142BOM Variants 2

84143BOM Variants 3

85145BOM Alternates

86152Power Block Diagram

SYNC

DATE

X1032\_MLB\_P4BP

04/15/2019

AHAAGE\_AUD

04/19/2017

X260\_MLB

02/16/2017

X589\_CARD\_IPD

02/16/2017

psm

10/18/2018

X1032\_MLB\_P4BP

02/13/2017

J140\_MLB\_(CNL-Y)

06/29/2018

psm

10/18/2018

CPU\_CARD\_ICL\_Y

06/08/2018

J140

08/17/2018

psm

10/18/2018

X589\_BIGSUR

03/16/2017

X589\_BIGSUR

03/16/2017

X589\_BIGSUR

03/16/2017

X589\_CPU\_CNL\_Y

10/12/2018

X589\_CPU\_CNL\_Y

02/22/2017

CPU\_CARD\_ICL\_Y

06/08/2018

X1032\_MLB\_P4BP

02/13/2017

X1032\_MLB\_P4BP

12/06/2018

j213

09/27/2018

j213

09/27/2018

psm

10/18/2018

X589\_CPU\_CNL\_Y

02/21/2017

X589\_CPU\_CNL\_Y

02/21/2017

J140

08/23/2018

X589\_BIGSUR

04/12/2017

051-05232

1

SCH,MLB-TKSB,X1783

SCH

CRITICAL

SCHEM

820-01958

1

PCBF,MLB-TKSB,X1783

MLB

CRITICAL

PCBF

J230GHUB = [https://github.pie.apple.com/MobileMacIX/j230\\_hw/blob/master/](https://github.pie.apple.com/MobileMacIX/j230_hw/blob/master/)

RULER\_RULE\_SBT=RIGID\_2016

MANUFACTURING CONFIGURATION

TABLE\_REV\_NUMBER=1

DIELECTRIC BASED SPACING RULES

MULTIPLES

SMDFIN MAX(UM)

MVIA MAX(UM)

SMDFIN2SMDFIN MAX(UM)

DEFAULT SPACING MULTIPLES

VOID SPACE RATIO

1,1.5,1.75,2.6,2-7,7.5,8,9,10

80

80

80

1

2

LAYERS

MINIMUM CU WIDTH RATIO

MINIMUM CU SPACING RATIO

MINIMUM TO DEFAULT RATIO

TOP,BOTTOM

2.8

2.8

1.0

ISL2-ISL3,ISL6,ISL9,ISL12-ISL13

3.125

3.125

1.2

ISL4,ISL11

3.125

3.125

1.2

ISL5,ISL10

2.272

2.272

1.2

ISL7,ISL8

2.23

2.23

1.3

DRAWING TITLE

SCHEM,MLB-TKSB,X1783

Apple Inc.

051-05232

2.0.0

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proto4b

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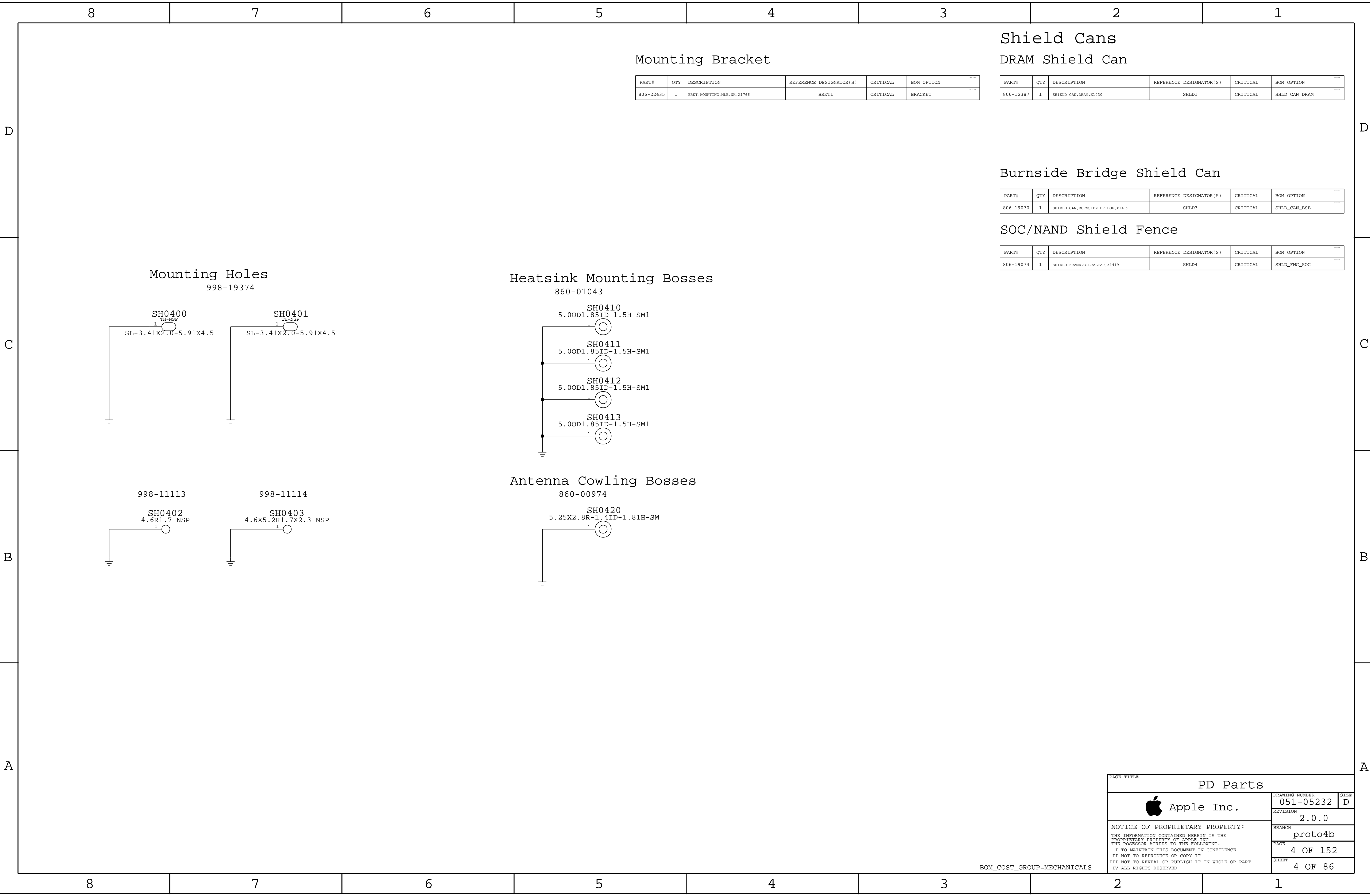
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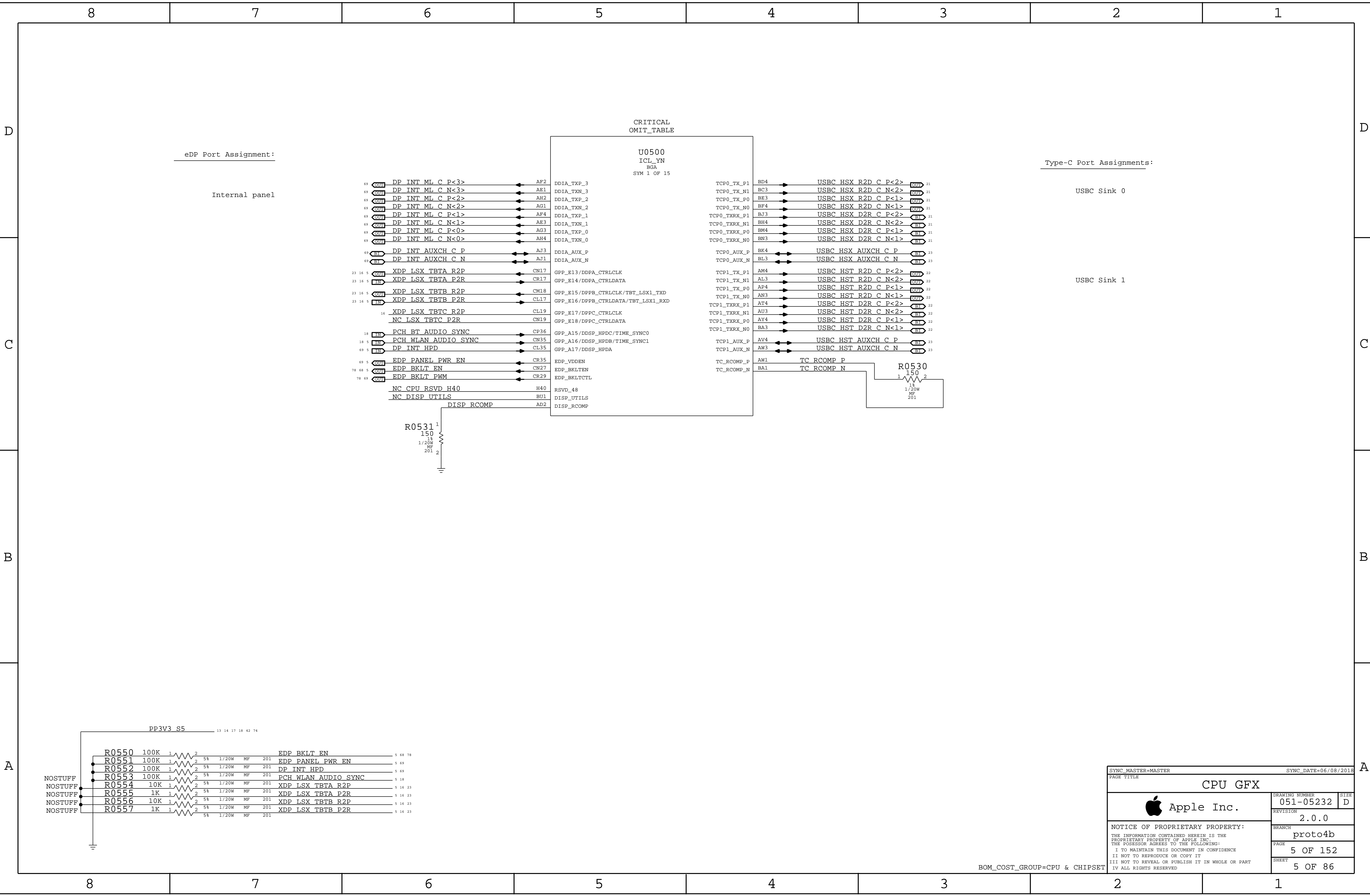
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D

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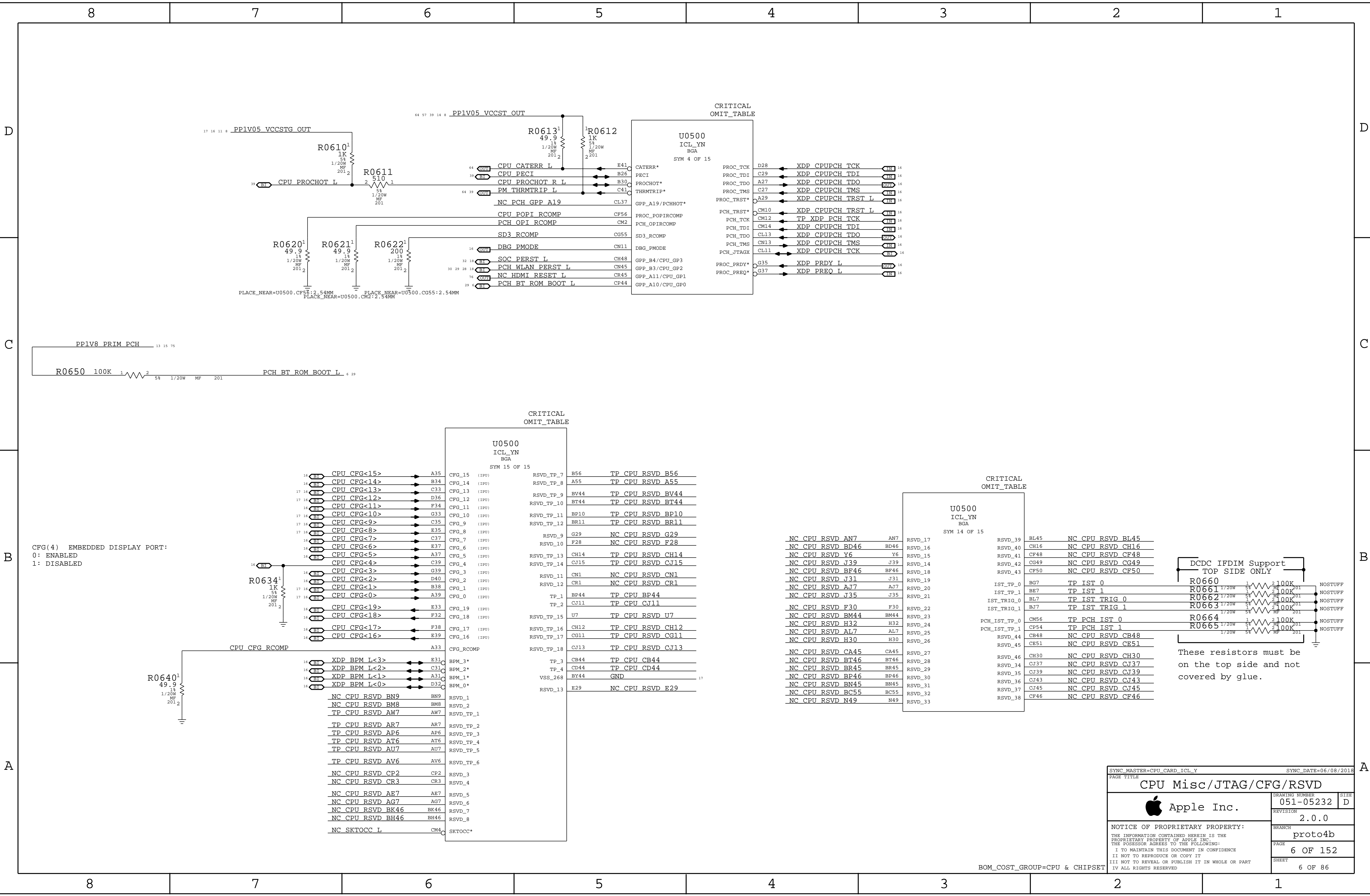
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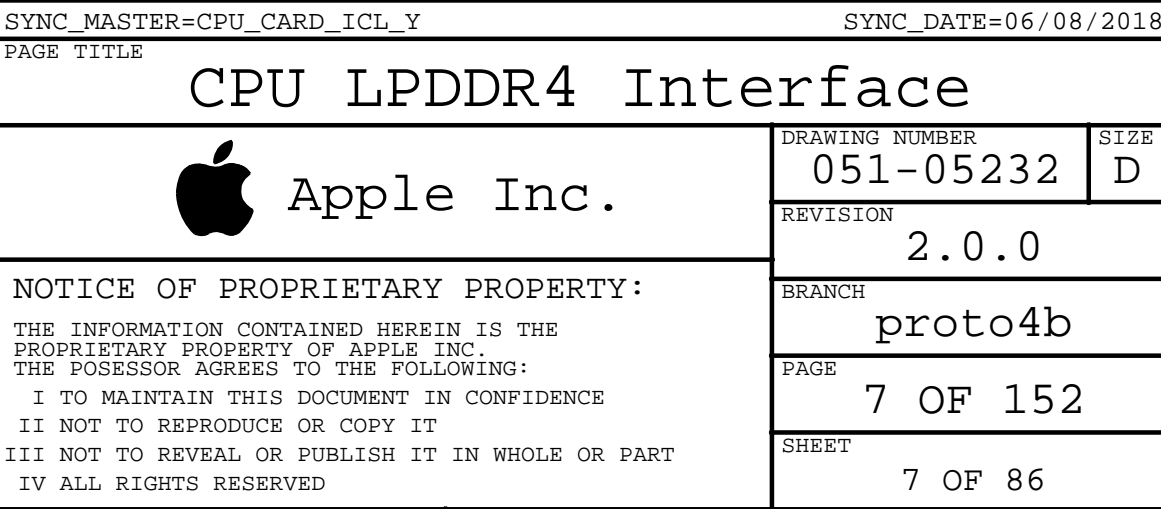
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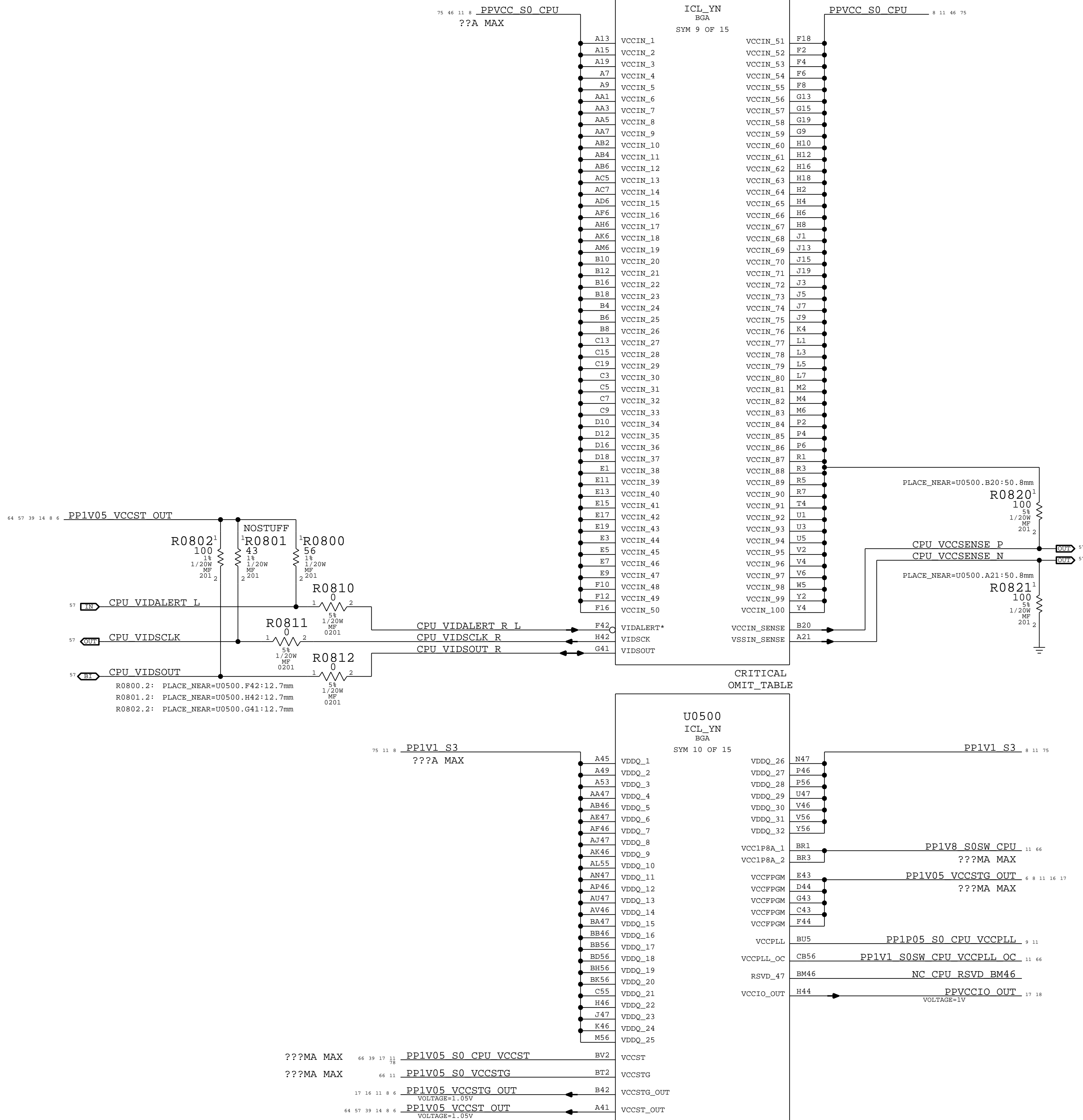
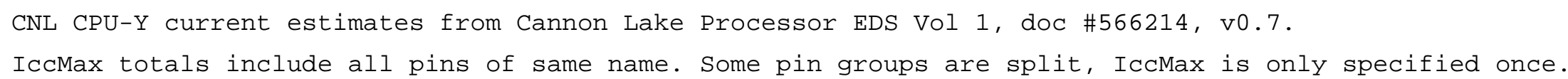
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	REVISION	2.0.0	D
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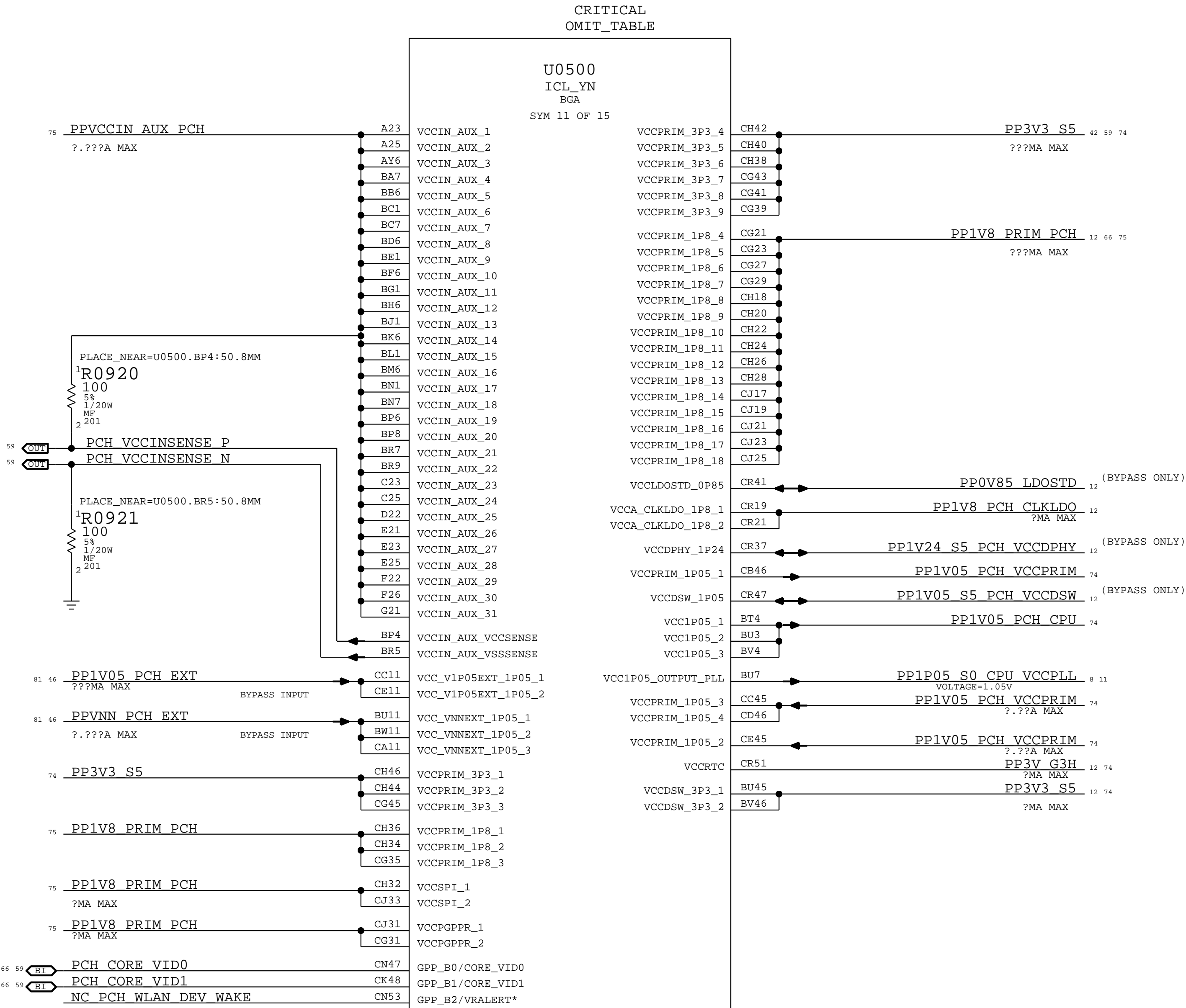







CNL PCH-Y CURRENT ESTIMATES FROM CANNON LAKE PCH-U/Y EDS VOL 1, DOC #566439, V0.7.  
ICCMAX TOTALS INCLUDE ALL PINS OF SAME NAME. SOME PIN GROUPS ARE SPLIT, ICCMAX IS ONLY SPECIFIED ONCE.

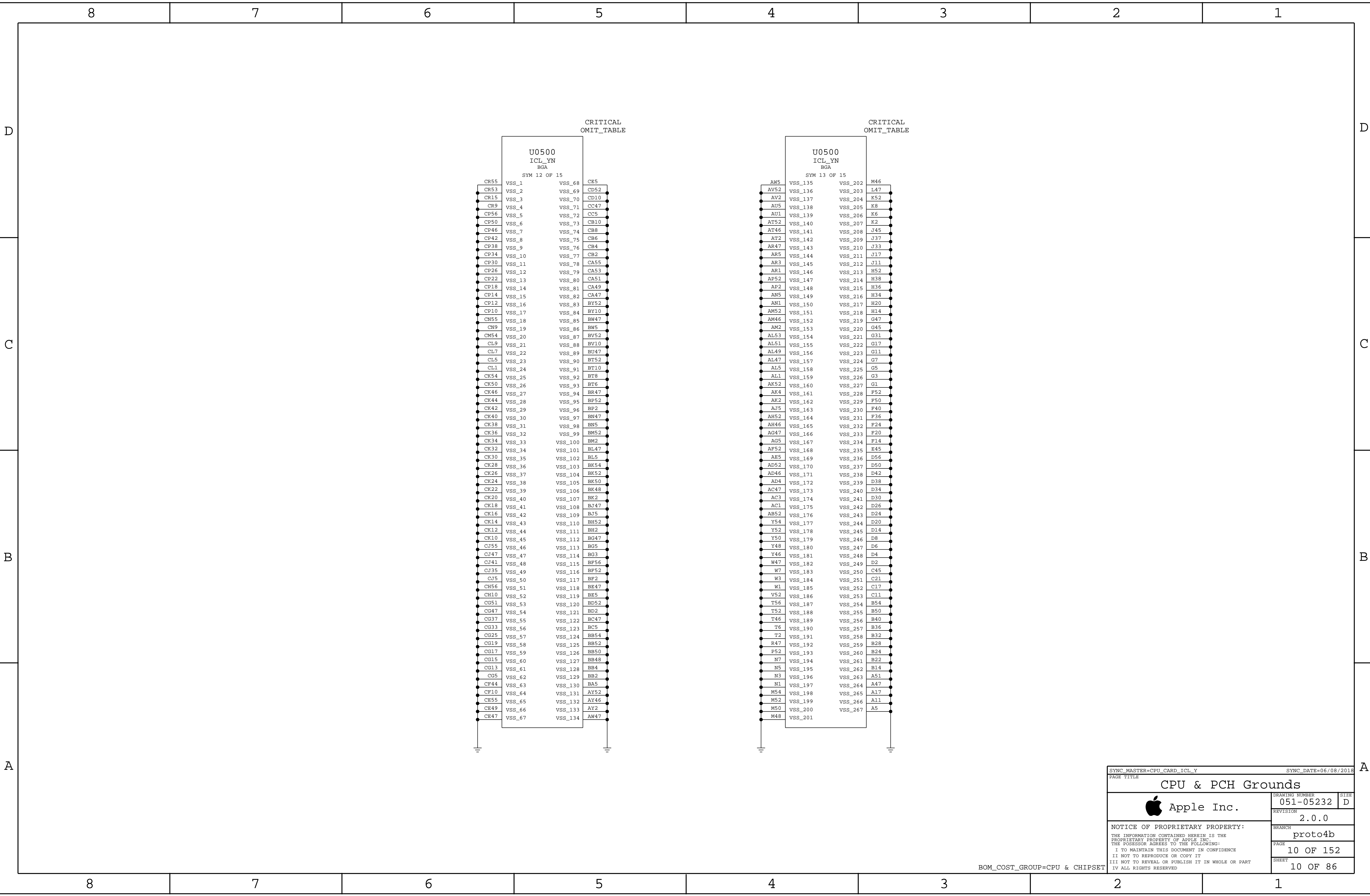
NOTE: ALIASES NOT USED ON CPU SUPPLY OUTPUTS  
TO AVOID ANY EXTRANEOUS CONNECTIONS.




WiFi will be woken up by PCIe In-Band Signal and  
therefore PCH\_WLAN\_DEV\_WAKE will not be connected

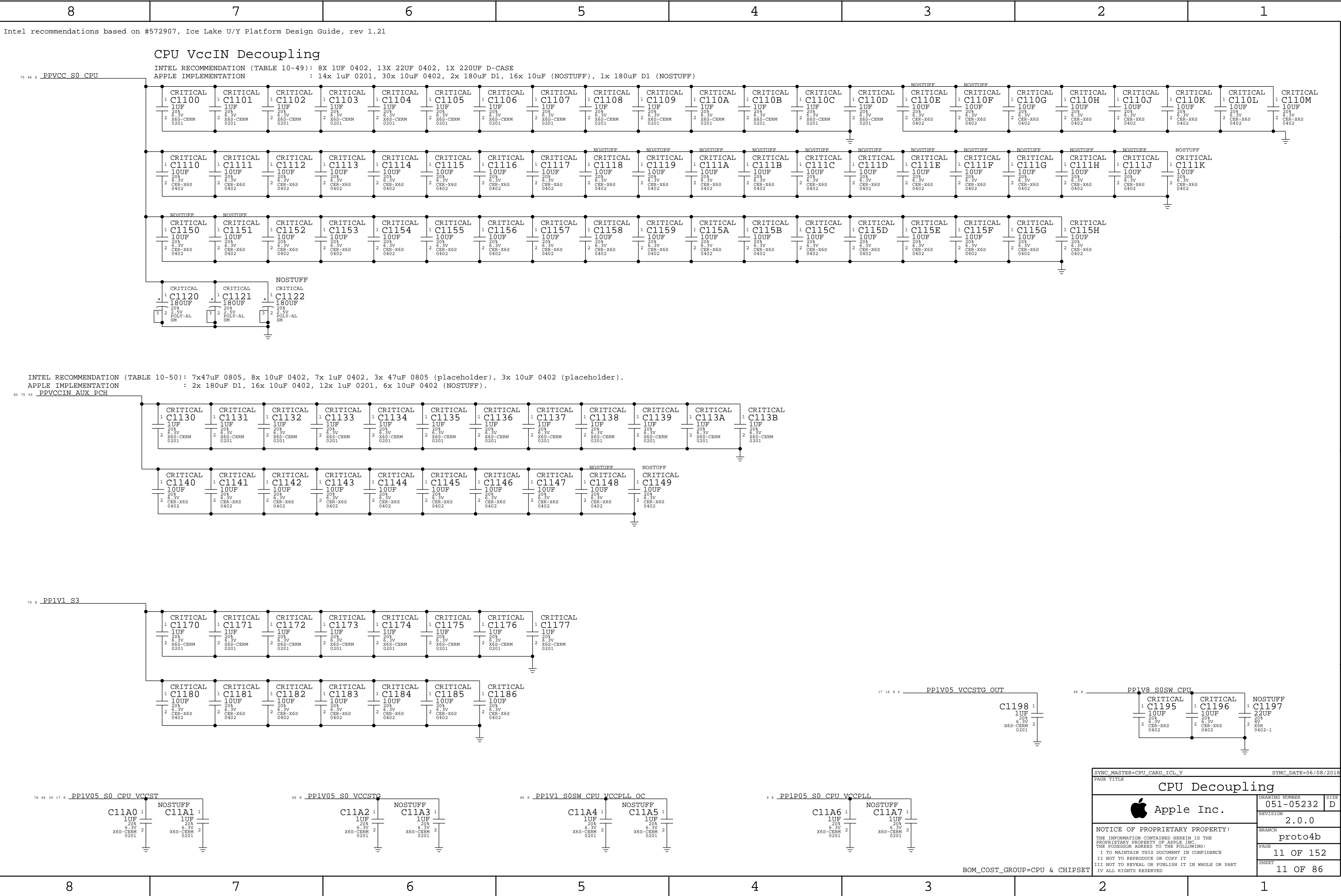
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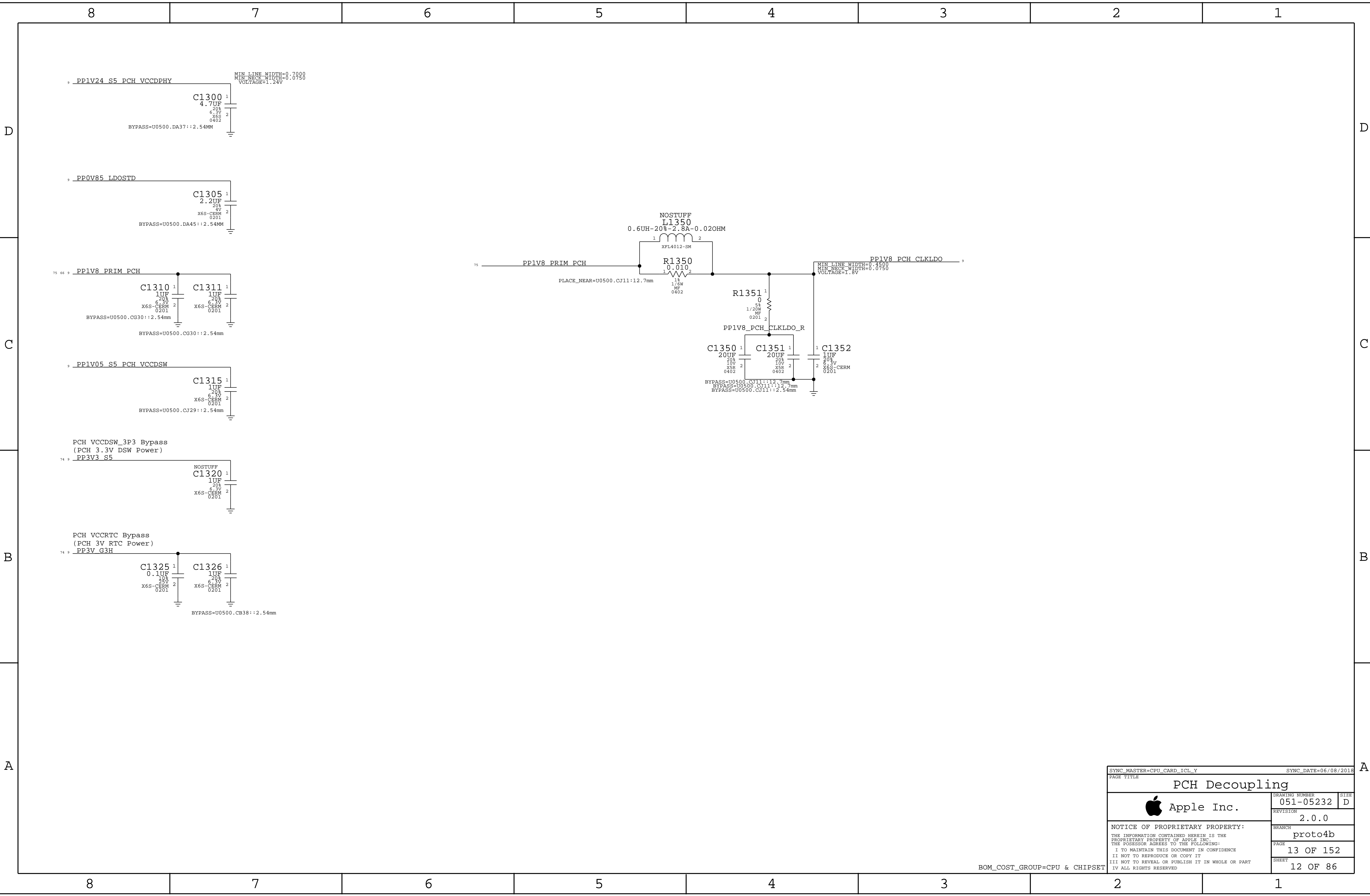
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PAGE TITLE						
PCH Power						
 Apple Inc.			DRAWING NUMBER		SIZE	
			051-05232		D	
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PAGE TITLE					
CPU & PCH Grounds					
 Apple Inc.		DRAWING NUMBER	051-05232	SIZE	D
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		SHEET	10 OF 86		

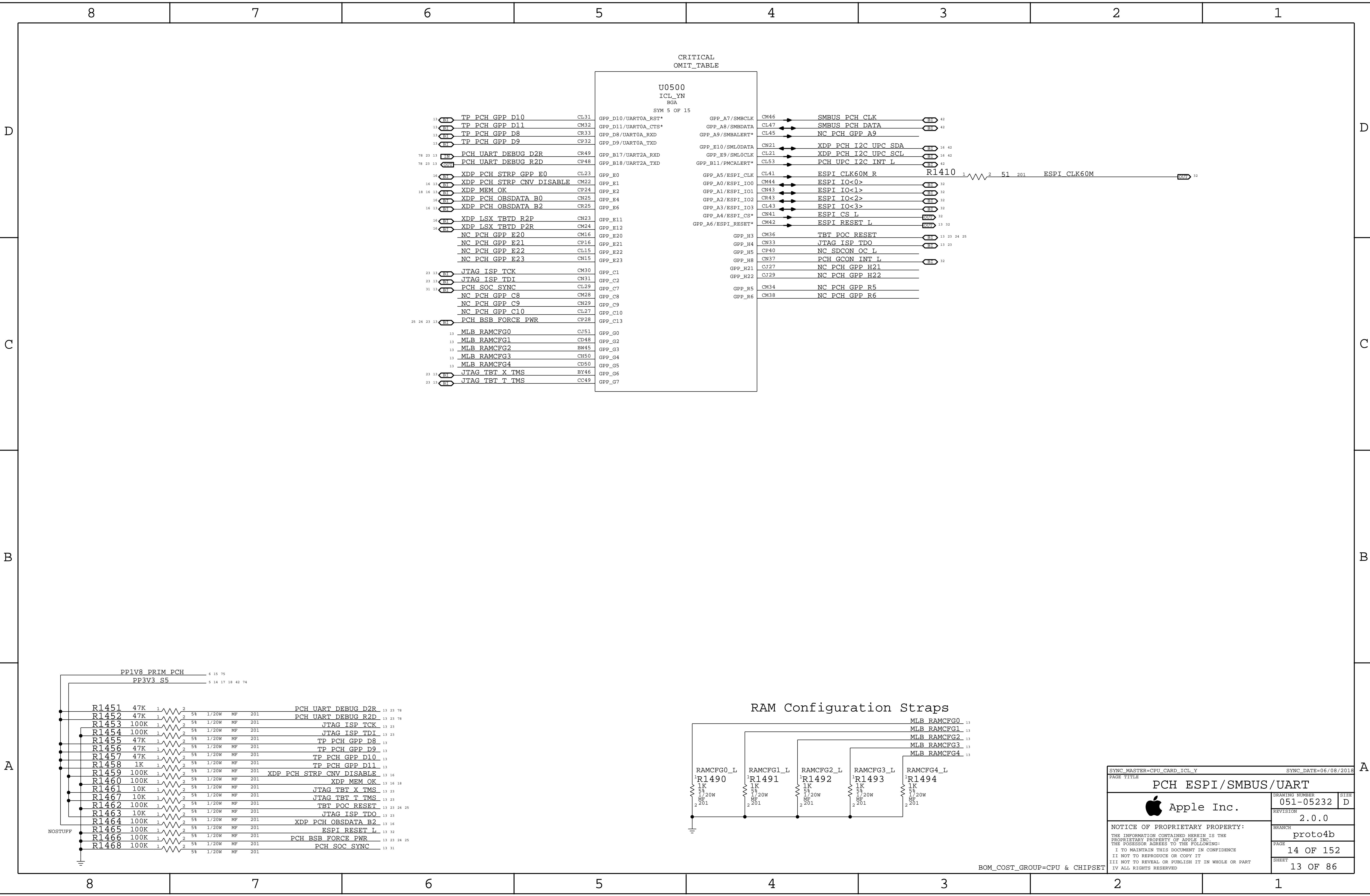
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PCH Decoupling			
 Apple Inc.	DRAWING NUMBER		SIZE
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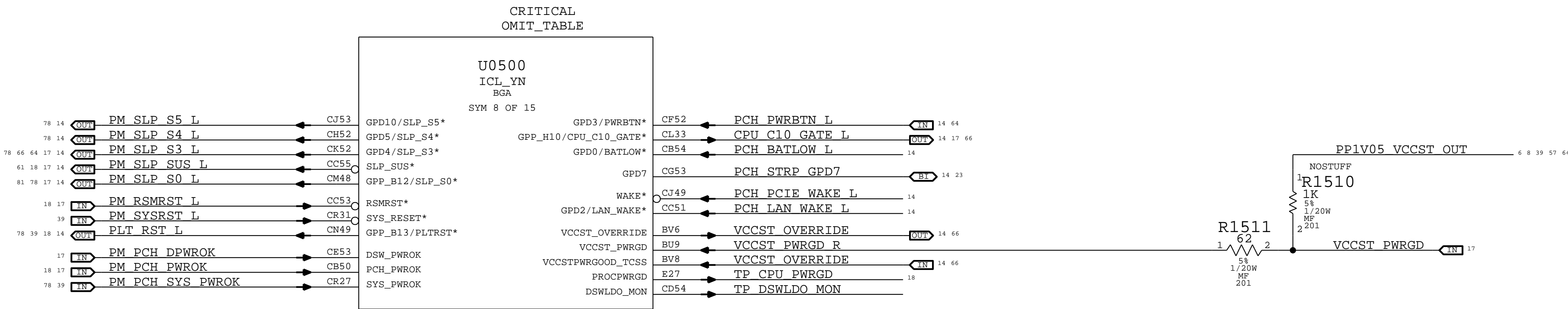
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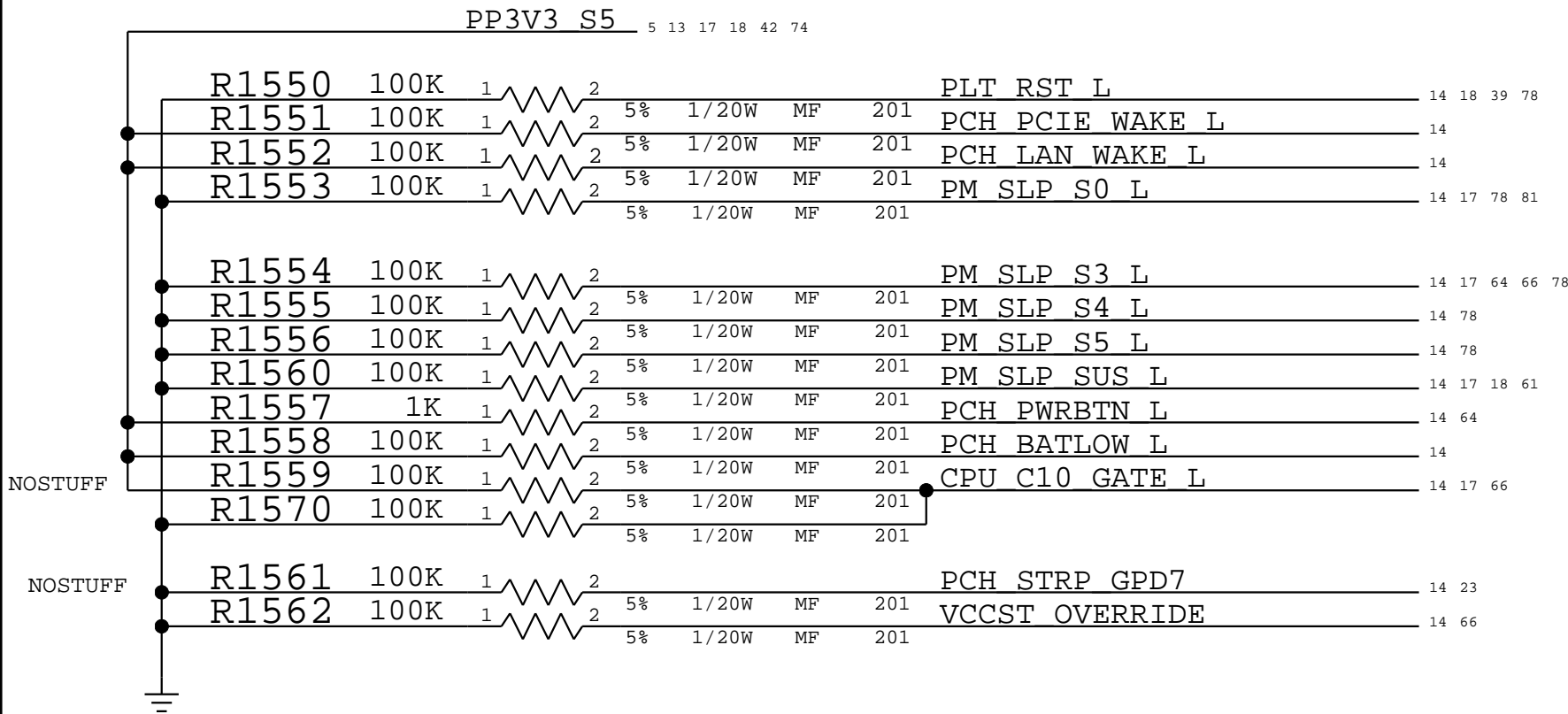
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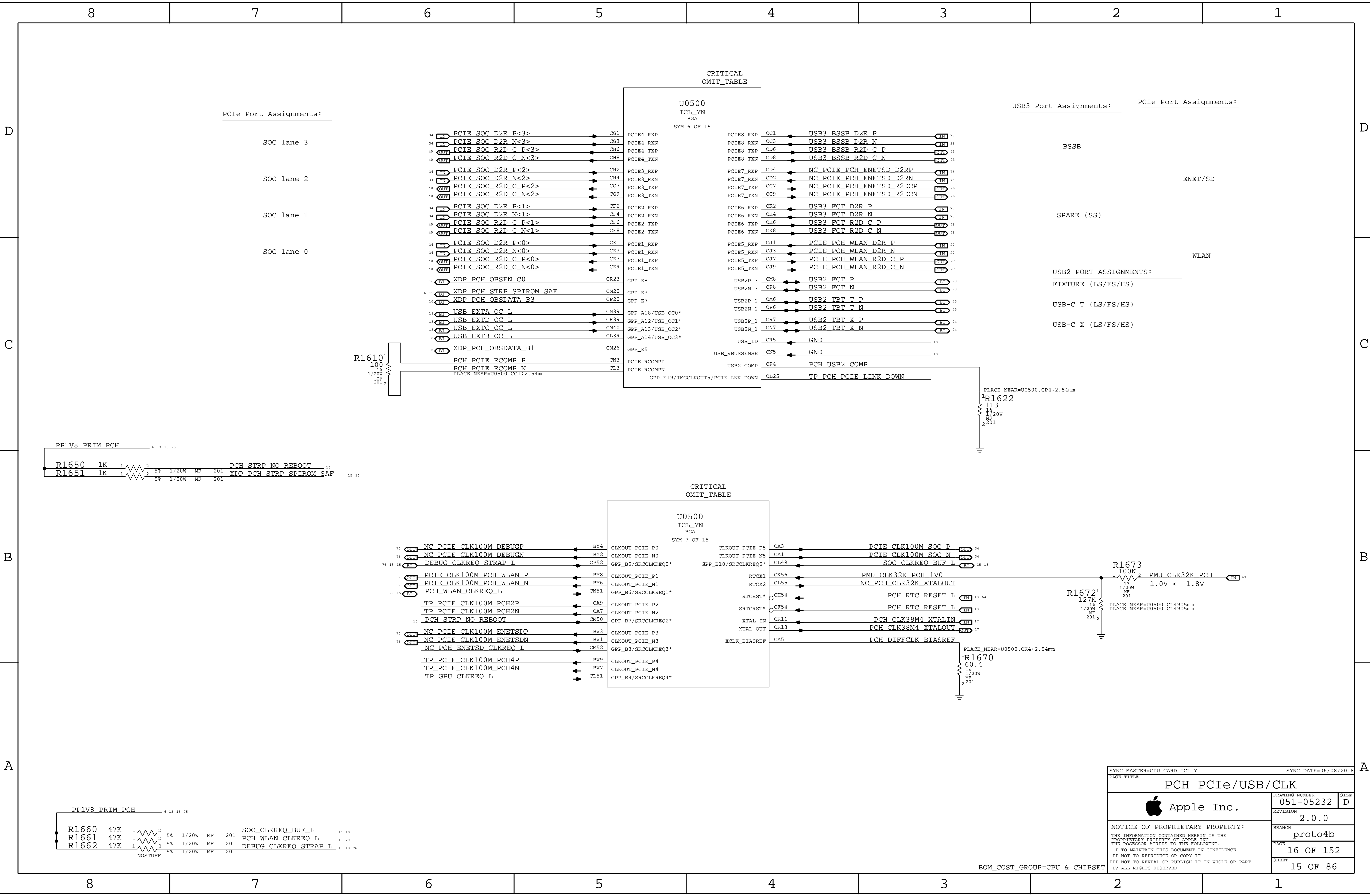
## A PM\_SLP\_S0\_L NOTE

PM\_SLP\_S0\_L has an intenral pull-up before RSMRST# is released. This causes a voltage divider with the pull-down R1553. The signal is driven high after RSMRST# is released.



SYNC_MASTER=CPU_CARD_ICL_Y			SYNC_DATE=06/08/2018			
PAGE TITLE						
PCH Power Management						
 Apple Inc.			DRAWING NUMBER		SIZE	
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BOM\_COST\_GROUP=CPU & CHIPSET



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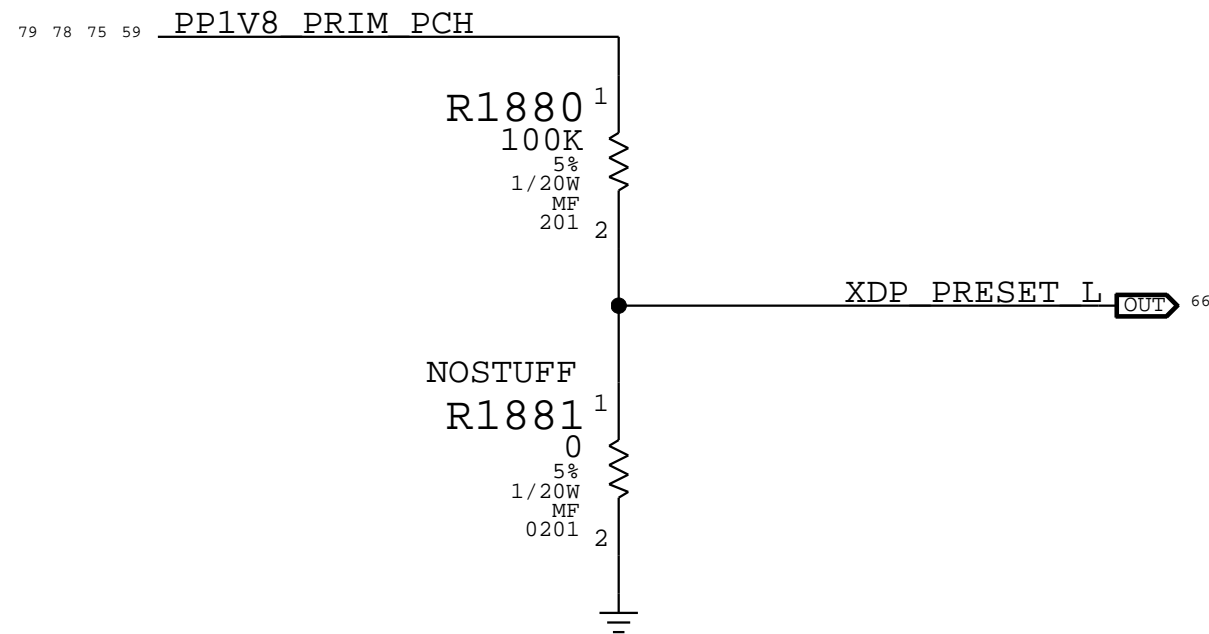
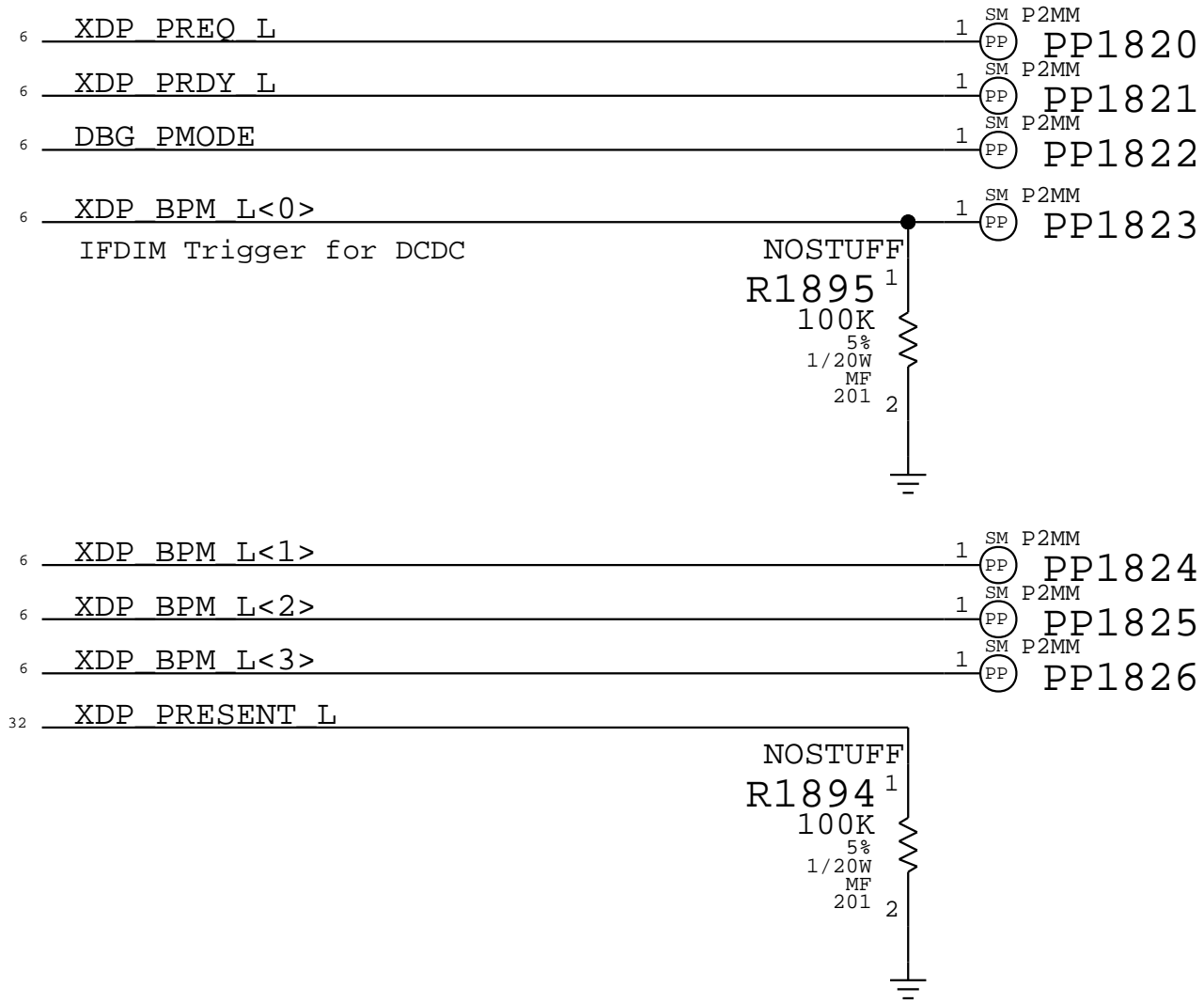
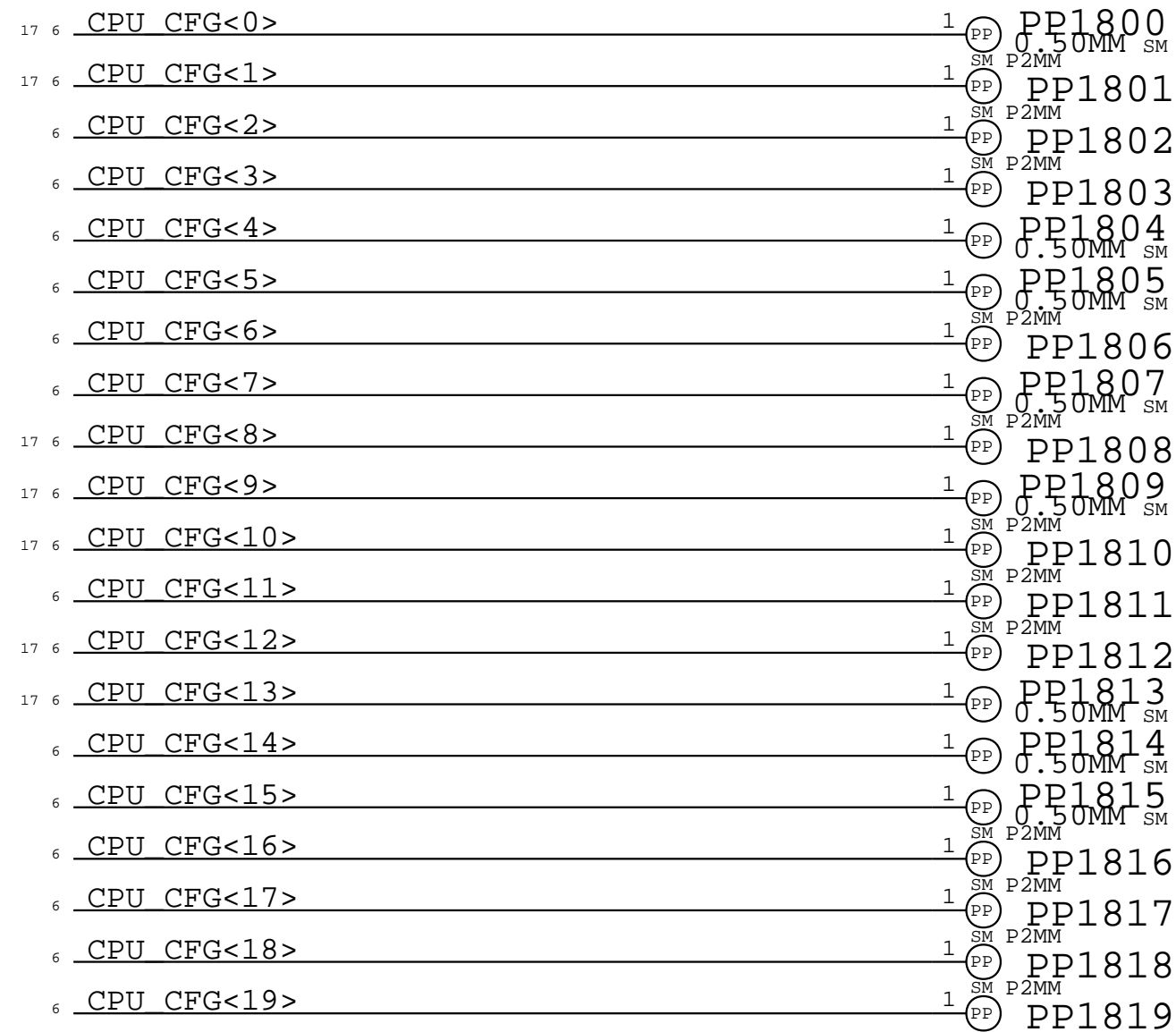
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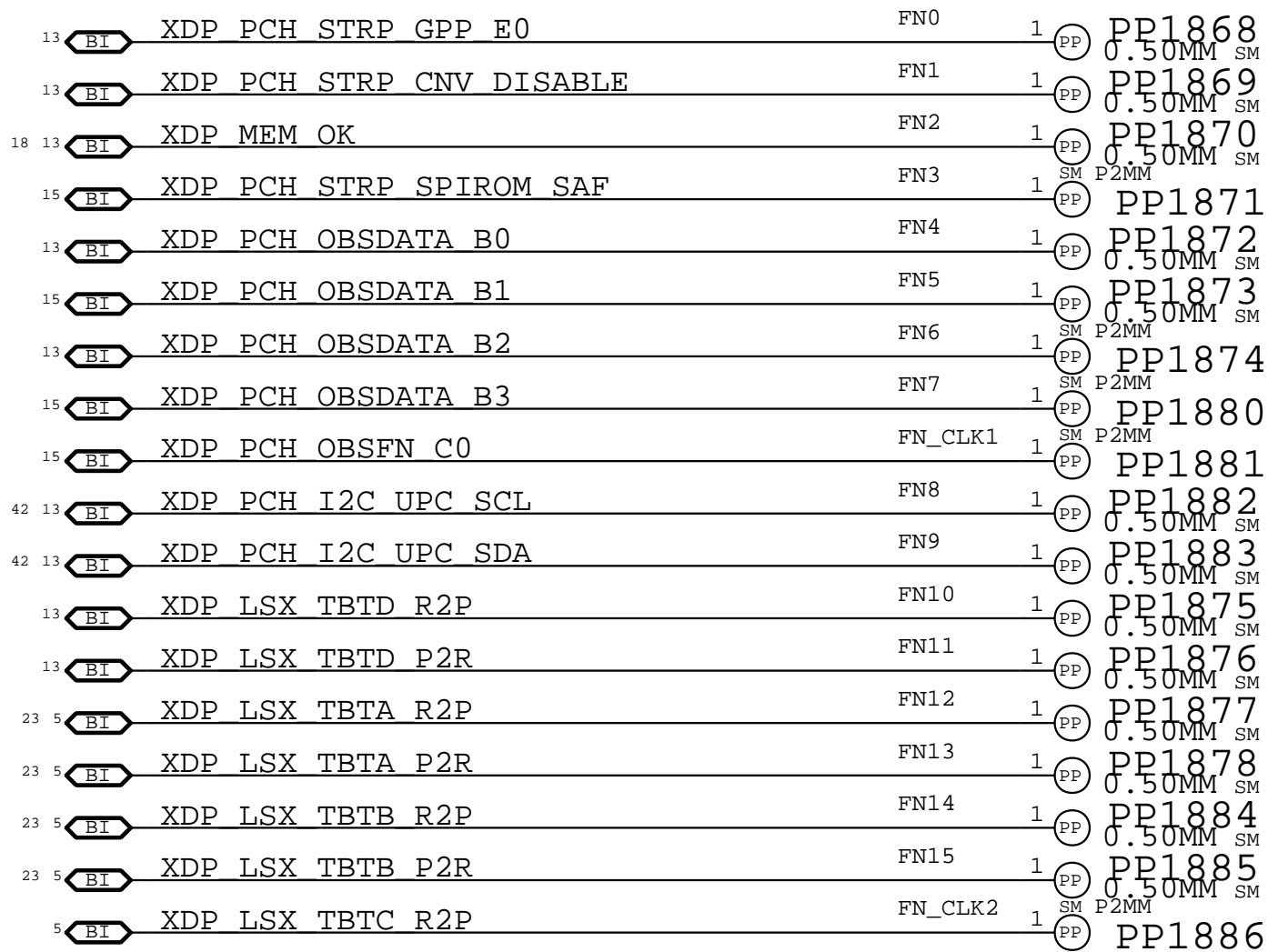
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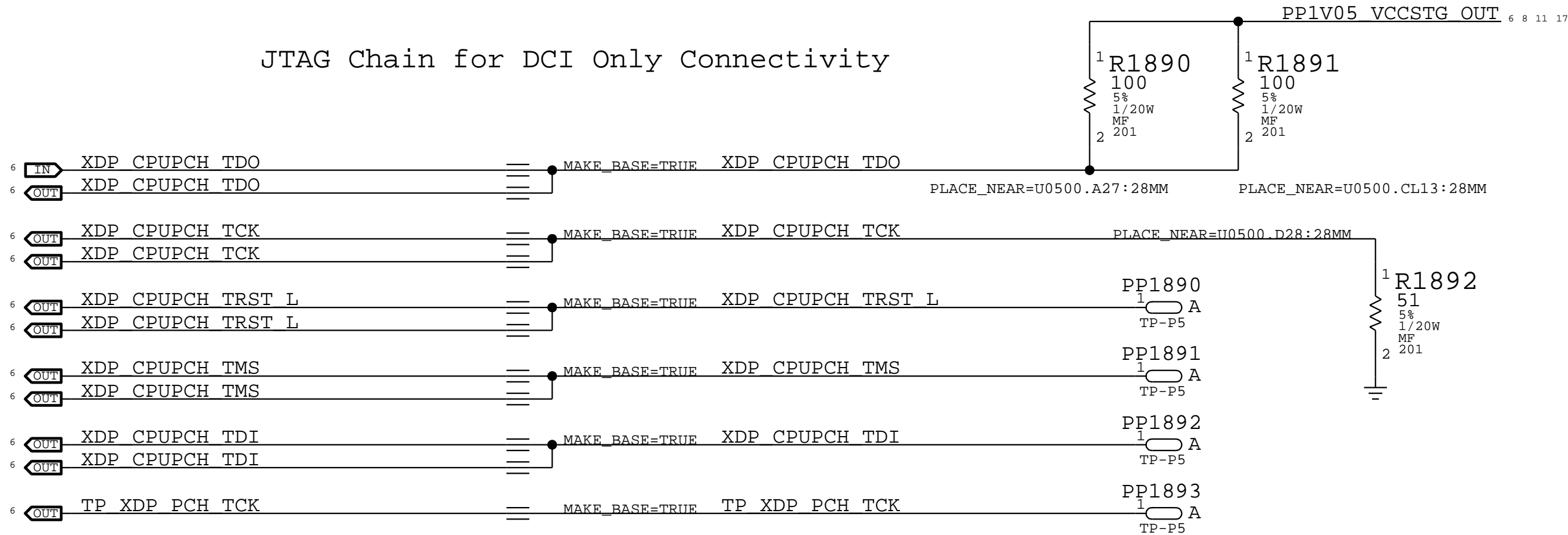
### PCH XDP Signals


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

#### PCH/XDP Signals



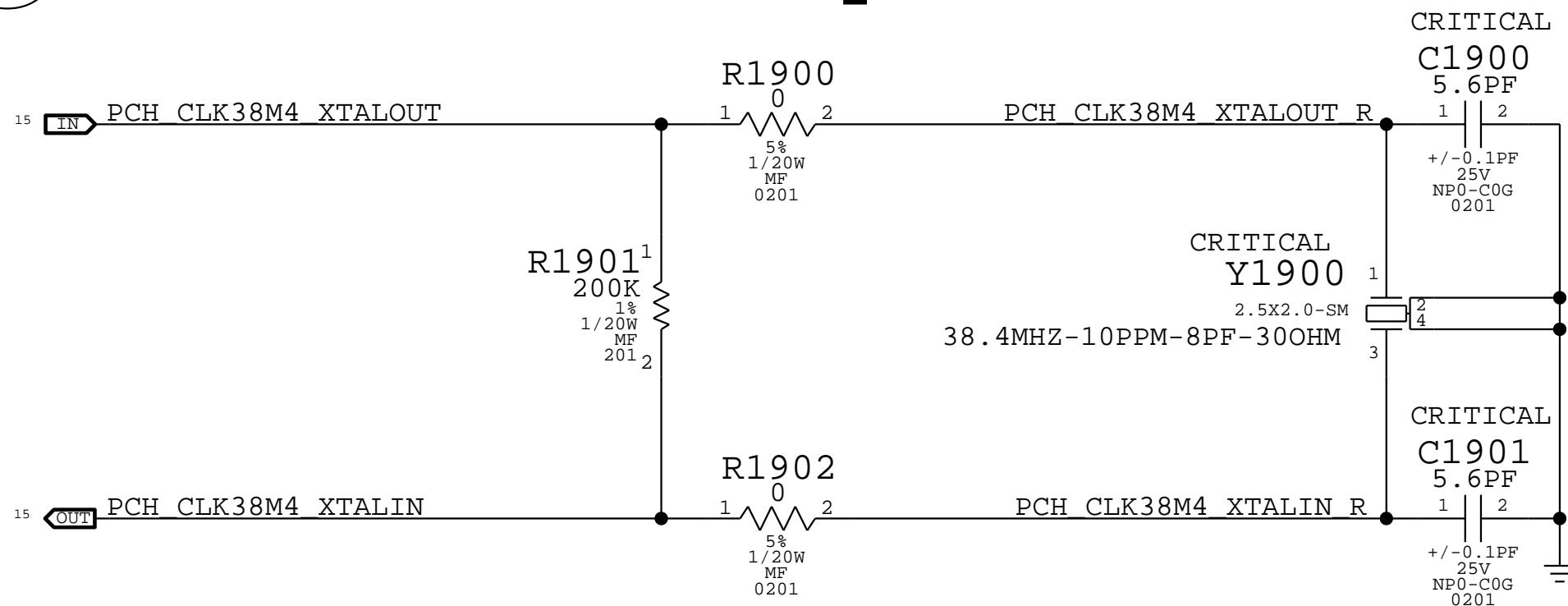
### JTAG Chain for DCI Only Connectivity



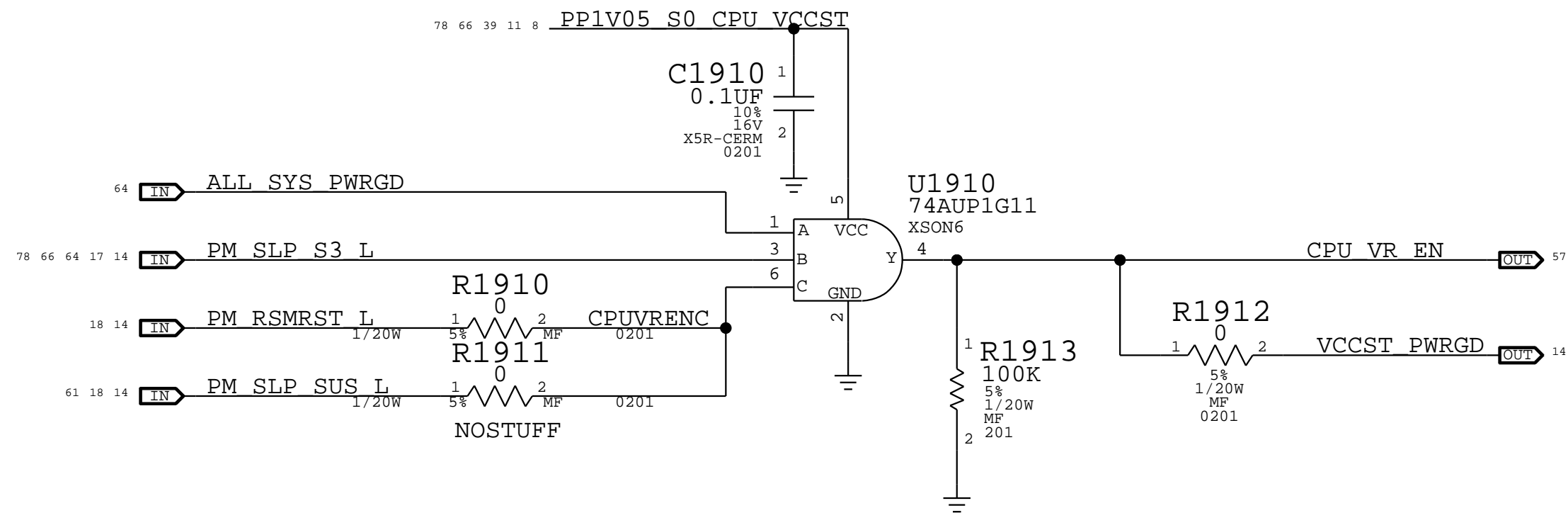
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CPU/PCH Merged XDP						
 Apple Inc.			DRAWING NUMBER		SIZE	
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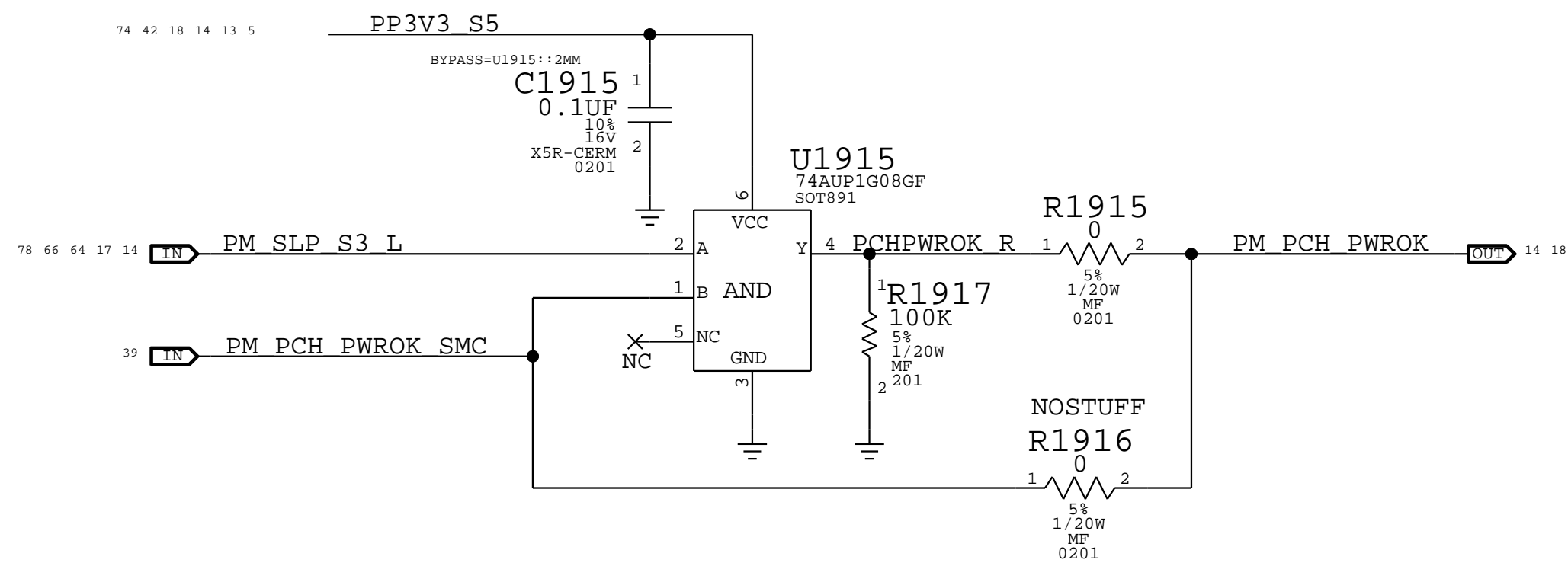
## A PCH 38.4MHz Crystal



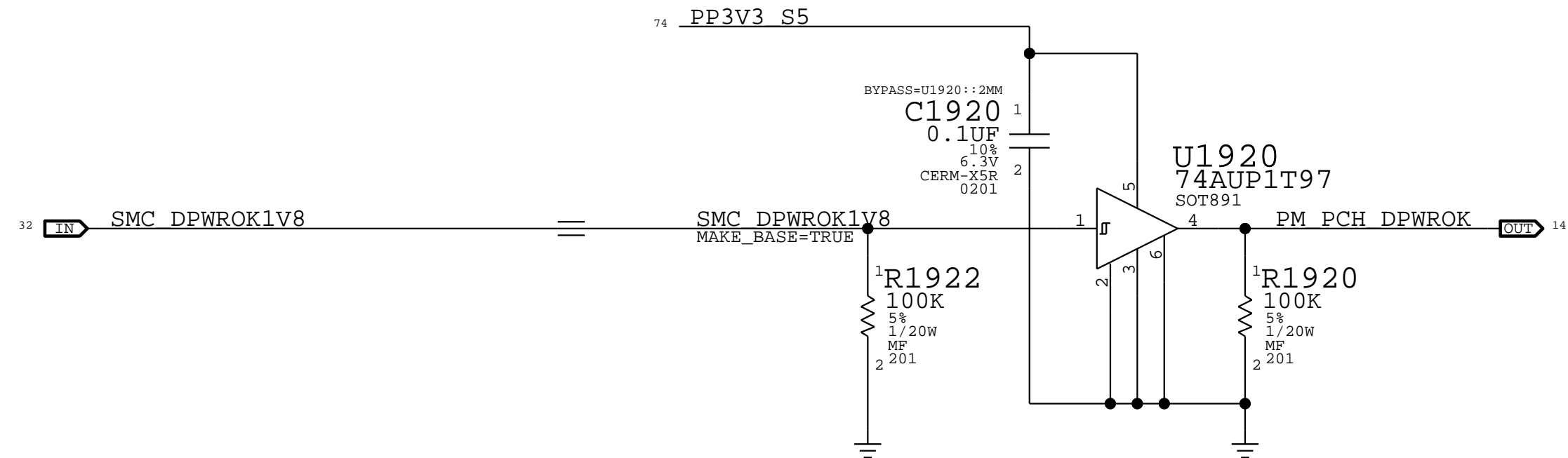
## B VCCIN VR EN and VCCST\_PWRGD Generation



## C PCH\_PWROK Generation



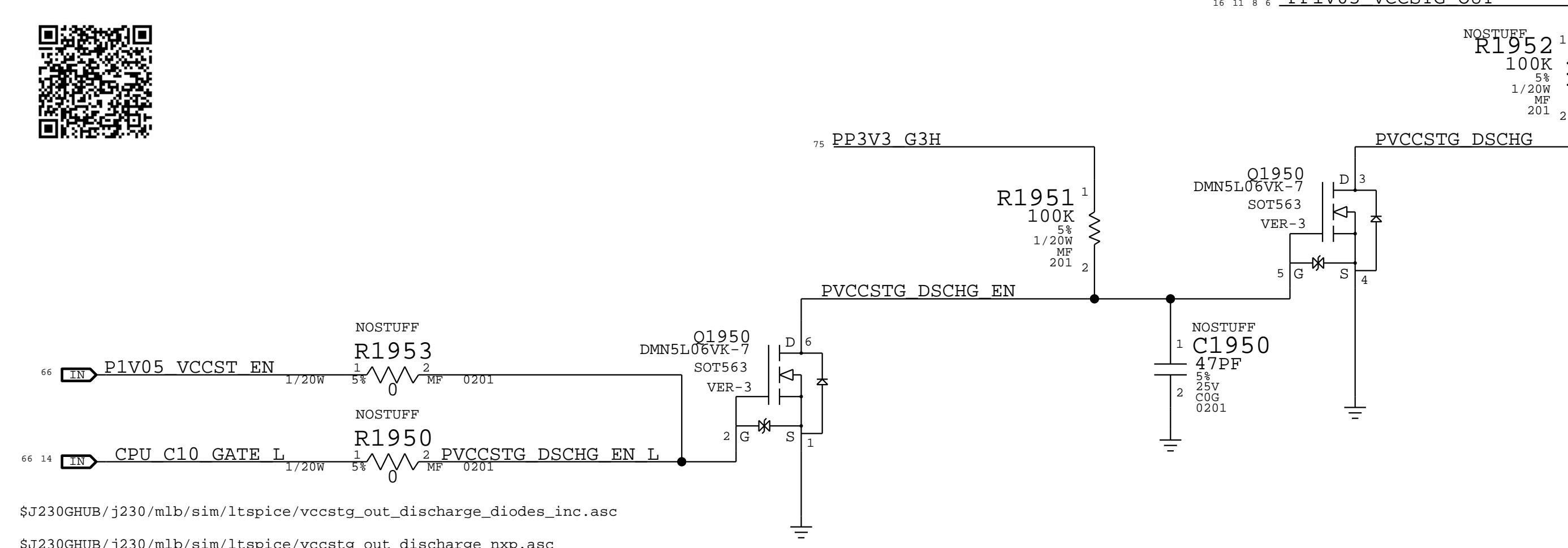
## D DSW\_PWROK 3.3V Level Shifter



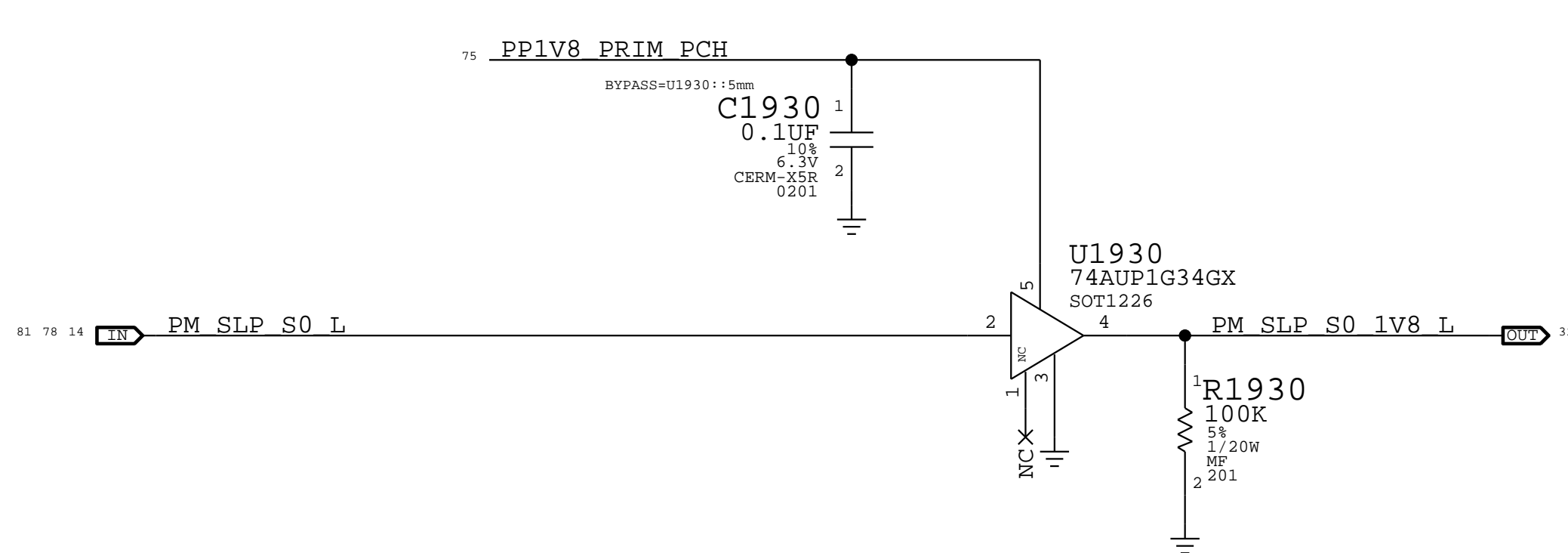
## E VCCSTG\_OUT Discharge Circuit

Ensure VCCSTG\_OUT <= VCCST during power-down (required at all times)

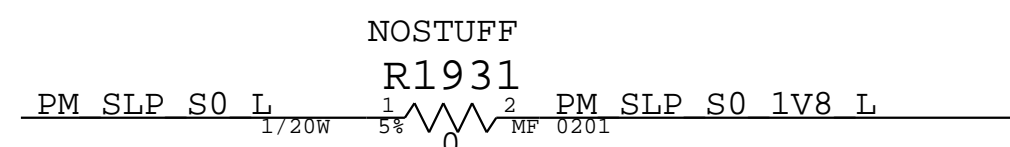
LTSipice Simulation



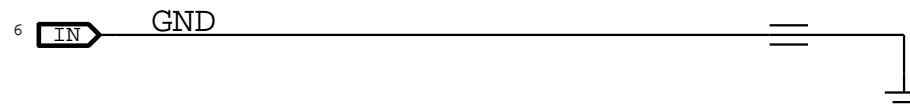
## F SLP\_S0# 1.8V Level Shifter



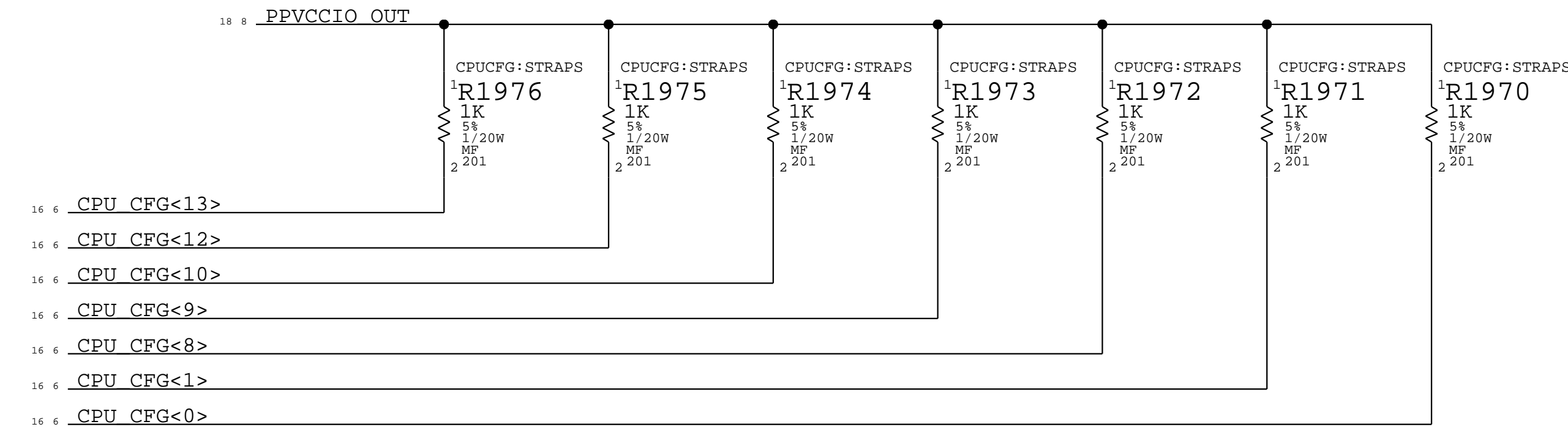
### SoC Buffer Bypass




## G VSS\_268 GND Connection



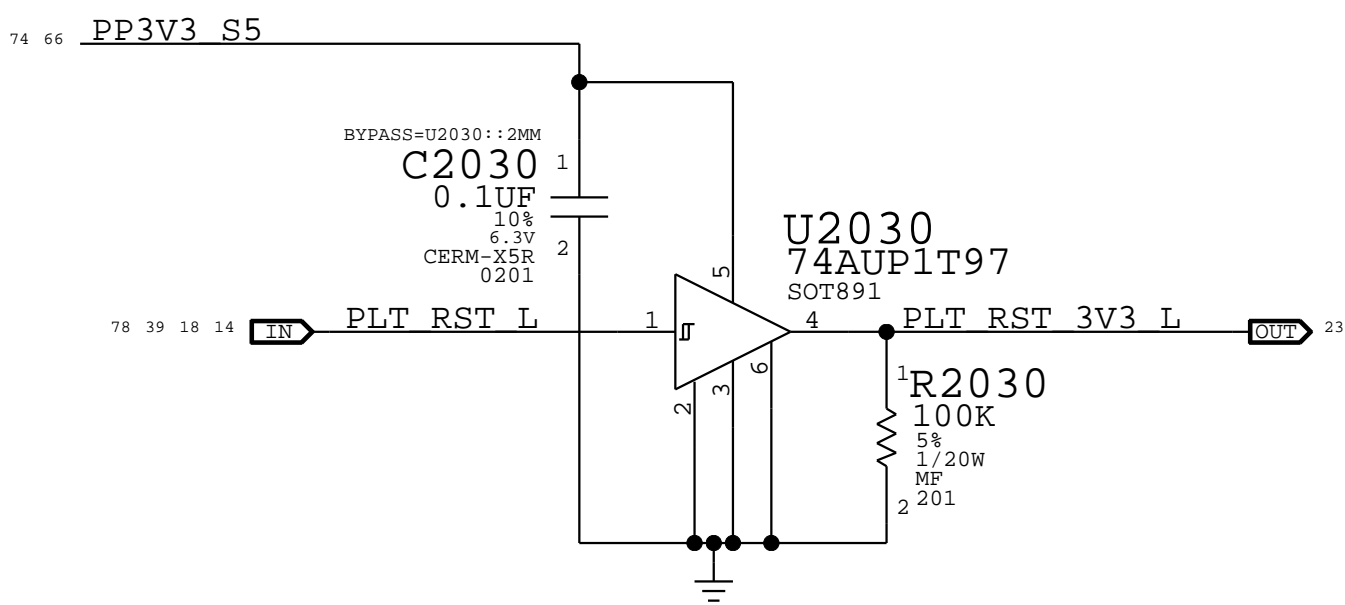
## H CFG Boot Straps



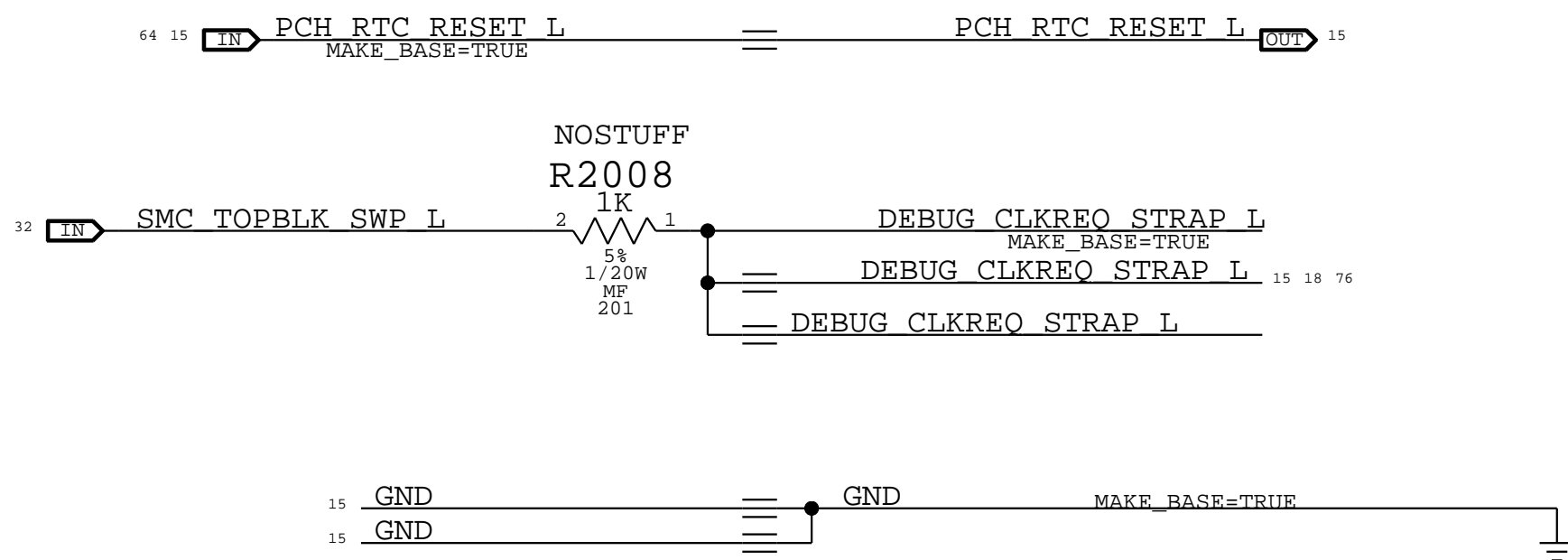
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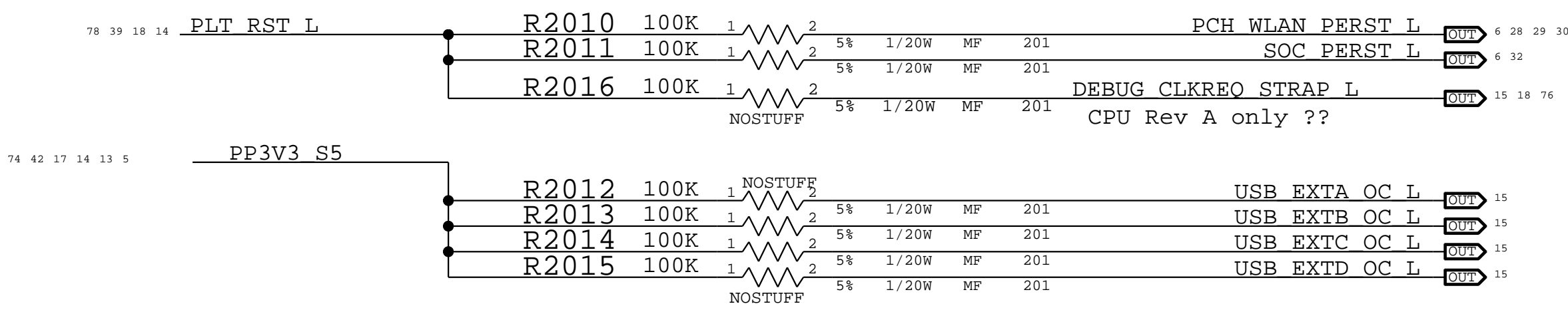
A PLTRST# 3.3V Level Shifter



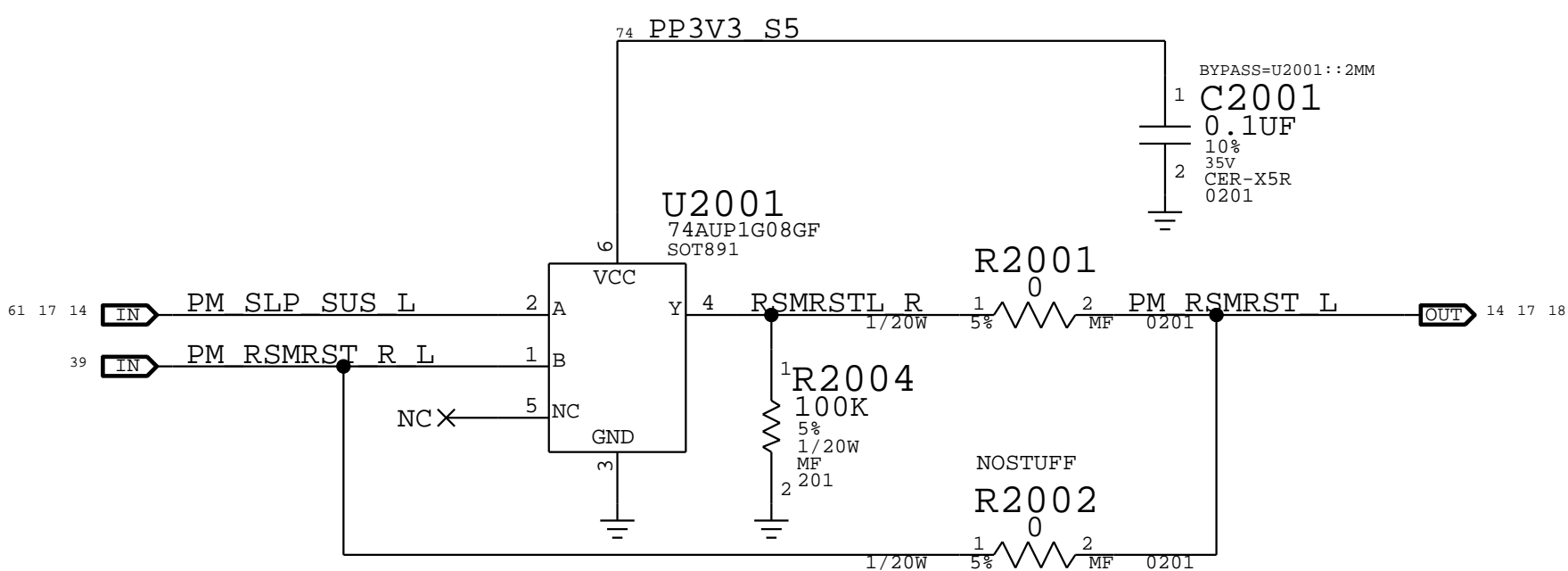
B Miscellaneous Signal Aliases



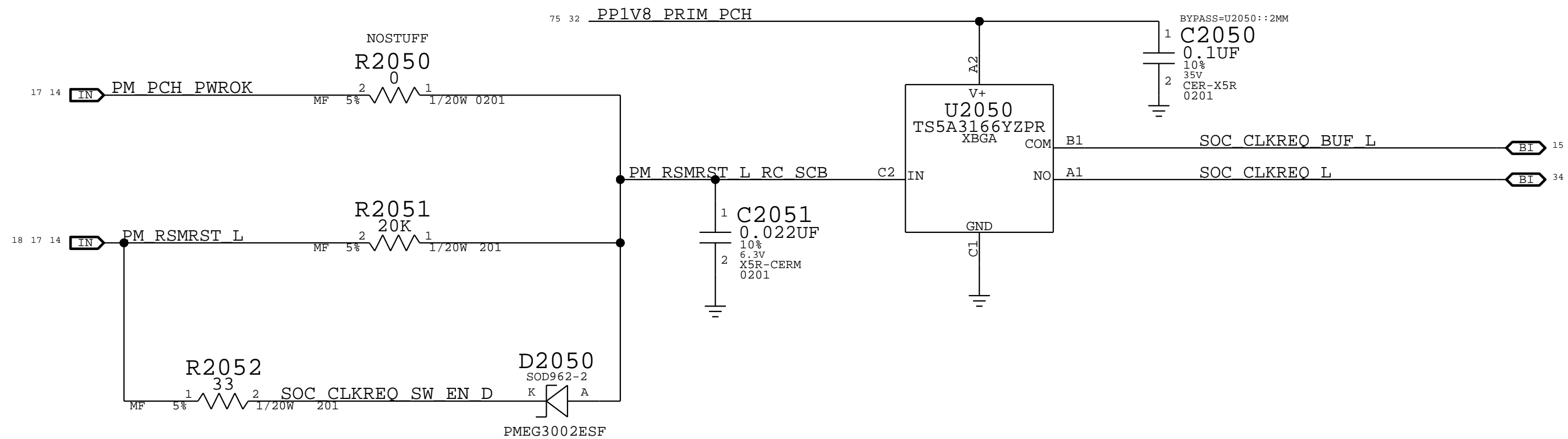
C Miscellaneous Pull-Ups



D PM\_RSMRST Control



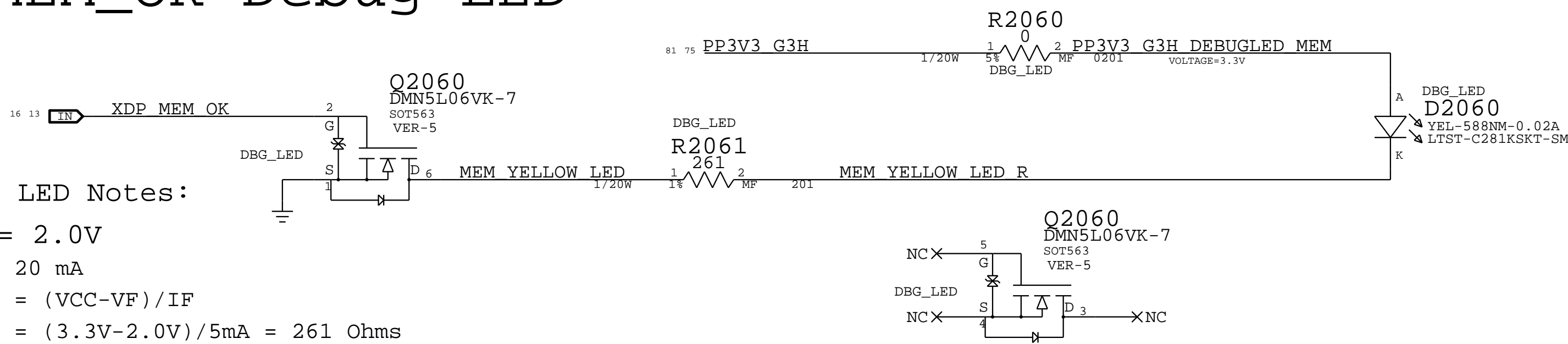
E SOC\_CLKREQ Control



$\tau = RC = 20k \cdot 0.022\mu F = 440\mu s$

PCH latches SOC\_CLKREQ\_L boot strap 65us after RSMRST# de-assertion

F MEM\_OK Debug LED



Debug LED Notes:

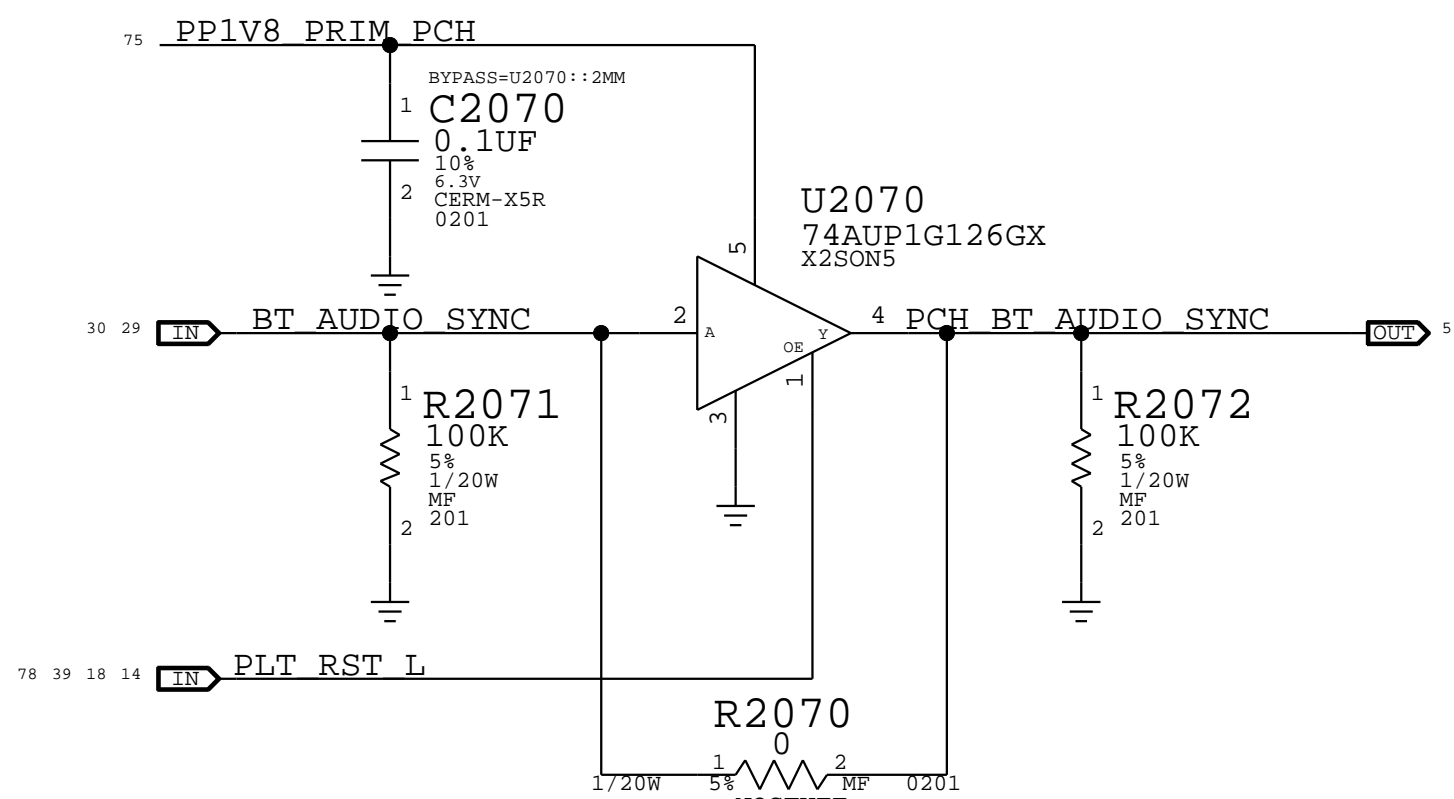
$V_F = 2.0V$

$I_F = 20\text{ mA}$

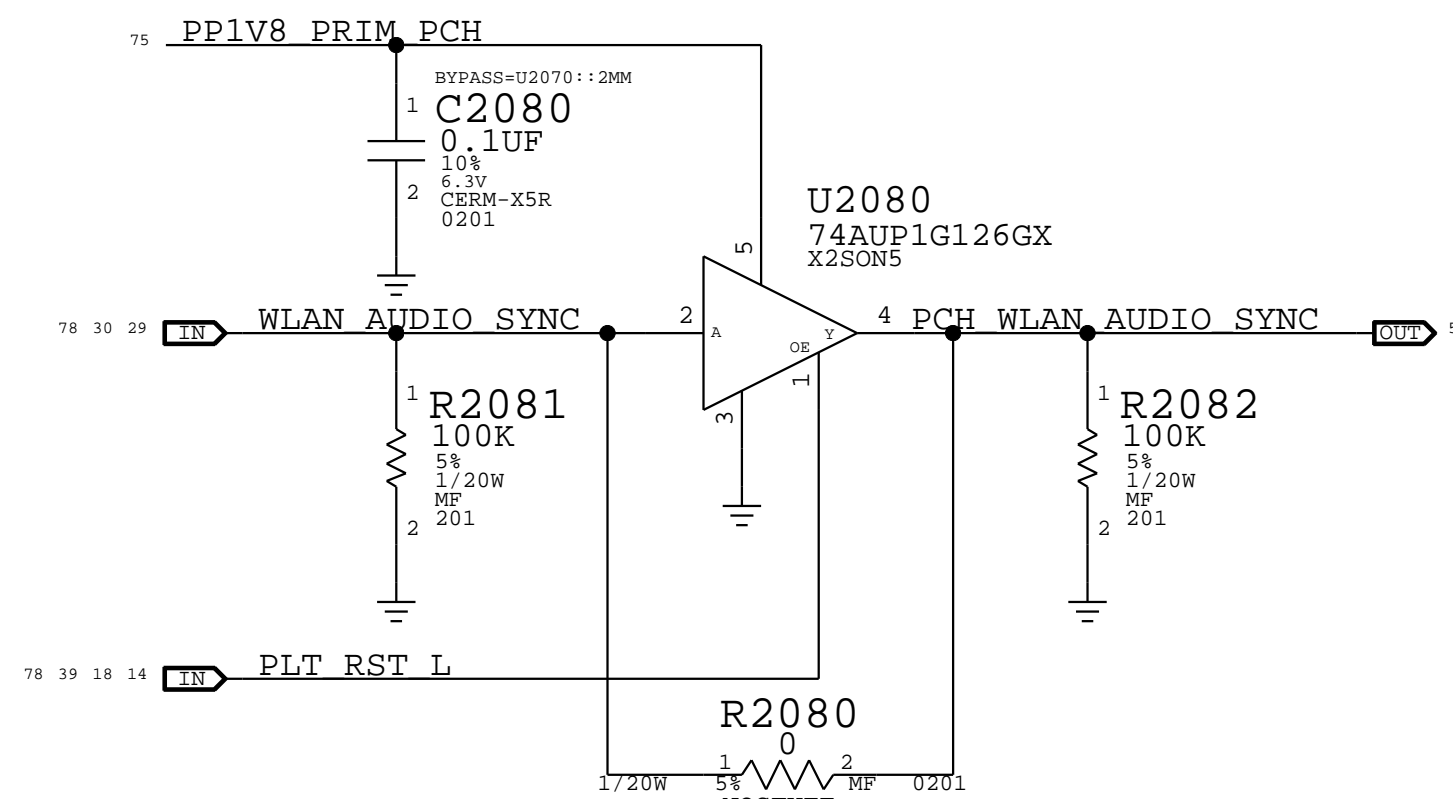
$R_{LED} = (V_{CC} - V_F) / I_F$

$R_{LED} = (3.3V - 2.0V) / 5mA = 261\text{ Ohms}$

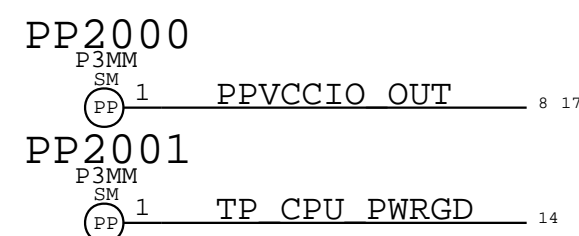
G BT Audio Sync Buf




H WiFi Audio Sync Buf



I Miscellaneous Probe Points

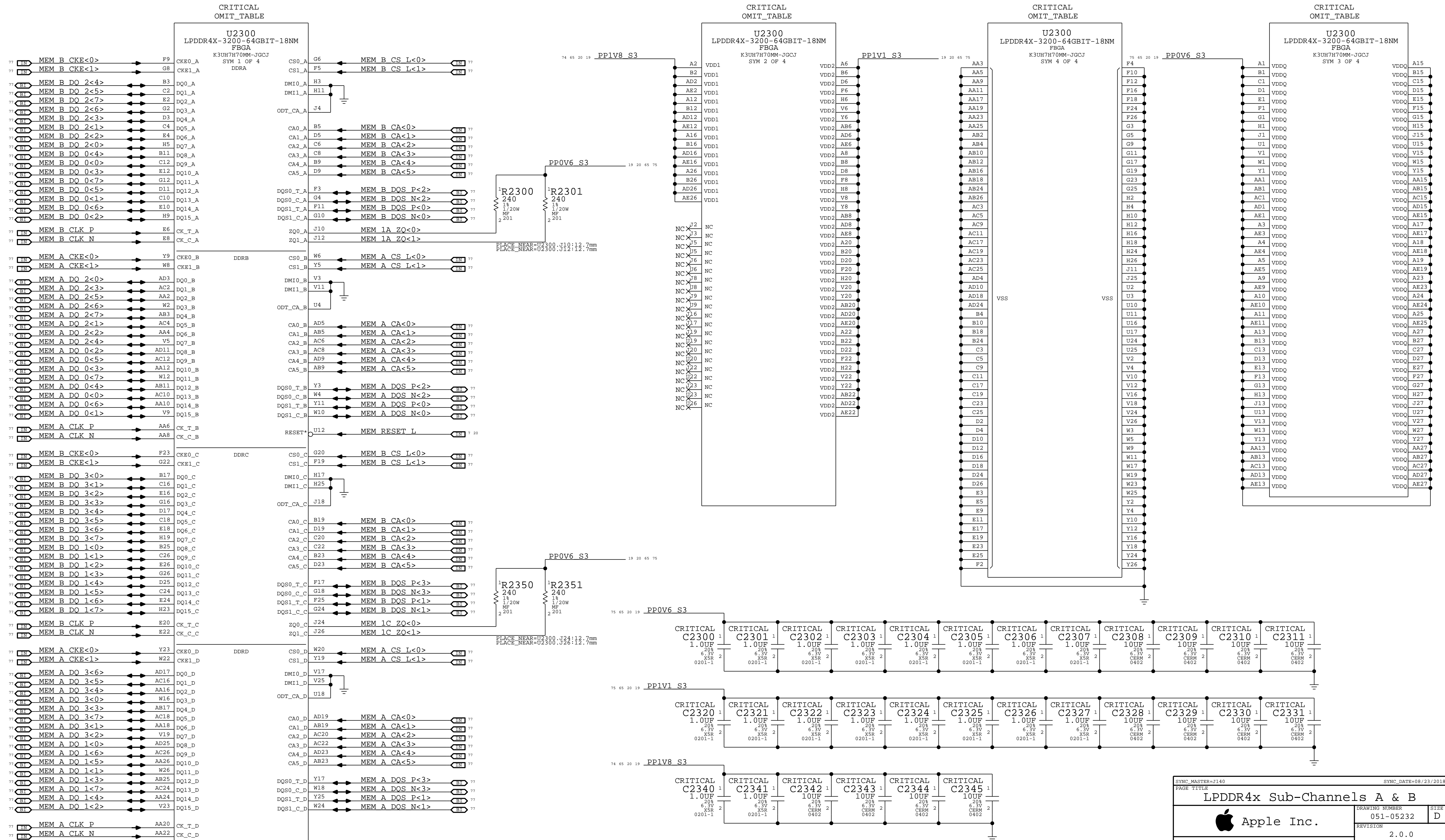


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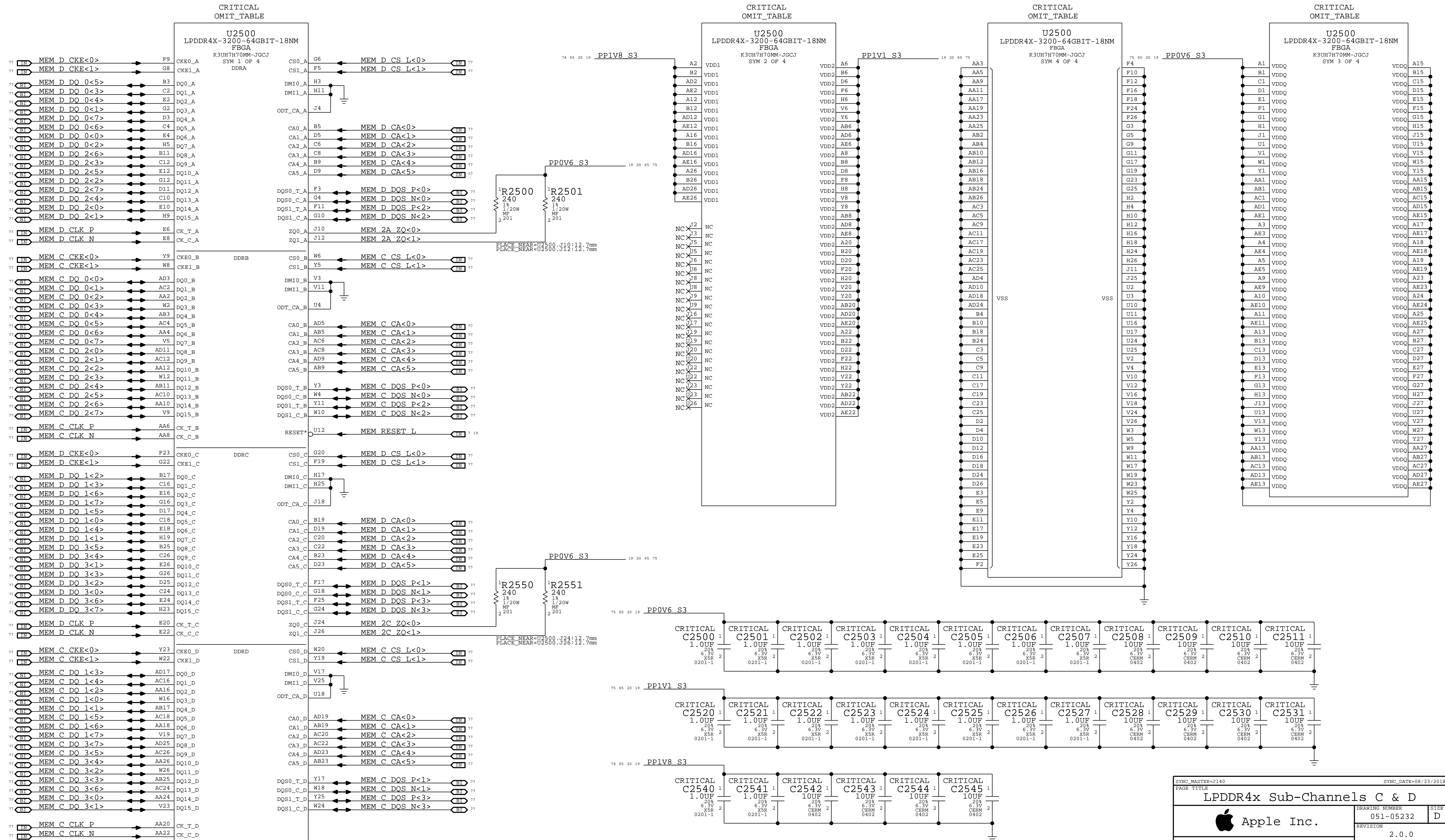
LPDDR4x Sub-Channels A & B




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## LPDDR4x Sub-Channels C & D



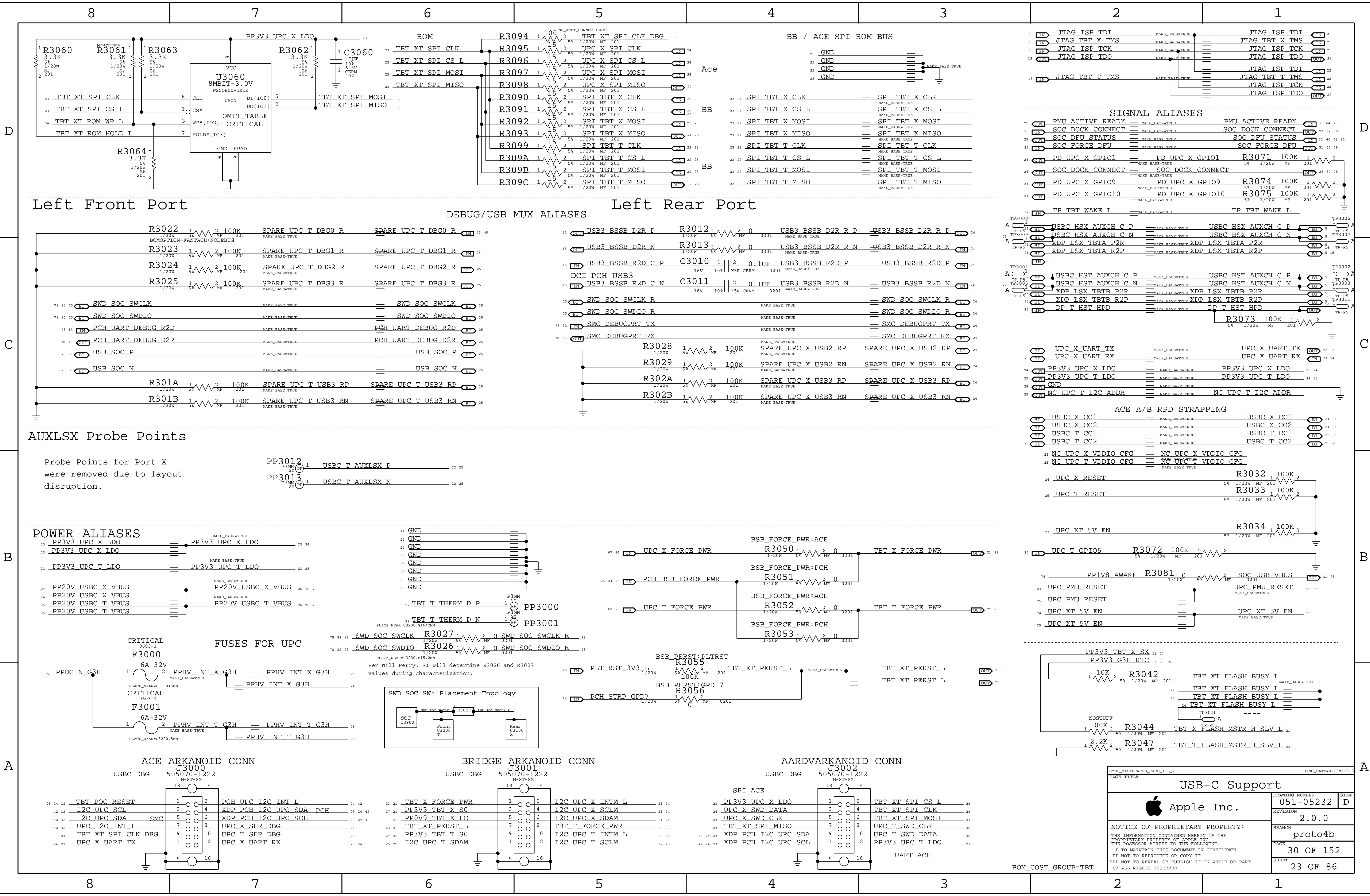
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		proto4b	
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D

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A

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C

B

A

SYNC\_MASTER=CPU\_CARD\_ICL\_V

SYNC\_DATE=06/08/2018

PAGE TITLE

USB-C Support

Apple Inc.

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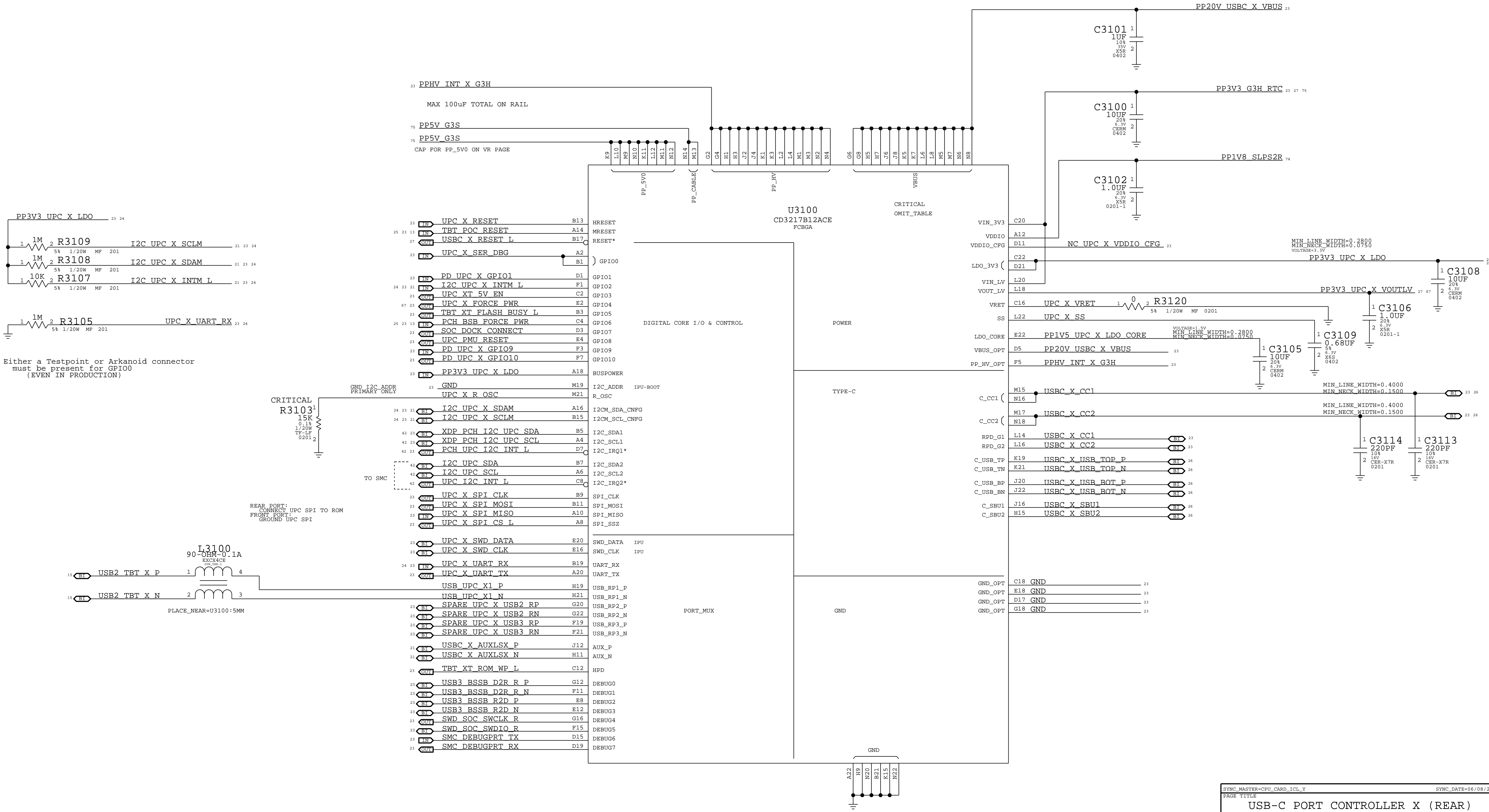
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SHEET

23 OF 86



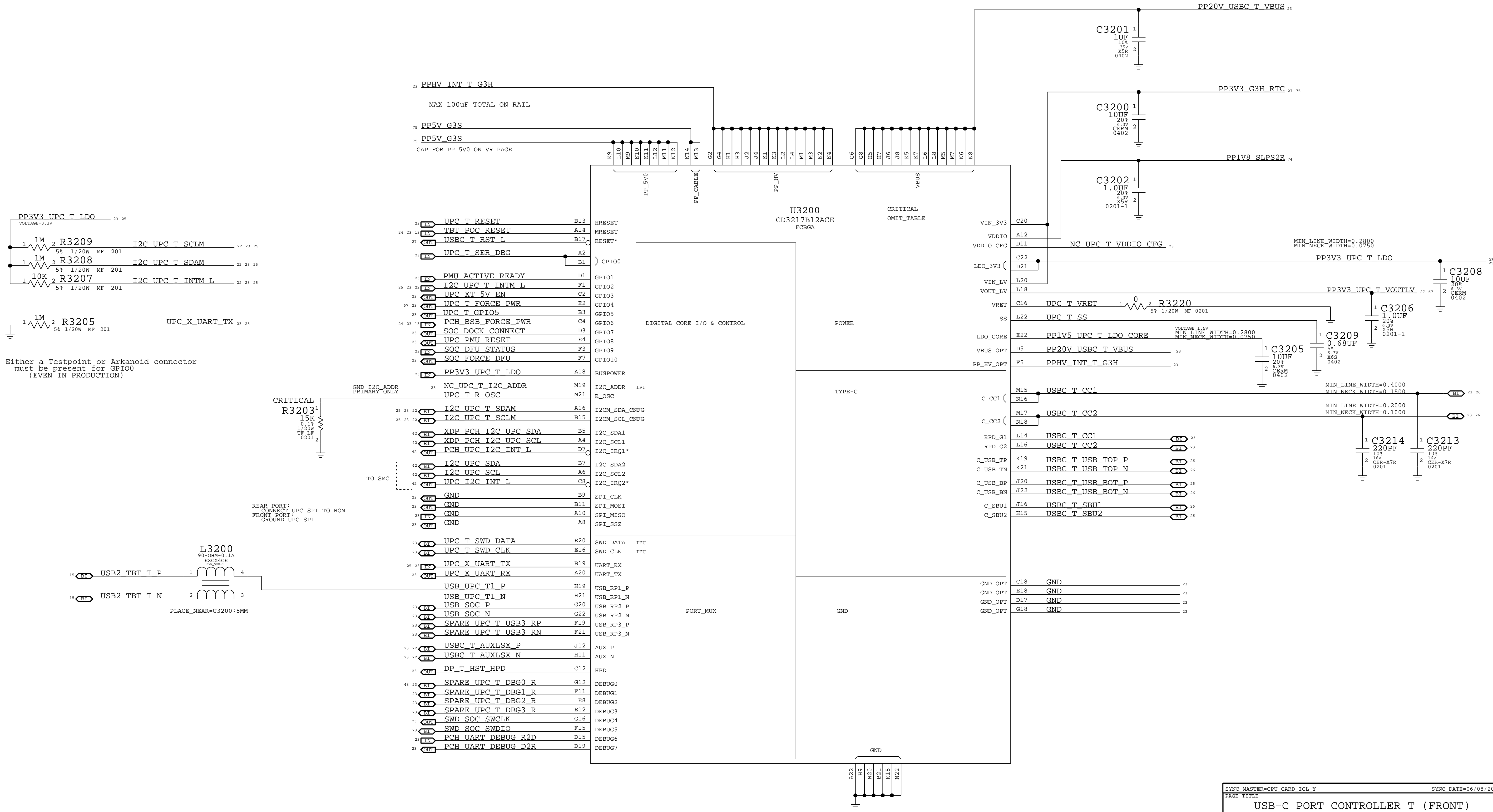
PRIMARY ACE2 USB-C PORT CONTROLLER (UPC)




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	DRAWING NUMBER	051-05232
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BOM\_COST\_GROUP=USB-C

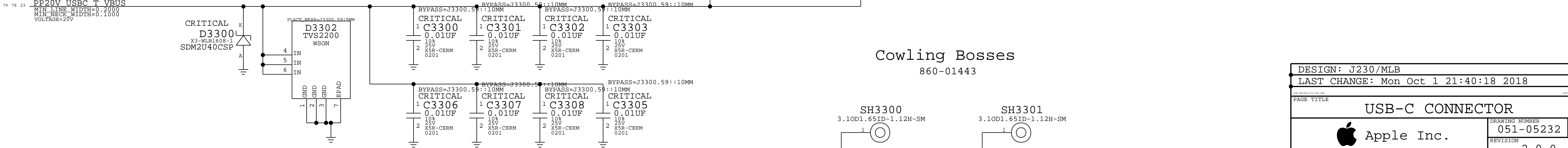
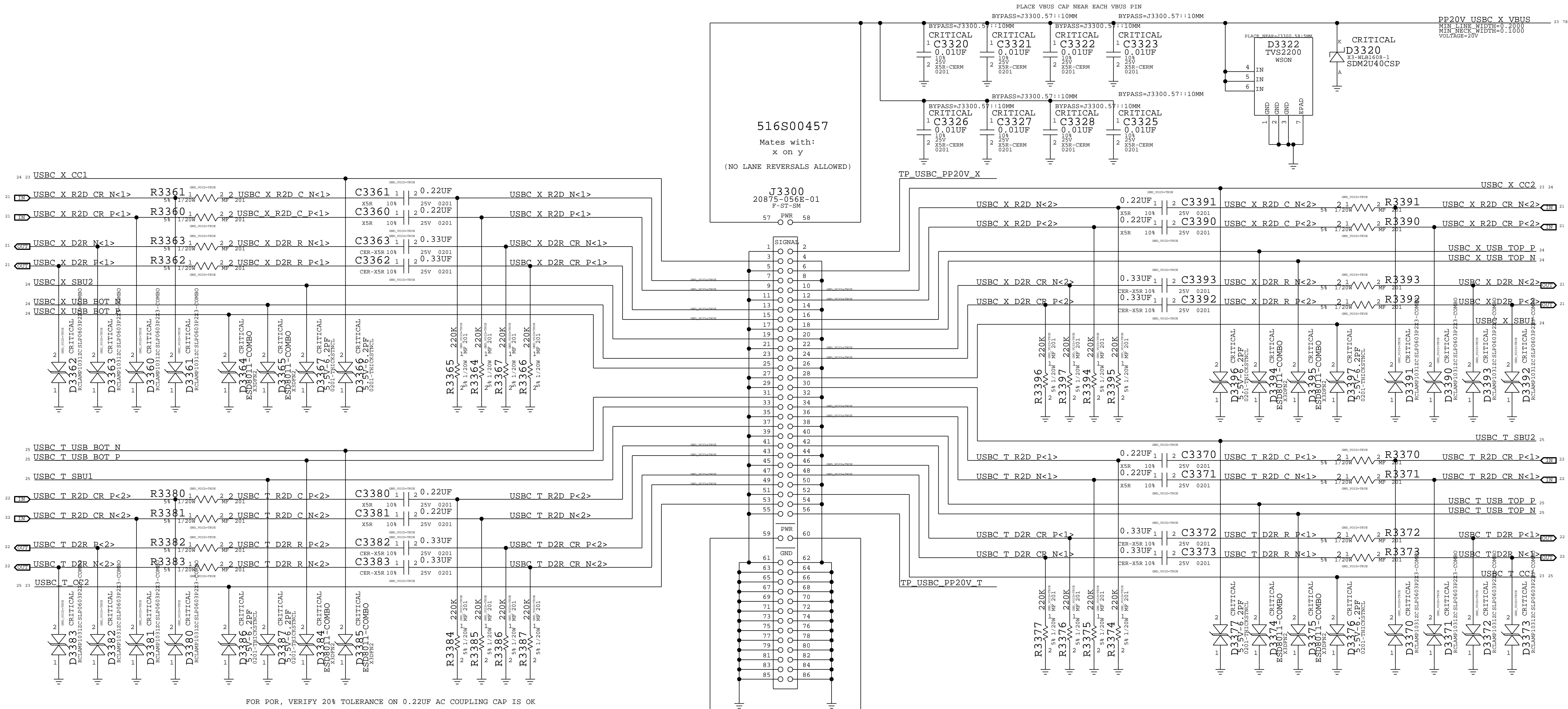
# SECONDARY ACE2 USB-C PORT CONTROLLER (UPC)




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 Apple Inc.	DRAWING NUMBER	051-05232	SIZE D
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		SHEET	25 OF 86

BOM\_COST\_GROUP=USB-C

Left Rear Port



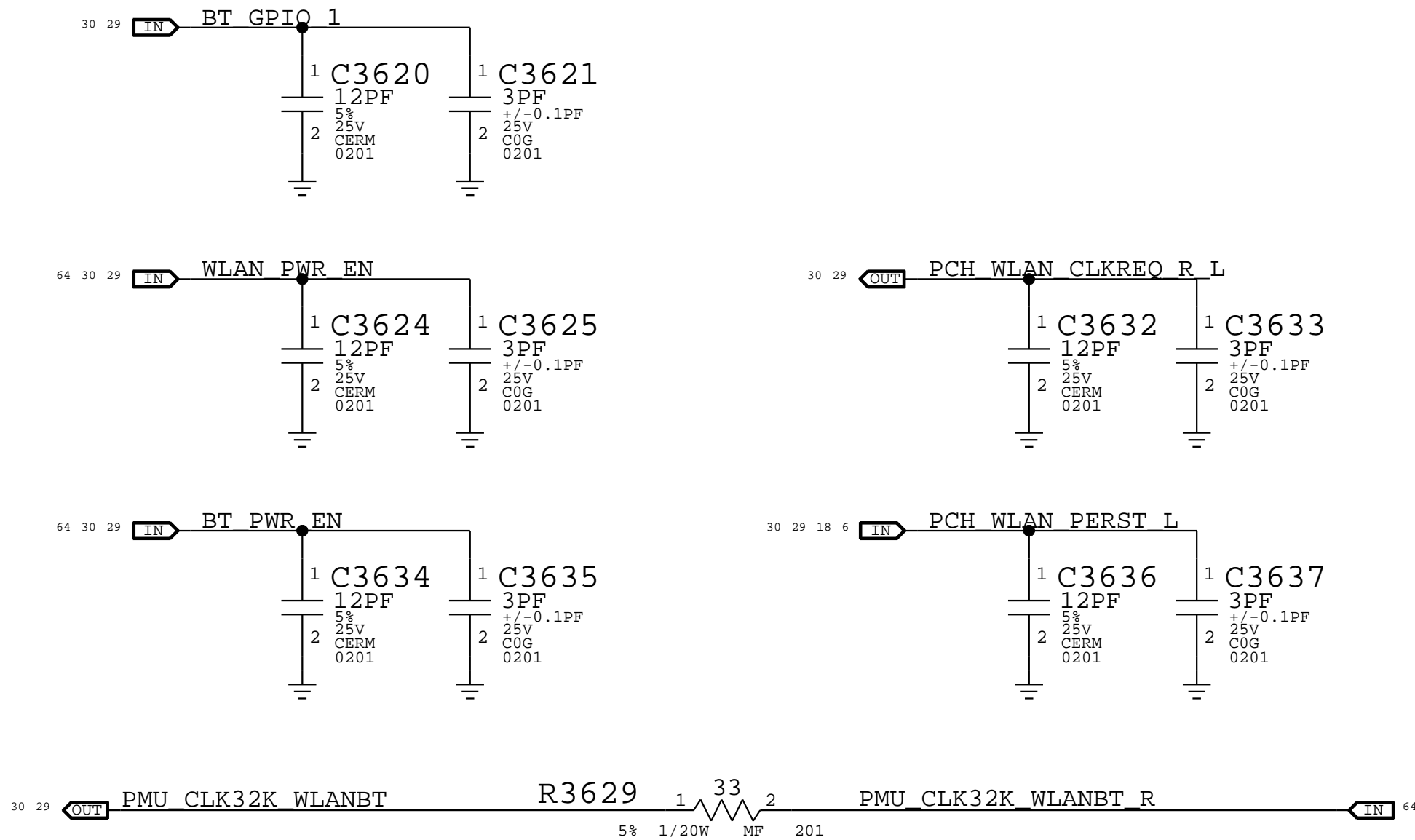
Left Front Port


DESIGN: J230/MLB	
LAST CHANGE: Mon Oct 1 21:40:18 2018	
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 Apple Inc.	DRAWING NUMBER 051-05232
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	PAGE 33 OF 152
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BOM\_COST\_GROUP=USB-C



A Wireless Desense Capacitors



PAGE TITLE		
WIFI/BT Desense		
 Apple Inc.	DRAWING NUMBER	051-05232
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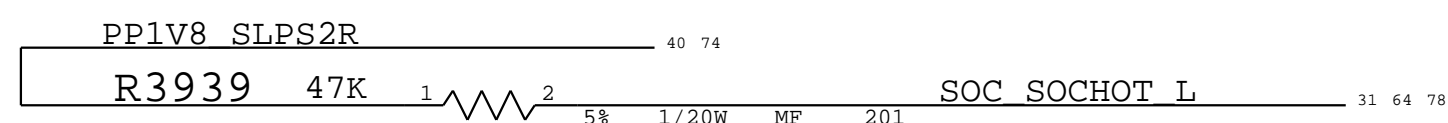
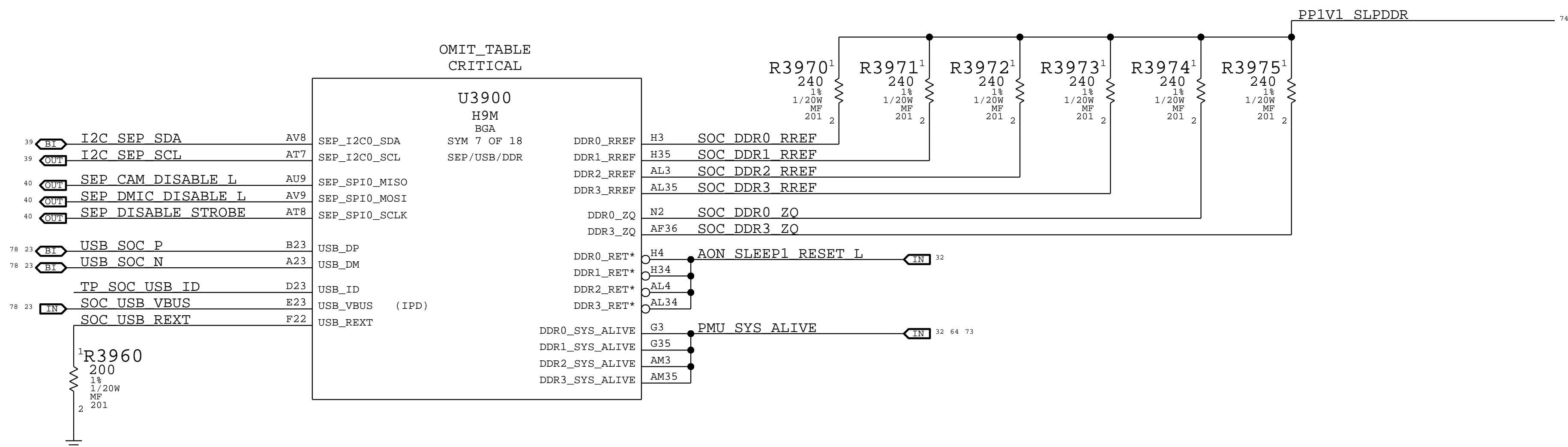
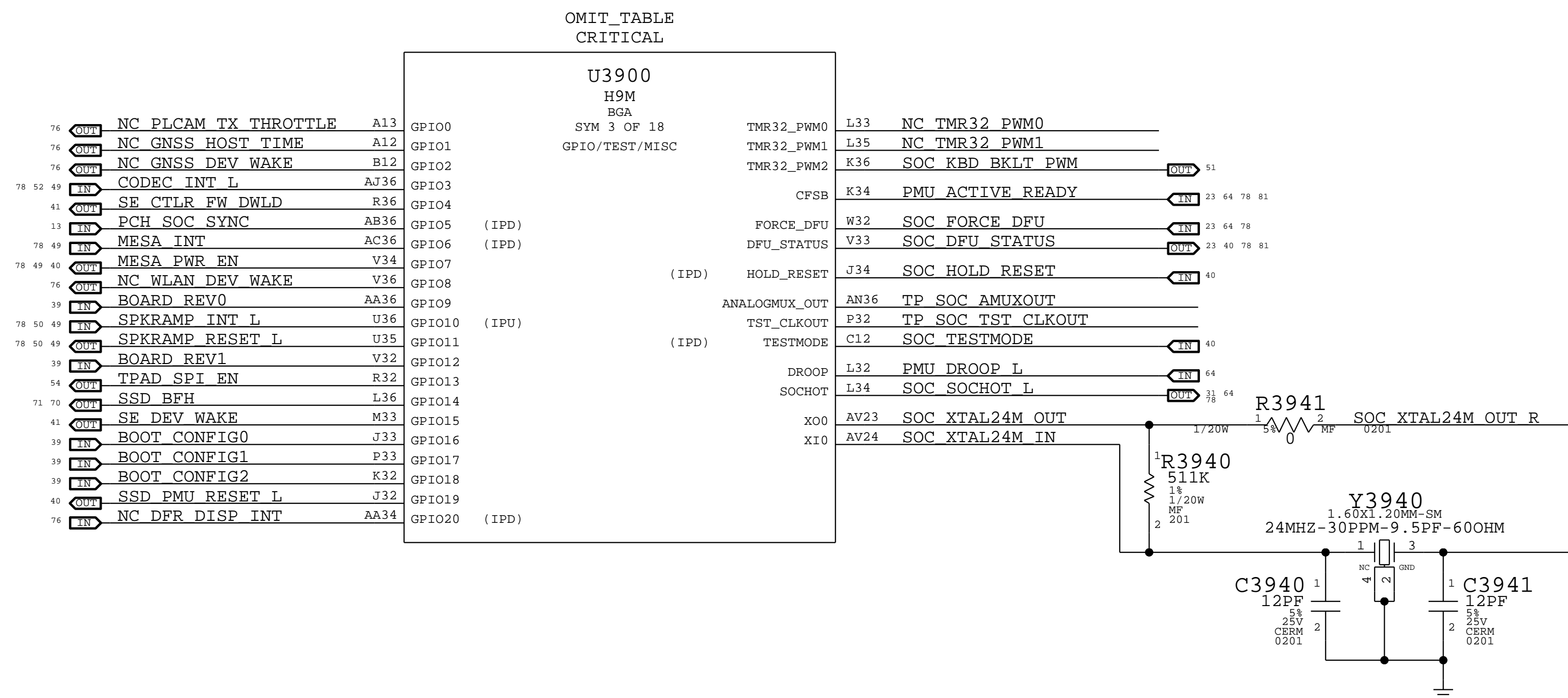
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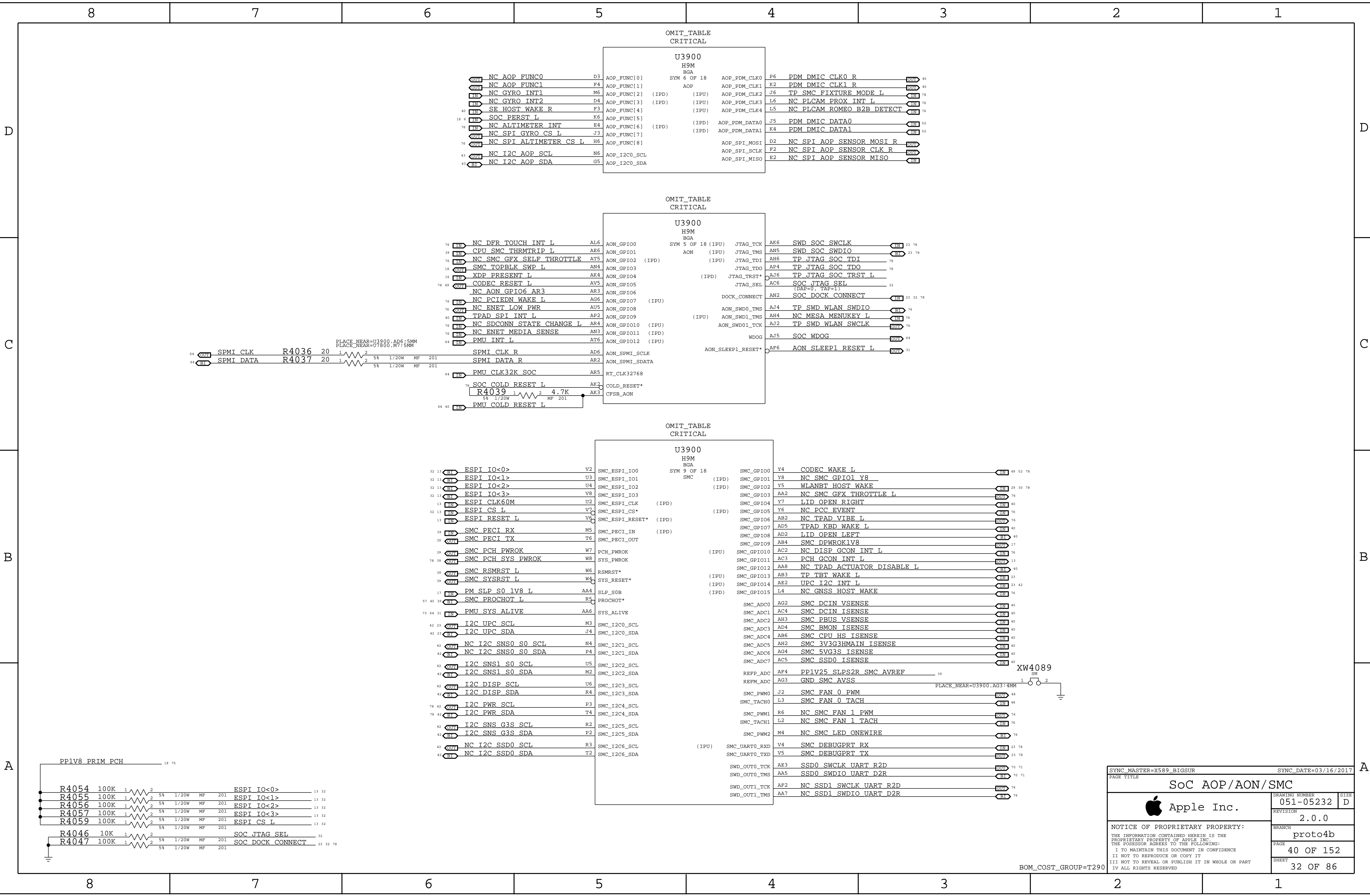






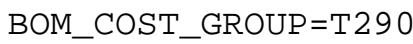
Note 1) IPU represents SW configured state, not HW default



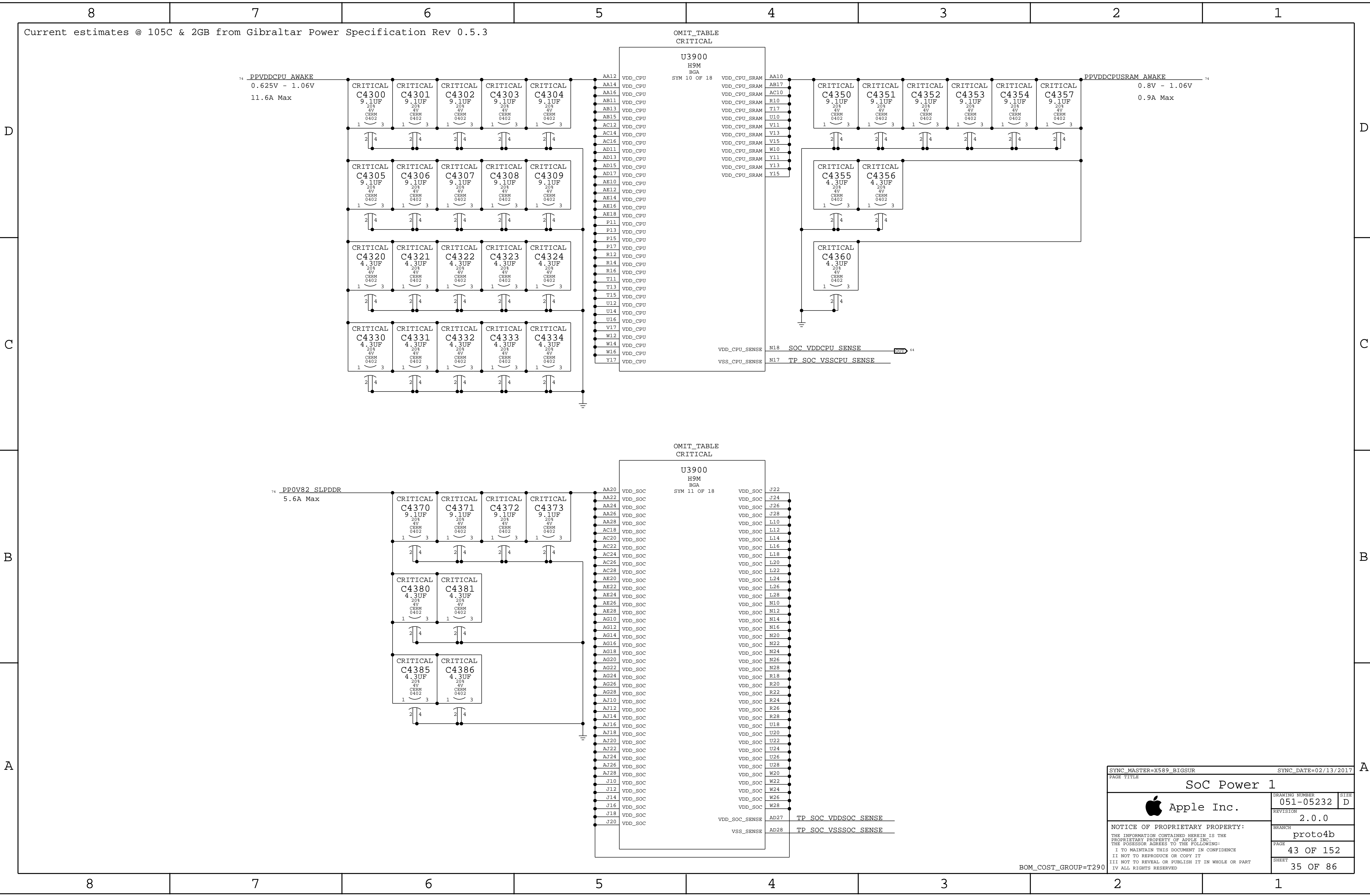







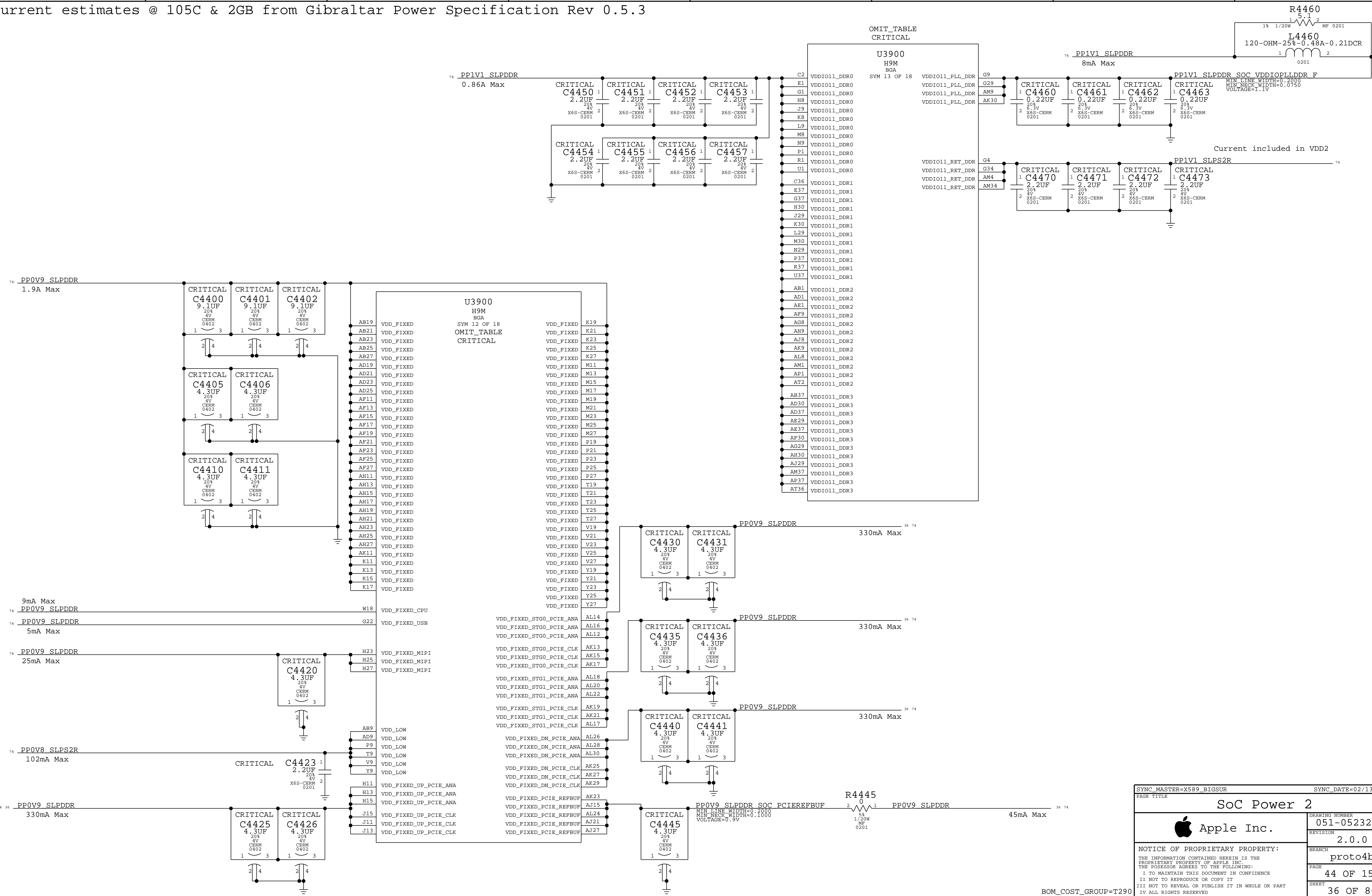




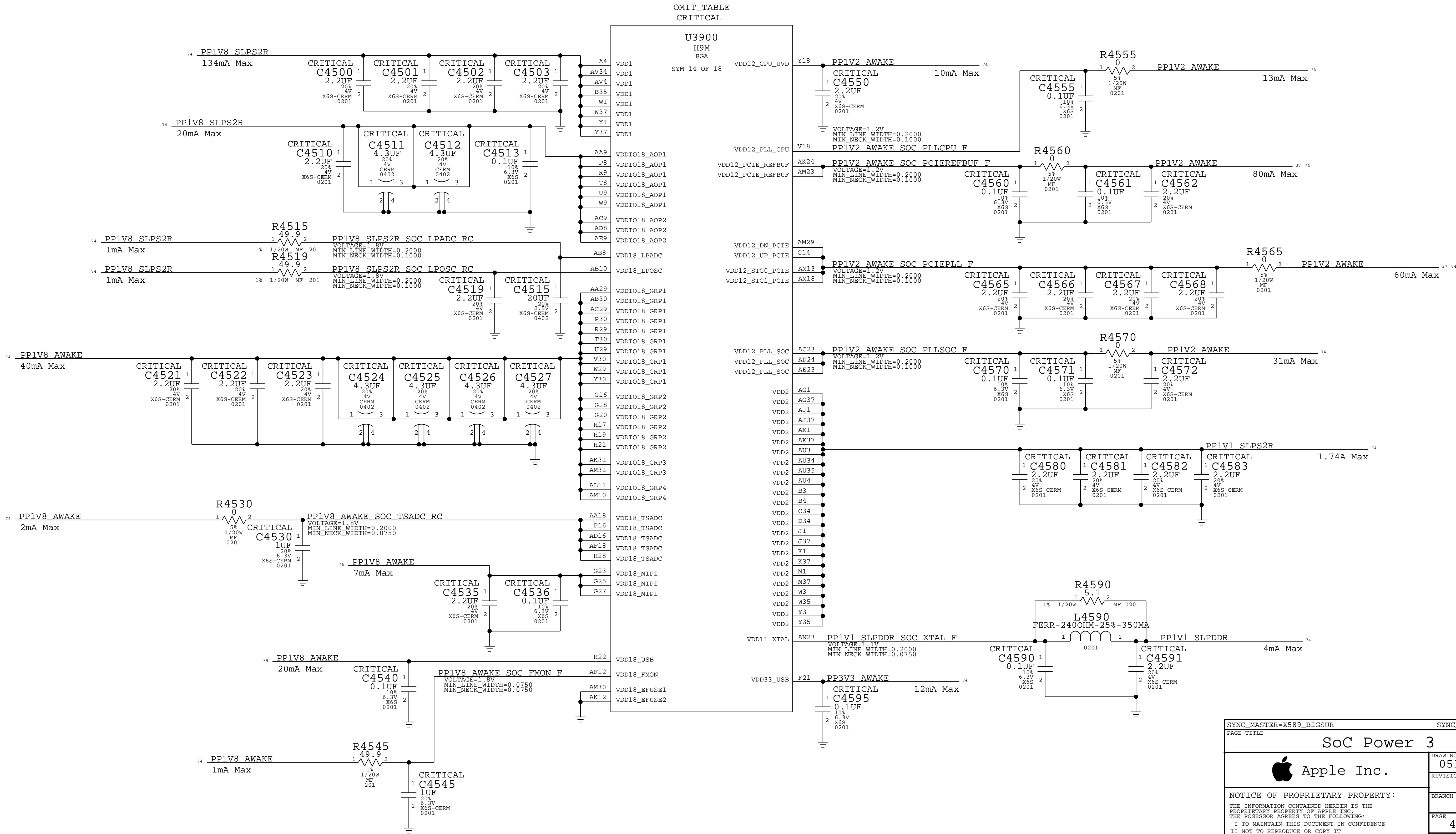



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Current estimates @ 105C & 2GB from Gibraltar Power Specification Rev 0.5.3

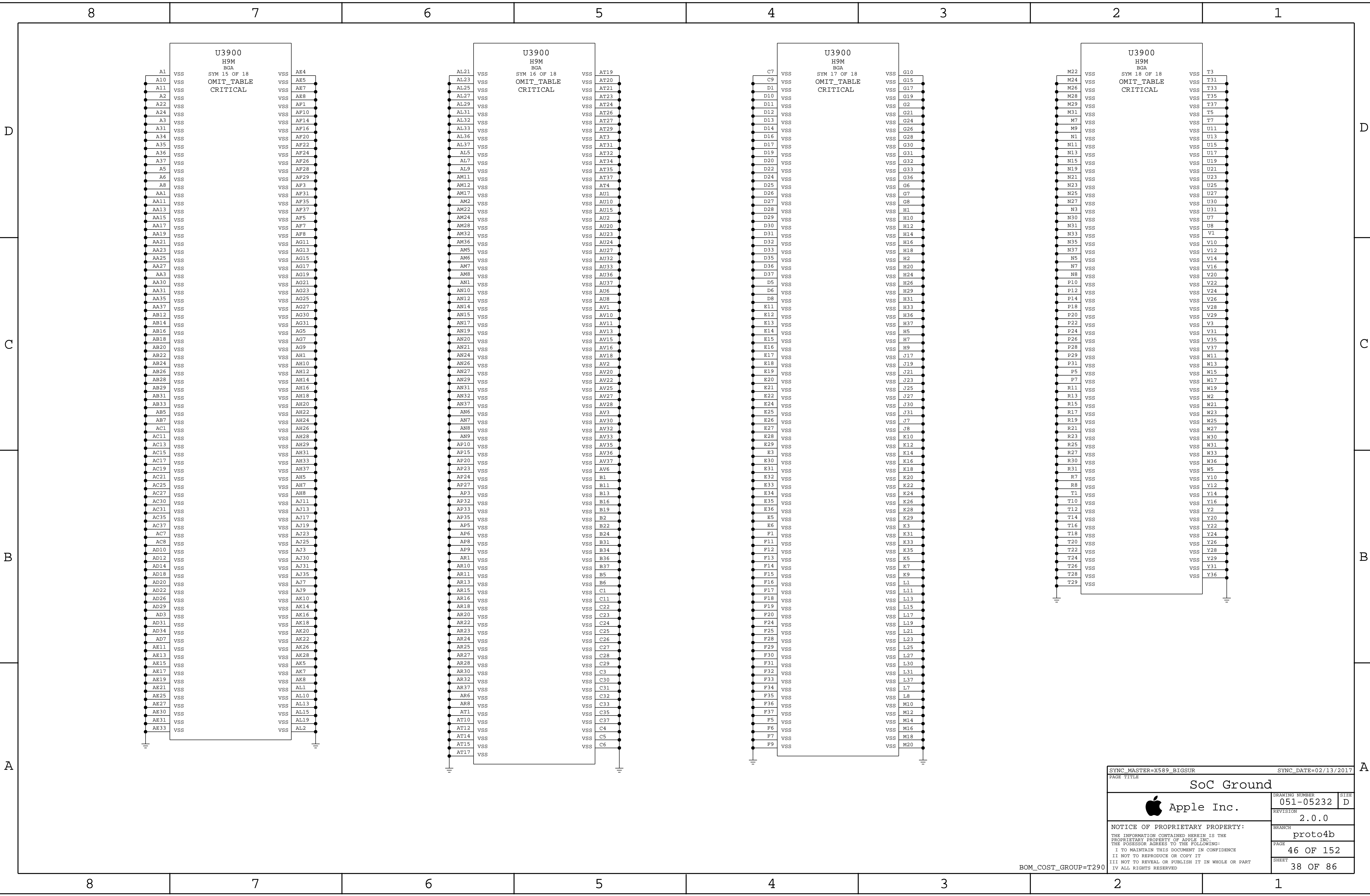



Current estimates @ 105C & 2GB from Gibraltar Power Specification Rev 0.5.3



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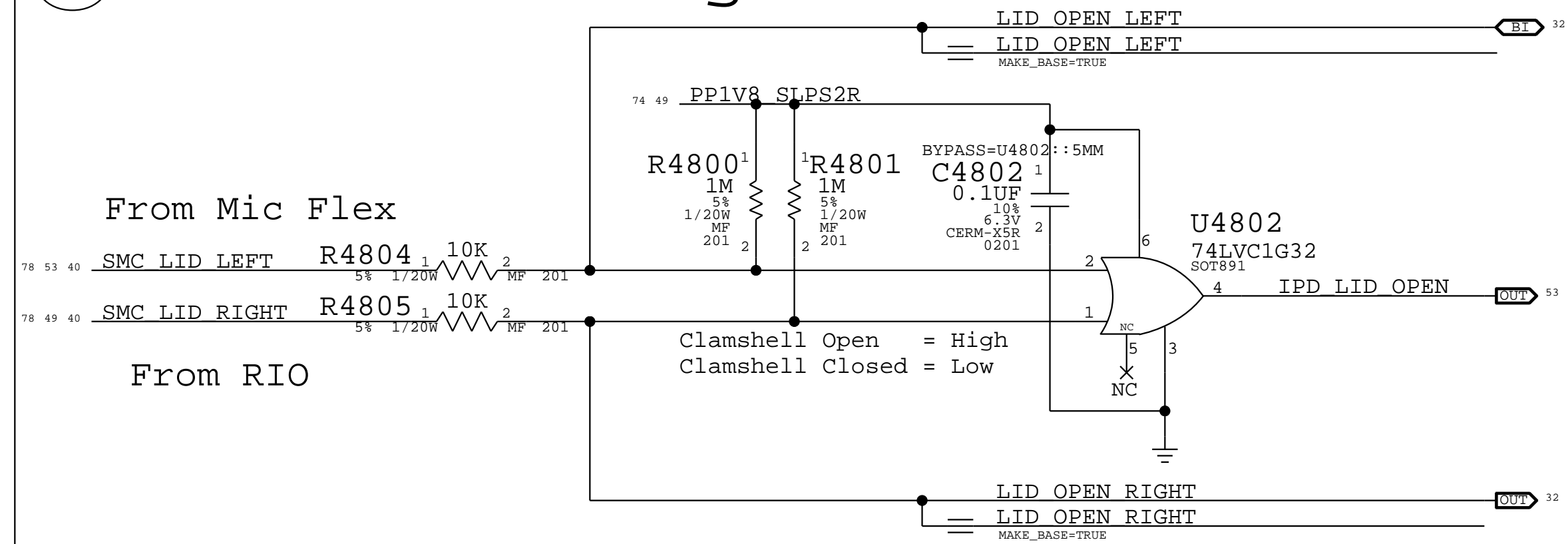


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 Apple Inc.	DRAWING NUMBER		SIZE
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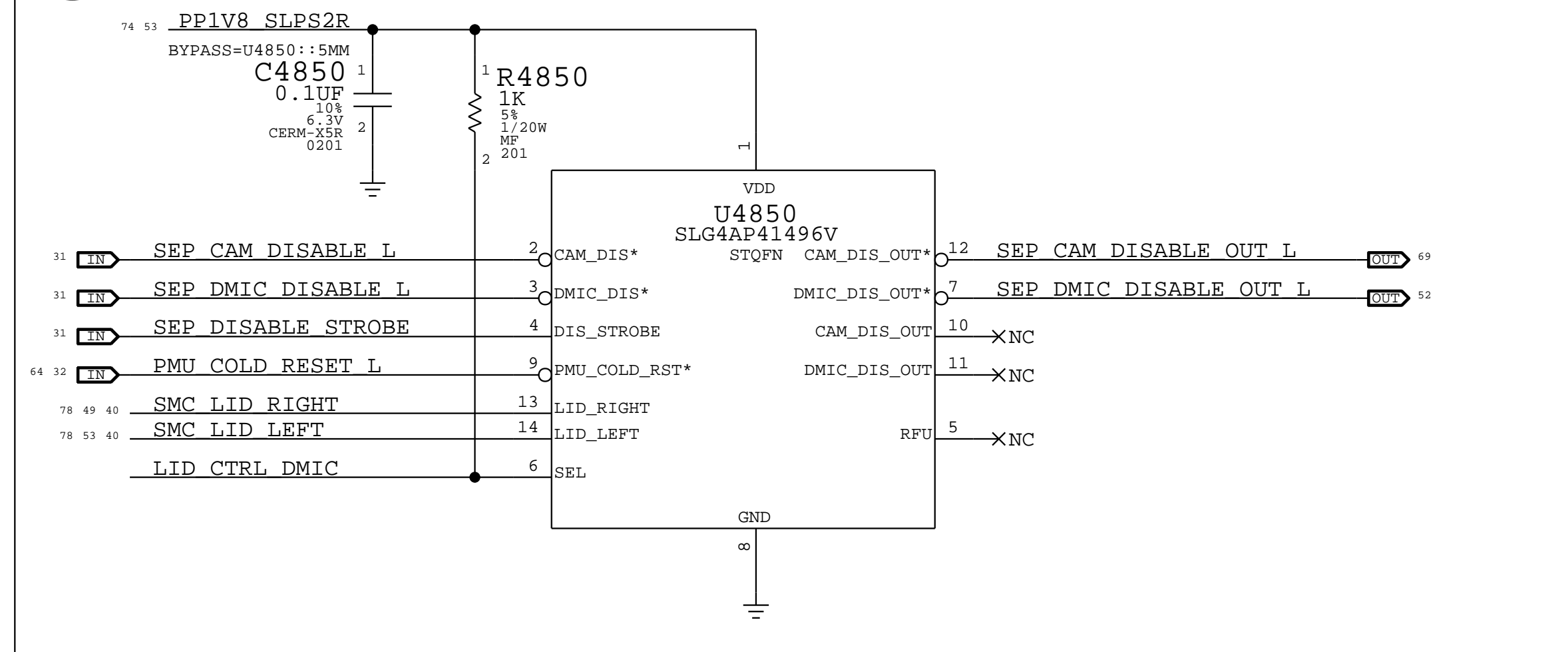




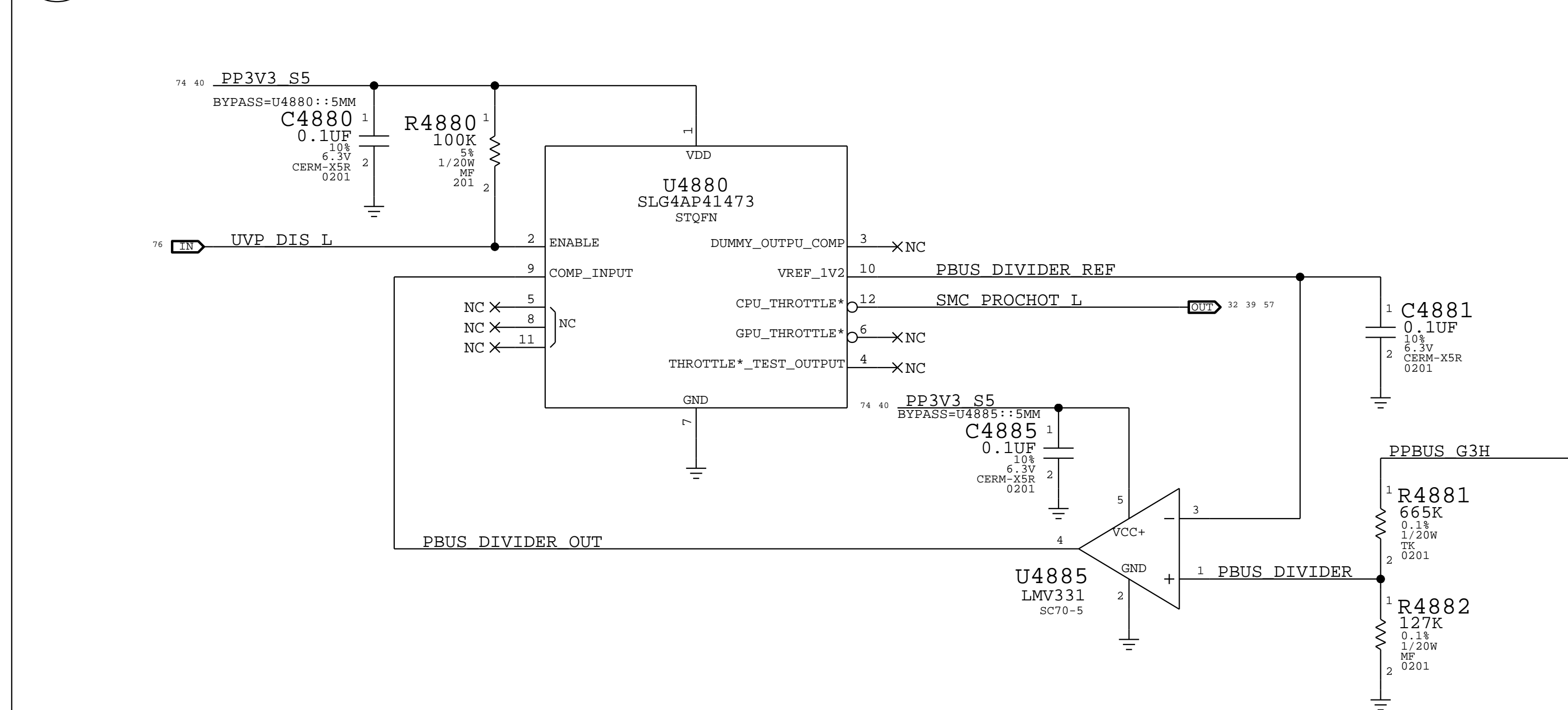
## A Lid Detect Logic



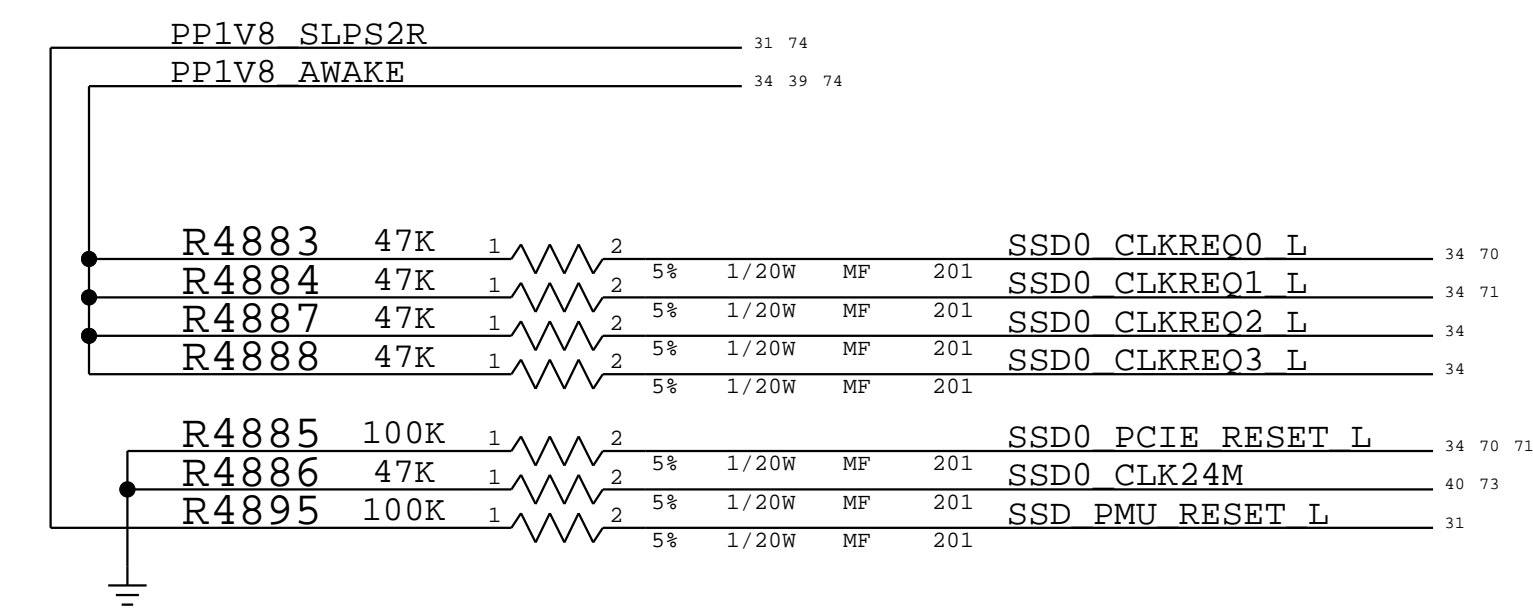
## B Secure Disable



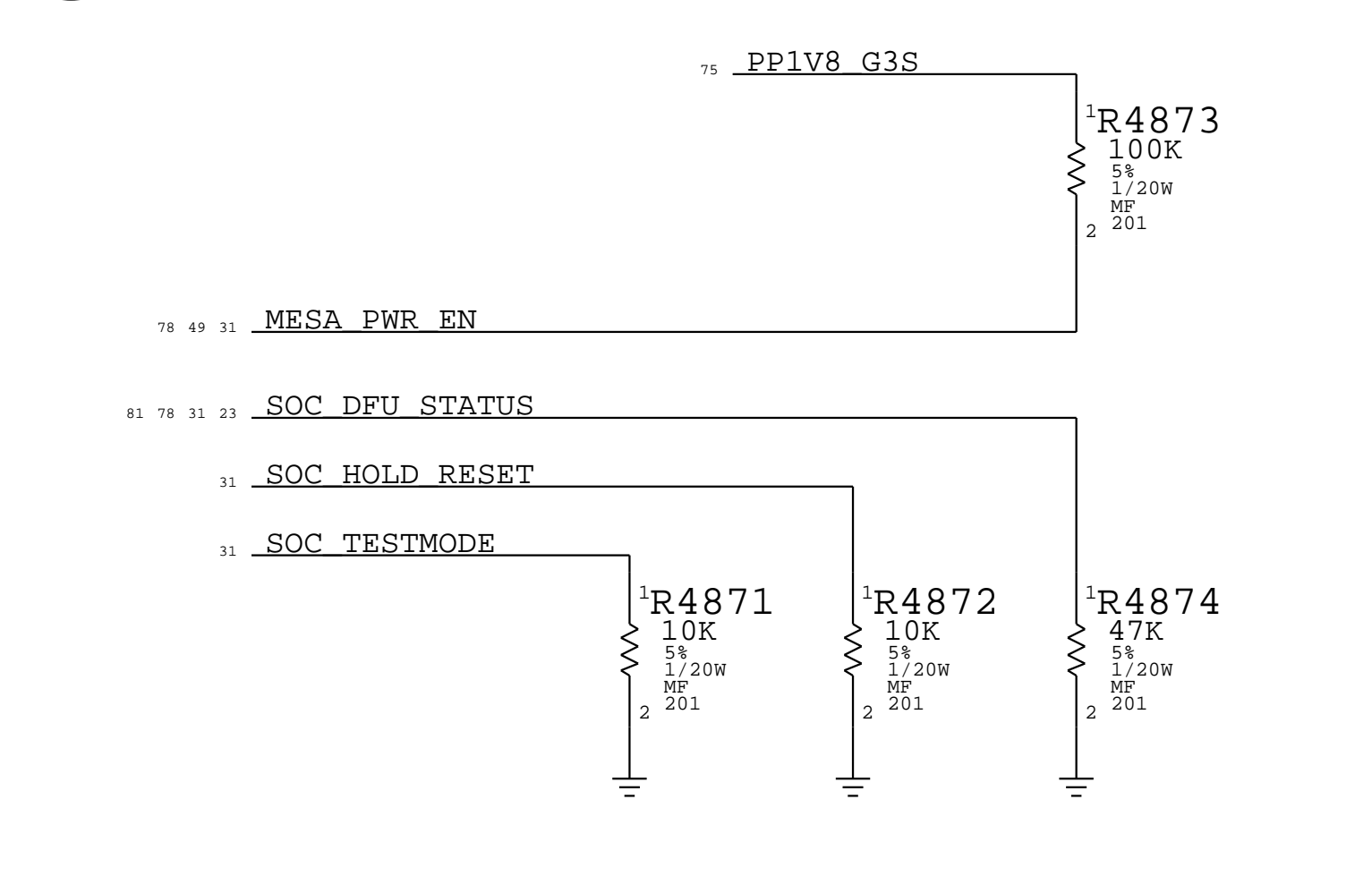
## C SMC PROCHOT Control Circuit



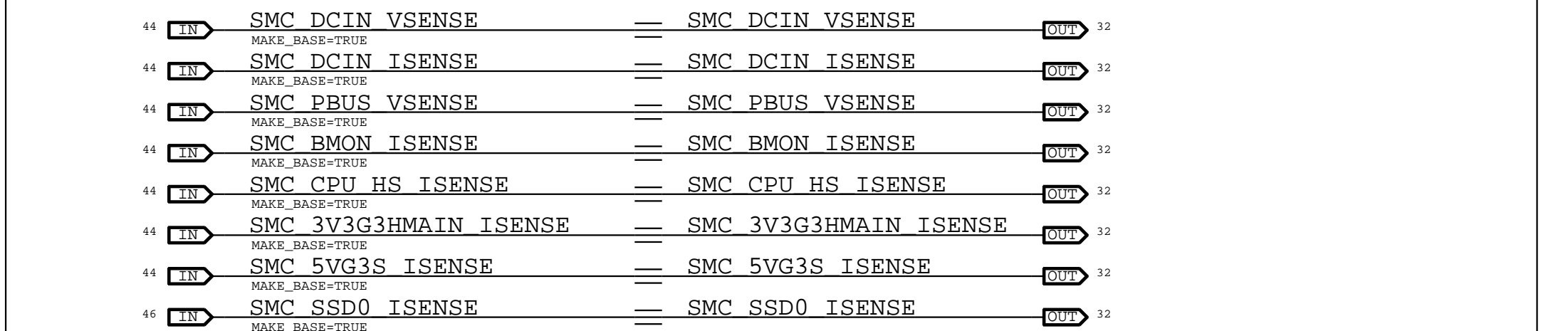
## D SSD Pull-Up/Downs



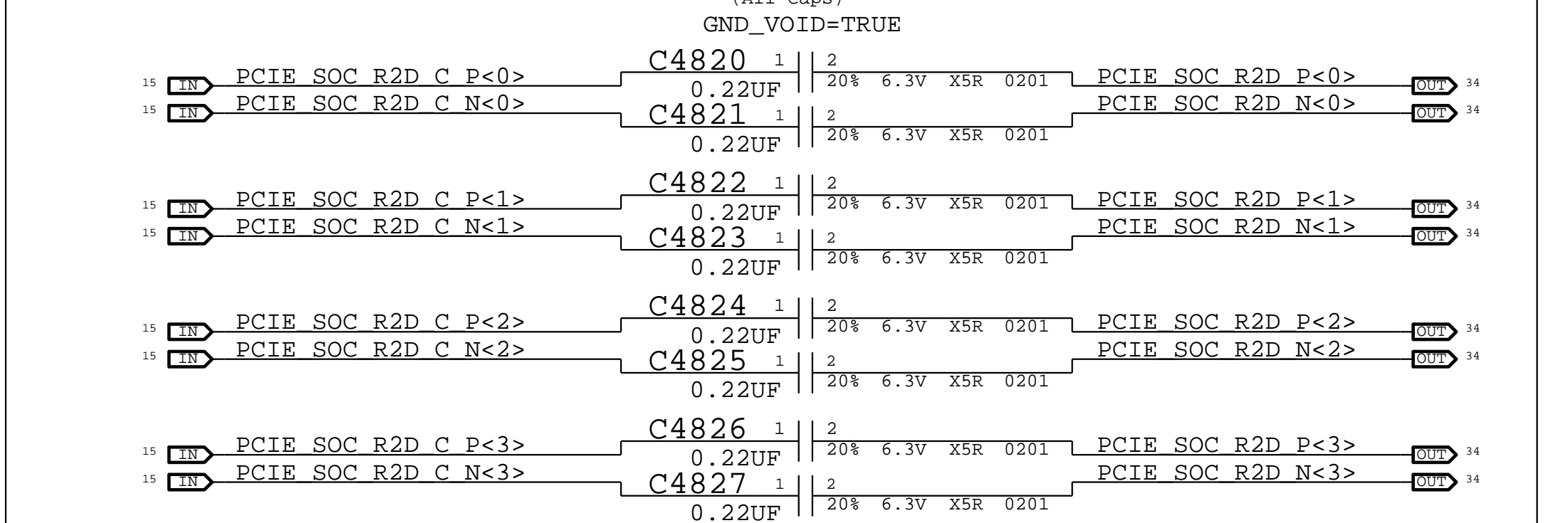
## E SoC Pull-Up/Downs



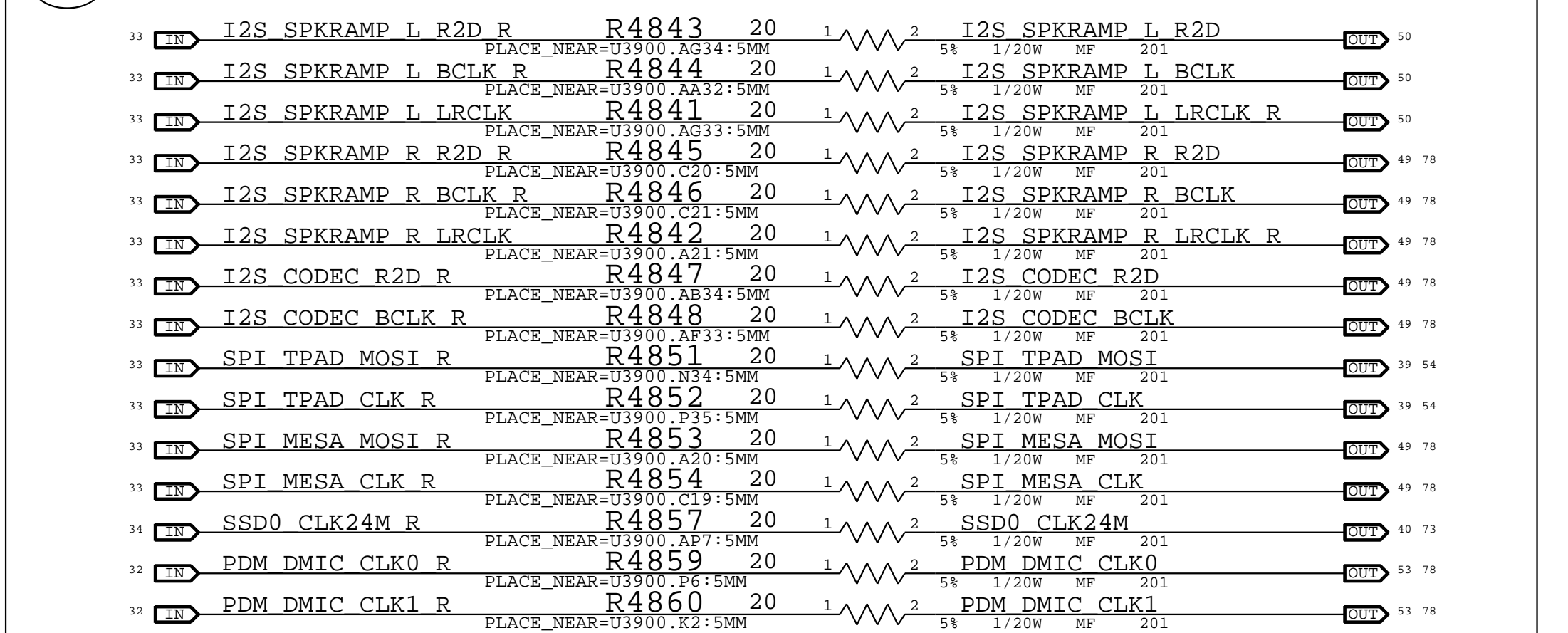
## G SMC ADC Assignments



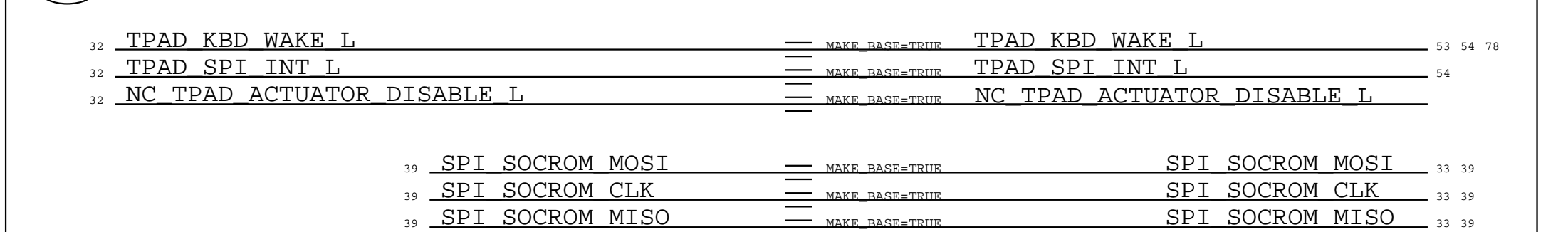
## H PCIe Up R2D AC Caps



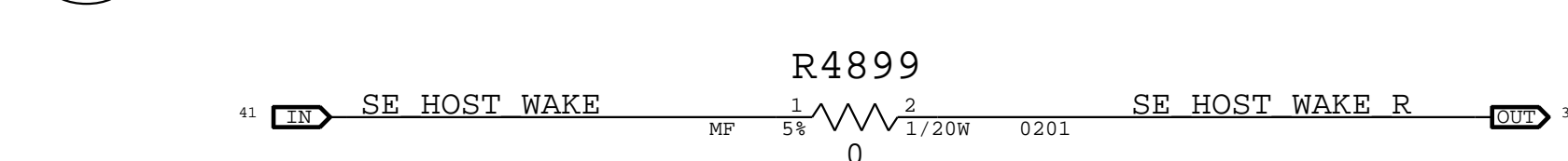
## I GPIO Source Termination




## J Overloaded GPIOs



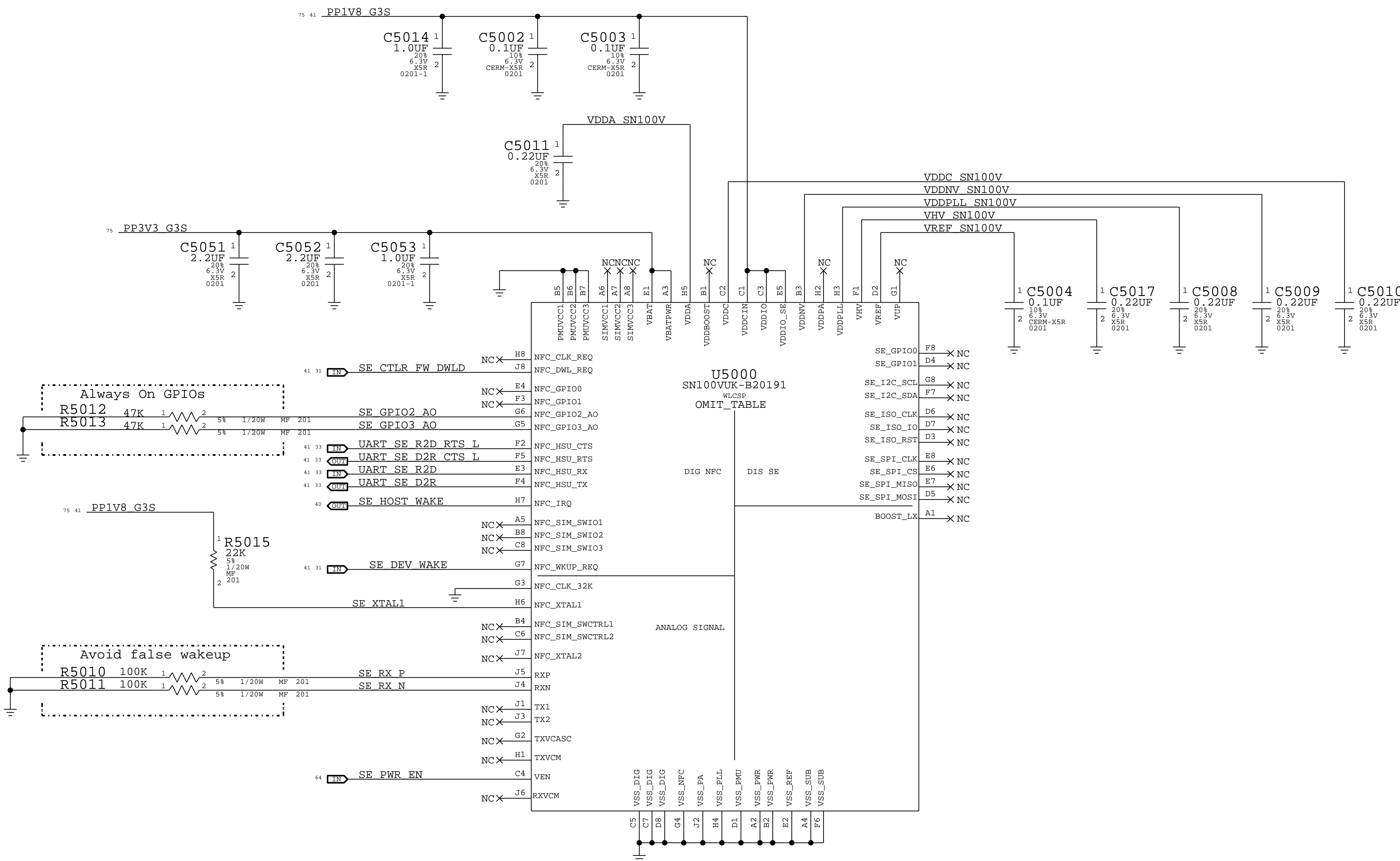
## F SE Host Wake



BOM\_COST\_GROUP=T290


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SoC Project Support			
 Apple Inc.		DRAWING NUMBER	051-05232
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		BRANCH	proto4b
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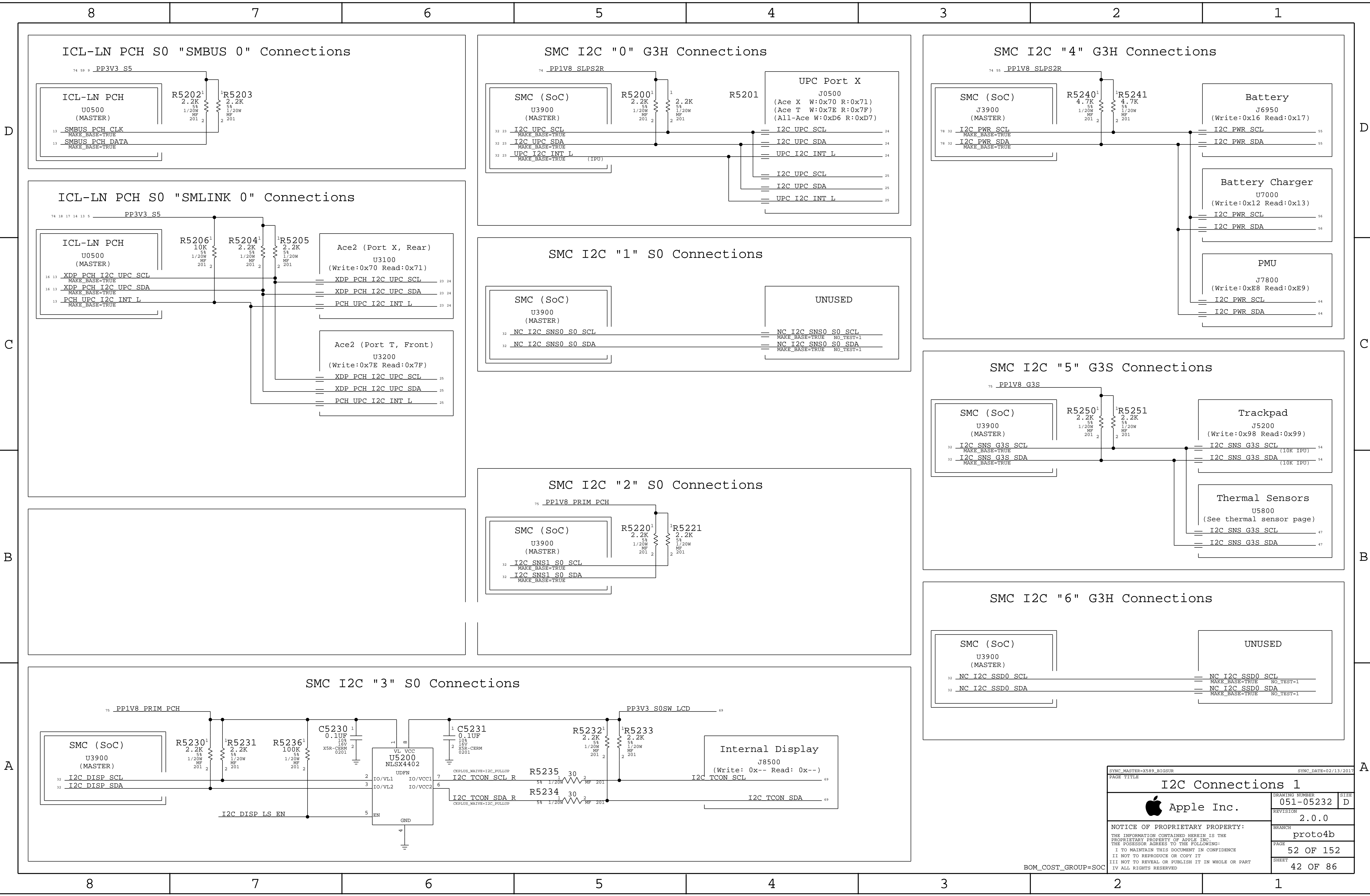
# Venus - Secure Element



PART NUMBER	QTY	DESCRIPTION	REFERENCE DES	CRITICAL	BOM OPTION
998-15216	1	IC, SN100V, VENUS, DEV KEY, B2, S/W-M, WLCSF72	U5000	CRITICAL	SE:DEV_SW_N
338S00445	1	IC, SN100V, VENUS, PROD KEY, B2, SW-N, WLCSF72	U5000	CRITICAL	SE:PROD_SW_N

PP1V8_G3S	75	41
R5001	100K	1
R5002	100K	1
R5003	100K	1
R5004	100K	1
R5000	100K	1
R5006	100K	1
UART SE R2D	33	41
UART SE D2R	33	41
UART SE R2D RTS L	33	41
UART SE D2R CTS L	33	41
SE CTLR FW DWLD	31	41
SE DEV WAKE	31	41

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SYNC\_MASTER=X589\_BIGSUR

SYNC\_DATA=02/13/2017

PAGE TITLE

I2C Connections 1



Apple Inc.

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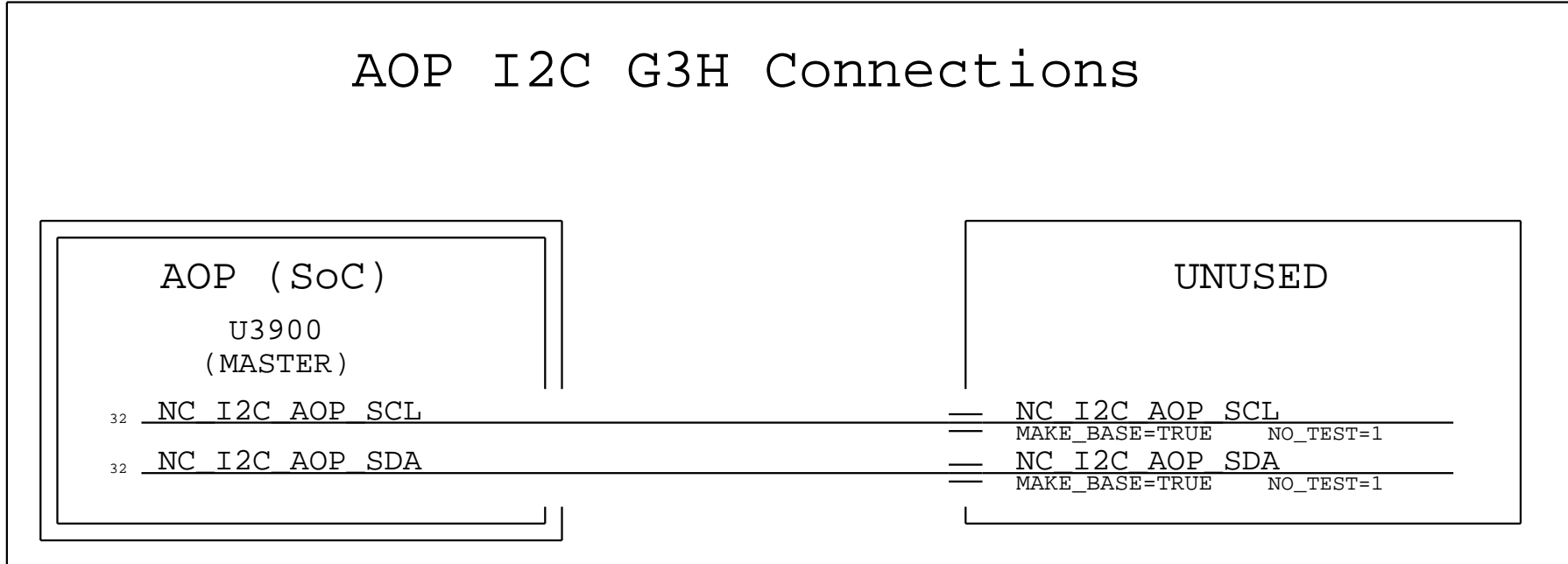
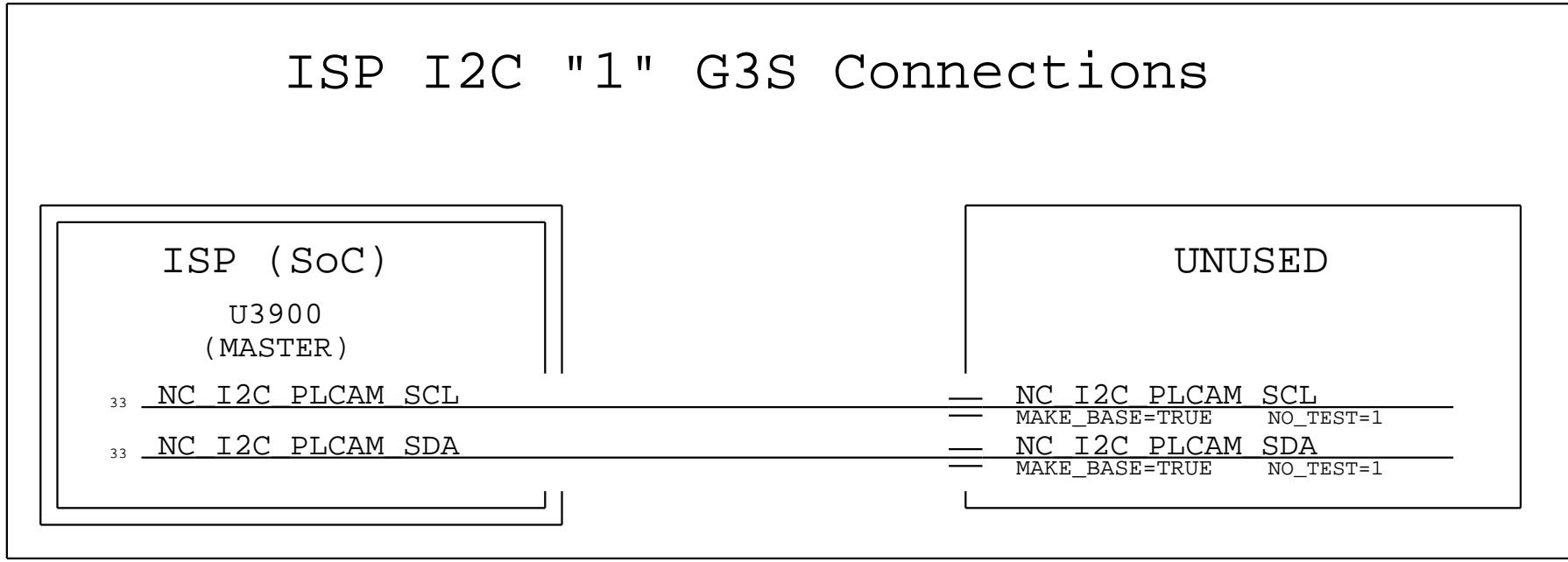
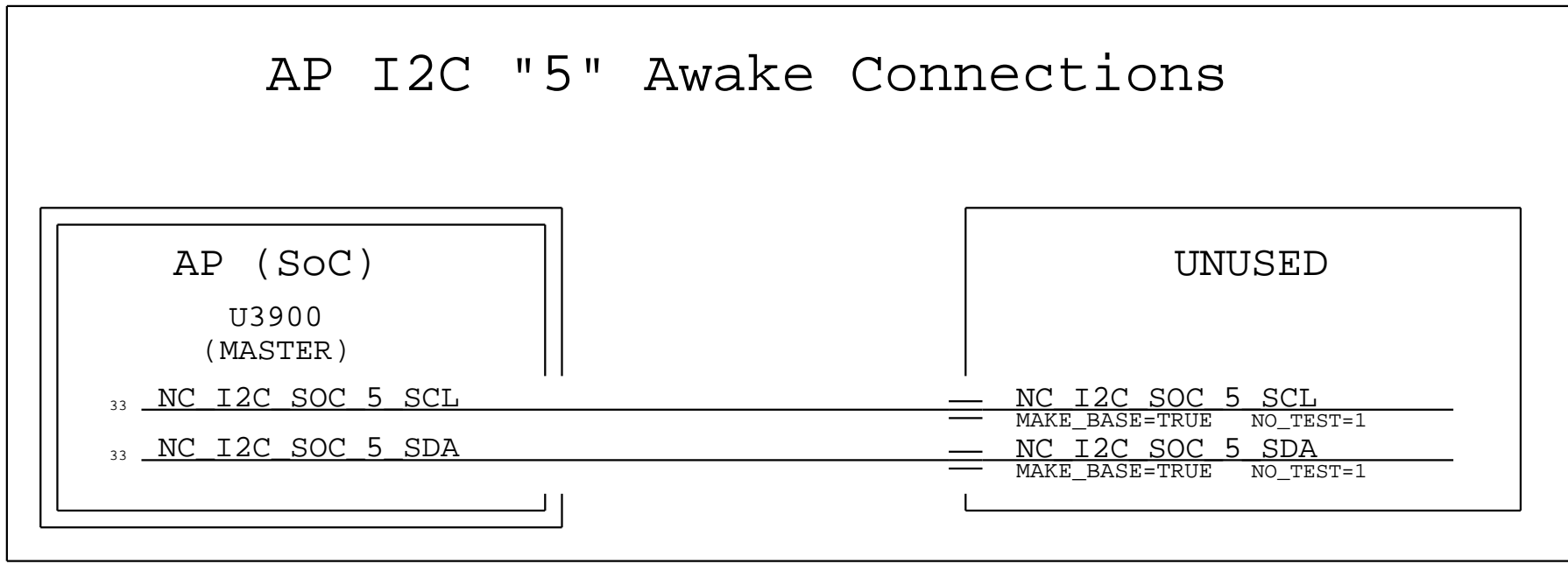
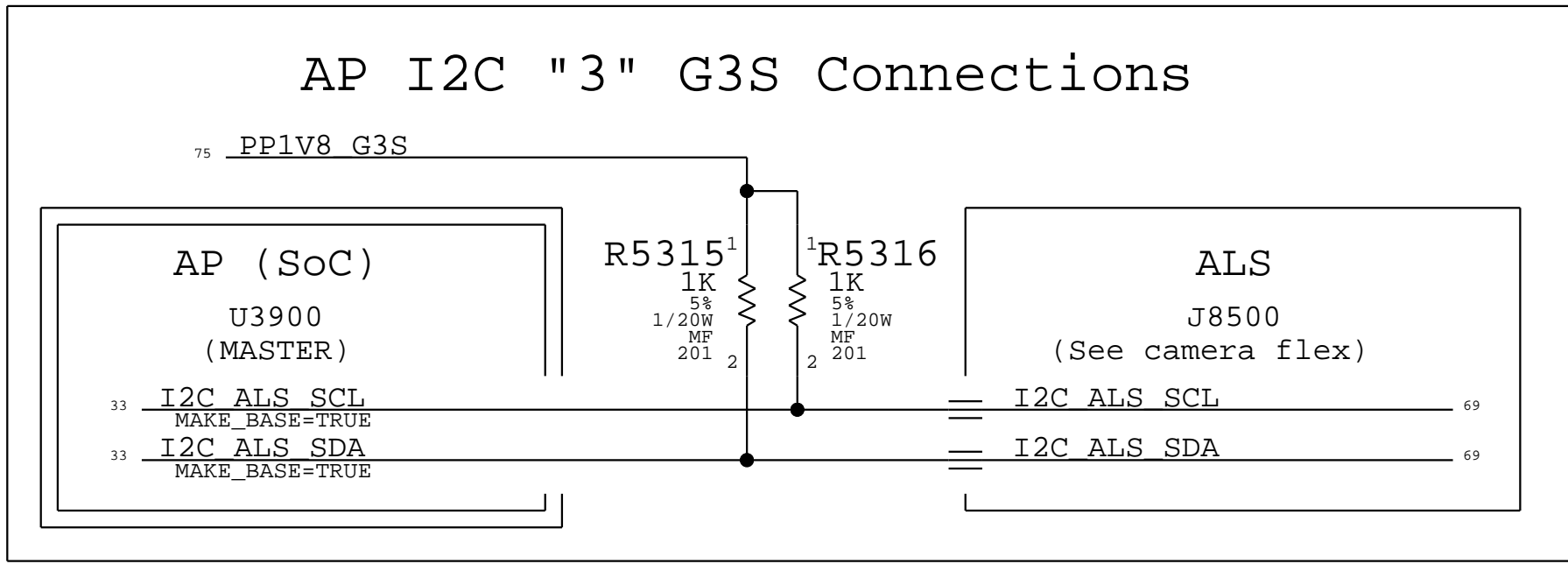
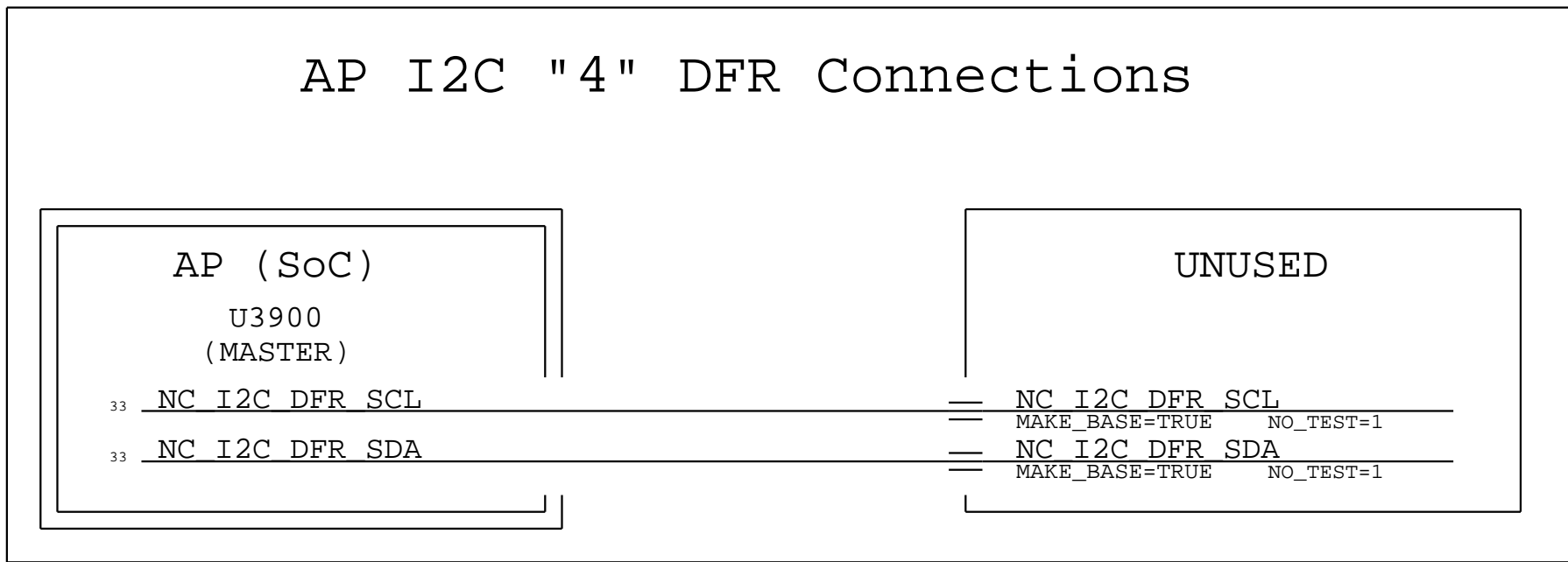
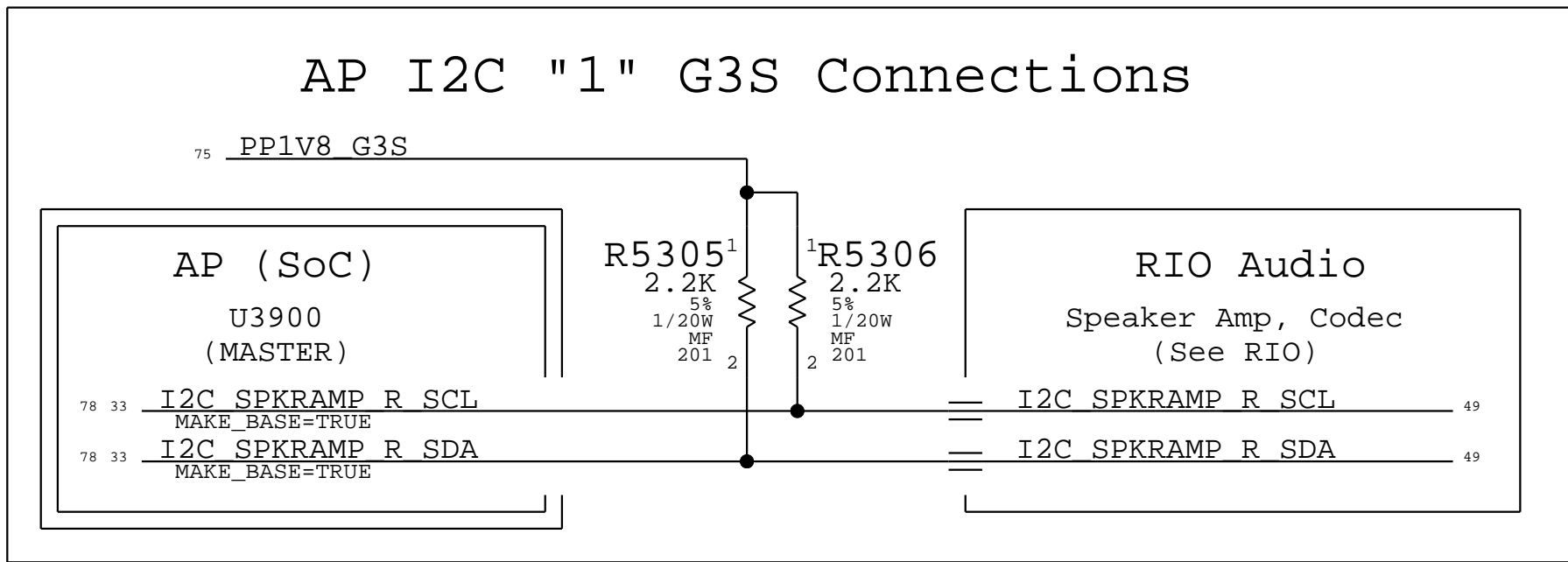
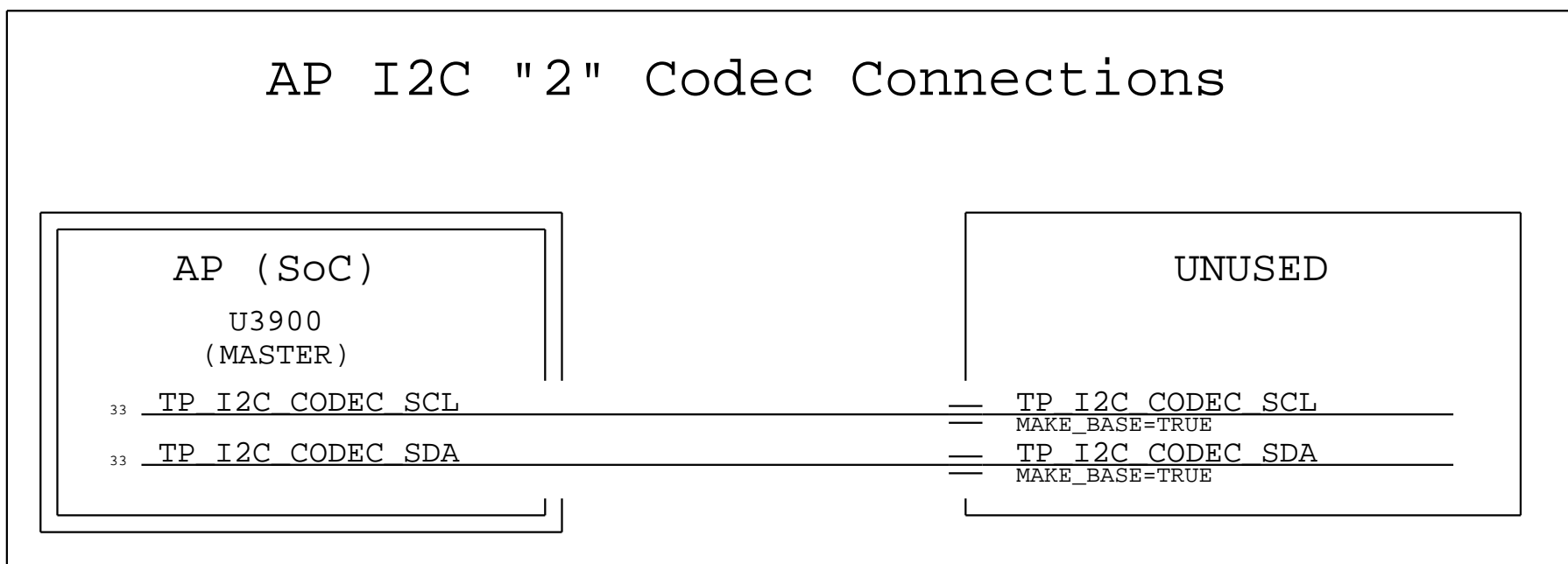
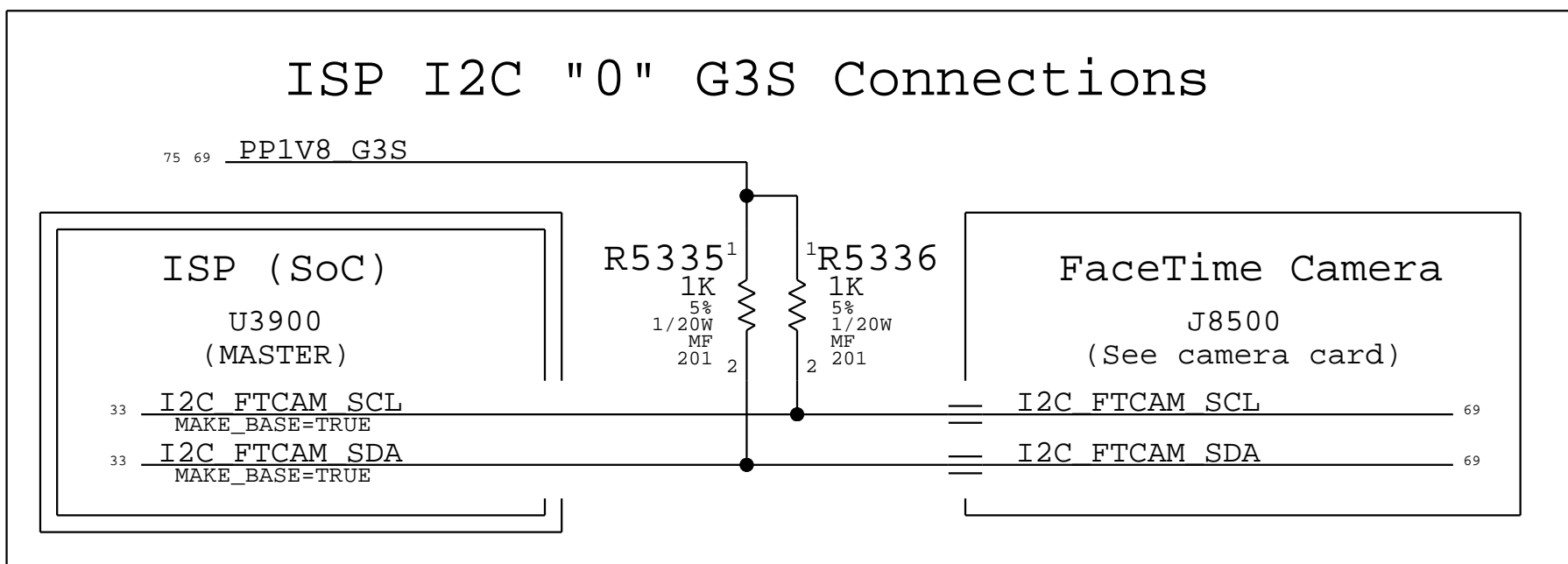
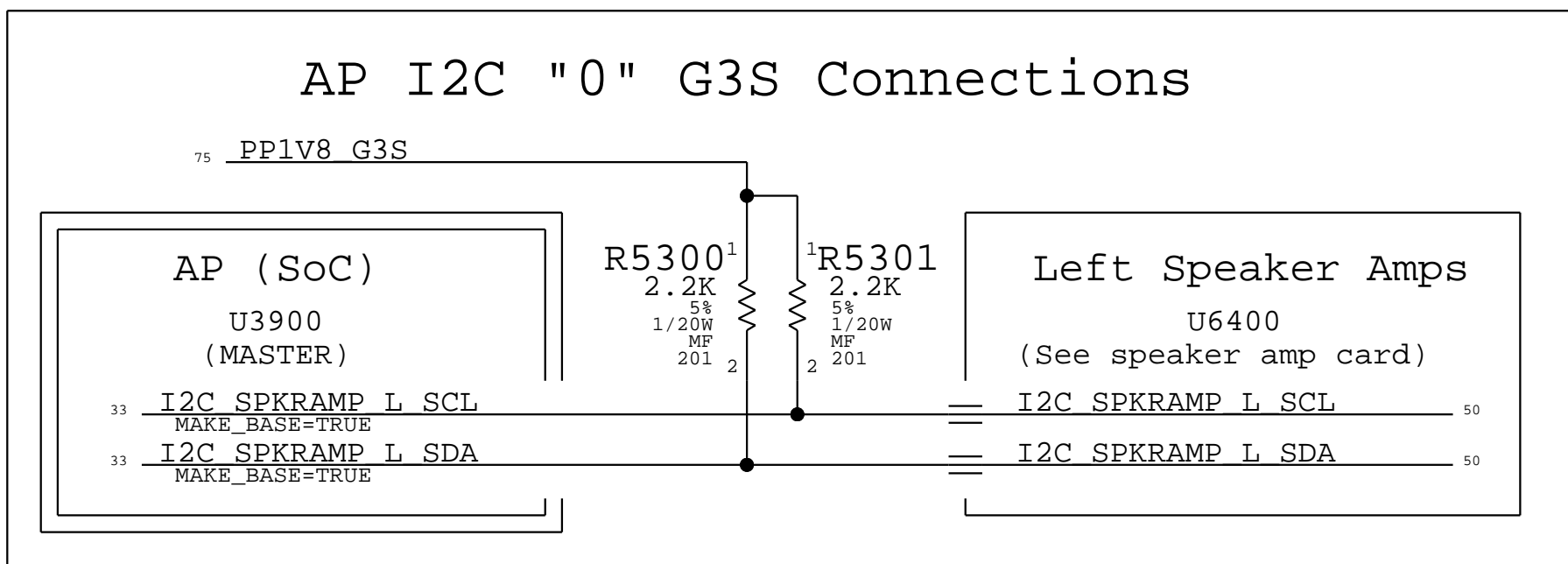
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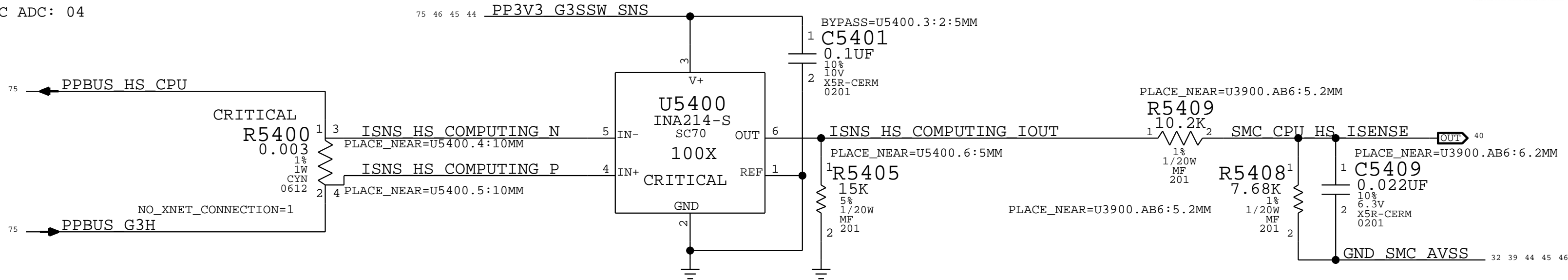
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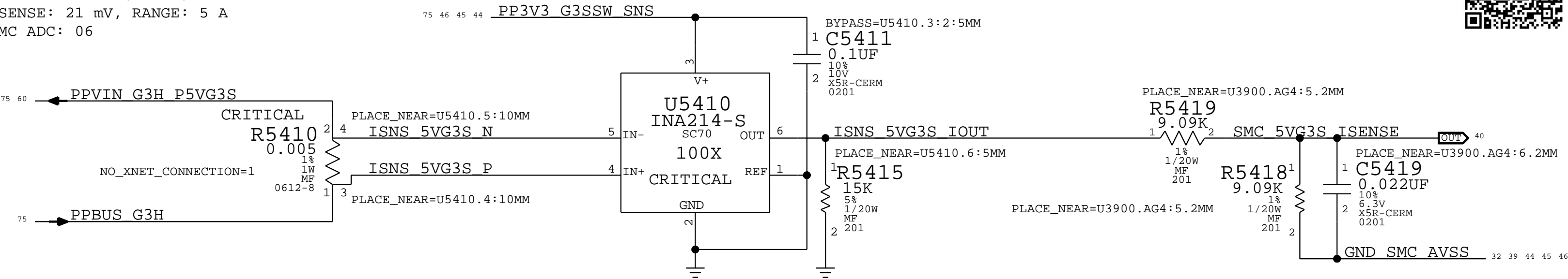
# A CPU High Side Current Sense (IC0R)

GAIN: 100X, EDP: 10.16 A  
Rsense: 0.003 (R5400)  
VSENSE: 30.475 mV, RANGE: 8.842 A  
SMC ADC: 04



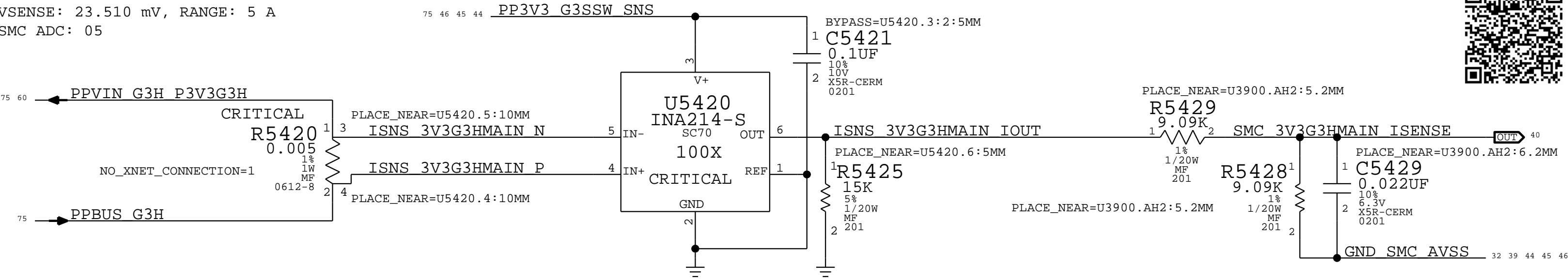
# B 5V G3S High Side Current Sense (IO5R)

GAIN: 100X, EDP: 4.2 A  
Rsense: 0.005 (R5410)  
VSENSE: 21 mV, RANGE: 5 A  
SMC ADC: 06



# C 3V3 G3H MAIN High Side Current Sense (IO3R)

GAIN: 100X, EDP: 4.702 A  
Rsense: 0.005 (R5420)  
VSENSE: 23.510 mV, RANGE: 5 A  
SMC ADC: 05



# D Sensor Documentation

Sensor information can be found in the ERS at the link below or by scanning the QR Code image.

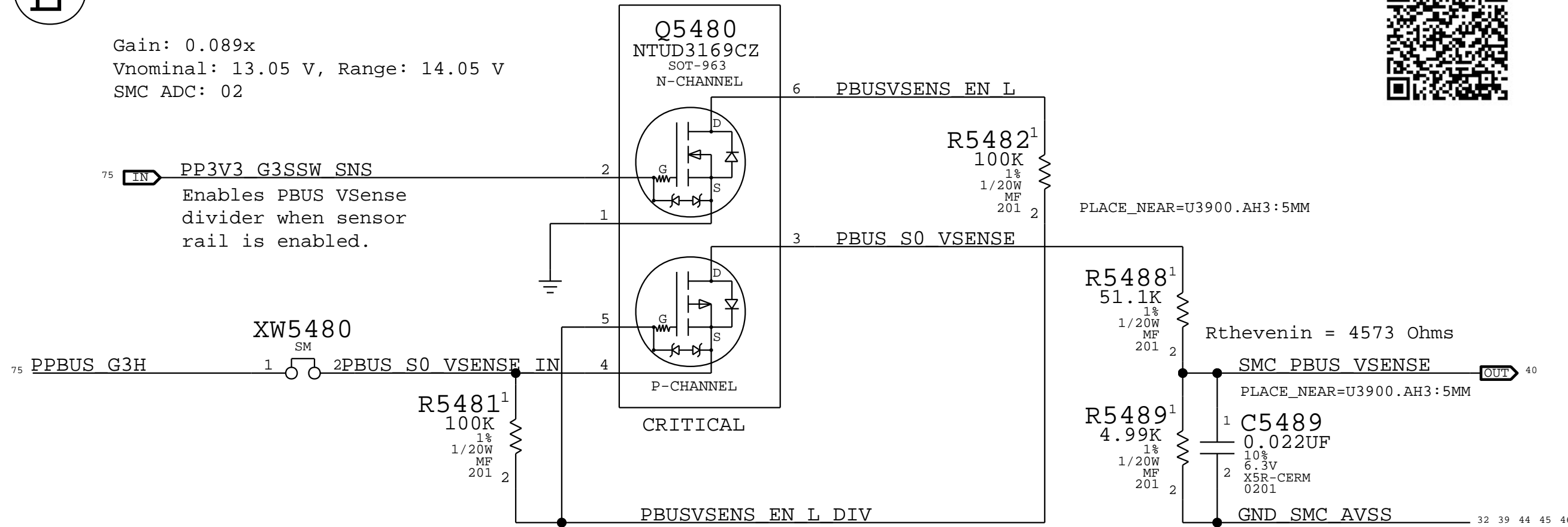


[https://github.pie.apple.com/MobileMacIX/j230\\_hw/blob/master/j230/mlb/docs/sensor\\_ers/j230\\_sensor\\_ers.pdf](https://github.pie.apple.com/MobileMacIX/j230_hw/blob/master/j230/mlb/docs/sensor_ers/j230_sensor_ers.pdf)

INA21X PARTS HAVE MINOR LEAKAGE PATH FROM INPUTS TO OUTPUT WHEN UNPOWERED.  
PULL-DOWN RESISTORS ON INA OUTPUTS BLEED OFF THE LEAKAGE CURRENT TO PREVENT SIGNAL PUMP-UP.

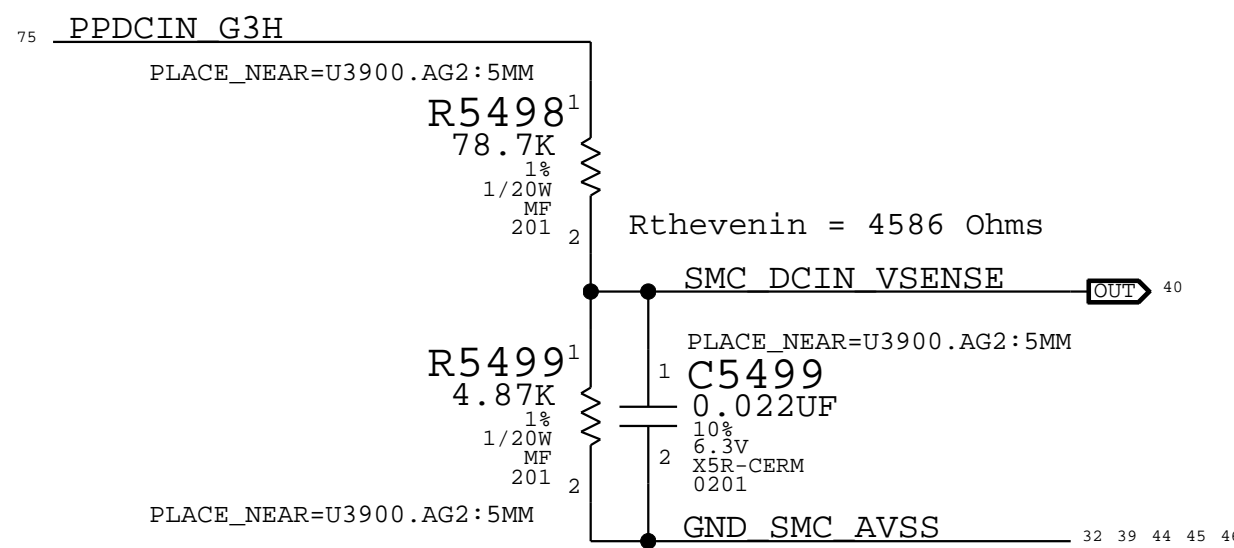
# E PBUS Voltage Sense & Enable (VP0R)

Gain: 0.089x  
Vnominal: 13.05 V, Range: 14.05 V  
SMC ADC: 02



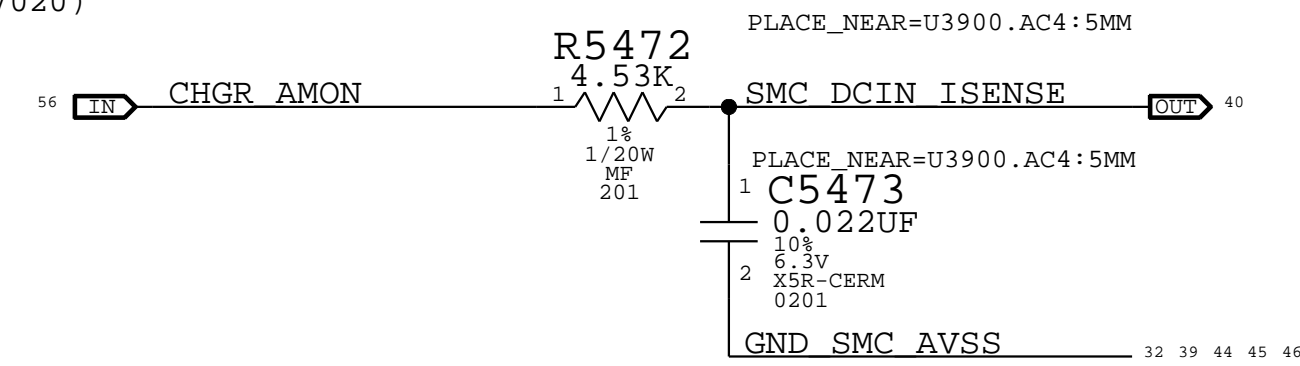
# F DC In Voltage Sense (VD0R)

Gain: 0.148x  
Vnominal: 16.5 V, Range: 22.29 V  
SMC ADC: 00



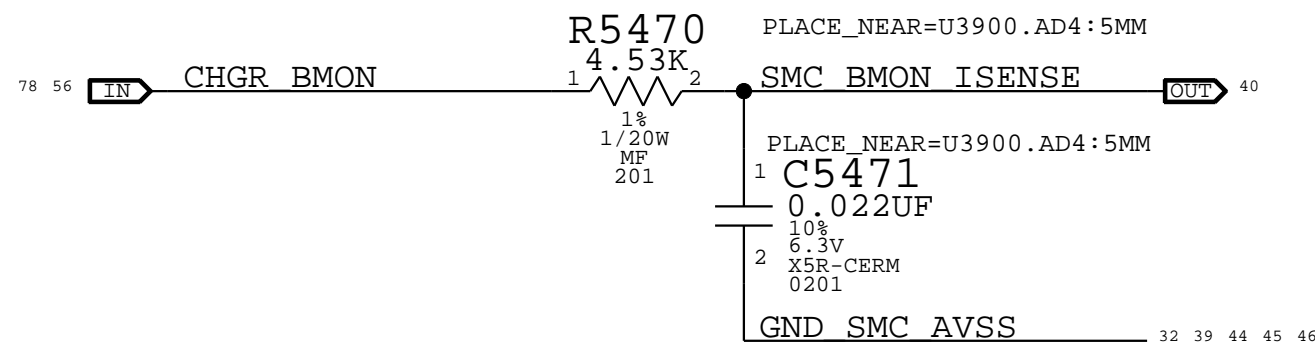
# G DC-IN (AMON) Current Sense (ID0R)

Charger Gain: 20x, EDP: 3.0 A  
RSENSE: 0.010 (R7020)  
SMC ADC: 01



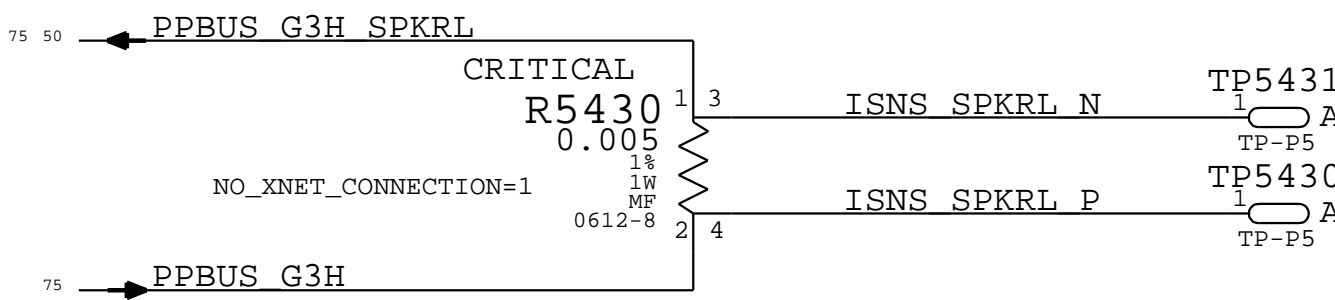
# H Charger (BMON) Current Sense (IPBR)

Charger Gain: 7.9x, EDP: 6.5 A  
RSENSE: 0.005 (R7060)  
SMC ADC: 03



# I Speaker Amp Sense (Ixxx)

RSENSE: 0.005  
EDP: x A  
SMC ADC: 03



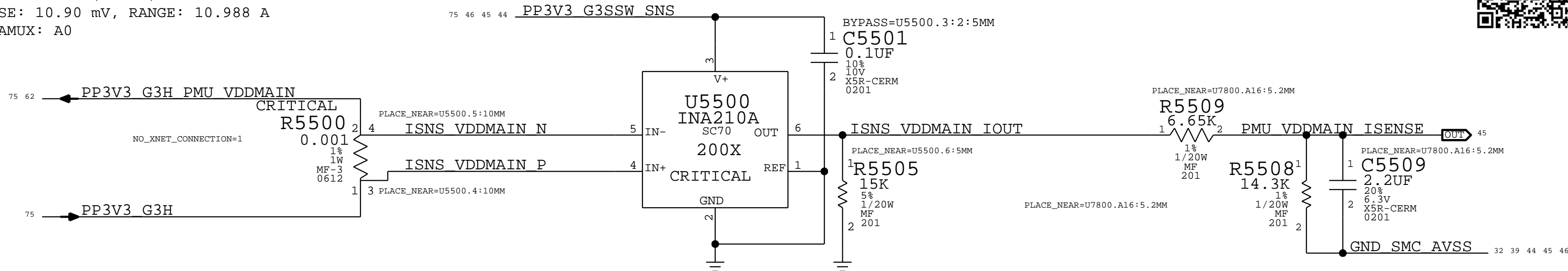
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DESIGN: J230/MLB	
LAST CHANGE: Fri Sep 28 20:05:04 2018	
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## A VDDMAIN 3.3V Current Sense (ISLC)

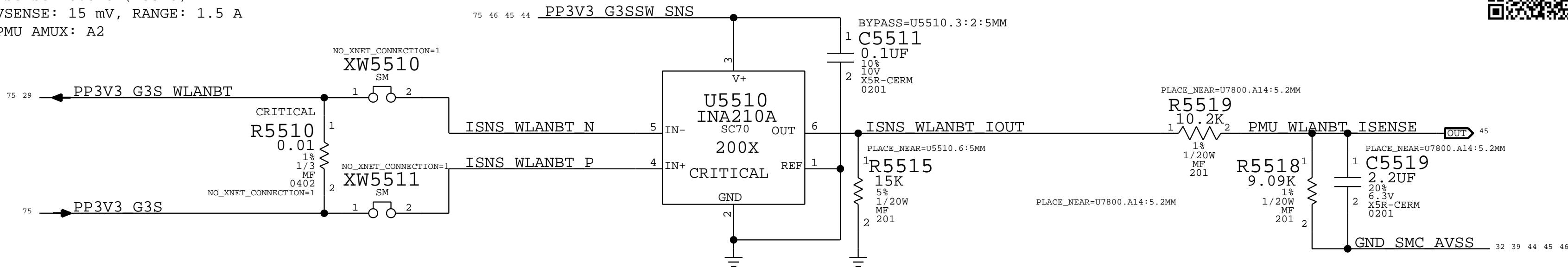
GAIN: 200X, EDP: 10.90 A  
Rsense: 0.001 (R5500)  
VSENSE: 10.90 mV, RANGE: 10.988 A  
PMU AMUX: A0



LTSpice Simulation

## C Wireless 3.3V Current Sense (IAPC)

GAIN: 200X, EDP: 1.5 A  
Rsense: 0.010 (R5510)  
VSENSE: 15 mV, RANGE: 1.5 A  
PMU AMUX: A2



LTSpice Simulation

## B PMU ADC AMUX\_A ALIASES

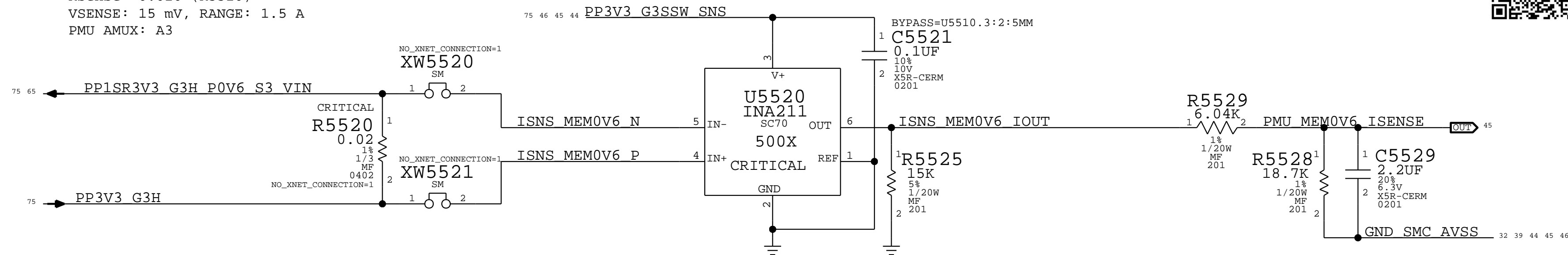
PMU VDDMAIN ISENSE	PMU VDDMAIN ISENSE
PMU MEM1V1 ISENSE	PMU MEM1V1 ISENSE
PMU WLANBT ISENSE	PMU WLANBT ISENSE
PMU MEMOV6 ISENSE	PMU MEMOV6 ISENSE
PMU LCDBKLT ISENSE	PMU LCDBKLT ISENSE
PMU CPU VSENSE	PMU CPU VSENSE
PMU NAND VSENSE	PMU NAND VSENSE
PMU VCCINAUX VSENSE	PMU VCCINAUX VSENSE

## D PMU ADC AMUX\_B ALIASES

NC PMU AMUX B0	NC PMU AMUX B0
PMU VCCINAUX ISENSE	PMU VCCINAUX ISENSE
NC PMU AMUX B2	NC PMU AMUX B2
NC PMU AMUX B3	NC PMU AMUX B3
NC PMU AMUX B4	NC PMU AMUX B4
NC PMU AMUX B5	NC PMU AMUX B5
NC PMU AMUX B6	NC PMU AMUX B6
NC PMU AMUX B7	NC PMU AMUX B7

## E MEMORY 0.6V High-Side Current Sense (IM0C)

GAIN: 200X, EDP: 1.5 A  
Rsense: 0.020 (R5520)  
VSENSE: 15 mV, RANGE: 1.5 A  
PMU AMUX: A3



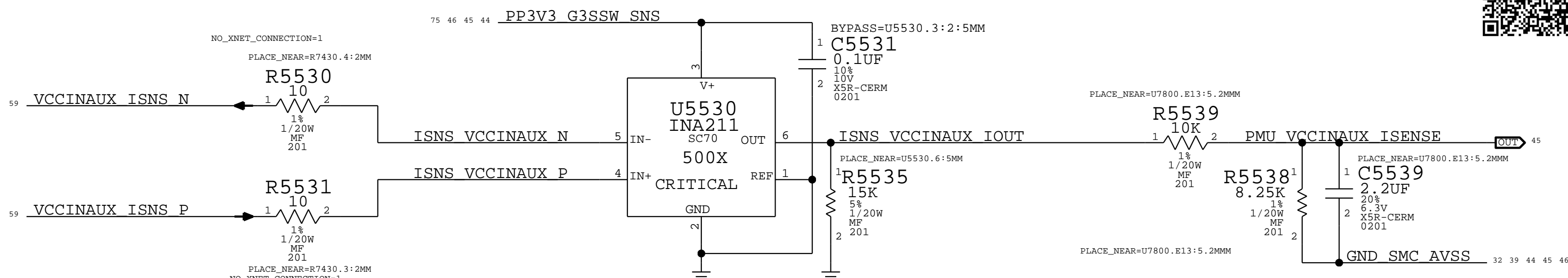
LTSpice Simulation

## F Sensor Documentation

Sensor information can be found in the ERS by scanning the QR Code image.



## G VCCIN\_AUX Current Sense (ICIC)



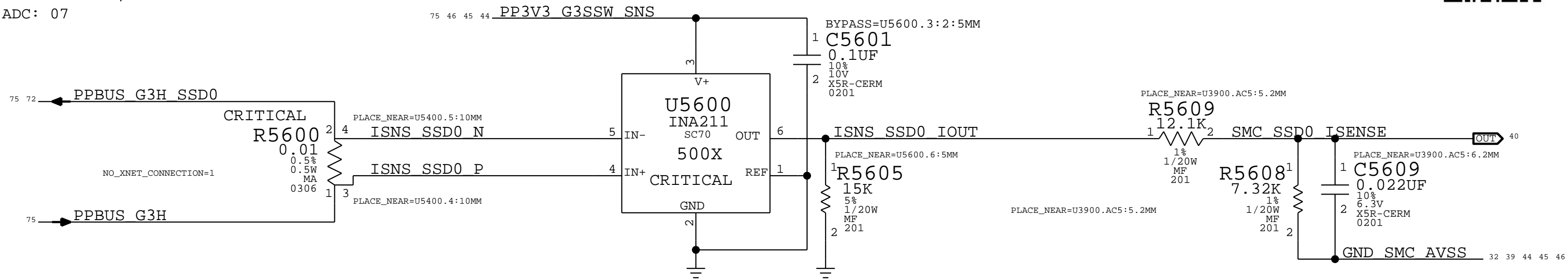
LTSpice Simulation

BOM\_COST\_GROUP=SENSORS

DESIGN: J230/MLB		
LAST CHANGE: Fri Sep 28 20:05:04 2018		
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Power Sensors Load Side		
	DRAWING NUMBER	051-05232
	REVISION	2.0.0
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	PAGE	55 OF 152
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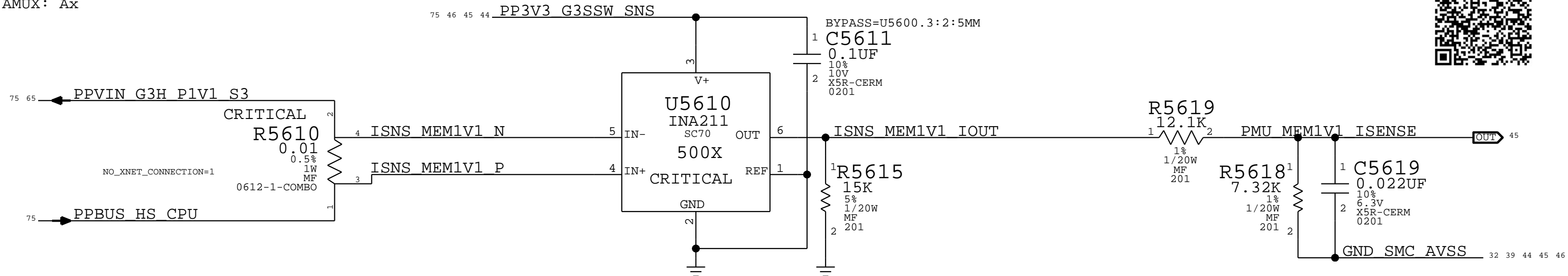
## A SSD High Side (IH0R)

GAIN: 500X, EDP: 0.654 A  
Rsense: 0.010 (R5600)  
VSENSE: 6.536 mV, RANGE: 1.8 A  
SMC ADC: 07



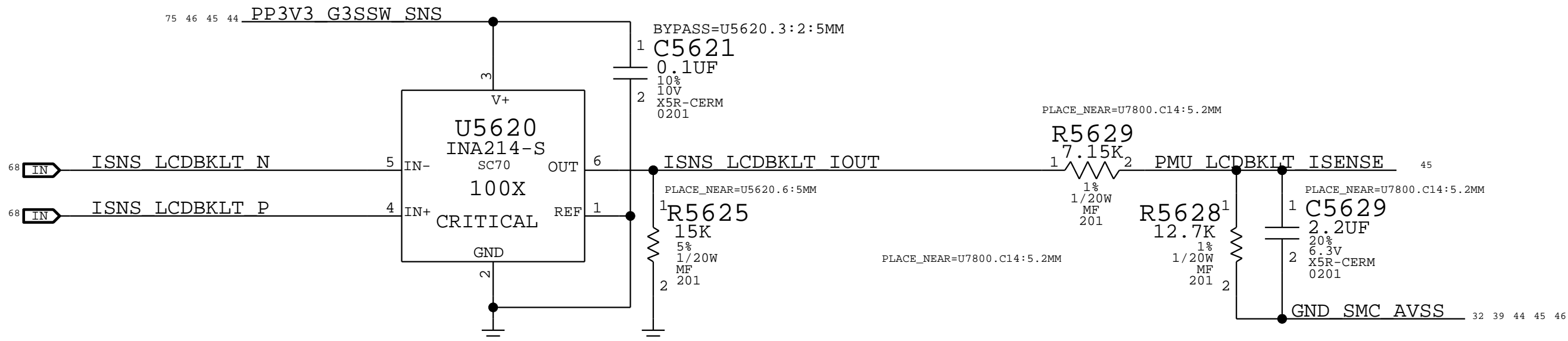
## C Memory 1.1V High Side Current Sense (IM1C)

GAIN: x, EDP: 2.3 A  
Rsense: 0.010 (R5610)  
VSENSE: 23 mV, RANGE: 2.344 A  
PMU AMUX: Ax



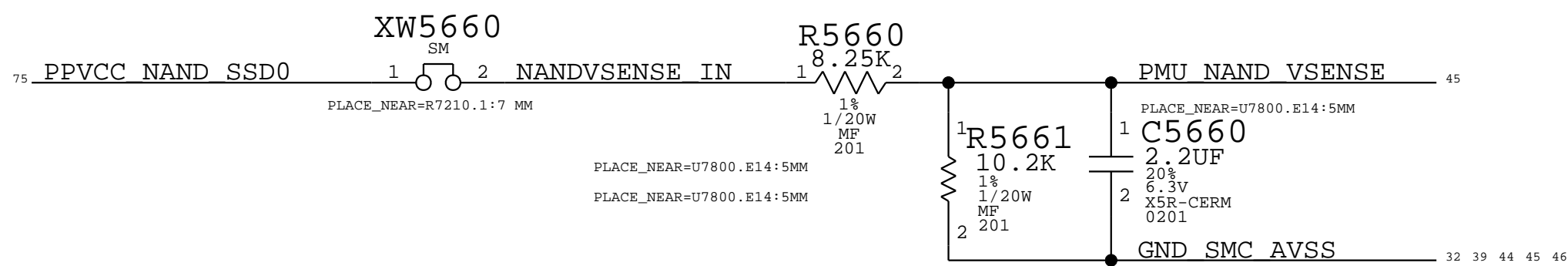
## E LCD Backlight (IBLR)

GAIN: 100X, EDP: 0.902 A  
Rsense: 0.025 (R8400)  
VSENSE: 22.549 mV, RANGE: 0.902 A  
PMU AMUX: A4



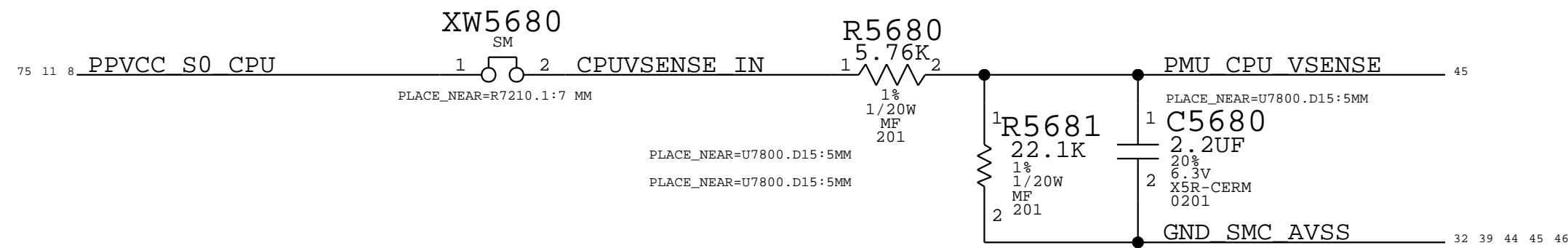
## H NAND 2V5 VOLTAGE SENSE (VHNC)

PMU AMUX: A6



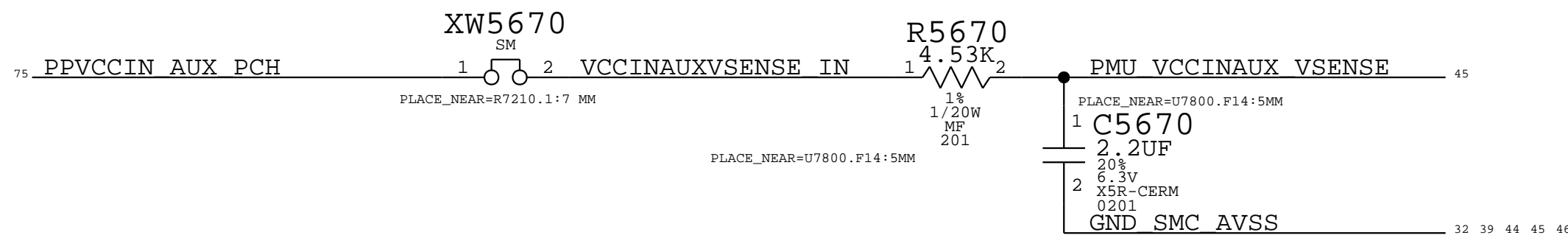
## F CPU VCCIN VOLTAGE SENSE (VCAC)

PMU AMUX: A5



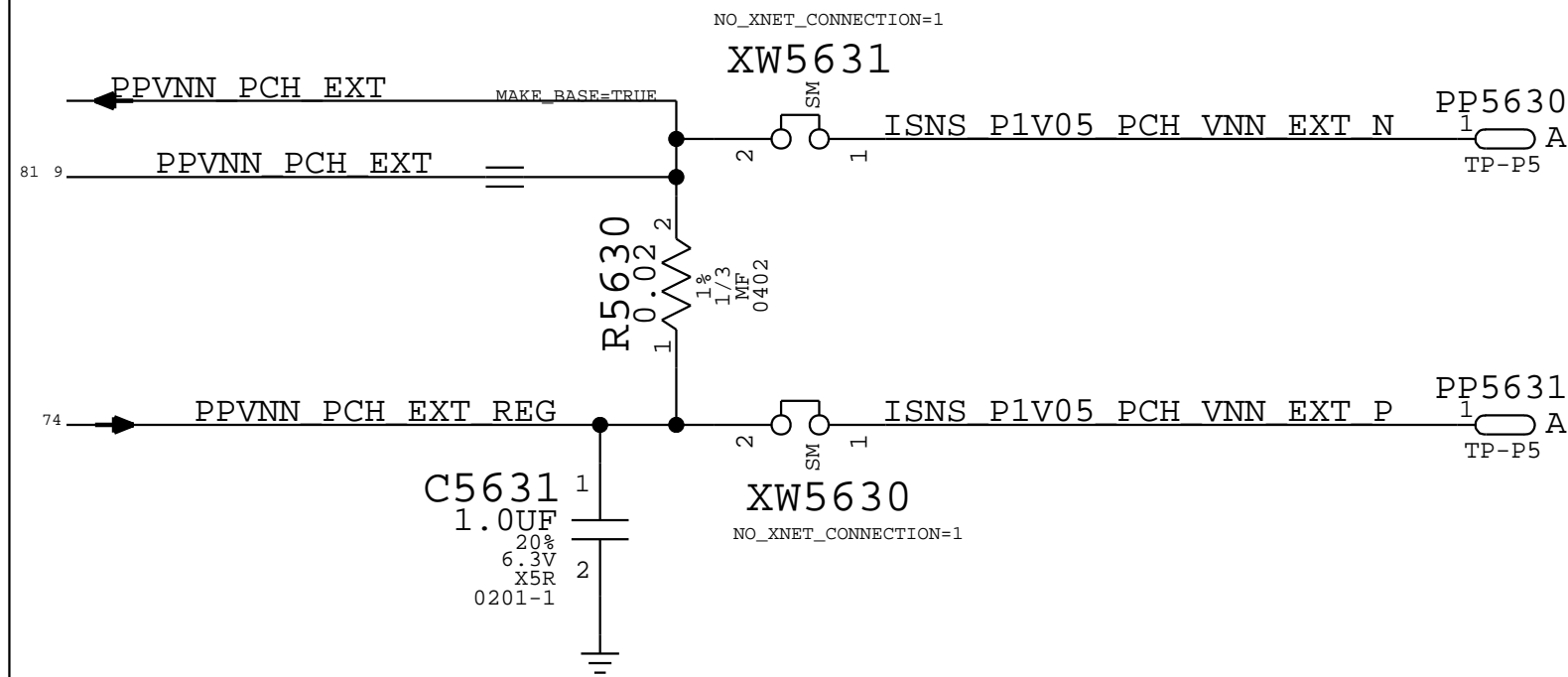
## I VCCIN\_AUX VOLTAGE SENSE (VCIC)

PMU AMUX: A7



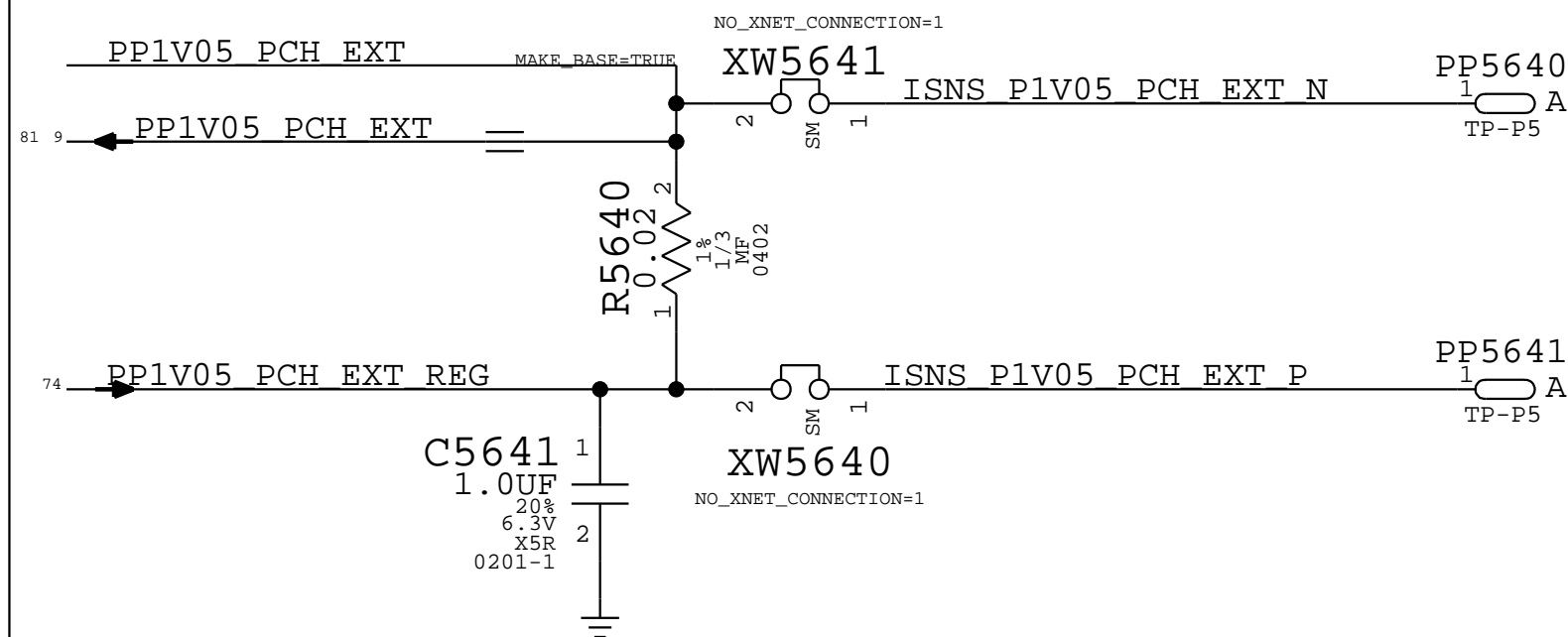
## B PCH VNN BYPASS CURRENT SENSE

GAIN: 200X, EDP: 0.2 A



## D PCH 1.05V BYPASS CURRENT SENSE

GAIN: 200X, EDP: 0.2 A



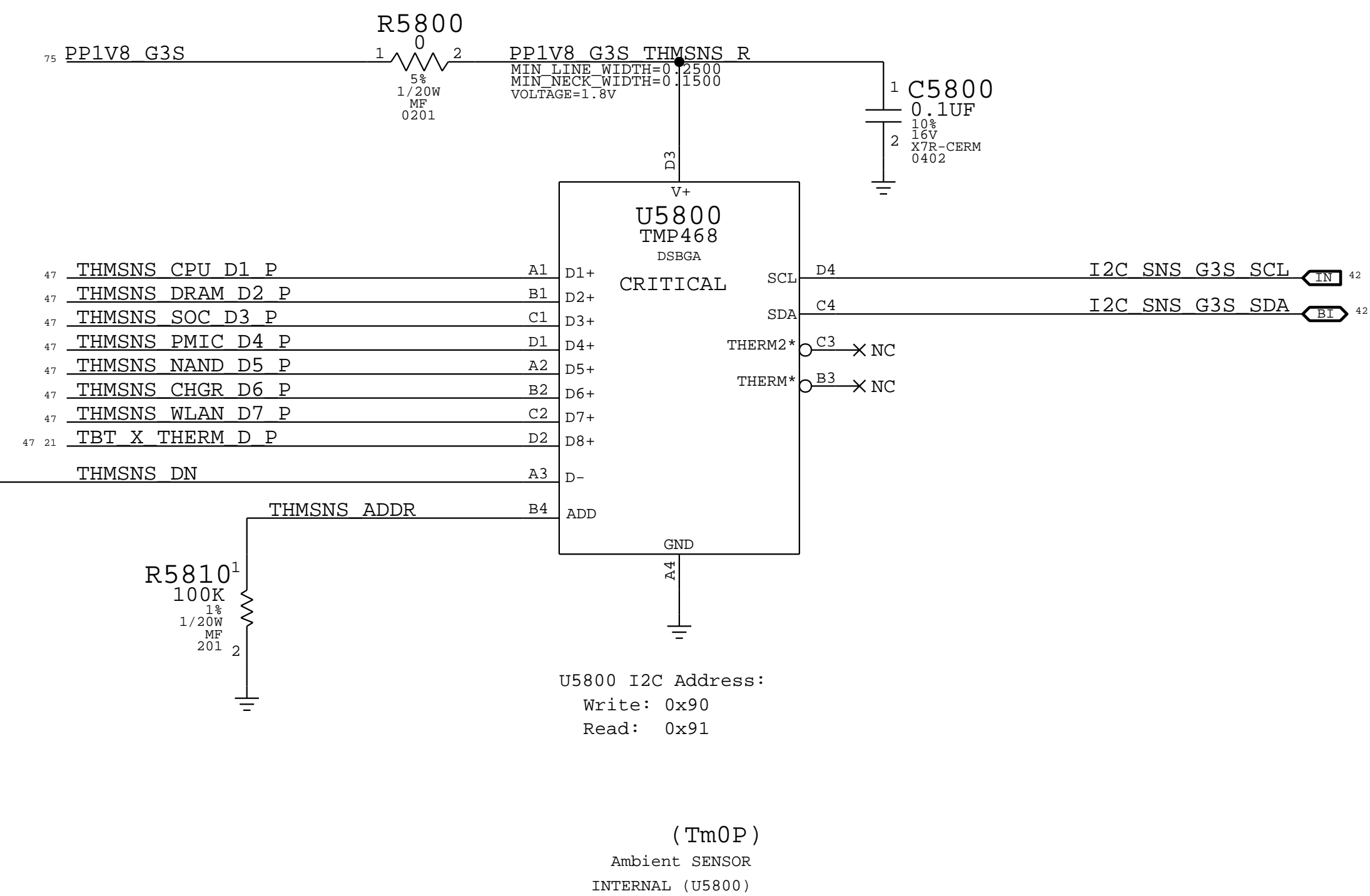
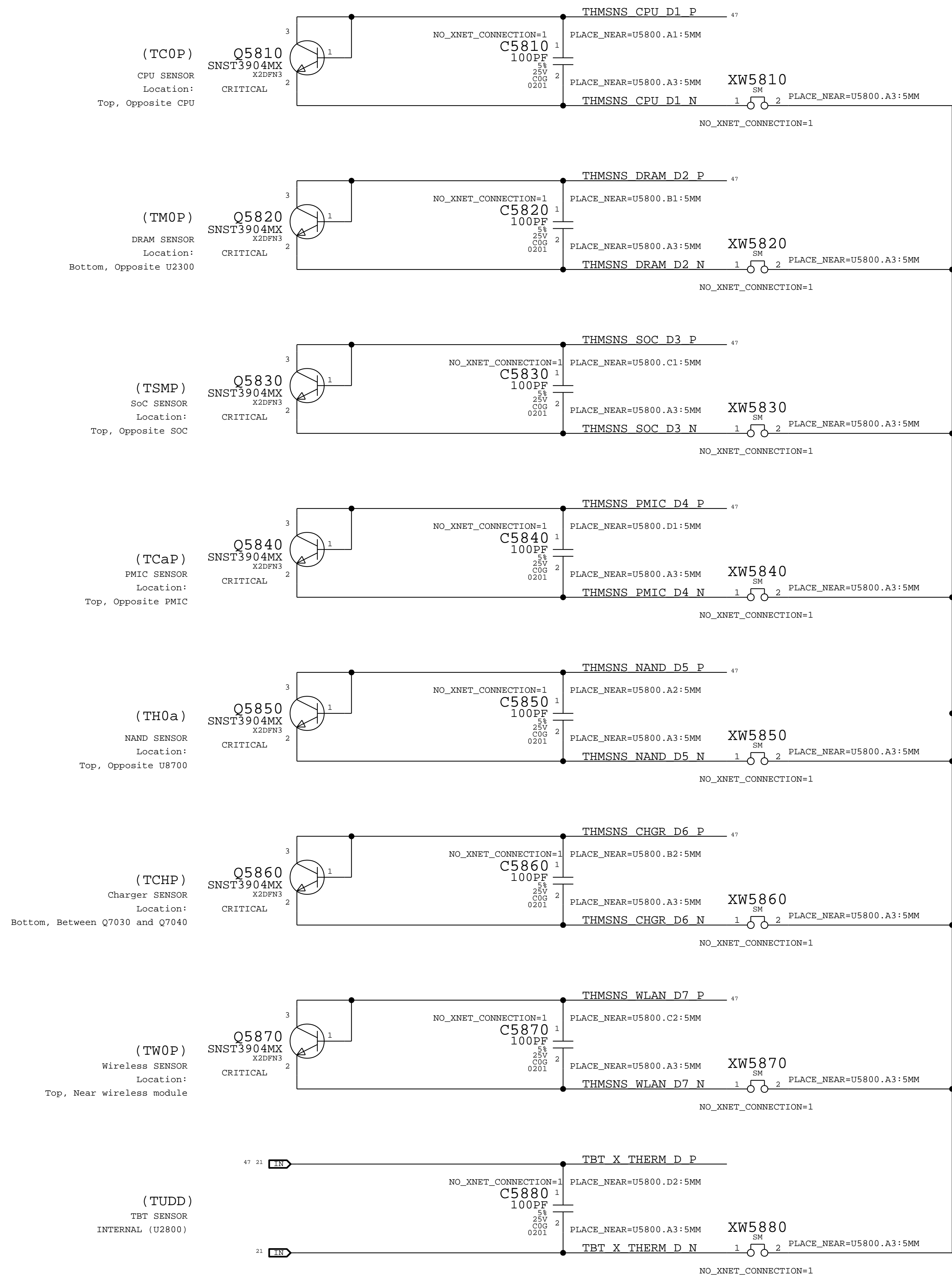
## G Sensor Docs


Scan the QR Code  
for sensor info.



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LAST CHANGE: Fri Sep 28 20:05:04 2018		
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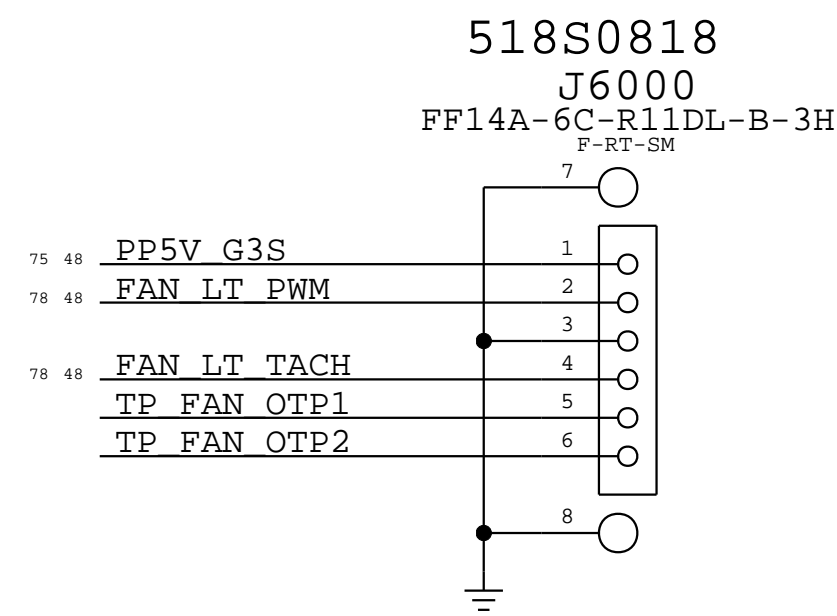
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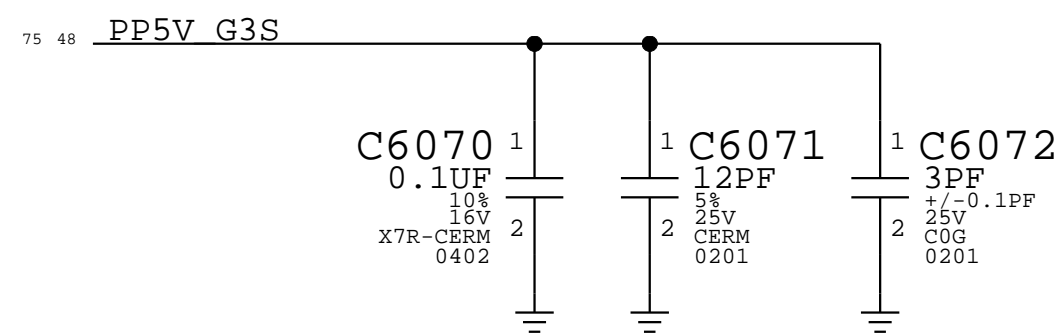
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LAST CHANGE: Fri Sep 28 20:05:04 2018		
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Thermal Sensors		
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	PAGE	58 OF 152
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BOM\_COST\_GROUP=SENSORS

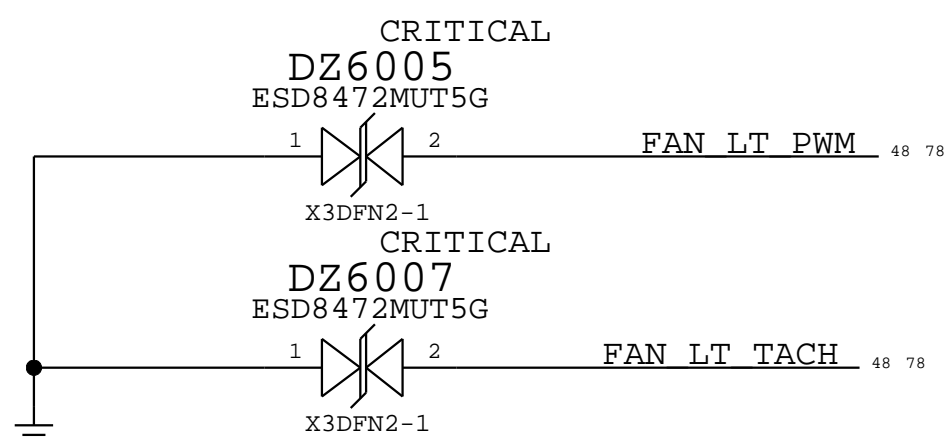
A FAN Connector



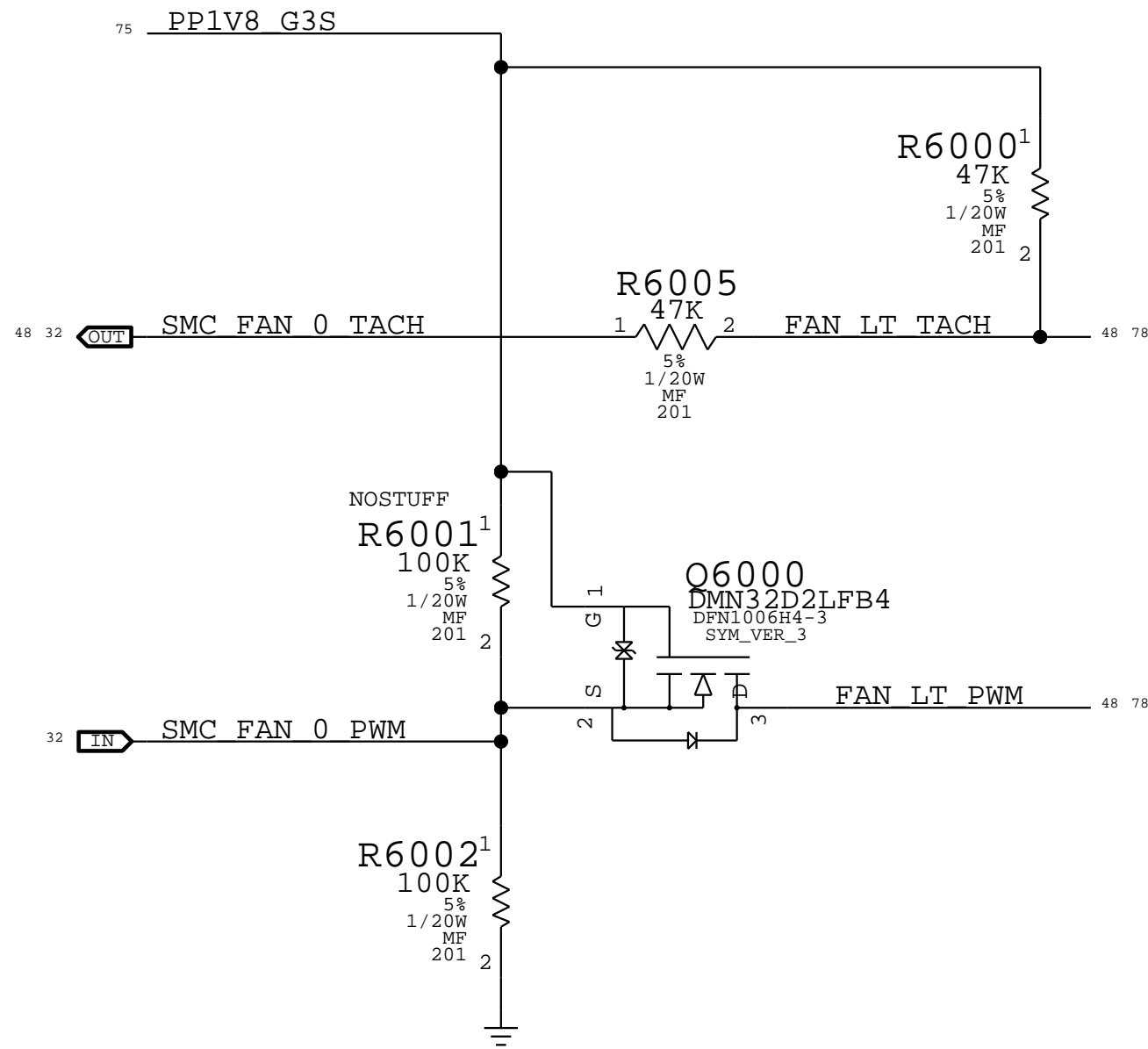
B FAN Bypass Capacitors



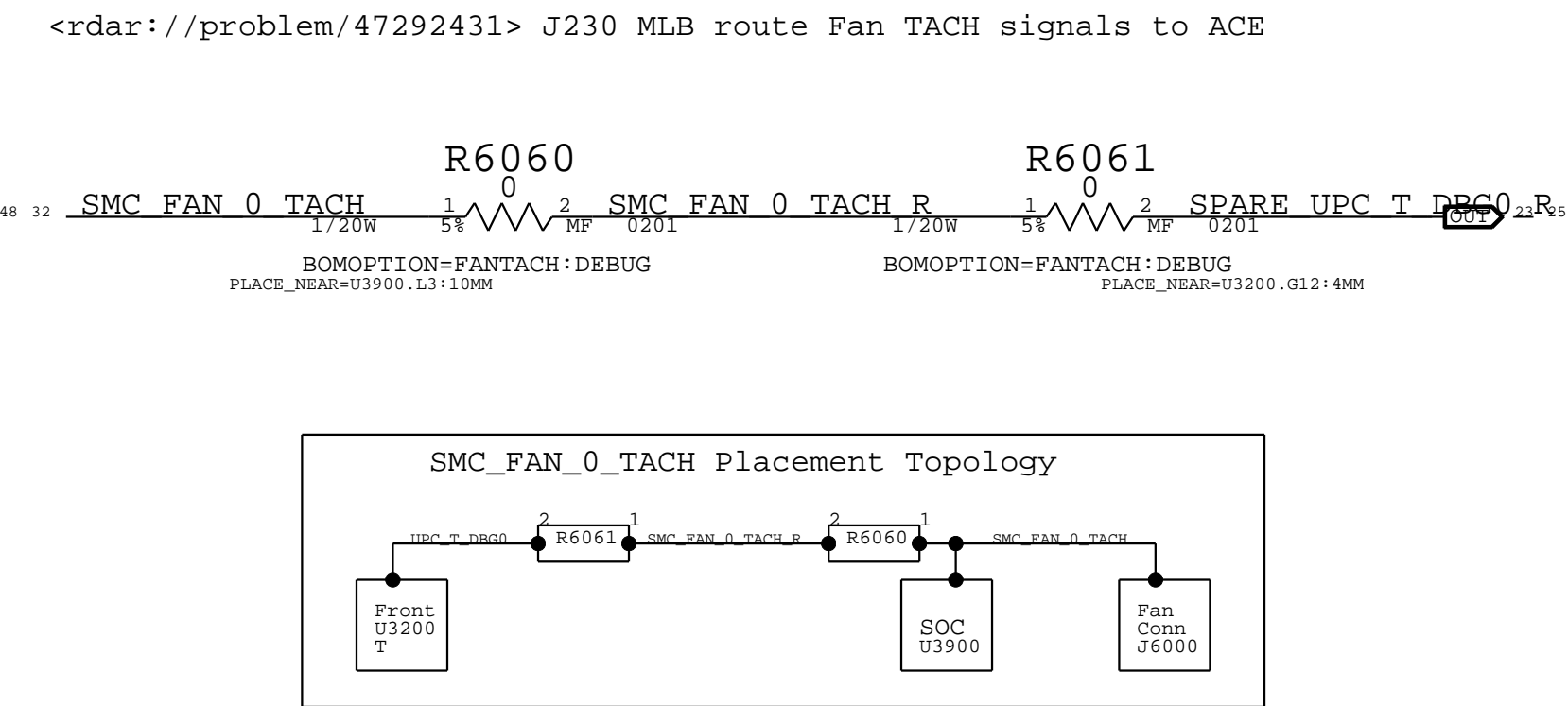
C FAN Protection Diodes




D FAN Support



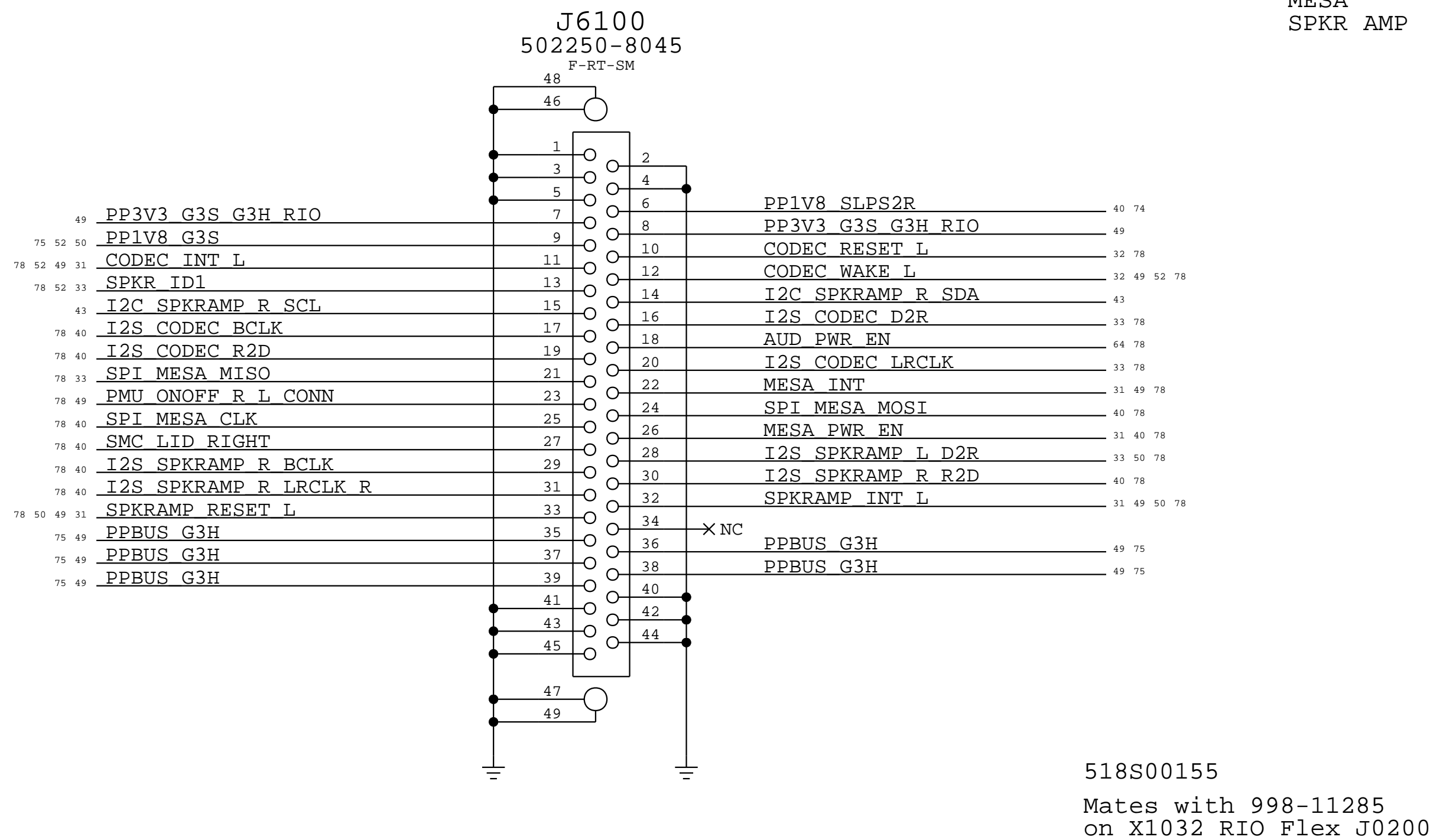
E FAN Debug



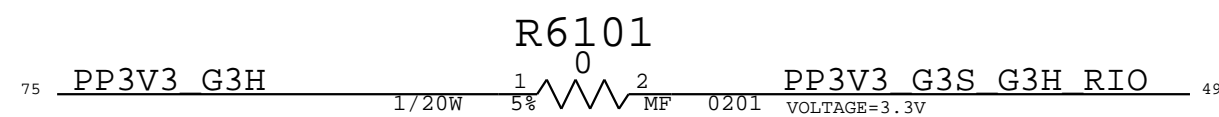
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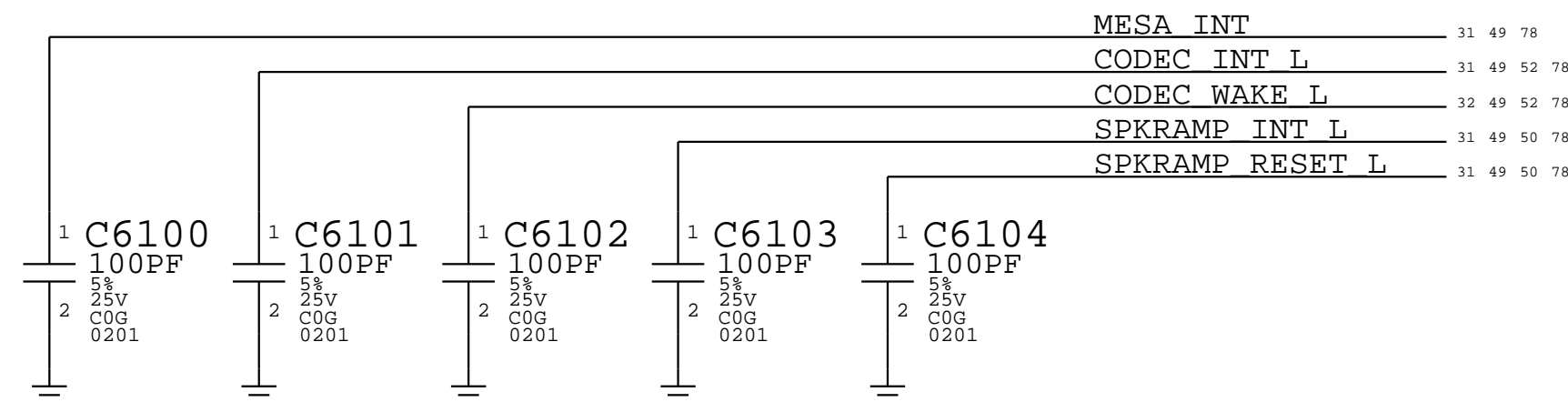
A RIO Flex Connector



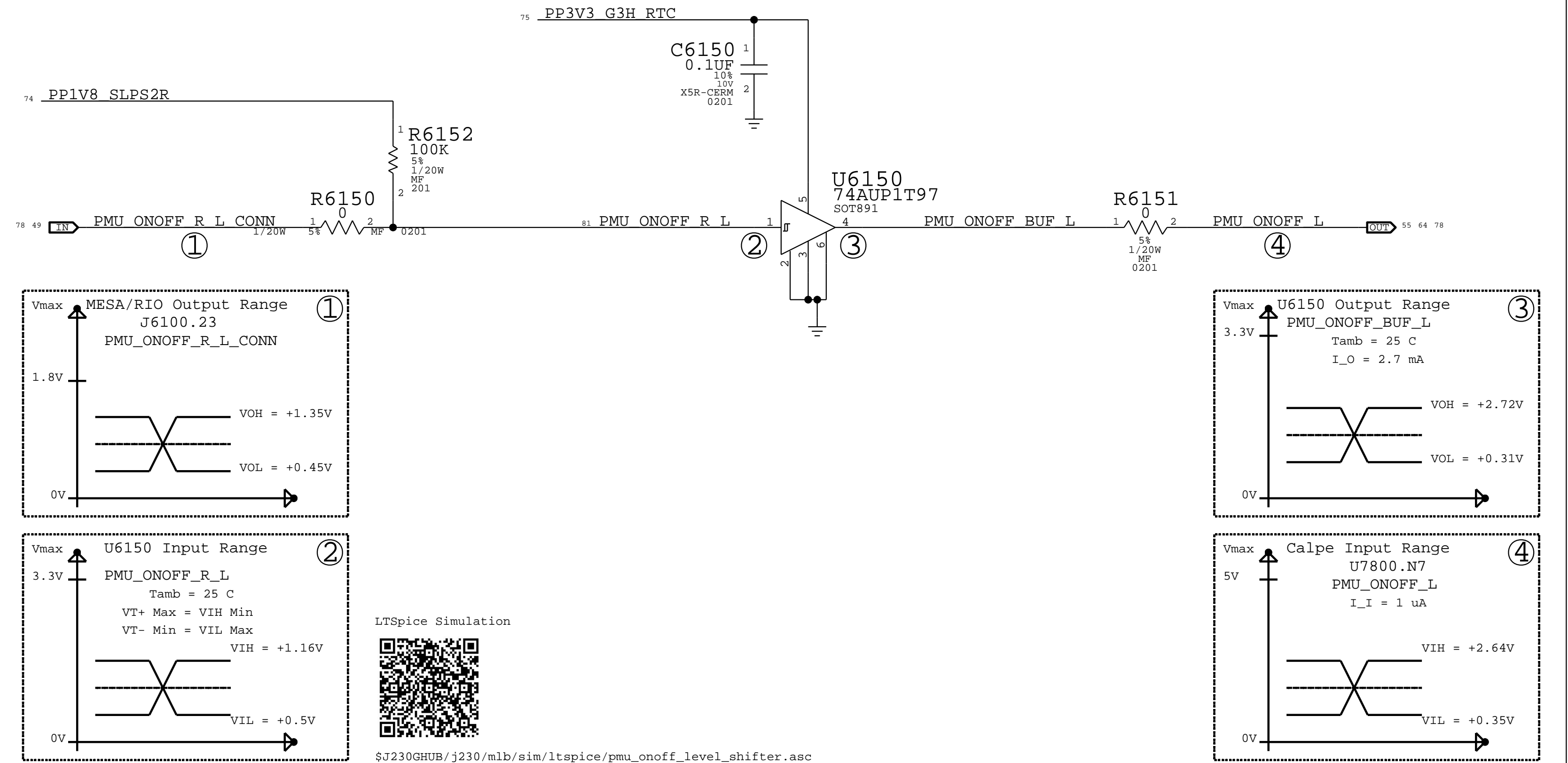
B RIO P3V3\_G3H Connection



C RIO Control Signals



D PMU\_ONOFF\_L Level Shifter



PAGE TITLE			
RIO Connector			
	DRAWING NUMBER	051-05232	
	REVISION	2.0.0	
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	SHEET	49 OF 86	

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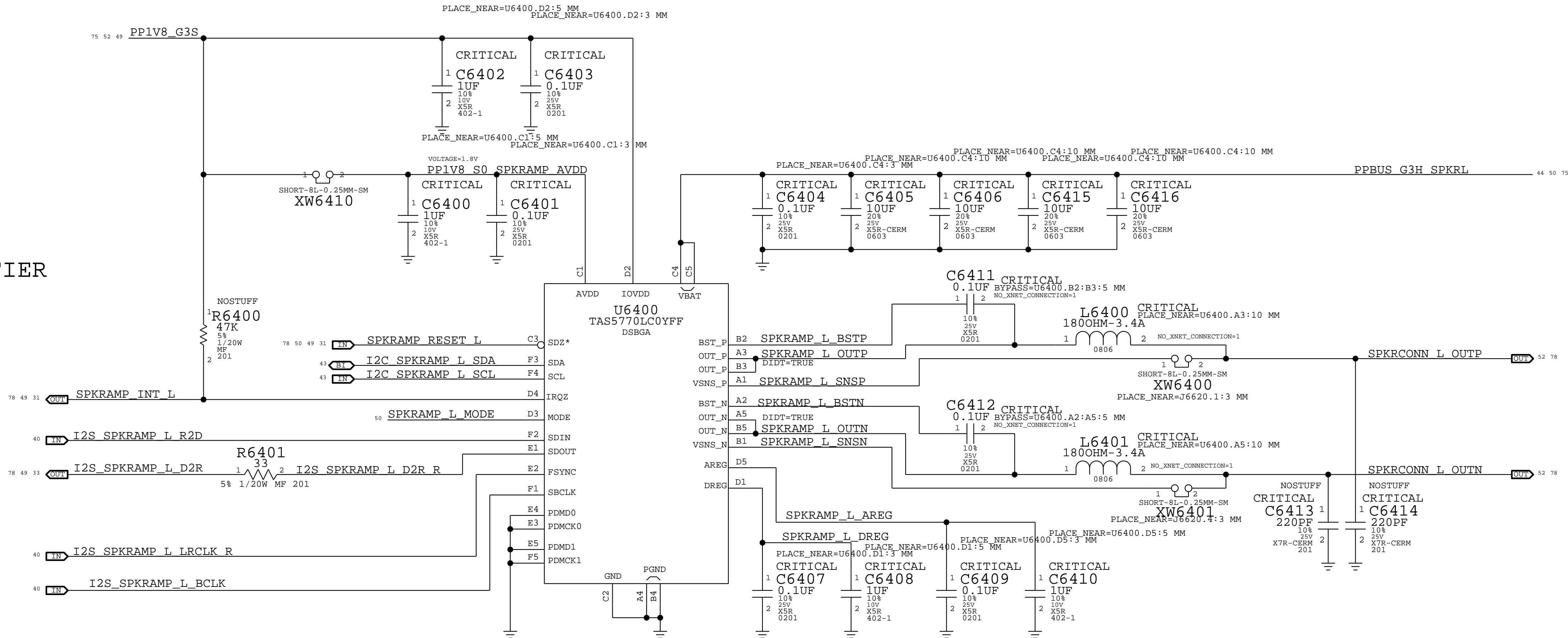


1X MONO SPEAKER AMPLIFIER

APN: 353S01629  
GAIN: 0DBFS = 6.31 VRMS

LEFT AMPLIFIER

LEFT BULK CAPACITANCE



MODE PIN	I2C ADDR	CHANNEL
GND	0x31	LEFT
470 to GND	0x32	
470 to IOVDD	0x33	
2k2 to GND	0x34	
2k2 to IOVDD	0x35	
10k to GND	0x36	
10k to IOVDD	0x37	
47k to IOVDD	0x38	RIGHT

DESIGN: J230/MLB  
LAST CHANGE: Fri Sep 28 20:05:04 2018

Audio Speaker Amplifiers



Apple Inc.

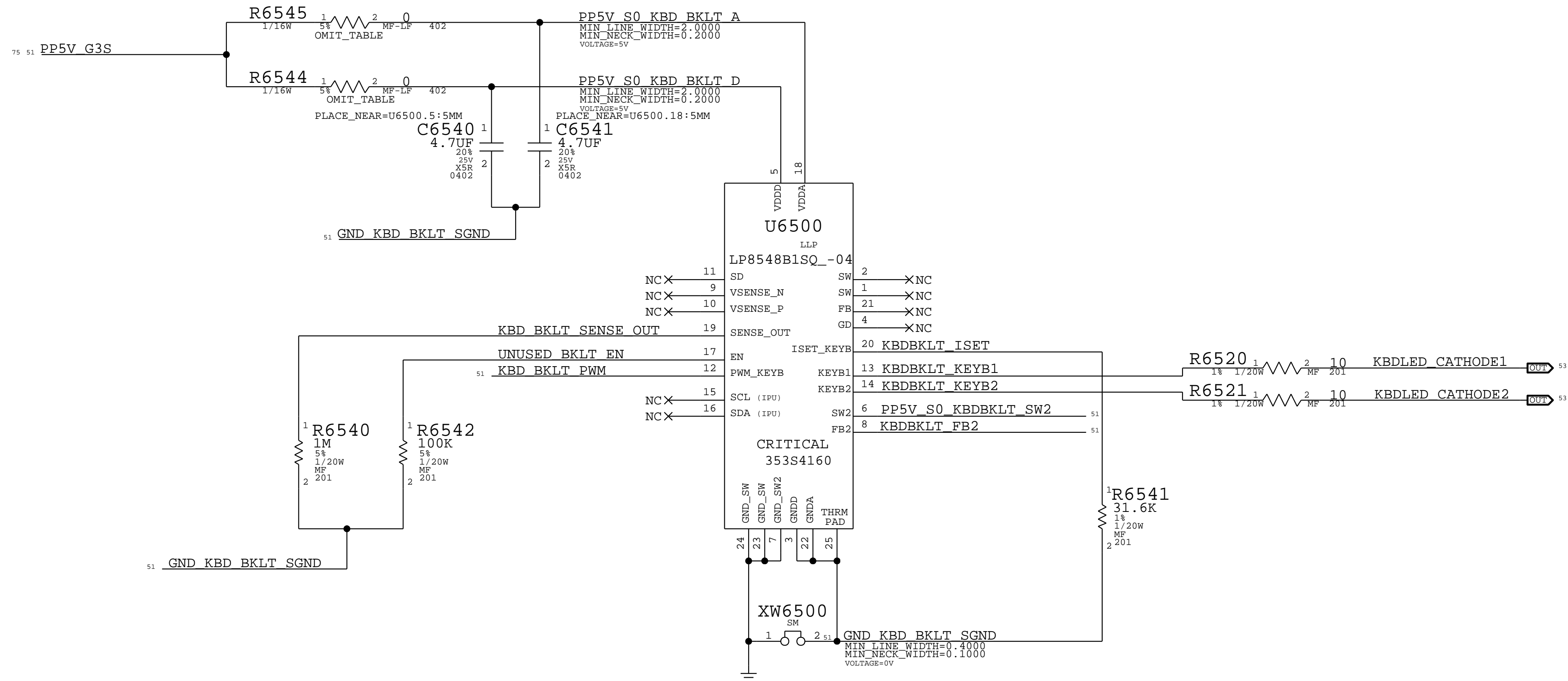
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051-05232	D
REVISION	2.0.0
BRANCH	proto4b
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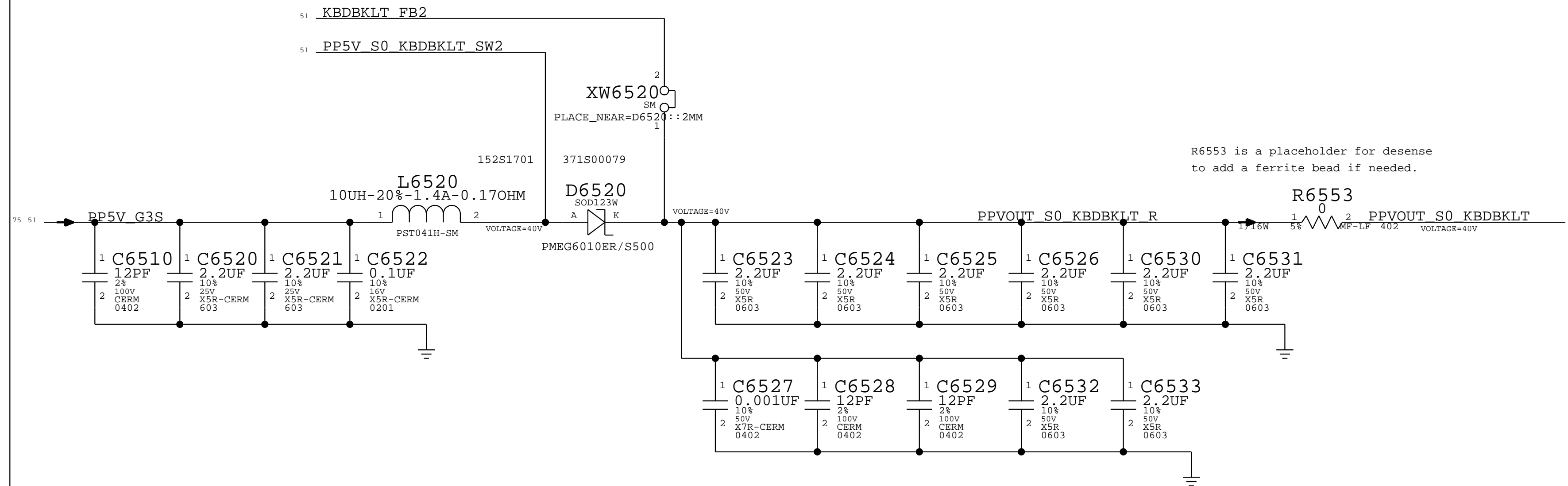
BOM\_COST\_GROUP=AUDIO

## A Keyboard Backlight LED Driver

PART#	QTY	DESCRIPTION	REFERENCE DESIGNATOR(S)	BOM OPTION
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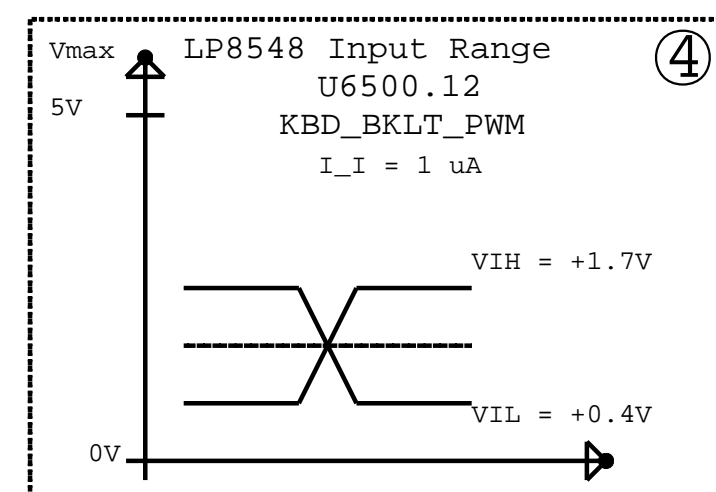
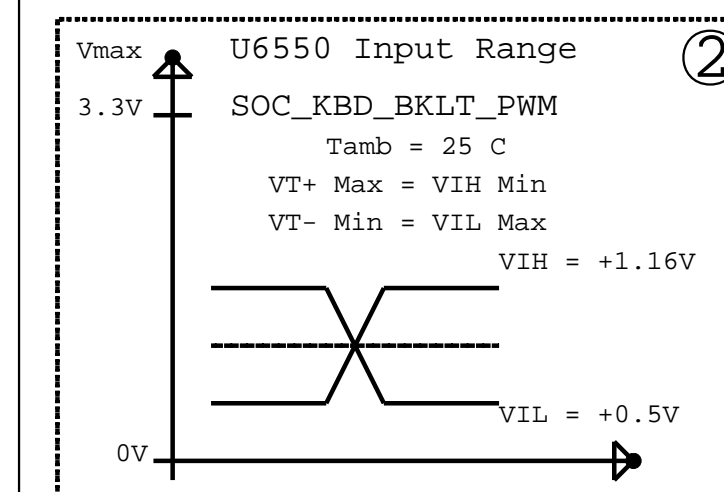
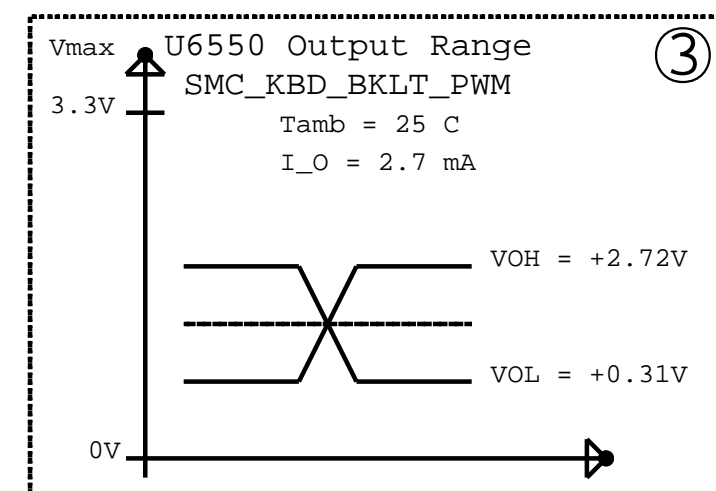
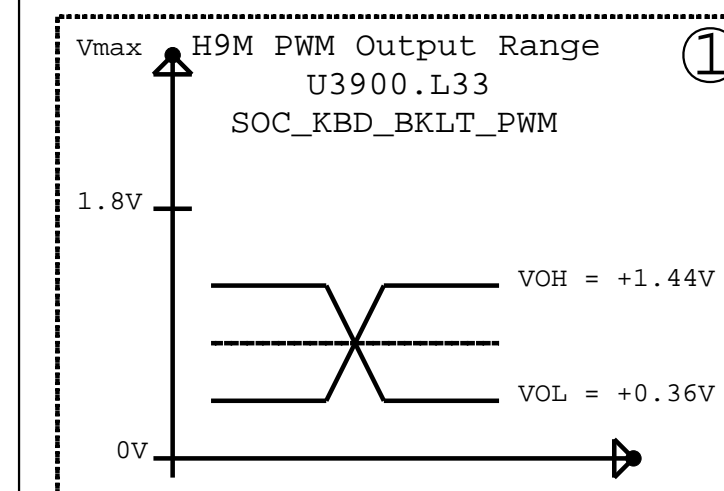
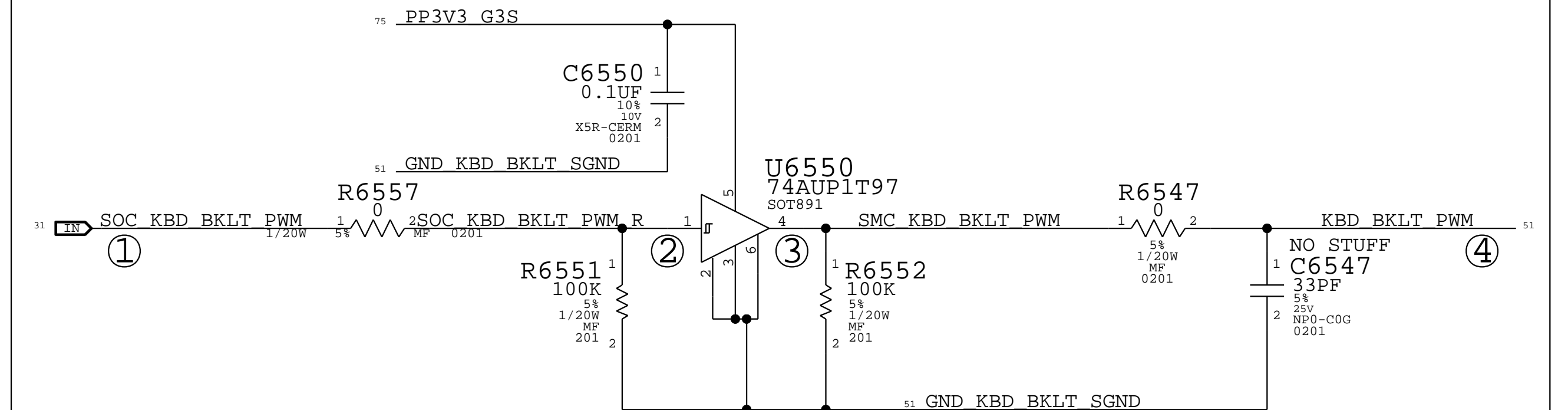
## ⓑ Keyboard Boost Converter Support



## (D) Keyboard Probe Points

PP6500		PP5V S0 KDBDKLT SW2	51
P3MM SM	PP		
PP6501		KDBDKLT FB2	51
P3MM SM	PP		
PP6502		KBD BKLT PWM	51
P3MM SM	PP		
PP6503		GND KBD BKLT SGND	51
P3MM SM	PP		

© Keyboard PWM Level Shifter



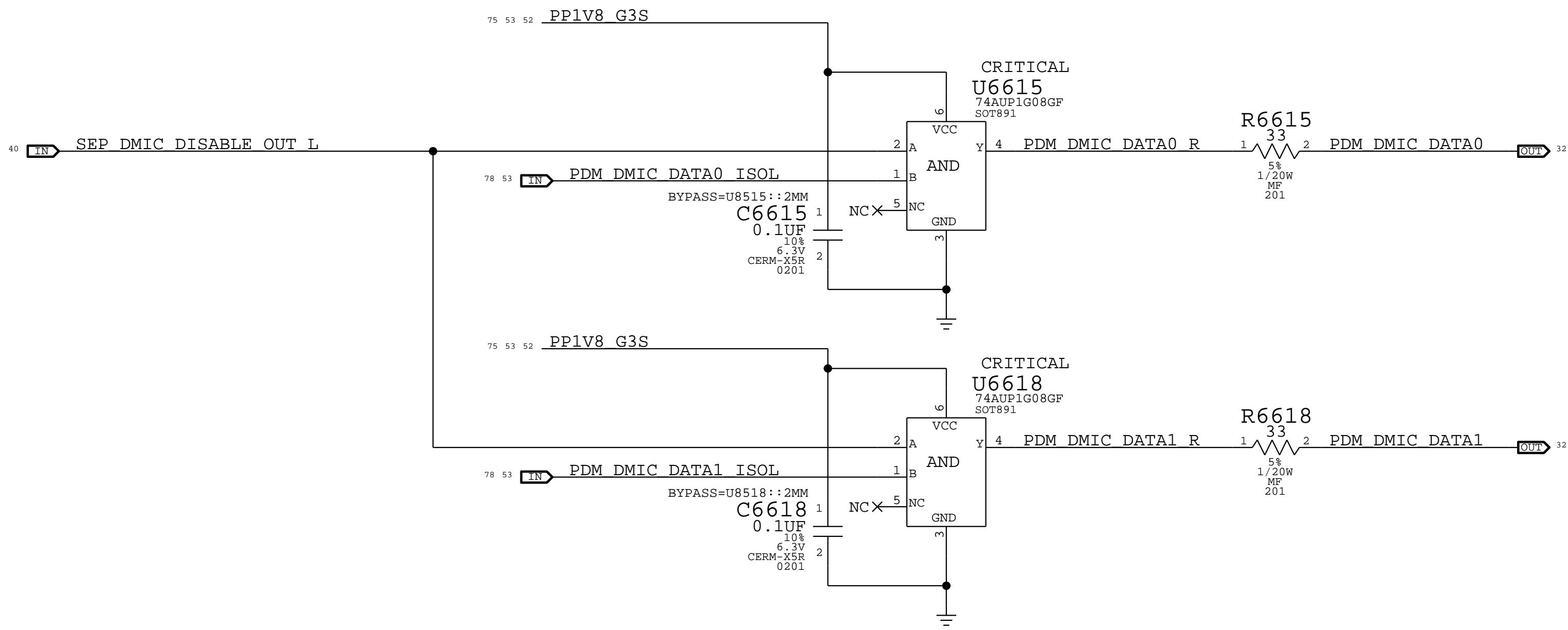
LTSpice Simulation



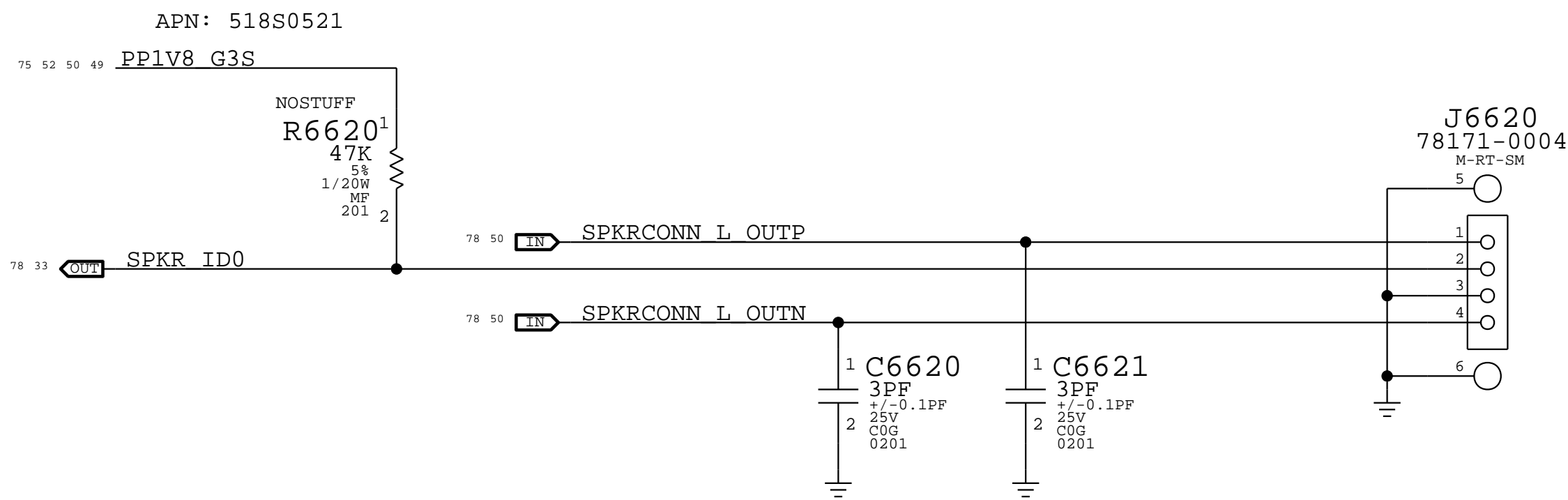
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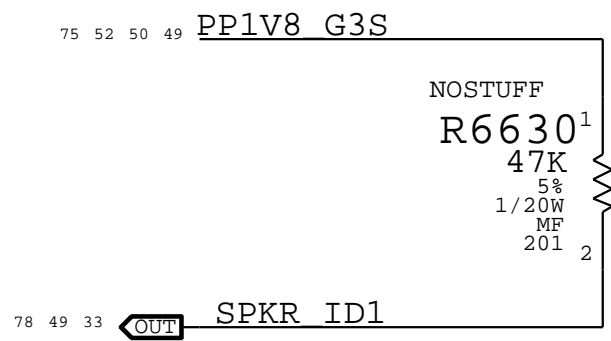
A DMIC Secure Disable



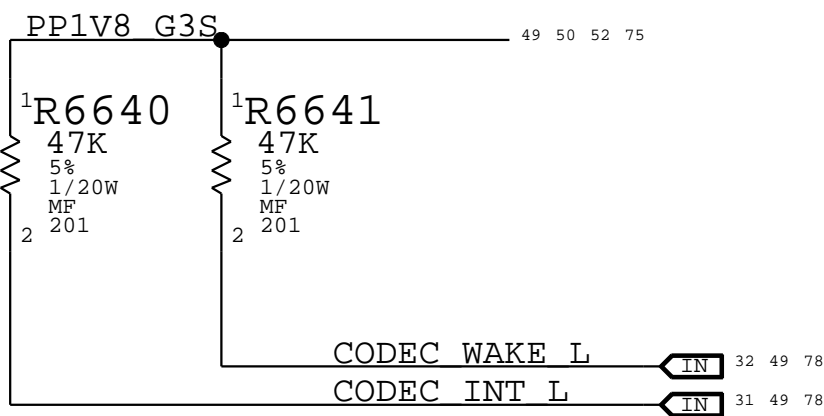
B Left Speaker Connector



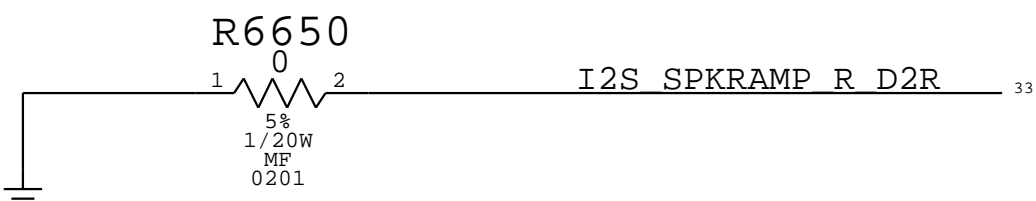
C Right Speaker ID



D Audio Codec Pull-Ups



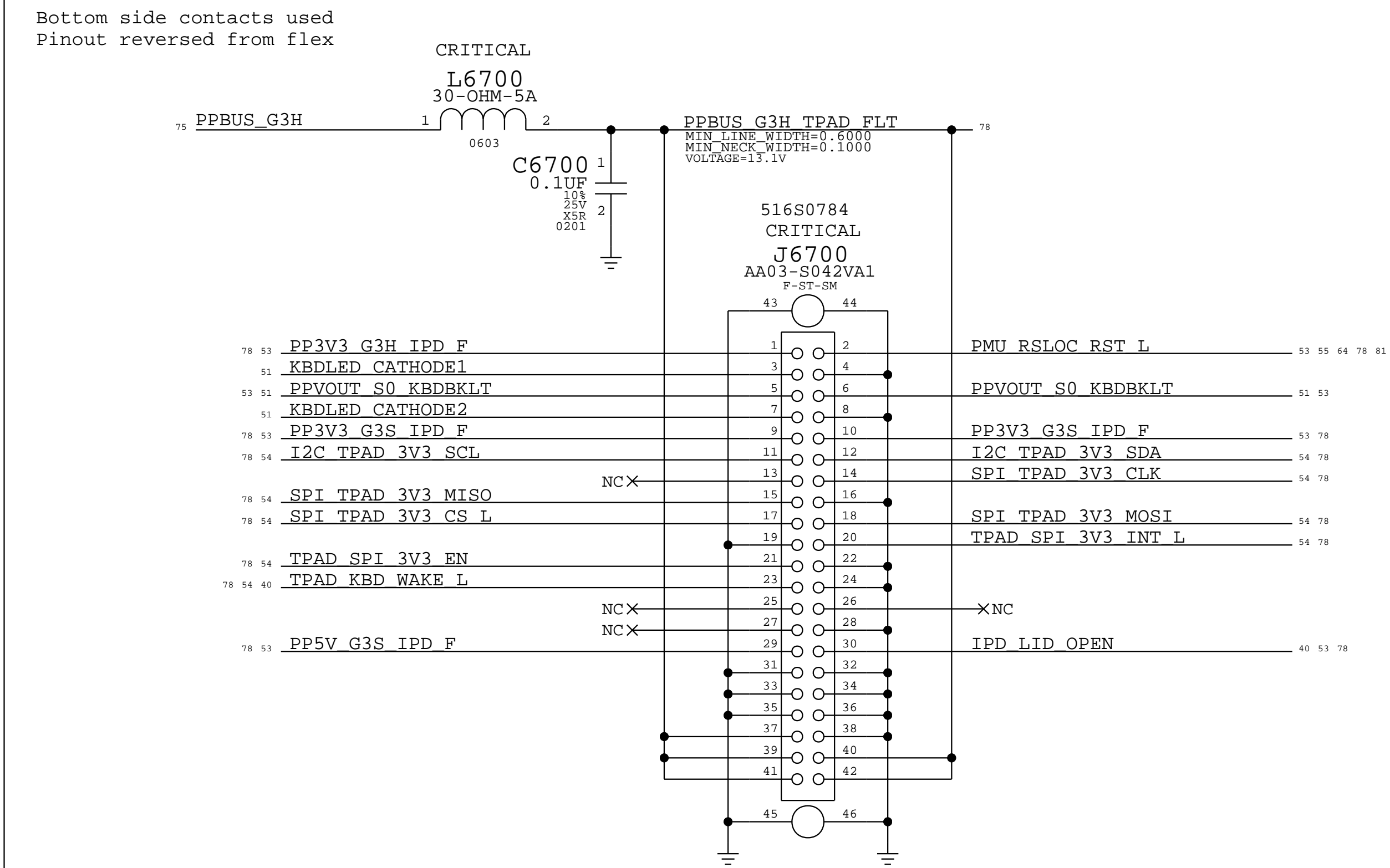
E Speaker Amp Control



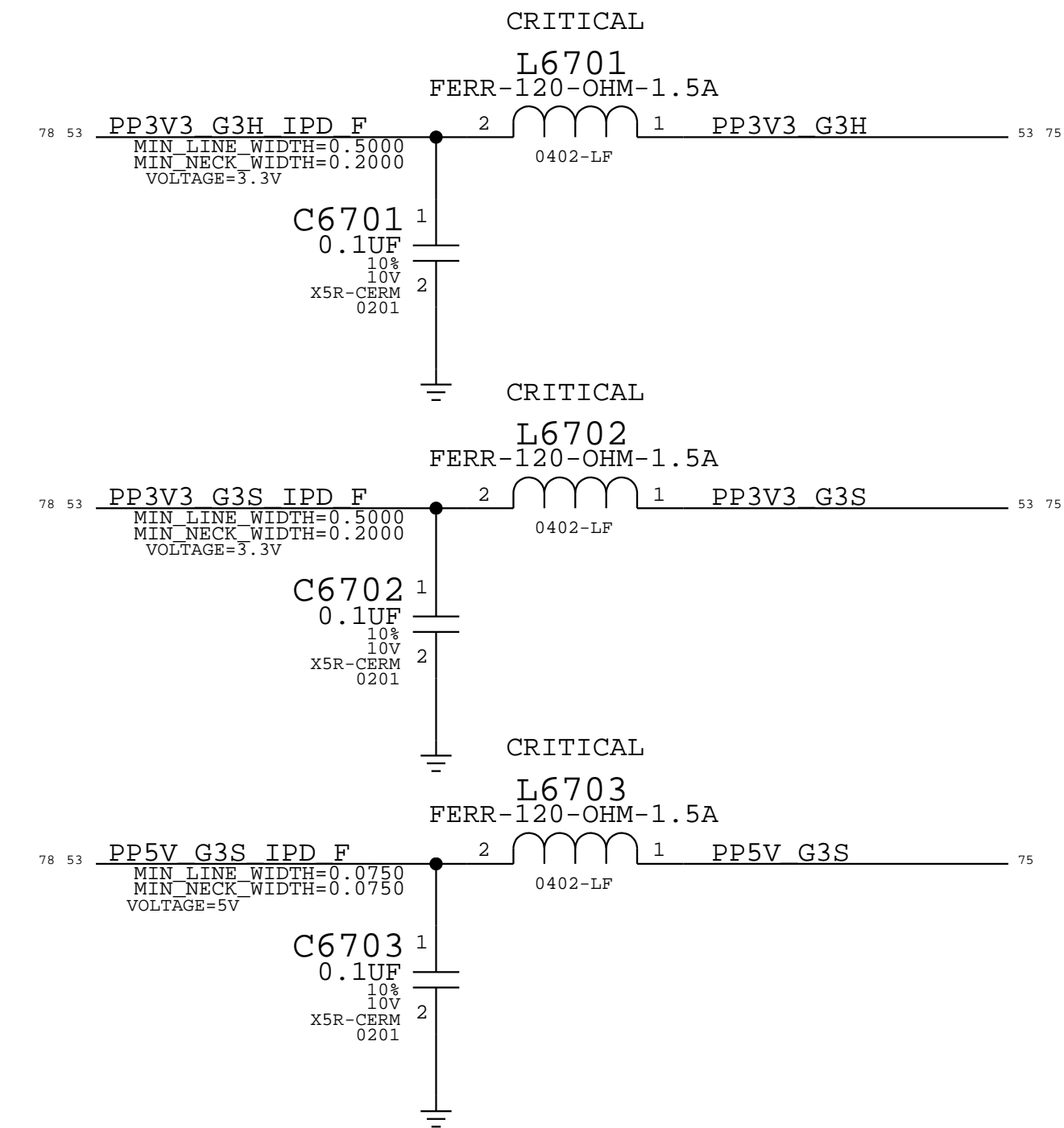
BOM\_COST\_GROUP=AUDIO

DESIGN: J230/MLB		
LAST CHANGE: Fri Sep 28 20:05:04 2018		
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Apple Inc.	DRAWING NUMBER	051-05232
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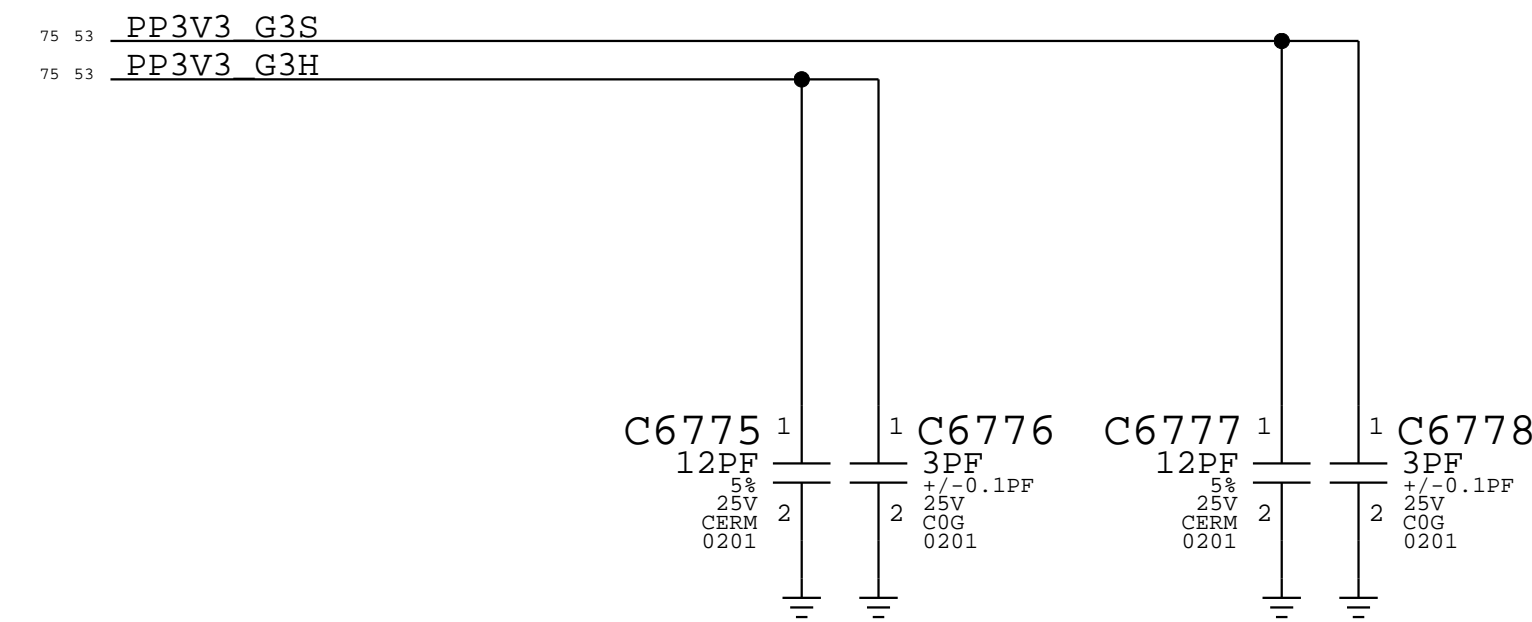
A IPD B2B CONNECTOR



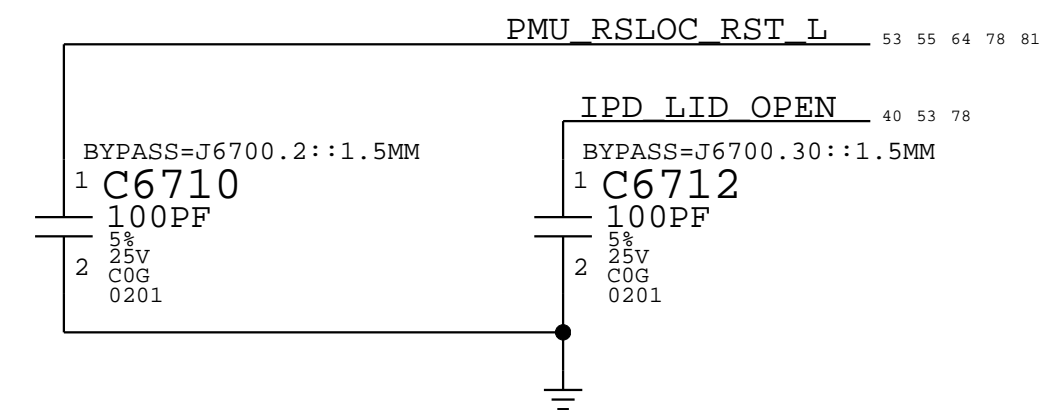
B IPD Power Filters



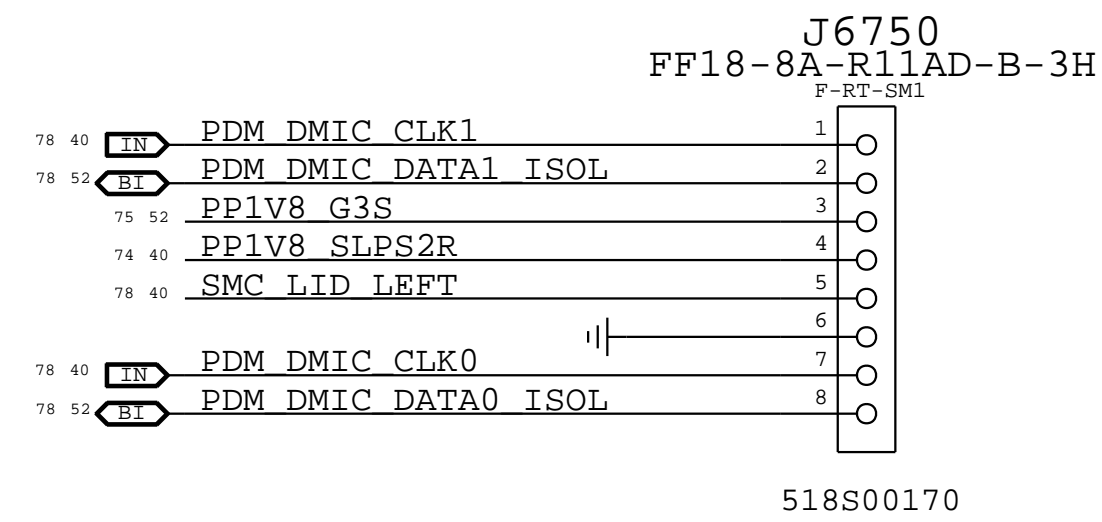
C IPD Desense



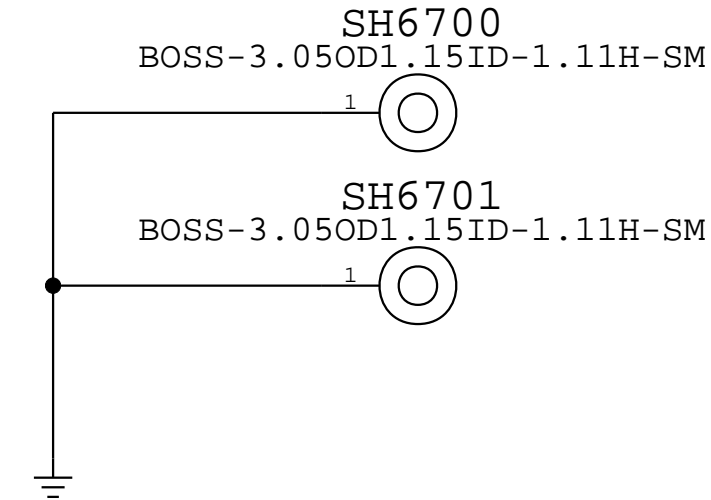
D IPD Control




E Microphone Connector



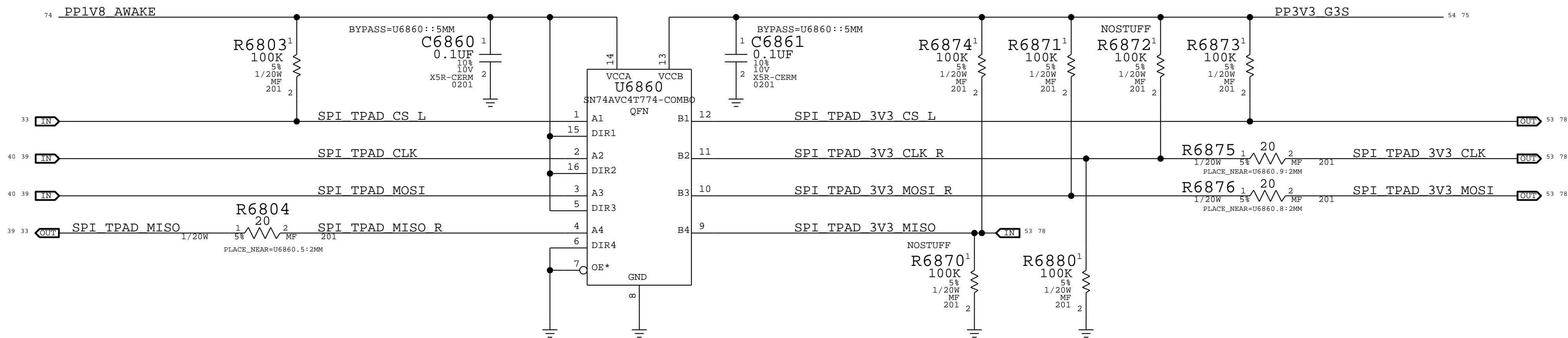
F IPD Connector Bosses



SYNC_MASTER=X260_MLB		SYNC_DATE=02/16/2017	
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Keyboard & Trackpad 1			
 Apple Inc.	DRAWING NUMBER		SIZE
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	proto4b		
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BOM\_COST\_GROUP=TRACKPAD

## A Trackpad SPI Bus Level Shifter (+1.8V to +3.3V)



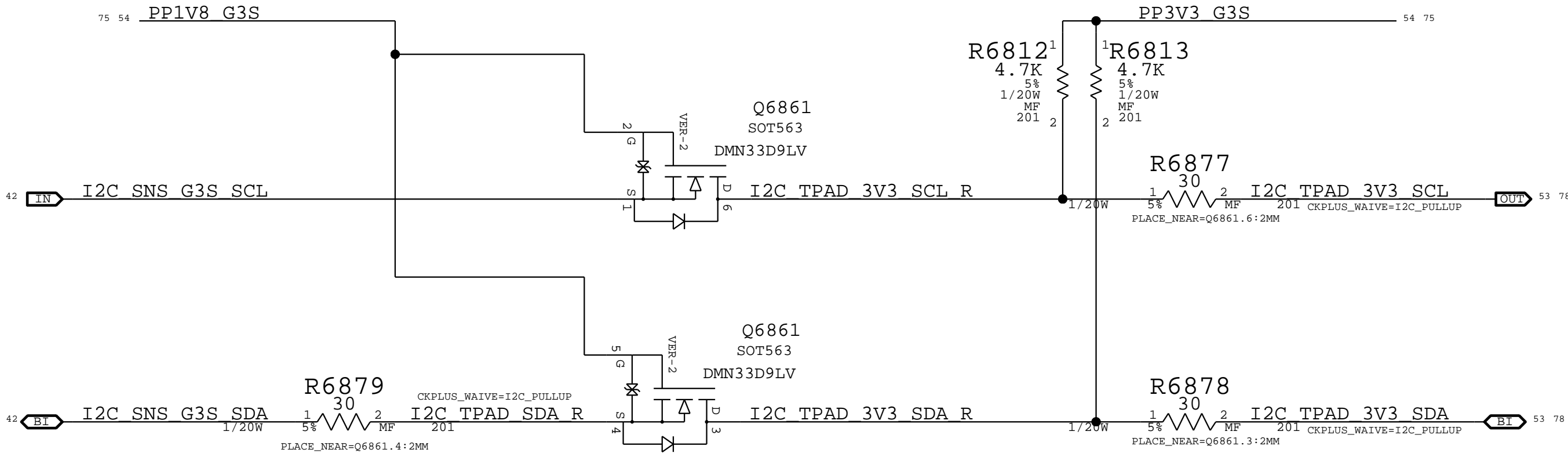
PROJECT	J230k = 0x3F
	B RESISTOR
BOARDID[5]	= SPI_TPAD_CLK 1 pull-down
BOARDID[4]	= SPI_TPAD_MISO* 1 pull-up
BOARDID[3]	= SPI_TPAD_MOSI 1 pull-up
BOARDID[2]	= SPI_SOCROM_MISO 1
BOARDID[1]	= SPI_SOCROM_MOSI 1
BOARDID[0]	= SPI_SOCROM_CLK 1

SN74AVC4T774 Truth Table

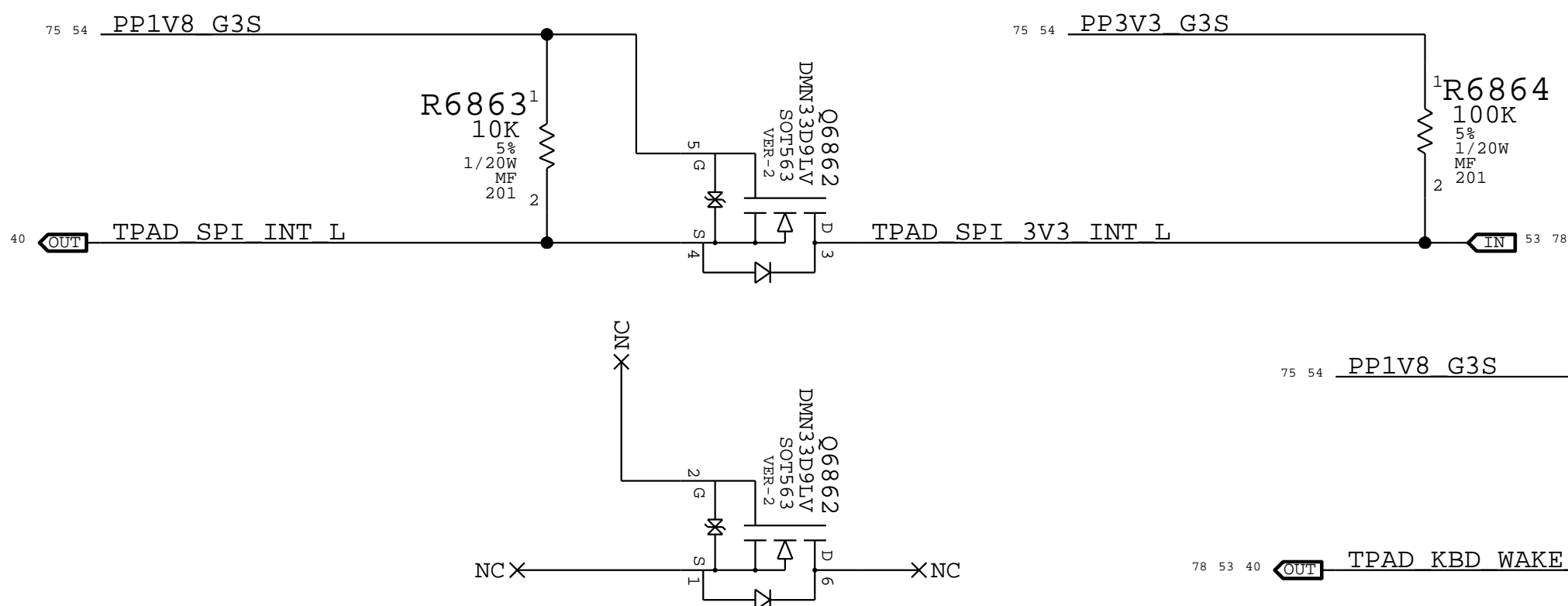
CTRL INPUTS		OUTPUT CIRCUITS		OPERATION
/OE	DIR	A PORT	B PORT	
L	L	Enabled	Hi-Z	B data to A data
L	H	Hi-Z	Enabled	A data to B data
H	X	Hi-Z	Hi-Z	Isolation

SPI\_TPAD\_CLK, SPI\_TPAD\_MOSI, and SPI\_TPAD\_CLK are shared signals with BOARDID on CSA 47.  
Ensure signals that drive from +3.3V to +1.8V (i.e., towards Gibraltar) are properly strapped based on the desired BOARDID.

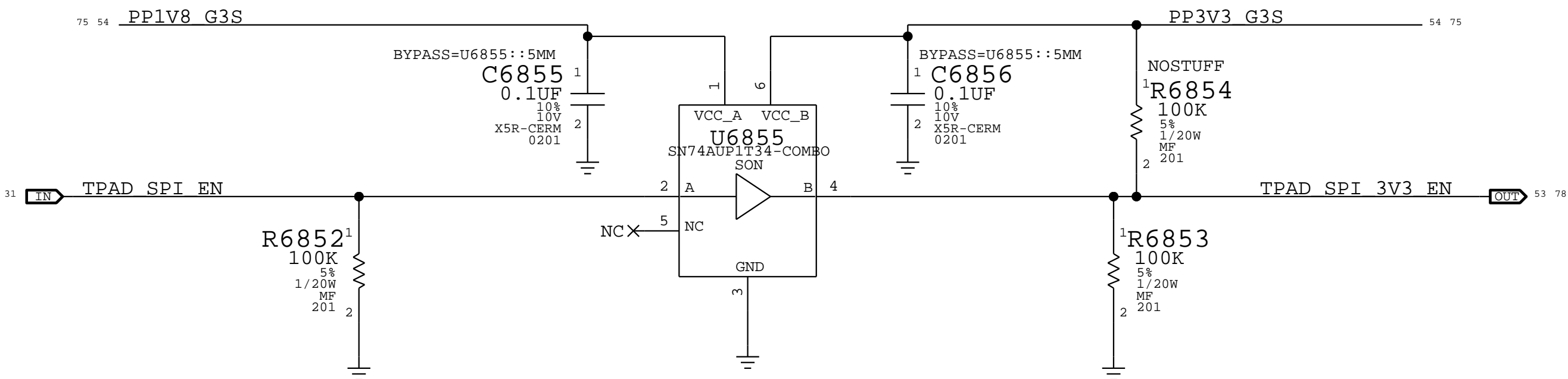
## B Trackpad I2C Bus Level Shifter




## C Trackpad Control Level Shifter



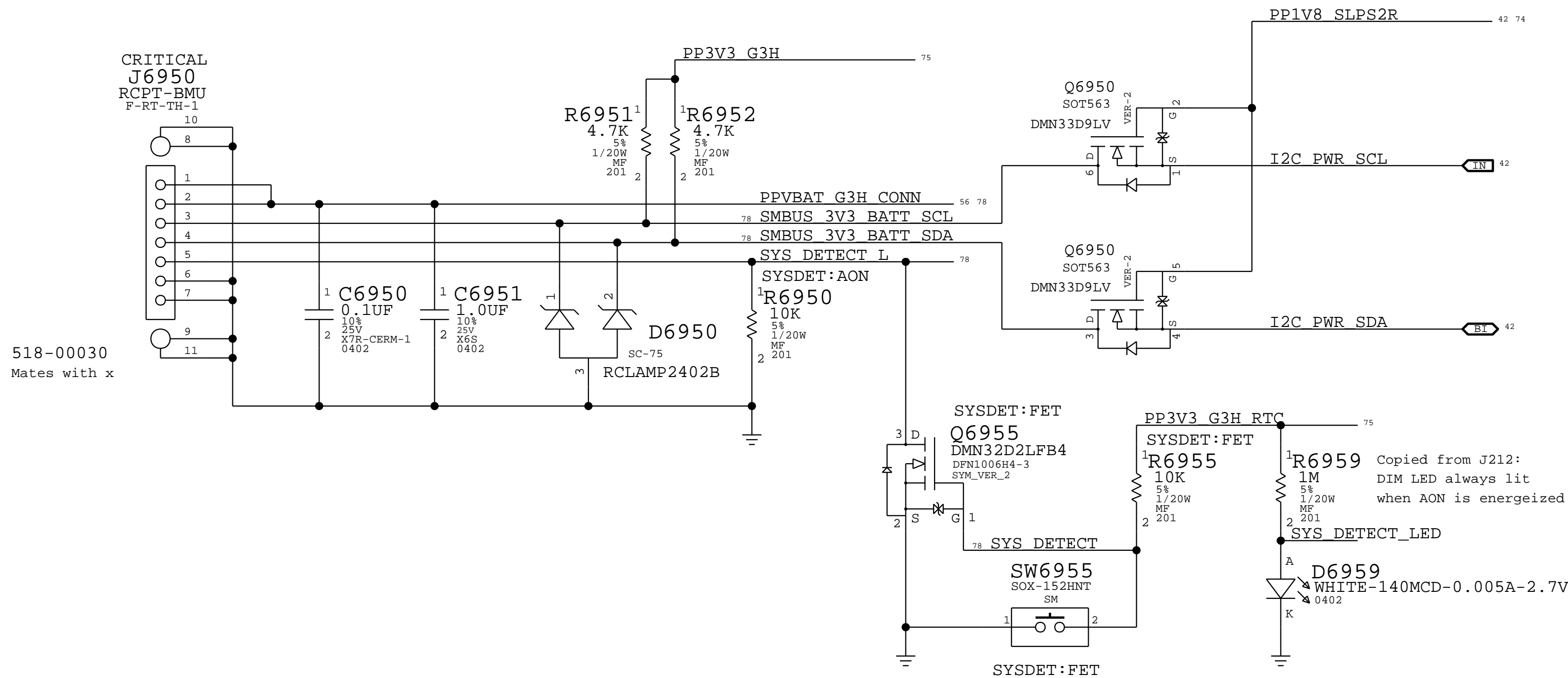
## D Trackpad SPI Enable Level Shifter



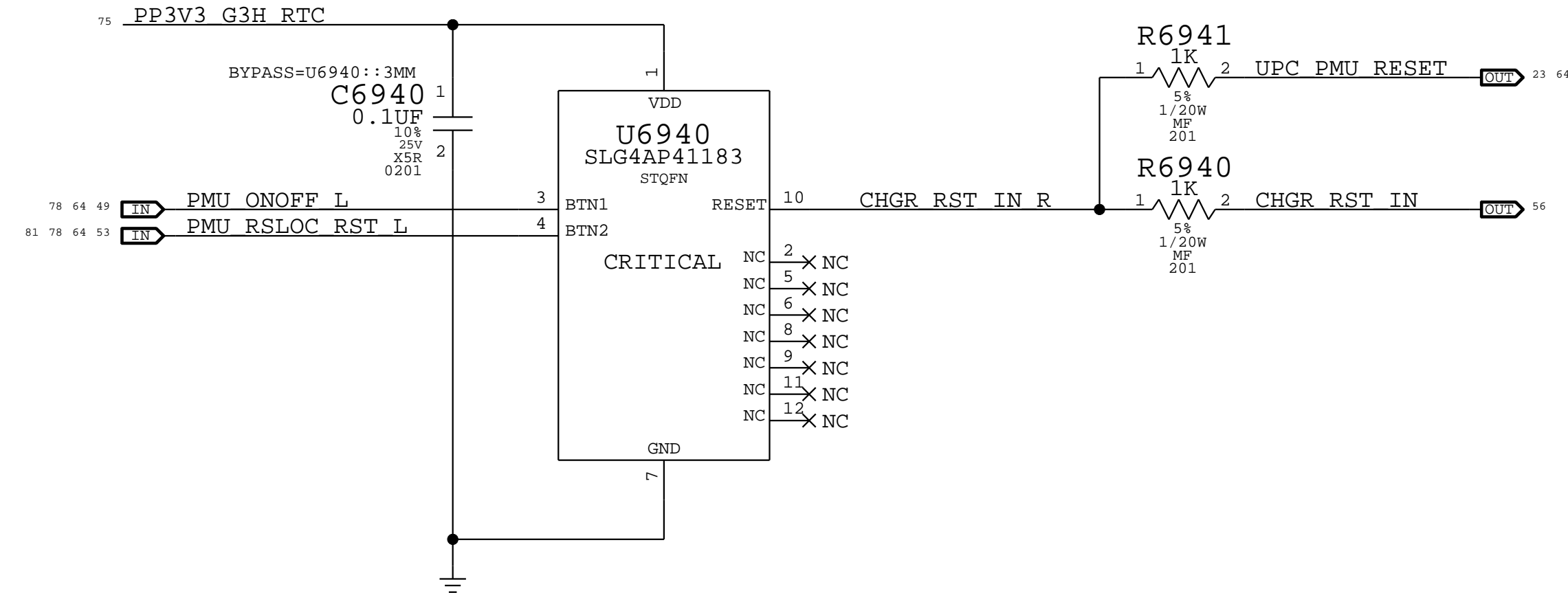
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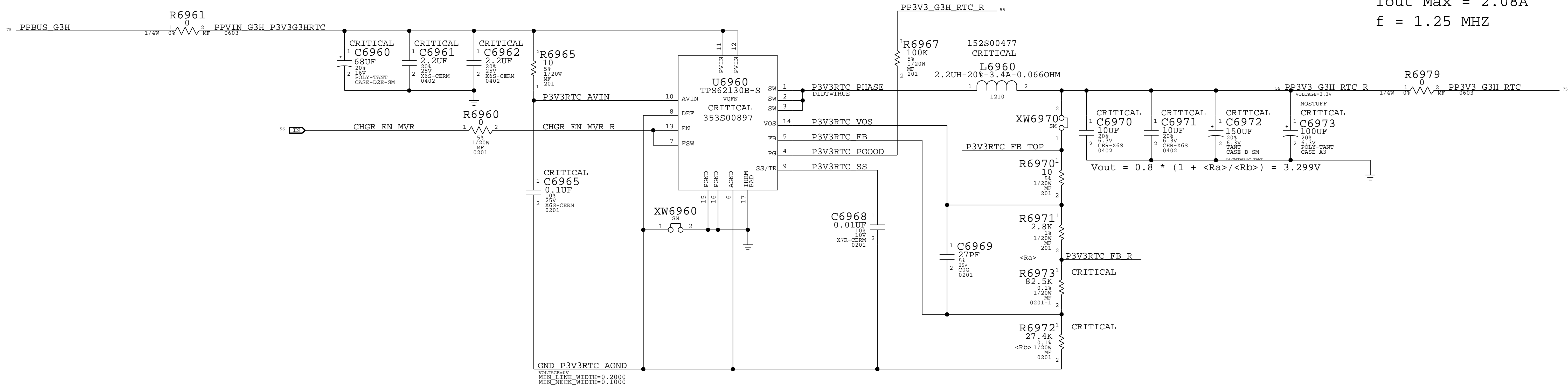
## A DC-In & Battery Connector



## B Charger Reset Circuit

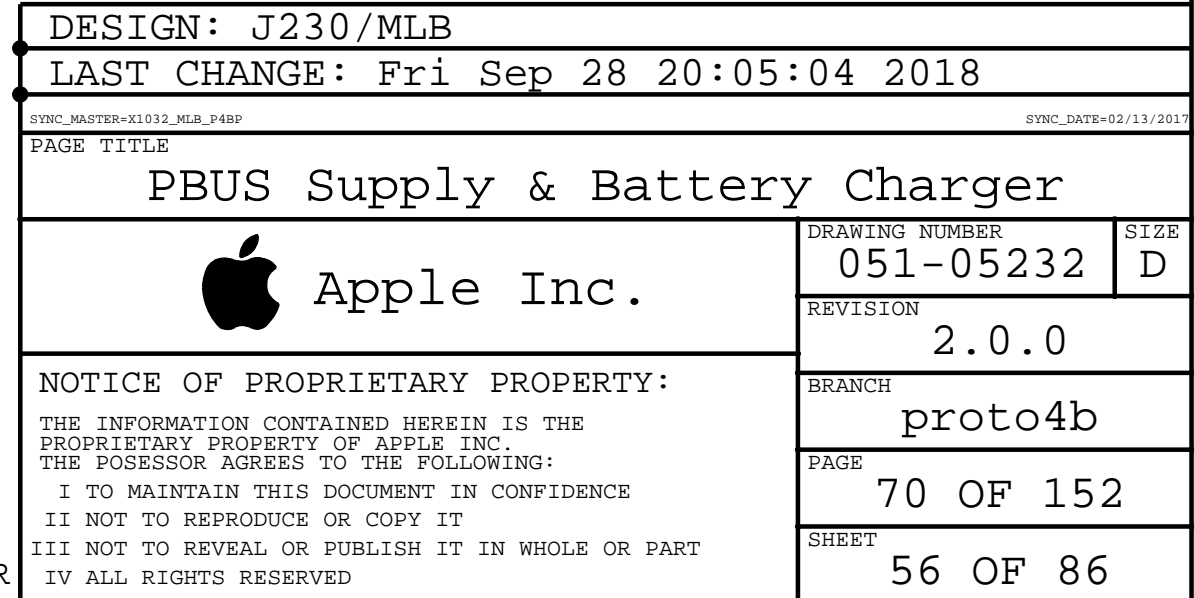


## C 3.3V G3H RTC Voltage Regulator

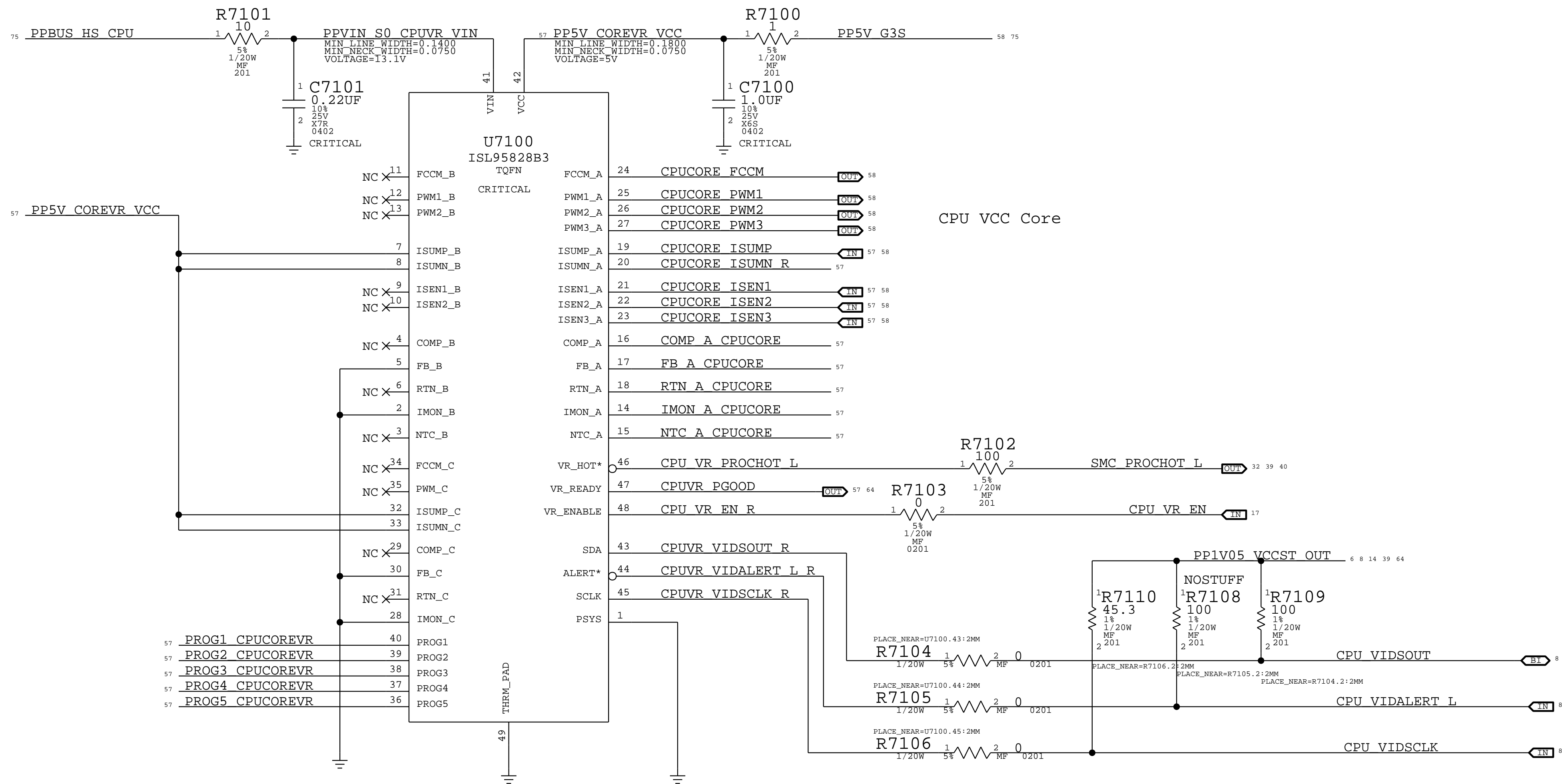


DC-In & Battery Connectors		DRAWING NUMBER	051-05232	SIZE	D
Apple Inc.		REVISION	2.0.0		
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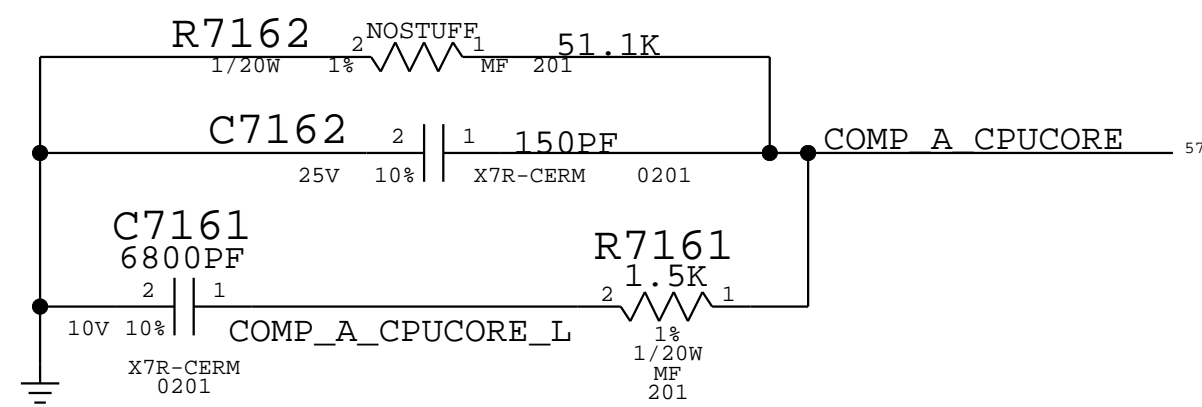
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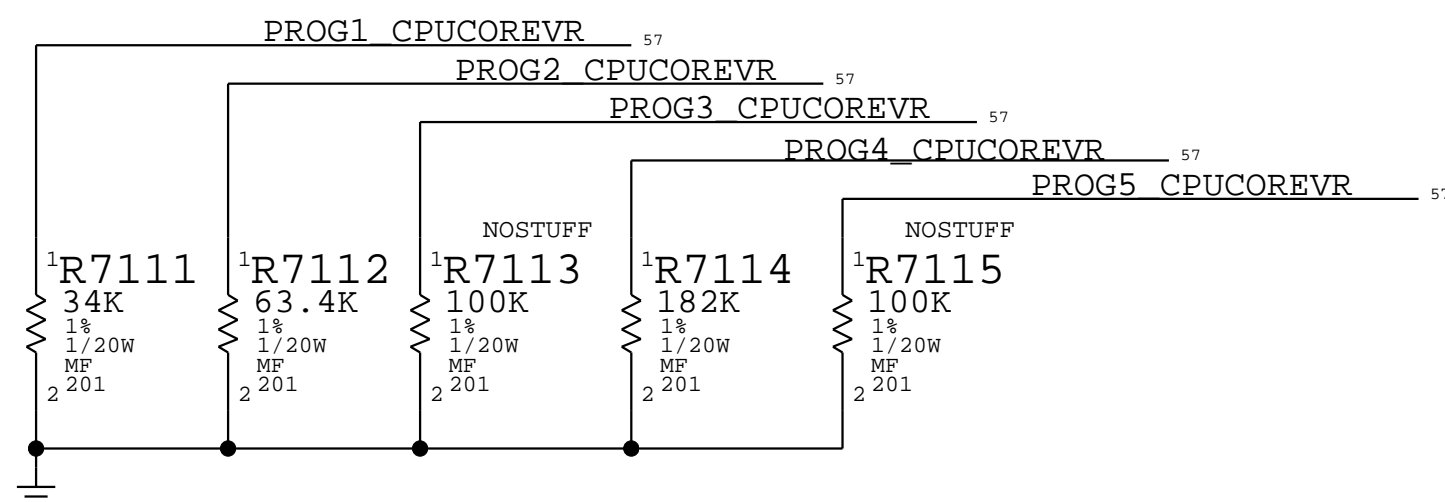
## A CPU Core IMVP9 PWM Controller



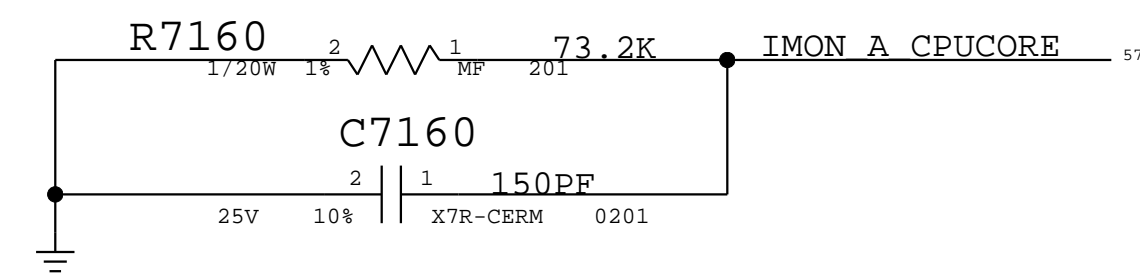
## D CPU Core Comp Network



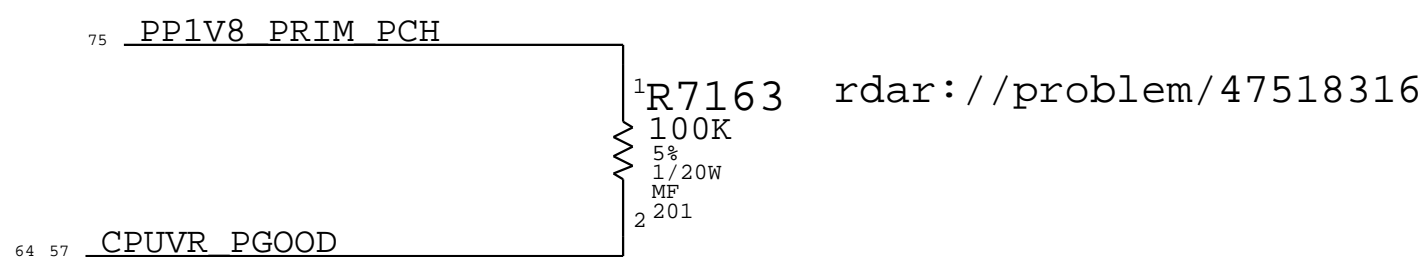
## E CPU Core Prog Options



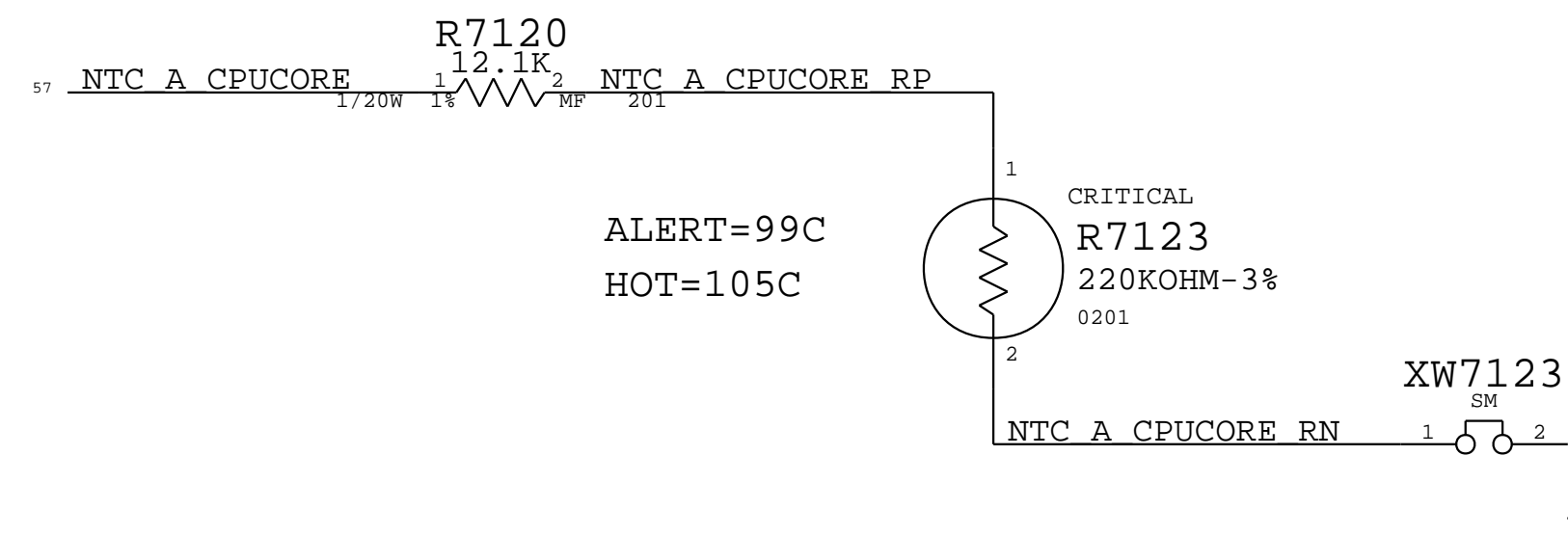
## F CPU Core IMON Network



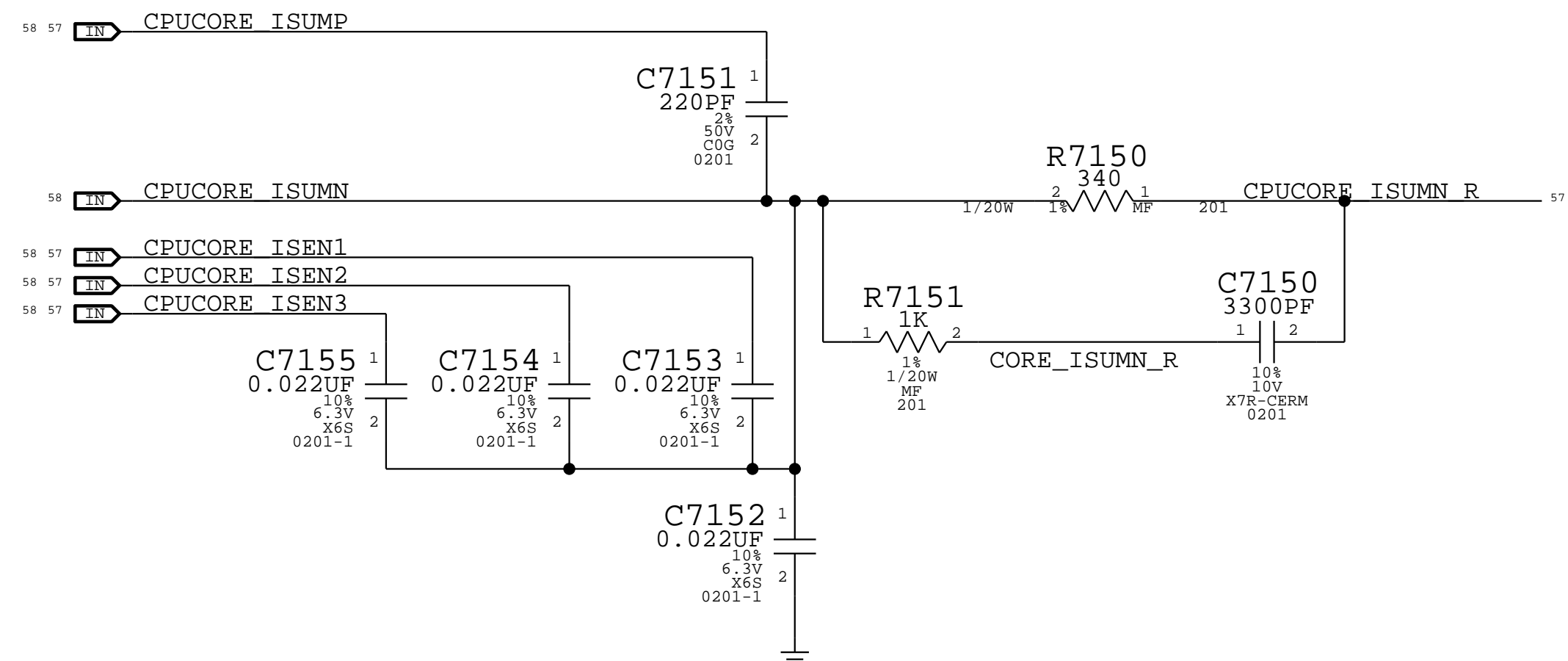
## G CPU Core Power Good



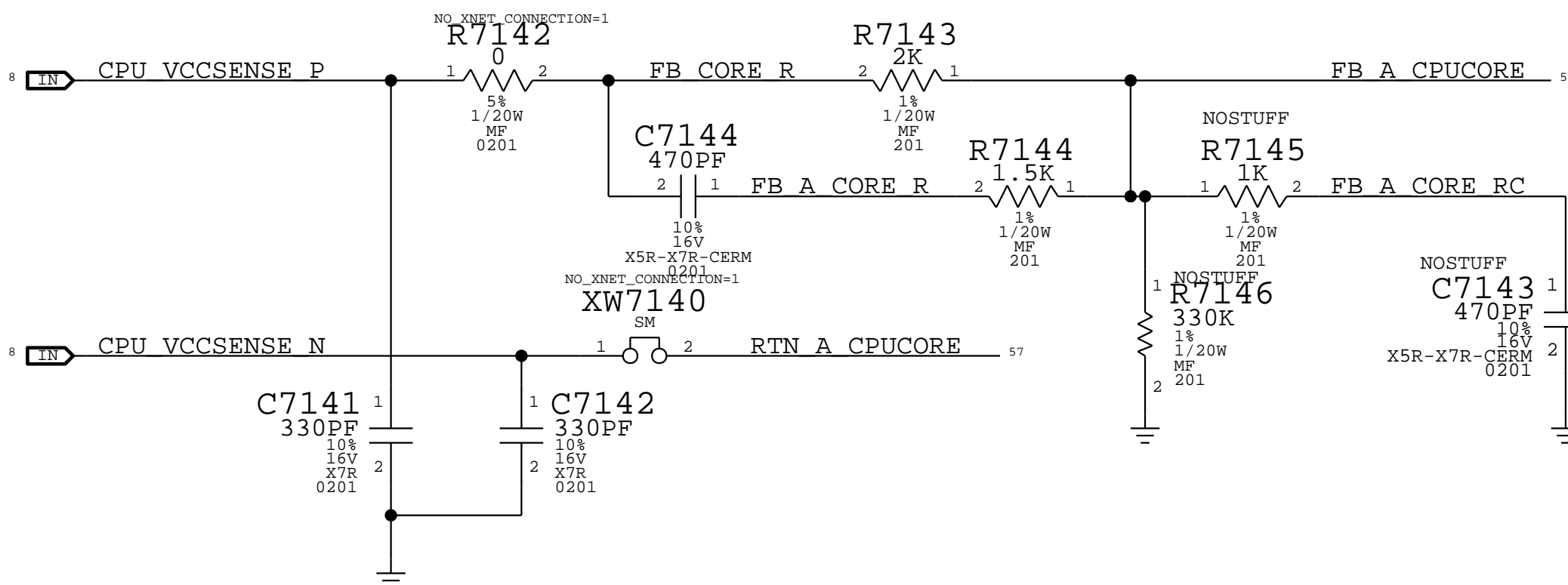
## H CPU Core Thermistor




## B CPU Core ISUM Network



## C CPU Core Feedback Network



BOM\_COST\_GROUP=CPU & CHIPSET

PAGE TITLE		
IMVP9 IC		
 Apple Inc.	DRAWING NUMBER	051-05232
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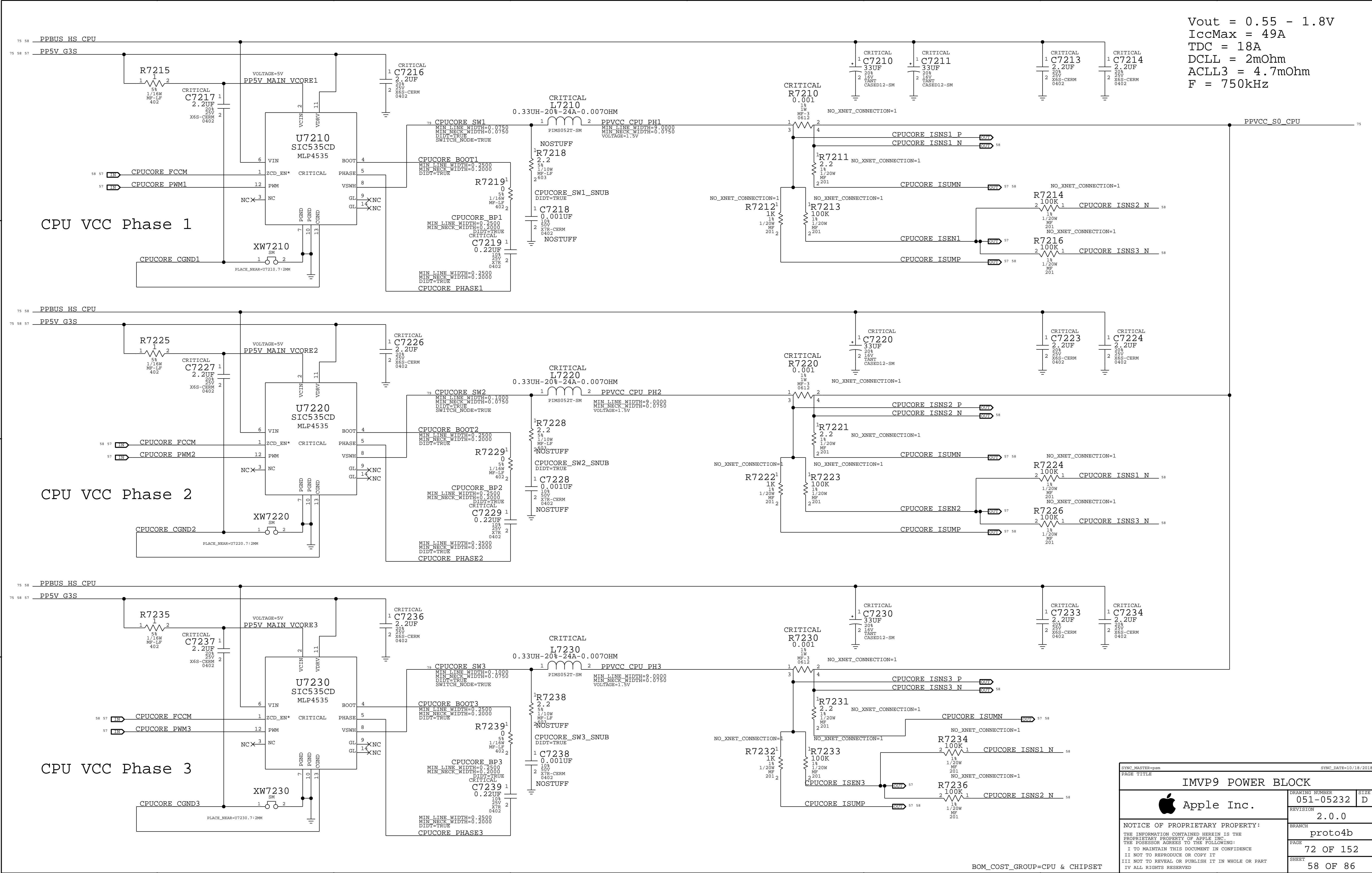
A

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A




Vout = 0.55 - 1.8V  
IccMax = 49A  
TDC = 18A  
DCLL = 2mOhm  
ACLL3 = 4.7mOhm  
F = 750kHz

SYNC\_MASTER=psm

SYNC\_DATE=10/18/2018

PAGE TITLE

IMVP9 POWER BLOCK



Apple Inc.

DRAWING NUMBER

051-05232

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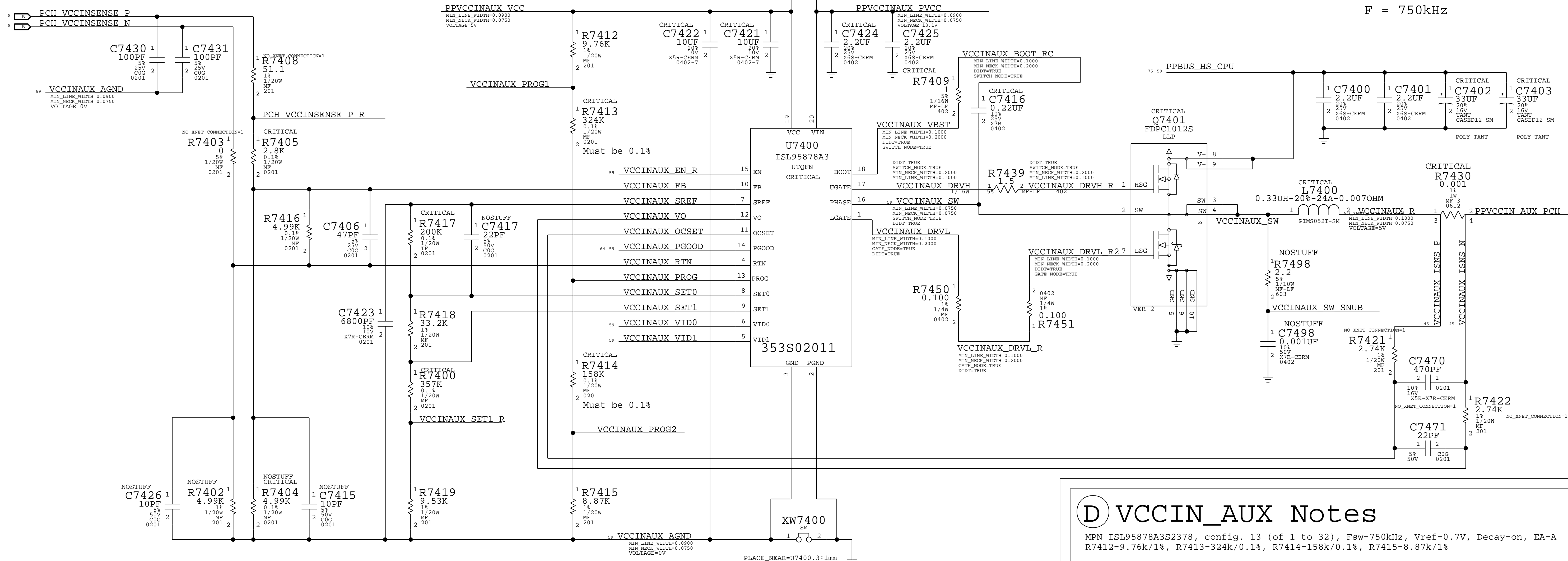
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BOM\_COST\_GROUP=CPU & CHIPSET

## A VCCIN\_AUX Voltage Regulator

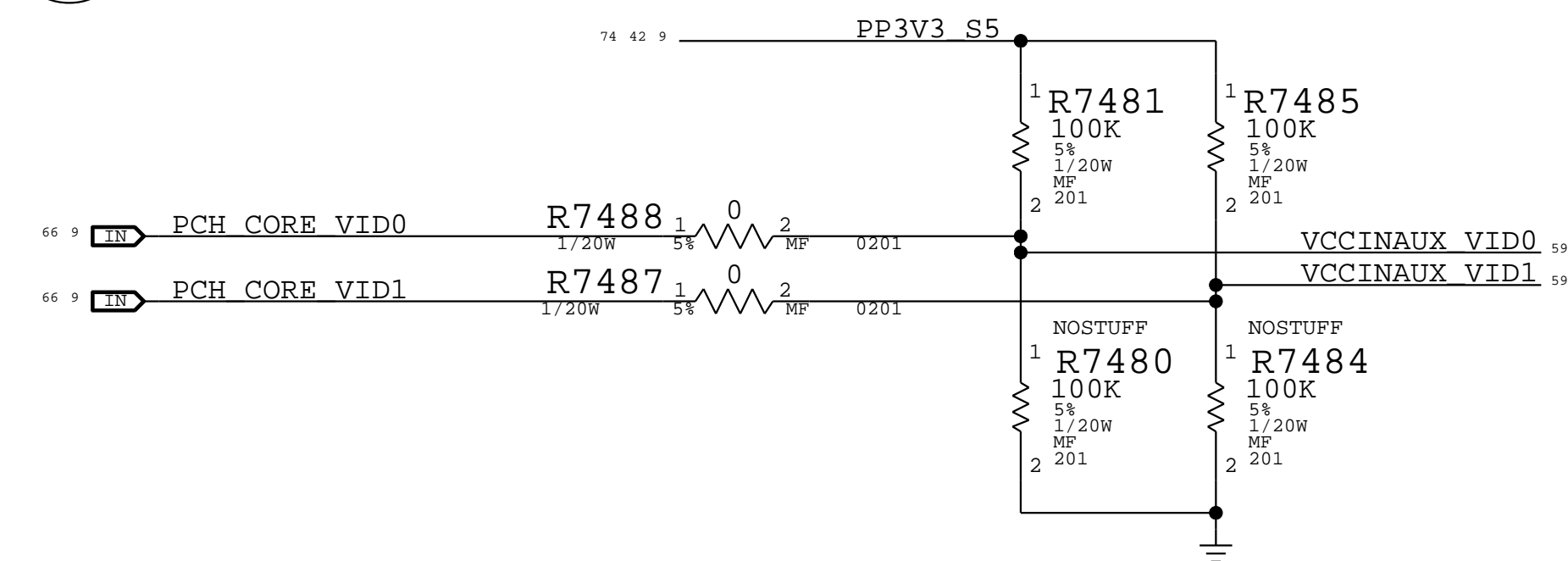


## ④ VCCIN\_AUX Notes

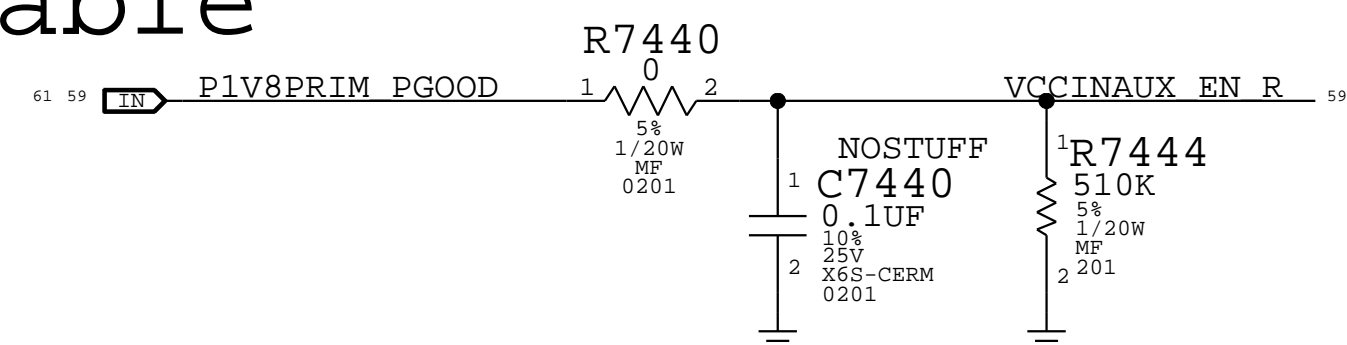
MPN ISL95878A3S2378, config. 13 (of 1 to 32), Fsw=750kHz, Vref=0.7V, Decay=on, EA=A  
R7412=9.76k/1%, R7413=324k/0.1%, R7414=158k/0.1%, R7415=8.87k/1%

MPN ISL95878A3S2378, config. 9 (of 1 to 32), Fsw=750kHz, Vref=0.7V, Decay=off, EA=A  
R7412=47.5k/1%, R7413=324k/0.1%, R7414=127k/0.1%, R7415=1.58k/1%

### ⓑ VID Control

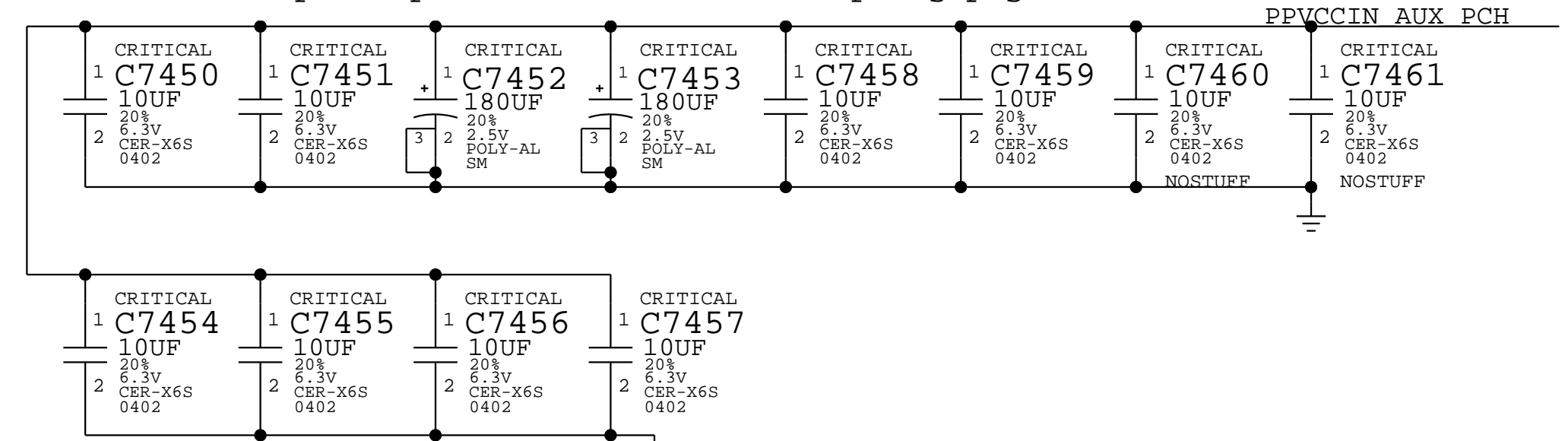


Ⓔ VR Enable

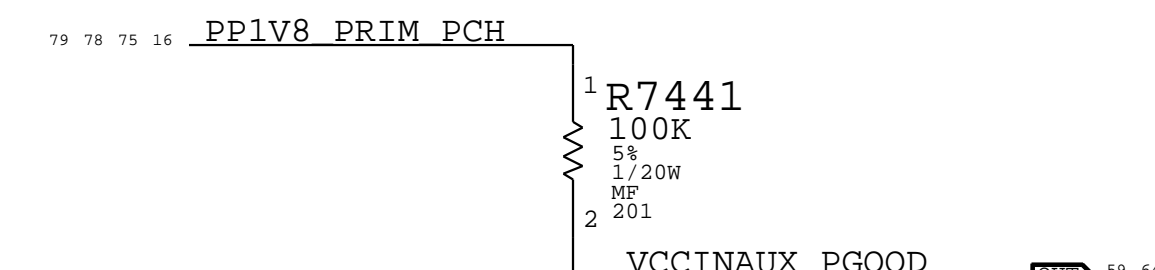


Ⓒ VCCIN\_AUX BHC Caps

Additional output caps are on the CPU decoupling page.

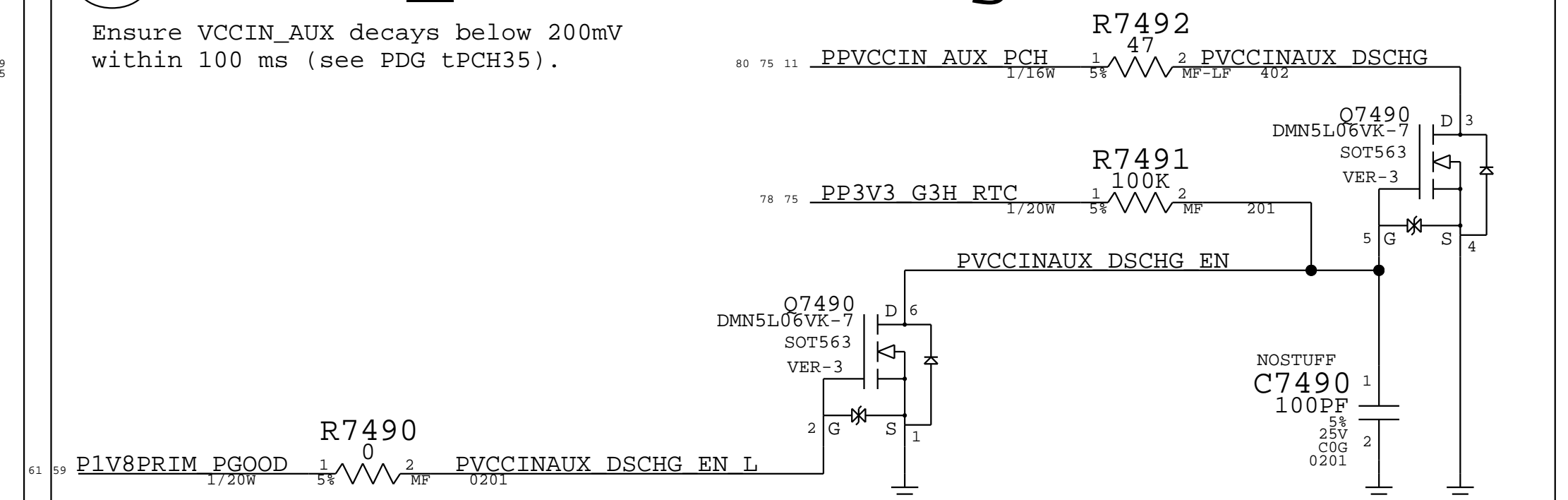


Ⓡ VR PGGOOD




⑦ VCCIN\_AUX Discharge

Ensure VCCIN\_AUX decays below 200mV within 100 ms (see PDG tPCH35).

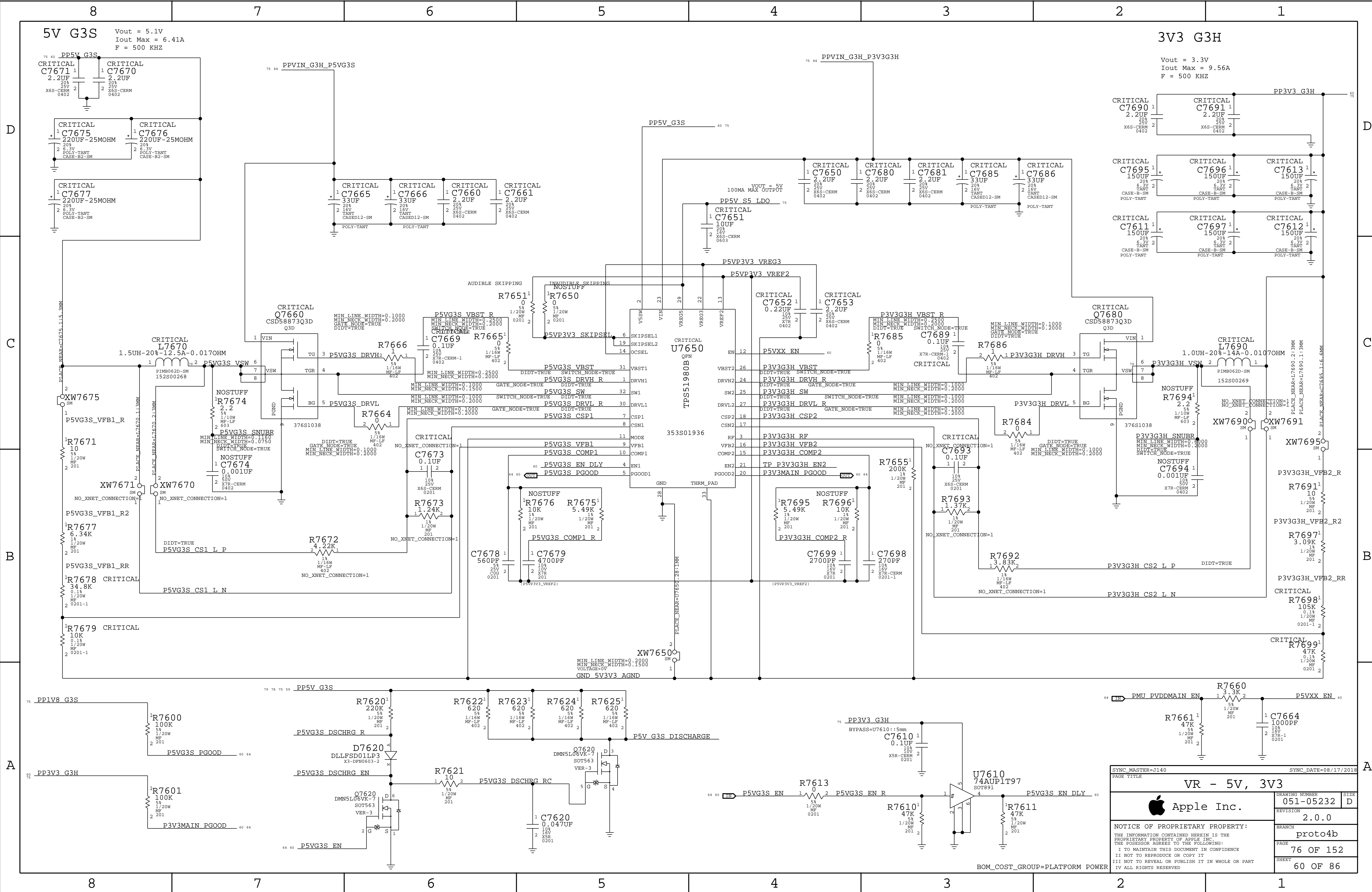


VID[1] Pin State	VID[0] Pin State	VCCIN_AUX (V)	USAGE
0	0	0	Power Saving State
0	1	1.1	Power Saving State
1	0	1.65	Full Current, ICL-Y
1	1	1.8	Initial boot for ICL-U/Y Full Current, ICL-U

BOM\_COST\_GROUP=PLATFORM POWER

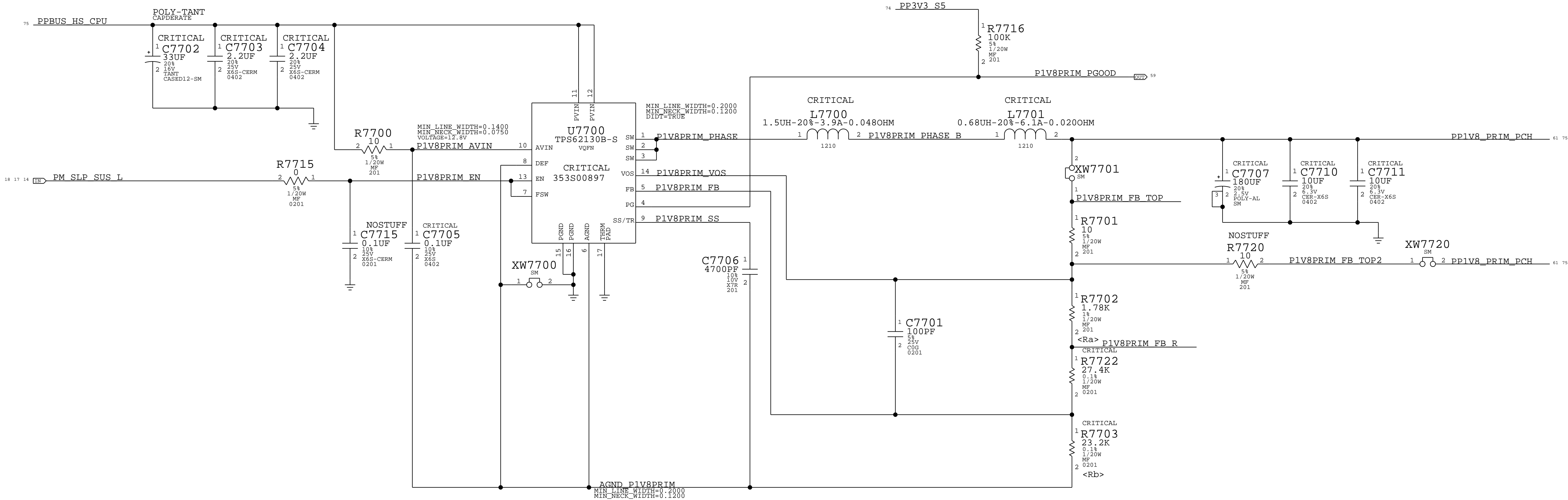
<div><div></div><div>PAGE TITLE</div></div>		
VR: VCCIN_AUX ISL		
<div> Apple Inc.</div>	DRAWING NUMBER	SIZE
	051-05232	D
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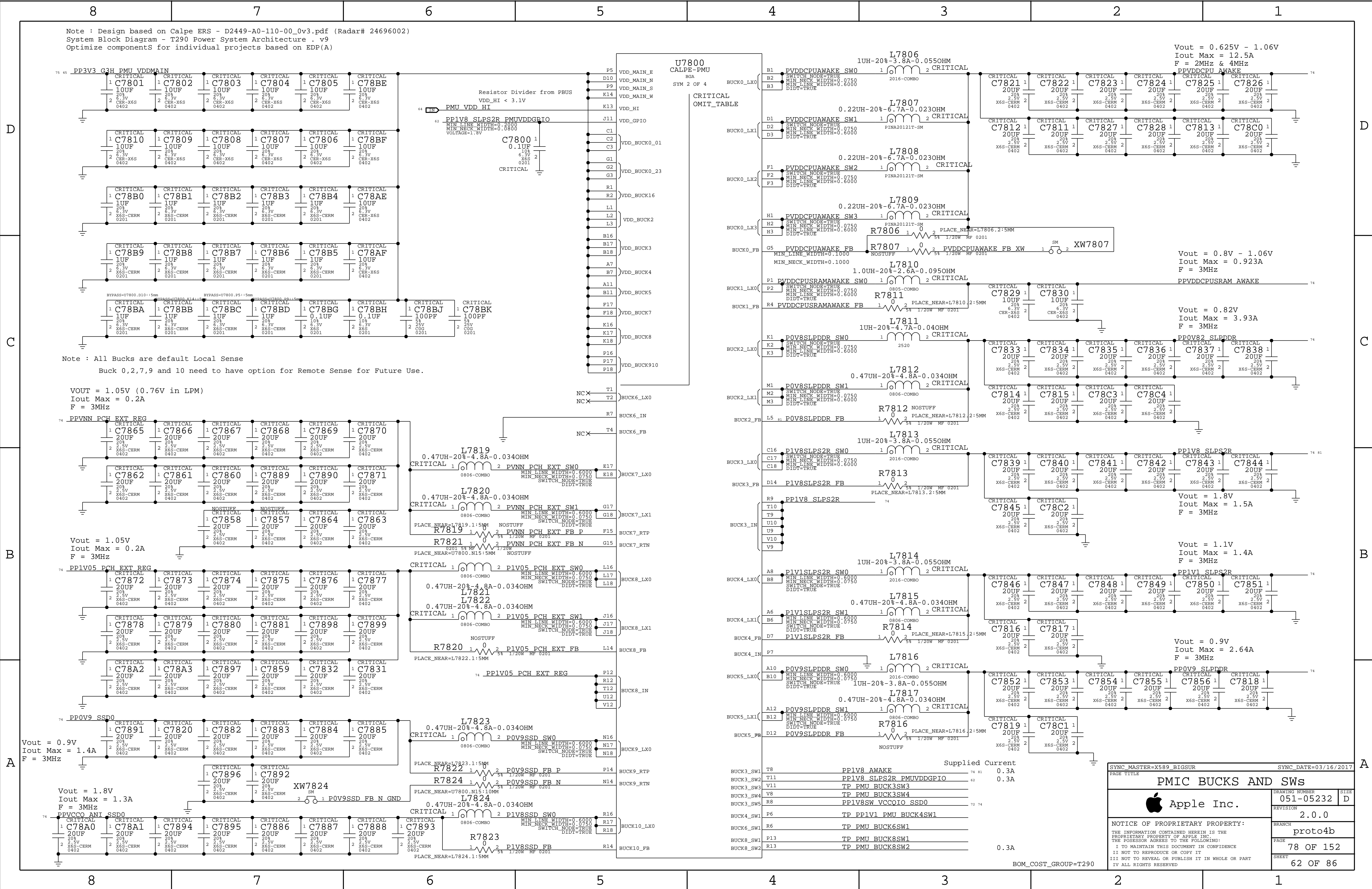
A VCCPRIM\_1P8 Voltage Regulator

Output voltage: 1.8 V  
Iout Max: 2.07 A  
Switching freq: 1250 kHz



BOM\_COST\_GROUP=GRAPHICS

VR: VCCPRIM_1P8		
Apple Inc.	DRAWING NUMBER	051-05232
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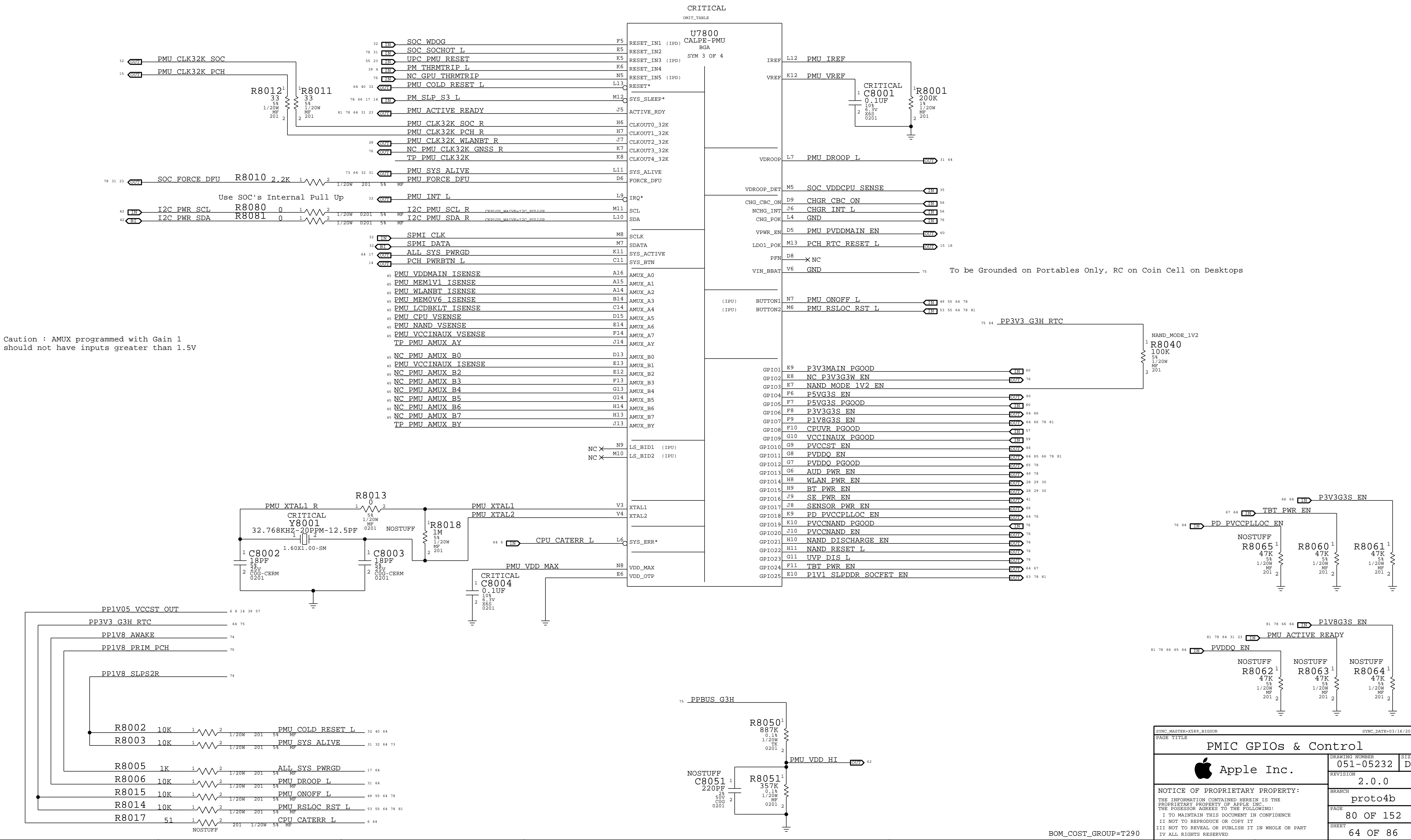
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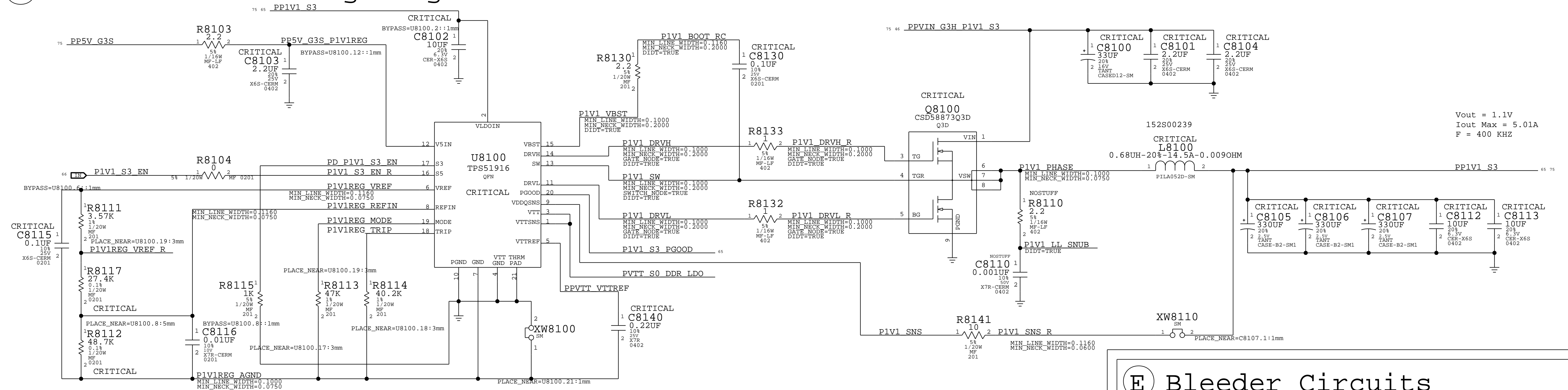
Caution : AMUX programmed with Gain 1 should not have inputs greater than 1.5V

BOM\_COST\_GROUP=T290

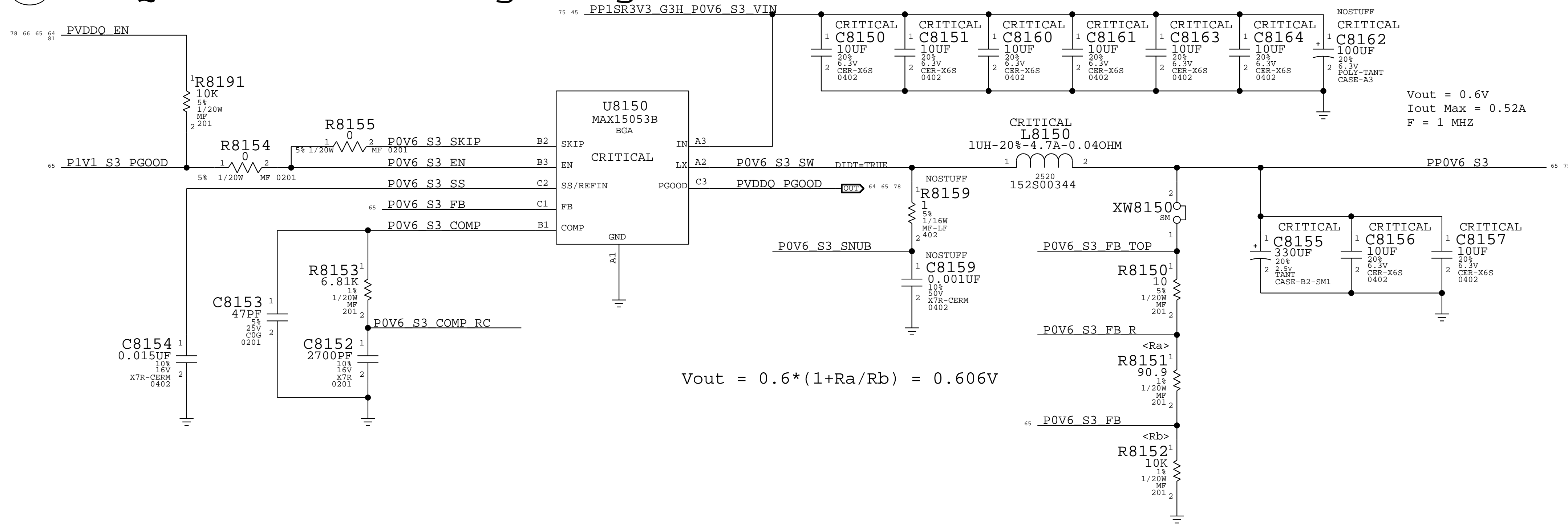
PAGE TITLE			PAGE TITLE		
PMIC GPIOs & Control			PMIC GPIOs & Control		
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REVISION			REVISION		
2.0.0			2.0.0		
BRANCH			BRANCH		
proto4b			proto4b		
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### Ⓐ VDD2 1.1V S3 Voltage Regulator

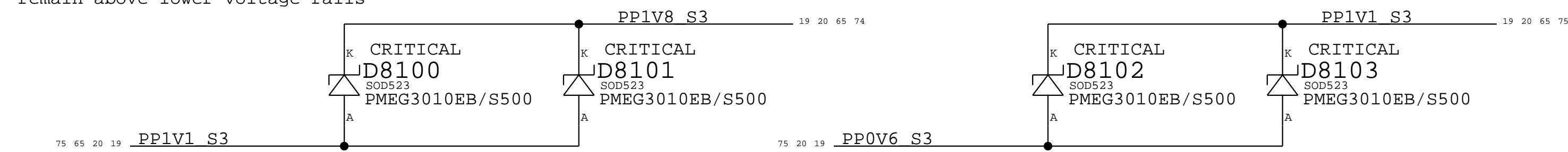


Ⓑ VDDQ 0.6V S3 Voltage Regulator

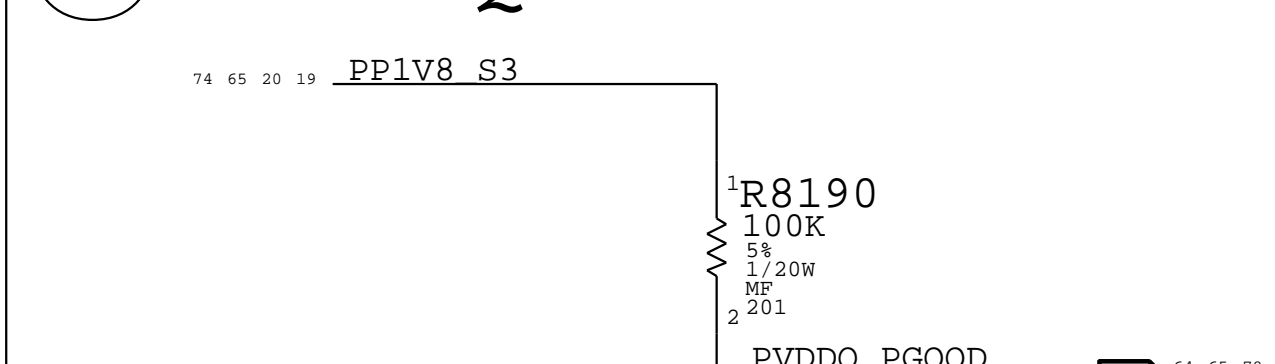


## © Protection Diodes

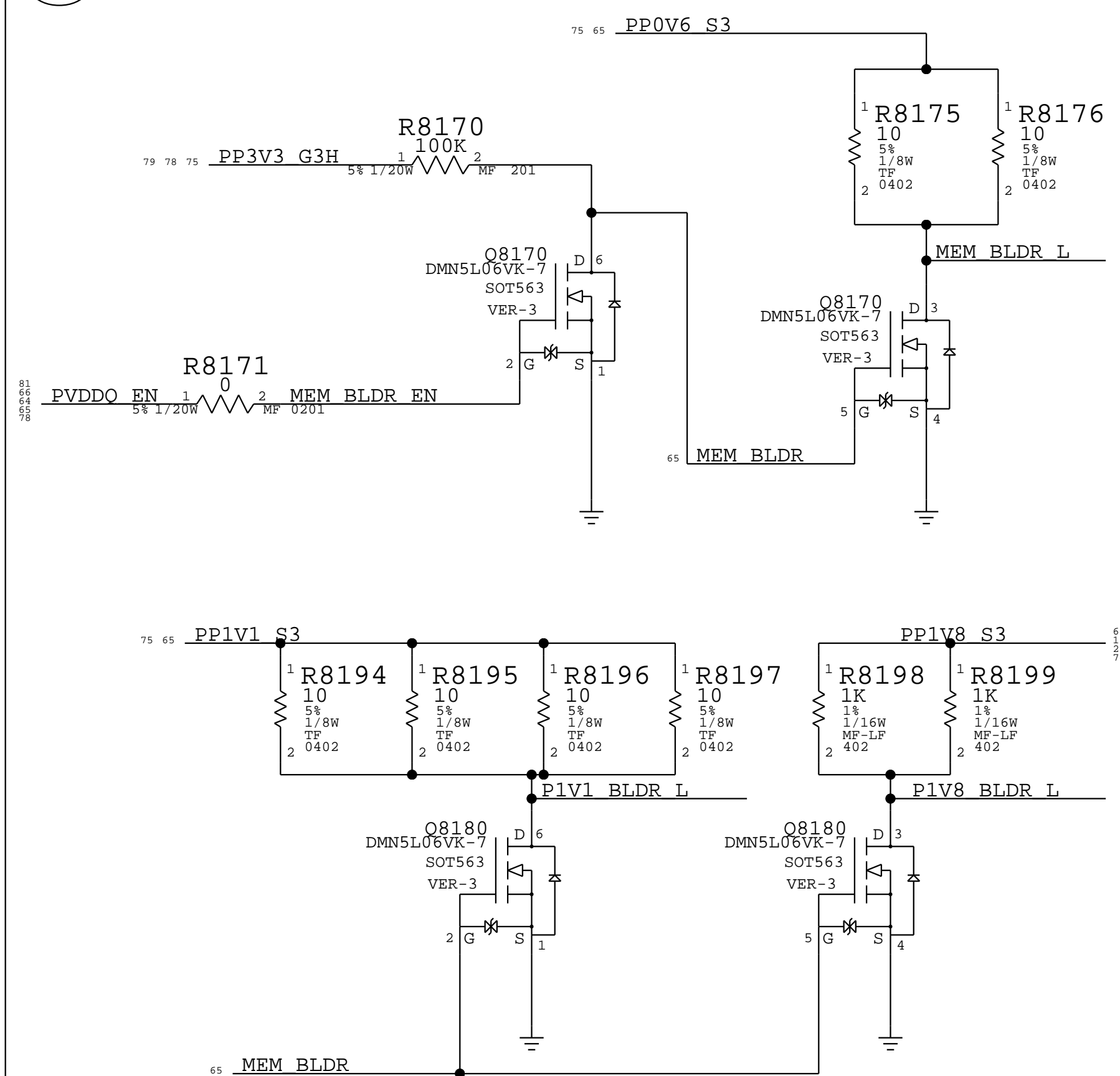
To ensure higher voltage rails remain above lower voltage rails




ⓓ PVDDQ PG00D



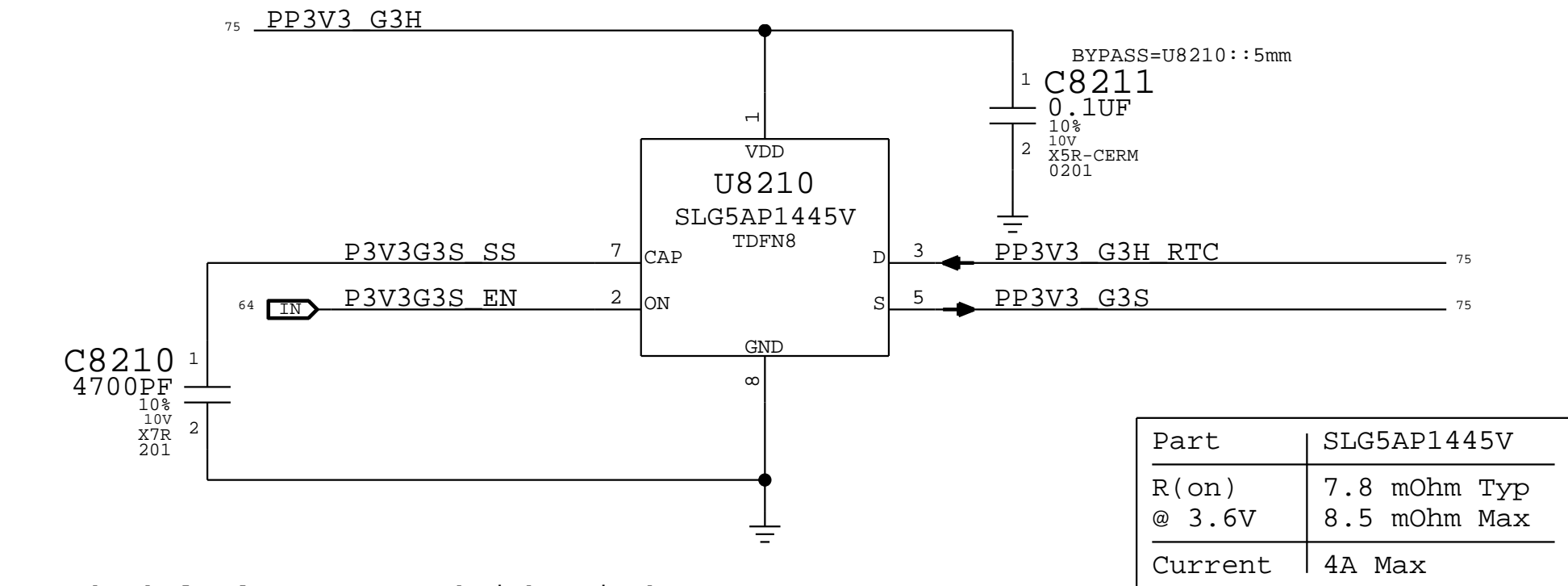
## Ⓔ Bleeder Circuits



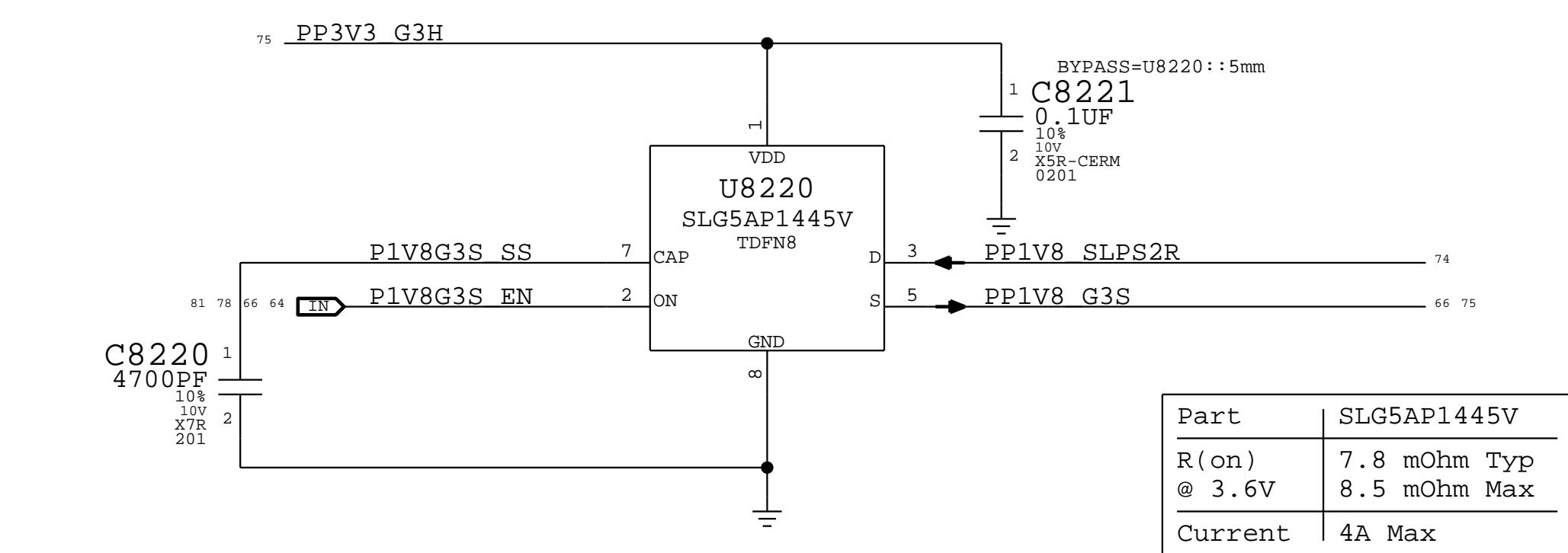
SYNC_MASTER=X589_CPU_CML_Y		SYNC_DATE=10/12/2018	
PAGE TITLE			
POWER - MEMORY VRS			
 Apple Inc.		DRAWING NUMBER	SIZE
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			proto4b
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BOM\_COST\_GROUP=PLATFORM POWER

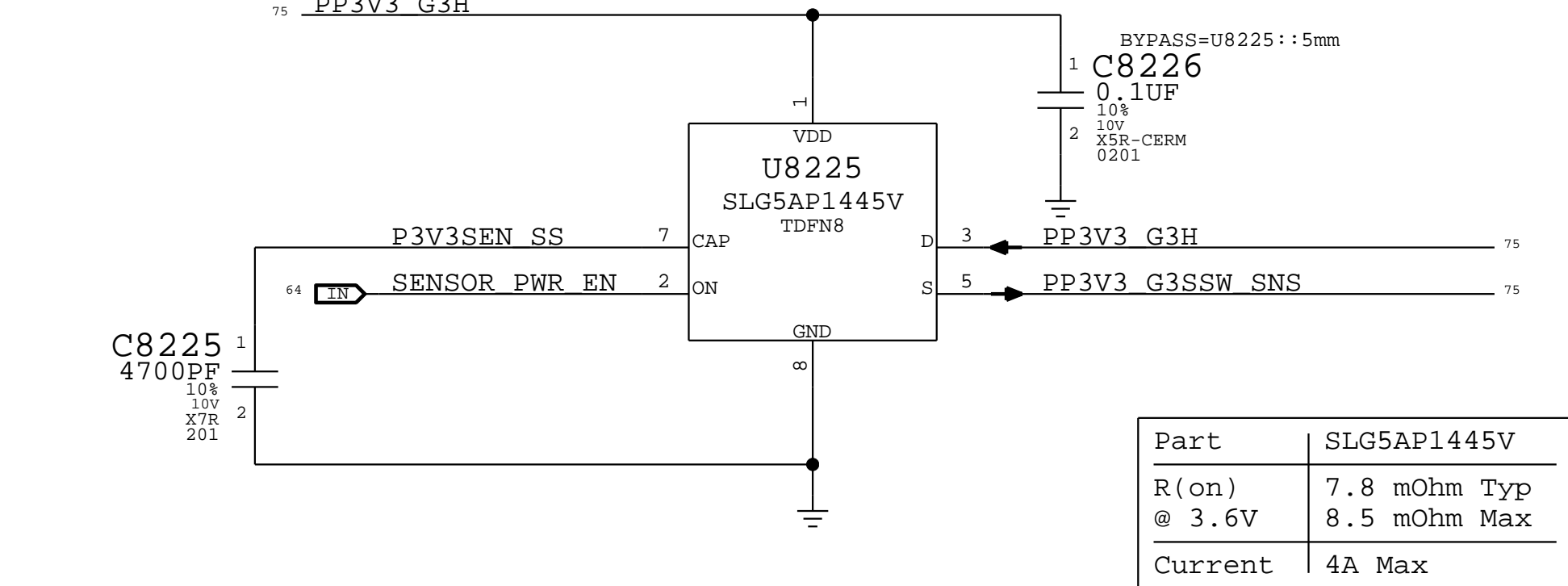
## A 3.3V G3 Standby Switch



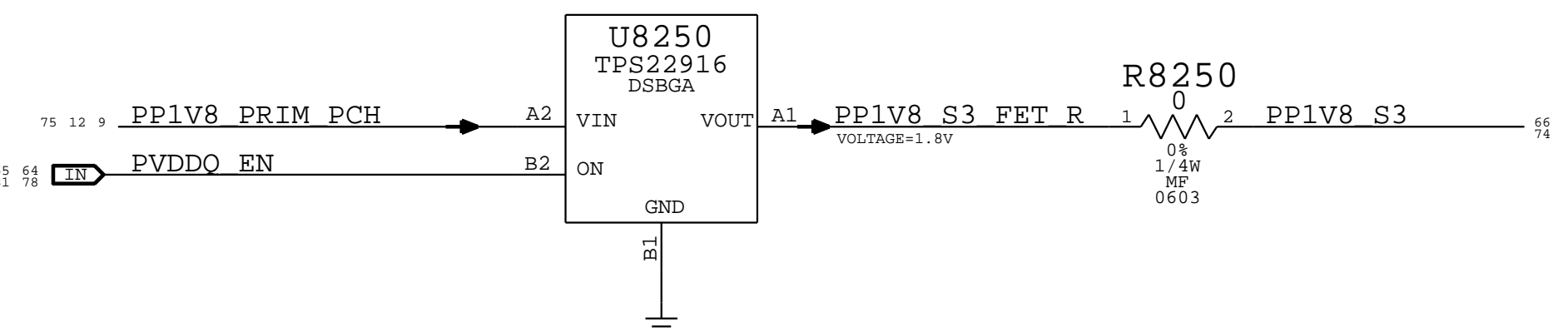
## B 1.8V G3 Standby Switch



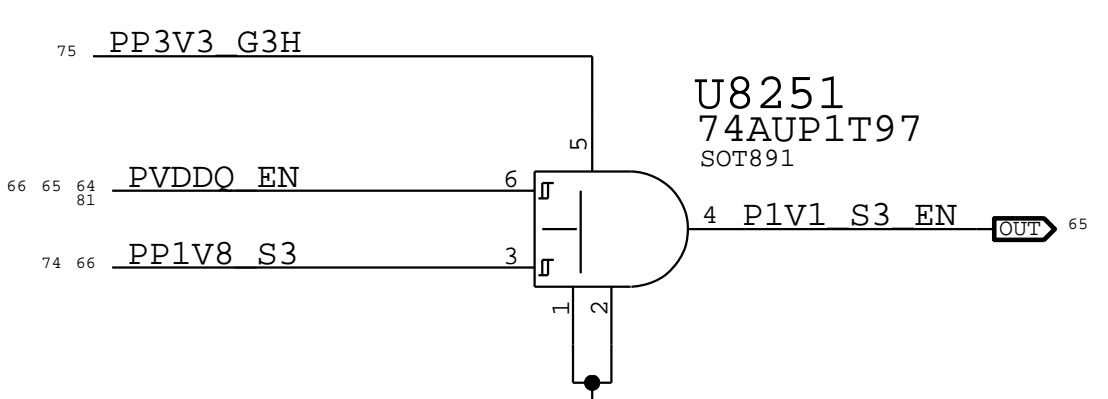
## C 3.3V Sensors Switch



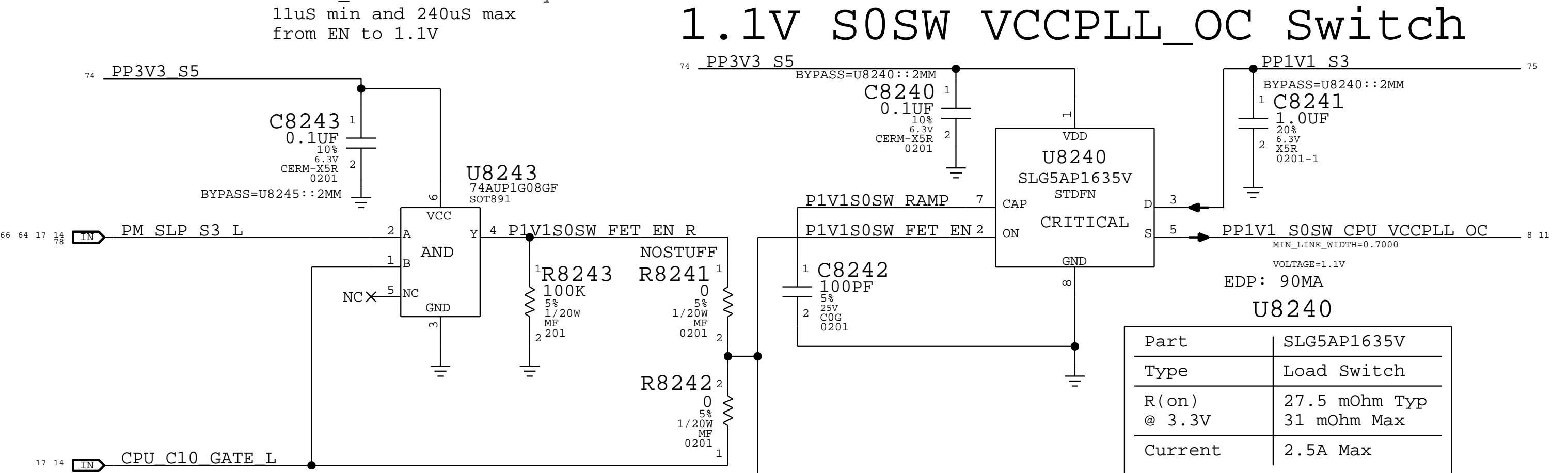
## D 1.8V S3 Switch



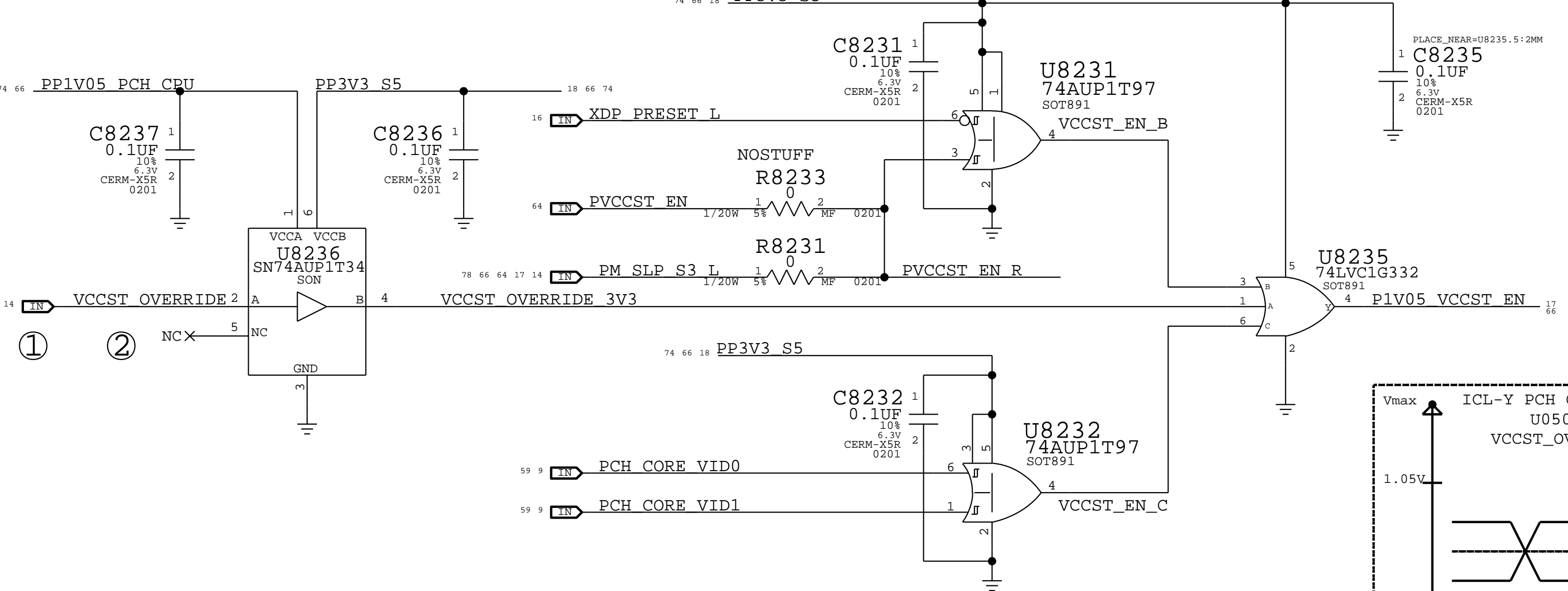
## E 1.1V S3 En



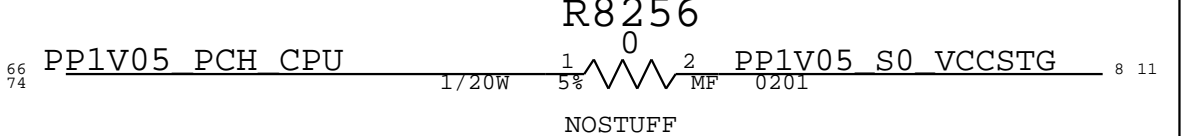
## F CPU Switches



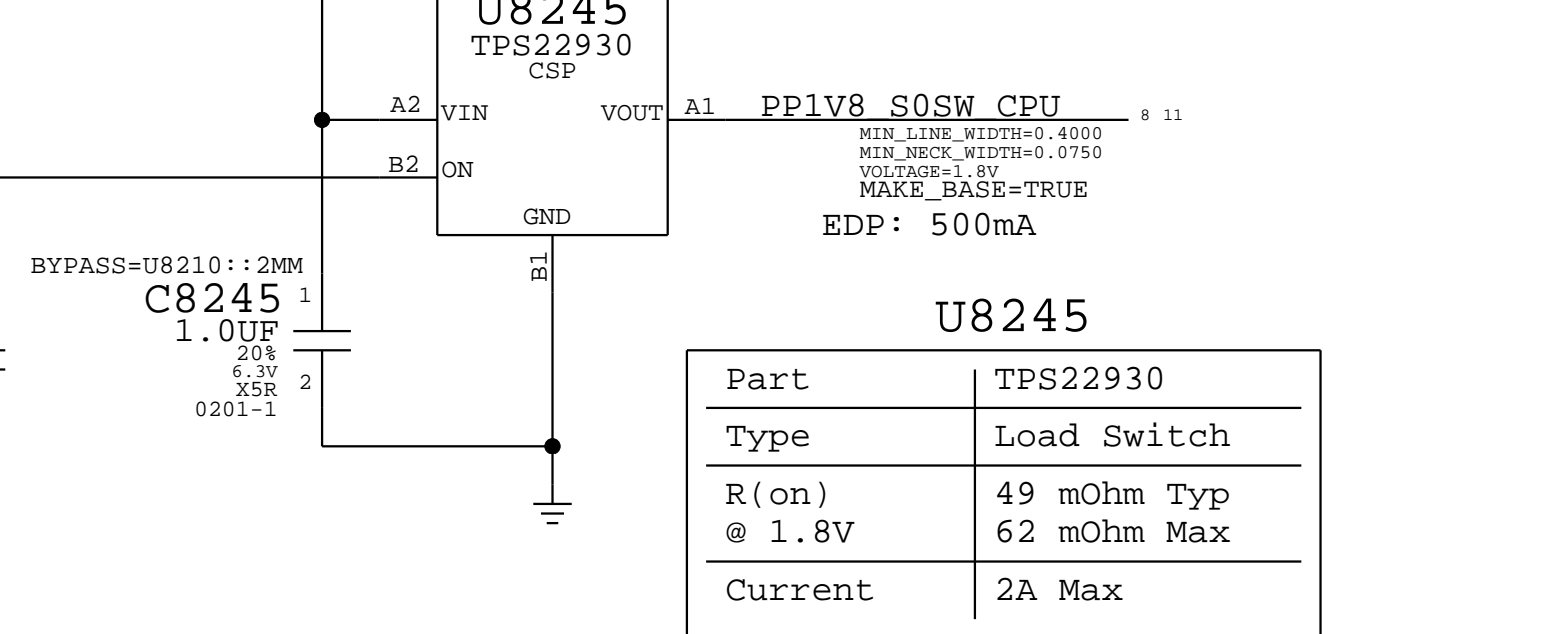
## G 1.05V VCCST Switch Control



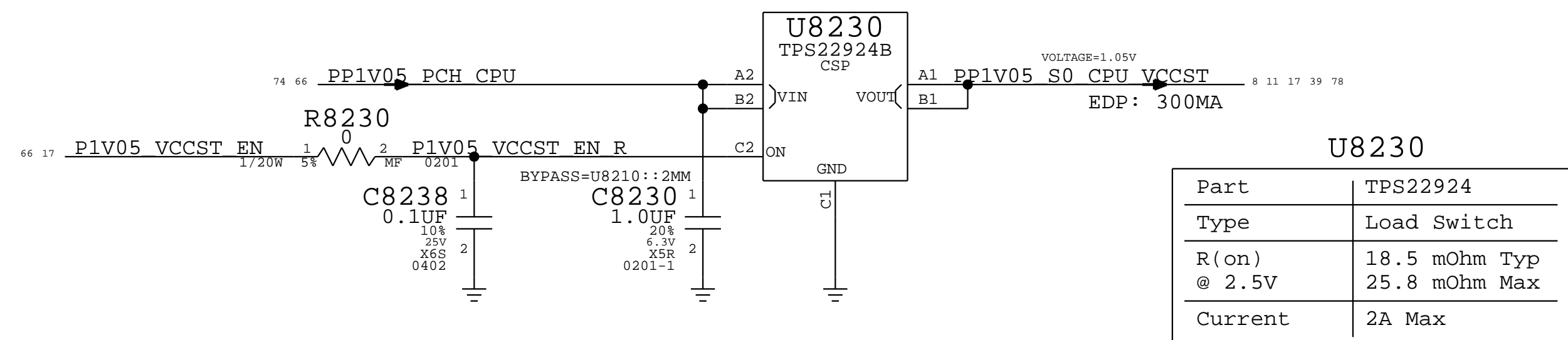
## H VCCSTG



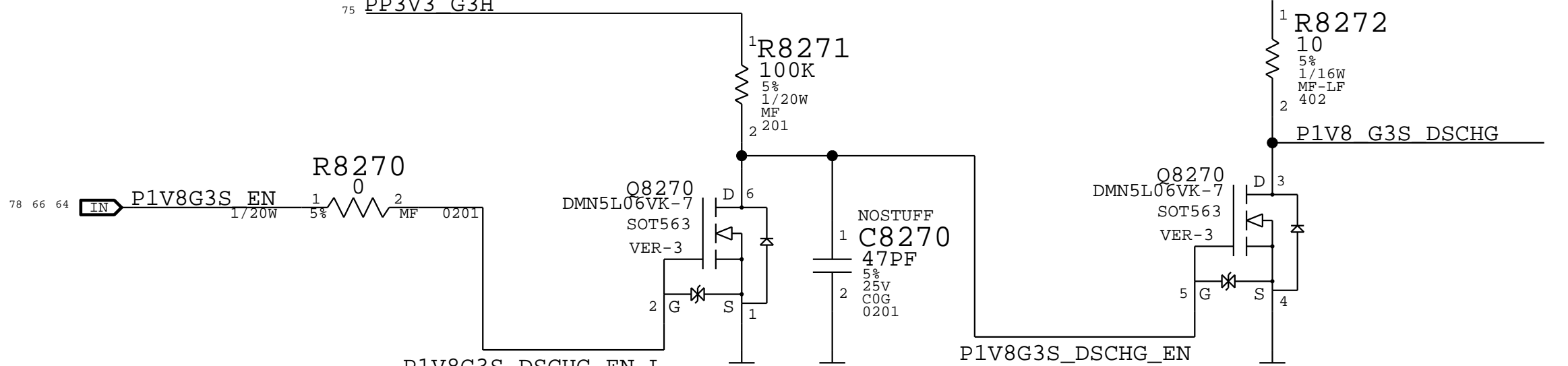
## I 1.8V S0 CPU Switch



## J PP1V8\_G3S Discharge



## K PP1V8\_G3S Discharge



This discharge circuit was added to enforce timing compliance to a spec for Venus (SE) that NXP provided that would confirm a hardware reset sequence will be power down compliant..

Power FETs			
Apple Inc.	DRAWING NUMBER	051-05232	SIZE D
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## D

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BOM\_COST\_GROUP=PLATFORM POWER

Page Notes

Power aliases required by this page:  
- =PPVIN\_S0SW\_LCDBKLT\_FET (9-12.6V LCD BACKLIGHT INPUT)  
- =PP5V\_S0\_BKLT (5V BACKLIGHT DRIVER INPUT)

PLATFORM\_RESET NO LONGER GATES THE BKLT\_EN AS BOTH COME FROM PCH NOW

LINE WIDTHS

PP5V\_S0\_BKLT\_A  
MIN LINE WIDTH=0.0750  
MIN NECK WIDTH=0.0750  
VOLTAGE=5V

PP5V\_S0\_BKLT\_D  
MIN LINE WIDTH=0.0750  
MIN NECK WIDTH=0.0750  
VOLTAGE=5V

PBUS LINE WIDTHS

PPVIN\_S0SW\_LCDBKLT\_F  
MIN LINE WIDTH=2.0000  
MIN NECK WIDTH=0.2000  
VOLTAGE=12.5V

PPVIN\_S0SW\_LCDBKLT\_R  
MIN LINE WIDTH=2.0000  
MIN NECK WIDTH=0.2000  
VOLTAGE=12.5V

PPVIN\_S0SW\_LCDBKLT  
MIN LINE WIDTH=2.0000  
MIN NECK WIDTH=0.2000  
VOLTAGE=12.5V

LCD BKLT LINE WIDTHS

LCDBKLT\_FET\_DRV  
MIN LINE WIDTH=0.4000  
MIN NECK WIDTH=0.2000  
VOLTAGE=5V  
GATE\_NODE=TRUE D1DT=TRUE

PPVIN\_SW\_LCDBKLT\_SW  
MIN LINE WIDTH=0.1200  
MIN NECK WIDTH=0.1200  
VOLTAGE=5V  
SWITCH\_NODE=TRUE D1DT=TRUE

PPVOUT\_S0\_LCDBKLT  
MIN LINE WIDTH=0.5000  
MIN NECK WIDTH=0.1500  
VOLTAGE=55V

PPVOUT\_S0\_LCDBKLT\_F  
MIN LINE WIDTH=0.5000  
MIN NECK WIDTH=0.1500  
VOLTAGE=55V

PAGE TITLE			DRAWING NUMBER		SIZE	
LCD Backlight Driver			051-05232		D	
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BOM\_COST\_GROUP=DISPLAY

## D



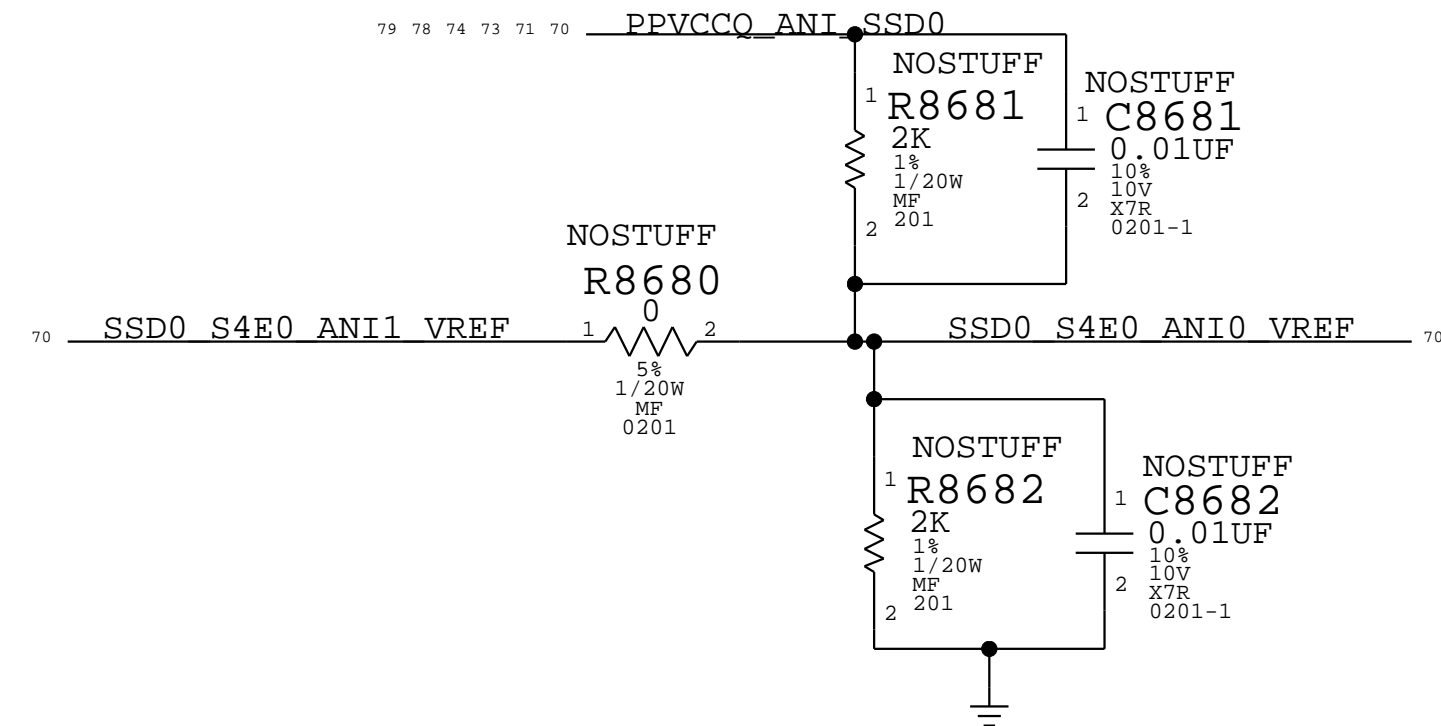
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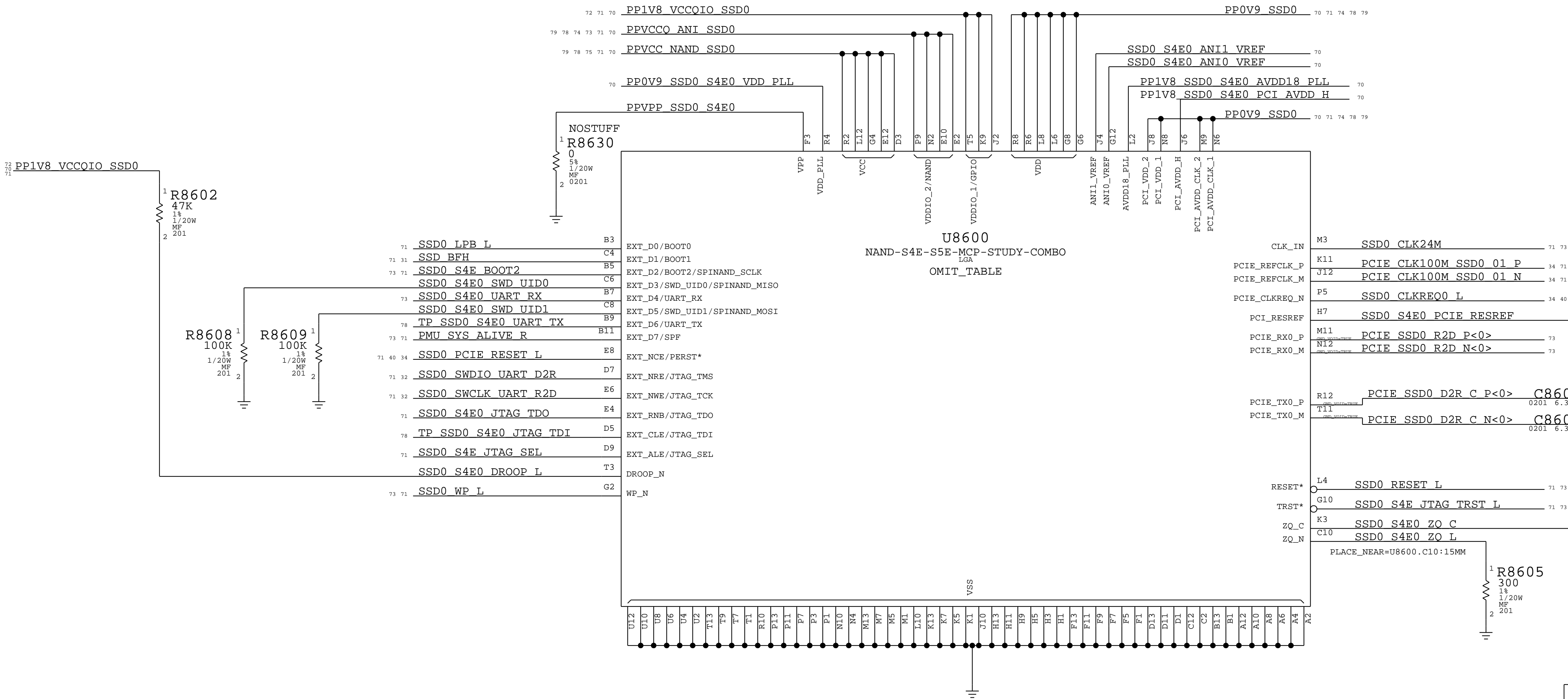


# S4E0

## A SSD External VREF

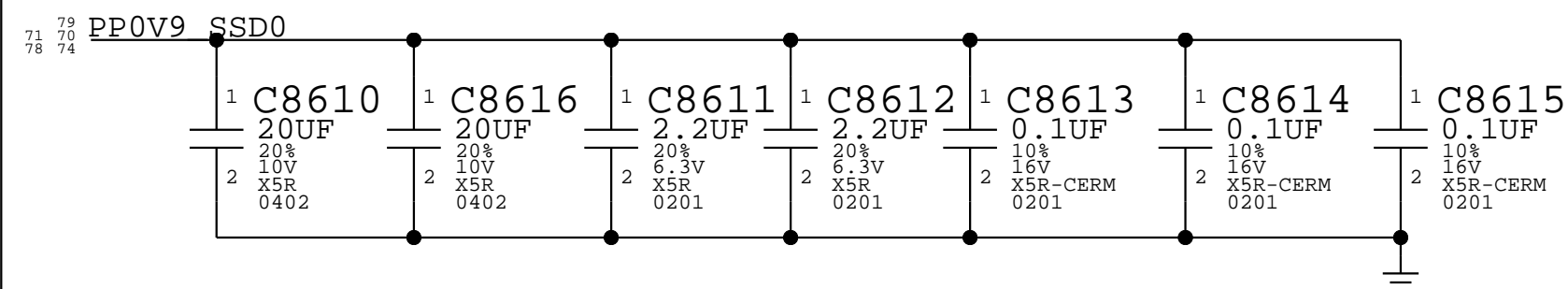


See Section 7.4.2.2 of the S4E MCP Product Spec (v1.3)

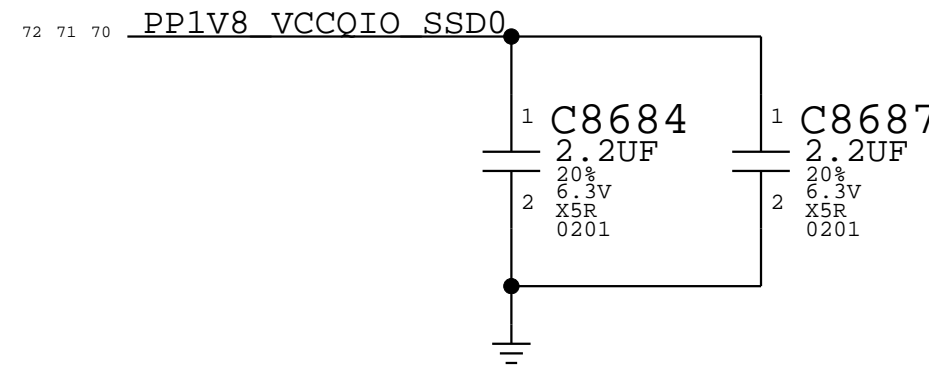


PART#	QTY	DESCRIPTION	REFERENCE DESIGNATOR(S)	CRITICAL	BOM OPTION
118S0279	1	RES, 3.01KOHM, 1%, 1/20W, 0201	R8604	CRITICAL	S4E
103S00429	1	RES, 200OHM, 0.1%, 1/20W, 0201	R8604	CRITICAL	S5E
118S0011	1	RES, 100OHM, 1%, 1/20W, 0201	R8606	CRITICAL	S4E
118S0273	1	RES, 300OHM, 1%, 1/20W, 0201	R8606	CRITICAL	S5E
117S0201	2	RES, 0OHM, 1/20W, 0201	R8683, R8610, R8611	CRITICAL	S4E
155S00161	2	FERR BD, 100OHM, 0.05 DCR, 0201	R8683, R8610	CRITICAL	S5E
118S0794	1	RES, MF, 20HM, 1%, 1/20W, 0201	R8611	CRITICAL	S5E

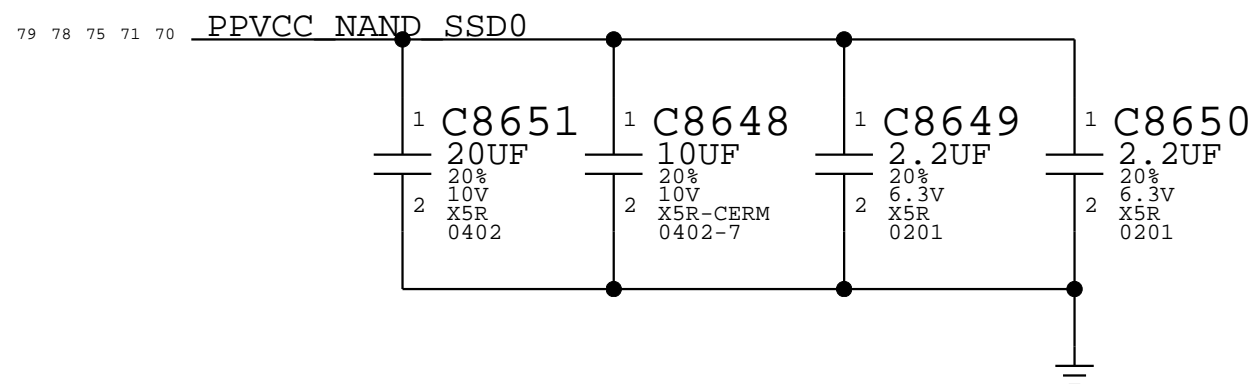
## B S4E VDD Decoupling



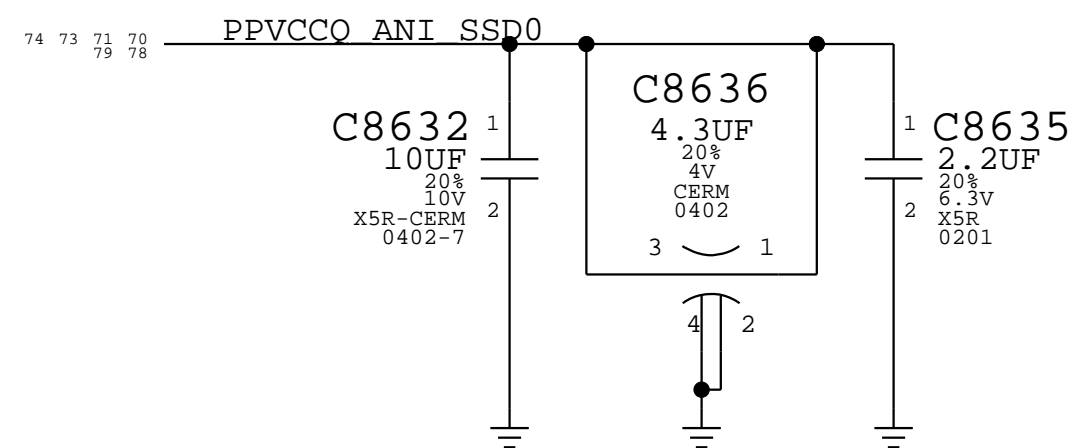
## D S4E VDDIO\_1



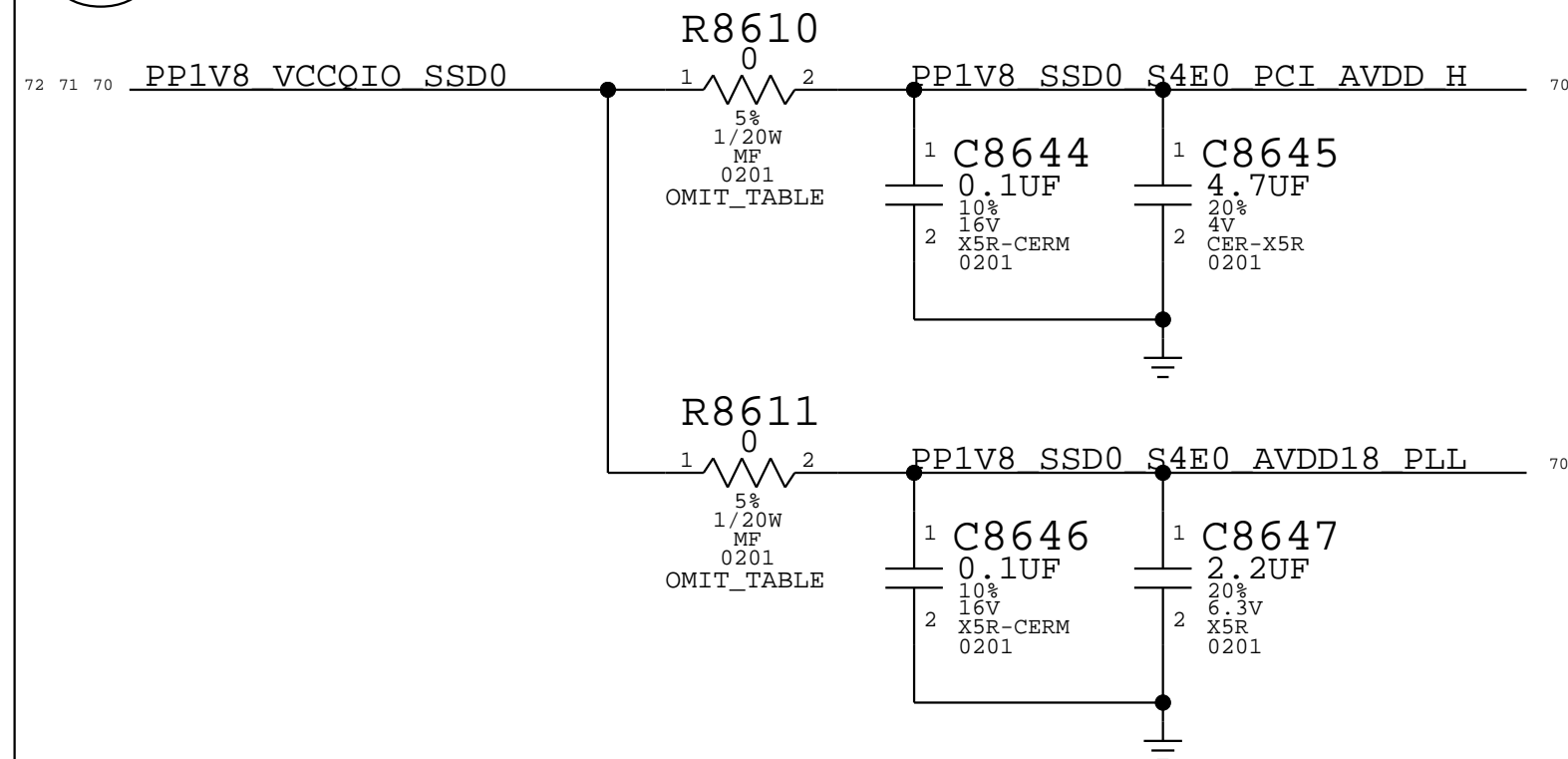
## C S4E VCC Decoupling



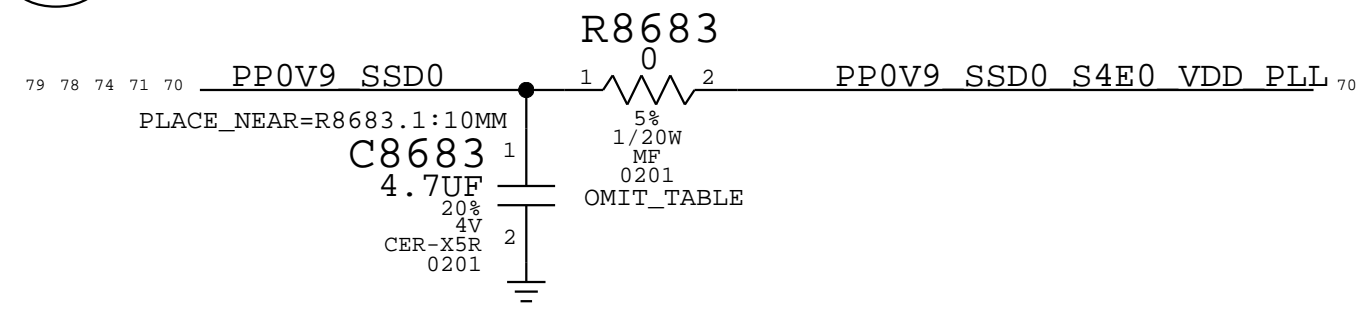
## E S4E VDDIO\_2



## F S4E AVDD\_H/AVDD18\_PLL



## G S4E VDD\_PLL



S4E<0>



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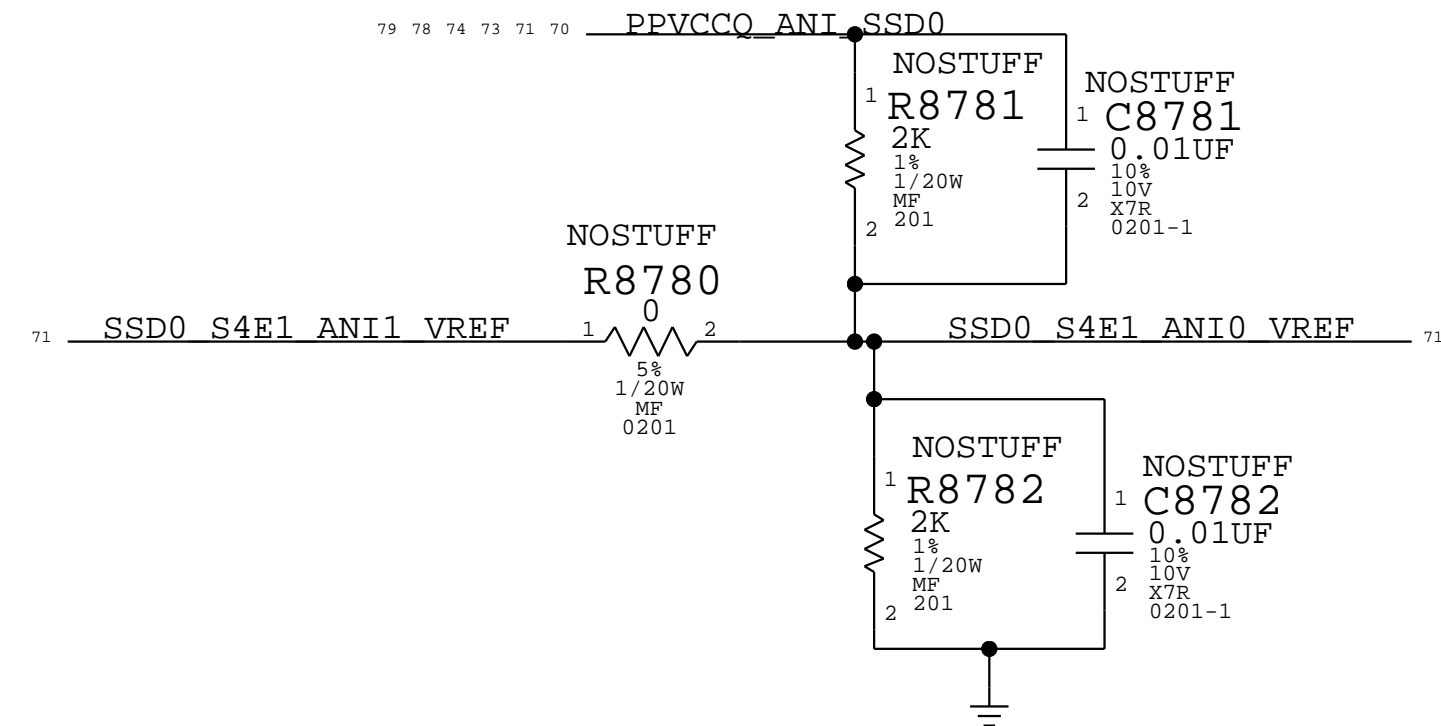
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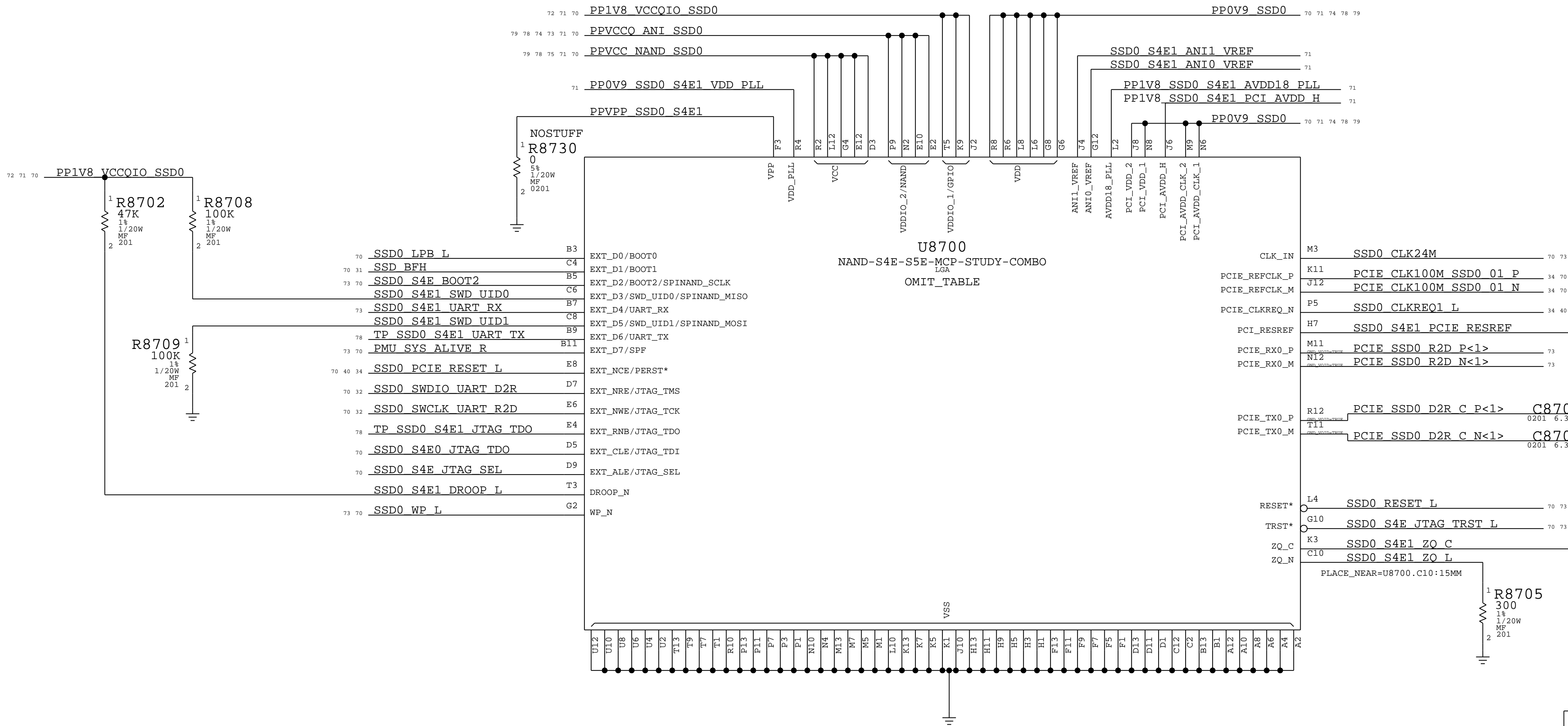
DRAWING NUMBER	SIZE
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# S4E1

## A SSD External VREF

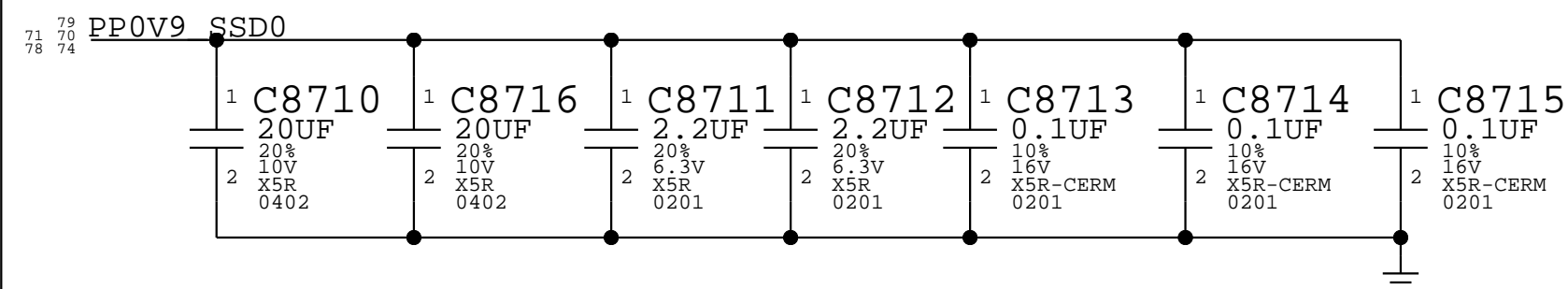


See Section 7.4.2.2 of the S4E MCP Product Spec (v1.3)

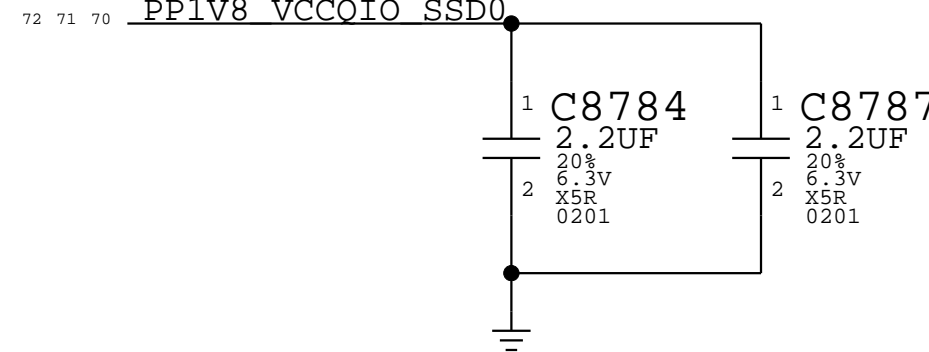


PART#	QTY	DESCRIPTION	REFERENCE DESIGNATOR(S)	CRITICAL	BOM OPTION
118S0279	1	RES,3.01KOHM,1%,1/20W,0201	R8704	CRITICAL	S4E
103S00429	1	RES,200OHM,0.1%,1/20W,0201	R8704	CRITICAL	S5E
118S0011	1	RES,100OHM,1%,1/20W,0201	R8706	CRITICAL	S4E
118S0273	1	RES,300OHM,1%,1/20W,0201	R8706	CRITICAL	S5E
117S0201	2	RES,0OHM,1/20W,0201	R8783,R8710,R8711	CRITICAL	S4E
155S00161	2	FERR BD,100OHM,0.05 DCR,0201	R8783,R8710	CRITICAL	S5E
118S0794	1	RES,MF,20HM,1%,1/20W,0201	R8711	CRITICAL	S5E

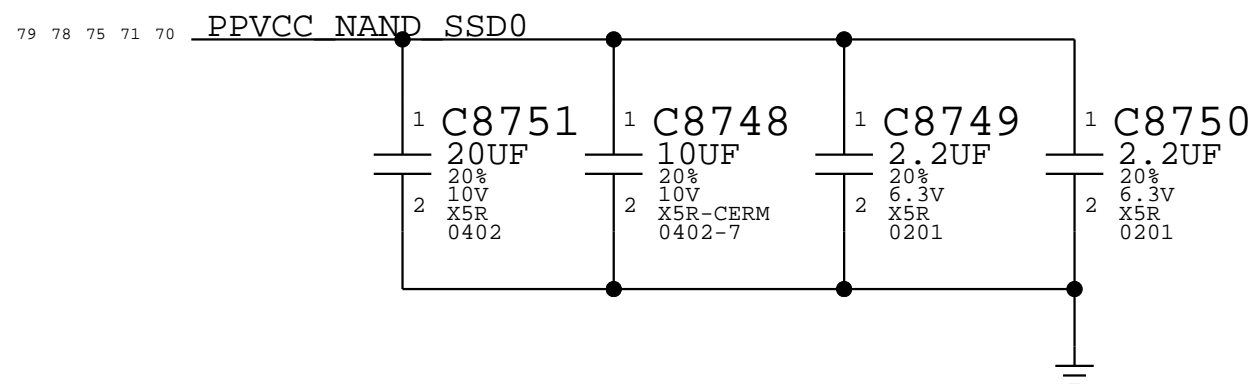
## B S4E VDD Decoupling



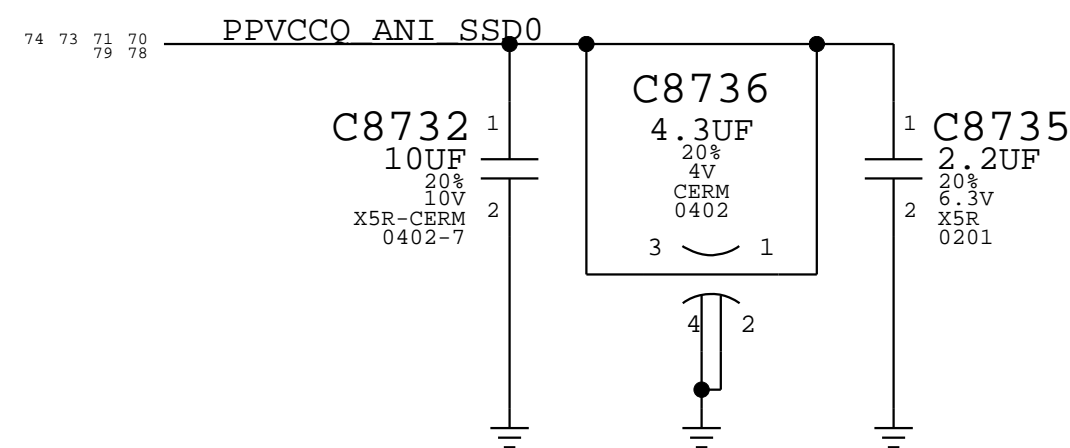
## D S4E VDDIO\_1



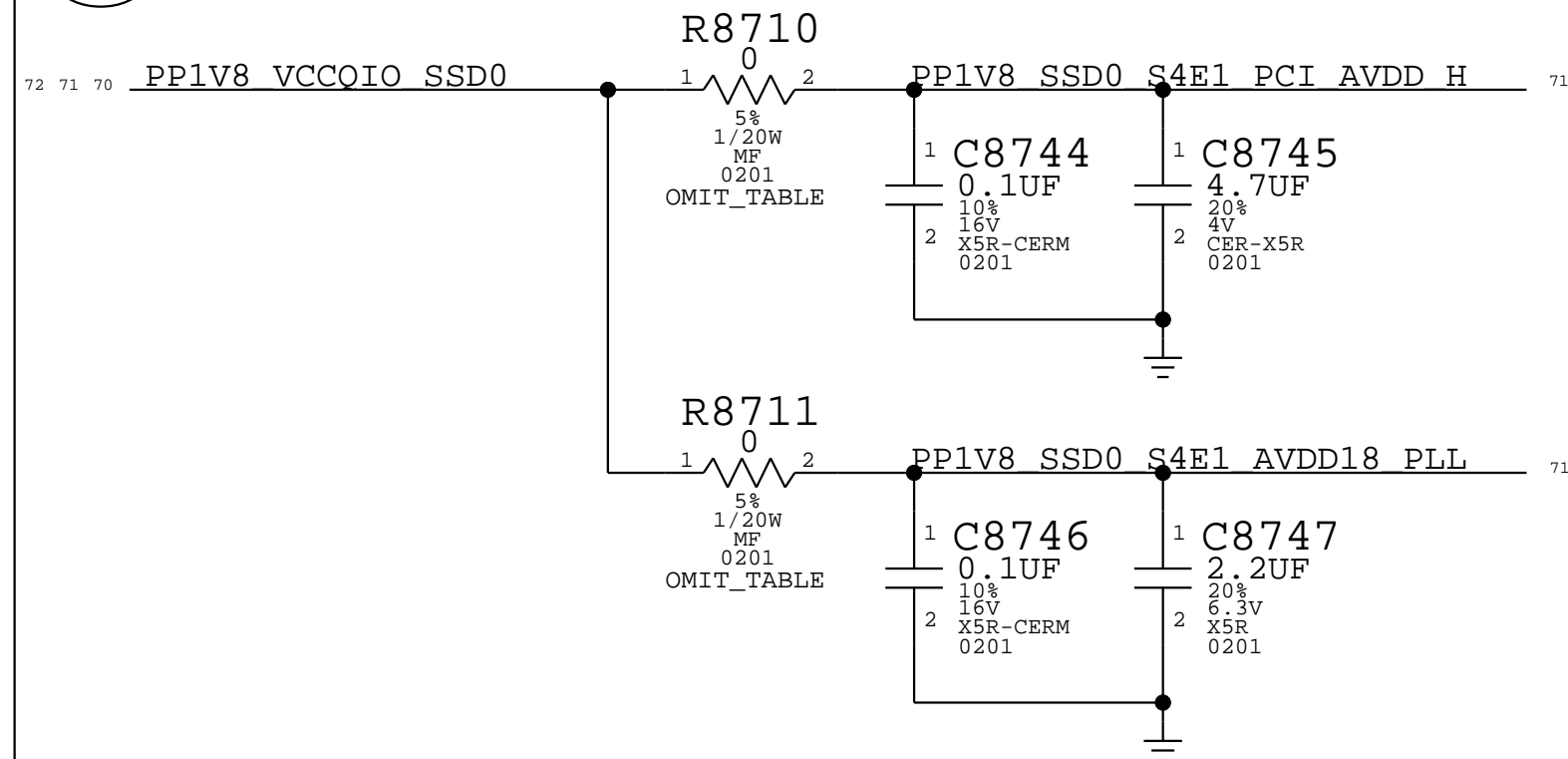
## C S4E VCC Decoupling



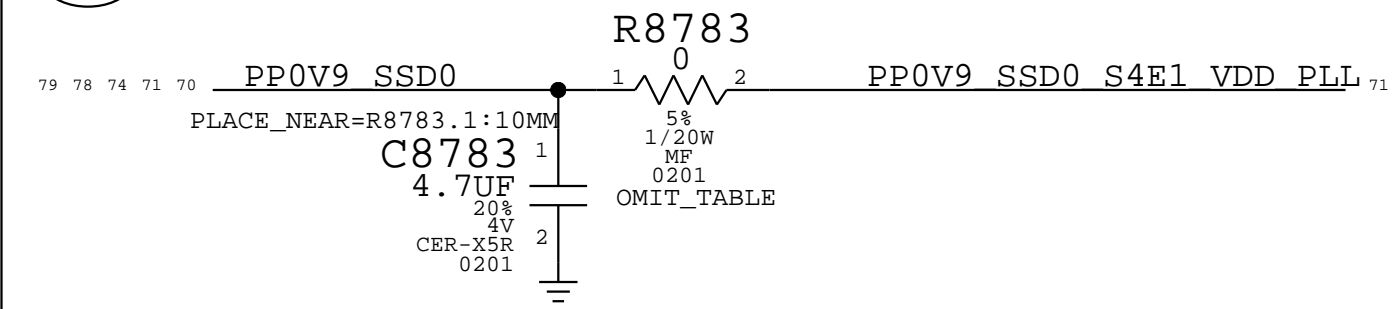
## E S4E VDDIO\_2



## F S4E AVDD\_H/AVDD18\_PLL



## G S4E VDD\_PLL



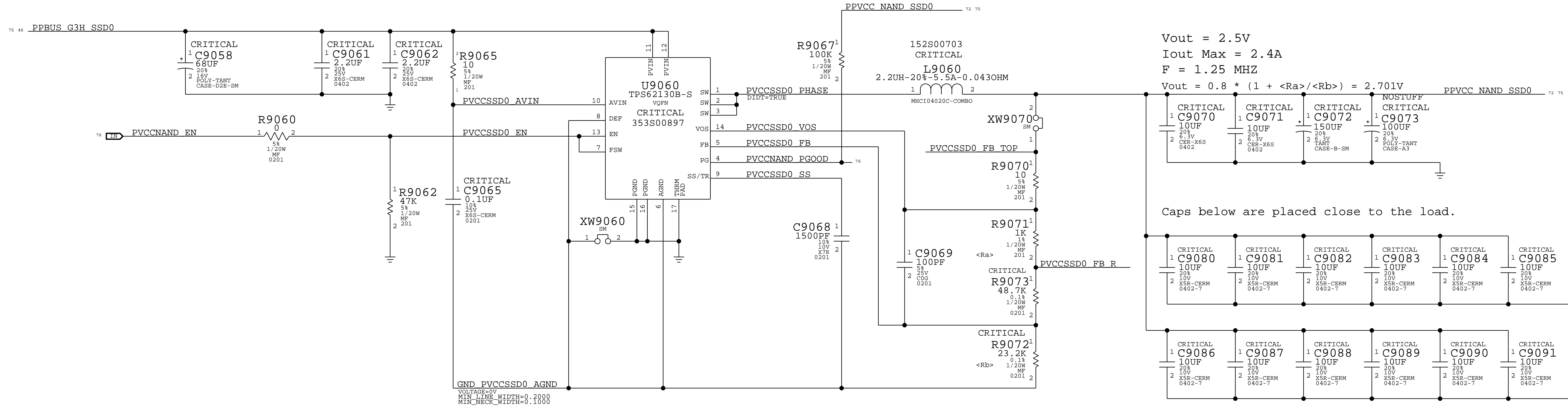
S4E<1>

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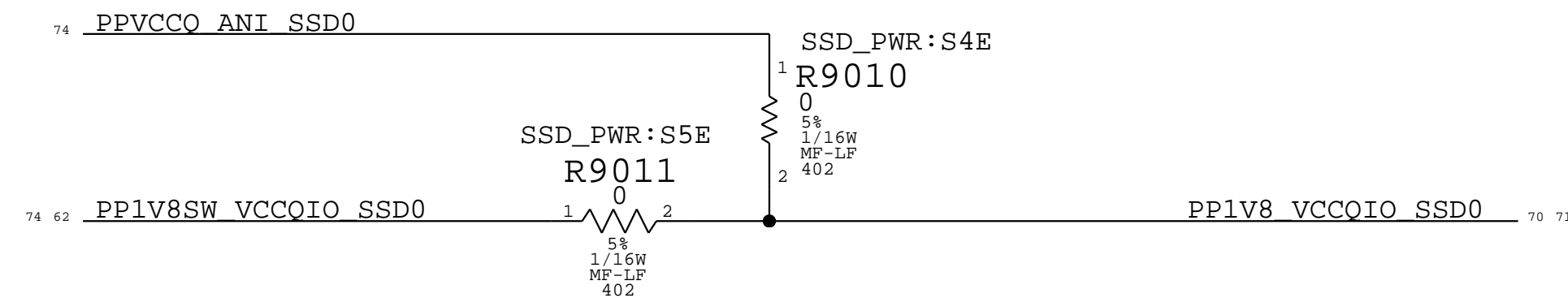
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### Ⓐ NAND VCC (PPVCC\_NAND\_SSD0) Voltage Regulator



Ⓑ NAND VCCQ I/O Selector



SYMC MASTER-Psm		SYMC DATE=10/18/2018	
PAGE TITLE			
NAND VCC VR			
 Apple Inc.	DRAWING NUMBER	051-05232	SIZE D
	REVISION 2.0.0		
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BOM\_COST\_GROUP=SSD

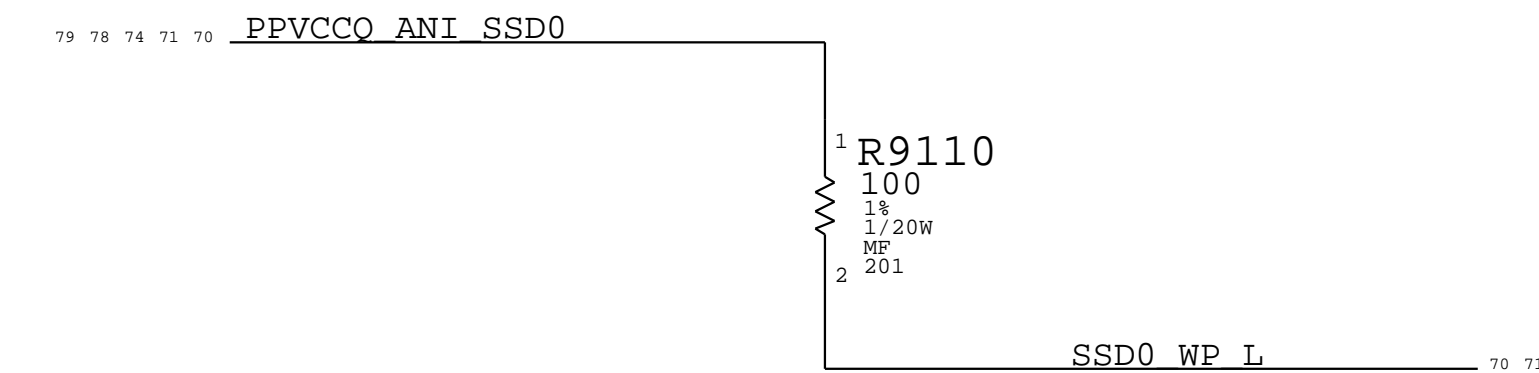
## A SSD PCIE AC Coupling Caps

(All Caps)											
GND_VOID=TRUE											
34	OUT	PCIE SSD0 R2D C P<0>	C9110	1	2	20%	6.3V	X5R	0201	PCIE SSD0 R2D P<0>	70
				0.22UF							
34	OUT	PCIE SSD0 R2D C N<0>	C9111	1	2	20%	6.3V	X5R	0201	PCIE SSD0 R2D N<0>	70
				0.22UF							
34	OUT	PCIE SSD0 R2D C P<1>	C9112	1	2	20%	6.3V	X5R	0201	PCIE SSD0 R2D P<1>	71
				0.22UF							
34	OUT	PCIE SSD0 R2D C N<1>	C9113	1	2	20%	6.3V	X5R	0201	PCIE SSD0 R2D N<1>	71
				0.22UF							

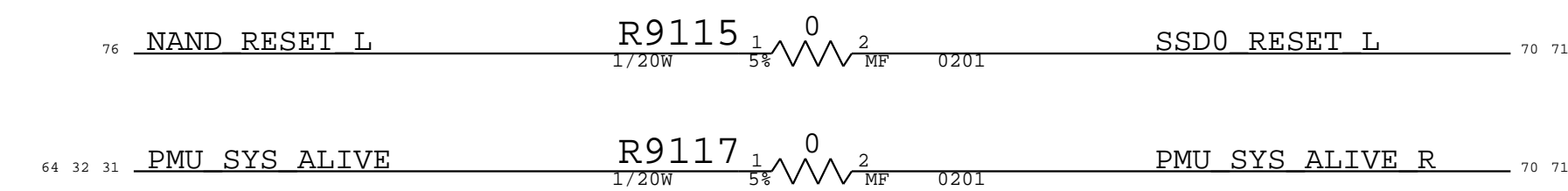
## B SSD PCIE Net Aliases

34	OUT	NC S4E3 PCIE R2D CP<2>	==	WAKE_BASE=TRUE	NO_TEST=1	NC S4E3 PCIE R2D CP<2>
34	OUT	NC S4E3 PCIE R2D CN<2>	==	WAKE_BASE=TRUE	NO_TEST=1	NC S4E3 PCIE R2D CN<2>
34	IN	NC S4E3 PCIE D2RP<2>	==	WAKE_BASE=TRUE	NO_TEST=1	NC S4E3 PCIE D2RP<2>
34	IN	NC S4E3 PCIE D2RN<2>	==	WAKE_BASE=TRUE	NO_TEST=1	NC S4E3 PCIE D2RN<2>
34	OUT	NC S4E3 PCIE R2D CP<3>	==	WAKE_BASE=TRUE	NO_TEST=1	NC S4E3 PCIE R2D CP<3>
34	OUT	NC S4E3 PCIE R2D CN<3>	==	WAKE_BASE=TRUE	NO_TEST=1	NC S4E3 PCIE R2D CN<3>
34	IN	NC S4E3 PCIE D2RP<3>	==	WAKE_BASE=TRUE	NO_TEST=1	NC S4E3 PCIE D2RP<3>
34	IN	NC S4E3 PCIE D2RN<3>	==	WAKE_BASE=TRUE	NO_TEST=1	NC S4E3 PCIE D2RN<3>
34	IN	NC PCIE CLK100M SSD0 23N	==	WAKE_BASE=TRUE	NO_TEST=1	NC PCIE CLK100M SSD0 23N
34	IN	NC PCIE CLK100M SSD0 23P	==	WAKE_BASE=TRUE	NO_TEST=1	NC PCIE CLK100M SSD0 23P

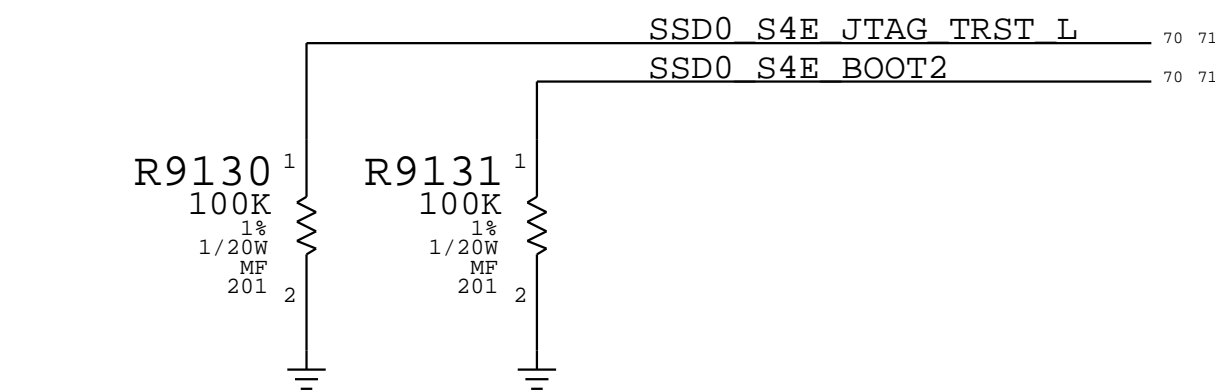
## C SSD Write Protect Control



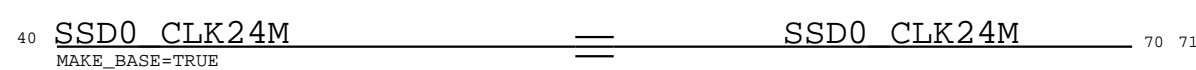
## D SSD Miscellaneous Control



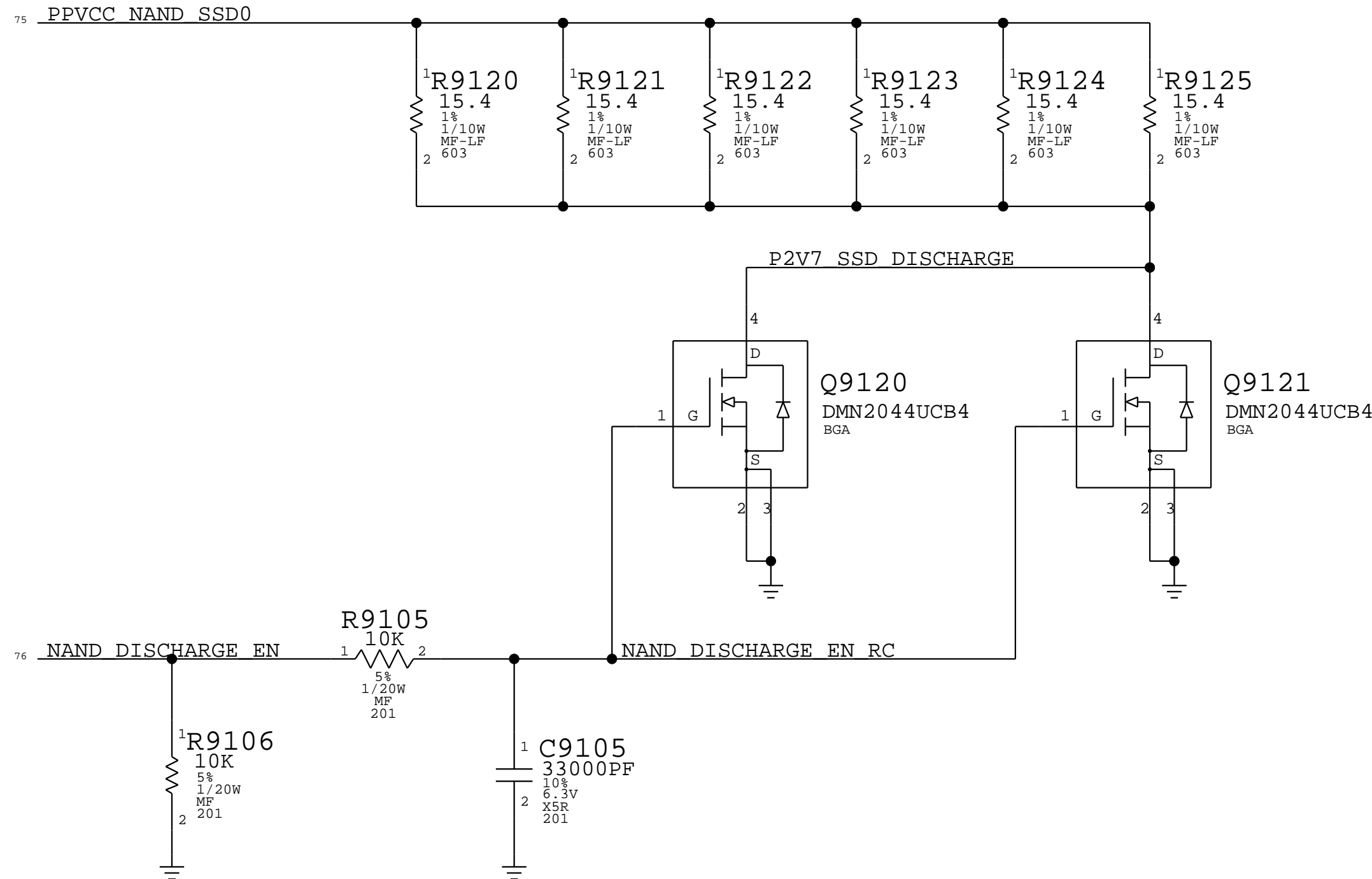
## E S4E Pull-Downs



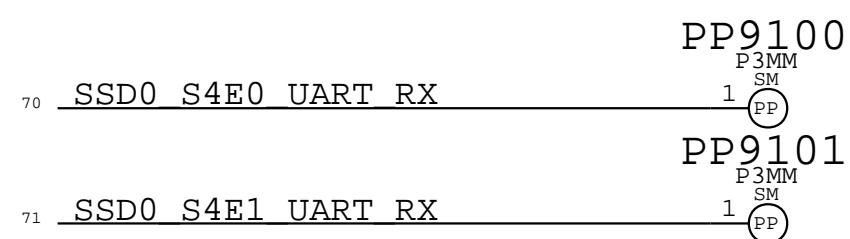
## F S4E Control Aliases




## G SSD Discharge Circuit

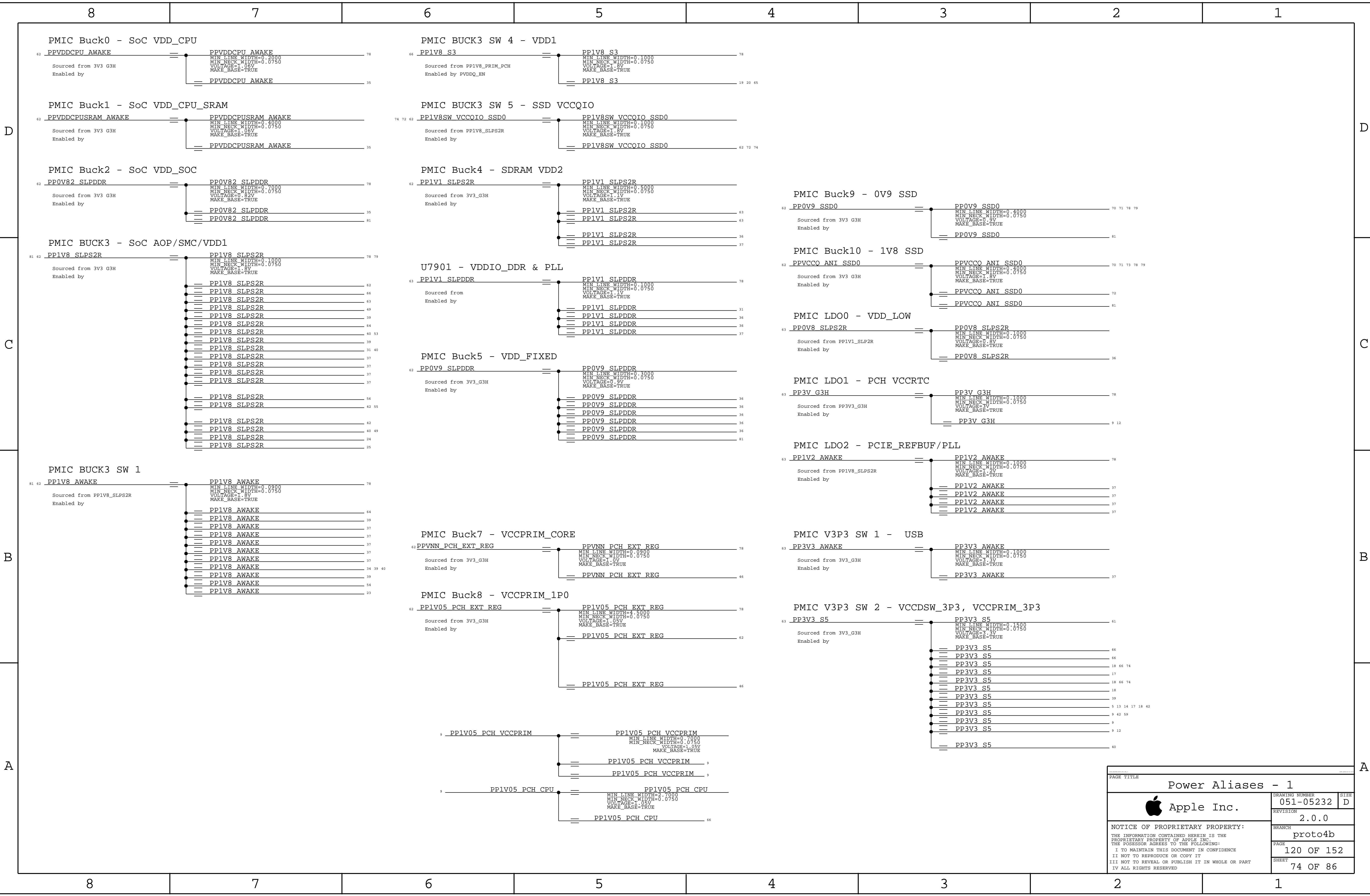


## H SSD UART Test Points

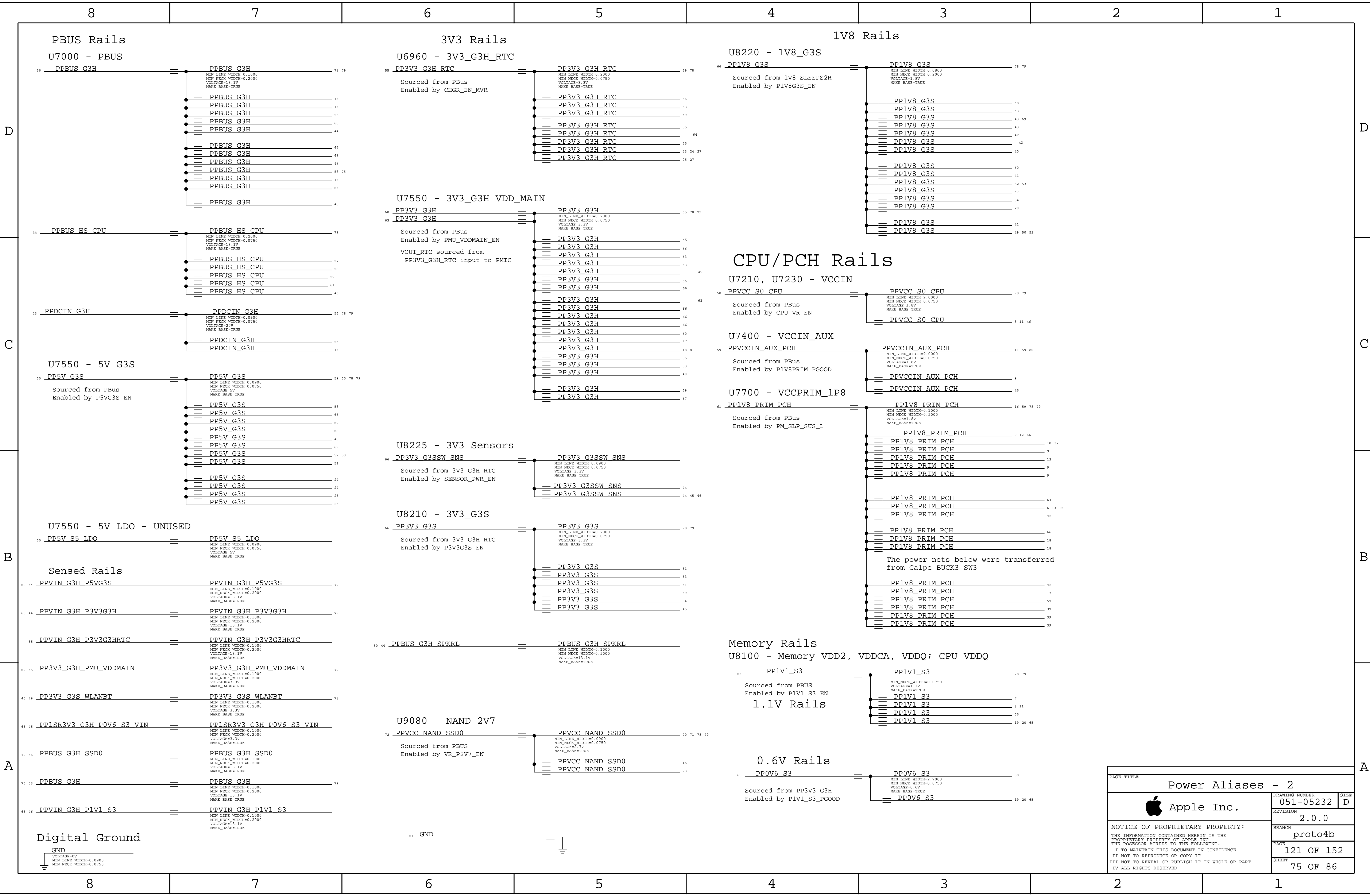


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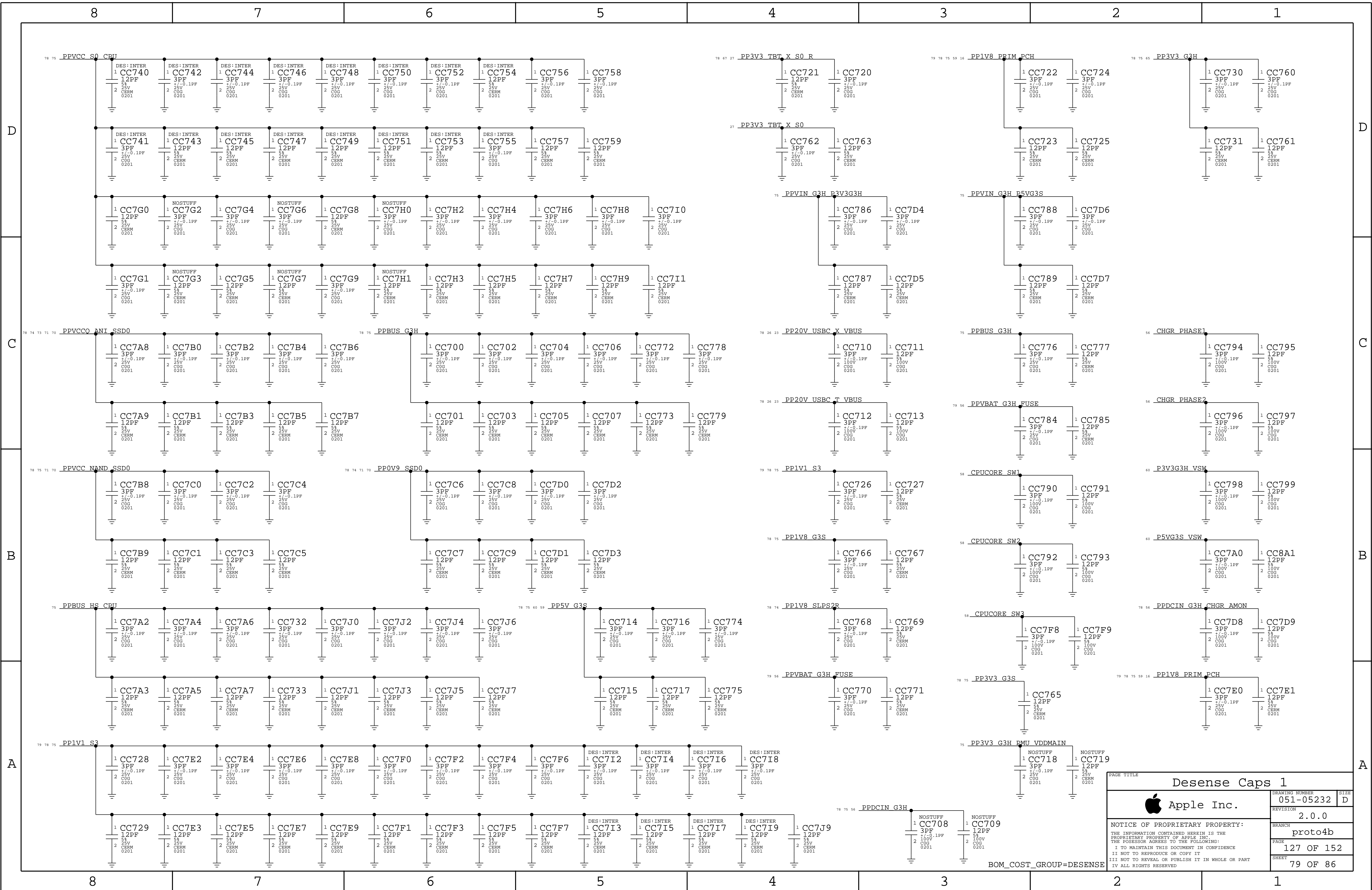


[illegible]

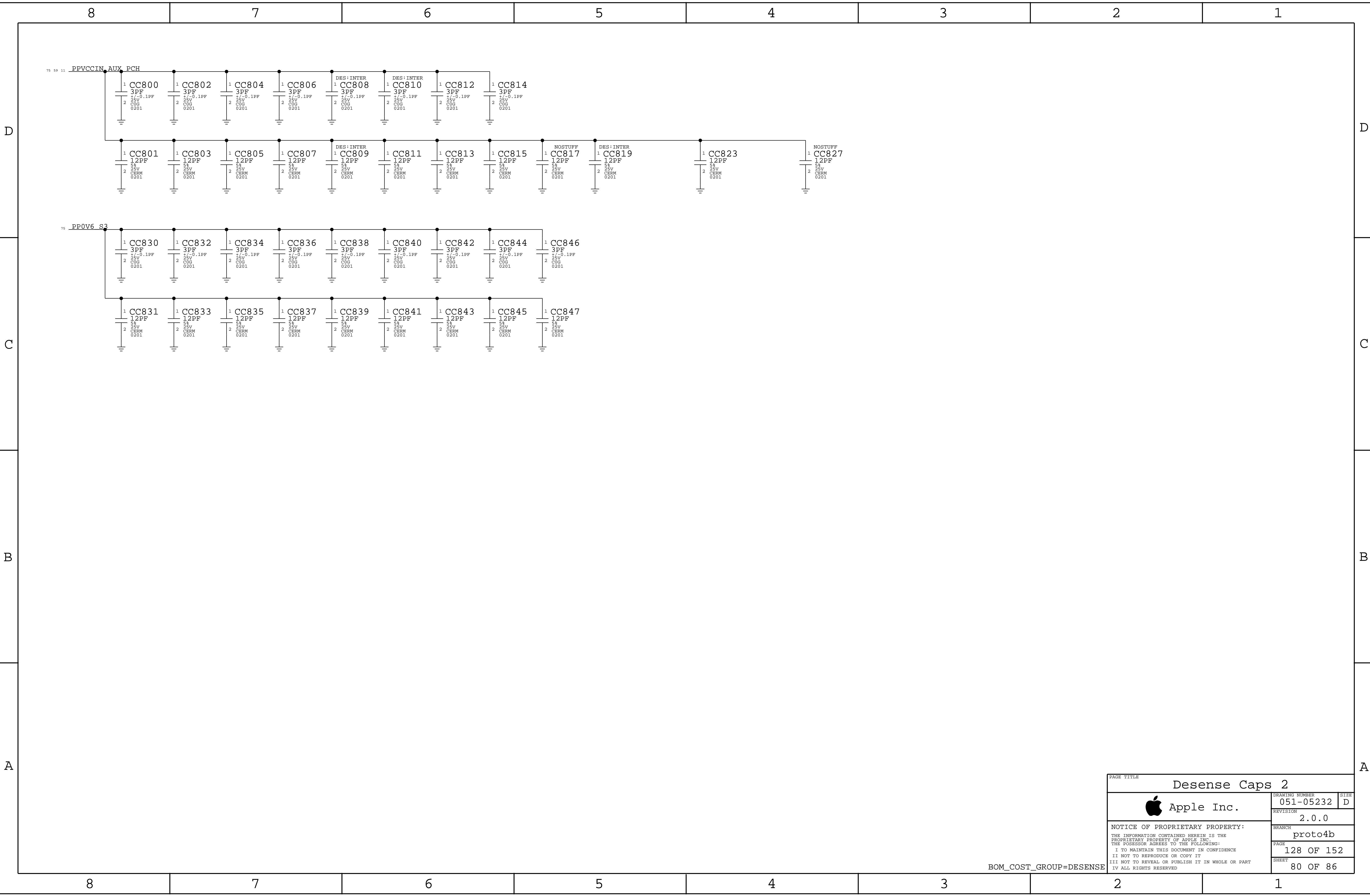
A








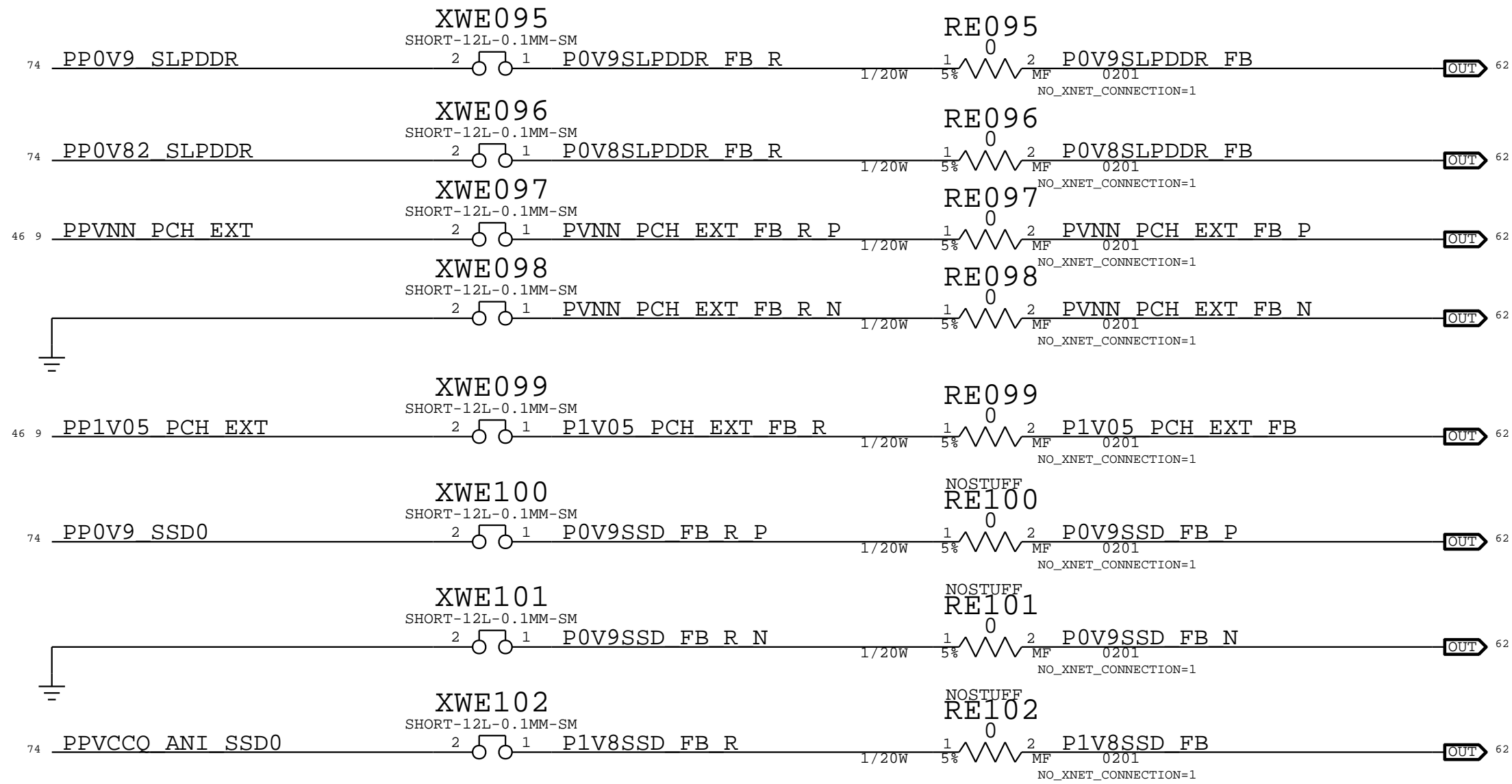




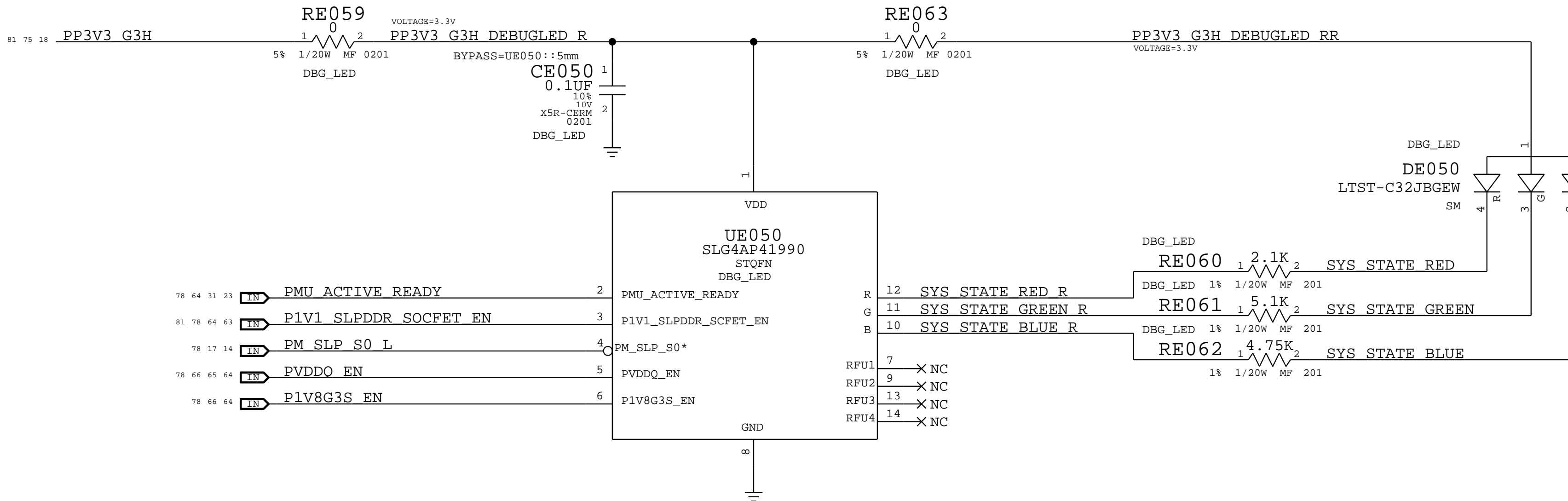
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Desense Caps 2		
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BOM\_COST\_GROUP=DESENSE

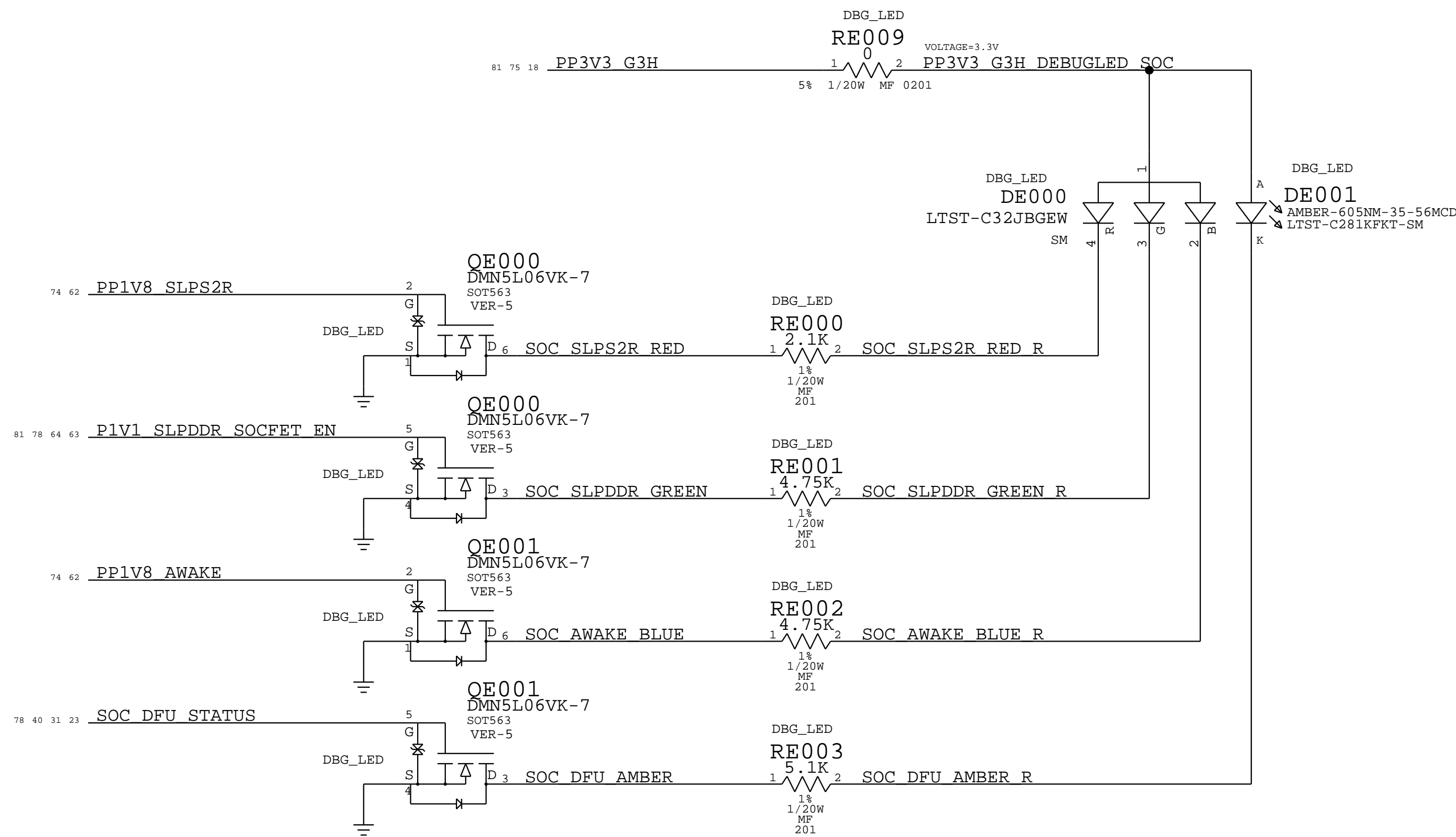
## A Remote Sense Support



## B System State LED



## C SoC State LEDs



Inputs					Outputs			Color		State		
PMU ACT RDY	P1V1_SLPDDR SOCFET_EN	PM_SLP S0_L	PVDDQ EN	P1V8G3S EN	R	G	B			System	SoC	CPU
0	0	0	0	0	BLINK	OFF	OFF	Blinking Red		Shutdown (G3H)	OFF	OFF
0	0	0	0	1	ON	OFF	OFF	Red		Standby (G3S)	SLPS2R	OFF
1	1	0	0	1	ON	ON	OFF	Yellow		Standby (G3S)	AWAKE	OFF
0	0	0	1	1	ON	ON	ON	White		Sleep	SLPS2R	S0i
1	1	0	1	1	OFF	OFF	ON	Blue		Sleep	AWAKE	S0i
1	1	1	1	1	OFF	ON	OFF	Green		Sleep	AWAKE	S0i
1	1	0	0	0	BLINK	ON	OFF	Blinking Yellow & Green		Run	AWAKE	S0

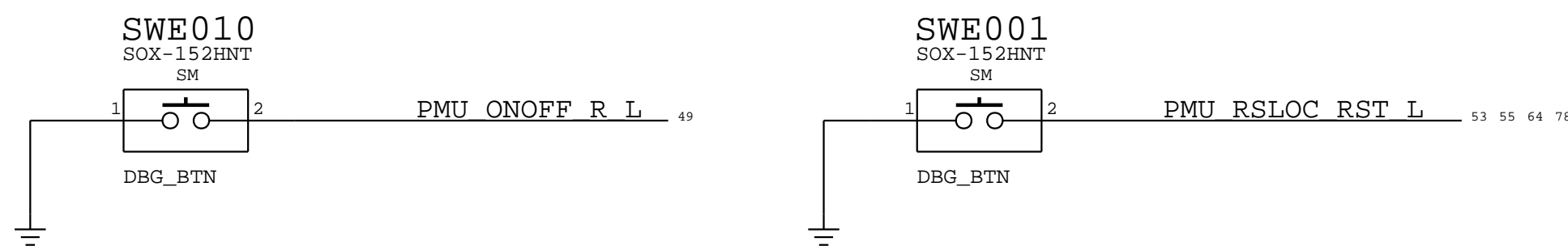
All other states are magenta

## D System Power States


	System State:		Shutdown (G3H)		Standby (G3S)		Standby (S4)		Sleep (S0i/S3)		Run (S0)	
	CPU/PCH State:		Off (RTC Only)		Off (RTC Only)		Standby		Sleep		Run	
Rails	SoC State:		S2R	Awake	S2R	Awake	S2R	Awake	S2R	Awake	Awake	
PP*_S2R (0.8,1.1,1.8V)			On	On	On	On	On	On	On	On	On	
PP*_DDR (0.8,0.9,1.1V)			Off	On	Off	On	Off	On	Off	On	On	
PP*_AWAKE (CPU,SRAM,1.2,1.8,3.3V)			Off	On	Off	On	Off	On	Off	On	On	
PP3V3_G3H (VR1)			On	On	On	On	On	On	On	On	On	
PP1S_G3H			On	On	On	On	On	On	On	On	On	
PP*_G3S (1.8,3.3,5V)			Off	On	On	On	On	On	On	On	On	
PP*_S5 (1.8,3.3V)			Off	Off	Off	Off	On	On	On	On	On	
CPU/PCH VRs			Off	Off	Off	Off	Off/On	Off/On	Off/On	Off/On	On	




- \* System: Shutdown Awake is a transition state only.
- \* SoC: SLP\_DDR is a transition state only.
- \* CPU/PCH: S4 is only used by desktops for USB wakes.
- \* CPU/PCH: S5 is a transition state. May also be used for RTC wakes.

## E Debug Buttons



BOM\_COST\_GROUP=DEBUG

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<table><tr><td>EEEE</td><td>BOM NUMBER</td><td>BOM NAME</td><td>BOM OPTIONS</td></tr><tr><td></td><td>685-00329</td><td>COMMON PARTS,MLB-TKSB,X1783</td><td>MLB_COMMON,MLB_DESENSE,MLB_CPUCFG</td></tr><tr><td></td><td>985-01143</td><td>DEV PARTS,MLB-TKSB,X1783</td><td>DBG_BTN,DBG_LED,USBC_DBG,WIFI_DBG,FANTACH·DEBUG</td></tr><tr><td>MVWL</td><td>939-08188</td><td>PCBA,MLB-TKSB,DCDC,X1783</td><td>ALTERNATE,COMMON_DEV_PARTS_BOM,SCHEM,PCBF,CPU_ICLY:INTERPOSER,MLB_POWER,MLB_MISC</td></tr></table>																EEEE	BOM NUMBER	BOM NAME	BOM OPTIONS		685-00329	COMMON PARTS,MLB-TKSB,X1783	MLB_COMMON,MLB_DESENSE,MLB_CPUCFG		985-01143	DEV PARTS,MLB-TKSB,X1783	DBG_BTN,DBG_LED,USBC_DBG,WIFI_DBG,FANTACH·DEBUG	MVWL	939-08188	PCBA,MLB-TKSB,DCDC,X1783	ALTERNATE,COMMON_DEV_PARTS_BOM,SCHEM,PCBF,CPU_ICLY:INTERPOSER,MLB_POWER,MLB_MISC																																																																																																																																																																																																																																				
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<table><tr><td>EEEE</td><td>BOM NUMBER</td><td>BOM NAME</td><td>BOM OPTIONS</td></tr><tr><td>N4JL</td><td>639-08928</td><td>PCBA,MLB-TKSB,BEST,HY-8G,HY-128G,X1783</td><td>CNN_PARTS_BOM,DEV_PARTS_BOM,ALTERNATE,CPU_ICLY:BEST,DRAMCFG:HYNIX_8GB,NANDCFG:ITLC_S4R_128G_HY</td></tr><tr><td>MTPF</td><td>639-08638</td><td>PCBA,MLB-TKSB,BEST,HY-8G,SS-128G,X1783</td><td>CNN_PARTS_BOM,DEV_PARTS_BOM,ALTERNATE,CPU_ICLY:BEST,DRAMCFG:HYNIX_8GB,NANDCFG:ITLC_S4R_128G_SS</td></tr><tr><td>MXCP</td><td>639-08703</td><td>PCBA,MLB-TKSB,BEST,HY-8G,TO-128G,X1783</td><td>CNN_PARTS_BOM,DEV_PARTS_BOM,ALTERNATE,CPU_ICLY:BEST,DRAMCFG:HYNIX_8GB,NANDCFG:ITLC_S4R_128G_TO</td></tr><tr><td>N4JY</td><td>639-08929</td><td>PCBA,MLB-TKSB,BEST,MI-8G,HY-128G,X1783</td><td>CNN_PARTS_BOM,DEV_PARTS_BOM,ALTERNATE,CPU_ICLY:BEST,DRAMCFG:MICRON_8GB,NANDCFG:ITLC_S4R_128G_HY</td></tr><tr><td>MXD2</td><td>639-08704</td><td>PCBA,MLB-TKSB,BEST,MI-8G,SS-128G,X1783</td><td>CNN_PARTS_BOM,DEV_PARTS_BOM,ALTERNATE,CPU_ICLY:BEST,DRAMCFG:MICRON_8GB,NANDCFG:ITLC_S4R_128G_SS</td></tr><tr><td>MXDF</td><td>639-08705</td><td>PCBA,MLB-TKSB,BEST,MI-8G,TO-128G,X1783</td><td>CNN_PARTS_BOM,DEV_PARTS_BOM,ALTERNATE,CPU_ICLY:BEST,DRAMCFG:MICRON_8GB,NANDCFG:ITLC_S4R_128G_TO</td></tr><tr><td>N4KJ</td><td>639-08930</td><td>PCBA,MLB-TKSB,BEST,SS-8G,HY-128G,X1783</td><td>CNN_PARTS_BOM,DEV_PARTS_BOM,ALTERNATE,CPU_ICLY:BEST,DRAMCFG:SAMSUNG_8GB,NANDCFG:ITLC_S4R_128G_HY</td></tr><tr><td>MXDR</td><td>639-08706</td><td>PCBA,MLB-TKSB,BEST,SS-8G,SS-128G,X1783</td><td>CNN_PARTS_BOM,DEV_PARTS_BOM,ALTERNATE,CPU_ICLY:BEST,DRAMCFG:SAMSUNG_8GB,NANDCFG:ITLC_S4R_128G_SS</td></tr><tr><td>MXF4</td><td>639-08707</td><td>PCBA,MLB-TKSB,BEST,SS-8G,TO-128G,X1783</td><td>CNN_PARTS_BOM,DEV_PARTS_BOM,ALTERNATE,CPU_ICLY:BEST,DRAMCFG:SAMSUNG_8GB,NANDCFG:ITLC_S4R_128G_TO</td></tr><tr><td>N4KY</td><td>639-08931</td><td>PCBA,MLB-TKSB,BEST,HY-16G,HY-128G,X1783</td><td>CNN_PARTS_BOM,DEV_PARTS_BOM,ALTERNATE,CPU_ICLY:BEST,DRAMCFG:HYNIX_16GB,NANDCFG:ITLC_S4R_128G_HY</td></tr><tr><td>MXFH</td><td>639-08708</td><td>PCBA,MLB-TKSB,BEST,HY-16G,SS-128G,X1783</td><td>CNN_PARTS_BOM,DEV_PARTS_BOM,ALTERNATE,CPU_ICLY:BEST,DRAMCFG:HYNIX_16GB,NANDCFG:ITLC_S4R_128G_SS</td></tr><tr><td>MXFV</td><td>639-08709</td><td>PCBA,MLB-TKSB,BEST,HY-16G,TO-128G,X1783</td><td>CNN_PARTS_BOM,DEV_PARTS_BOM,ALTERNATE,CPU_ICLY:BEST,DRAMCFG:HYNIX_16GB,NANDCFG:ITLC_S4R_128G_TO</td></tr><tr><td>N4LF</td><td>639-08932</td><td>PCBA,MLB-TKSB,BEST,MI-16G,HY-128G,X1783</td><td>CNN_PARTS_BOM,DEV_PARTS_BOM,ALTERNATE,CPU_ICLY:BEST,DRAMCFG:MICRON_16GB,NANDCFG:ITLC_S4R_128G_HY</td></tr><tr><td>MXG6</td><td>639-08710</td><td>PCBA,MLB-TKSB,BEST,MI-16G,SS-128G,X1783</td><td>CNN_PARTS_BOM,DEV_PARTS_BOM,ALTERNATE,CPU_ICLY:BEST,DRAMCFG:MICRON_16GB,NANDCFG:ITLC_S4R_128G_SS</td></tr><tr><td>MXGK</td><td>639-08711</td><td>PCBA,MLB-TKSB,BEST,MI-16G,TO-128G,X1783</td><td>CNN_PARTS_BOM,DEV_PARTS_BOM,ALTERNATE,CPU_ICLY:BEST,DRAMCFG:MICRON_16GB,NANDCFG:ITLC_S4R_128G_TO</td></tr><tr><td>N4LR</td><td>639-08933</td><td>PCBA,MLB-TKSB,BEST,SS-16G,HY-128G,X1783</td><td>CNN_PARTS_BOM,DEV_PARTS_BOM,ALTERNATE,CPU_ICLY:BEST,DRAMCFG:SAMSUNG_16GB,NANDCFG:ITLC_S4R_128G_HY</td></tr><tr><td>MXGX</td><td>639-08712</td><td>PCBA,MLB-TKSB,BEST,SS-16G,SS-128G,X1783</td><td>CNN_PARTS_BOM,DEV_PARTS_BOM,ALTERNATE,CPU_ICLY:BEST,DRAMCFG:SAMSUNG_16GB,NANDCFG:ITLC_S4R_128G_SS</td></tr><tr><td>MXH8</td><td>639-08713</td><td>PCBA,MLB-TKSB,BEST,SS-16G,TO-128G,X1783</td><td>CNN_PARTS_BOM,DEV_PARTS_BOM,ALTERNATE,CPU_ICLY:BEST,DRAMCFG:SAMSUNG_16GB,NANDCFG:ITLC_S4R_128G_TO</td></tr><tr><td>MXHM</td><td>639-08714</td><td>PCBA,MLB-TKSB,BEST,HY-8G,HY-256G,X1783</td><td>CNN_PARTS_BOM,DEV_PARTS_BOM,ALTERNATE,CPU_ICLY:BEST,DRAMCFG:HYNIX_8GB,NANDCFG:ITLC_S4R_256G_HY</td></tr><tr><td>MXJ0</td><td>639-08715</td><td>PCBA,MLB-TKSB,BEST,HY-8G,SD-256G,X1783</td><td>CNN_PARTS_BOM,DEV_PARTS_BOM,ALTERNATE,CPU_ICLY:BEST,DRAMCFG:HYNIX_8GB,NANDCFG:ITLC_S4R_256G_SD</td></tr><tr><td>MXJC</td><td>639-08716</td><td>PCBA,MLB-TKSB,BEST,HY-8G,TO-256G,X1783</td><td>CNN_PARTS_BOM,DEV_PARTS_BOM,ALTERNATE,CPU_ICLY:BEST,DRAMCFG:HYNIX_8GB,NANDCFG:ITLC_S4R_256G_TO</td></tr><tr><td>MXJQ</td><td>639-08717</td><td>PCBA,MLB-TKSB,BEST,MI-8G,HY-256G,X1783</td><td>CNN_PARTS_BOM,DEV_PARTS_BOM,ALTERNATE,CPU_ICLY:BEST,DRAMCFG:MICRON_8GB,NANDCFG:ITLC_S4R_256G_HY</td></tr><tr><td>MXK3</td><td>639-08718</td><td>PCBA,MLB-TKSB,BEST,MI-8G,SD-256G,X1783</td><td>CNN_PARTS_BOM,DEV_PARTS_BOM,ALTERNATE,CPU_ICLY:BEST,DRAMCFG:MICRON_8GB,NANDCFG:ITLC_S4R_256G_SD</td></tr><tr><td>MXKG</td><td>639-08719</td><td>PCBA,MLB-TKSB,BEST,MI-8G,TO-256G,X1783</td><td>CNN_PARTS_BOM,DEV_PARTS_BOM,ALTERNATE,CPU_ICLY:BEST,DRAMCFG:MICRON_8GB,NANDCFG:ITLC_S4R_256G_TO</td></tr><tr><td>MXKT</td><td>639-08720</td><td>PCBA,MLB-TKSB,BEST,SS-8G,HY-256G,X1783</td><td>CNN_PARTS_BOM,DEV_PARTS_BOM,ALTERNATE,CPU_ICLY:BEST,DRAMCFG:SAMSUNG_8GB,NANDCFG:ITLC_S4R_256G_HY</td></tr><tr><td>MXL5</td><td>639-08721</td><td>PCBA,MLB-TKSB,BEST,SS-8G,SD-256G,X1783</td><td>CNN_PARTS_BOM,DEV_PARTS_BOM,ALTERNATE,CPU_ICLY:BEST,DRAMCFG:SAMSUNG_8GB,NANDCFG:ITLC_S4R_256G_SD</td></tr>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td>MXXW</td><td>639-08748</td><td>PCBA,MLB-TKSB,BEST,SS-8G,HY-1.0T,X1783</td><td>CNN_PARTS_BOM,DEV_PARTS_BOM,ALTERNATE,CPU_ICLY:BEST,DRAMCFG:SAMSUNG_8GB,NANDCFG:ITLC_S4R_1POT_HY</td></tr><tr><td>MYX8</td><td>639-08749</td><td>PCBA,MLB-TKSB,BEST,SS-8G,SD-1.0T,X1783</td><td>CNN_PARTS_BOM,DEV_PARTS_BOM,ALTERNATE,CPU_ICLY:BEST,DRAMCFG:SAMSUNG_8GB,NANDCFG:ITLC_S4R_1POT_SD</td></tr><tr><td>MYYM</td><td>639-08750</td><td>PCBA,MLB-TKSB,BEST,HY-16G,HY-1.0T,X1783</td><td>CNN_PARTS_BOM,DEV_PARTS_BOM,ALTERNATE,CPU_ICLY:BEST,DRAMCFG:HYNIX_16GB,NANDCFG:ITLC_S4R_1POT_HY</td></tr><tr><td>MY11</td><td>639-08751</td><td>PCBA,MLB-TKSB,BEST,HY-16G,SD-1.0T,X1783</td><td>CNN_PARTS_BOM,DEV_PARTS_BOM,ALTERNATE,CPU_ICLY:BEST,DRAMCFG:HYNIX_16GB,NANDCFG:ITLC_S4R_1POT_SD</td></tr><tr><td>MY1F</td><td>639-08752</td><td>PCBA,MLB-TKSB,BEST,MI-16G,HY-1.0T,X1783</td><td>CNN_PARTS_BOM,DEV_PARTS_BOM,ALTERNATE,CPU_ICLY:BEST,DRAMCFG:MICRON_16GB,NANDCFG:ITLC_S4R_1POT_HY</td></tr><tr><td>MY1R</td><td>639-08753</td><td>PCBA,MLB-TKSB,BEST,MI-16G,SD-1.0T,X1783</td><td>CNN_PARTS_BOM,DEV_PARTS_BOM,ALTERNATE,CPU_ICLY:BEST,DRAMCFG:MICRON_16GB,NANDCFG:ITLC_S4R_1POT_SD</td></tr><tr><td>MY25</td><td>639-08754</td><td>PCBA,MLB-TKSB,BEST,SS-16G,HY-1.0T,X1783</td><td>CNN_PARTS_BOM,DEV_PARTS_BOM,ALTERNATE,CPU_ICLY:BEST,DRAMCFG:SAMSUNG_16GB,NANDCFG:ITLC_S4R_1POT_HY</td></tr><tr><td>MY2L</td><td>639-08755</td><td>PCBA,MLB-TKSB,BEST,SS-16G,SD-1.0T,X1783</td><td>CNN_PARTS_BOM,DEV_PARTS_BOM,ALTERNATE,CPU_ICLY:BEST,DRAMCFG:SAMSUNG_16GB,NANDCFG:ITLC_S4R_1POT_SD</td></tr></table>																EEEE	BOM NUMBER	BOM NAME	BOM OPTIONS	N4JL	639-08928	PCBA,MLB-TKSB,BEST,HY-8G,HY-128G,X1783	CNN_PARTS_BOM,DEV_PARTS_BOM,ALTERNATE,CPU_ICLY:BEST,DRAMCFG:HYNIX_8GB,NANDCFG:ITLC_S4R_128G_HY	MTPF	639-08638	PCBA,MLB-TKSB,BEST,HY-8G,SS-128G,X1783	CNN_PARTS_BOM,DEV_PARTS_BOM,ALTERNATE,CPU_ICLY:BEST,DRAMCFG:HYNIX_8GB,NANDCFG:ITLC_S4R_128G_SS	MXCP	639-08703	PCBA,MLB-TKSB,BEST,HY-8G,TO-128G,X1783	CNN_PARTS_BOM,DEV_PARTS_BOM,ALTERNATE,CPU_ICLY:BEST,DRAMCFG:HYNIX_8GB,NANDCFG:ITLC_S4R_128G_TO	N4JY	639-08929	PCBA,MLB-TKSB,BEST,MI-8G,HY-128G,X1783	CNN_PARTS_BOM,DEV_PARTS_BOM,ALTERNATE,CPU_ICLY:BEST,DRAMCFG:MICRON_8GB,NANDCFG:ITLC_S4R_128G_HY	MXD2	639-08704	PCBA,MLB-TKSB,BEST,MI-8G,SS-128G,X1783	CNN_PARTS_BOM,DEV_PARTS_BOM,ALTERNATE,CPU_ICLY:BEST,DRAMCFG:MICRON_8GB,NANDCFG:ITLC_S4R_128G_SS	MXDF	639-08705	PCBA,MLB-TKSB,BEST,MI-8G,TO-128G,X1783	CNN_PARTS_BOM,DEV_PARTS_BOM,ALTERNATE,CPU_ICLY:BEST,DRAMCFG:MICRON_8GB,NANDCFG:ITLC_S4R_128G_TO	N4KJ	639-08930	PCBA,MLB-TKSB,BEST,SS-8G,HY-128G,X1783	CNN_PARTS_BOM,DEV_PARTS_BOM,ALTERNATE,CPU_ICLY:BEST,DRAMCFG:SAMSUNG_8GB,NANDCFG:ITLC_S4R_128G_HY	MXDR	639-08706	PCBA,MLB-TKSB,BEST,SS-8G,SS-128G,X1783	CNN_PARTS_BOM,DEV_PARTS_BOM,ALTERNATE,CPU_ICLY:BEST,DRAMCFG:SAMSUNG_8GB,NANDCFG:ITLC_S4R_128G_SS	MXF4	639-08707	PCBA,MLB-TKSB,BEST,SS-8G,TO-128G,X1783	CNN_PARTS_BOM,DEV_PARTS_BOM,ALTERNATE,CPU_ICLY:BEST,DRAMCFG:SAMSUNG_8GB,NANDCFG:ITLC_S4R_128G_TO	N4KY	639-08931	PCBA,MLB-TKSB,BEST,HY-16G,HY-128G,X1783	CNN_PARTS_BOM,DEV_PARTS_BOM,ALTERNATE,CPU_ICLY:BEST,DRAMCFG:HYNIX_16GB,NANDCFG:ITLC_S4R_128G_HY	MXFH	639-08708	PCBA,MLB-TKSB,BEST,HY-16G,SS-128G,X1783	CNN_PARTS_BOM,DEV_PARTS_BOM,ALTERNATE,CPU_ICLY:BEST,DRAMCFG:HYNIX_16GB,NANDCFG:ITLC_S4R_128G_SS	MXFV	639-08709	PCBA,MLB-TKSB,BEST,HY-16G,TO-128G,X1783	CNN_PARTS_BOM,DEV_PARTS_BOM,ALTERNATE,CPU_ICLY:BEST,DRAMCFG:HYNIX_16GB,NANDCFG:ITLC_S4R_128G_TO	N4LF	639-08932	PCBA,MLB-TKSB,BEST,MI-16G,HY-128G,X1783	CNN_PARTS_BOM,DEV_PARTS_BOM,ALTERNATE,CPU_ICLY:BEST,DRAMCFG:MICRON_16GB,NANDCFG:ITLC_S4R_128G_HY	MXG6	639-08710	PCBA,MLB-TKSB,BEST,MI-16G,SS-128G,X1783	CNN_PARTS_BOM,DEV_PARTS_BOM,ALTERNATE,CPU_ICLY:BEST,DRAMCFG:MICRON_16GB,NANDCFG:ITLC_S4R_128G_SS	MXGK	639-08711	PCBA,MLB-TKSB,BEST,MI-16G,TO-128G,X1783	CNN_PARTS_BOM,DEV_PARTS_BOM,ALTERNATE,CPU_ICLY:BEST,DRAMCFG:MICRON_16GB,NANDCFG:ITLC_S4R_128G_TO	N4LR	639-08933	PCBA,MLB-TKSB,BEST,SS-16G,HY-128G,X1783	CNN_PARTS_BOM,DEV_PARTS_BOM,ALTERNATE,CPU_ICLY:BEST,DRAMCFG:SAMSUNG_16GB,NANDCFG:ITLC_S4R_128G_HY	MXGX	639-08712	PCBA,MLB-TKSB,BEST,SS-16G,SS-128G,X1783	CNN_PARTS_BOM,DEV_PARTS_BOM,ALTERNATE,CPU_ICLY:BEST,DRAMCFG:SAMSUNG_16GB,NANDCFG:ITLC_S4R_128G_SS	MXH8	639-08713	PCBA,MLB-TKSB,BEST,SS-16G,TO-128G,X1783	CNN_PARTS_BOM,DEV_PARTS_BOM,ALTERNATE,CPU_ICLY:BEST,DRAMCFG:SAMSUNG_16GB,NANDCFG:ITLC_S4R_128G_TO	MXHM	639-08714	PCBA,MLB-TKSB,BEST,HY-8G,HY-256G,X1783	CNN_PARTS_BOM,DEV_PARTS_BOM,ALTERNATE,CPU_ICLY:BEST,DRAMCFG:HYNIX_8GB,NANDCFG:ITLC_S4R_256G_HY	MXJ0	639-08715	PCBA,MLB-TKSB,BEST,HY-8G,SD-256G,X1783	CNN_PARTS_BOM,DEV_PARTS_BOM,ALTERNATE,CPU_ICLY:BEST,DRAMCFG:HYNIX_8GB,NANDCFG:ITLC_S4R_256G_SD	MXJC	639-08716	PCBA,MLB-TKSB,BEST,HY-8G,TO-256G,X1783	CNN_PARTS_BOM,DEV_PARTS_BOM,ALTERNATE,CPU_ICLY:BEST,DRAMCFG:HYNIX_8GB,NANDCFG:ITLC_S4R_256G_TO	MXJQ	639-08717	PCBA,MLB-TKSB,BEST,MI-8G,HY-256G,X1783	CNN_PARTS_BOM,DEV_PARTS_BOM,ALTERNATE,CPU_ICLY:BEST,DRAMCFG:MICRON_8GB,NANDCFG:ITLC_S4R_256G_HY	MXK3	639-08718	PCBA,MLB-TKSB,BEST,MI-8G,SD-256G,X1783	CNN_PARTS_BOM,DEV_PARTS_BOM,ALTERNATE,CPU_ICLY:BEST,DRAMCFG:MICRON_8GB,NANDCFG:ITLC_S4R_256G_SD	MXKG	639-08719	PCBA,MLB-TKSB,BEST,MI-8G,TO-256G,X1783	CNN_PARTS_BOM,DEV_PARTS_BOM,ALTERNATE,CPU_ICLY:BEST,DRAMCFG:MICRON_8GB,NANDCFG:ITLC_S4R_256G_TO	MXKT	639-08720	PCBA,MLB-TKSB,BEST,SS-8G,HY-256G,X1783	CNN_PARTS_BOM,DEV_PARTS_BOM,ALTERNATE,CPU_ICLY:BEST,DRAMCFG:SAMSUNG_8GB,NANDCFG:ITLC_S4R_256G_HY	MXL5	639-08721	PCBA,MLB-TKSB,BEST,SS-8G,SD-256G,X1783	CNN_PARTS_BOM,DEV_PARTS_BOM,ALTERNATE,CPU_ICLY:BEST,DRAMCFG:SAMSUNG_8GB,NANDCFG:ITLC_S4R_256G_SD	MXLJ	639-08722	PCBA,MLB-TKSB,BEST,SS-8G,TO-256G,X1783	CNN_PARTS_BOM,DEV_PARTS_BOM,ALTERNATE,CPU_ICLY:BEST,DRAMCFG:SAMSUNG_8GB,NANDCFG:ITLC_S4R_256G_TO	MXLW	639-08723	PCBA,MLB-TKSB,BEST,HY-16G,HY-256G,X1783	CNN_PARTS_BOM,DEV_PARTS_BOM,ALTERNATE,CPU_ICLY:BEST,DRAMCFG:HYNIX_16GB,NANDCFG:ITLC_S4R_256G_HY	MXM7	639-08724	PCBA,MLB-TKSB,BEST,HY-16G,SD-256G,X1783	CNN_PARTS_BOM,DEV_PARTS_BOM,ALTERNATE,CPU_ICLY:BEST,DRAMCFG:HYNIX_16GB,NANDCFG:ITLC_S4R_256G_SD	MXML	639-08725	PCBA,MLB-TKSB,BEST,HY-16G,TO-256G,X1783	CNN_PARTS_BOM,DEV_PARTS_BOM,ALTERNATE,CPU_ICLY:BEST,DRAMCFG:HYNIX_16GB,NANDCFG:ITLC_S4R_256G_TO	MXMY	639-08726	PCBA,MLB-TKSB,BEST,MI-16G,HY-256G,X1783	CNN_PARTS_BOM,DEV_PARTS_BOM,ALTERNATE,CPU_ICLY:BEST,DRAMCFG:MICRON_16GB,NANDCFG:ITLC_S4R_256G_HY	MXN9	639-08727	PCBA,MLB-TKSB,BEST,MI-16G,SD-256G,X1783	CNN_PARTS_BOM,DEV_PARTS_BOM,ALTERNATE,CPU_ICLY:BEST,DRAMCFG:MICRON_16GB,NANDCFG:ITLC_S4R_256G_SD	MXNN	639-08728	PCBA,MLB-TKSB,BEST,MI-16G,TO-256G,X1783	CNN_PARTS_BOM,DEV_PARTS_BOM,ALTERNATE,CPU_ICLY:BEST,DRAMCFG:MICRON_16GB,NANDCFG:ITLC_S4R_256G_TO	MXPD	639-08729	PCBA,MLB-TKSB,BEST,SS-16G,HY-256G,X1783	CNN_PARTS_BOM,DEV_PARTS_BOM,ALTERNATE,CPU_ICLY:BEST,DRAMCFG:SAMSUNG_16GB,NANDCFG:ITLC_S4R_256G_HY	MXPD	639-08730	PCBA,MLB-TKSB,BEST,SS-16G,SD-256G,X1783	CNN_PARTS_BOM,DEV_PARTS_BOM,ALTERNATE,CPU_ICLY:BEST,DRAMCFG:SAMSUNG_16GB,NANDCFG:ITLC_S4R_256G_SD	MXPQ	639-08731	PCBA,MLB-TKSB,BEST,SS-16G,TO-256G,X1783	CNN_PARTS_BOM,DEV_PARTS_BOM,ALTERNATE,CPU_ICLY:BEST,DRAMCFG:SAMSUNG_16GB,NANDCFG:ITLC_S4R_256G_TO	MXQ3	639-08732	PCBA,MLB-TKSB,BEST,HY-8G,SD-512G,X1783	CNN_PARTS_BOM,DEV_PARTS_BOM,ALTERNATE,CPU_ICLY:BEST,DRAMCFG:HYNIX_8GB,NANDCFG:ITLC_S4R_512G_SD	MXQG	639-08733	PCBA,MLB-TKSB,BEST,HY-8G,TO-512G,X1783	CNN_PARTS_BOM,DEV_PARTS_BOM,ALTERNATE,CPU_ICLY:BEST,DRAMCFG:HYNIX_8GB,NANDCFG:ITLC_S4R_512G_TO	MXQT	639-08734	PCBA,MLB-TKSB,BEST,MI-8G,SD-512G,X1783	CNN_PARTS_BOM,DEV_PARTS_BOM,ALTERNATE,CPU_ICLY:BEST,DRAMCFG:MICRON_8GB,NANDCFG:ITLC_S4R_512G_SD	MXR5	639-08735	PCBA,MLB-TKSB,BEST,MI-8G,TO-512G,X1783	CNN_PARTS_BOM,DEV_PARTS_BOM,ALTERNATE,CPU_ICLY:BEST,DRAMCFG:MICRON_8GB,NANDCFG:ITLC_S4R_512G_TO	MXRJ	639-08736	PCBA,MLB-TKSB,BEST,SS-8G,SD-512G,X1783	CNN_PARTS_BOM,DEV_PARTS_BOM,ALTERNATE,CPU_ICLY:BEST,DRAMCFG:SAMSUNG_8GB,NANDCFG:ITLC_S4R_512G_SD	MXRW	639-08737	PCBA,MLB-TKSB,BEST,SS-8G,TO-512G,X1783	CNN_PARTS_BOM,DEV_PARTS_BOM,ALTERNATE,CPU_ICLY:BEST,DRAMCFG:SAMSUNG_8GB,NANDCFG:ITLC_S4R_512G_TO	MXT7	639-08738	PCBA,MLB-TKSB,BEST,HY-16G,SD-512G,X1783	CNN_PARTS_BOM,DEV_PARTS_BOM,ALTERNATE,CPU_ICLY:BEST,DRAMCFG:HYNIX_16GB,NANDCFG:ITLC_S4R_512G_SD	MXTN	639-08739	PCBA,MLB-TKSB,BEST,HY-16G,TO-512G,X1783	CNN_PARTS_BOM,DEV_PARTS_BOM,ALTERNATE,CPU_ICLY:BEST,DRAMCFG:HYNIX_16GB,NANDCFG:ITLC_S4R_512G_TO	MXV1	639-08740	PCBA,MLB-TKSB,BEST,MI-16G,SD-512G,X1783	CNN_PARTS_BOM,DEV_PARTS_BOM,ALTERNATE,CPU_ICLY:BEST,DRAMCFG:MICRON_16GB,NANDCFG:ITLC_S4R_512G_SD	MXVD	639-08741	PCBA,MLB-TKSB,BEST,MI-16G,TO-512G,X1783	CNN_PARTS_BOM,DEV_PARTS_BOM,ALTERNATE,CPU_ICLY:BEST,DRAMCFG:MICRON_16GB,NANDCFG:ITLC_S4R_512G_TO	MXVQ	639-08742	PCBA,MLB-TKSB,BEST,SS-16G,SD-512G,X1783	CNN_PARTS_BOM,DEV_PARTS_BOM,ALTERNATE,CPU_ICLY:BEST,DRAMCFG:SAMSUNG_16GB,NANDCFG:ITLC_S4R_512G_SD	MXW3	639-08743	PCBA,MLB-TKSB,BEST,SS-16G,TO-512G,X1783	CNN_PARTS_BOM,DEV_PARTS_BOM,ALTERNATE,CPU_ICLY:BEST,DRAMCFG:SAMSUNG_16GB,NANDCFG:ITLC_S4R_512G_TO	MXWG	639-08744	PCBA,MLB-TKSB,BEST,HY-8G,HY-1.0T,X1783	CNN_PARTS_BOM,DEV_PARTS_BOM,ALTERNATE,CPU_ICLY:BEST,DRAMCFG:HYNIX_8GB,NANDCFG:ITLC_S4R_1POT_HY	MXWT	639-08745	PCBA,MLB-TKSB,BEST,HY-8G,SD-1.0T,X1783	CNN_PARTS_BOM,DEV_PARTS_BOM,ALTERNATE,CPU_ICLY:BEST,DRAMCFG:HYNIX_8GB,NANDCFG:ITLC_S4R_1POT_SD	MXX5	639-08746	PCBA,MLB-TKSB,BEST,MI-8G,HY-1.0T,X1783	CNN_PARTS_BOM,DEV_PARTS_BOM,ALTERNATE,CPU_ICLY:BEST,DRAMCFG:MICRON_8GB,NANDCFG:ITLC_S4R_1POT_HY	MXXJ	639-08747	PCBA,MLB-TKSB,BEST,MI-8G,SD-1.0T,X1783	CNN_PARTS_BOM,DEV_PARTS_BOM,ALTERNATE,CPU_ICLY:BEST,DRAMCFG:MICRON_8GB,NANDCFG:ITLC_S4R_1POT_SD	MXXW	639-08748	PCBA,MLB-TKSB,BEST,SS-8G,HY-1.0T,X1783	CNN_PARTS_BOM,DEV_PARTS_BOM,ALTERNATE,CPU_ICLY:BEST,DRAMCFG:SAMSUNG_8GB,NANDCFG:ITLC_S4R_1POT_HY	MYX8	639-08749	PCBA,MLB-TKSB,BEST,SS-8G,SD-1.0T,X1783	CNN_PARTS_BOM,DEV_PARTS_BOM,ALTERNATE,CPU_ICLY:BEST,DRAMCFG:SAMSUNG_8GB,NANDCFG:ITLC_S4R_1POT_SD	MYYM	639-08750	PCBA,MLB-TKSB,BEST,HY-16G,HY-1.0T,X1783	CNN_PARTS_BOM,DEV_PARTS_BOM,ALTERNATE,CPU_ICLY:BEST,DRAMCFG:HYNIX_16GB,NANDCFG:ITLC_S4R_1POT_HY	MY11	639-08751	PCBA,MLB-TKSB,BEST,HY-16G,SD-1.0T,X1783	CNN_PARTS_BOM,DEV_PARTS_BOM,ALTERNATE,CPU_ICLY:BEST,DRAMCFG:HYNIX_16GB,NANDCFG:ITLC_S4R_1POT_SD	MY1F	639-08752	PCBA,MLB-TKSB,BEST,MI-16G,HY-1.0T,X1783	CNN_PARTS_BOM,DEV_PARTS_BOM,ALTERNATE,CPU_ICLY:BEST,DRAMCFG:MICRON_16GB,NANDCFG:ITLC_S4R_1POT_HY	MY1R	639-08753	PCBA,MLB-TKSB,BEST,MI-16G,SD-1.0T,X1783	CNN_PARTS_BOM,DEV_PARTS_BOM,ALTERNATE,CPU_ICLY:BEST,DRAMCFG:MICRON_16GB,NANDCFG:ITLC_S4R_1POT_SD	MY25	639-08754	PCBA,MLB-TKSB,BEST,SS-16G,HY-1.0T,X1783	CNN_PARTS_BOM,DEV_PARTS_BOM,ALTERNATE,CPU_ICLY:BEST,DRAMCFG:SAMSUNG_16GB,NANDCFG:ITLC_S4R_1POT_HY	MY2L	639-08755	PCBA,MLB-TKSB,BEST,SS-16G,SD-1.0T,X1783	CNN_PARTS_BOM,DEV_PARTS_BOM,ALTERNATE,CPU_ICLY:BEST,DRAMCFG:SAMSUNG_16GB,NANDCFG:ITLC_S4R_1POT_SD
EEEE	BOM NUMBER	BOM NAME	BOM OPTIONS																																																																																																																																																																																																																																																																
N4JL	639-08928	PCBA,MLB-TKSB,BEST,HY-8G,HY-128G,X1783	CNN_PARTS_BOM,DEV_PARTS_BOM,ALTERNATE,CPU_ICLY:BEST,DRAMCFG:HYNIX_8GB,NANDCFG:ITLC_S4R_128G_HY																																																																																																																																																																																																																																																																
MTPF	639-08638	PCBA,MLB-TKSB,BEST,HY-8G,SS-128G,X1783	CNN_PARTS_BOM,DEV_PARTS_BOM,ALTERNATE,CPU_ICLY:BEST,DRAMCFG:HYNIX_8GB,NANDCFG:ITLC_S4R_128G_SS																																																																																																																																																																																																																																																																
MXCP	639-08703	PCBA,MLB-TKSB,BEST,HY-8G,TO-128G,X1783	CNN_PARTS_BOM,DEV_PARTS_BOM,ALTERNATE,CPU_ICLY:BEST,DRAMCFG:HYNIX_8GB,NANDCFG:ITLC_S4R_128G_TO																																																																																																																																																																																																																																																																
N4JY	639-08929	PCBA,MLB-TKSB,BEST,MI-8G,HY-128G,X1783	CNN_PARTS_BOM,DEV_PARTS_BOM,ALTERNATE,CPU_ICLY:BEST,DRAMCFG:MICRON_8GB,NANDCFG:ITLC_S4R_128G_HY																																																																																																																																																																																																																																																																
MXD2	639-08704	PCBA,MLB-TKSB,BEST,MI-8G,SS-128G,X1783	CNN_PARTS_BOM,DEV_PARTS_BOM,ALTERNATE,CPU_ICLY:BEST,DRAMCFG:MICRON_8GB,NANDCFG:ITLC_S4R_128G_SS																																																																																																																																																																																																																																																																
MXDF	639-08705	PCBA,MLB-TKSB,BEST,MI-8G,TO-128G,X1783	CNN_PARTS_BOM,DEV_PARTS_BOM,ALTERNATE,CPU_ICLY:BEST,DRAMCFG:MICRON_8GB,NANDCFG:ITLC_S4R_128G_TO																																																																																																																																																																																																																																																																
N4KJ	639-08930	PCBA,MLB-TKSB,BEST,SS-8G,HY-128G,X1783	CNN_PARTS_BOM,DEV_PARTS_BOM,ALTERNATE,CPU_ICLY:BEST,DRAMCFG:SAMSUNG_8GB,NANDCFG:ITLC_S4R_128G_HY																																																																																																																																																																																																																																																																
MXDR	639-08706	PCBA,MLB-TKSB,BEST,SS-8G,SS-128G,X1783	CNN_PARTS_BOM,DEV_PARTS_BOM,ALTERNATE,CPU_ICLY:BEST,DRAMCFG:SAMSUNG_8GB,NANDCFG:ITLC_S4R_128G_SS																																																																																																																																																																																																																																																																
MXF4	639-08707	PCBA,MLB-TKSB,BEST,SS-8G,TO-128G,X1783	CNN_PARTS_BOM,DEV_PARTS_BOM,ALTERNATE,CPU_ICLY:BEST,DRAMCFG:SAMSUNG_8GB,NANDCFG:ITLC_S4R_128G_TO																																																																																																																																																																																																																																																																
N4KY	639-08931	PCBA,MLB-TKSB,BEST,HY-16G,HY-128G,X1783	CNN_PARTS_BOM,DEV_PARTS_BOM,ALTERNATE,CPU_ICLY:BEST,DRAMCFG:HYNIX_16GB,NANDCFG:ITLC_S4R_128G_HY																																																																																																																																																																																																																																																																
MXFH	639-08708	PCBA,MLB-TKSB,BEST,HY-16G,SS-128G,X1783	CNN_PARTS_BOM,DEV_PARTS_BOM,ALTERNATE,CPU_ICLY:BEST,DRAMCFG:HYNIX_16GB,NANDCFG:ITLC_S4R_128G_SS																																																																																																																																																																																																																																																																
MXFV	639-08709	PCBA,MLB-TKSB,BEST,HY-16G,TO-128G,X1783	CNN_PARTS_BOM,DEV_PARTS_BOM,ALTERNATE,CPU_ICLY:BEST,DRAMCFG:HYNIX_16GB,NANDCFG:ITLC_S4R_128G_TO																																																																																																																																																																																																																																																																
N4LF	639-08932	PCBA,MLB-TKSB,BEST,MI-16G,HY-128G,X1783	CNN_PARTS_BOM,DEV_PARTS_BOM,ALTERNATE,CPU_ICLY:BEST,DRAMCFG:MICRON_16GB,NANDCFG:ITLC_S4R_128G_HY																																																																																																																																																																																																																																																																
MXG6	639-08710	PCBA,MLB-TKSB,BEST,MI-16G,SS-128G,X1783	CNN_PARTS_BOM,DEV_PARTS_BOM,ALTERNATE,CPU_ICLY:BEST,DRAMCFG:MICRON_16GB,NANDCFG:ITLC_S4R_128G_SS																																																																																																																																																																																																																																																																
MXGK	639-08711	PCBA,MLB-TKSB,BEST,MI-16G,TO-128G,X1783	CNN_PARTS_BOM,DEV_PARTS_BOM,ALTERNATE,CPU_ICLY:BEST,DRAMCFG:MICRON_16GB,NANDCFG:ITLC_S4R_128G_TO																																																																																																																																																																																																																																																																
N4LR	639-08933	PCBA,MLB-TKSB,BEST,SS-16G,HY-128G,X1783	CNN_PARTS_BOM,DEV_PARTS_BOM,ALTERNATE,CPU_ICLY:BEST,DRAMCFG:SAMSUNG_16GB,NANDCFG:ITLC_S4R_128G_HY																																																																																																																																																																																																																																																																
MXGX	639-08712	PCBA,MLB-TKSB,BEST,SS-16G,SS-128G,X1783	CNN_PARTS_BOM,DEV_PARTS_BOM,ALTERNATE,CPU_ICLY:BEST,DRAMCFG:SAMSUNG_16GB,NANDCFG:ITLC_S4R_128G_SS																																																																																																																																																																																																																																																																
MXH8	639-08713	PCBA,MLB-TKSB,BEST,SS-16G,TO-128G,X1783	CNN_PARTS_BOM,DEV_PARTS_BOM,ALTERNATE,CPU_ICLY:BEST,DRAMCFG:SAMSUNG_16GB,NANDCFG:ITLC_S4R_128G_TO																																																																																																																																																																																																																																																																
MXHM	639-08714	PCBA,MLB-TKSB,BEST,HY-8G,HY-256G,X1783	CNN_PARTS_BOM,DEV_PARTS_BOM,ALTERNATE,CPU_ICLY:BEST,DRAMCFG:HYNIX_8GB,NANDCFG:ITLC_S4R_256G_HY																																																																																																																																																																																																																																																																
MXJ0	639-08715	PCBA,MLB-TKSB,BEST,HY-8G,SD-256G,X1783	CNN_PARTS_BOM,DEV_PARTS_BOM,ALTERNATE,CPU_ICLY:BEST,DRAMCFG:HYNIX_8GB,NANDCFG:ITLC_S4R_256G_SD																																																																																																																																																																																																																																																																
MXJC	639-08716	PCBA,MLB-TKSB,BEST,HY-8G,TO-256G,X1783	CNN_PARTS_BOM,DEV_PARTS_BOM,ALTERNATE,CPU_ICLY:BEST,DRAMCFG:HYNIX_8GB,NANDCFG:ITLC_S4R_256G_TO																																																																																																																																																																																																																																																																
MXJQ	639-08717	PCBA,MLB-TKSB,BEST,MI-8G,HY-256G,X1783	CNN_PARTS_BOM,DEV_PARTS_BOM,ALTERNATE,CPU_ICLY:BEST,DRAMCFG:MICRON_8GB,NANDCFG:ITLC_S4R_256G_HY																																																																																																																																																																																																																																																																
MXK3	639-08718	PCBA,MLB-TKSB,BEST,MI-8G,SD-256G,X1783	CNN_PARTS_BOM,DEV_PARTS_BOM,ALTERNATE,CPU_ICLY:BEST,DRAMCFG:MICRON_8GB,NANDCFG:ITLC_S4R_256G_SD																																																																																																																																																																																																																																																																
MXKG	639-08719	PCBA,MLB-TKSB,BEST,MI-8G,TO-256G,X1783	CNN_PARTS_BOM,DEV_PARTS_BOM,ALTERNATE,CPU_ICLY:BEST,DRAMCFG:MICRON_8GB,NANDCFG:ITLC_S4R_256G_TO																																																																																																																																																																																																																																																																
MXKT	639-08720	PCBA,MLB-TKSB,BEST,SS-8G,HY-256G,X1783	CNN_PARTS_BOM,DEV_PARTS_BOM,ALTERNATE,CPU_ICLY:BEST,DRAMCFG:SAMSUNG_8GB,NANDCFG:ITLC_S4R_256G_HY																																																																																																																																																																																																																																																																
MXL5	639-08721	PCBA,MLB-TKSB,BEST,SS-8G,SD-256G,X1783	CNN_PARTS_BOM,DEV_PARTS_BOM,ALTERNATE,CPU_ICLY:BEST,DRAMCFG:SAMSUNG_8GB,NANDCFG:ITLC_S4R_256G_SD																																																																																																																																																																																																																																																																
MXLJ	639-08722	PCBA,MLB-TKSB,BEST,SS-8G,TO-256G,X1783	CNN_PARTS_BOM,DEV_PARTS_BOM,ALTERNATE,CPU_ICLY:BEST,DRAMCFG:SAMSUNG_8GB,NANDCFG:ITLC_S4R_256G_TO																																																																																																																																																																																																																																																																
MXLW	639-08723	PCBA,MLB-TKSB,BEST,HY-16G,HY-256G,X1783	CNN_PARTS_BOM,DEV_PARTS_BOM,ALTERNATE,CPU_ICLY:BEST,DRAMCFG:HYNIX_16GB,NANDCFG:ITLC_S4R_256G_HY																																																																																																																																																																																																																																																																
MXM7	639-08724	PCBA,MLB-TKSB,BEST,HY-16G,SD-256G,X1783	CNN_PARTS_BOM,DEV_PARTS_BOM,ALTERNATE,CPU_ICLY:BEST,DRAMCFG:HYNIX_16GB,NANDCFG:ITLC_S4R_256G_SD																																																																																																																																																																																																																																																																
MXML	639-08725	PCBA,MLB-TKSB,BEST,HY-16G,TO-256G,X1783	CNN_PARTS_BOM,DEV_PARTS_BOM,ALTERNATE,CPU_ICLY:BEST,DRAMCFG:HYNIX_16GB,NANDCFG:ITLC_S4R_256G_TO																																																																																																																																																																																																																																																																
MXMY	639-08726	PCBA,MLB-TKSB,BEST,MI-16G,HY-256G,X1783	CNN_PARTS_BOM,DEV_PARTS_BOM,ALTERNATE,CPU_ICLY:BEST,DRAMCFG:MICRON_16GB,NANDCFG:ITLC_S4R_256G_HY																																																																																																																																																																																																																																																																
MXN9	639-08727	PCBA,MLB-TKSB,BEST,MI-16G,SD-256G,X1783	CNN_PARTS_BOM,DEV_PARTS_BOM,ALTERNATE,CPU_ICLY:BEST,DRAMCFG:MICRON_16GB,NANDCFG:ITLC_S4R_256G_SD																																																																																																																																																																																																																																																																
MXNN	639-08728	PCBA,MLB-TKSB,BEST,MI-16G,TO-256G,X1783	CNN_PARTS_BOM,DEV_PARTS_BOM,ALTERNATE,CPU_ICLY:BEST,DRAMCFG:MICRON_16GB,NANDCFG:ITLC_S4R_256G_TO																																																																																																																																																																																																																																																																
MXPD	639-08729	PCBA,MLB-TKSB,BEST,SS-16G,HY-256G,X1783	CNN_PARTS_BOM,DEV_PARTS_BOM,ALTERNATE,CPU_ICLY:BEST,DRAMCFG:SAMSUNG_16GB,NANDCFG:ITLC_S4R_256G_HY																																																																																																																																																																																																																																																																
MXPD	639-08730	PCBA,MLB-TKSB,BEST,SS-16G,SD-256G,X1783	CNN_PARTS_BOM,DEV_PARTS_BOM,ALTERNATE,CPU_ICLY:BEST,DRAMCFG:SAMSUNG_16GB,NANDCFG:ITLC_S4R_256G_SD																																																																																																																																																																																																																																																																
MXPQ	639-08731	PCBA,MLB-TKSB,BEST,SS-16G,TO-256G,X1783	CNN_PARTS_BOM,DEV_PARTS_BOM,ALTERNATE,CPU_ICLY:BEST,DRAMCFG:SAMSUNG_16GB,NANDCFG:ITLC_S4R_256G_TO																																																																																																																																																																																																																																																																
MXQ3	639-08732	PCBA,MLB-TKSB,BEST,HY-8G,SD-512G,X1783	CNN_PARTS_BOM,DEV_PARTS_BOM,ALTERNATE,CPU_ICLY:BEST,DRAMCFG:HYNIX_8GB,NANDCFG:ITLC_S4R_512G_SD																																																																																																																																																																																																																																																																
MXQG	639-08733	PCBA,MLB-TKSB,BEST,HY-8G,TO-512G,X1783	CNN_PARTS_BOM,DEV_PARTS_BOM,ALTERNATE,CPU_ICLY:BEST,DRAMCFG:HYNIX_8GB,NANDCFG:ITLC_S4R_512G_TO																																																																																																																																																																																																																																																																
MXQT	639-08734	PCBA,MLB-TKSB,BEST,MI-8G,SD-512G,X1783	CNN_PARTS_BOM,DEV_PARTS_BOM,ALTERNATE,CPU_ICLY:BEST,DRAMCFG:MICRON_8GB,NANDCFG:ITLC_S4R_512G_SD																																																																																																																																																																																																																																																																
MXR5	639-08735	PCBA,MLB-TKSB,BEST,MI-8G,TO-512G,X1783	CNN_PARTS_BOM,DEV_PARTS_BOM,ALTERNATE,CPU_ICLY:BEST,DRAMCFG:MICRON_8GB,NANDCFG:ITLC_S4R_512G_TO																																																																																																																																																																																																																																																																
MXRJ	639-08736	PCBA,MLB-TKSB,BEST,SS-8G,SD-512G,X1783	CNN_PARTS_BOM,DEV_PARTS_BOM,ALTERNATE,CPU_ICLY:BEST,DRAMCFG:SAMSUNG_8GB,NANDCFG:ITLC_S4R_512G_SD																																																																																																																																																																																																																																																																
MXRW	639-08737	PCBA,MLB-TKSB,BEST,SS-8G,TO-512G,X1783	CNN_PARTS_BOM,DEV_PARTS_BOM,ALTERNATE,CPU_ICLY:BEST,DRAMCFG:SAMSUNG_8GB,NANDCFG:ITLC_S4R_512G_TO																																																																																																																																																																																																																																																																
MXT7	639-08738	PCBA,MLB-TKSB,BEST,HY-16G,SD-512G,X1783	CNN_PARTS_BOM,DEV_PARTS_BOM,ALTERNATE,CPU_ICLY:BEST,DRAMCFG:HYNIX_16GB,NANDCFG:ITLC_S4R_512G_SD																																																																																																																																																																																																																																																																
MXTN	639-08739	PCBA,MLB-TKSB,BEST,HY-16G,TO-512G,X1783	CNN_PARTS_BOM,DEV_PARTS_BOM,ALTERNATE,CPU_ICLY:BEST,DRAMCFG:HYNIX_16GB,NANDCFG:ITLC_S4R_512G_TO																																																																																																																																																																																																																																																																
MXV1	639-08740	PCBA,MLB-TKSB,BEST,MI-16G,SD-512G,X1783	CNN_PARTS_BOM,DEV_PARTS_BOM,ALTERNATE,CPU_ICLY:BEST,DRAMCFG:MICRON_16GB,NANDCFG:ITLC_S4R_512G_SD																																																																																																																																																																																																																																																																
MXVD	639-08741	PCBA,MLB-TKSB,BEST,MI-16G,TO-512G,X1783	CNN_PARTS_BOM,DEV_PARTS_BOM,ALTERNATE,CPU_ICLY:BEST,DRAMCFG:MICRON_16GB,NANDCFG:ITLC_S4R_512G_TO																																																																																																																																																																																																																																																																
MXVQ	639-08742	PCBA,MLB-TKSB,BEST,SS-16G,SD-512G,X1783	CNN_PARTS_BOM,DEV_PARTS_BOM,ALTERNATE,CPU_ICLY:BEST,DRAMCFG:SAMSUNG_16GB,NANDCFG:ITLC_S4R_512G_SD																																																																																																																																																																																																																																																																
MXW3	639-08743	PCBA,MLB-TKSB,BEST,SS-16G,TO-512G,X1783	CNN_PARTS_BOM,DEV_PARTS_BOM,ALTERNATE,CPU_ICLY:BEST,DRAMCFG:SAMSUNG_16GB,NANDCFG:ITLC_S4R_512G_TO																																																																																																																																																																																																																																																																
MXWG	639-08744	PCBA,MLB-TKSB,BEST,HY-8G,HY-1.0T,X1783	CNN_PARTS_BOM,DEV_PARTS_BOM,ALTERNATE,CPU_ICLY:BEST,DRAMCFG:HYNIX_8GB,NANDCFG:ITLC_S4R_1POT_HY																																																																																																																																																																																																																																																																
MXWT	639-08745	PCBA,MLB-TKSB,BEST,HY-8G,SD-1.0T,X1783	CNN_PARTS_BOM,DEV_PARTS_BOM,ALTERNATE,CPU_ICLY:BEST,DRAMCFG:HYNIX_8GB,NANDCFG:ITLC_S4R_1POT_SD																																																																																																																																																																																																																																																																
MXX5	639-08746	PCBA,MLB-TKSB,BEST,MI-8G,HY-1.0T,X1783	CNN_PARTS_BOM,DEV_PARTS_BOM,ALTERNATE,CPU_ICLY:BEST,DRAMCFG:MICRON_8GB,NANDCFG:ITLC_S4R_1POT_HY																																																																																																																																																																																																																																																																
MXXJ	639-08747	PCBA,MLB-TKSB,BEST,MI-8G,SD-1.0T,X1783	CNN_PARTS_BOM,DEV_PARTS_BOM,ALTERNATE,CPU_ICLY:BEST,DRAMCFG:MICRON_8GB,NANDCFG:ITLC_S4R_1POT_SD																																																																																																																																																																																																																																																																
MXXW	639-08748	PCBA,MLB-TKSB,BEST,SS-8G,HY-1.0T,X1783	CNN_PARTS_BOM,DEV_PARTS_BOM,ALTERNATE,CPU_ICLY:BEST,DRAMCFG:SAMSUNG_8GB,NANDCFG:ITLC_S4R_1POT_HY																																																																																																																																																																																																																																																																
MYX8	639-08749	PCBA,MLB-TKSB,BEST,SS-8G,SD-1.0T,X1783	CNN_PARTS_BOM,DEV_PARTS_BOM,ALTERNATE,CPU_ICLY:BEST,DRAMCFG:SAMSUNG_8GB,NANDCFG:ITLC_S4R_1POT_SD																																																																																																																																																																																																																																																																
MYYM	639-08750	PCBA,MLB-TKSB,BEST,HY-16G,HY-1.0T,X1783	CNN_PARTS_BOM,DEV_PARTS_BOM,ALTERNATE,CPU_ICLY:BEST,DRAMCFG:HYNIX_16GB,NANDCFG:ITLC_S4R_1POT_HY																																																																																																																																																																																																																																																																
MY11	639-08751	PCBA,MLB-TKSB,BEST,HY-16G,SD-1.0T,X1783	CNN_PARTS_BOM,DEV_PARTS_BOM,ALTERNATE,CPU_ICLY:BEST,DRAMCFG:HYNIX_16GB,NANDCFG:ITLC_S4R_1POT_SD																																																																																																																																																																																																																																																																
MY1F	639-08752	PCBA,MLB-TKSB,BEST,MI-16G,HY-1.0T,X1783	CNN_PARTS_BOM,DEV_PARTS_BOM,ALTERNATE,CPU_ICLY:BEST,DRAMCFG:MICRON_16GB,NANDCFG:ITLC_S4R_1POT_HY																																																																																																																																																																																																																																																																
MY1R	639-08753	PCBA,MLB-TKSB,BEST,MI-16G,SD-1.0T,X1783	CNN_PARTS_BOM,DEV_PARTS_BOM,ALTERNATE,CPU_ICLY:BEST,DRAMCFG:MICRON_16GB,NANDCFG:ITLC_S4R_1POT_SD																																																																																																																																																																																																																																																																
MY25	639-08754	PCBA,MLB-TKSB,BEST,SS-16G,HY-1.0T,X1783	CNN_PARTS_BOM,DEV_PARTS_BOM,ALTERNATE,CPU_ICLY:BEST,DRAMCFG:SAMSUNG_16GB,NANDCFG:ITLC_S4R_1POT_HY																																																																																																																																																																																																																																																																
MY2L	639-08755	PCBA,MLB-TKSB,BEST,SS-16G,SD-1.0T,X1783	CNN_PARTS_BOM,DEV_PARTS_BOM,ALTERNATE,CPU_ICLY:BEST,DRAMCFG:SAMSUNG_16GB,NANDCFG:ITLC_S4R_1POT_SD																																																																																																																																																																																																																																																																
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	EEEE	BOM NUMBER	BOM NAME		BOM OPTIONS											
	N4M6	639-08934	PCBA,MLB-TKSB,BEDRE, HY-8G, HY-128G, X1783		CMN_PARTS_BOM_DEV_PARTS_BOM,ALTERNATE,CPU_ICLY:BEDRE,DRAMCFG:HYNIX_8GB,NANDCFG:ITLC_S48_128Q_HY											
	N4MM	639-08935	PCBA,MLB-TKSB,BEDRE, HY-8G, SS-128G, X1783		CMN_PARTS_BOM_DEV_PARTS_BOM,ALTERNATE,CPU_ICLY:BEDRE,DRAMCFG:HYNIX_8GB,NANDCFG:ITLC_S48_128Q_SS											
	N4P1	639-08936	PCBA,MLB-TKSB,BEDRE, HY-8G, TO-128G, X1783		CMN_PARTS_BOM_DEV_PARTS_BOM,ALTERNATE,CPU_ICLY:BEDRE,DRAMCFG:HYNIX_8GB,NANDCFG:ITLC_S48_128Q_TO											
	N4PD	639-08937	PCBA,MLB-TKSB,BEDRE, MI-8G, HY-128G, X1783		CMN_PARTS_BOM_DEV_PARTS_BOM,ALTERNATE,CPU_ICLY:BEDRE,DRAMCFG:MICRON_8GB,NANDCFG:ITLC_S48_128Q_HY											
	N4PQ	639-08938	PCBA,MLB-TKSB,BEDRE, MI-8G, SS-128G, X1783		CMN_PARTS_BOM_DEV_PARTS_BOM,ALTERNATE,CPU_ICLY:BEDRE,DRAMCFG:MICRON_8GB,NANDCFG:ITLC_S48_128Q_SS											
	N4Q3	639-08939	PCBA,MLB-TKSB,BEDRE, MI-8G, TO-128G, X1783		CMN_PARTS_BOM_DEV_PARTS_BOM,ALTERNATE,CPU_ICLY:BEDRE,DRAMCFG:MICRON_8GB,NANDCFG:ITLC_S48_128Q_TO											
	N4QH	639-08940	PCBA,MLB-TKSB,BEDRE, SS-8G, HY-128G, X1783		CMN_PARTS_BOM_DEV_PARTS_BOM,ALTERNATE,CPU_ICLY:BEDRE,DRAMCFG:SAMSUNG_8GB,NANDCFG:ITLC_S48_128Q_HY											
	N4QV	639-08941	PCBA,MLB-TKSB,BEDRE, SS-8G, SS-128G, X1783		CMN_PARTS_BOM_DEV_PARTS_BOM,ALTERNATE,CPU_ICLY:BEDRE,DRAMCFG:SAMSUNG_8GB,NANDCFG:ITLC_S48_128Q_SS											
	N4T7	639-08942	PCBA,MLB-TKSB,BEDRE, SS-8G, TO-128G, X1783		CMN_PARTS_BOM_DEV_PARTS_BOM,ALTERNATE,CPU_ICLY:BEDRE,DRAMCFG:SAMSUNG_8GB,NANDCFG:ITLC_S48_128Q_TO											
	N4TL	639-08943	PCBA,MLB-TKSB,BEDRE, HY-16G, HY-128G, X1783		CMN_PARTS_BOM_DEV_PARTS_BOM,ALTERNATE,CPU_ICLY:BEDRE,DRAMCFG:HYNIX_16GB,NANDCFG:ITLC_S48_128Q_HY											
	N4TY	639-08944	PCBA,MLB-TKSB,BEDRE, HY-16G, SS-128G, X1783		CMN_PARTS_BOM_DEV_PARTS_BOM,ALTERNATE,CPU_ICLY:BEDRE,DRAMCFG:HYNIX_16GB,NANDCFG:ITLC_S48_128Q_SS											
	N4VC	639-08945	PCBA,MLB-TKSB,BEDRE, HY-16G, TO-128G, X1783		CMN_PARTS_BOM_DEV_PARTS_BOM,ALTERNATE,CPU_ICLY:BEDRE,DRAMCFG:HYNIX_16GB,NANDCFG:ITLC_S48_128Q_TO											
	N4VP	639-08946	PCBA,MLB-TKSB,BEDRE, MI-16G, HY-128G, X1783		CMN_PARTS_BOM_DEV_PARTS_BOM,ALTERNATE,CPU_ICLY:BEDRE,DRAMCFG:MICRON_16GB,NANDCFG:ITLC_S48_128Q_HY											
	N4W2	639-08947	PCBA,MLB-TKSB,BEDRE, MI-16G, SS-128G, X1783		CMN_PARTS_BOM_DEV_PARTS_BOM,ALTERNATE,CPU_ICLY:BEDRE,DRAMCFG:MICRON_16GB,NANDCFG:ITLC_S48_128Q_SS											
	N4WG	639-08948	PCBA,MLB-TKSB,BEDRE, MI-16G, TO-128G, X1783		CMN_PARTS_BOM_DEV_PARTS_BOM,ALTERNATE,CPU_ICLY:BEDRE,DRAMCFG:MICRON_16GB,NANDCFG:ITLC_S48_128Q_TO											
	N4WT	639-08949	PCBA,MLB-TKSB,BEDRE, SS-16G, HY-128G, X1783		CMN_PARTS_BOM_DEV_PARTS_BOM,ALTERNATE,CPU_ICLY:BEDRE,DRAMCFG:SAMSUNG_16GB,NANDCFG:ITLC_S48_128Q_HY											
	N4X5	639-08950	PCBA,MLB-TKSB,BEDRE, SS-16G, SS-128G, X1783		CMN_PARTS_BOM_DEV_PARTS_BOM,ALTERNATE,CPU_ICLY:BEDRE,DRAMCFG:SAMSUNG_16GB,NANDCFG:ITLC_S48_128Q_SS											
	N4XJ	639-08951	PCBA,MLB-TKSB,BEDRE, SS-16G, TO-128G, X1783		CMN_PARTS_BOM_DEV_PARTS_BOM,ALTERNATE,CPU_ICLY:BEDRE,DRAMCFG:SAMSUNG_16GB,NANDCFG:ITLC_S48_128Q_TO											
C	N4XW	639-08952	PCBA,MLB-TKSB,BEDRE, HY-8G, HY-256G, X1783		CMN_PARTS_BOM_DEV_PARTS_BOM,ALTERNATE,CPU_ICLY:BEDRE,DRAMCFG:HYNIX_8GB,NANDCFG:ITLC_S48_256Q_HY											
	N4Y8	639-08953	PCBA,MLB-TKSB,BEDRE, HY-8G, SD-256G, X1783		CMN_PARTS_BOM_DEV_PARTS_BOM,ALTERNATE,CPU_ICLY:BEDRE,DRAMCFG:HYNIX_8GB,NANDCFG:ITLC_S48_256Q_SD											
	N4YM	639-08954	PCBA,MLB-TKSB,BEDRE, HY-8G, TO-256G, X1783		CMN_PARTS_BOM_DEV_PARTS_BOM,ALTERNATE,CPU_ICLY:BEDRE,DRAMCFG:HYNIX_8GB,NANDCFG:ITLC_S48_256Q_TO											
	N500	639-08955	PCBA,MLB-TKSB,BEDRE, MI-8G, HY-256G, X1783		CMN_PARTS_BOM_DEV_PARTS_BOM,ALTERNATE,CPU_ICLY:BEDRE,DRAMCFG:MICRON_8GB,NANDCFG:ITLC_S48_256Q_HY											
	N50G	639-08956	PCBA,MLB-TKSB,BEDRE, MI-8G, SD-256G, X1783		CMN_PARTS_BOM_DEV_PARTS_BOM,ALTERNATE,CPU_ICLY:BEDRE,DRAMCFG:MICRON_8GB,NANDCFG:ITLC_S48_256Q_SD											
	N510	639-08957	PCBA,MLB-TKSB,BEDRE, MI-8G, TO-256G, X1783		CMN_PARTS_BOM_DEV_PARTS_BOM,ALTERNATE,CPU_ICLY:BEDRE,DRAMCFG:MICRON_8GB,NANDCFG:ITLC_S48_256Q_TO											
	N51G	639-08958	PCBA,MLB-TKSB,BEDRE, SS-8G, HY-256G, X1783		CMN_PARTS_BOM_DEV_PARTS_BOM,ALTERNATE,CPU_ICLY:BEDRE,DRAMCFG:SAMSUNG_8GB,NANDCFG:ITLC_S48_256Q_HY											
	N51W	639-08959	PCBA,MLB-TKSB,BEDRE, SS-8G, SD-256G, X1783		CMN_PARTS_BOM_DEV_PARTS_BOM,ALTERNATE,CPU_ICLY:BEDRE,DRAMCFG:SAMSUNG_8GB,NANDCFG:ITLC_S48_256Q_SD											
	N527	639-08960	PCBA,MLB-TKSB,BEDRE, SS-8G, TO-256G, X1783		CMN_PARTS_BOM_DEV_PARTS_BOM,ALTERNATE,CPU_ICLY:BEDRE,DRAMCFG:SAMSUNG_8GB,NANDCFG:ITLC_S48_256Q_TO											
	N52L	639-08961	PCBA,MLB-TKSB,BEDRE, HY-16G, HY-256G, X1783		CMN_PARTS_BOM_DEV_PARTS_BOM,ALTERNATE,CPU_ICLY:BEDRE,DRAMCFG:HYNIX_16GB,NANDCFG:ITLC_S48_256Q_HY											
	N52Y	639-08962	PCBA,MLB-TKSB,BEDRE, HY-16G, SD-256G, X1783		CMN_PARTS_BOM_DEV_PARTS_BOM,ALTERNATE,CPU_ICLY:BEDRE,DRAMCFG:HYNIX_16GB,NANDCFG:ITLC_S48_256Q_SD											
	N539	639-08963	PCBA,MLB-TKSB,BEDRE, HY-16G, TO-256G, X1783		CMN_PARTS_BOM_DEV_PARTS_BOM,ALTERNATE,CPU_ICLY:BEDRE,DRAMCFG:HYNIX_16GB,NANDCFG:ITLC_S48_256Q_TO											
	N53Q	639-08964	PCBA,MLB-TKSB,BEDRE, MI-16G, HY-256G, X1783		CMN_PARTS_BOM_DEV_PARTS_BOM,ALTERNATE,CPU_ICLY:BEDRE,DRAMCFG:MICRON_16GB,NANDCFG:ITLC_S48_256Q_HY											
	N555	639-08965	PCBA,MLB-TKSB,BEDRE, MI-16G, SD-256G, X1783		CMN_PARTS_BOM_DEV_PARTS_BOM,ALTERNATE,CPU_ICLY:BEDRE,DRAMCFG:MICRON_16GB,NANDCFG:ITLC_S48_256Q_SD											
	N55J	639-08966	PCBA,MLB-TKSB,BEDRE, MI-16G, TO-256G, X1783		CMN_PARTS_BOM_DEV_PARTS_BOM,ALTERNATE,CPU_ICLY:BEDRE,DRAMCFG:MICRON_16GB,NANDCFG:ITLC_S48_256Q_TO											
	N55W	639-08967	PCBA,MLB-TKSB,BEDRE, SS-16G, HY-256G, X1783		CMN_PARTS_BOM_DEV_PARTS_BOM,ALTERNATE,CPU_ICLY:BEDRE,DRAMCFG:SAMSUNG_16GB,NANDCFG:ITLC_S48_256Q_HY											
	N567	639-08968	PCBA,MLB-TKSB,BEDRE, SS-16G, SD-256G, X1783		CMN_PARTS_BOM_DEV_PARTS_BOM,ALTERNATE,CPU_ICLY:BEDRE,DRAMCFG:SAMSUNG_16GB,NANDCFG:ITLC_S48_256Q_SD											
	N56L	639-08969	PCBA,MLB-TKSB,BEDRE, SS-16G, TO-256G, X1783		CMN_PARTS_BOM_DEV_PARTS_BOM,ALTERNATE,CPU_ICLY:BEDRE,DRAMCFG:SAMSUNG_16GB,NANDCFG:ITLC_S48_256Q_TO											
	N56Y	639-08970	PCBA,MLB-TKSB,BEDRE, HY-8G, SD-512G, X1783		CMN_PARTS_BOM_DEV_PARTS_BOM,ALTERNATE,CPU_ICLY:BEDRE,DRAMCFG:HYNIX_8GB,NANDCFG:ITLC_S48_512Q_SD											
	B	N579	639-08971	PCBA,MLB-TKSB,BEDRE, HY-8G, TO-512G, X1783		CMN_PARTS_BOM_DEV_PARTS_BOM,ALTERNATE,CPU_ICLY:BEDRE,DRAMCFG:HYNIX_8GB,NANDCFG:ITLC_S48_512Q_TO										
N57N		639-08972	PCBA,MLB-TKSB,BEDRE, MI-8G, SD-512G, X1783		CMN_PARTS_BOM_DEV_PARTS_BOM,ALTERNATE,CPU_ICLY:BEDRE,DRAMCFG:MICRON_8GB,NANDCFG:ITLC_S48_512Q_SD											
N591		639-08973	PCBA,MLB-TKSB,BEDRE, MI-8G, TO-512G, X1783		CMN_PARTS_BOM_DEV_PARTS_BOM,ALTERNATE,CPU_ICLY:BEDRE,DRAMCFG:MICRON_8GB,NANDCFG:ITLC_S48_512Q_TO											
N59D		639-08974	PCBA,MLB-TKSB,BEDRE, SS-8G, SD-512G, X1783		CMN_PARTS_BOM_DEV_PARTS_BOM,ALTERNATE,CPU_ICLY:BEDRE,DRAMCFG:SAMSUNG_8GB,NANDCFG:ITLC_S48_512Q_SD											
N59Q		639-08975	PCBA,MLB-TKSB,BEDRE, SS-8G, TO-512G, X1783		CMN_PARTS_BOM_DEV_PARTS_BOM,ALTERNATE,CPU_ICLY:BEDRE,DRAMCFG:SAMSUNG_8GB,NANDCFG:ITLC_S48_512Q_TO											
N5C4		639-08976	PCBA,MLB-TKSB,BEDRE, HY-16G, SD-512G, X1783		CMN_PARTS_BOM_DEV_PARTS_BOM,ALTERNATE,CPU_ICLY:BEDRE,DRAMCFG:HYNIX_16GB,NANDCFG:ITLC_S48_512Q_SD											
N5CH		639-08977	PCBA,MLB-TKSB,BEDRE, HY-16G, TO-512G, X1783		CMN_PARTS_BOM_DEV_PARTS_BOM,ALTERNATE,CPU_ICLY:BEDRE,DRAMCFG:HYNIX_16GB,NANDCFG:ITLC_S48_512Q_TO											
N5CV		639-08978	PCBA,MLB-TKSB,BEDRE, MI-16G, SD-512G, X1783		CMN_PARTS_BOM_DEV_PARTS_BOM,ALTERNATE,CPU_ICLY:BEDRE,DRAMCFG:MICRON_16GB,NANDCFG:ITLC_S48_512Q_SD											
N5D6		639-08979	PCBA,MLB-TKSB,BEDRE, MI-16G, TO-512G, X1783		CMN_PARTS_BOM_DEV_PARTS_BOM,ALTERNATE,CPU_ICLY:BEDRE,DRAMCFG:MICRON_16GB,NANDCFG:ITLC_S48_512Q_TO											
N5DK		639-08980	PCBA,MLB-TKSB,BEDRE, SS-16G, SD-512G, X1783		CMN_PARTS_BOM_DEV_PARTS_BOM,ALTERNATE,CPU_ICLY:BEDRE,DRAMCFG:SAMSUNG_16GB,NANDCFG:ITLC_S48_512Q_SD											
N5DX		639-08981	PCBA,MLB-TKSB,BEDRE, SS-16G, TO-512G, X1783		CMN_PARTS_BOM_DEV_PARTS_BOM,ALTERNATE,CPU_ICLY:BEDRE,DRAMCFG:SAMSUNG_16GB,NANDCFG:ITLC_S48_512Q_TO											
N5F8		639-08982	PCBA,MLB-TKSB,BEDRE, HY-8G, HY-1.0T, X1783		CMN_PARTS_BOM_DEV_PARTS_BOM,ALTERNATE,CPU_ICLY:BEDRE,DRAMCFG:HYNIX_8GB,NANDCFG:ITLC_S48_1P0T_HY											
N5FM		639-08983	PCBA,MLB-TKSB,BEDRE, HY-8G, SD-1.0T, X1783		CMN_PARTS_BOM_DEV_PARTS_BOM,ALTERNATE,CPU_ICLY:BEDRE,DRAMCFG:HYNIX_8GB,NANDCFG:ITLC_S48_1P0T_SD											
N5G0		639-08984	PCBA,MLB-TKSB,BEDRE, MI-8G, HY-1.0T, X1783		CMN_PARTS_BOM_DEV_PARTS_BOM,ALTERNATE,CPU_ICLY:BEDRE,DRAMCFG:MICRON_8GB,NANDCFG:ITLC_S48_1P0T_HY											
N5GC		639-08985	PCBA,MLB-TKSB,BEDRE, MI-8G, SD-1.0T, X1783		CMN_PARTS_BOM_DEV_PARTS_BOM,ALTERNATE,CPU_ICLY:BEDRE,DRAMCFG:MICRON_8GB,NANDCFG:ITLC_S48_1P0T_SD											
N5GP		639-08986	PCBA,MLB-TKSB,BEDRE, SS-8G, HY-1.0T, X1783		CMN_PARTS_BOM_DEV_PARTS_BOM,ALTERNATE,CPU_ICLY:BEDRE,DRAMCFG:SAMSUNG_8GB,NANDCFG:ITLC_S48_1P0T_HY											
N5H3		639-08987	PCBA,MLB-TKSB,BEDRE, SS-8G, SD-1.0T, X1783		CMN_PARTS_BOM_DEV_PARTS_BOM,ALTERNATE,CPU_ICLY:BEDRE,DRAMCFG:SAMSUNG_8GB,NANDCFG:ITLC_S48_1P0T_SD											
N5HG		639-08988	PCBA,MLB-TKSB,BEDRE, HY-16G, HY-1.0T, X1783		CMN_PARTS_BOM_DEV_PARTS_BOM,ALTERNATE,CPU_ICLY:BEDRE,DRAMCFG:HYNIX_16GB,NANDCFG:ITLC_S48_1P0T_HY											
N5HV		639-08989	PCBA,MLB-TKSB,BEDRE, HY-16G, SD-1.0T, X1783		CMN_PARTS_BOM_DEV_PARTS_BOM,ALTERNATE,CPU_ICLY:BEDRE,DRAMCFG:HYNIX_16GB,NANDCFG:ITLC_S48_1P0T_SD											
N5J6		639-08990	PCBA,MLB-TKSB,BEDRE, MI-16G, HY-1.0T, X1783		CMN_PARTS_BOM_DEV_PARTS_BOM,ALTERNATE,CPU_ICLY:BEDRE,DRAMCFG:MICRON_16GB,NANDCFG:ITLC_S48_1P0T_HY											
N5JL	639-08991	PCBA,MLB-TKSB,BEDRE, MI-16G, SD-1.0T, X1783		CMN_PARTS_BOM_DEV_PARTS_BOM,ALTERNATE,CPU_ICLY:BEDRE,DRAMCFG:MICRON_16GB,NANDCFG:ITLC_S48_1P0T_SD												
N5JY	639-08992	PCBA,MLB-TKSB,BEDRE, SS-16G, HY-1.0T, X1783		CMN_PARTS_BOM_DEV_PARTS_BOM,ALTERNATE,CPU_ICLY:BEDRE,DRAMCFG:SAMSUNG_16GB,NANDCFG:ITLC_S48_1P0T_HY												
N5KC	639-08993	PCBA,MLB-TKSB,BEDRE, SS-16G, SD-1.0T, X1783		CMN_PARTS_BOM_DEV_PARTS_BOM,ALTERNATE,CPU_ICLY:BEDRE,DRAMCFG:SAMSUNG_16GB,NANDCFG:ITLC_S48_1P0T_SD												
A	BOM Variants 2														A	
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## BOM Variants

EEEE	BOM NUMBER	BOM NAME	BOM OPTIONS
N5MV	639-09000	PCBA,MLB-TKSB,GOOD,HY-8G,HY-128G,X1783	CHN_PARTS_BOM.DEV_PARTS_BOM.ALTERNATE,CPU_ICLY:GOOD,DRAMCFG:HYNIX_8GB,NANDCFG:ITLC_S4E_128G_HY
MY53	639-08762	PCBA,MLB-TKSB,GOOD,HY-8G,SS-128G,X1783	CHN_PARTS_BOM.DEV_PARTS_BOM.ALTERNATE,CPU_ICLY:GOOD,DRAMCFG:HYNIX_8GB,NANDCFG:ITLC_S4E_128G_SS
MY5G	639-08763	PCBA,MLB-TKSB,GOOD,HY-8G,TO-128G,X1783	CHN_PARTS_BOM.DEV_PARTS_BOM.ALTERNATE,CPU_ICLY:GOOD,DRAMCFG:HYNIX_8GB,NANDCFG:ITLC_S4E_128G_TO
N5N6	639-09001	PCBA,MLB-TKSB,GOOD,MI-8G,HY-128G,X1783	CHN_PARTS_BOM.DEV_PARTS_BOM.ALTERNATE,CPU_ICLY:GOOD,DRAMCFG:MICRON_8GB,NANDCFG:ITLC_S4E_128G_HY
MY5T	639-08764	PCBA,MLB-TKSB,GOOD,MI-8G,SS-128G,X1783	CHN_PARTS_BOM.DEV_PARTS_BOM.ALTERNATE,CPU_ICLY:GOOD,DRAMCFG:MICRON_8GB,NANDCFG:ITLC_S4E_128G_SS
MY65	639-08765	PCBA,MLB-TKSB,GOOD,MI-8G,TO-128G,X1783	CHN_PARTS_BOM.DEV_PARTS_BOM.ALTERNATE,CPU_ICLY:GOOD,DRAMCFG:MICRON_8GB,NANDCFG:ITLC_S4E_128G_TO
N5NK	639-09002	PCBA,MLB-TKSB,GOOD,SS-8G,HY-128G,X1783	CHN_PARTS_BOM.DEV_PARTS_BOM.ALTERNATE,CPU_ICLY:GOOD,DRAMCFG:SAMSUNG_8GB,NANDCFG:ITLC_S4E_128G_HY
MY6J	639-08766	PCBA,MLB-TKSB,GOOD,SS-8G,SS-128G,X1783	CHN_PARTS_BOM.DEV_PARTS_BOM.ALTERNATE,CPU_ICLY:GOOD,DRAMCFG:SAMSUNG_8GB,NANDCFG:ITLC_S4E_128G_SS
MY6W	639-08767	PCBA,MLB-TKSB,GOOD,SS-8G,TO-128G,X1783	CHN_PARTS_BOM.DEV_PARTS_BOM.ALTERNATE,CPU_ICLY:GOOD,DRAMCFG:SAMSUNG_8GB,NANDCFG:ITLC_S4E_128G_TO
N5NX	639-09003	PCBA,MLB-TKSB,GOOD,HY-16G,HY-128G,X1783	CHN_PARTS_BOM.DEV_PARTS_BOM.ALTERNATE,CPU_ICLY:GOOD,DRAMCFG:HYNIX_16GB,NANDCFG:ITLC_S4E_128G_HY
MY77	639-08768	PCBA,MLB-TKSB,GOOD,HY-16G,SS-128G,X1783	CHN_PARTS_BOM.DEV_PARTS_BOM.ALTERNATE,CPU_ICLY:GOOD,DRAMCFG:HYNIX_16GB,NANDCFG:ITLC_S4E_128G_SS
MY7L	639-08769	PCBA,MLB-TKSB,GOOD,HY-16G,TO-128G,X1783	CHN_PARTS_BOM.DEV_PARTS_BOM.ALTERNATE,CPU_ICLY:GOOD,DRAMCFG:HYNIX_16GB,NANDCFG:ITLC_S4E_128G_TO
N5P9	639-09004	PCBA,MLB-TKSB,GOOD,MI-16G,HY-128G,X1783	CHN_PARTS_BOM.DEV_PARTS_BOM.ALTERNATE,CPU_ICLY:GOOD,DRAMCFG:MICRON_16GB,NANDCFG:ITLC_S4E_128G_HY
MY7Y	639-08770	PCBA,MLB-TKSB,GOOD,MI-16G,SS-128G,X1783	CHN_PARTS_BOM.DEV_PARTS_BOM.ALTERNATE,CPU_ICLY:GOOD,DRAMCFG:MICRON_16GB,NANDCFG:ITLC_S4E_128G_SS
MY89	639-08771	PCBA,MLB-TKSB,GOOD,MI-16G,TO-128G,X1783	CHN_PARTS_BOM.DEV_PARTS_BOM.ALTERNATE,CPU_ICLY:GOOD,DRAMCFG:MICRON_16GB,NANDCFG:ITLC_S4E_128G_TO
N5PN	639-09005	PCBA,MLB-TKSB,GOOD,SS-16G,HY-128G,X1783	CHN_PARTS_BOM.DEV_PARTS_BOM.ALTERNATE,CPU_ICLY:GOOD,DRAMCFG:SAMSUNG_16GB,NANDCFG:ITLC_S4E_128G_HY
MY8N	639-08772	PCBA,MLB-TKSB,GOOD,SS-16G,SS-128G,X1783	CHN_PARTS_BOM.DEV_PARTS_BOM.ALTERNATE,CPU_ICLY:GOOD,DRAMCFG:SAMSUNG_16GB,NANDCFG:ITLC_S4E_128G_SS
MY91	639-08773	PCBA,MLB-TKSB,GOOD,SS-16G,TO-128G,X1783	CHN_PARTS_BOM.DEV_PARTS_BOM.ALTERNATE,CPU_ICLY:GOOD,DRAMCFG:SAMSUNG_16GB,NANDCFG:ITLC_S4E_128G_TO
MY9D	639-08774	PCBA,MLB-TKSB,GOOD,HY-8G,HY-256G,X1783	CHN_PARTS_BOM.DEV_PARTS_BOM.ALTERNATE,CPU_ICLY:GOOD,DRAMCFG:HYNIX_8GB,NANDCFG:ITLC_S4E_256G_HY
MY9Q	639-08775	PCBA,MLB-TKSB,GOOD,HY-8G,SD-256G,X1783	CHN_PARTS_BOM.DEV_PARTS_BOM.ALTERNATE,CPU_ICLY:GOOD,DRAMCFG:HYNIX_8GB,NANDCFG:ITLC_S4E_256G_SD
MYC3	639-08776	PCBA,MLB-TKSB,GOOD,HY-8G,TO-256G,X1783	CHN_PARTS_BOM.DEV_PARTS_BOM.ALTERNATE,CPU_ICLY:GOOD,DRAMCFG:HYNIX_8GB,NANDCFG:ITLC_S4E_256G_TO
MYCG	639-08777	PCBA,MLB-TKSB,GOOD,MI-8G,HY-256G,X1783	CHN_PARTS_BOM.DEV_PARTS_BOM.ALTERNATE,CPU_ICLY:GOOD,DRAMCFG:MICRON_8GB,NANDCFG:ITLC_S4E_256G_HY
MYCT	639-08778	PCBA,MLB-TKSB,GOOD,MI-8G,SD-256G,X1783	CHN_PARTS_BOM.DEV_PARTS_BOM.ALTERNATE,CPU_ICLY:GOOD,DRAMCFG:MICRON_8GB,NANDCFG:ITLC_S4E_256G_SD
MYD5	639-08779	PCBA,MLB-TKSB,GOOD,MI-8G,TO-256G,X1783	CHN_PARTS_BOM.DEV_PARTS_BOM.ALTERNATE,CPU_ICLY:GOOD,DRAMCFG:MICRON_8GB,NANDCFG:ITLC_S4E_256G_TO
MYDJ	639-08780	PCBA,MLB-TKSB,GOOD,SS-8G,HY-256G,X1783	CHN_PARTS_BOM.DEV_PARTS_BOM.ALTERNATE,CPU_ICLY:GOOD,DRAMCFG:SAMSUNG_8GB,NANDCFG:ITLC_S4E_256G_HY
MYDW	639-08781	PCBA,MLB-TKSB,GOOD,SS-8G,SD-256G,X1783	CHN_PARTS_BOM.DEV_PARTS_BOM.ALTERNATE,CPU_ICLY:GOOD,DRAMCFG:SAMSUNG_8GB,NANDCFG:ITLC_S4E_256G_SD
MYF7	639-08782	PCBA,MLB-TKSB,GOOD,SS-8G,TO-256G,X1783	CHN_PARTS_BOM.DEV_PARTS_BOM.ALTERNATE,CPU_ICLY:GOOD,DRAMCFG:SAMSUNG_8GB,NANDCFG:ITLC_S4E_256G_TO
MYFL	639-08783	PCBA,MLB-TKSB,GOOD,HY-16G,HY-256G,X1783	CHN_PARTS_BOM.DEV_PARTS_BOM.ALTERNATE,CPU_ICLY:GOOD,DRAMCFG:HYNIX_16GB,NANDCFG:ITLC_S4E_256G_HY
MYFY	639-08784	PCBA,MLB-TKSB,GOOD,HY-16G,SD-256G,X1783	CHN_PARTS_BOM.DEV_PARTS_BOM.ALTERNATE,CPU_ICLY:GOOD,DRAMCFG:HYNIX_16GB,NANDCFG:ITLC_S4E_256G_SD
MYG9	639-08785	PCBA,MLB-TKSB,GOOD,HY-16G,TO-256G,X1783	CHN_PARTS_BOM.DEV_PARTS_BOM.ALTERNATE,CPU_ICLY:GOOD,DRAMCFG:HYNIX_16GB,NANDCFG:ITLC_S4E_256G_TO
MYGN	639-08786	PCBA,MLB-TKSB,GOOD,MI-16G,HY-256G,X1783	CHN_PARTS_BOM.DEV_PARTS_BOM.ALTERNATE,CPU_ICLY:GOOD,DRAMCFG:MICRON_16GB,NANDCFG:ITLC_S4E_256G_HY
MYH1	639-08787	PCBA,MLB-TKSB,GOOD,MI-16G,SD-256G,X1783	CHN_PARTS_BOM.DEV_PARTS_BOM.ALTERNATE,CPU_ICLY:GOOD,DRAMCFG:MICRON_16GB,NANDCFG:ITLC_S4E_256G_SD
MYHD	639-08788	PCBA,MLB-TKSB,GOOD,MI-16G,TO-256G,X1783	CHN_PARTS_BOM.DEV_PARTS_BOM.ALTERNATE,CPU_ICLY:GOOD,DRAMCFG:MICRON_16GB,NANDCFG:ITLC_S4E_256G_TO
MYHQ	639-08789	PCBA,MLB-TKSB,GOOD,SS-16G,HY-256G,X1783	CHN_PARTS_BOM.DEV_PARTS_BOM.ALTERNATE,CPU_ICLY:GOOD,DRAMCFG:SAMSUNG_16GB,NANDCFG:ITLC_S4E_256G_HY
MYJ3	639-08790	PCBA,MLB-TKSB,GOOD,SS-16G,SD-256G,X1783	CHN_PARTS_BOM.DEV_PARTS_BOM.ALTERNATE,CPU_ICLY:GOOD,DRAMCFG:SAMSUNG_16GB,NANDCFG:ITLC_S4E_256G_SD
MYJG	639-08791	PCBA,MLB-TKSB,GOOD,SS-16G,TO-256G,X1783	CHN_PARTS_BOM.DEV_PARTS_BOM.ALTERNATE,CPU_ICLY:GOOD,DRAMCFG:SAMSUNG_16GB,NANDCFG:ITLC_S4E_256G_TO
MYK5	639-08792	PCBA,MLB-TKSB,GOOD,HY-8G,SD-512G,X1783	CHN_PARTS_BOM.DEV_PARTS_BOM.ALTERNATE,CPU_ICLY:GOOD,DRAMCFG:HYNIX_8GB,NANDCFG:ITLC_S4E_512G_SD
MYKJ	639-08793	PCBA,MLB-TKSB,GOOD,HY-8G,TO-512G,X1783	CHN_PARTS_BOM.DEV_PARTS_BOM.ALTERNATE,CPU_ICLY:GOOD,DRAMCFG:HYNIX_8GB,NANDCFG:ITLC_S4E_512G_TO
MYKW	639-08794	PCBA,MLB-TKSB,GOOD,MI-8G,SD-512G,X1783	CHN_PARTS_BOM.DEV_PARTS_BOM.ALTERNATE,CPU_ICLY:GOOD,DRAMCFG:MICRON_8GB,NANDCFG:ITLC_S4E_512G_SD
MYL7	639-08795	PCBA,MLB-TKSB,GOOD,MI-8G,TO-512G,X1783	CHN_PARTS_BOM.DEV_PARTS_BOM.ALTERNATE,CPU_ICLY:GOOD,DRAMCFG:MICRON_8GB,NANDCFG:ITLC_S4E_512G_TO
MYLL	639-08796	PCBA,MLB-TKSB,GOOD,SS-8G,SD-512G,X1783	CHN_PARTS_BOM.DEV_PARTS_BOM.ALTERNATE,CPU_ICLY:GOOD,DRAMCFG:SAMSUNG_8GB,NANDCFG:ITLC_S4E_512G_SD
MYLY	639-08797	PCBA,MLB-TKSB,GOOD,SS-8G,TO-512G,X1783	CHN_PARTS_BOM.DEV_PARTS_BOM.ALTERNATE,CPU_ICLY:GOOD,DRAMCFG:SAMSUNG_8GB,NANDCFG:ITLC_S4E_512G_TO
MYM9	639-08798	PCBA,MLB-TKSB,GOOD,HY-16G,SD-512G,X1783	CHN_PARTS_BOM.DEV_PARTS_BOM.ALTERNATE,CPU_ICLY:GOOD,DRAMCFG:HYNIX_16GB,NANDCFG:ITLC_S4E_512G_SD
MYMN	639-08799	PCBA,MLB-TKSB,GOOD,HY-16G,TO-512G,X1783	CHN_PARTS_BOM.DEV_PARTS_BOM.ALTERNATE,CPU_ICLY:GOOD,DRAMCFG:HYNIX_16GB,NANDCFG:ITLC_S4E_512G_TO
MYN1	639-08800	PCBA,MLB-TKSB,GOOD,MI-16G,SD-512G,X1783	CHN_PARTS_BOM.DEV_PARTS_BOM.ALTERNATE,CPU_ICLY:GOOD,DRAMCFG:MICRON_16GB,NANDCFG:ITLC_S4E_512G_SD
MYND	639-08801	PCBA,MLB-TKSB,GOOD,MI-16G,TO-512G,X1783	CHN_PARTS_BOM.DEV_PARTS_BOM.ALTERNATE,CPU_ICLY:GOOD,DRAMCFG:MICRON_16GB,NANDCFG:ITLC_S4E_512G_TO
MYNQ	639-08802	PCBA,MLB-TKSB,GOOD,SS-16G,SD-512G,X1783	CHN_PARTS_BOM.DEV_PARTS_BOM.ALTERNATE,CPU_ICLY:GOOD,DRAMCFG:SAMSUNG_16GB,NANDCFG:ITLC_S4E_512G_SD
MYP3	639-08803	PCBA,MLB-TKSB,GOOD,SS-16G,TO-512G,X1783	CHN_PARTS_BOM.DEV_PARTS_BOM.ALTERNATE,CPU_ICLY:GOOD,DRAMCFG:SAMSUNG_16GB,NANDCFG:ITLC_S4E_512G_TO
MYPG	639-08804	PCBA,MLB-TKSB,GOOD,HY-8G,HY-1.0T,X1783	CHN_PARTS_BOM.DEV_PARTS_BOM.ALTERNATE,CPU_ICLY:GOOD,DRAMCFG:HYNIX_8GB,NANDCFG:ITLC_S4E_1P0T_HY
MYPT	639-08805	PCBA,MLB-TKSB,GOOD,HY-8G,SD-1.0T,X1783	CHN_PARTS_BOM.DEV_PARTS_BOM.ALTERNATE,CPU_ICLY:GOOD,DRAMCFG:HYNIX_8GB,NANDCFG:ITLC_S4E_1P0T_SD
MYQ5	639-08806	PCBA,MLB-TKSB,GOOD,MI-8G,HY-1.0T,X1783	CHN_PARTS_BOM.DEV_PARTS_BOM.ALTERNATE,CPU_ICLY:GOOD,DRAMCFG:MICRON_8GB,NANDCFG:ITLC_S4E_1P0T_HY
MYQJ	639-08807	PCBA,MLB-TKSB,GOOD,MI-8G,SD-1.0T,X1783	CHN_PARTS_BOM.DEV_PARTS_BOM.ALTERNATE,CPU_ICLY:GOOD,DRAMCFG:MICRON_8GB,NANDCFG:ITLC_S4E_1P0T_SD
MYQW	639-08808	PCBA,MLB-TKSB,GOOD,SS-8G,HY-1.0T,X1783	CHN_PARTS_BOM.DEV_PARTS_BOM.ALTERNATE,CPU_ICLY:GOOD,DRAMCFG:SAMSUNG_8GB,NANDCFG:ITLC_S4E_1P0T_HY
MYR7	639-08809	PCBA,MLB-TKSB,GOOD,SS-8G,SD-1.0T,X1783	CHN_PARTS_BOM.DEV_PARTS_BOM.ALTERNATE,CPU_ICLY:GOOD,DRAMCFG:SAMSUNG_8GB,NANDCFG:ITLC_S4E_1P0T_SD
MYRL	639-08810	PCBA,MLB-TKSB,GOOD,HY-16G,HY-1.0T,X1783	CHN_PARTS_BOM.DEV_PARTS_BOM.ALTERNATE,CPU_ICLY:GOOD,DRAMCFG:HYNIX_16GB,NANDCFG:ITLC_S4E_1P0T_HY
MYRY	639-08811	PCBA,MLB-TKSB,GOOD,HY-16G,SD-1.0T,X1783	CHN_PARTS_BOM.DEV_PARTS_BOM.ALTERNATE,CPU_ICLY:GOOD,DRAMCFG:HYNIX_16GB,NANDCFG:ITLC_S4E_1P0T_SD
MYT9	639-08812	PCBA,MLB-TKSB,GOOD,MI-16G,HY-1.0T,X1783	CHN_PARTS_BOM.DEV_PARTS_BOM.ALTERNATE,CPU_ICLY:GOOD,DRAMCFG:MICRON_16GB,NANDCFG:ITLC_S4E_1P0T_HY
MYTN	639-08813	PCBA,MLB-TKSB,GOOD,MI-16G,SD-1.0T,X1783	CHN_PARTS_BOM.DEV_PARTS_BOM.ALTERNATE,CPU_ICLY:GOOD,DRAMCFG:MICRON_16GB,NANDCFG:ITLC_S4E_1P0T_SD
MV1	639-08814	PCBA,MLB-TKSB,GOOD,SS-16G,HY-1.0T,X1783	CHN_PARTS_BOM.DEV_PARTS_BOM.ALTERNATE,CPU_ICLY:GOOD,DRAMCFG:SAMSUNG_16GB,NANDCFG:ITLC_S4E_1P0T_HY
MYVR	639-08816	PCBA,MLB-TKSB,GOOD,SS-16G,SD-1.0T,X1783	CHN_PARTS_BOM.DEV_PARTS_BOM.ALTERNATE,CPU_ICLY:GOOD,DRAMCFG:SAMSUNG_16GB,NANDCFG:ITLC_S4E_1P0T_SD

EEEE	BOM NUMBER	BOM NAME	BOM OPTIONS
NRK3	639-09934	PCBA,MLB-TKSB,GOOD,HY-8G,HY-2.0T,X1783	CMN_PARTS_BOM,DEV_PARTS_BOM,ALTERNATE,CPU_ICLY:GOOD,DRAMCFG:HYNIX_8GB,NANDCFG:ITLC_S48_2P0T_HY
MYW4	639-08817	PCBA,MLB-TKSB,GOOD,HY-8G,SD-2.0T,X1783	CMN_PARTS_BOM,DEV_PARTS_BOM,ALTERNATE,CPU_ICLY:GOOD,DRAMCFG:HYNIX_8GB,NANDCFG:ITLC_S48_2P0T_SD
NRKG	639-09935	PCBA,MLB-TKSB,GOOD,MI-8G,HY-2.0T,X1783	CMN_PARTS_BOM,DEV_PARTS_BOM,ALTERNATE,CPU_ICLY:GOOD,DRAMCFG:MICRON_8GB,NANDCFG:ITLC_S48_2P0T_HY
MYWH	639-08818	PCBA,MLB-TKSB,GOOD,MI-8G,SD-2.0T,X1783	CMN_PARTS_BOM,DEV_PARTS_BOM,ALTERNATE,CPU_ICLY:GOOD,DRAMCFG:MICRON_8GB,NANDCFG:ITLC_S48_2P0T_SD
NRKT	639-09936	PCBA,MLB-TKSB,GOOD,SS-8G,HY-2.0T,X1783	CMN_PARTS_BOM,DEV_PARTS_BOM,ALTERNATE,CPU_ICLY:GOOD,DRAMCFG:SAMSUNG_8GB,NANDCFG:ITLC_S48_2P0T_HY
MYWV	639-08819	PCBA,MLB-TKSB,GOOD,SS-8G,SD-2.0T,X1783	CMN_PARTS_BOM,DEV_PARTS_BOM,ALTERNATE,CPU_ICLY:GOOD,DRAMCFG:SAMSUNG_8GB,NANDCFG:ITLC_S48_2P0T_SD
NRL5	639-09937	PCBA,MLB-TKSB,GOOD,HY-16G,HY-2.0T,X1783	CMN_PARTS_BOM,DEV_PARTS_BOM,ALTERNATE,CPU_ICLY:GOOD,DRAMCFG:HYNIX_16GB,NANDCFG:ITLC_S48_2P0T_HY
MYX6	639-08820	PCBA,MLB-TKSB,GOOD,HY-16G,SD-2.0T,X1783	CMN_PARTS_BOM,DEV_PARTS_BOM,ALTERNATE,CPU_ICLY:GOOD,DRAMCFG:HYNIX_16GB,NANDCFG:ITLC_S48_2P0T_SD
NRLJ	639-09938	PCBA,MLB-TKSB,GOOD,MI-16G,HY-2.0T,X1783	CMN_PARTS_BOM,DEV_PARTS_BOM,ALTERNATE,CPU_ICLY:GOOD,DRAMCFG:MICRON_16GB,NANDCFG:ITLC_S48_2P0T_HY
MYXK	639-08821	PCBA,MLB-TKSB,GOOD,MI-16G,SD-2.0T,X1783	CMN_PARTS_BOM,DEV_PARTS_BOM,ALTERNATE,CPU_ICLY:GOOD,DRAMCFG:MICRON_16GB,NANDCFG:ITLC_S48_2P0T_SD
NRLW	639-09939	PCBA,MLB-TKSB,GOOD,SS-16G,HY-2.0T,X1783	CMN_PARTS_BOM,DEV_PARTS_BOM,ALTERNATE,CPU_ICLY:GOOD,DRAMCFG:SAMSUNG_16GB,NANDCFG:ITLC_S48_2P0T_HY
MYXX	639-08822	PCBA,MLB-TKSB,GOOD,SS-16G,SD-2.0T,X1783	CMN_PARTS_BOM,DEV_PARTS_BOM,ALTERNATE,CPU_ICLY:GOOD,DRAMCFG:SAMSUNG_16GB,NANDCFG:ITLC_S48_2P0T_SD

PAGE TITLE		BOM Variants 3	
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<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>107S00033</td><td>107S00034</td><td></td><td>ALL</td><td>rdar://problem/31026333</td></tr><tr><td>107S00076</td><td>107S00044</td><td></td><td>ALL</td><td>rdar://problem/31026474</td></tr><tr><td>107S00139</td><td>107S0178</td><td></td><td>ALL</td><td>rdar://problem/31026896</td></tr><tr><td>107S0248</td><td>107S0250</td><td></td><td>ALL</td><td>rdar://problem/31026938</td></tr><tr><td>128S00087</td><td>128S00011</td><td></td><td>ALL</td><td>rdar://problem/31104542</td></tr><tr><td>128S00026</td><td>128S00011</td><td></td><td>ALL</td><td>rdar://problem/31104542</td></tr><tr><td>128S00031</td><td>128S00011</td><td></td><td>ALL</td><td>rdar://problem/31104542</td></tr><tr><td>197S00120</td><td>197S00118</td><td></td><td>ALL</td><td>rdar://problem/32474316</td></tr><tr><td>152S00368</td><td>152S00269</td><td></td><td>ALL</td><td>rdar://problem/32986667</td></tr><tr><td>152S00786</td><td>152S00344</td><td></td><td>ALL</td><td>rdar://problem/32988704</td></tr><tr><td>152S00785</td><td>152S00477</td><td></td><td>ALL</td><td>rdar://problem/32988930</td></tr><tr><td>152S00182</td><td>152S00703</td><td></td><td>ALL</td><td>rdar://problem/32989310</td></tr><tr><td>128S0364</td><td>128S0264</td><td></td><td>ALL</td><td>rdar://problem/32981497</td></tr><tr><td>128S00039</td><td>128S00038</td><td></td><td>ALL</td><td>rdar://problem/32984088</td></tr><tr><td>128S0302</td><td>128S00038</td><td></td><td>ALL</td><td>rdar://problem/32984088</td></tr><tr><td>128S0631</td><td>128S0352</td><td></td><td>ALL</td><td>rdar://problem/32984967</td></tr><tr><td>152S00734</td><td>152S00730</td><td></td><td>ALL</td><td>rdar://problem/32986265</td></tr><tr><td>107S00029</td><td>107S00087</td><td></td><td>ALL</td><td>rdar://problem/33006830</td></tr><tr><td>376S00227</td><td>376S00203</td><td></td><td>ALL</td><td>rdar://problem/32990227</td></tr><tr><td>376S00204</td><td>376S00203</td><td></td><td>ALL</td><td>rdar://problem/32990227</td></tr><tr><td>376S00226</td><td>376S00203</td><td></td><td>ALL</td><td>rdar://problem/32990227</td></tr><tr><td>152S00800</td><td>152S00268</td><td></td><td>ALL</td><td>rdar://problem/32986455</td></tr><tr><td>128S0445</td><td>128S0436</td><td></td><td>ALL</td><td>rdar://problem/32981936</td></tr><tr><td>128S0392</td><td>128S0436</td><td></td><td>ALL</td><td>rdar://problem/32981936</td></tr><tr><td>128S00042</td><td>128S0311</td><td></td><td>ALL</td><td>rdar://problem/32982452</td></tr><tr><td>128S00043</td><td>128S0311</td><td></td><td>ALL</td><td>rdar://problem/32982452</td></tr><tr><td>128S0329</td><td>128S0311</td><td></td><td>ALL</td><td>rdar://problem/32982452</td></tr><tr><td>128S00058</td><td>128S00098</td><td></td><td>ALL</td><td>rdar://problem/32983704</td></tr><tr><td>376S00007</td><td>376S1179</td><td></td><td>ALL</td><td>rdar://problem/33006121</td></tr><tr><td>376S00228</td><td>376S1179</td><td></td><td>ALL</td><td>rdar://problem/33006121</td></tr><tr><td>138S00084</td><td>138S00060</td><td></td><td>ALL</td><td>rdar://problem/31227858</td></tr><tr><td>197S00047</td><td>197S00036</td><td></td><td>ALL</td><td>rdar://problem/31509365</td></tr><tr><td>197S00048</td><td>197S00036</td><td></td><td>ALL</td><td>rdar://problem/31509365</td></tr><tr><td>197S00046</td><td>197S00036</td><td></td><td>ALL</td><td>rdar://problem/31509365</td></tr><tr><td>311S00060</td><td>311S0273</td><td></td><td>ALL</td><td>rdar://problem/31512477</td></tr><tr><td>138S1101</td><td>138S0738</td><td></td><td>ALL</td><td>rdar://problem/31491081</td></tr><tr><td>371S00180</td><td>371S00077</td><td></td><td>ALL</td><td>rdar://problem/31927114</td></tr><tr><td>138S00049</td><td>138S0831</td><td></td><td>ALL</td><td>rdar://problem/31284882</td></tr><tr><td>138S00109</td><td>138S0914</td><td></td><td>ALL</td><td>rdar://problem/46640234</td></tr><tr><td>138S00291</td><td>138S0835</td><td></td><td>ALL</td><td>rdar://problem/48092454</td></tr><tr><td>138S00181</td><td>138S0835</td><td></td><td>ALL</td><td>rdar://problem/48092454</td></tr><tr><td>353S01320</td><td>353S01346</td><td></td><td>ALL</td><td>rdar://problem/48088900</td></tr><tr><td>132S00229</td><td>132S00010</td><td></td><td>ALL</td><td>rdar://problem/47305238</td></tr><tr><td>353S4376</td><td>353S3384</td><td></td><td>ALL</td><td>rdar://problem/48089312</td></tr><tr><td>371S00220</td><td>371S00181</td><td></td><td>ALL</td><td>rdar://problem/48058127</td></tr></table>					PART NUMBER	ALTERNATE FOR PART NUMBER	BOM OPTION	REF 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Vendor	Primary Vendor	<table><tr><th>PART NUMBER</th><th>ALTERNATE FOR PART NUMBER</th><th>BOM OPTION</th><th>REF 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J214	107S0240	107S0255		ALL	rdar://problem/33930580	377S00123	377S00031		ALL	rdar://problem/35399063	377S0077	377S0183		ALL	rdar://problem/35403837	377S0184	377S0155		ALL	rdar://problem/35404095	376S1137	376S00019		ALL	rdar://problem/33955940	155S0706	155S0302		ALL	rdar://problem/32364222	131S00134	131S00041		ALL	rdar://problem/36353852	353S02004	353S01989		ALL	rdar://problem/48583206	353S02005	353S2216		ALL	rdar://problem/36638854	132S00202	132S00175		ALL	rdar://problem/36674713	311S0562	311S0372		ALL	rdar://problem/47654696	376S00282	376S1128		ALL	rdar://problem/33904000	131S00142	132S0312		ALL	rdar://problem/36938892	107S00053	107S00071		ALL	rdar://problem/40145084	371S00085	371S00190		ALL	rdar://problem/40314867	353S00525	353S4471		ALL	rdar://problem/46491385	353S00832	353S4471		ALL	rdar://problem/46491385	376S00281	376S1147		ALL	rdar://problem/46491572	152S01090	152S01085		ALL	rdar://problem/46487936	376S00373	376S1038		ALL	rdar://problem/46490666	138S00229	138S00107		ALL	rdar://problem/46631987	138S00022	138S0801		ALL	rdar://problem/40667960	372S0183	372S00033		ALL	rdar://problem/50349170	114S00002	114S0618		ALL	rdar://problem/47304661	353S01824	353S02068		ALL	rdar://problem/48583357	353S02064	353S4471		ALL	rdar://problem/46491385	353S02065	353S4471		ALL	rdar://problem/46491385	377S00106	377S00166		ALL	rdar://problem/47062814	371S00217	371S00079		ALL	rdar://problem/50601049	197S00244	197S00227		ALL	rdar://problem/50678168	371S00193	371S00064		ALL	rdar://problem/50831008	152S00812	152S1701		ALL	rdar://problem/51419709	138S00087	138S1086		ALL	rdar://problem/51371740	138S00097	138S0750		ALL	rdar://problem/51371269	138S00164	138S00138		ALL	rdar://problem/51370814	138S00139	138S00138		ALL	rdar://problem/51370814	311S00096	311S00040		ALL	rdar://problem/51371859	138S0852	138S0818		ALL	rdar://problem/51371555	353S02017	353S4471		ALL	rdar://problem/52837421	Alternate 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