

NAND BOM OPTIONS

PART#	QTY	DESCRIPTION	REFERENCE DESIGNATOR(S)	CRITICAL	BOM OPTION
335S0998	1	NAND, 19NM, 16GX8, MLC, PPN1.5	U0604	CRITICAL	NAND_16G
335S0993	1	NAND, 19NM, 32GX8, MLC, PPN1.5	U0604	CRITICAL	NAND_32G
335S0994	1	NAND, 19NM, 64GX8, MLC, PPN1.5	U0604	CRITICAL	NAND_64G
335S00010	1	NAND, 19NM, 128GX8, TLC, PPN1.5	U0604	CRITICAL	NAND_128G
138S0867	1	CAP,X5R,10UF,20%,6.3V,0.65MM,HRTZ,0402	C0610,C0611,C0614,C0634	CRITICAL	NAND_16G
138S0867	1	CAP,X5R,10UF,20%,6.3V,0.65MM,HRTZ,0402	C0613,C0633,C0610,C0611,C0614,C0634	CRITICAL	NAND_32G & NAND_64G
138S00003	1	CAP,X5R,15UF,20%,6.3V,0.65MM,HRTZ,0402	C0613,C0633,C0610,C0611,C0614,C0634	CRITICAL	NAND_128G

ALTERNATE NAND BOM OPTIONS

PART NUMBER	ALTERNATE FOR PART NUMBER	BOM OPTION	REF DES	COMMENTS:
335S0992	335S0998	ALTERNATE	U0604	TOSHIBA,NAND,16GB
335S1038	335S0998	ALTERNATE	U0604	HYNIX,NAND,16GB
335S1040	335S0994	ALTERNATE	U0604	HYNIX,NAND,64GB
335S00014	335S0994	ALTERNATE	U0604	TOSHIBA,NAND,64GB
335S00015	335S00010	ALTERNATE	U0604	TOSHIBA,NAND128GB
335S00009	335S0994	ALTERNATE	U0604	SANDISK,NAND,64GB,TLC

SHIELD BOM OPTIONS

PART#	QTY	DESCRIPTION	REFERENCE DESIGNATOR(S)	CRITICAL	BOM OPTION
604-00241	1	SUBASSY, SHIELD, UPPER FRONT, N61	SH2501	CRITICAL	COMMON
604-00242	1	SUBASSY, SHIELD, LOWER FRONT, N61	SH2502	CRITICAL	COMMON
604-00243	1	SUBASSY, SHIELD, LOWER BACK, N61	SH2504	CRITICAL	COMMON
604-00244	1	SUBASSY, SA SHIELD, N61	SH2506	CRITICAL	COMMON

N61 BOM CALLOUTS

PART#	QTY	DESCRIPTION	REFERENCE DESIGNATOR(S)	CRITICAL	BOM OPTION
051-9903	1	SCH, MLB, N61	SCH	CRITICAL	?
820-3486	1	PCBF, MLB, N61	PCB	CRITICAL	?
825-6838	1	EEEE FOR 639-4237 16GB	EEEE_G16T	CRITICAL	EEEE_16G
825-6838	1	EEEE FOR 639-5838 32GB	EEEE_G16R	CRITICAL	EEEE_32G
825-6838	1	EEEE FOR 639-5839 64GB	EEEE_G16Q	CRITICAL	EEEE_64G
825-6838	1	EEEE FOR 639-00025 128GB	EEEE_G16N	CRITICAL	EEEE_128G
825-6838	1	EEEE FOR 639-00208 16GB	EEEE_F98F	CRITICAL	EEEE_16G_TDDLTE
825-6838	1	EEEE FOR 639-00209 32GB	EEEE_FQKQ	CRITICAL	EEEE_32G_TDDLTE
825-6838	1	EEEE FOR 639-00210 64GB	EEEE_FQJY	CRITICAL	EEEE_64G_TDDLTE
825-6838	1	EEEE FOR 639-00212 128GB	EEEE_FY9W	CRITICAL	EEEE_128G_TLC_TDDLTE

ALTERNATE BOM OPTIONS

PART NUMBER	ALTERNATE FOR PART NUMBER	BOM OPTION	REF DES	COMMENTS:
152S1844	152S1836	ALTERNATE	L1604	TY ALT INDUCTOR
152S1842	152S1849	ALTERNATE	L1519	TY ALT INDUCTOR
197S0392	197S0369	ALTERNATE	Y1200	ESPON ALT XTAL
197S0399	197S0369	ALTERNATE	Y1200	NDK ALT XTAL
338S1285	338S1202	ALTERNATE	U1601	L21 SPKAMP
152S2034	152S2033	ALTERNATE	L1209,L1211,L1212	1.2MM 1.0UH, CYNTEC
152S00004	152S2049	ALTERNATE	L1210,L1212,L1214	1.2MM 0.47UH, CYNTEC
339S00005	339S0246	ALTERNATE	U0201	FIJI, B0, SAMSUNG
339S0247	339S0246	ALTERNATE	U0201	FIJI, B0, HYNIX
339S00006	339S0246	ALTERNATE	U0201	FIJI, B1, E
339S00007	339S0246	ALTERNATE	U0201	FIJI, B1, H
339S00008	339S0246	ALTERNATE	U0201	FIJI, B1, S
155S0773	155S0453	ALTERNATE		TY 120OHM FERRITE
118S0764	118S0717	ALTERNATE	R1309	3.92KOHM, 01005
343S0688	343S0638	ALTERNATE	U2401	CUMULUS C1, FAB4
138S00005	138S00003	ALTERNATE	C1290	15UF,0402,HRTZL CAP
155S00011	155S00008	ALTERNATE	L1135	CMC,90OHM,MURATA
377S0168	377S0140	ALTERNATE	DZ1113	SUPPA,TRANS,VARIATOR,AMOTECH
155S0885	155S0610	ALTERNATE	FL1802,FL1803	FERR RD,150OHM,100MA,01005
138S0648	138S0652	ALTERNATE	C1018	CAP,4.7UF,20%,6.3V,0402,B=0.65MM
138S0657	138S0702	ALTERNATE	C1106	CAP,4.3UF,20%,4V,0610
338S00028	338S00017	ALTERNATE	U2203	CARBON, BOSCH, BMT162BC
338S00029	338S00017	ALTERNATE	U2203	CARBON, ST, AP6DS2AA
335S00013	335S0894	ALTERNATE	D0301	BT SK REPRON

SCH 051-9903

BRD 820-3486

MCO 056-6825

BOM 639-4237 (16GB,BETTER)

BOM 639-5838 (32GB,BEST)

BOM 639-5839 (64GB,ULTRA)

BOM 639-00208 (16GB,BETTER,DTD)

BOM 639-00209 (32GB,BEST,DTD)

BOM 639-00210 (64GB,ULTRA,DTD)

BOM 639-00025(128GB,SUPREME,TLC)

BOM 639-00212(128GB,SUPREME,TLC,DTD)

8

7

6

5

4

3

2

1

DRAWING TITLE

SCHEM,MLB,N61

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DRAWING NUMBER

051-9903

SIZE

D

REVISION

7.0.0

BRANCH

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SHEET

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## D



## B

A

D

C

B

A

[illegible]

8 7 6 5 4 3 2 1

# FIJI: DIGITAL I/O, BOOTSTRAPPING

14 13 12 10 8 3 PP1V8 SDRAM  
29 26 17 15

26 14 12 PP1V8 ALWAYS

ROOM=SOC  
R0314  
220K  
5%  
1/32W  
MF  
01005

ROOM=SOC  
R0313  
392K  
1%  
1/32W  
MF  
01005

BOARD\_ID3  
BOOT\_CONFIG0  
15 AP TO PMU KEEPACT  
BB TO AP DEVICE RDY  
BB TO AP GPS SYNC  
AP TO BB HOST RDY  
BB TO AP RESET DET L  
BOOT\_CONFIG1  
FORCE DFU  
DFU STATUS  
BOOT\_CONFIG2  
BOARD\_ID4  
BOARD\_REV3  
BOARD\_REV2  
BOARD\_REV1  
BOARD\_REV0  
27 BOARD REV3  
27 BOARD REV2  
27 BOARD REV1  
27 BOARD REV0  
27 AP TO BB COREDUMP  
13 8 BUTTON TO AP RINGER A  
29 BB TO AP IPC GPIO  
14 AP TO VIBE EN

AC1  
AC2  
AC3  
AC4  
AD1  
AD2  
AD3  
AD4  
AG30  
AG31  
AG32  
Y3  
Y4  
AK31  
AE1  
AF30  
NC  
AE3  
NC  
AK32  
NC  
AF3  
AF4  
AH4  
AJ1  
AD29  
AJ2  
AK33  
AJ30  
NC  
AJ3  
NC  
AJ4  
NC  
AC30  
AC31  
NC  
AK1  
AK2  
AK3  
AK4  
AM29  
AB30  
AB31  
AL3

GPIO00  
GPIO1  
GPIO2  
GPIO3  
GPIO4  
GPIO5  
GPIO6  
GPIO7  
GPIO8  
GPIO9  
GPIO10  
GPIO11  
GPIO12  
GPIO13  
GPIO14  
GPIO15  
GPIO16  
GPIO17  
GPIO18  
GPIO19  
GPIO20  
GPIO21  
GPIO22  
GPIO23  
GPIO24  
GPIO25  
GPIO26  
GPIO27  
GPIO28  
GPIO29  
GPIO30  
GPIO31  
GPIO32  
GPIO33  
GPIO34  
GPIO35  
GPIO36  
GPIO37  
GPIO38  
GPIO40  
GPIO41  
GPIO42

U0201  
POP-FIJI-1GB-DDR-B0  
BGA  
SYM 2 OF 13

TMR32\_PWM0  
TMR32\_PWM1  
TMR32\_PWM2  
X NC

UART0\_RXD  
UART0\_TXD  
H30  
H31  
H32  
H33

BT TO AP UART1 CTS L  
AP TO BT UART1 RTS L  
BT TO AP UART1 RXD  
AP TO BT UART1 TXD

UART2\_CTSN  
UART2\_RTSN  
UART2\_RXD  
UART2\_TXD  
AL31  
AM33  
AL32  
AL33

BB TO AP UART2 CTS L  
AP TO BB UART2 RTS L  
BB TO AP UART2 RXD  
AP TO BB UART2 TXD

UART3\_CTSN  
UART3\_RTSN  
UART3\_RXD  
UART3\_TXD  
F30  
G30  
G31  
G32

STOCKHOLM TO AP UART3 CTS L  
AP TO STOCKHOLM UART3 RTS L  
STOCKHOLM TO AP UART3 RXD  
AP TO STOCKHOLM UART3 TXD

UART4\_CTSN  
UART4\_RTSN  
UART4\_RXD  
UART4\_TXD  
AE31  
AF31  
AE32  
AE33

WLAN TO AP UART4 CTS L  
AP TO WLAN UART4 RTS L  
WLAN TO AP UART4 RXD  
AP TO WLAN UART4 TXD

UART5\_RTxD  
AG4  
AP TO TIGRIS SWI

AP TO TIGRIS SWI

UART6\_RXD  
UART6\_TXD  
AM2  
AM1

TRISTAR TO AP ACC UART6 RXD  
AP TO TRISTAR ACC UART6 TXD

UART7\_RXD  
UART7\_TXD  
B30  
A30

NC  
AP TO WLAN DEVICE WAKE

UART8\_RXD  
UART8\_TXD  
AF2  
AF1

OSCAR TO AP UART RXD  
AP TO OSCAR UART TXD

ROOM=SOC  
R0301  
33.2  
1%  
1/32W  
MF  
01005

45 AP TO CODEC I2S0 MCLK L  
45 AP TO CODEC I2S0 MCLK R  
45 AP TO CODEC ASP I2S0 BCLK  
45 AP TO CODEC ASP I2S0 LRCLK  
CODEC TO AP ASP I2S0 DIN  
AP TO CODEC ASP I2S0 DOUT

D26  
U30  
U31  
U32  
U33

I2S0\_MCK  
I2S0\_BCLK  
I2S0\_LRCK  
I2S0\_DIN  
I2S0\_DOUT

BLUETOOTH  
CODEC ASP & SPKR AMP  
PP0303  
P2MM-NSM  
ROOM=SOC

ALS TO AP INT L  
45 AP TO BB I2S3 BCLK  
AP TO BB I2S3 LRCLK  
BB TO AP I2S3 DIN  
AP TO BB I2S3 DOUT

AA2  
AA4  
AA3  
Y1  
Y2

I2S3\_MCK  
I2S3\_BCLK  
I2S3\_LRCK  
I2S3\_DIN  
I2S3\_DOUT

17 13 TRISTAR TO AP INT  
45 AP TO CODEC VSP I2S4 BCLK  
AP TO CODEC VSP I2S4 LRCLK  
CODEC TO AP VSP I2S4 DIN  
AP TO CODEC VSP I2S4 DOUT

AB32  
AB33  
AA30  
AA32  
AA33

I2S4\_MCK  
I2S4\_BCLK  
I2S4\_LRCK  
I2S4\_DIN  
I2S4\_DOUT

BOARD\_ID2  
BOARD\_ID1  
BOARD\_ID0  
NC  
NC  
NC

AG1  
AG2  
AG3  
AG4

SPI0\_MISO  
SPI0\_MOSI  
SPI0\_SCLK  
SPI0\_SSIN

CODEC  
GRAPE  
ROOM=SOC  
R0340  
0.00  
1%  
1/32W  
MF  
01005

AP TO MESA SPI CLK L  
AP TO MESA SPI CLK R  
MESA TO AP INT

AD33  
AD32  
AD31  
AE30

SPI3\_MISO  
SPI3\_MOSI  
SPI3\_SCLK  
SPI3\_SSIN

ROOM=SOC  
R0302  
2.2K  
5%  
1/32W  
MF  
01005

ROOM=SOC  
R0303  
2.2K  
5%  
1/32W  
MF  
01005

ROOM=SOC  
R0304  
2.2K  
5%  
1/32W  
MF  
01005

ROOM=SOC  
R0305  
2.2K  
5%  
1/32W  
MF  
01005

ROOM=SOC  
R0306  
1.33K  
1%  
1/32W  
MF  
01005

ROOM=SOC  
R0308  
1.33K  
1%  
1/32W  
MF  
01005

PP1V8  
3 4 5 6 7 10 11 12 13 15 20 23

P2MM-NSM  
PP0301  
P2MM-NSM  
PP0302

AP TO I2C0\_SCL  
AP BI I2C0\_SDA  
AP TO I2C1\_SCL  
AP BI I2C1\_SDA  
AP TO I2C2\_SCL  
AP BI I2C2\_SDA

I2C0\_SCL  
I2C0\_SDA  
I2C1\_SCL  
I2C1\_SDA  
I2C2\_SCL  
I2C2\_SDA  
I2C3\_SCL  
I2C3\_SDA  
DWI\_CLK  
DWI\_DO

AM32  
AM31  
Y31  
Y30  
AH1  
AH2  
AN1  
AN2  
AL29  
AL30

AP TO I2C0\_SCL  
AP BI I2C0\_SDA  
AP TO I2C1\_SCL  
AP BI I2C1\_SDA  
AP TO I2C2\_SCL  
AP BI I2C2\_SDA  
45 AP TO PMU AND BL DWI\_CLK  
45 AP TO PMU AND BL DWI\_DO

ROOM=SOC  
R0310  
10K  
5%  
1/32W  
MF  
01005

ROOM=SOC  
R0315  
0.00  
1%  
1/32W  
MF  
01005

ROOM=SOC  
R0312  
0.00  
1%  
1/32W  
MF  
01005

PP1V8  
3 4 5 6 7 10 11 12 13 15 20 23

PMU TO AP PRE UVLO L  
PMU TO AP PRE UVLO L  
AP TO PMU SOCHOT1 L  
AP TO PMU SOCHOT1 L

AJ31  
AJ32  
AL5  
AB1  
AH30  
AB4

SOCHOTO  
SOCHOT1  
DISP\_VSYNC  
CLK32K\_OUT  
CPU\_SLEEP\_STATUS  
NAND\_SYS\_CLK

AP TO EEPROM I2C\_SCL  
AP BI EEPROM I2C\_SDA

SEP\_I2C\_SCL  
SEP\_I2C\_SDA  
SEP\_SPI\_SCLK  
SEP\_SPI\_SSIN  
SEP\_SPI\_MISO  
SEP\_SPI\_MOSI  
SEP\_GPIO0

AP TO EEPROM I2C\_SCL  
AP BI EEPROM I2C\_SDA  
X NC  
X NC  
X NC  
X NC  
X NC  
X NC  
X NC

C32 OSCAR TO AP ISP UART RXD  
C33 AP ISP TO OSCAR UART TXD

ROOM=SOC  
R0307  
10K  
5%  
1/32W  
MF  
01005

ROOM=SOC  
R0317  
2.2K  
5%  
1/32W  
MF  
01005

AP TO PMU SOCHOT1 L

ROOM=SOC  
R0316  
2.2K  
5%  
1/32W  
MF  
01005

ROOM=SOC  
R0317  
2.2K  
5%  
1/32W  
MF  
01005

AP TO PMU SOCHOT1 L

ROOM=SOC  
R0317  
2.2K  
5%  
1/32W  
MF  
01005

AP TO PMU SOCHOT1 L

ROOM=SOC  
R0317  
2.2K  
5%  
1/32W  
MF  
01005

AP TO PMU SOCHOT1 L

ROOM=SOC  
R0317  
2.2K  
5%  
1/32W  
MF  
01005

AP TO PMU SOCHOT1 L

ROOM=SOC  
R0317  
2.2K  
5%  
1/32W  
MF  
01005

AP TO PMU SOCHOT1 L

ROOM=SOC  
R0317  
2.2K  
5%  
1/32W  
MF  
01005

AP TO PMU SOCHOT1 L

ROOM=SOC  
R0317  
2.2K  
5%  
1/32W  
MF  
01005

AP TO PMU SOCHOT1 L

ROOM=SOC  
R0317  
2.2K  
5%  
1/32W  
MF  
01005

AP TO PMU SOCHOT1 L

ROOM=SOC  
R0317  
2.2K  
5%  
1/32W  
MF  
01005

AP TO PMU SOCHOT1 L

ROOM=SOC  
R0317  
2.2K  
5%  
1/32W  
MF  
01005

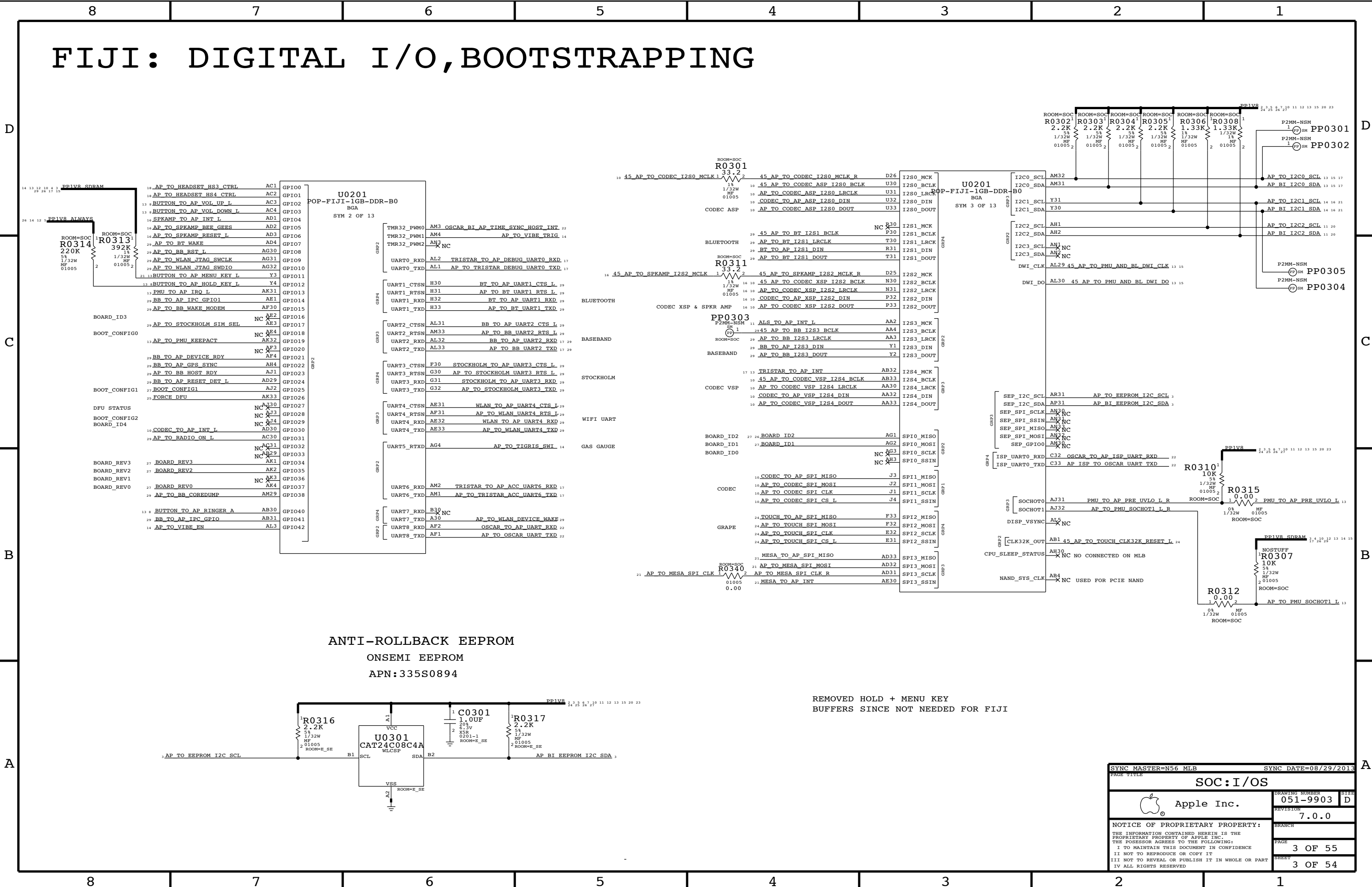
AP TO PMU SOCHOT1 L

ROOM=SOC  
R0317  
2.2K  
5%  
1/32W  
MF  
01005

AP TO PMU SOCHOT1 L

ROOM=SYNC MASTER=N56 MLB  
PAGE TITLE  
SOC:I/OS  
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051-9903  
REVISION  
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BRANCH  
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SYNC DATE=08/29/2013  
D  
D

8 7 6 5 4 3 2 1

[illegible]

**FIJI: DIGITAL I/O, BOOTSTRAPPING**

**ANTI-ROLLBACK EEPROM**  
ONSEMI EEPROM  
APN:335S0894

REMOVED HOLD + MENU KEY  
BUFFERS SINCE NOT NEEDED FOR FIJI

**SOC:I/OS**

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DRAWING NUMBER: 051-9903  
REVISION: 7.0.0

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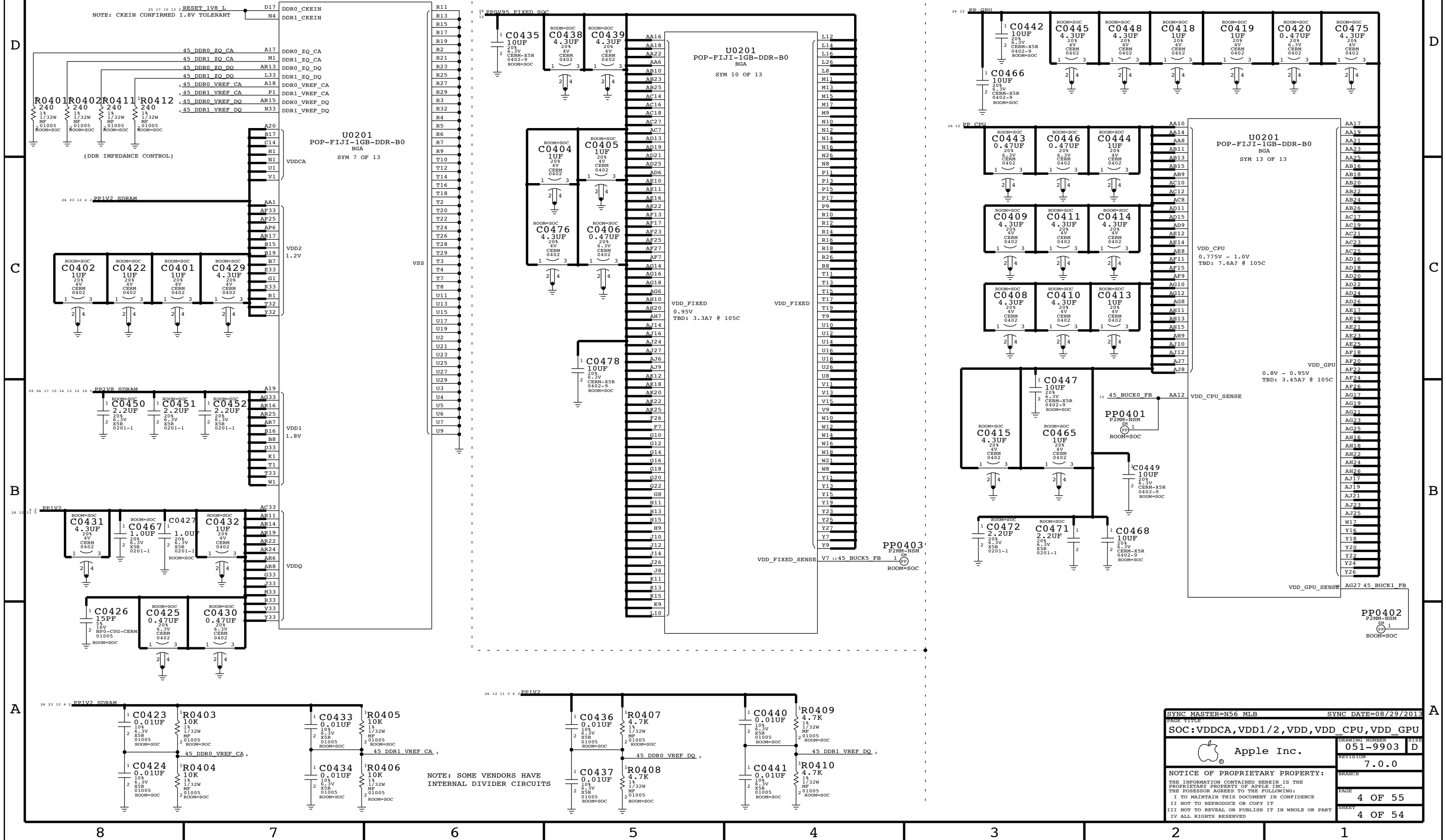
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
FIJI: VDDCA, VDD1/2, VDDQ, VDD, VDD\_FIXED, VDD\_CPU, VDD\_GPU

VDDCA, VDD1/2, VDDQ

VDD

VDD\_CPU, VDD\_GPU

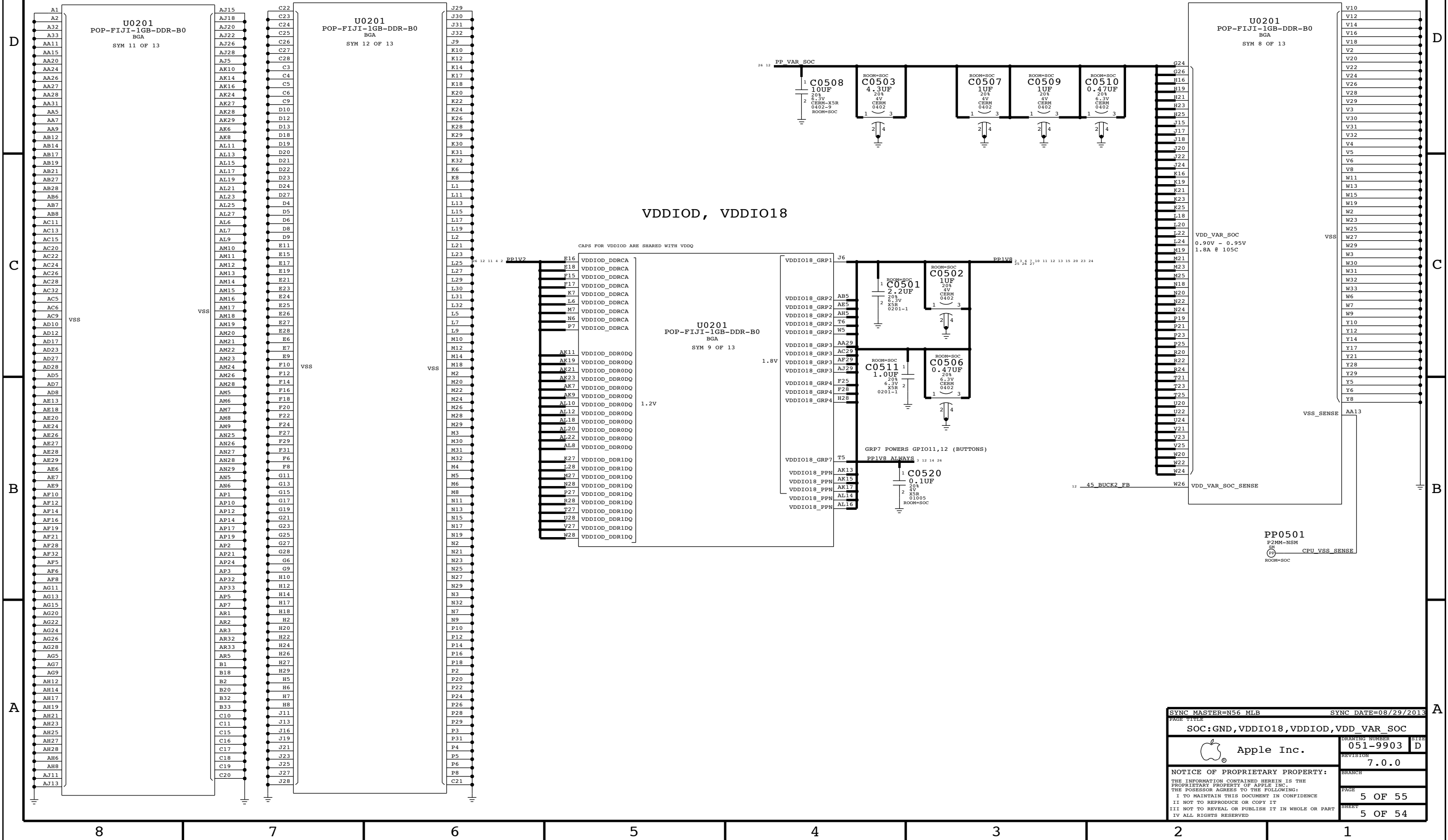


SYNCH MASTER=N56 MLB		SYNCH DATE=08/29/2013	
PAGE TITLE			
SOC:VDDCA,VDD1/2,VDD,VDD_CPU,VDD_GPU			
 Apple Inc.		DRAWING NUMBER <b>051-9903</b>	
		SIZE <b>D</b>	
		REVISION <b>7.0.0</b>	
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		SHEET <b>4 OF 54</b>	

# FIJI: VDDIOD, VDDIO18, VDD\_VAR\_SOC

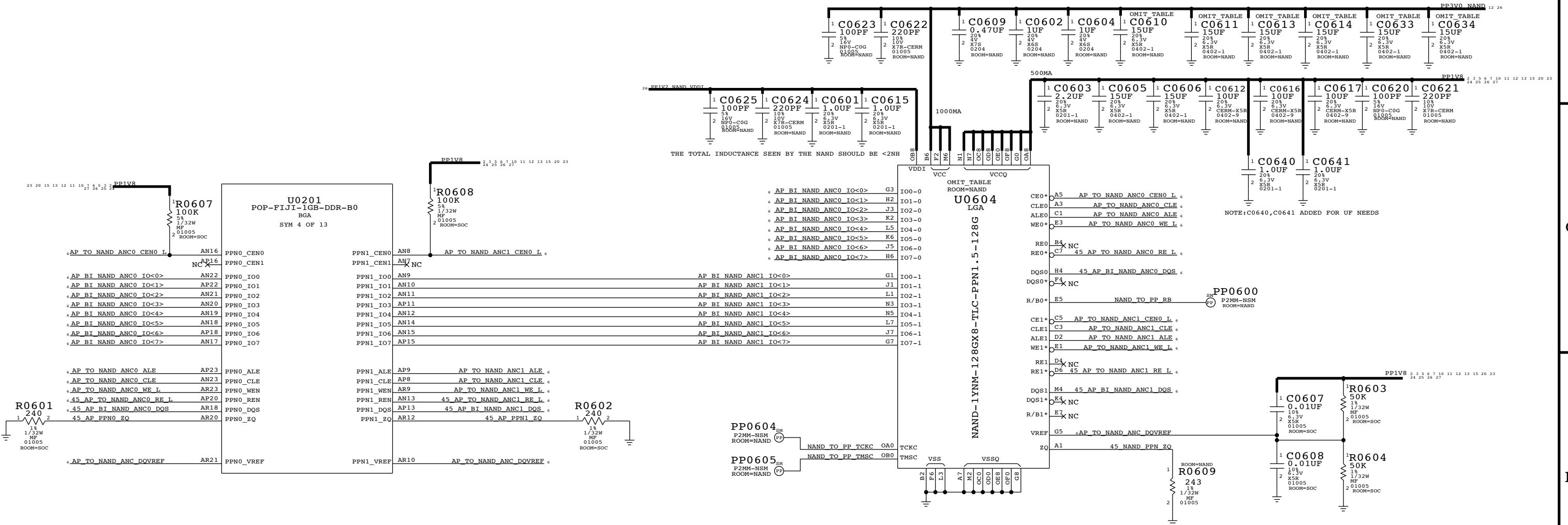
JUST A FEW GNDS

VDD\_SRAM, VDD\_SOC




# FIJI: NAND + 12X17 NAND PKG

SUPPORT FOR PPN1.5 (1.8V IO) ONLY

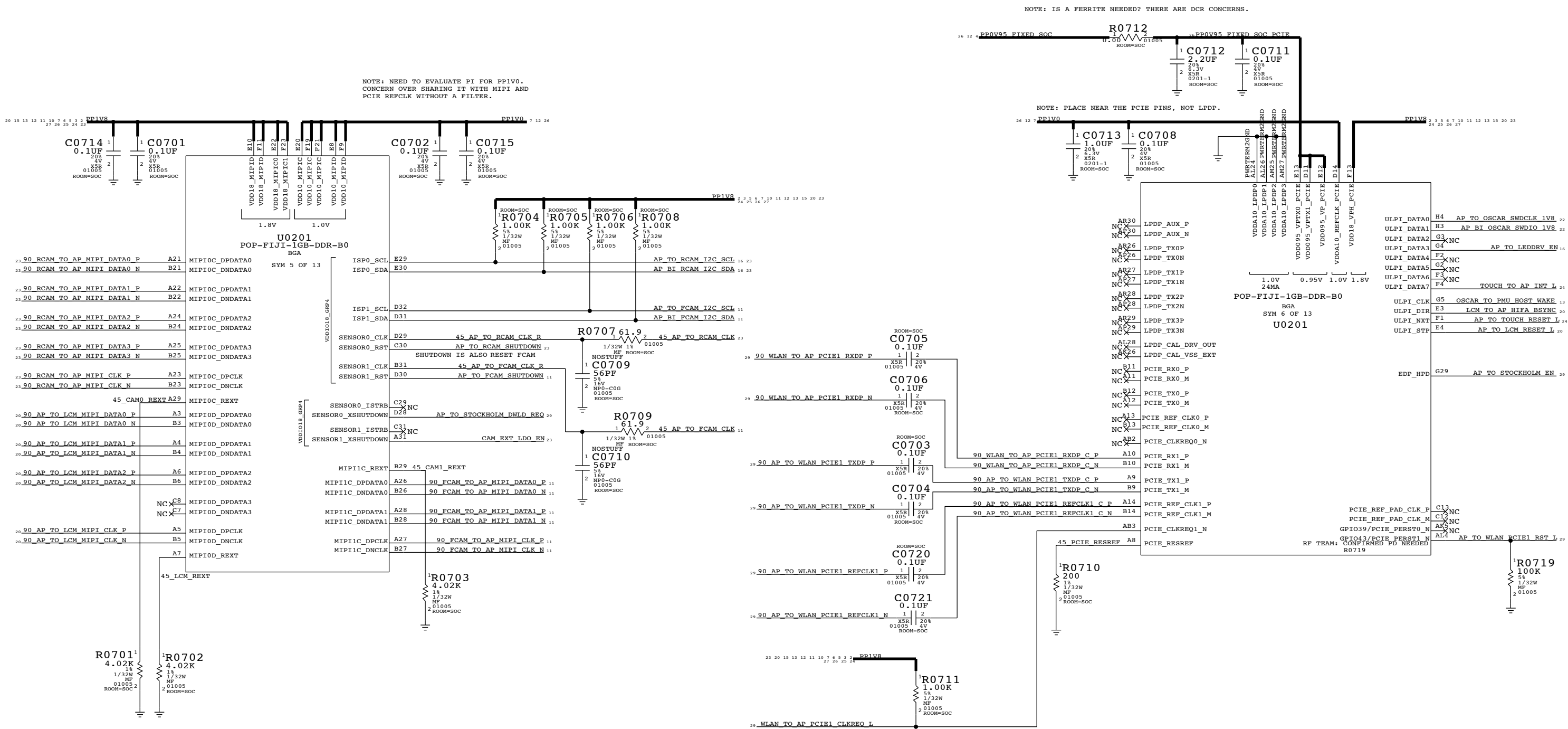



NOTE: NAND PADS SHOULD BE SHIELDED FROM TRACES WITH A GROUND PLANE

**PP0601**  
P4MM  
ROOM=SOC  
NOTE: IO<6> PREFERRED BY MATT BYOM (N51)  
(IS A STATUS READY BIT)  
AP\_BI\_NAND\_ANC0\_IO<6>  
**PP0602**  
P4MM  
ROOM=SOC  
45 AP\_TO\_NAND\_ANC0\_RE\_L  
**PP0603**  
P4MM  
ROOM=SOC  
45 AP\_BI\_NAND\_ANC0\_DQS

SYNC MASTER=N56 MLB		SYNC DATE=08/29/2013	
PAGE TITLE			
SOC : NAND			
 Apple Inc.		DRAWING NUMBER	051-9903
		SIZE	D
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# FIJI: HIGH SPEED DIG (CAM,LCD,LPDP,PCIE)



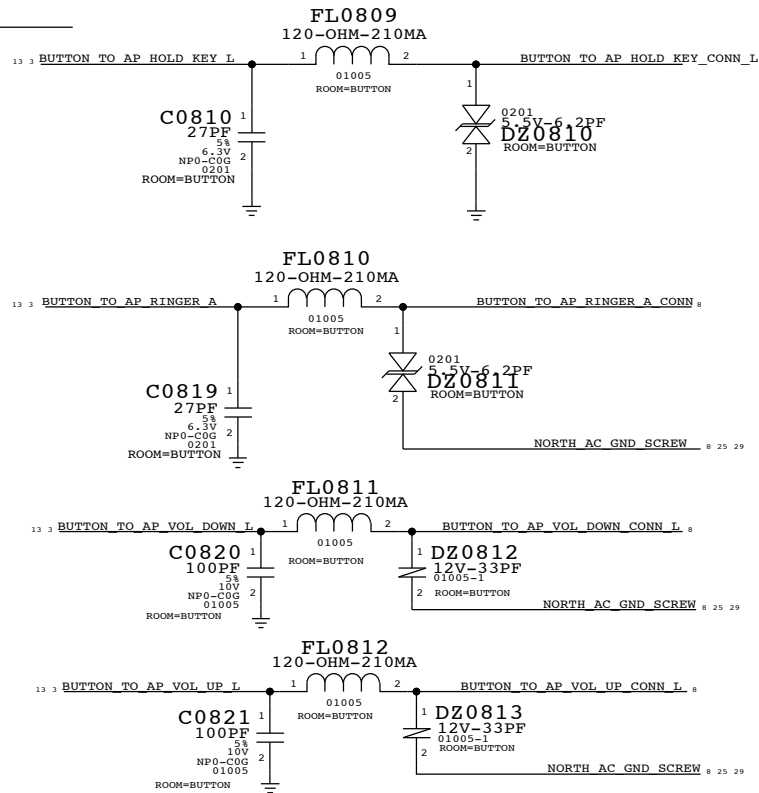
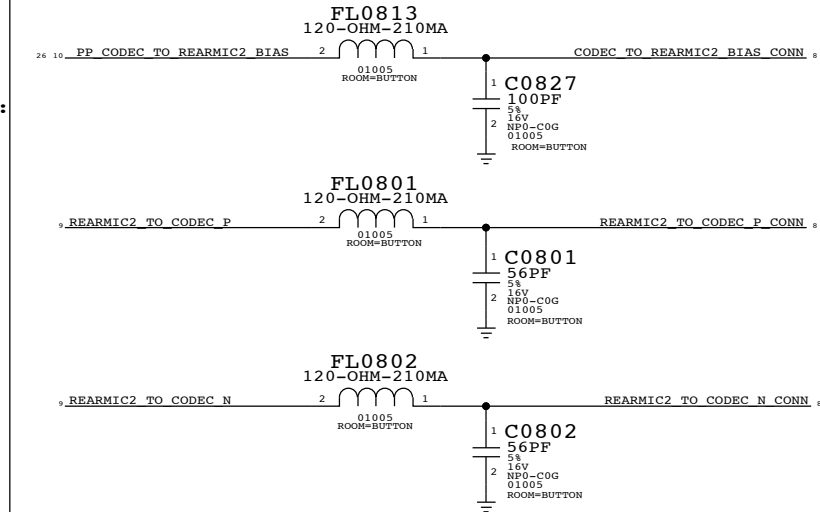
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SOC:CAM, LCD, LPDP, PCIE			
 Apple Inc.		DRAWING NUMBER	051-9903
		REVISION	7.0.0
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8 7 6 5 4 3 2 1

# BUTTON FLEX (BUTTONS, ANC REF MIC, STROBE, STROBE\_NTC, WIFI FLEX PAC)

D

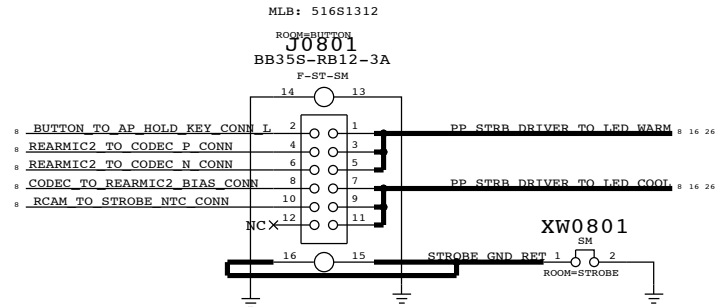
MIC2 (ANC REF MIC):  
MIC2/4 BIAS,  
MIC2\_P,\_N



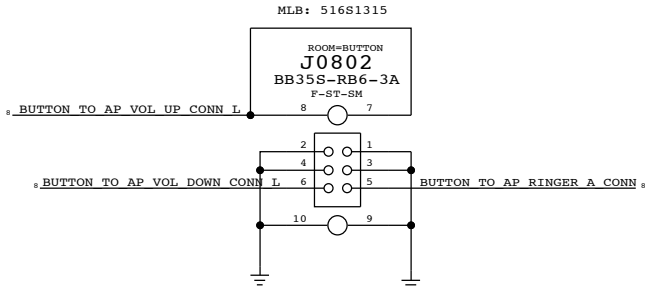
B

BUTTONS:  
RINGER, HOLD,  
VOL\_UP/DOWN,

## RIGHT BUTTON B2B



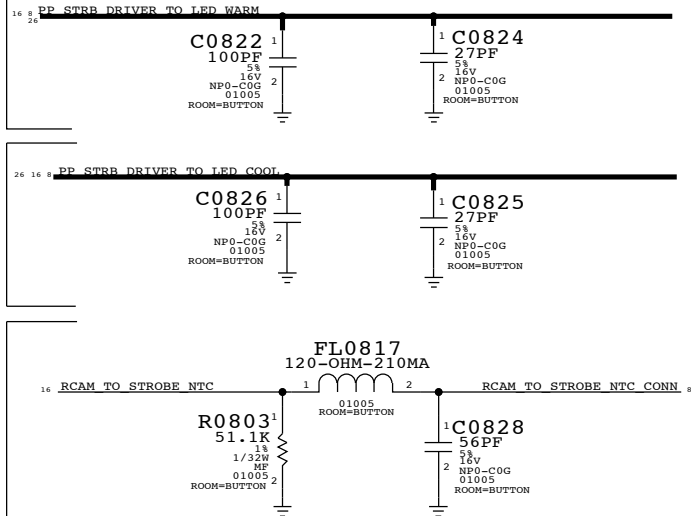
## LEFT BUTTON B2B




STROBE:  
LED WARM

STROBE:  
LED COOL

STROBE:  
NTC



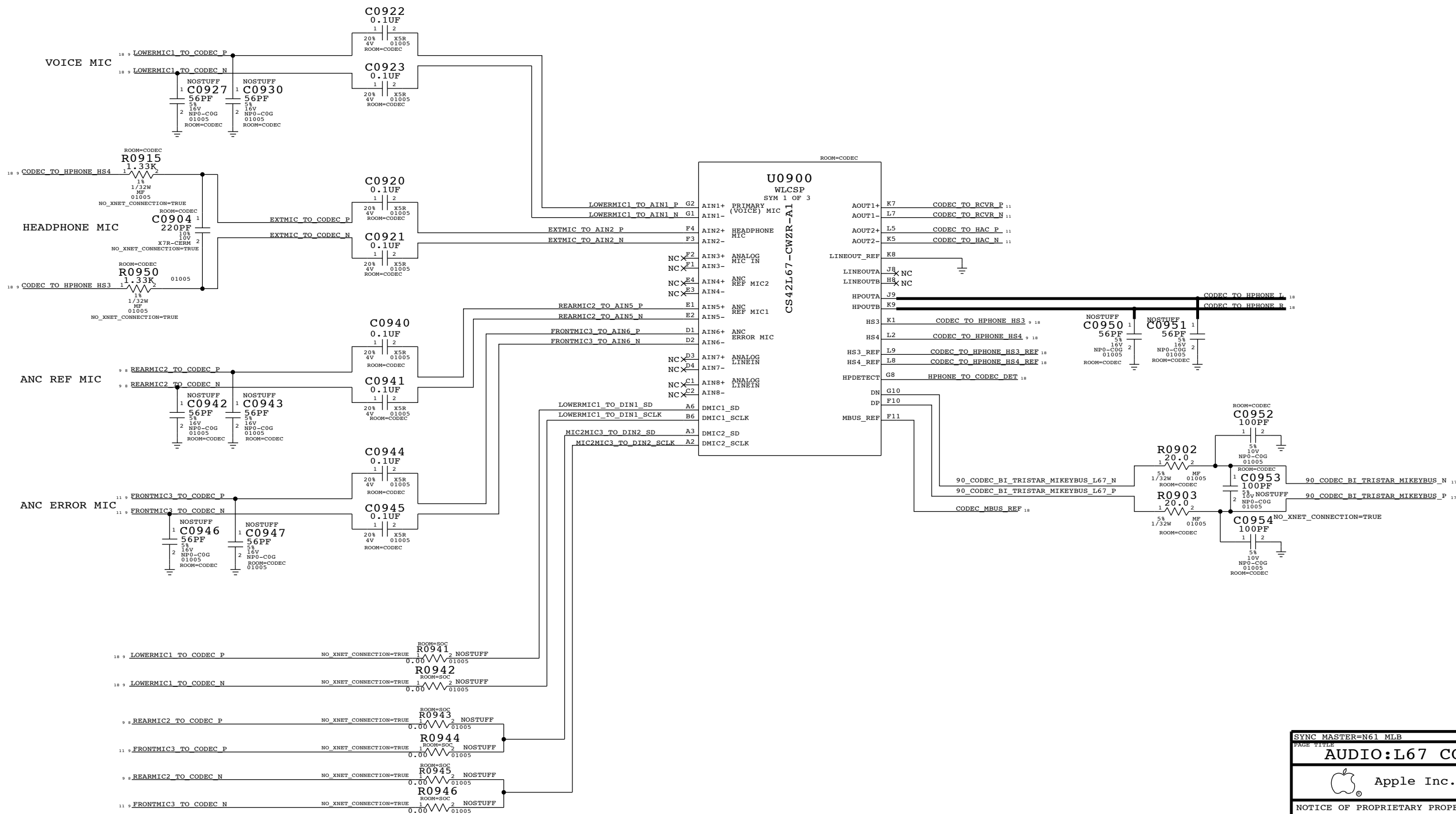
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IO:BUTTON FLEX CONN			
 Apple Inc.		DRAWING NUMBER	051-9903
		SIZE	D
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		BRANCH	
		PAGE	8 OF 55
		SHEET	8 OF 54




# L67 AUDIO CODEC

## AUDIO I/O

(ANALOG MIC IN, DIG MIC IN, HPOUT, LINEOUT, RECEIVER OUT, MIKEYBUS)

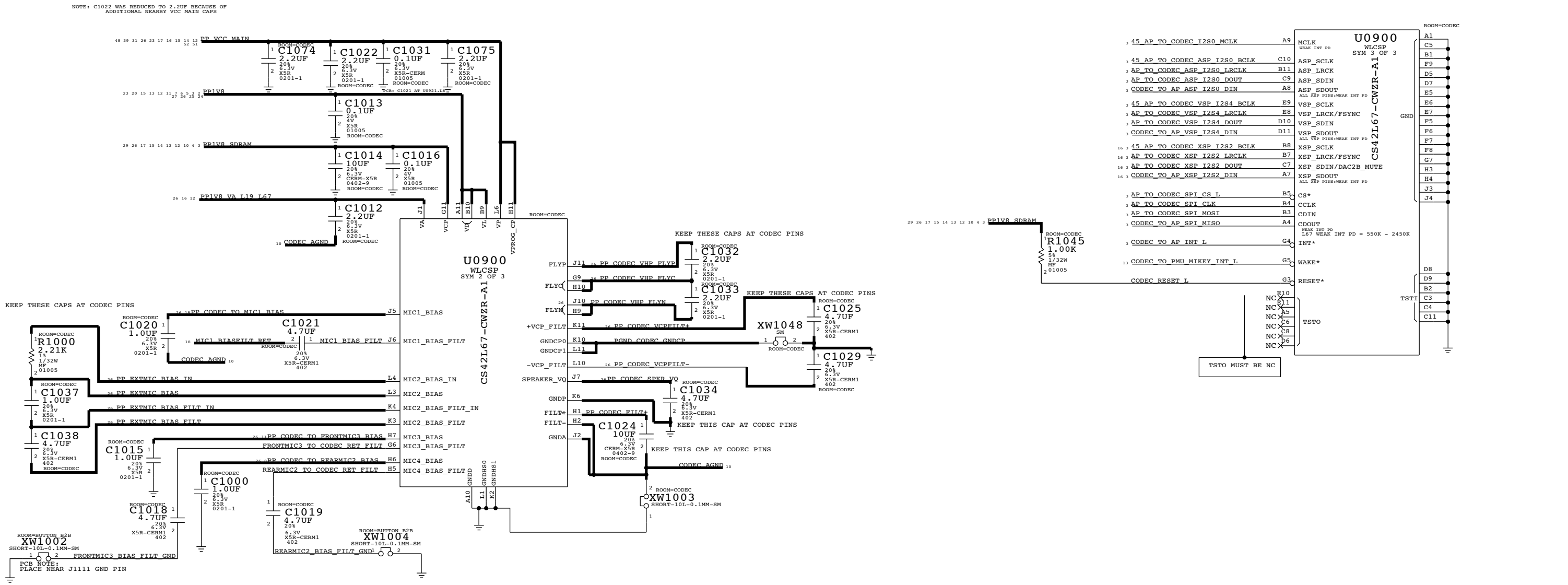


SYNC MASTER=N61 MLB		SYNC DATE=08/26/2013	
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AUDIO:L67 CODEC		(1/2)	
	Apple Inc.	DRAWING NUMBER	051-9903
		REVISION	7.0.0
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# L67 AUDIO CODEC

## POWER, MICBIAS

## DIGITAL SYSTEM I/O



# FRONT CAM FLEX B2B

(FCAM, PROX, ALS, RECEIVER, ANC ERROR MIC)

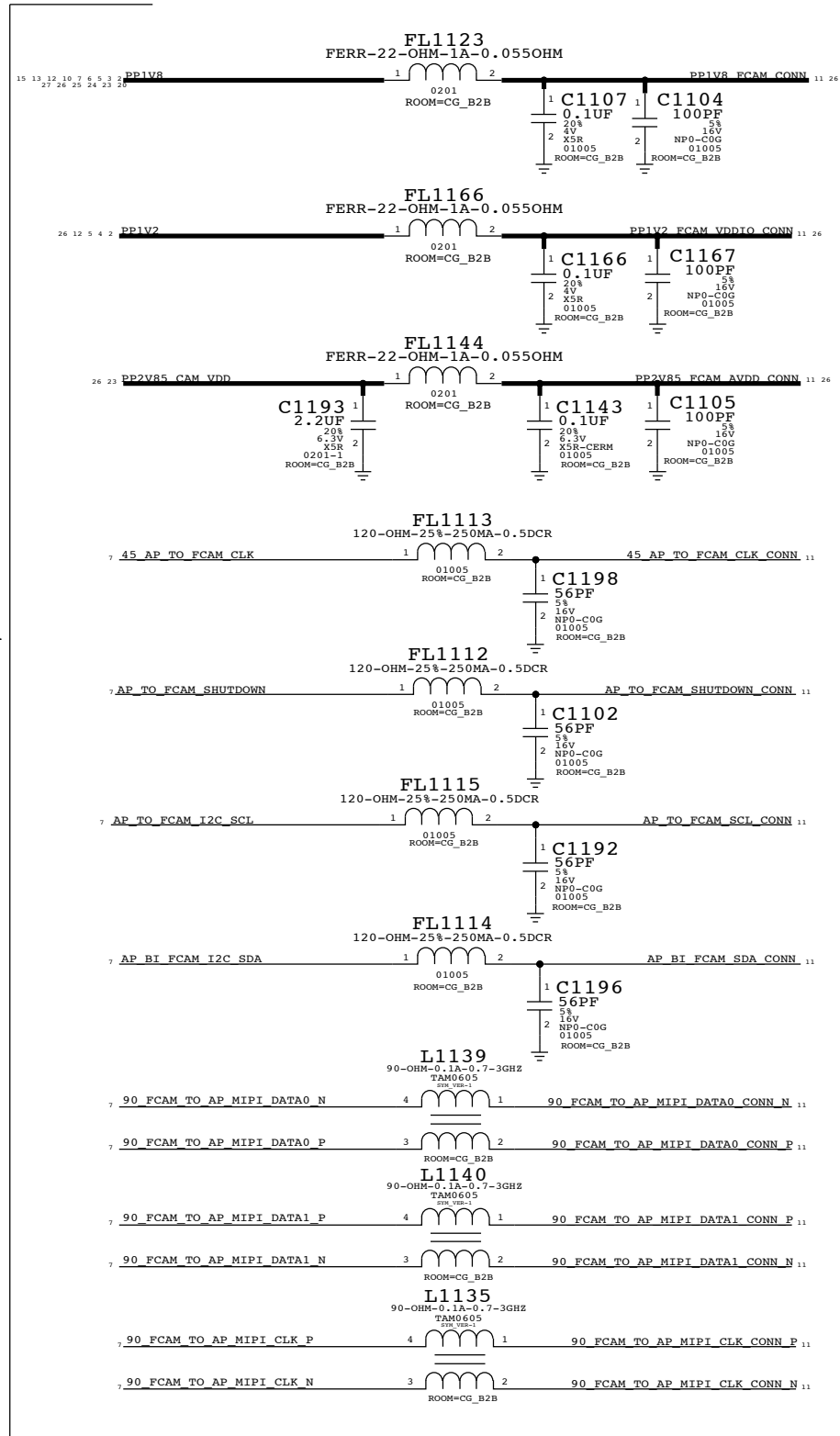
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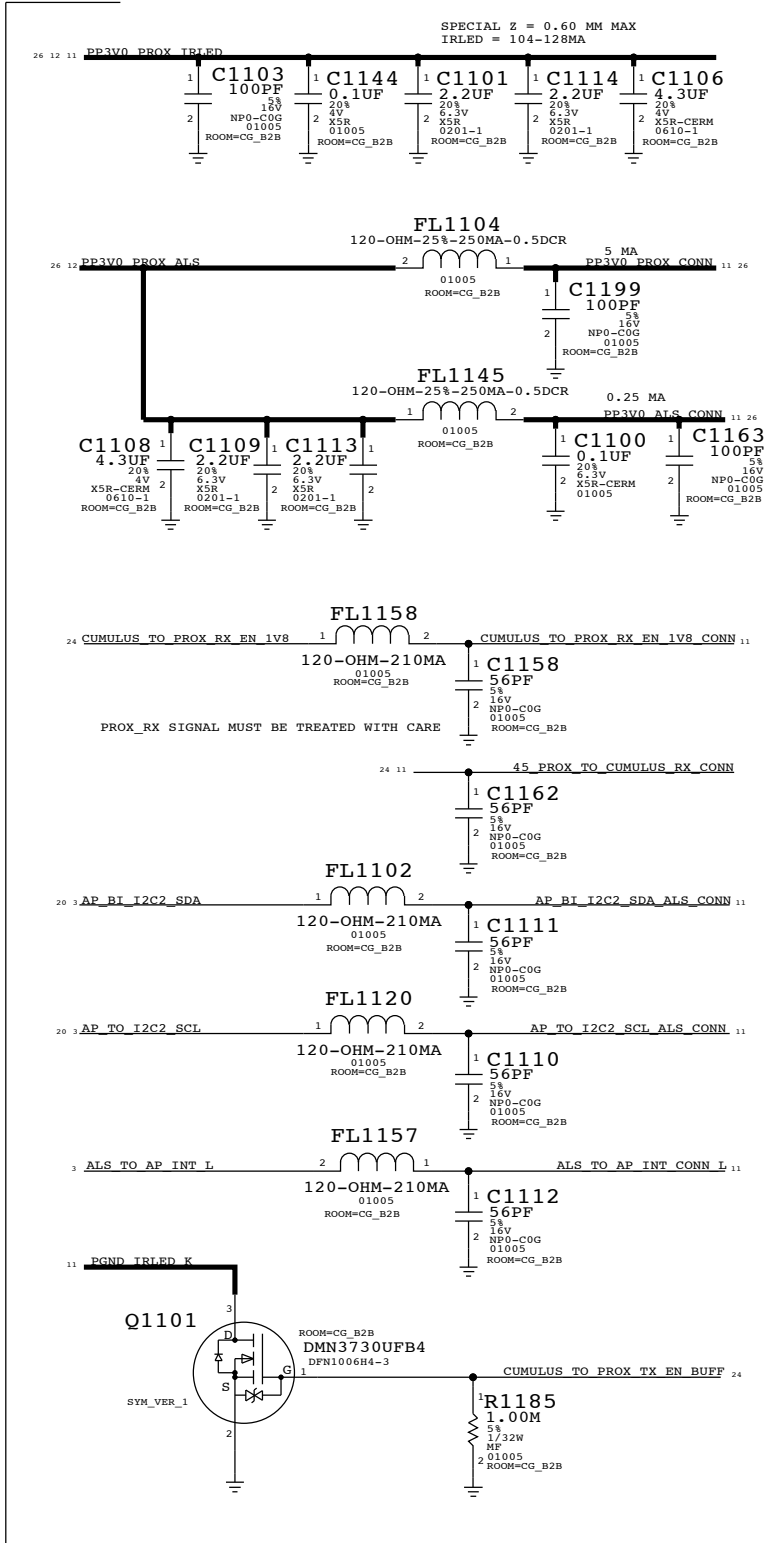
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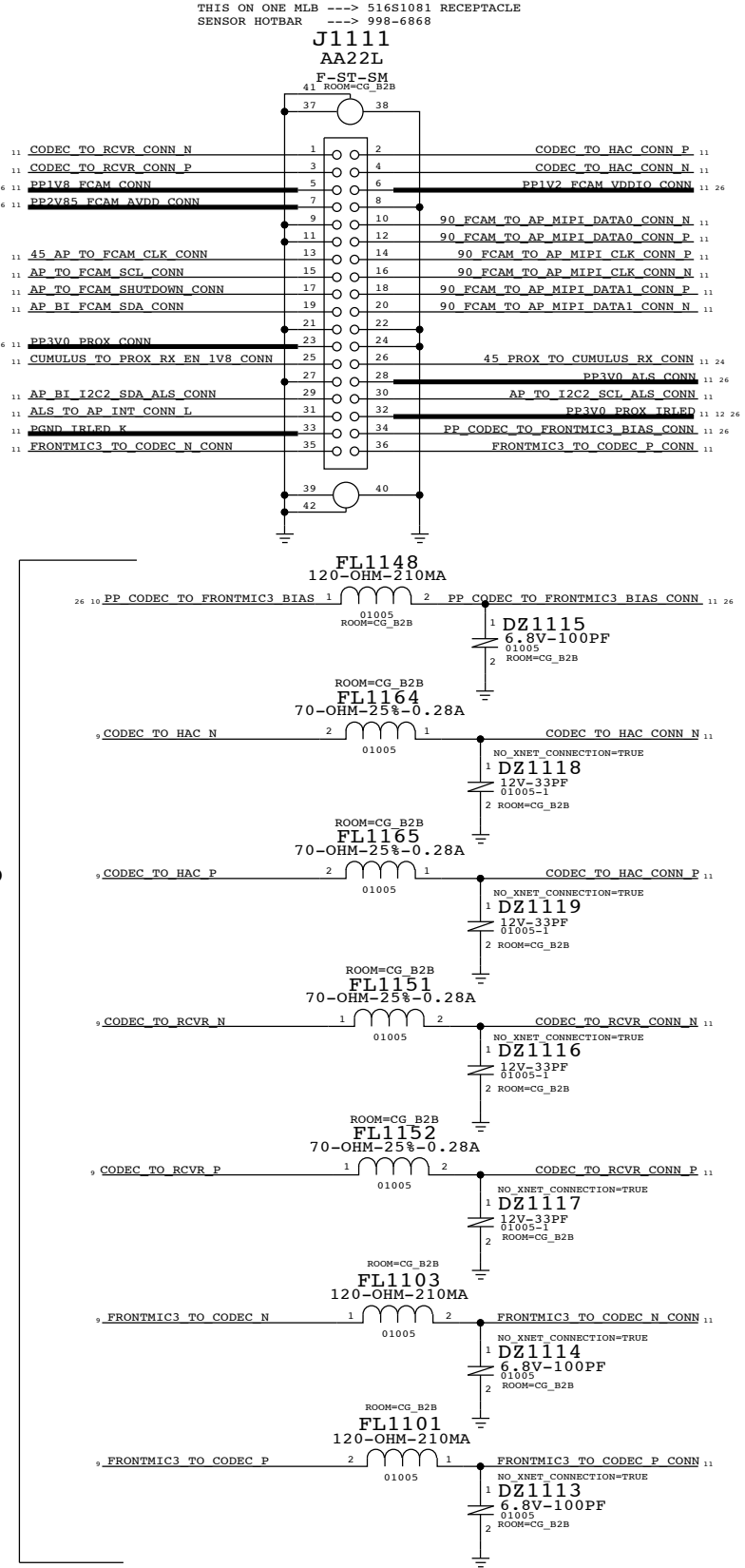
A




ALS,  
PROX



AUDIO



PAGE TITLE		SYNC MASTER=N61 MLB		SYNC DATE=08/26/2013	
CAMERA: FRONT FLEX CONN					
 Apple Inc.		DRAWING NUMBER	051-9903		SIZE
		REVISION	7.0.0		D
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			SHEET 11 OF 54		

# ADI PMU

(BUCK, LDO, VIBE DRIVER, 32K, CHARGER)

NOTE: L1210, L1212 BOMPTIONS  
CONTROLLED ON PAGE1

APN: 338S1251 (ADI AZ)

U1202  
D2186AZE0FJAVAC  
FCCSP-N56-N61 ROOM=PMU  
SYM 1 OF 3

VBUS\_OVP\_OFF  
VCENTER  
VBUS  
IBAT  
VBAT  
ACT\_DIO  
CHG\_LX  
VCC\_MAIN  
VCC\_MAIN\_S  
VDD\_BUCK1  
VDD\_BUCK2  
VDD\_BUCK3  
VDD\_BUCK4  
VDD\_BUCK5  
VDD\_BUCK6  
VDD\_BYP\_BUCK6  
VDD\_BUCK001  
VDD\_BUCK023  
VDD\_LDO6  
VDD\_LDO2  
VDD\_LDO1\_3  
VDD\_LDO4\_13  
VDD\_LDO5  
VDD\_LDO7\_8  
VDD\_LDO10  
VDD\_LDO9\_11  
VDD\_VIB  
VIB  
VIB\_PWM\_EN  
XTAL1  
XTAL2  
VSS\_RTC

BUCK INPUT  
LDO INPUT  
VIBE

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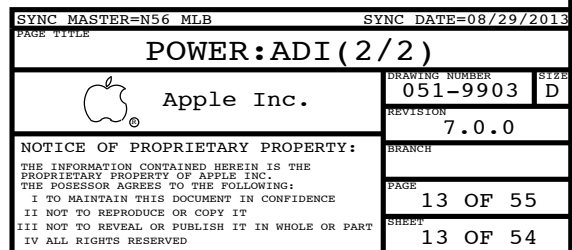
SPEC REQUIRES 10NF,  
VPUMP RUNS AT 4.6V  
VPUMP CAP:  
30% DERATED.

C1208 0.1UF  
C1270 2.2UF  
C1229 2.2UF  
C1212 1.0UF  
C1284 1.0UF  
C1299 2.2UF  
C1207 2.2UF

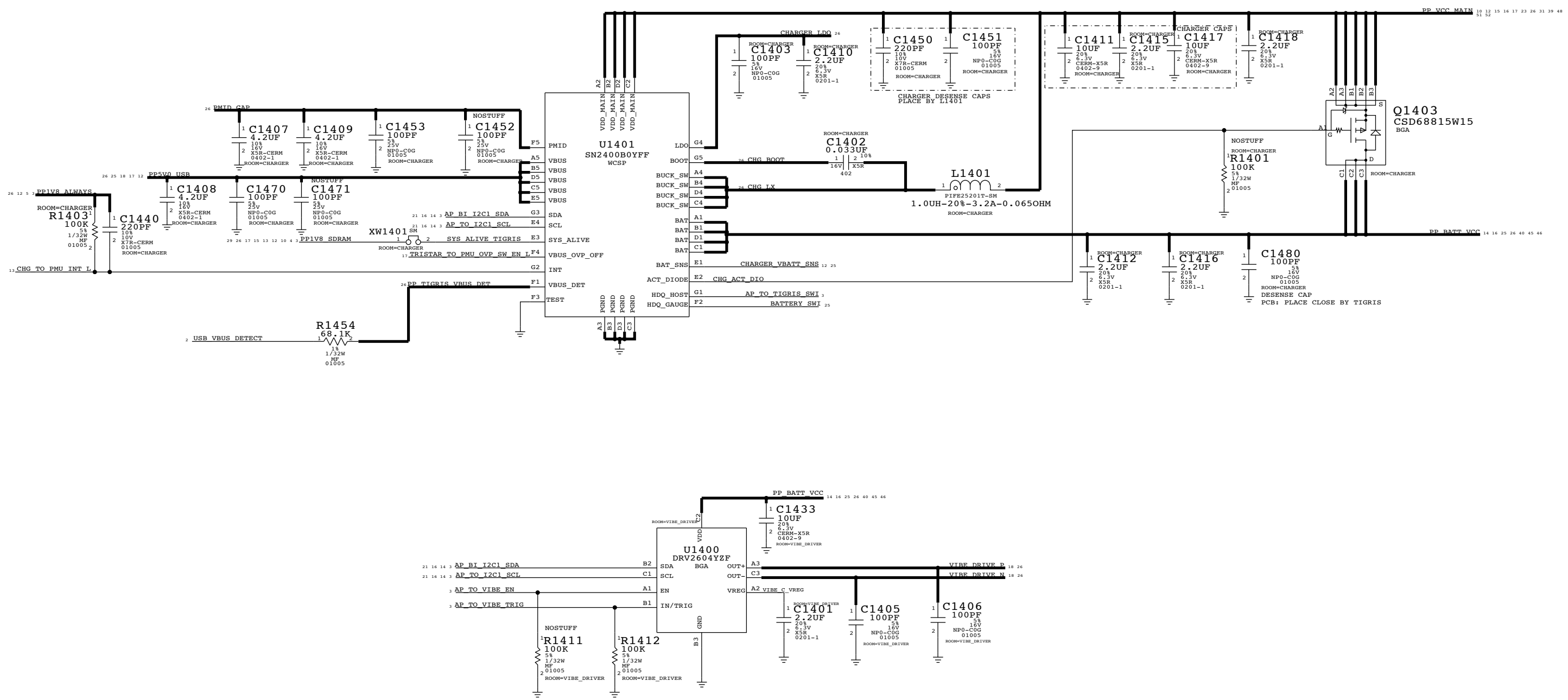
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C1291 0.1UF  
C1219 2.2UF


SYNC MASTER=N56 MLB		SYNC DATE=08/29/2013	
PAGE TITLE		POWER:ADI (1/2)	
Apple Inc.		DRAWING NUMBER	051-9903
REVISION		7.0.0	SIZE
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```
(AMUX, GPIO, BUTTONS, ADC, THERMISTORS, SYSTEM I/F, GND)
```



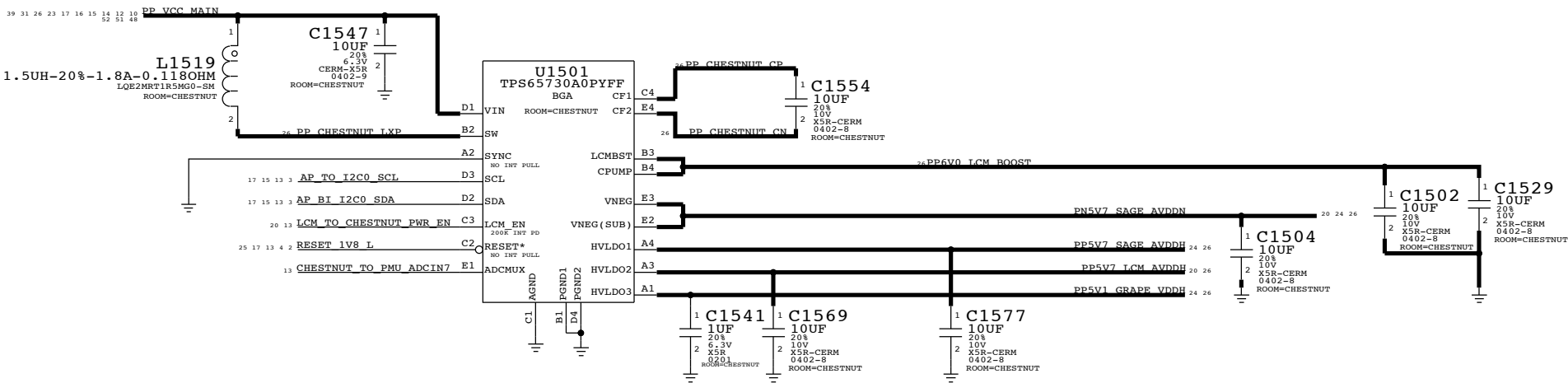
# TIGRIS CHARGER & VIBE DRIVER



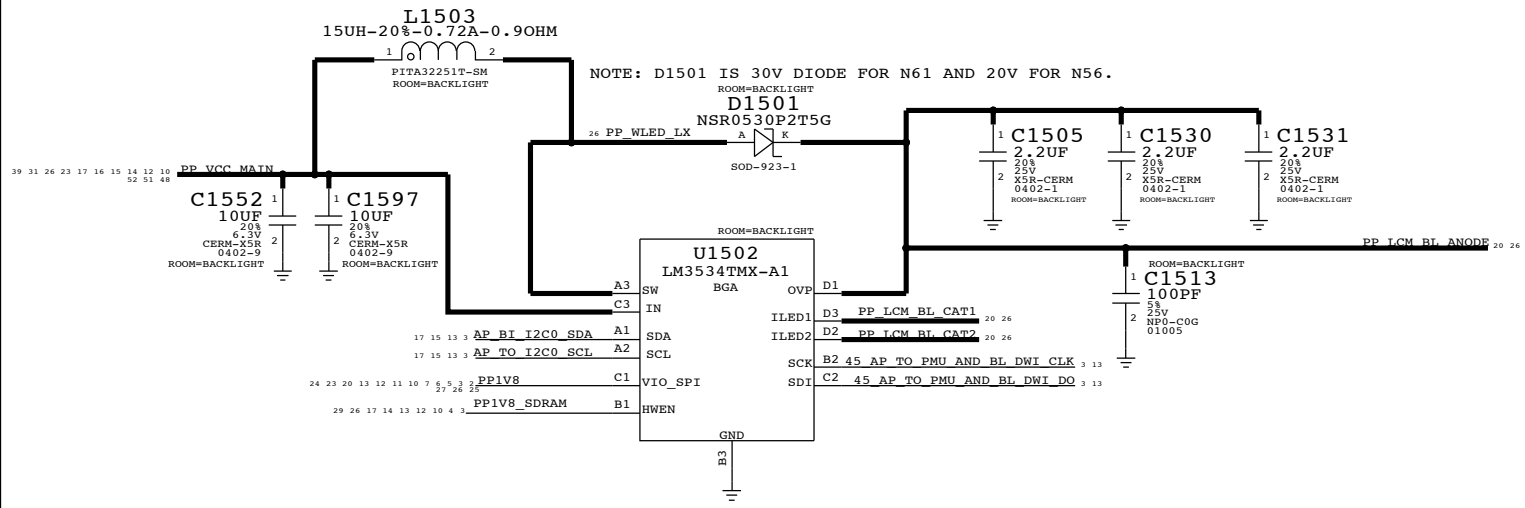
PAGE TITLE		
POWER:TIGRISR,VIBE DRIVER		
 Apple Inc.	DRAWING NUMBER	051-9903
	REVISION	7.0.0
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	PAGE	14 OF 55
	SHEET	14 OF 54

# CHESTNUT, BACKLIGHT DRIVER, MESA BOOST

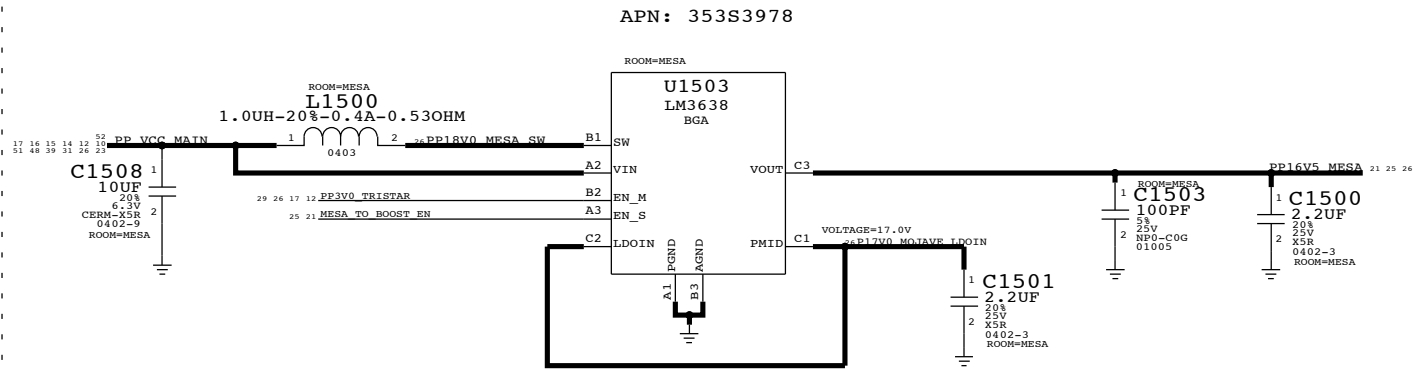
## D500 DISPLAY PMU (TI CHESTNUT, 338S1149)



## D500 BACKLIGHT DRIVER



## MESA BOOST A0

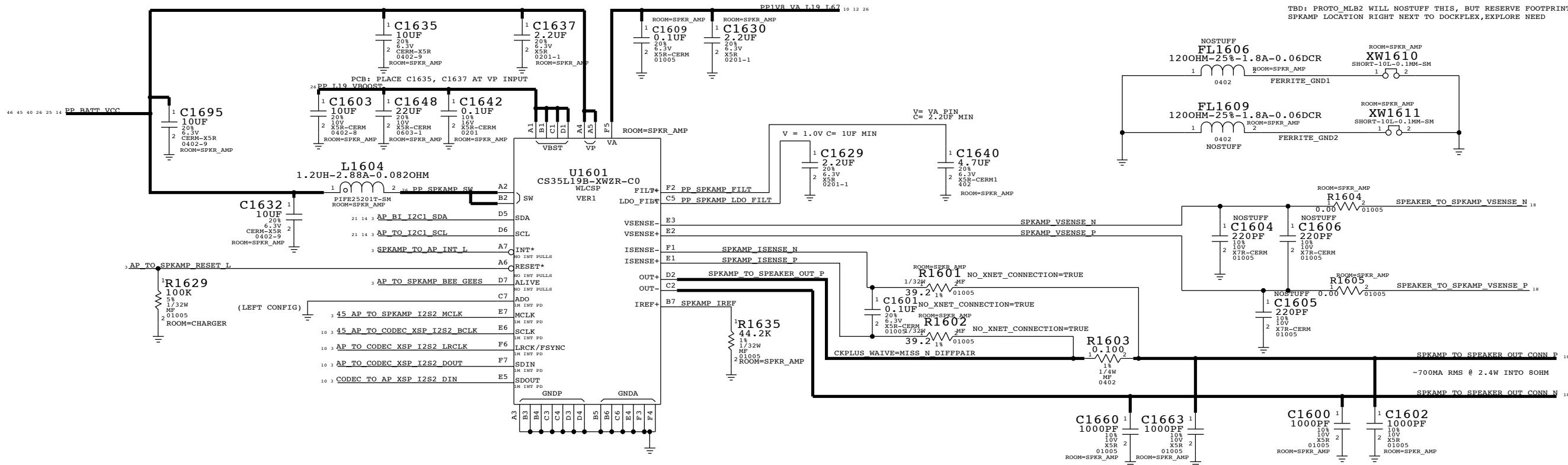


PAGE TITLE		PAGE NUMBER	
DISPLAY:CHESTNUT, BACKLIGHT DRIVER		051-9903	
Apple Inc.		7.0.0	
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# SPEAKER AMP, LED DRIVER

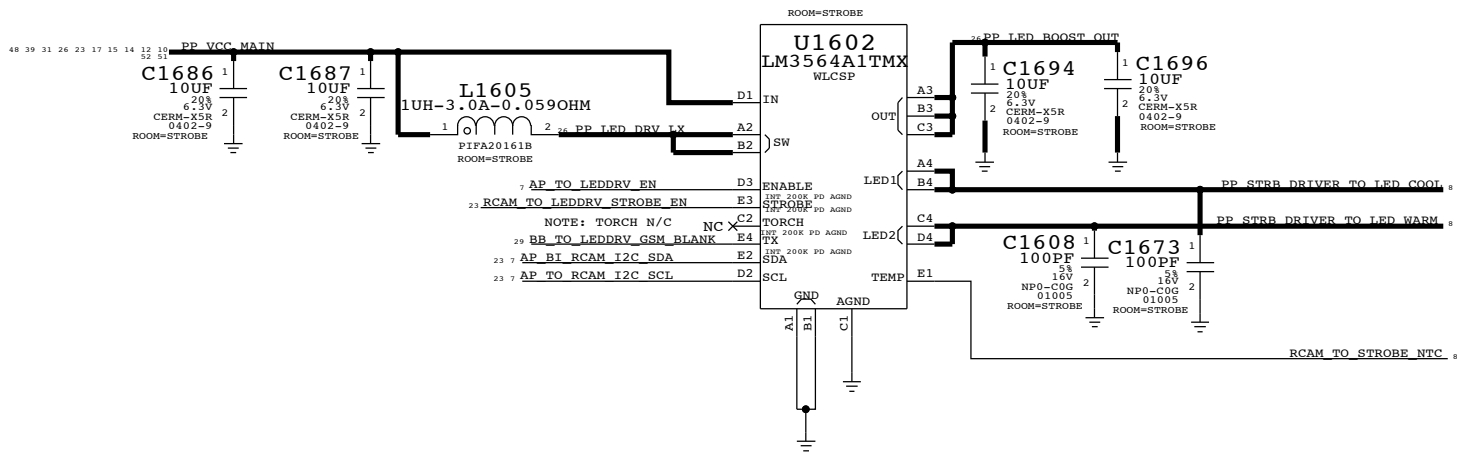
## SPEAKER AMP

I2C ADDRESS: 1000000X



## STROBE DRIVER

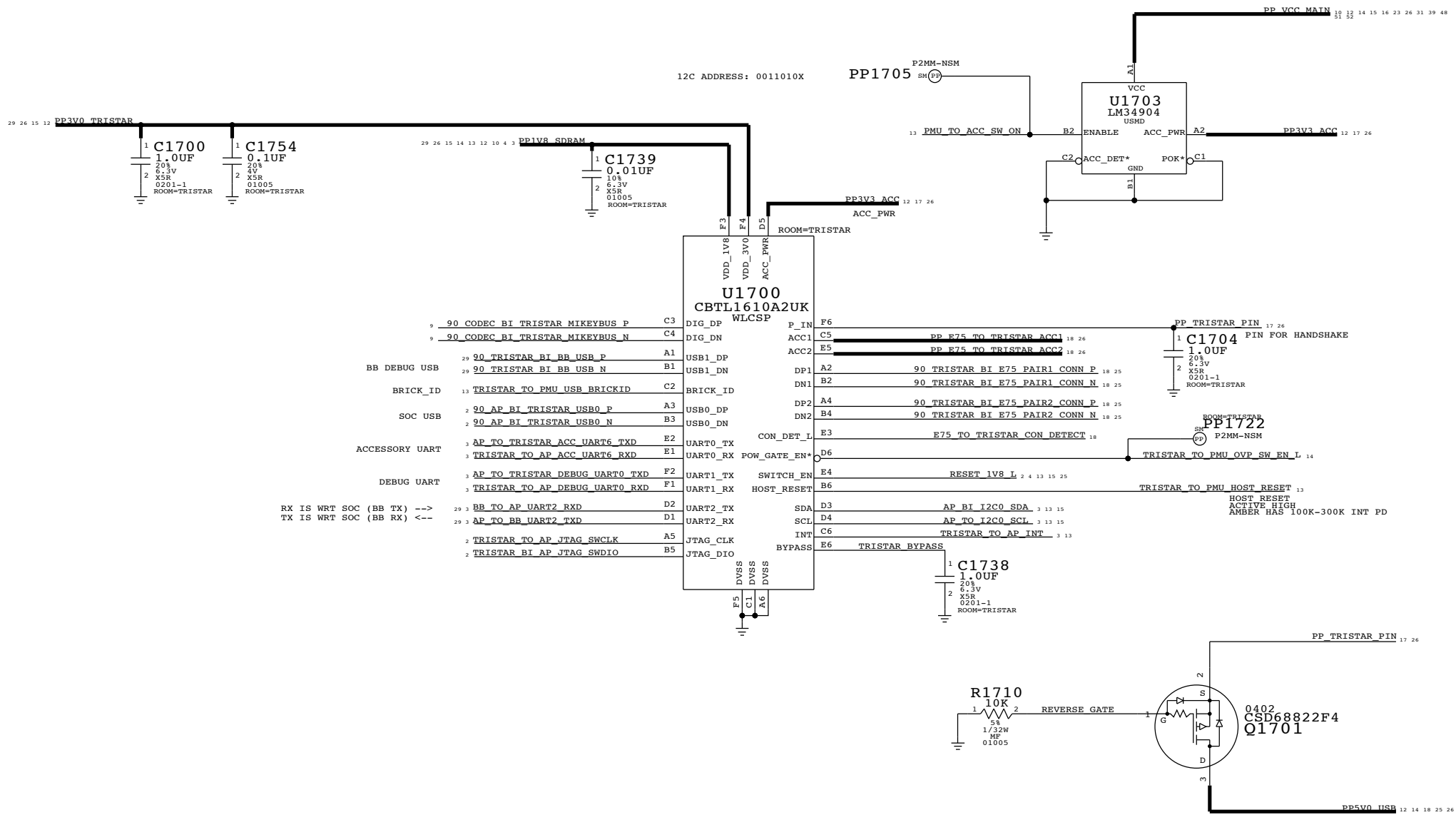
TI: APN 353S3899




SYNC MASTER=N61 MLB		SYNC DATE=08/26/2013	
PAGE TITLE		AUDIO:SPKR AMP,STROBE	
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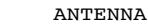
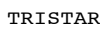



TRISTAR2



SYNC MASTER=N61 MLB		SYNC DATE=08/26/2013	
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## A



SYNC MASTER=N61 MLB		SYNC DATE=08/26/2013	
PAGE TITLE			
IO:DOCK FLEX CONN			
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		PAGE	18 OF 55
		SHEET	18 OF 54

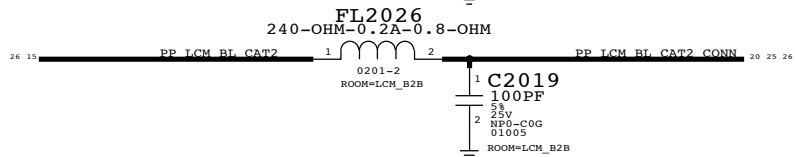
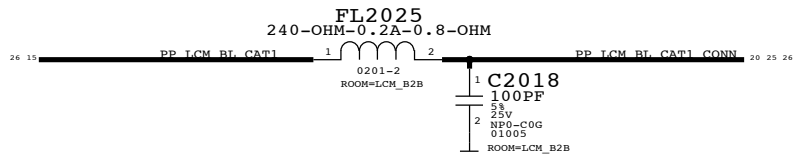
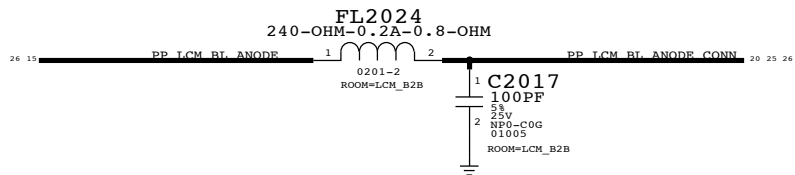
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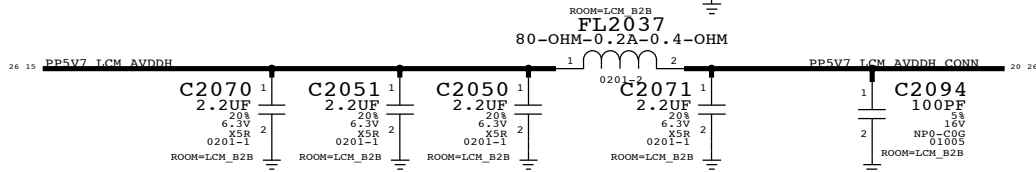
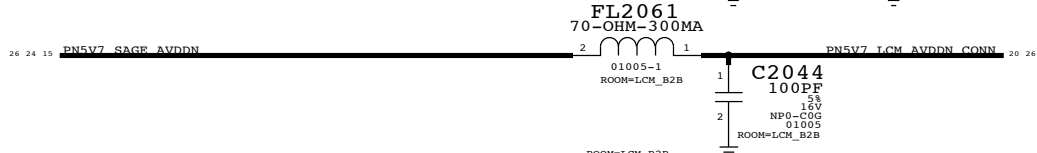
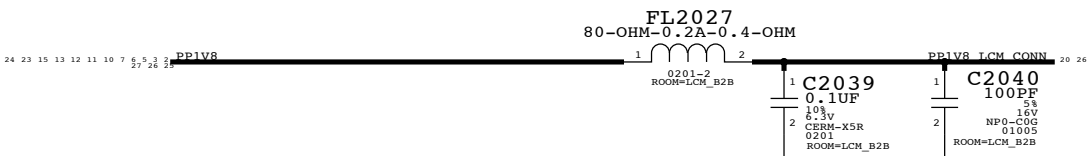
# LCD B2B

## Backlight

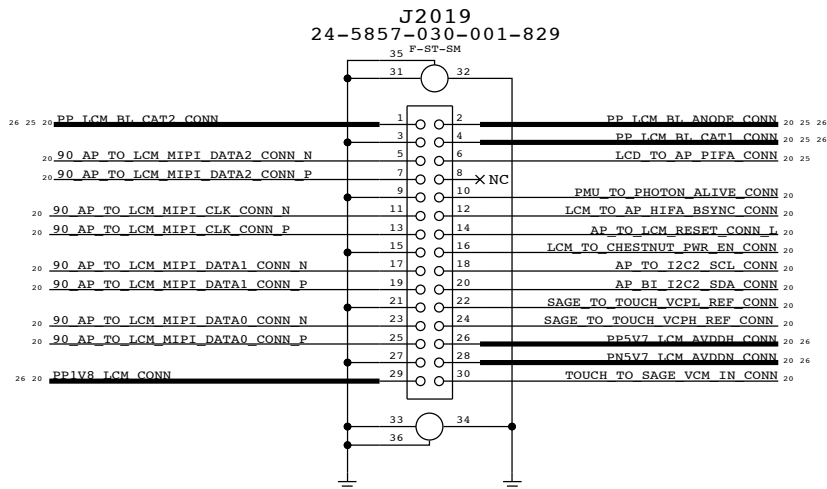
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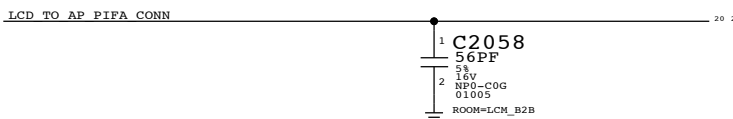
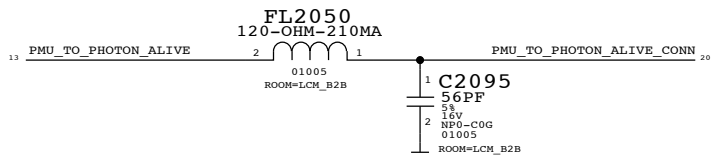
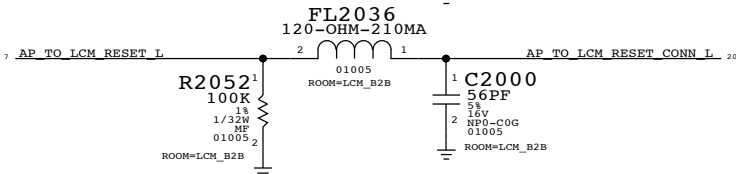
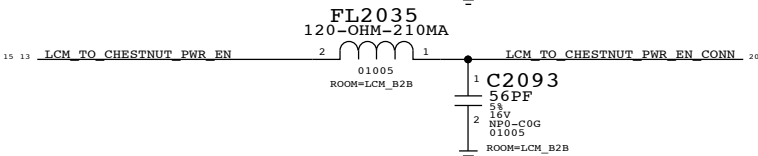
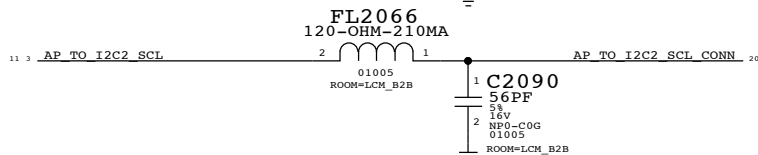
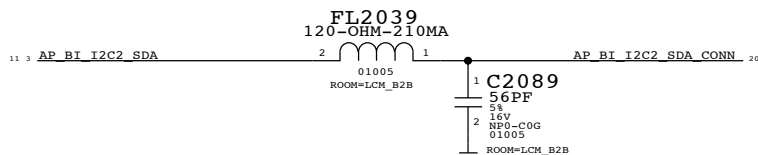
## LCM Supplies



THIS ONE ON MLB ----> 516S1164

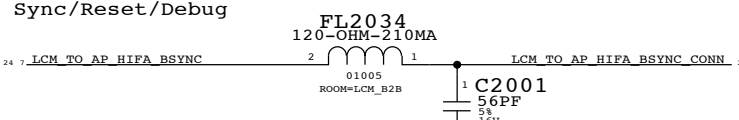
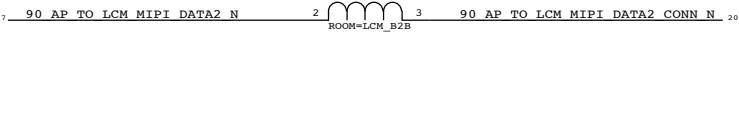
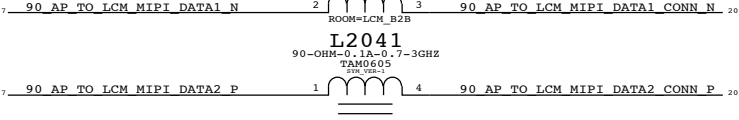
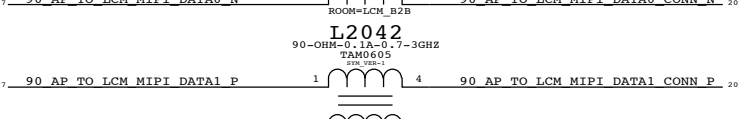
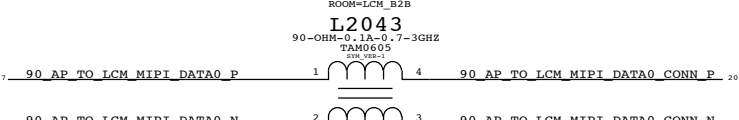
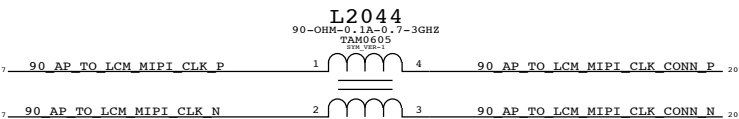


## Digital Interfaces

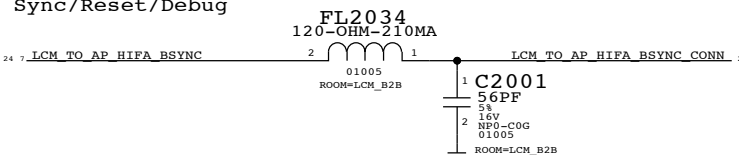


## MIPI Common Mode Chokes

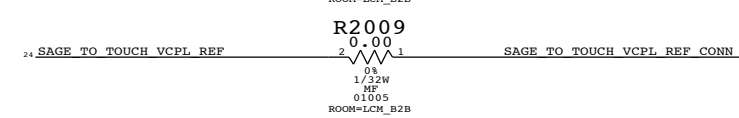
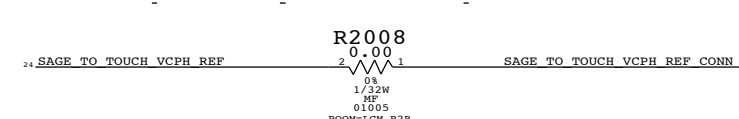
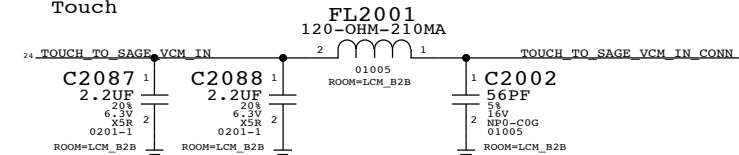
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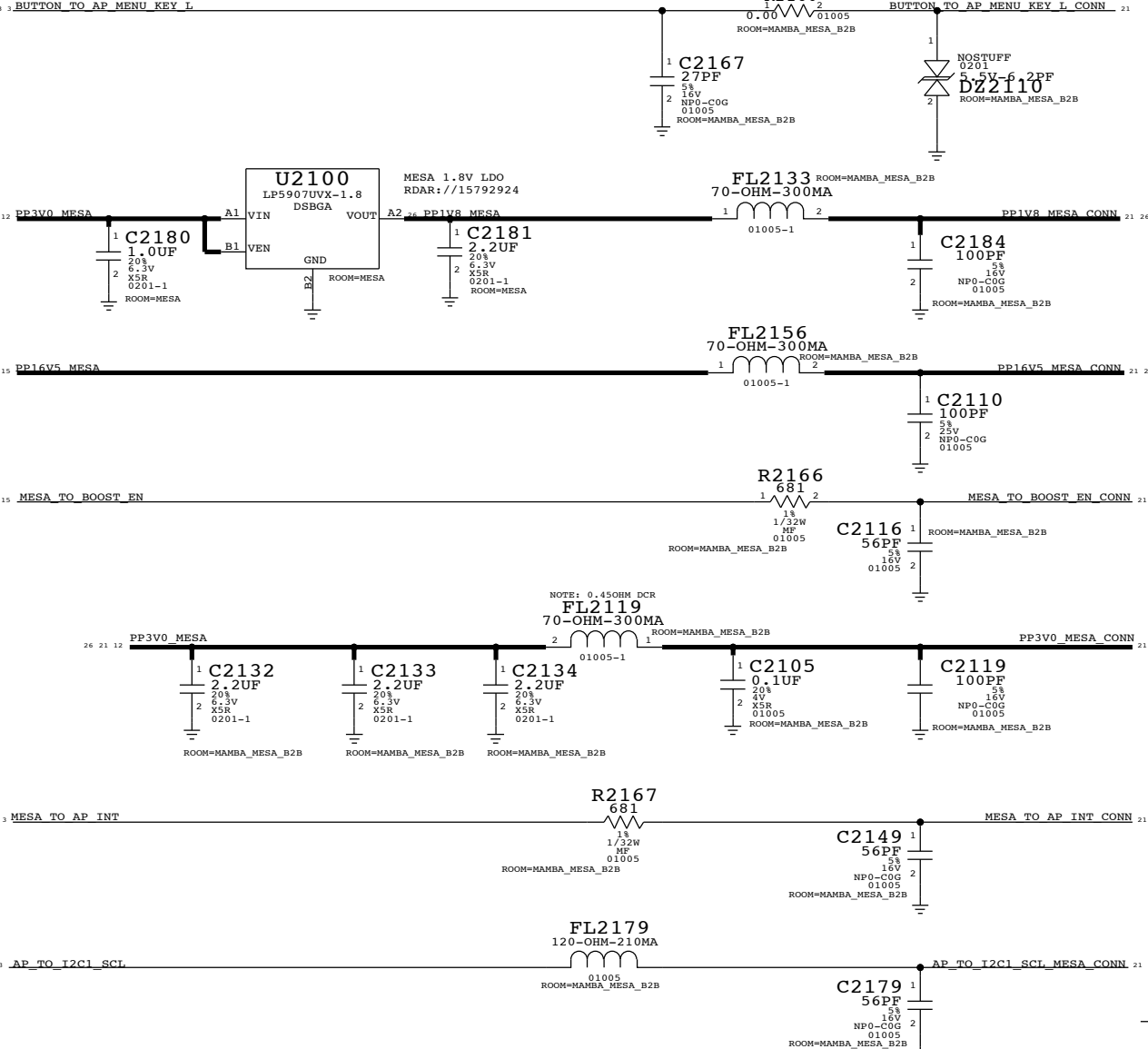
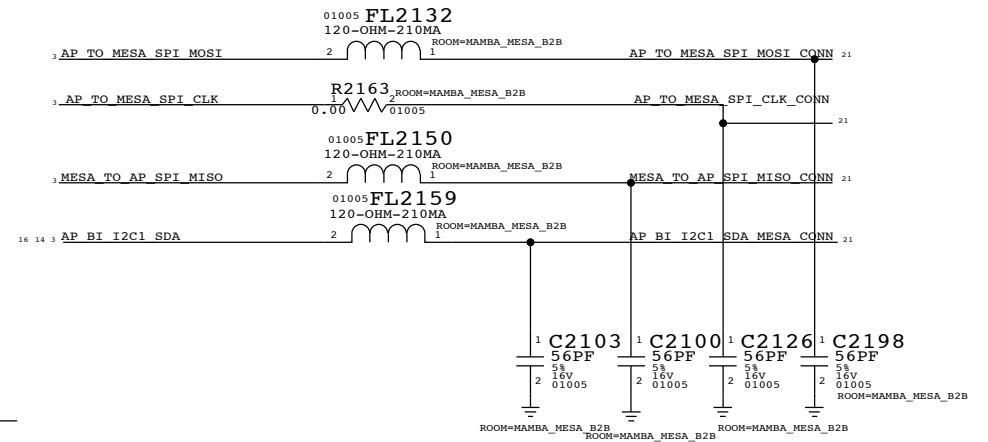
## Sync/Reset/Debug




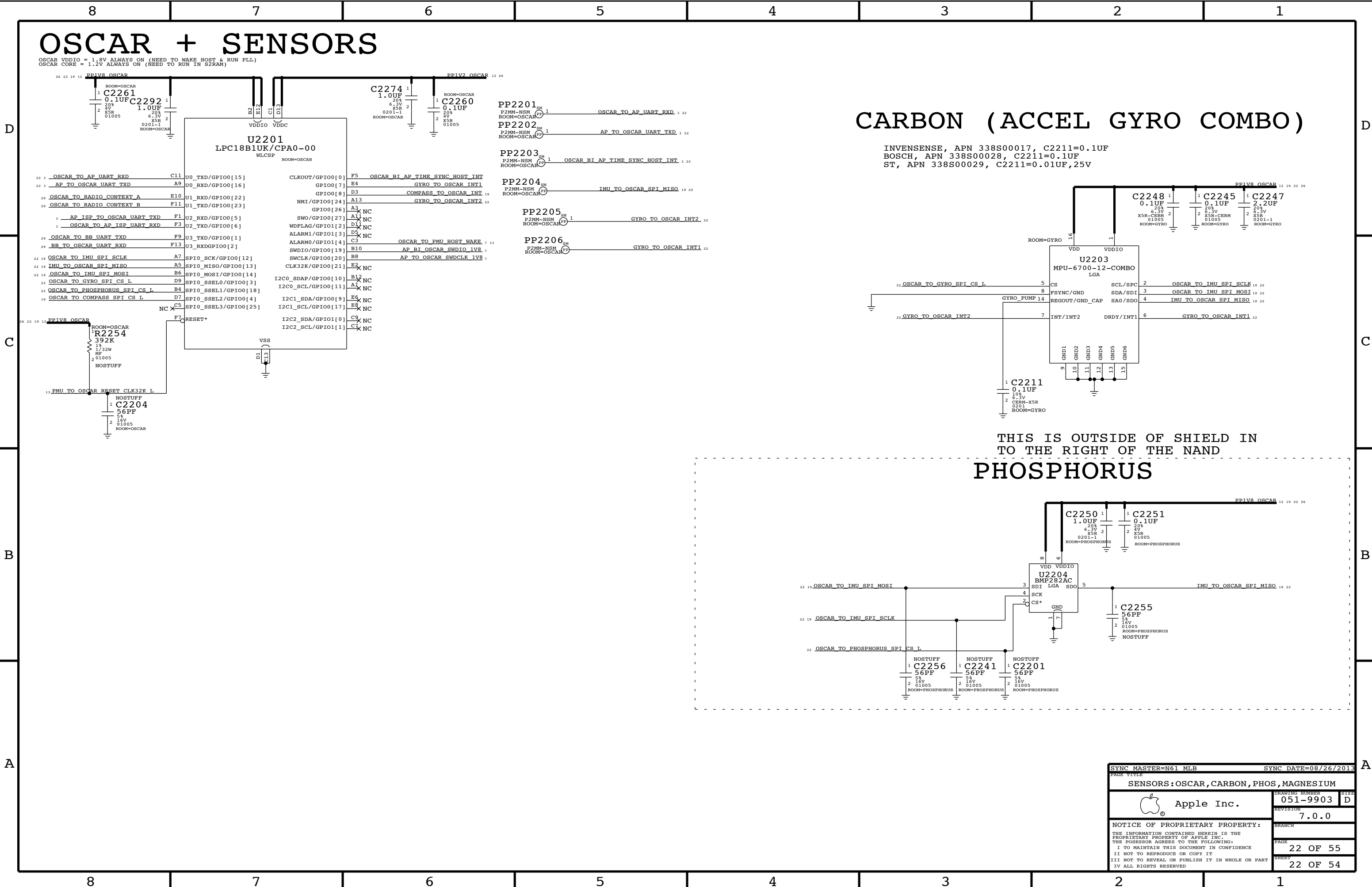
## Touch



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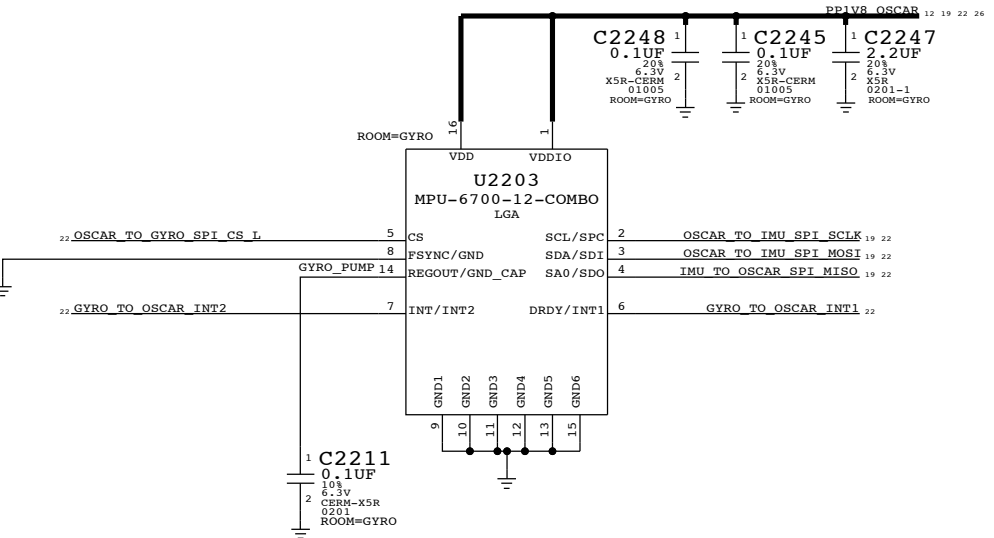
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PAGE TITLE		DRAWING NUMBER		SIZE	
SENSORS:MESA FLEX CONN		051-9903		D	
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		SHEET		21 OF 54	



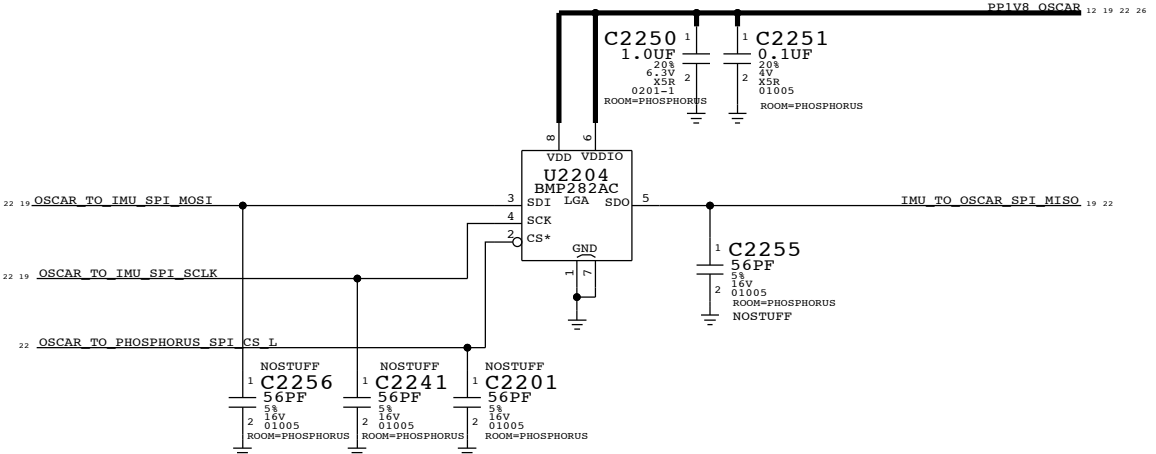
# CARBON (ACCEL GYRO COMBO)


INVENSENSE, APN 338S00017, C2211=0.1UF  
BOSCH, APN 338S00028, C2211=0.1UF  
ST, APN 338S00029, C2211=0.01UF,25V



THIS IS OUTSIDE OF SHIELD IN  
TO THE RIGHT OF THE NAND

# PHOSPHORUS



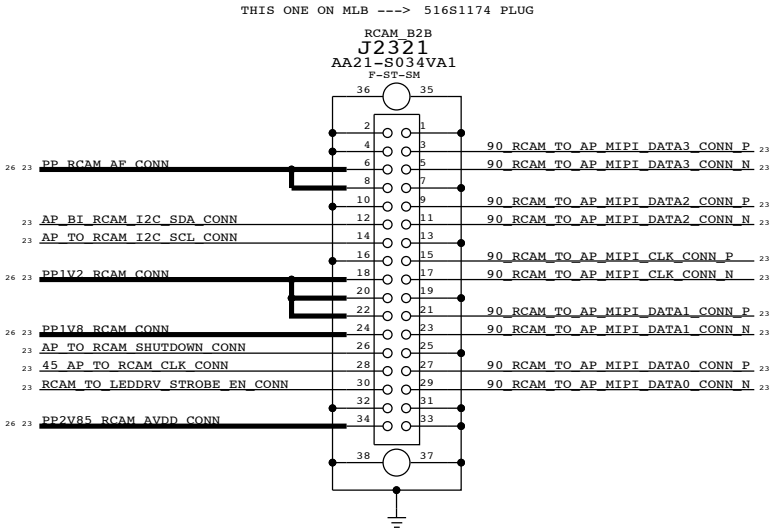
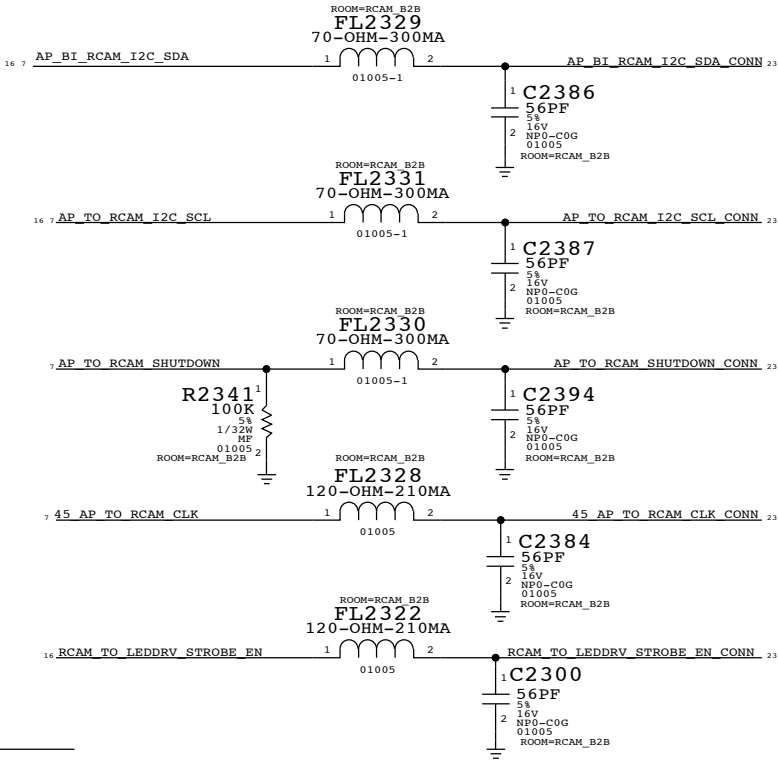
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PAGE TITLE			
SENSORS:OSCAR,CARBON,PHOS,MAGNESIUM			
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RCAM B2B (REAR CAMERA CONNECTOR)

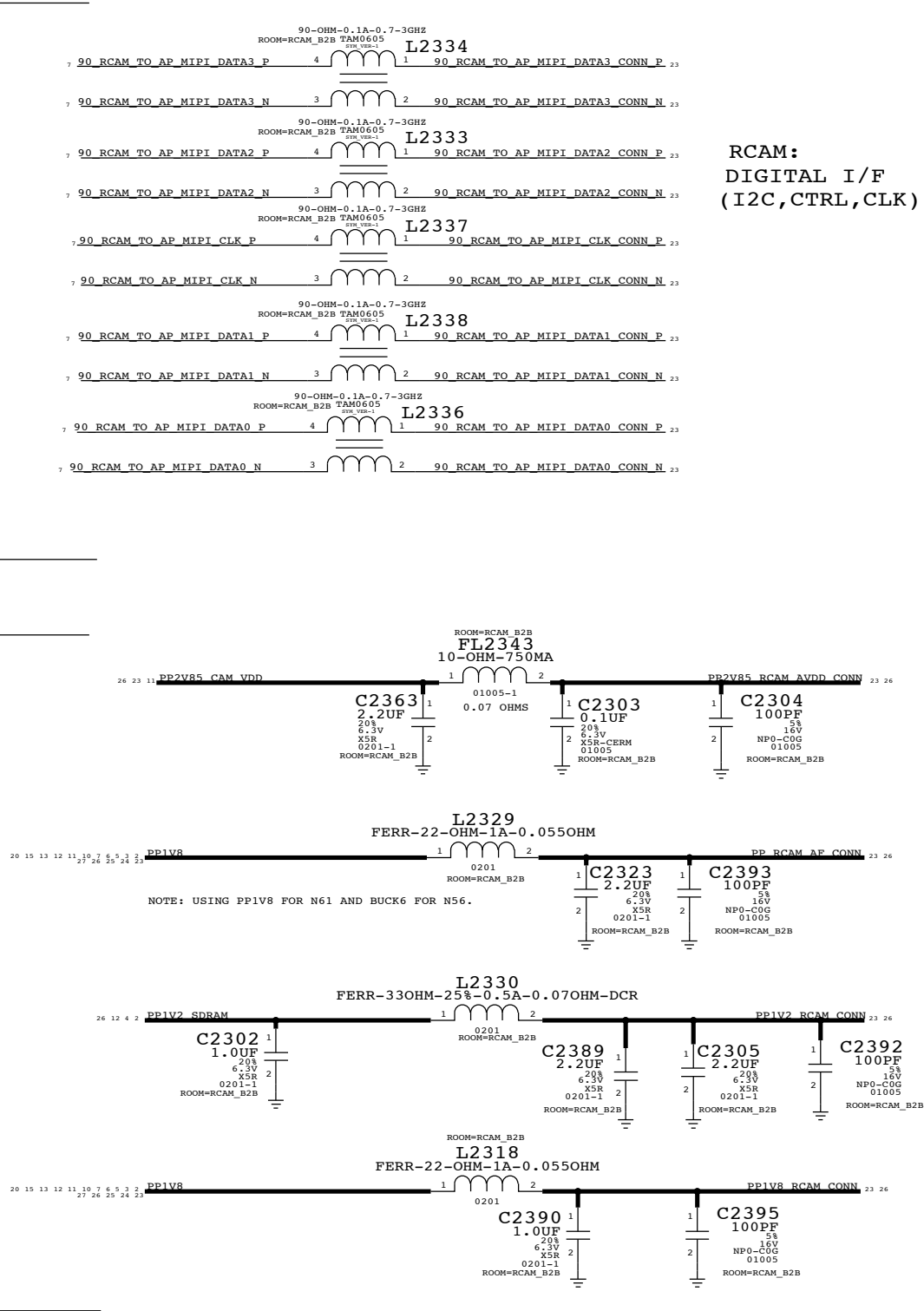
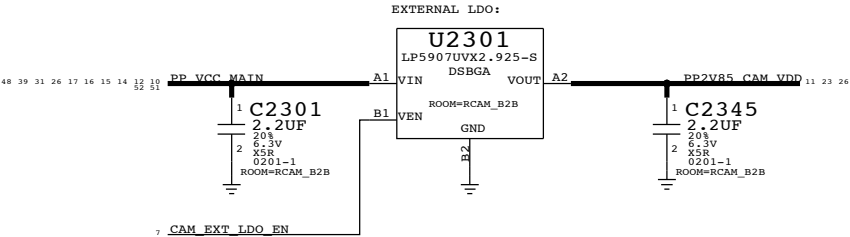
RCAM:  
4-LANE MIPI


RCAM:  
DIGITAL I/F  
(I2C, CTRL, CLK)

RCAM:  
POWER:  
(1.8V DVDD)  
(2.8V AVDD)  
(1.2V VCC)  
(1.8V/2V AF)



RCAM/FCAM AVDD RAIL EXT. LDO:



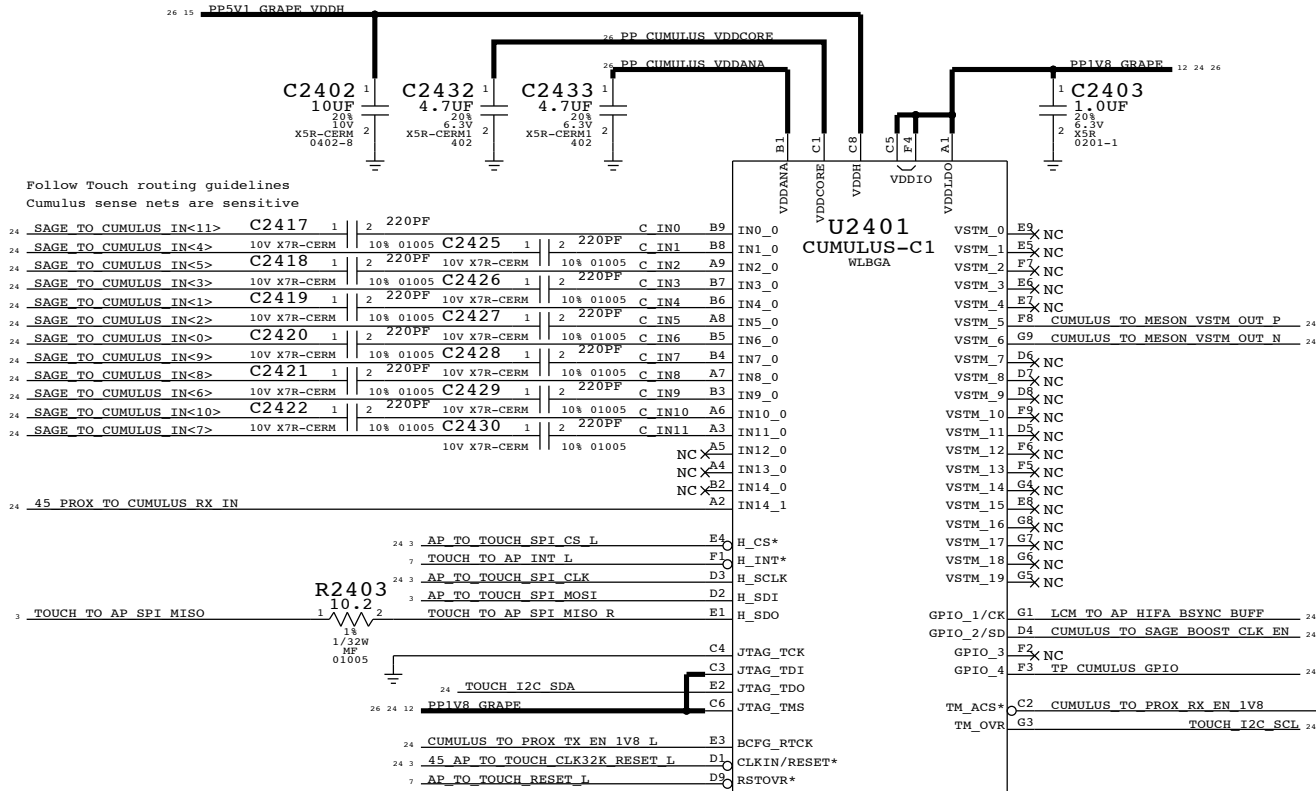
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PAGE TITLE			
CAMERA:REAR FLEX CONN			
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## Touch (B2B, Driver ICs)

### Cumulus

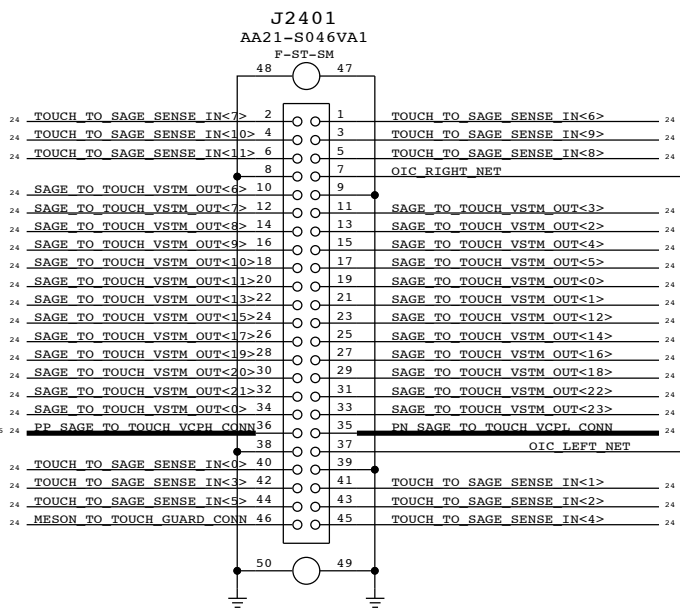
APN: 343S0638

Turn on is later than PPIV8\_GRAPE  
Turn off is same time as PPIV8\_GRAPE

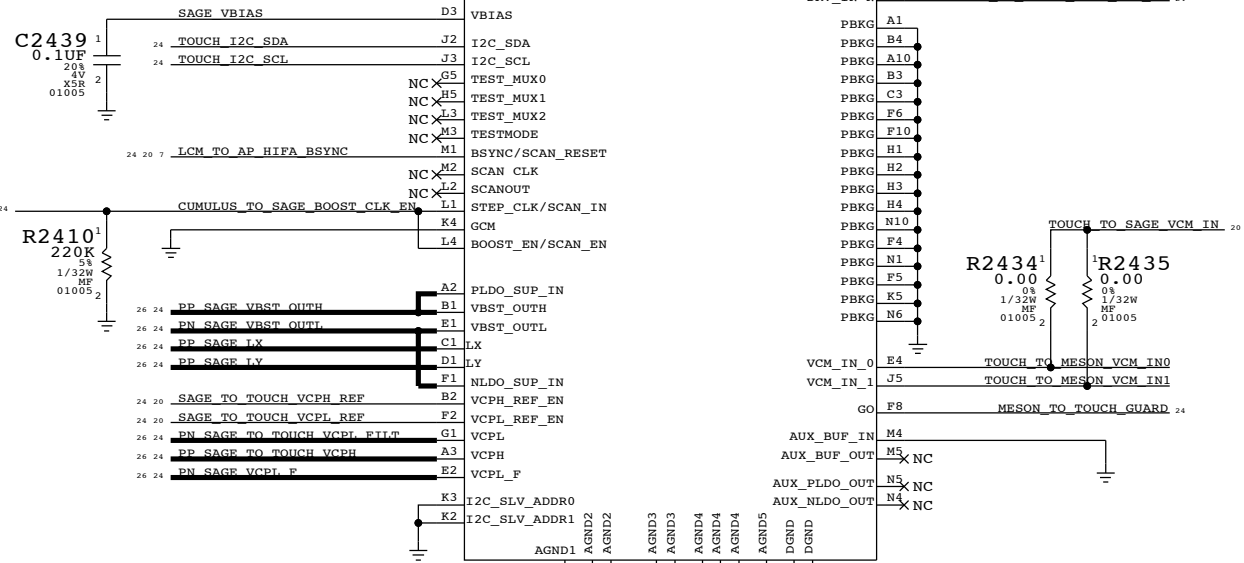
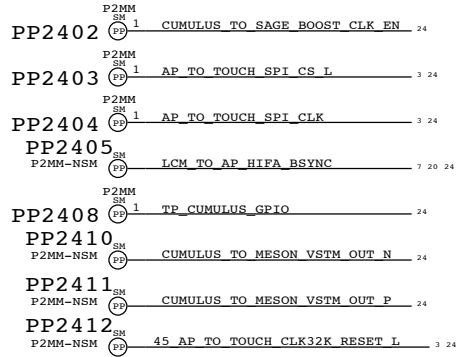


### Touch B2B

MLB APN : 516S1086 (Receptacle)  
Flex APN: 516S1087 (Plug)

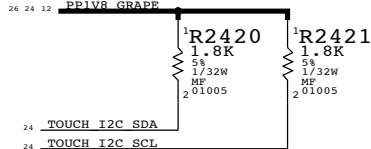


### Touch probe points

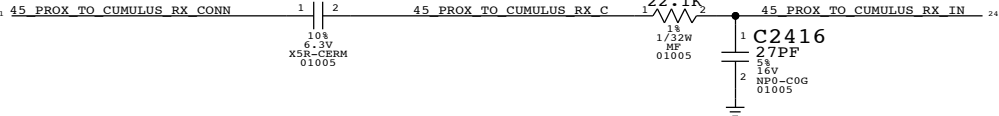


Tantalums solved singing caps  
issue. Validate issue is resolved  
with Meson and replace with  
0402 ceramics.

### I2C pull-ups

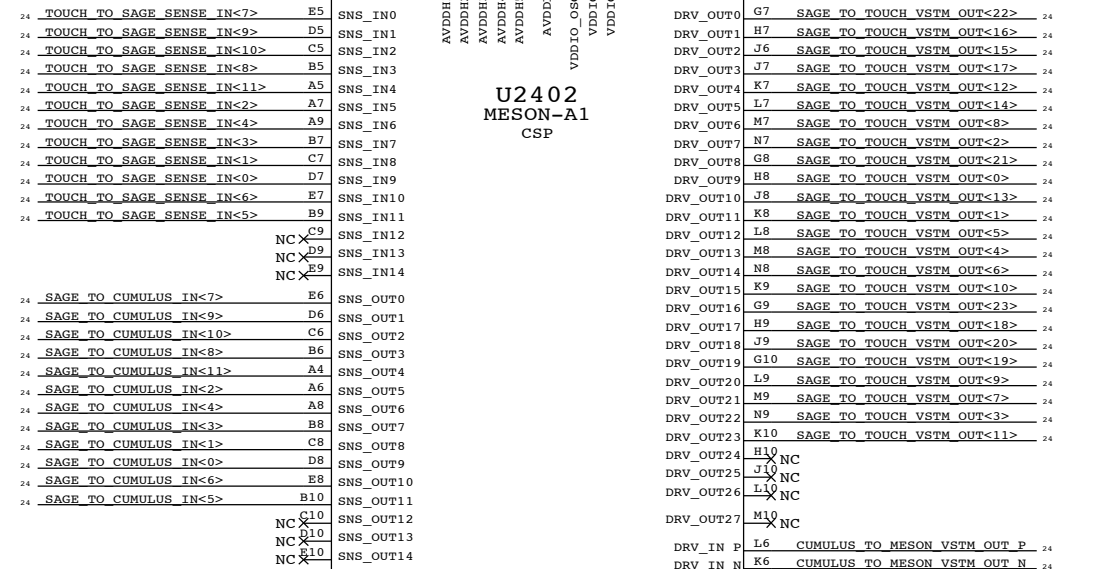


### Optical prox filter



### MESON A1

APN: 343S0694



PAGE TITLE		SYNC MASTER=N/A		SYNC DATE=N/A	
TOUCH:CUMULUS,MESON					
Apple Inc.		DRAWING NUMBER		SIZE	
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## C

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SYNC MASTER=N61 MLB SYNC DATE=08/26/2013

8	7	6	5	4	3	2	1
VOLTAGE PROPERTIES							
<div><div></div><div>VOLTAGE=3.3VPP3V3 USB2 12</div><div>VOLTAGE=1.8VPP1V8 VA I19 I6710 12 16</div><div>VOLTAGE=3.0VPP3V0 TRISTAR12 15 17 29</div><div>VOLTAGE=3.0VPP3V0 IMU12 19</div><div>VOLTAGE=3.0VPP3V0 NAND6 12</div><div>VOLTAGE=3.0VPP3V3 ACC12 17</div><div>VOLTAGE=3.0VPP3V0 PROX ALS11 12</div></div>				<div><div></div><div>VOLTAGE=5.0VPP LED DRV LX14</div><div>VOLTAGE=5.0VPP LED BOOST OUT16</div></div> <div><div></div><div>VOLTAGE=2.9VPP2V9 LDO912</div></div> <div><div></div><div>VOLTAGE=1.8VPP CODEC TO MIC1 BIAS CONN18</div><div>VOLTAGE=4.6VPP E75 TO TRISTAR ACC217 18</div><div>VOLTAGE=4.6VPP E75 TO TRISTAR ACC2 CONN18 25</div></div> <div><div></div><div>VOLTAGE=1.8VPP1V8 LCM CONN20</div><div>VOLTAGE=22.0VPP LCM BL ANODE CONN20 25</div><div>VOLTAGE=-5.7VPP5V7 LCM AVDDN CONN20</div><div>VOLTAGE=5.7VPP5V7 LCM AVDDH CONN20</div></div> <div><div></div><div>VOLTAGE=1.8VPP1V8 MESA21</div><div>VOLTAGE=16.5VPP16V5 MESA CONN21</div></div> <div><div></div><div>VOLTAGE=5.0VPP TRISTAR PIN17</div></div>			
<div><div></div><div>VOLTAGE=4.6VPP VCC MAIN10 12 14 15 16 17 23 31 39</div><div>VOLTAGE=1.0VPP1V07 12</div><div>VOLTAGE=3.0VPP3V0 PROX TRIED11 12</div><div>VOLTAGE=1.8VPP1V8 ALWAYS3 5 12 14</div><div>VOLTAGE=3.0VPP3V0 MESA12 21</div><div>VOLTAGE=1.1VPP CPU4 12</div><div>VOLTAGE=1.1VPP GPU4 12</div></div>				<div><div></div><div>VOLTAGE=1.2VPP1V2 SDRAM2 4 12 23</div><div>VOLTAGE=1.8VPP1V8 SDRAM3 4 10 12 13 14 15 17 29</div></div> <div><div></div><div>VOLTAGE=1.8VPP1V82 4 5 11 12</div><div>VOLTAGE=1.8VPP1V8 GRAPE12 24</div><div>VOLTAGE=1.8VPP1V8 OSCAR12 19 22</div><div>VOLTAGE=1.2VPP1V2 NAND VDDT6</div></div> <div><div></div><div>VOLTAGE=1.8VPP EXTMIC BIAS FILT IN10</div><div>VOLTAGE=1.8VBOARD ID23 27</div><div>VOLTAGE=1.2VPP1V22 4 5 11 12</div><div>VOLTAGE=5.0VPP E75 TO TRISTAR ACC1 CONN18 25</div><div>VOLTAGE=5.0VPP E75 TO TRISTAR ACC117 18</div><div>VOLTAGE=22.0VPP LCM BL ANODE15 20</div><div>VOLTAGE=0.2VPP LCM BL CAT215 20</div><div>VOLTAGE=0.2VPP LCM BL CAT115 20</div><div>VOLTAGE=0.2VPP LCM BL CAT2 CONN20 25</div><div>VOLTAGE=0.2VPP LCM BL CAT1 CONN20 25</div></div> <div><div></div><div>VOLTAGE=-5.7VPP5V7 SAGE AVDDN15 20 24</div><div>VOLTAGE=1.2VPP1V2 OSCAR12 22</div><div>VOLTAGE=3.0VPP3V0 MESA CONN21</div><div>VOLTAGE=6VPP6V0 LCM BOOST15</div><div>VOLTAGE=5.0VPP STRB DRIVER TO LED WARM9 16</div><div>VOLTAGE=5.0VPP STRB DRIVER TO LED COOL8 16</div></div>			
<div><div></div><div>VOLTAGE=1.8VPP CODEC TO MIC1 BIAS10 18</div><div>VOLTAGE=1.8VPP EXTMIC BIAS IN10</div><div>VOLTAGE=1.8VPP EXTMIC BIAS FILT10</div><div>VOLTAGE=1.8VPP CODEC TO FRONTMIC3 BIAS10 11</div><div>VOLTAGE=1.8VPP CODEC TO REARMIC2 BIAS8 10</div><div>VOLTAGE=1.8VPP CODEC FILT410</div><div>VOLTAGE=2.2VPP CODEC SPKR VO10</div><div>VOLTAGE=2.5VPP CODEC VCPFILT10</div><div>VOLTAGE=2.5VPP CODEC VCPFILT410</div><div>VOLTAGE=2.5VPP CODEC VHP ELYN10</div><div>VOLTAGE=0.2VPP CODEC VHP ELYC10</div><div>VOLTAGE=2.5VPP CODEC VHP ELYP10</div><div>VOLTAGE=1.8VPP1V8 FCAM CONN11</div><div>VOLTAGE=3.0VPP2V85 FCAM AVDD CONN11</div><div>VOLTAGE=1.8VPP CODEC TO FRONTMIC3 BIAS CONN11</div><div>VOLTAGE=3.0VPP3V0 ALS CONN11</div><div>VOLTAGE=1.2VPP1V2 FCAM VDDIO CONN11</div><div>VOLTAGE=5.0VPP5V0 USB12 14 17 18 25</div><div>VOLTAGE=5.0VPP5V0 USB TO PMU12</div><div>VOLTAGE=4.6VPP BUCK5 LX12</div><div>VOLTAGE=4.6VPP BUCK3 LX12</div><div>VOLTAGE=4.6VPP BUCK4 LX12</div><div>VOLTAGE=4.6VPP BUCK2 LX12</div><div>VOLTAGE=4.6VPP BUCK1 LX12</div><div>VOLTAGE=4.6VPP BUCK1 LX012</div><div>VOLTAGE=4.6VPP BUCK0 LX312</div><div>VOLTAGE=4.6VPP BUCK0 LX212</div><div>VOLTAGE=4.6VPP BUCK0 LX112</div><div>VOLTAGE=4.6VPP BUCK0 LX012</div><div>VOLTAGE=6.0VPP CHESTNUT LXP15</div><div>VOLTAGE=6.0VPP CHESTNUT CP15</div><div>VOLTAGE=6.0VPP CHESTNUT CN15</div><div>VOLTAGE=5.7VPP5V7 SAGE AVDDH15 24</div><div>VOLTAGE=5.7VPP5V7 LCM AVDDH15 24</div><div>VOLTAGE=5.1VPP5V1 GRAPE VDDH15 24</div><div>VOLTAGE=22.0VPP WLED LX15</div><div>VOLTAGE=18.0VPP18V0 MESA SW15</div><div>VOLTAGE=17.0VPP17V0 NOJAVE JROIN15</div><div>VOLTAGE=16.5VPP16V5 MESA15 21 25</div><div>VOLTAGE=8.0VPP SPKAMP SW16</div><div>VOLTAGE=8.0VPP I19 VBOOST16</div><div>VOLTAGE=1.8VPP SPKAMP FILT16</div><div>VOLTAGE=1.8VPP SPKAMP LDO FILT16</div></div>				<div><div></div><div>VOLTAGE=2.5VPP PMU VDD BEE13</div><div>VOLTAGE=1.8VPP EXTMIC BIAS10</div><div>VOLTAGE=1.8VPP1V8 XTAL2</div><div>VOLTAGE=1.8VPP PMU VDD RTC13</div></div> <div><div></div><div>VOLTAGE=4.6VPP BATT VCC14 16 25 40 45 46</div><div>VOLTAGE=1.8VPP1V8 MESA CONN21</div><div>VOLTAGE=3.0VPP3V0 PROX CONN11</div></div> <div><div></div><div>VOLTAGE=1.0VPP0V95 FIXED SOC4 7 12</div><div>VOLTAGE=1.0VPP0V95 FIXED SOC PCIE7</div><div>VOLTAGE=1.2VPP1V2 PLL2</div><div>VOLTAGE=1.0VPP BUCK5 LX112</div><div>VOLTAGE=1.0VPP VAR SOC5 12</div></div> <div><div></div><div>VOLTAGE=5.0VPMID CAP14</div><div>VOLTAGE=5.0VCHARGER LDO14</div><div>VOLTAGE=4.6VCHG BOOST14</div><div>VOLTAGE=4.6VCHG LX14</div><div>VOLTAGE=3.0VVTRE DRIVE P14 18</div><div>VOLTAGE=3.0VVTRE DRIVE N14 18</div></div> <div><div></div><div>VOLTAGE=1.8VPP RCAM AE CONN23</div><div>VOLTAGE=-14.0VPPN SAGE VBST OUT124</div><div>VOLTAGE=-12.0VPPN SAGE TO TOUCH VCPL FILT24</div><div>VOLTAGE=2.7VPP BB VDD 2V7 CONN18</div></div>			
<div><div></div><div>VOLTAGE=1.2VPP1V2 RCAM CONN23</div><div>VOLTAGE=1.8VPP1V8 RCAM CONN23</div></div> <div><div></div><div>VOLTAGE=3.0VPP2V85 CAM VDD11 23</div><div>VOLTAGE=1.8VPP2V85 RCAM AVDD CONN23</div><div>VOLTAGE=1.8VPP CUMULUS VDDCORE24</div><div>VOLTAGE=1.2VPP CUMULUS VDDANA24</div><div>VOLTAGE=13.5VPP SAGE TO TOUCH VCPL CONN24</div><div>VOLTAGE=-12VPPN SAGE TO TOUCH VCPL CONN24</div><div>VOLTAGE=13.5VPP SAGE TO TOUCH VCPL24</div><div>VOLTAGE=-12VPPN SAGE TO TOUCH VCPL24</div></div> <div><div></div><div>VOLTAGE=-12VPPN SAGE VCPL F24</div><div>VOLTAGE=5.7VPP SAGE LX24</div><div>VOLTAGE=17.0VPP SAGE LX24</div></div> <div><div></div><div>VOLTAGE=1.8VPP PMU VREF13</div><div>VOLTAGE=14VPP SAGE_VBST_OUT24</div></div> <div><div></div><div>VOLTAGE=5.0VPP TIGRIS_VBUS_DET14</div></div>							
<div><div></div><div>VOLTAGE=1.8VPP1V8 PLL</div><div>PP_MIPIOD_VREG</div><div>BOARD_ID0</div></div> <div><div></div><div>VOLTAGE=2.5VPP PMU VDD BEE13</div><div>VOLTAGE=1.8VPP EXTMIC BIAS10</div><div>VOLTAGE=1.8VPP1V8 XTAL2</div><div>VOLTAGE=1.8VPP PMU VDD RTC13</div></div> <div><div></div><div>VOLTAGE=4.6VPP BATT VCC14 16 25 40 45 46</div><div>VOLTAGE=1.8VPP1V8 MESA CONN21</div><div>VOLTAGE=3.0VPP3V0 PROX CONN11</div></div>							
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<div><div></div><div>VOLTAGE=5.0VPMID CAP14</div><div>VOLTAGE=5.0VCHARGER LDO14</div><div>VOLTAGE=4.6VCHG BOOST14</div><div>VOLTAGE=4.6VCHG LX14</div><div>VOLTAGE=3.0VVTRE DRIVE P14 18</div><div>VOLTAGE=3.0VVTRE DRIVE N14 18</div></div>							
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DRAWING NUMBER051-9903

REVISION7.0.0

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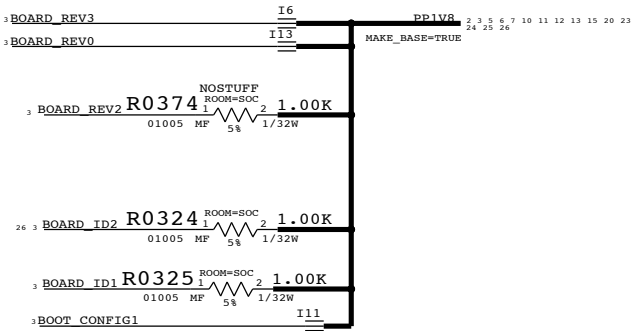
# N61 SPECIFIC

## BOOTSTRAPPING (BOARD\_REV, BOARD\_ID, BOOT\_CFG)

```
BOARD_REV[3:0]={GPIO34, GPIO35, GPIO36, GPIO37}  
FLOAT=LOW, PULLUP=HIGH  
1111 PROTOMLB1  
1110 PROTOMLB2  
1101 PROTO1  
1100 PROTO2  
1011 EVT  
1010 EVT SPLIT CARBON DOE  
1001 CARRIER BUILD <--- SELECTED  
1000 DVT
```

```
BOARD_ID[4:0]={GPIO29, GPIO16, SPI00_MISO, SPI0_MOSI, SPI0_SCLK}  
FLOAT=LOW, PULLUP=HIGH  
00100 N56, T133 MLB  
00101 N56 DEV  
00110 FIJI N61 MLB <--- SELECTED
```

```
BOOT_CONFIG[2:0]={GPIO28, GPIO25, GPIO18}  
FLOAT=LOW, PULLUP=HIGH  
000 SPI0  
001 SPI0 TEST MODE  
010 NAND <--- SELECTED  
011 NAND TEST MODE  
100 NVME  
101 NVME TEST MODE  
111 FAST SPI
```





RADIO\_MLB HIERARCHICAL SYMBOL

POWER

VCC\_MAIN, VBAT GOES TO RADIO\_MLB DIRECTLY  
CHECK ALL PAGES IN RF SIDE!

CELLULAR HOUSE KEEPING

3	AP_TO_RADIO_ON_L	MAKE_BASE=TRUE	I325	RADIO_ON_L	30 32
3	BB_TO_AP_RESET_DET_L	MAKE_BASE=TRUE	I324	BB_RESET_DET_L	30 35
13	PMU_TO_BB_RST_L	MAKE_BASE=TRUE	I326	RF_PMIC_RESET_L	30 32
3	AP_TO_BB_RST_L	MAKE_BASE=TRUE	I327	BB_RST_L	30 32
3	AP_TO_BB_WAKE_MODEM	MAKE_BASE=TRUE	I329	AP_WAKE_MODEM	35
13	BB_TO_PMU_HOST_WAKE_L	MAKE_BASE=TRUE	I328	BB_WAKE_HOST_L	30 35
3	BB_TO_AP_IPC_GPIO	MAKE_BASE=TRUE	I331	BB_IPC_GPIO	35
16	BB_TO_LEDDRV_GSM_BLANK	MAKE_BASE=TRUE	I330	GSM_TXBURST_IND	35
3	BB_TO_AP_GPS_SYNC	MAKE_BASE=TRUE	I332	BB_GPS_SYNC	30 35

HSIC IPC

2	50_AP_BI_BB_HSIC1_DATA	MAKE_BASE=TRUE	I368	50_BB_HSIC_DATA	30 34
2	50_AP_BI_BB_HSIC1_STB	MAKE_BASE=TRUE	I369	50_BB_HSIC_STROBE	30 34
3	AP_TO_BB_HOST_RDY	MAKE_BASE=TRUE	I371	BB_HOST_RDY	30 35
3	BB_TO_AP_DEVICE_RDY	MAKE_BASE=TRUE	I370	BB_DEVICE_RDY	30 35
3	BB_TO_AP_IPC_GPIO1	MAKE_BASE=TRUE	I372	BB_IPC_GPIO1	35

UART IPC

3	AP_TO_BB_UART2_RTS_L	MAKE_BASE=TRUE	I373	BB_UART_CTS_L	30 35
3	BB_TO_AP_UART2_CTS_L	MAKE_BASE=TRUE	I376	BB_UART_RTS_L	30 35
17 3	AP_TO_BB_UART2_TXD	MAKE_BASE=TRUE	I374	BB_UART_RXD	30 35
17 3	BB_TO_AP_UART2_RXD	MAKE_BASE=TRUE	I375	BB_UART_TXD	30 35

AUDIO I2S

3	45_AP_TO_BB_I2S3_BCLK	MAKE_BASE=TRUE	I377	BB_I2S_CLK	35
3	AP_TO_BB_I2S3_DOUT	MAKE_BASE=TRUE	I378	BB_I2S_RXD	30 35
3	BB_TO_AP_I2S3_DIN	MAKE_BASE=TRUE	I379	BB_I2S_TXD	30 35
3	AP_TO_BB_I2S3_LRCLK	MAKE_BASE=TRUE	I380	BB_I2S_WS	30 35

OSCAR UART

22	OSCAR_TO_BB_UART_TXD	MAKE_BASE=TRUE	I382	BB_OTHER_RXD	30 35
22	BB_TO_OSCAR_UART_RXD	MAKE_BASE=TRUE	I381	BB_OTHER_TXD	30 35

BB DEBUG INTERFACES

3	AP_TO_BB_COREDUMP	MAKE_BASE=TRUE	I384	BB_CORE_DUMP	30 35
13	PMU_TO_BB_VBUS_DET	MAKE_BASE=TRUE	I387	BB_USB_VBUS	30 34
17	90_TRISTAR_BI_BB_USB_N	MAKE_BASE=TRUE	I385	90_BB_USB_N	30 34
17	90_TRISTAR_BI_BB_USB_P	MAKE_BASE=TRUE	I386	90_BB_USB_P	30 34

RADIO ANTENNA CONTROL

18	PP_BB_VDD_2V7	MAKE_BASE=TRUE	I389	PP_LDO14_RFSW	31 41 42
18	BB_GPIO0	MAKE_BASE=TRUE	I390	BB_LAT_GPIO0	35
18	BB_GPIO2	MAKE_BASE=TRUE	I391	BB_LAT_GPIO2	35
18	BB_GPIO3	MAKE_BASE=TRUE	I392	BB_LAT_GPIO3	35
18	BB_GPIO4	MAKE_BASE=TRUE	I394	BB_LAT_GPIO4	35

FCT TESTING

13	RADIO_TO_PMU_ADC_SMPS1	MAKE_BASE=TRUE	I395	ADC_SMPS1	30
13	RADIO_TO_PMU_ADC_PP_LDO11_VDDIO	MAKE_BASE=TRUE	I396	ADC_PP_LDO11	30
13	RADIO_TO_PMU_ADC_PP_LDO5_SIM	MAKE_BASE=TRUE	I398	ADC_PP_LDO5	30
13	RADIO_TO_PMU_ADC_SMPS4	MAKE_BASE=TRUE	I397	ADC_SMPS4	30

UPPER RADIO ANTENNA CONTROL

25	50_AP_WIFI_5G_CONN_ANT	MAKE_BASE=TRUE	I410	50_WIFI_5G_CONN_ANT	50
25	50_AP_UAT_FEED	MAKE_BASE=TRUE	I409	50_UPPER_ANT_FEED	50
	UAT_ANT_GND	MAKE_BASE=TRUE	I411	ANT_GND	50
29 26 17 15 12	PP3V0_TRISTAR	MAKE_BASE=TRUE	I404	PAC_VDD_3V0	53
25 8	NORTH_AC_GND_SCREW	MAKE_BASE=TRUE	I412	NORTH_ANT_GND	50

POWER

26 17 15 14 13 12 10 4 3	PP1V8_SDRAM	MAKE_BASE=TRUE	I314	PP_WL_BT_VDDIO_AP	51
			I315	BP_STOCKHOLM_IVR_S2B	52 54
			I407	RPEF_VIO_S2B	53

WLAN/BT HOUSE KEEPING

13	45_PMU_TO_WLAN_CLK32K	MAKE_BASE=TRUE	I316	CLK32K_AP	30 51
13	PMU_TO_WLAN_REG_ON	MAKE_BASE=TRUE	I317	WLAN_REG_ON	30 51
13	WLAN_TO_PMU_HOST_WAKE	MAKE_BASE=TRUE	I318	HOST_WAKE_WLAN	30 51
13	PMU_TO_BT_REG_ON	MAKE_BASE=TRUE	I319	BT_REG_ON	30 51
3	AP_TO_BT_WAKE	MAKE_BASE=TRUE	I320	WAKE_BT	30 51
13	BT_TO_PMU_HOST_WAKE	MAKE_BASE=TRUE	I321	HOST_WAKE_BT	51

3	AP_TO_WLAN_JTAG_SWCLK	MAKE_BASE=TRUE	I333	WLAN_JTAG_SWCLK	30 51
3	AP_TO_WLAN_JTAG_SWDIO	MAKE_BASE=TRUE	I334	WLAN_JTAG_SWDIO	30 51
13	WLAN_TO_PMU_PCIE_WAKE_L	MAKE_BASE=TRUE	I335	WLAN_PCIE_WAKE_L	30 51
3	AP_TO_WLAN_DEVICE_WAKE	MAKE_BASE=TRUE	I336	PCIE_DEV_WAKE	30 51
7	90_WLAN_TO_AP_PCIE1_RXDP_P	MAKE_BASE=TRUE	I337	90_WLAN_PCIE_TDP	30 51
7	90_WLAN_TO_AP_PCIE1_RXDP_N	MAKE_BASE=TRUE	I340	90_WLAN_PCIE_TDN	30 51
7	90_AP_TO_WLAN_PCIE1_TXDP_P	MAKE_BASE=TRUE	I338	90_WLAN_PCIE_RDP	30 51
7	90_AP_TO_WLAN_PCIE1_TXDP_N	MAKE_BASE=TRUE	I339	90_WLAN_PCIE_RDN	30 51
7	90_AP_TO_WLAN_PCIE1_REFCLK1_P	MAKE_BASE=TRUE	I342	90_WLAN_PCIE_REFCLK_P	51
7	90_AP_TO_WLAN_PCIE1_REFCLK1_N	MAKE_BASE=TRUE	I341	90_WLAN_PCIE_REFCLK_N	51
7	WLAN_TO_AP_PCIE1_CLKREQ_L	MAKE_BASE=TRUE	I344	WLAN_PCIE_CLKREQ_L	30 51
7	AP_TO_WLAN_PCIE1_RST_L	MAKE_BASE=TRUE	I343	WLAN_PCIE_PERST_L	30 51

WLAN HSIC IPC

3	WLAN_TO_AP_UART4_RXD	MAKE_BASE=TRUE	I345	WLAN_UART_TXD	30 51
3	AP_TO_WLAN_UART4_TXD	MAKE_BASE=TRUE	I348	WLAN_UART_RXD	30 51
3	WLAN_TO_AP_UART4_CTS_L	MAKE_BASE=TRUE	I347	WLAN_UART_RTS_L	30 51
3	AP_TO_WLAN_UART4_RTS_L	MAKE_BASE=TRUE	I346	WLAN_UART_CTS_L	30 51

BT UART IPC

3	AP_TO_BT_UART1_RTS_L	MAKE_BASE=TRUE	I349	BT_UART_CTS_L	51
3	BT_TO_AP_UART1_CTS_L	MAKE_BASE=TRUE	I352	BT_UART_RTS_L	51
3	AP_TO_BT_UART1_TXD	MAKE_BASE=TRUE	I351	BT_UART_RXD	30 51
3	BT_TO_AP_UART1_RXD	MAKE_BASE=TRUE	I350	BT_UART_TXD	30 51

BT AUDIO PCM


3	45_AP_TO_BT_I2S1_BCLK	MAKE_BASE=TRUE	I354	BT_PCM_CLK	51
3	AP_TO_BT_I2S1_DOUT	MAKE_BASE=TRUE	I353	BT_PCM_IN	51
3	BT_TO_AP_I2S1_DIN	MAKE_BASE=TRUE	I355	BT_PCM_OUT	51
3	AP_TO_BT_I2S1_LRCLK	MAKE_BASE=TRUE	I356	BT_PCM_SYNC	51

OSCAR STATES

22	OSCAR_TO_RADIO_CONTEXT_A	MAKE_BASE=TRUE	I358	OSCAR_CONTEXT_A	51
22	OSCAR_TO_RADIO_CONTEXT_B	MAKE_BASE=TRUE	I357	OSCAR_CONTEXT_B	51

STOCKHOLM

3	STOCKHOLM_TO_AP_UART3_CTS_L	MAKE_BASE=TRUE	I359	STOCKHOLM_RTS_L	30 52
3	AP_TO_STOCKHOLM_UART3_RTS_L	MAKE_BASE=TRUE	I360	STOCKHOLM_CTS_L	30 52
3	STOCKHOLM_TO_AP_UART3_RXD	MAKE_BASE=TRUE	I361	STOCKHOLM_UART_TXD	30 52
3	AP_TO_STOCKHOLM_UART3_TXD	MAKE_BASE=TRUE	I363	STOCKHOLM_UART_RXD	30 52
3	AP_TO_STOCKHOLM_DWLD_REQ	MAKE_BASE=TRUE	I362	STOCKHOLM_FW_DWLD_REQ	52
13	STOCKHOLM_TO_PMU_HOST_WAKE	MAKE_BASE=TRUE	I364	STOCKHOLM_HOST_WAKE	30 52
3	AP_TO_STOCKHOLM_EN	MAKE_BASE=TRUE	I365	STOCKHOLM_ENABLE	52
29 26 17 15 12	PP3V0_TRISTAR	MAKE_BASE=TRUE	I366	STOCKHOLM_VDD_MUX_3V0	54
3	AP_TO_STOCKHOLM_SIM_SEL	MAKE_BASE=TRUE	I367	STOCKHOLM_SIM_SEL	54
25	AP_TO_STOCKHOLM_ANT	MAKE_BASE=TRUE	I406	STOCKHOLM_ANT	52


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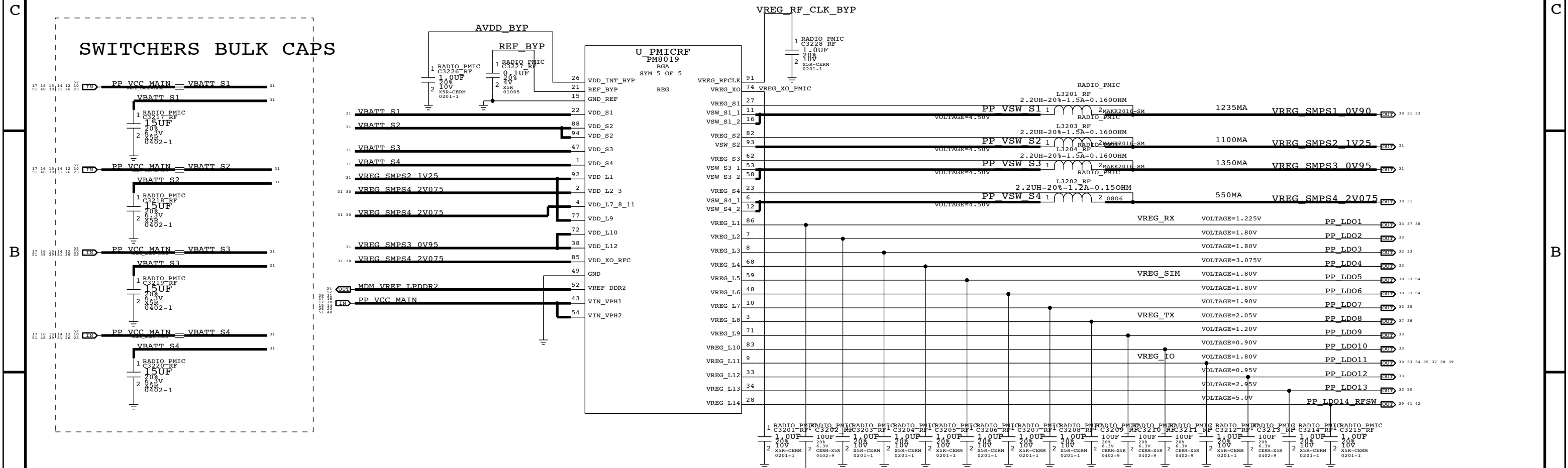
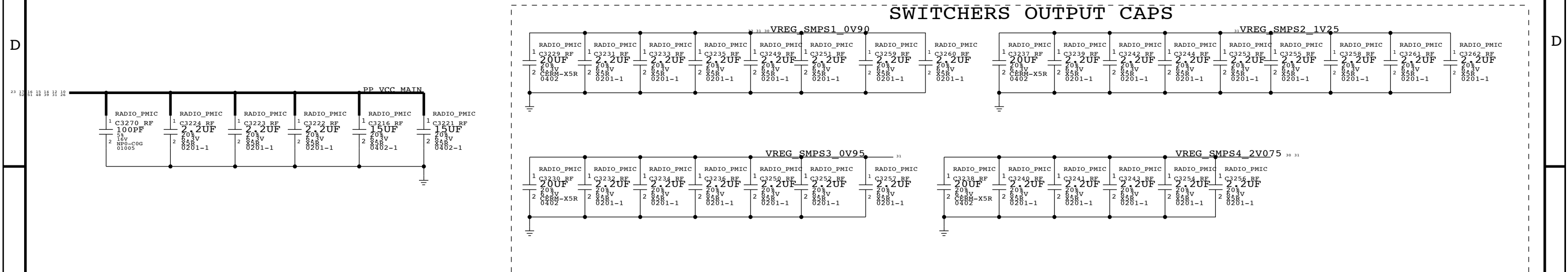
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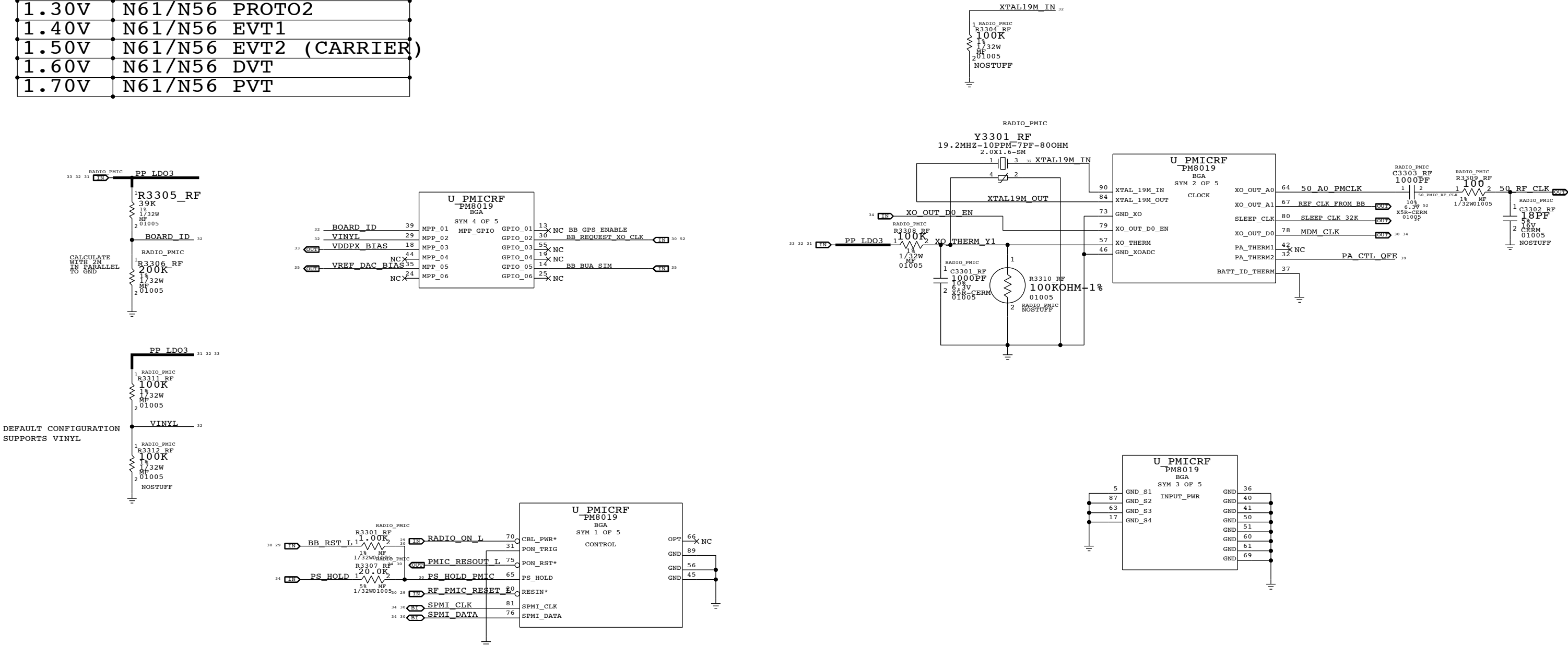


# BASEBAND PMU (2 OF 2)

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BOARD REVISION	
0.00V	N61 PROTO MLB1
0.50V	N61 DEV3
0.70V	N61 DEV4
0.90V	N61 PROTO MLB2
1.10V	N61/N56 PROTO1
1.30V	N61/N56 PROTO2
1.40V	N61/N56 EVT1
1.50V	N61/N56 EVT2 (CARRIER)
1.60V	N61/N56 DVT
1.70V	N61/N56 PVT

C401
R411
L400
U404



BASEBAND PMU (2 OF 2)	
Apple Inc.	DRAWING NUMBER 051-9903 D
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# BASEBAND (1 OF 3)

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C538  
R500  
L500  
U502

D

C

B

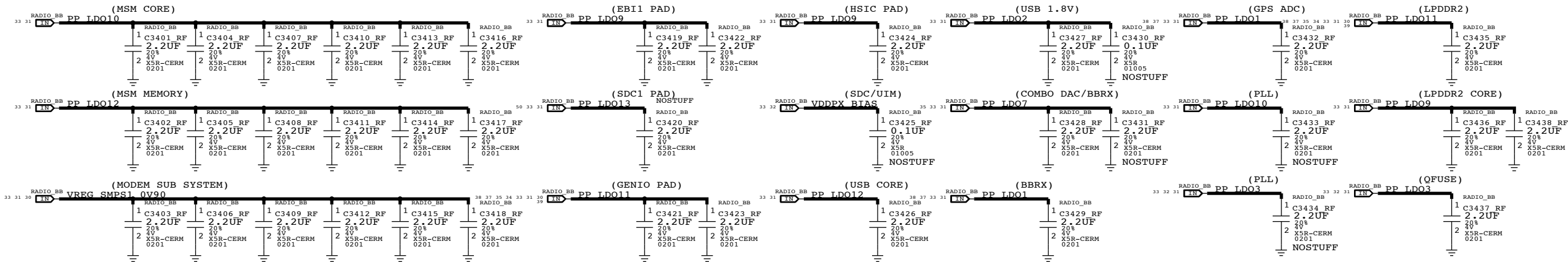
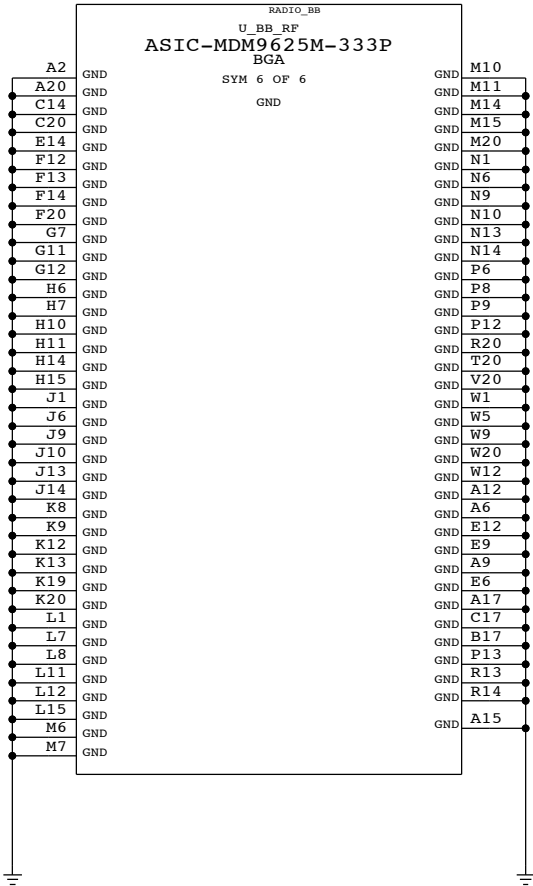
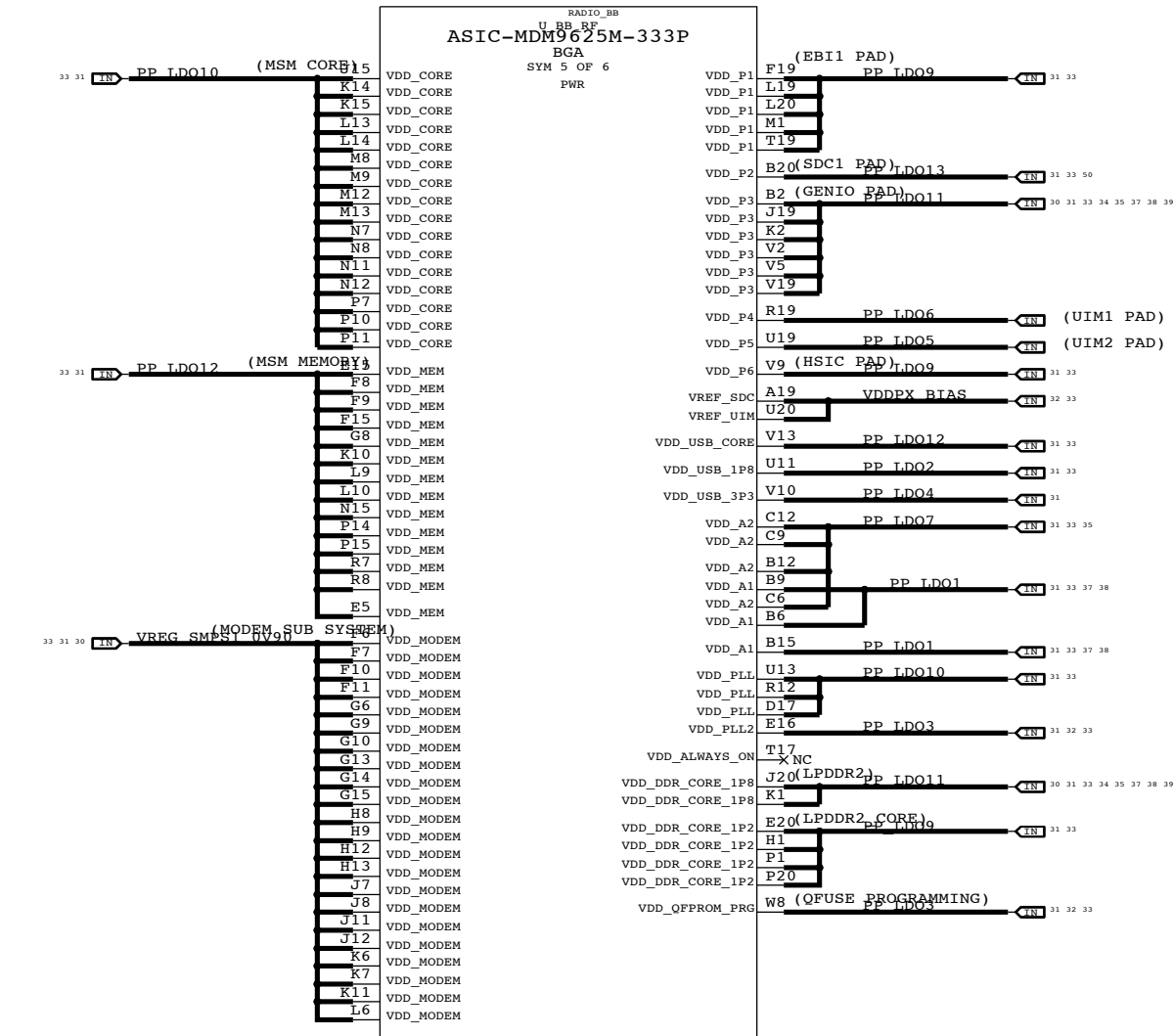
A


D

C

B

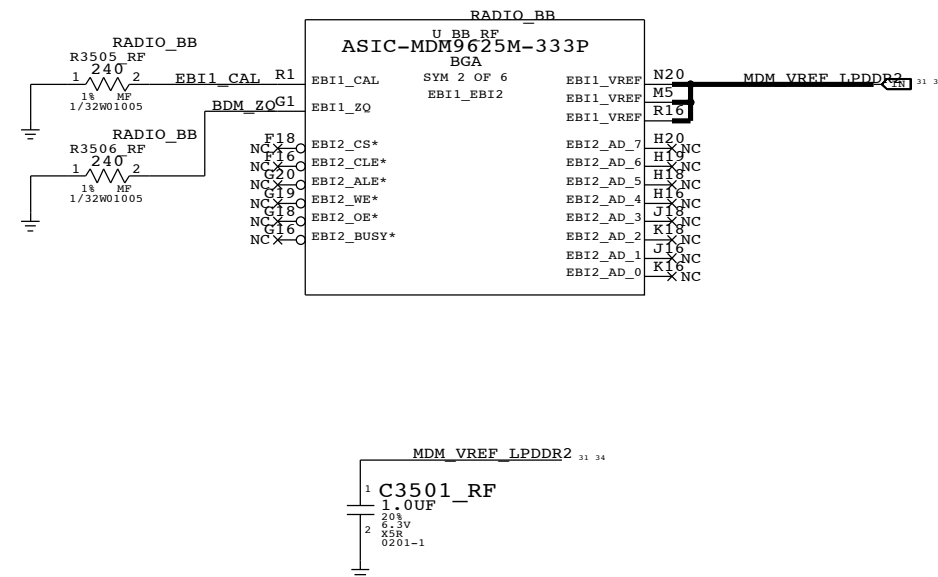
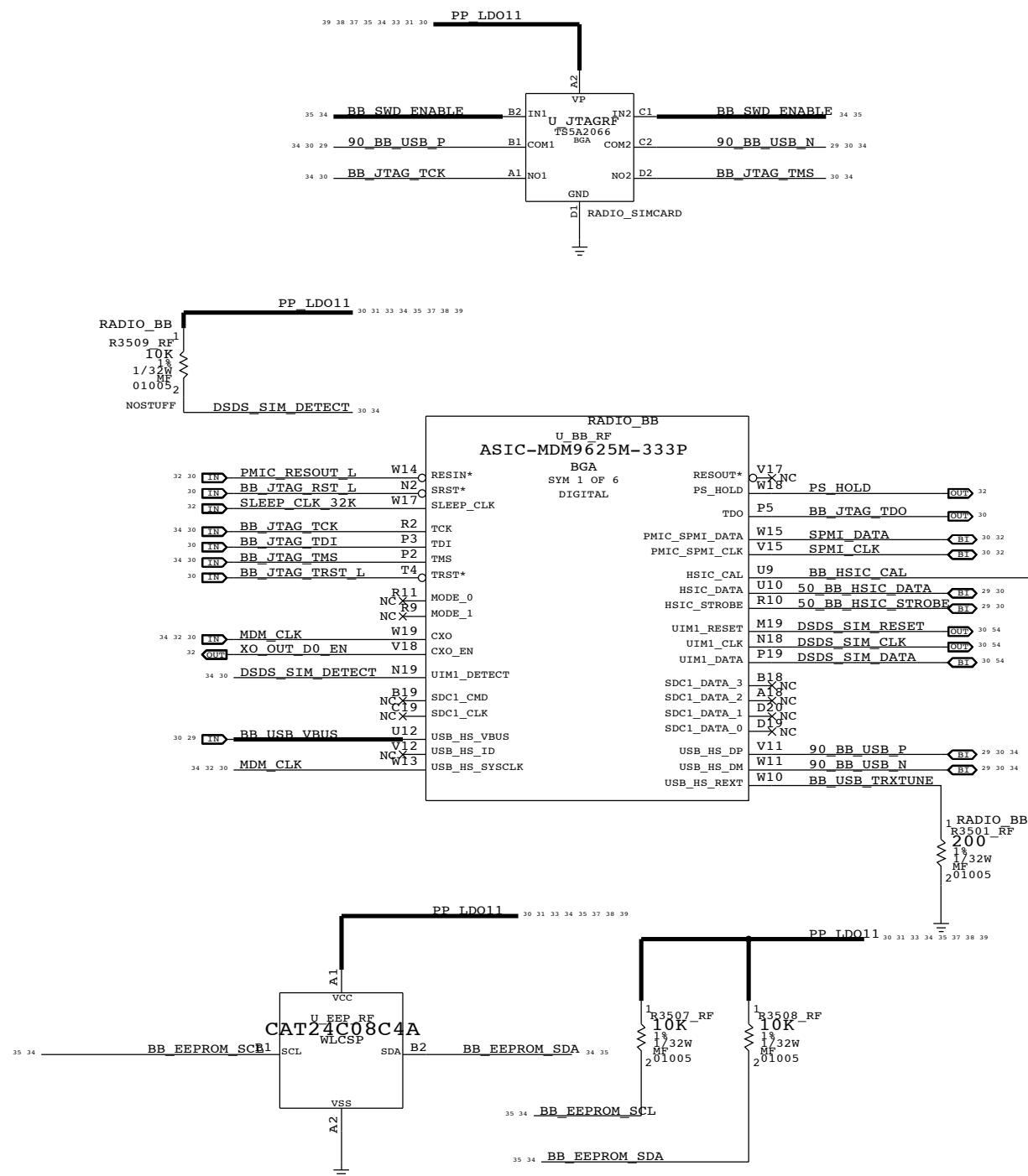
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	REVISION	7.0.0
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		PAGE
		34 OF 55
		SHEET
		33 OF 54

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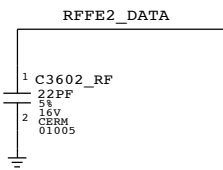
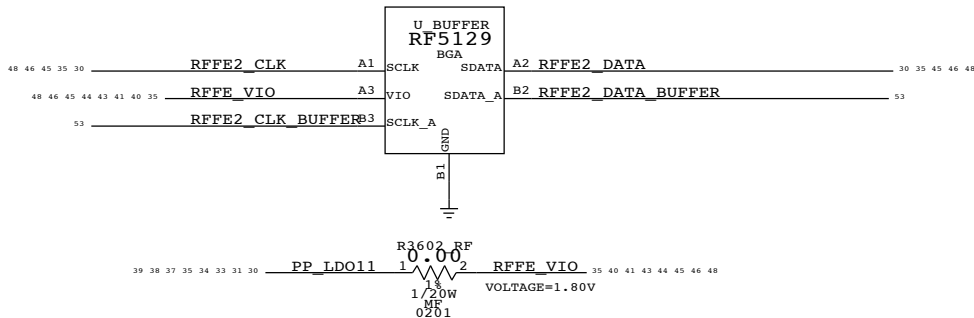
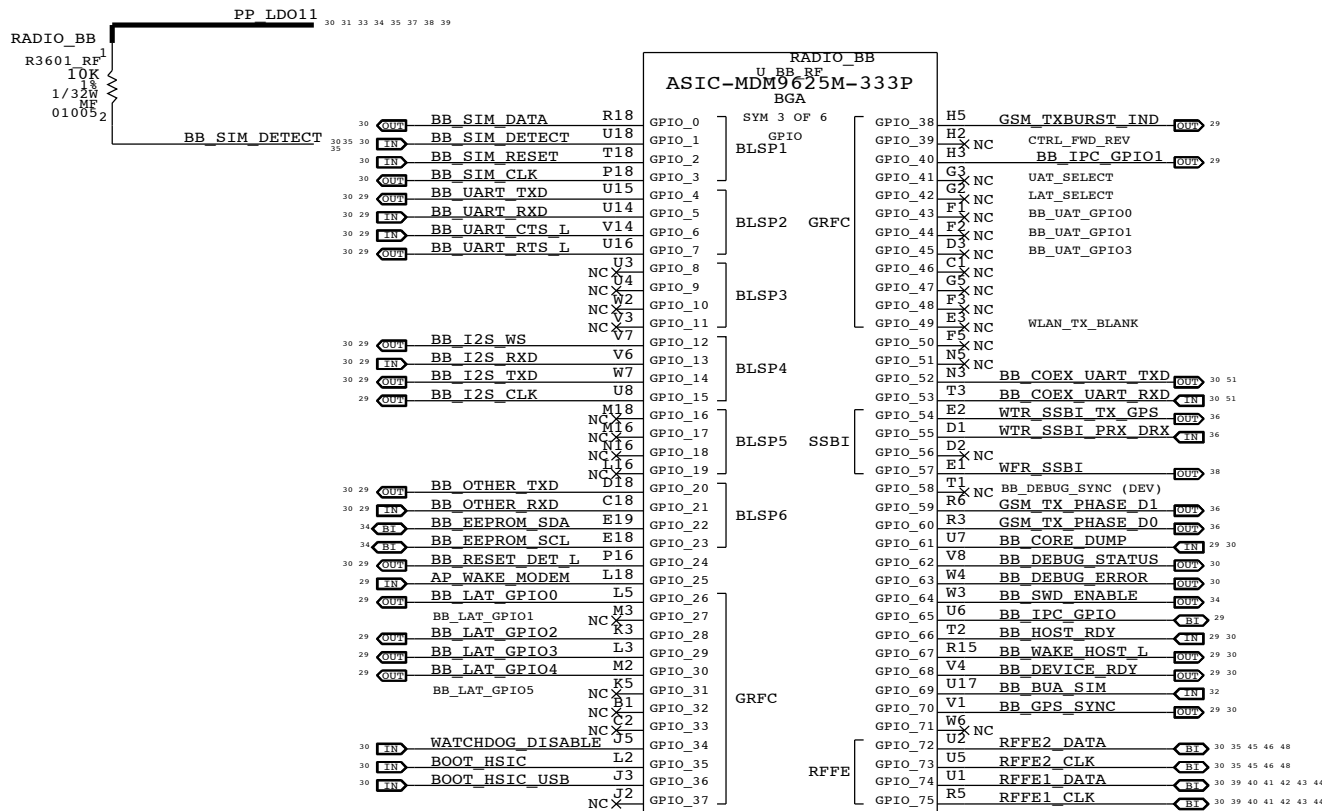
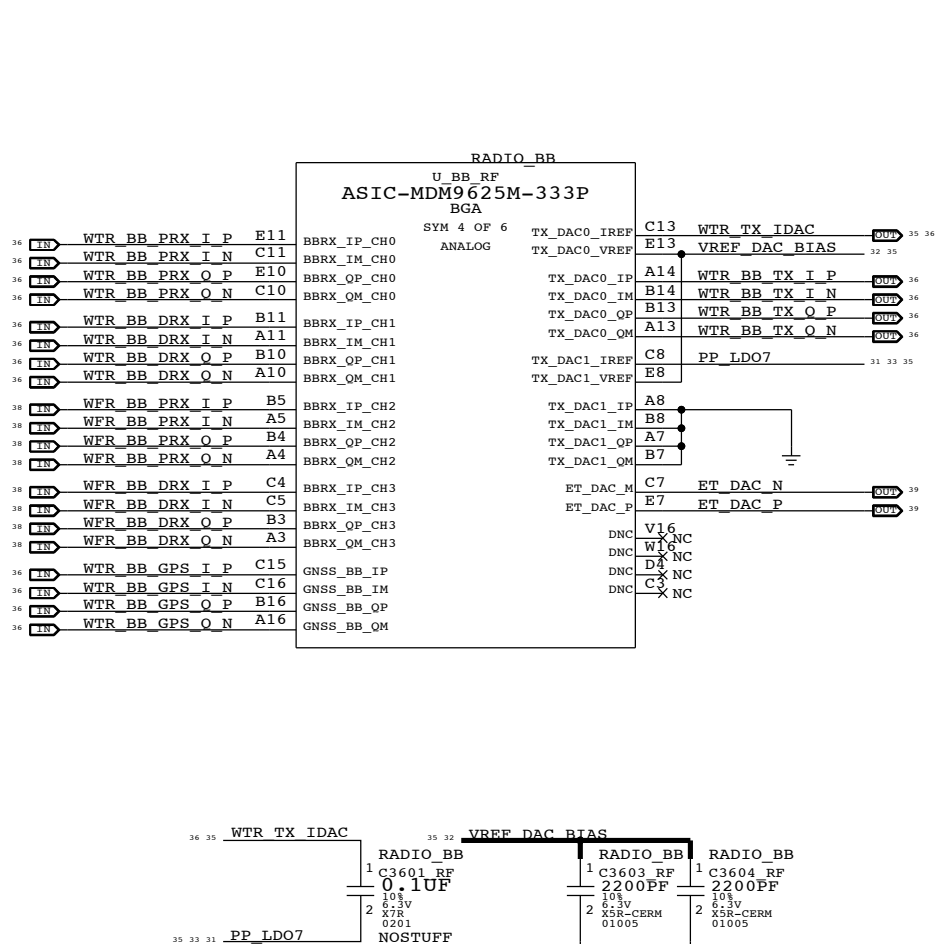
C600
R606
L600
U602



# BASEBAND (3 OF 3)

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C704  
R700  
L700  
U702



## MOBILE DATA MODEM (2 OF 2)



Apple Inc.

DRAWING NUMBER

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REVISION

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BRANCH

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SHEET

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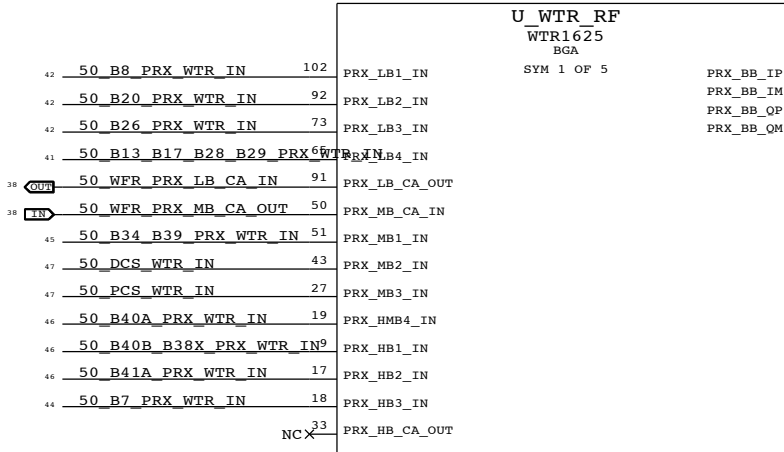
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# WTR TRANSCEIVER (1 OF 2)

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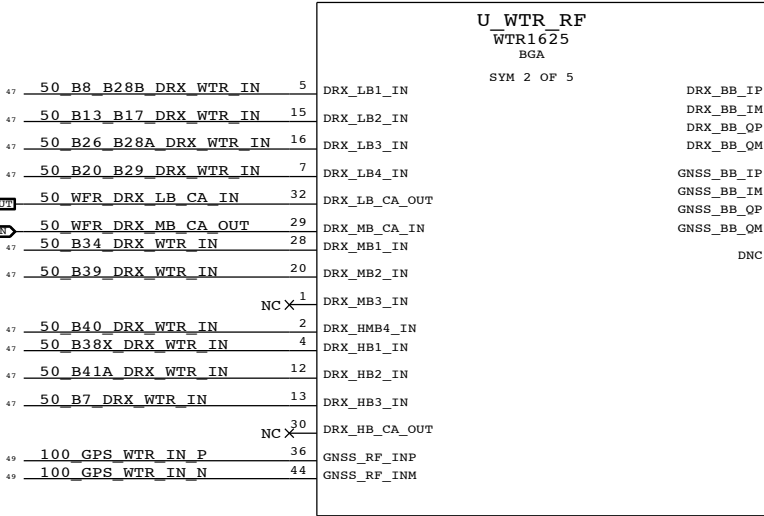
C802  
R802  
L800  
U803

LB1	DC
LB2	DC
LB3	DC
LB4	DC
MB1	NO DC
MB2	DC
MB3	DC
HB1	NO DC
HB2	DC
HB3	DC
HMB4	NO DC



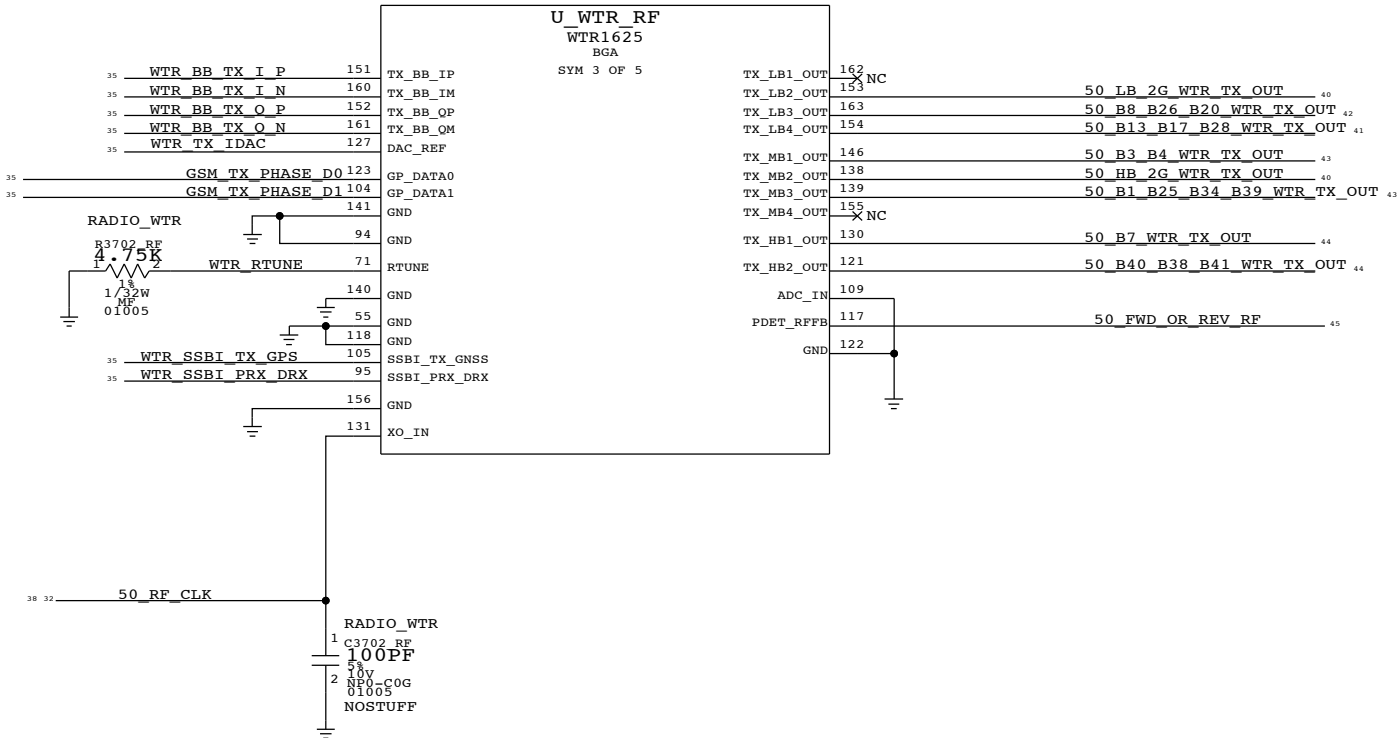
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108	WTR_BB_PRX_I_N	35
107	WTR_BB_PRX_O_P	35
97	WTR_BB_PRX_O_N	35

LB1	DC
LB2	DC
LB3	DC
LB4	DC
MB1	NO DC
MB2	DC
MB3	DC
HB1	NO DC
HB2	DC
HB3	DC
HMB4	NO DC




76	WTR_BB_DRX_I_P	35	RADIO_WTR
86	WTR_BB_DRX_I_N	35	RADIO_WTR
61	WTR_BB_DRX_O_P	35	RADIO_WTR
68	WTR_BB_DRX_O_N	35	RADIO_WTR
60	WTR_BB_GPS_I_P	35	RADIO_WTR
53	WTR_BB_GPS_I_N	35	RADIO_WTR
67	WTR_BB_GPS_O_P	35	RADIO_WTR
85	WTR_BB_GPS_O_N	35	RADIO_WTR

DNCX NC



RF\_CLK IS SHARED BETWEEN WTR AND WFR. LENGTH DIFFERENCE BETWEEN THE TWO SHOULD BE < 5MM.

## RF TRANSCEIVER (1 OF 3)

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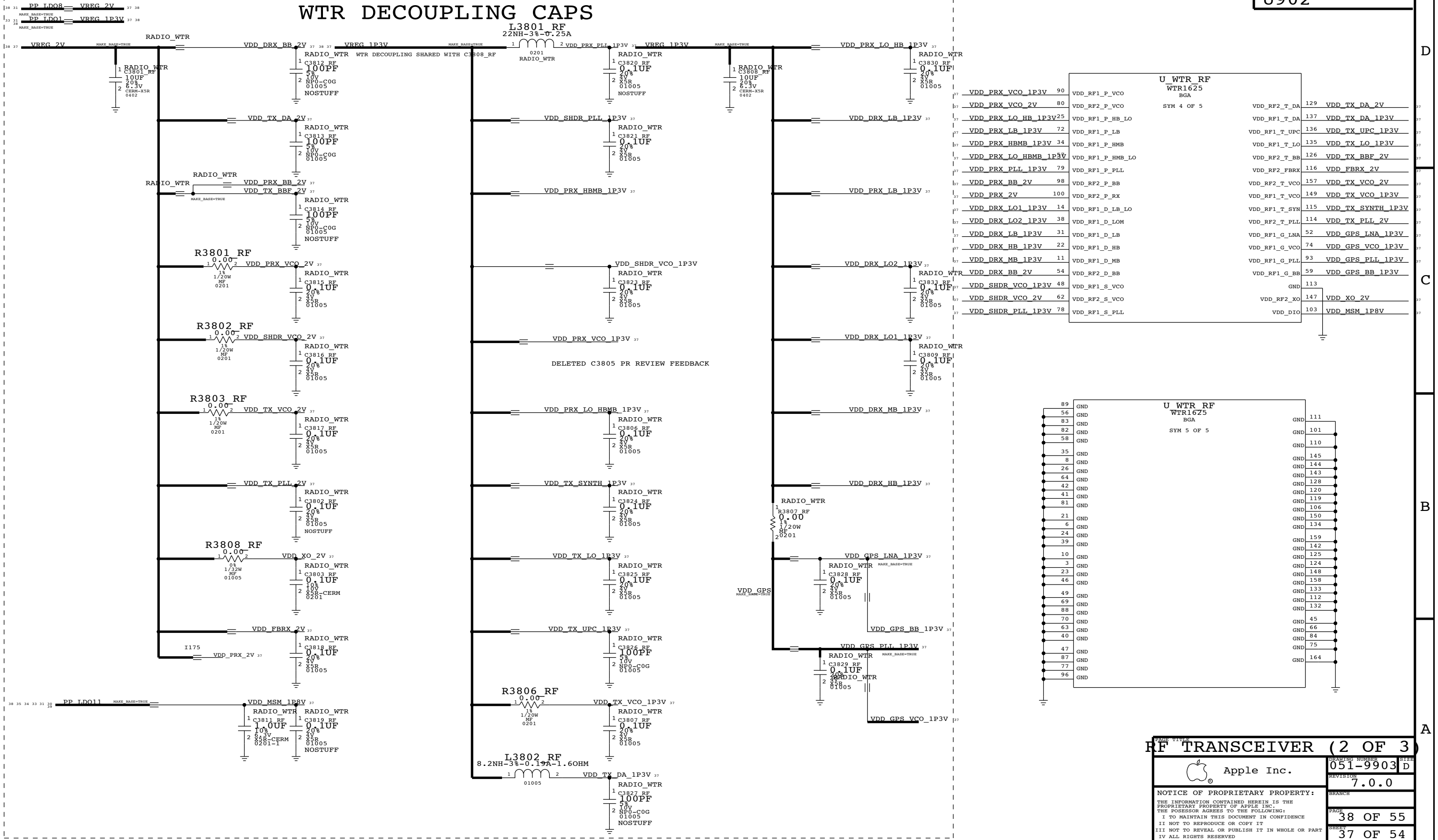
WTR TRANSCEIVER (2 OF 2)


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C934	
R926	
L3802	RF
U902	

# WTR DECOUPLING CAPS

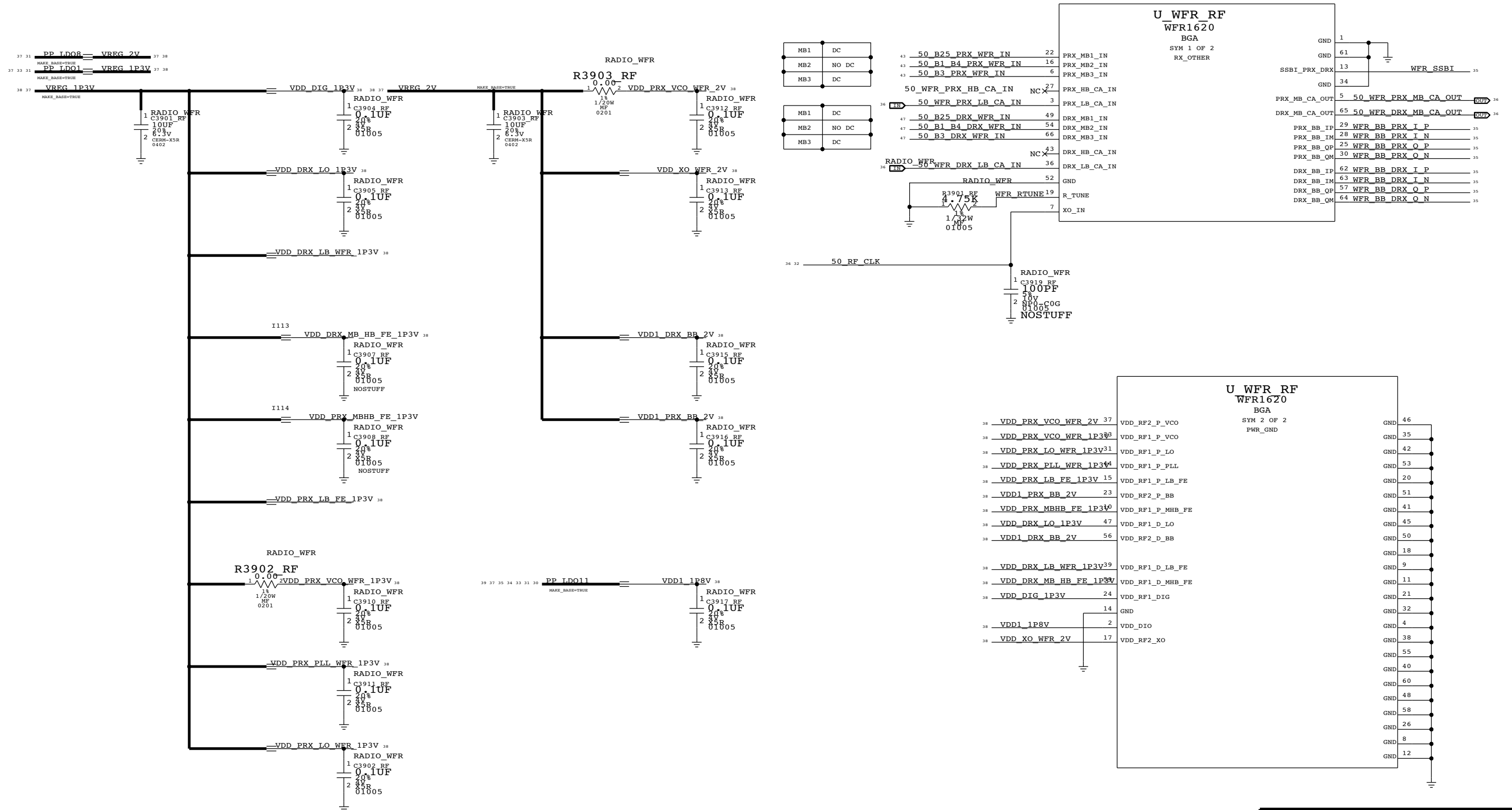
L3801 RF  
22NH-3%-0.25A



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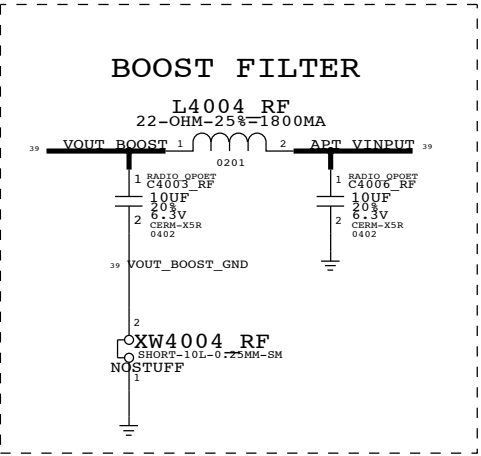
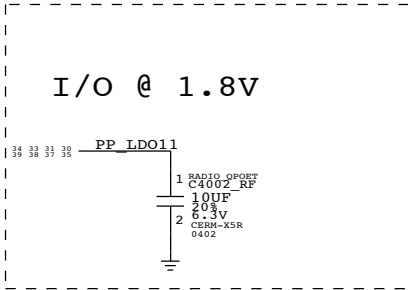
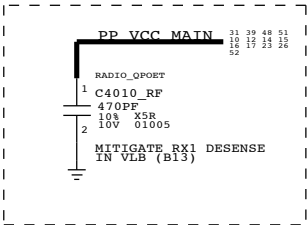
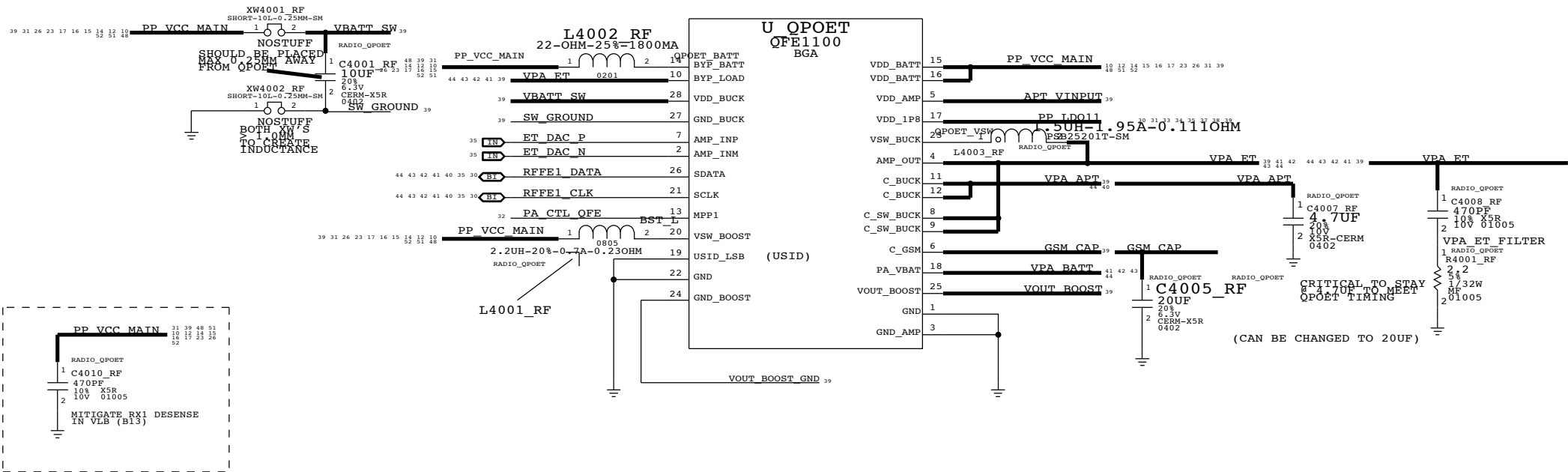
C1019
R1016
L1000
U1002



# QFE DCDC

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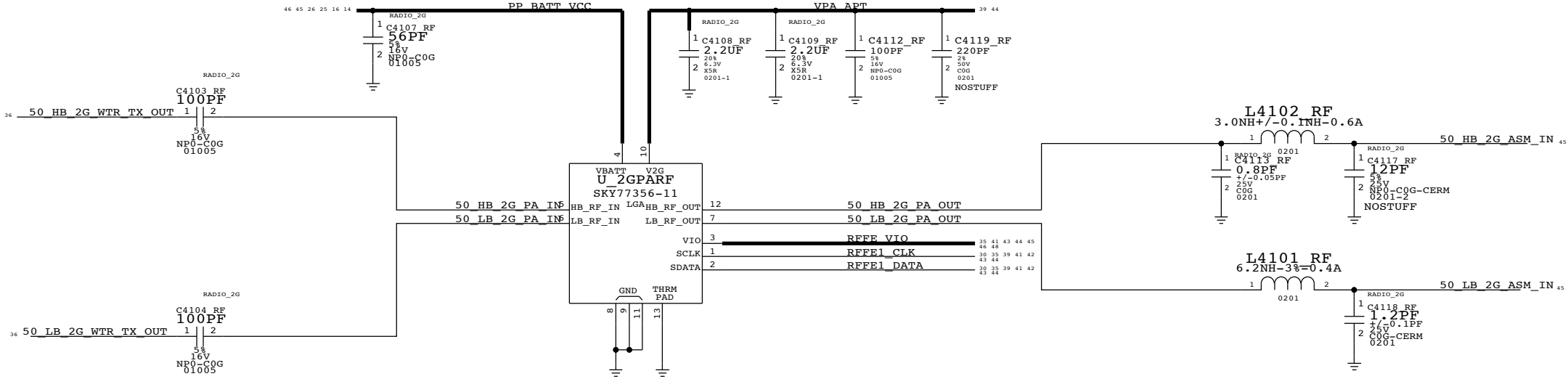
C1110  
R1102  
L1104  
U1101




# 2G PA

CONFIDENTIAL AND PROPRIETARY APPLE SYSTEM DESIGN. FOR REFERENCE PURPOSES ONLY - NOT A CHANGE REQUEST.

C1208  
R1200  
L1204  
U1201



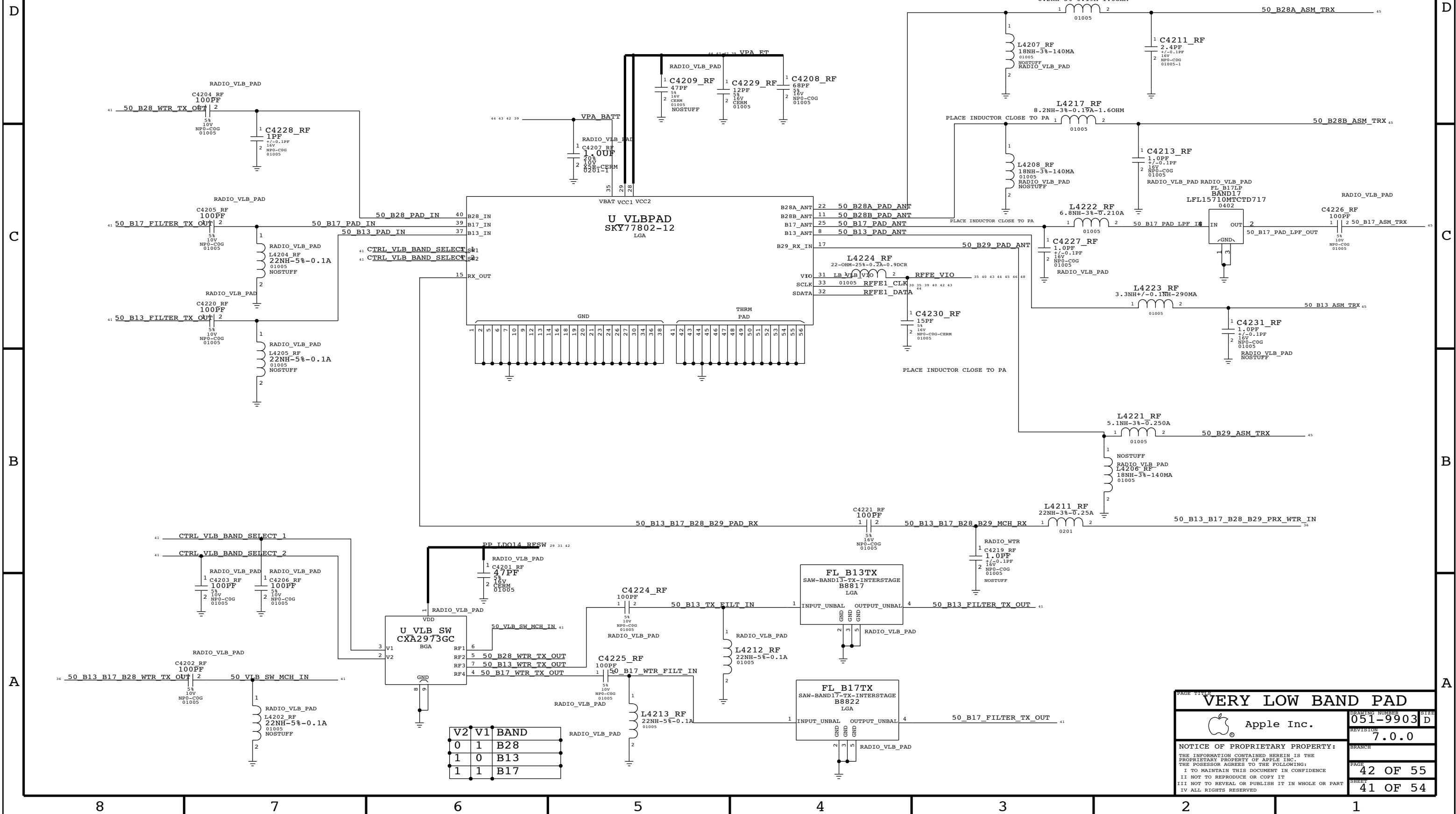
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2G PA		
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	SHEET	40 OF 54



**VERY LOW BAND PAD (B13, B17, B28)**

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C1332	
R1300	
L4215	RF
U1304	



# LOW BAND PAD (B8, B26, B20)

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C4318 RF
R1400
L4322 RF
U1402

D

C

B

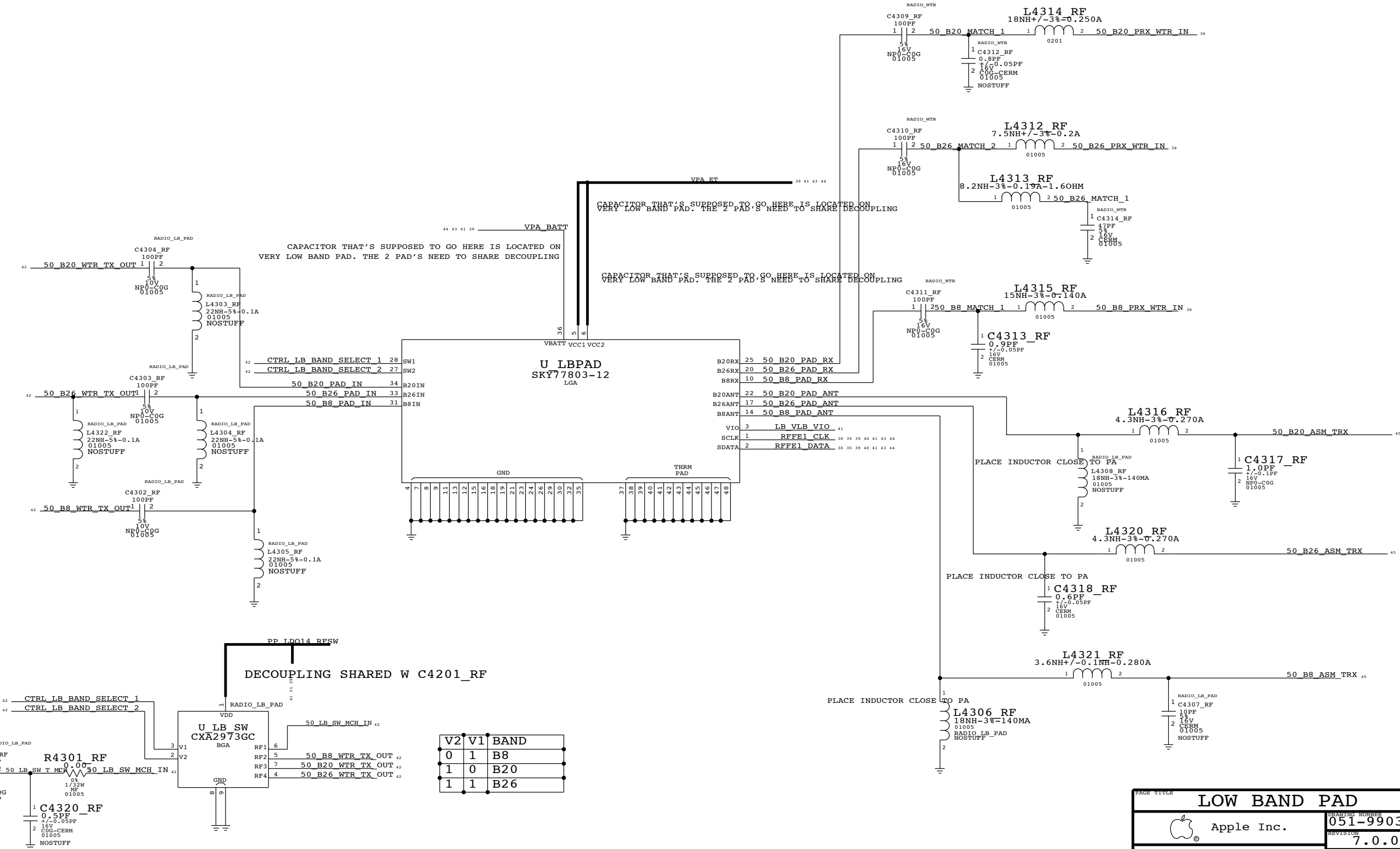
A


D

C

B

A

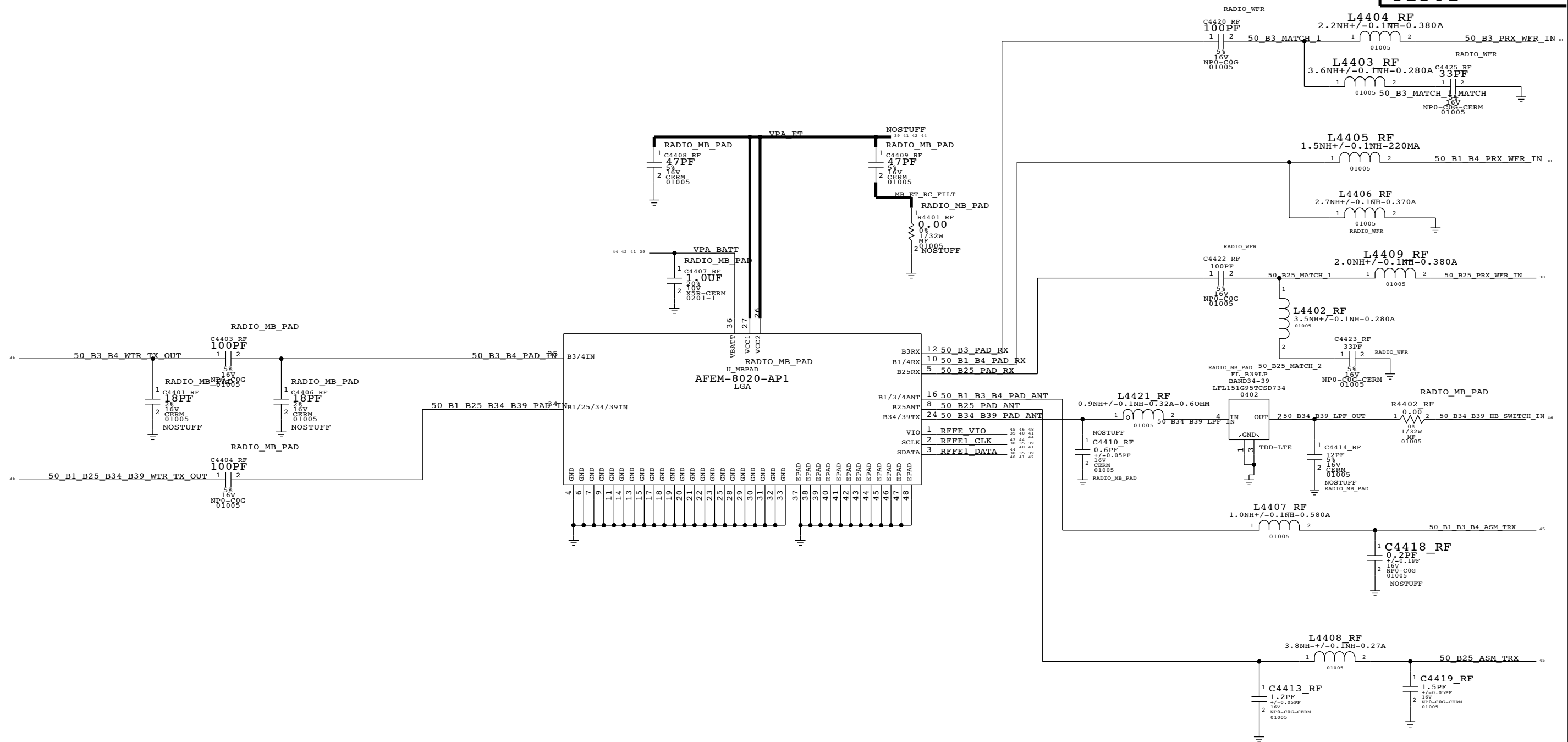



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MID BAND PAD (B1, B25, B3, B4, B34, B39)

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C4426 RF
R1500
L4409 RF
U1501

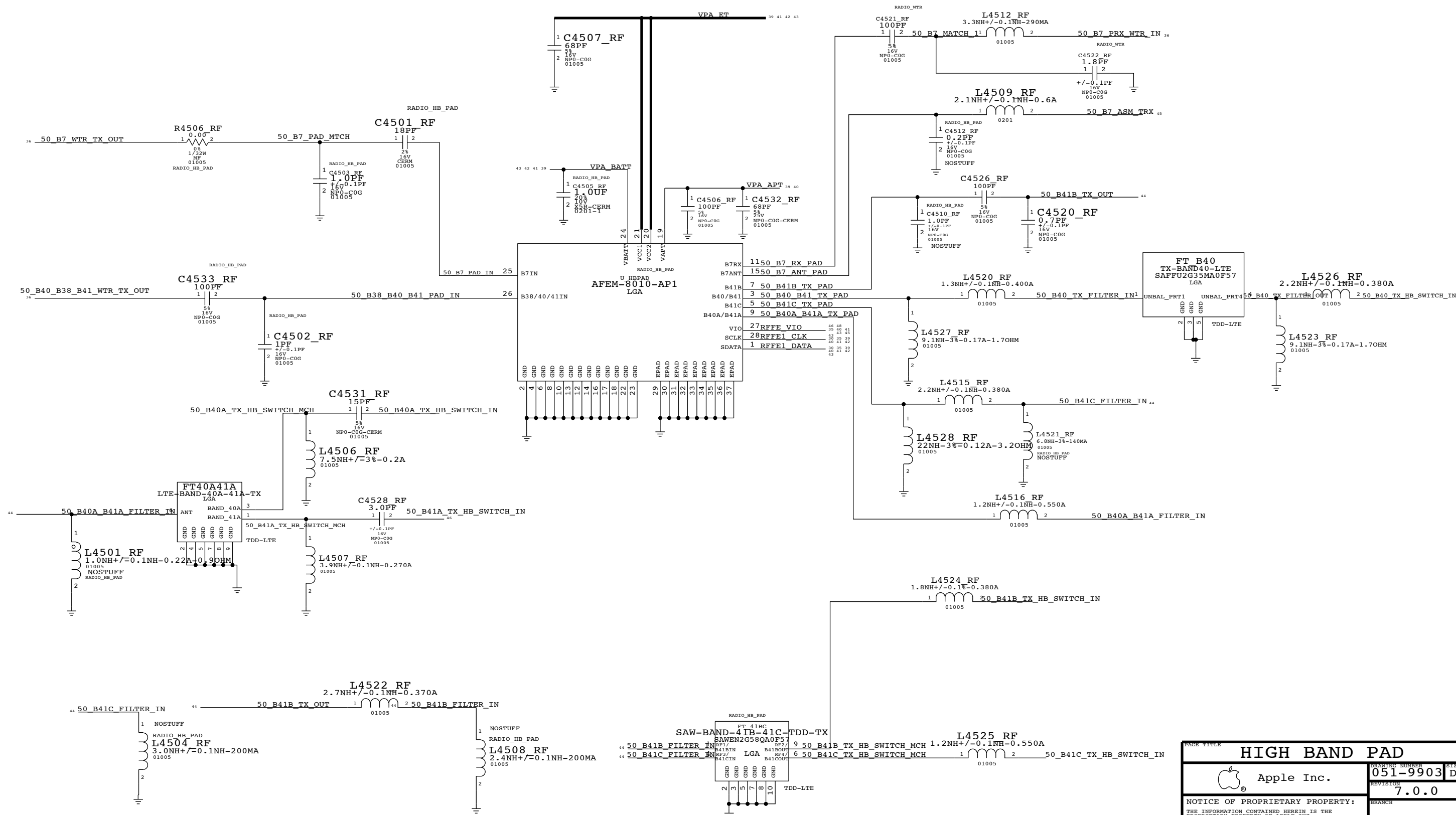



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				SHEET		43		OF		54	

# HIGH BAND PAD (B7, B38, B40, B41, XGP)

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C4533	RF
R1600	
L1616	
U1601	

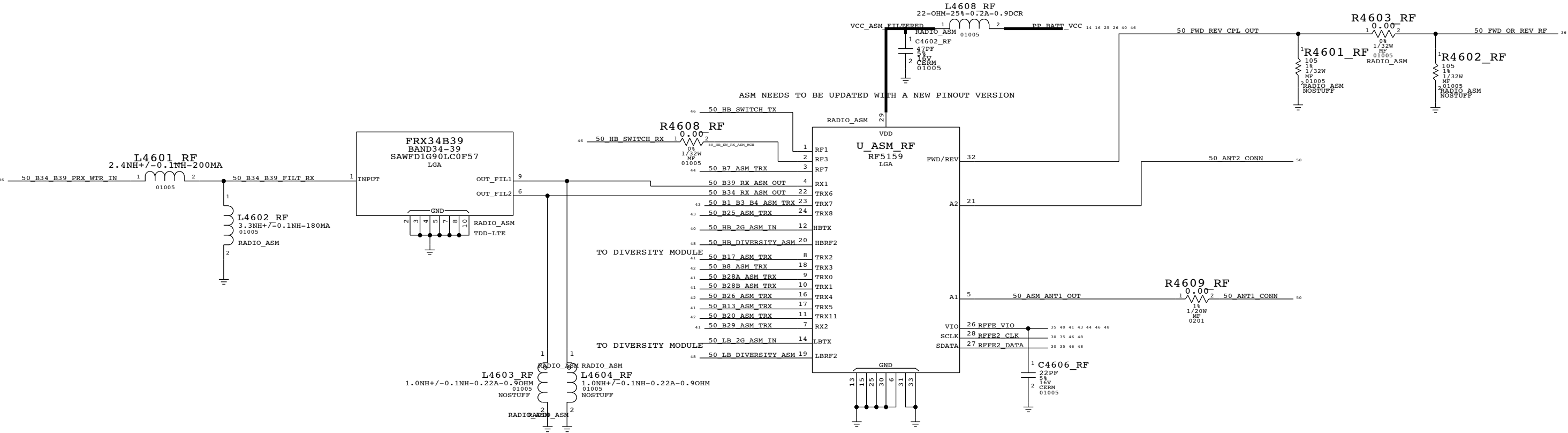



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		SHEET		44 OF 54	

# ANTENNA SWITCH

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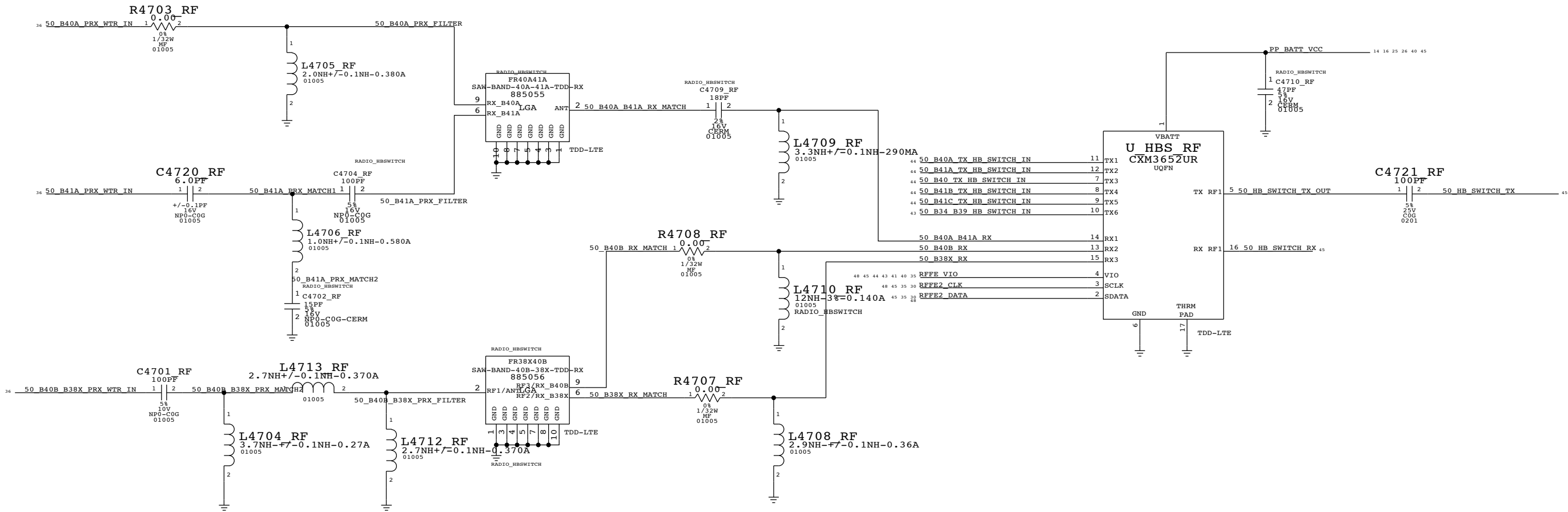
C1702
R1700
L4608 RF
U1702




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# HIGH BAND SWITCH

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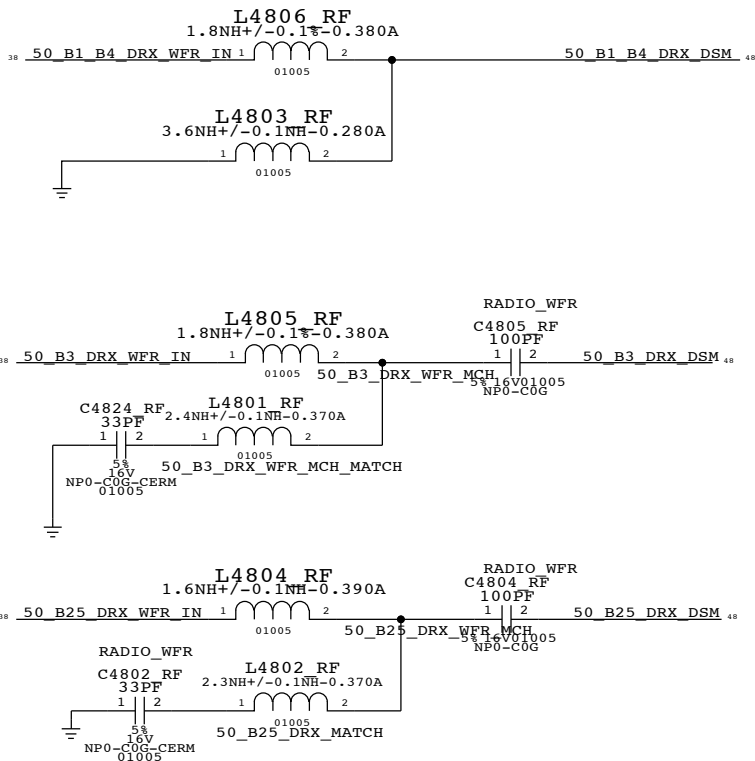
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RX DIVERSITY (1)

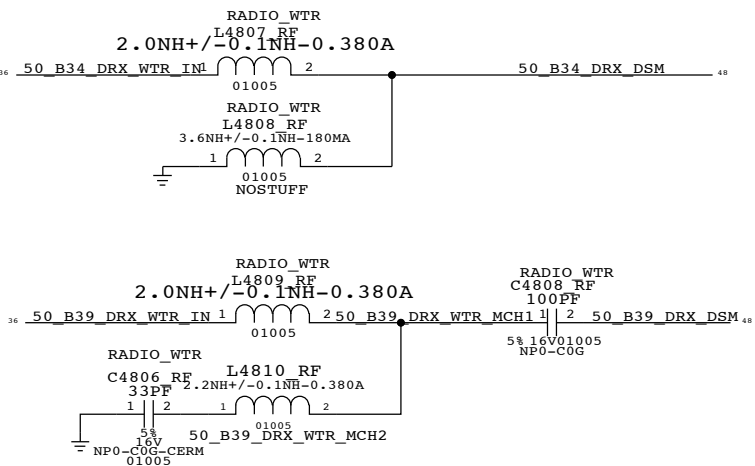
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C4826 RF  
R1800  
L1829  
U1801

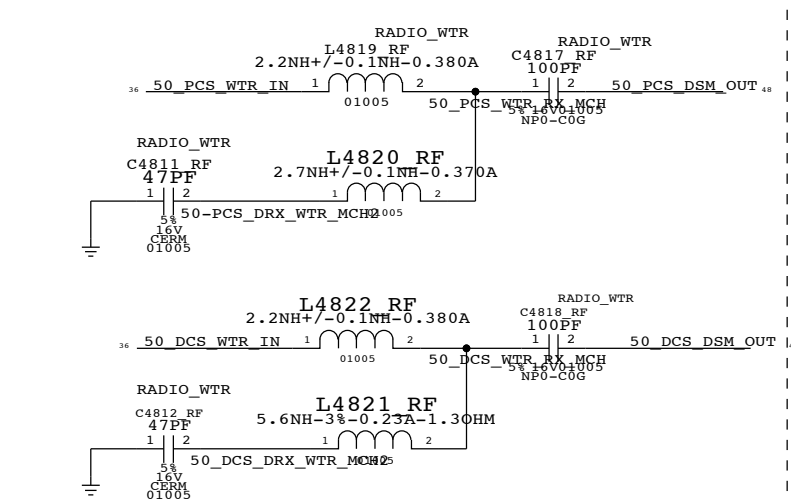
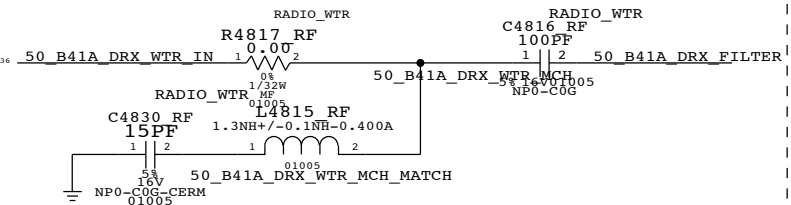
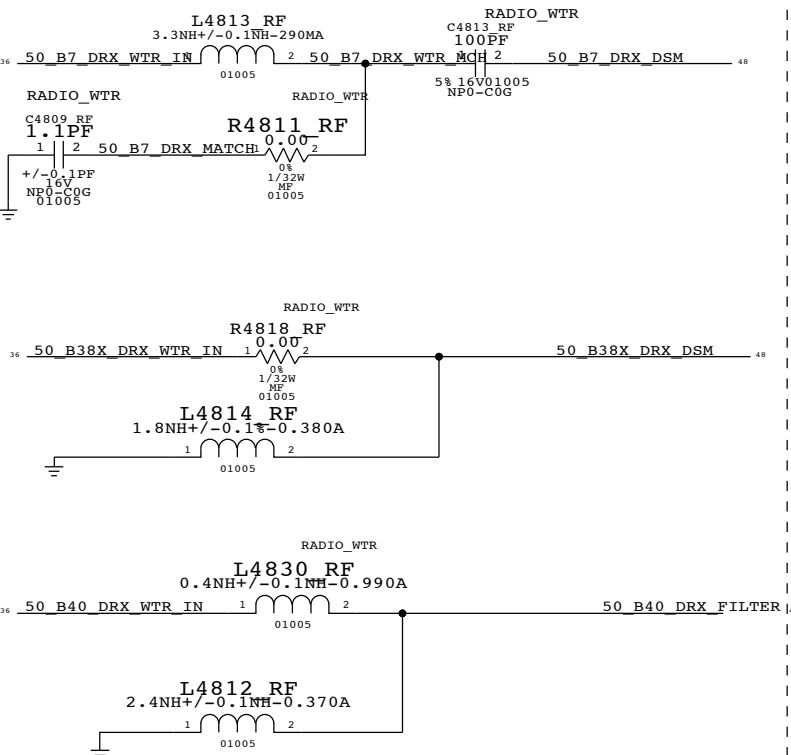
MIDBAND  
MIDBAND DIVERSITY - WFR



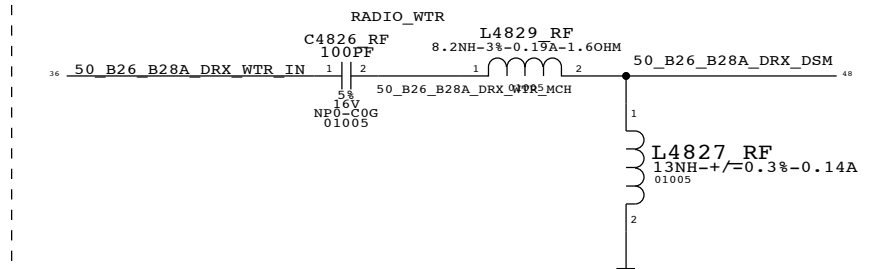
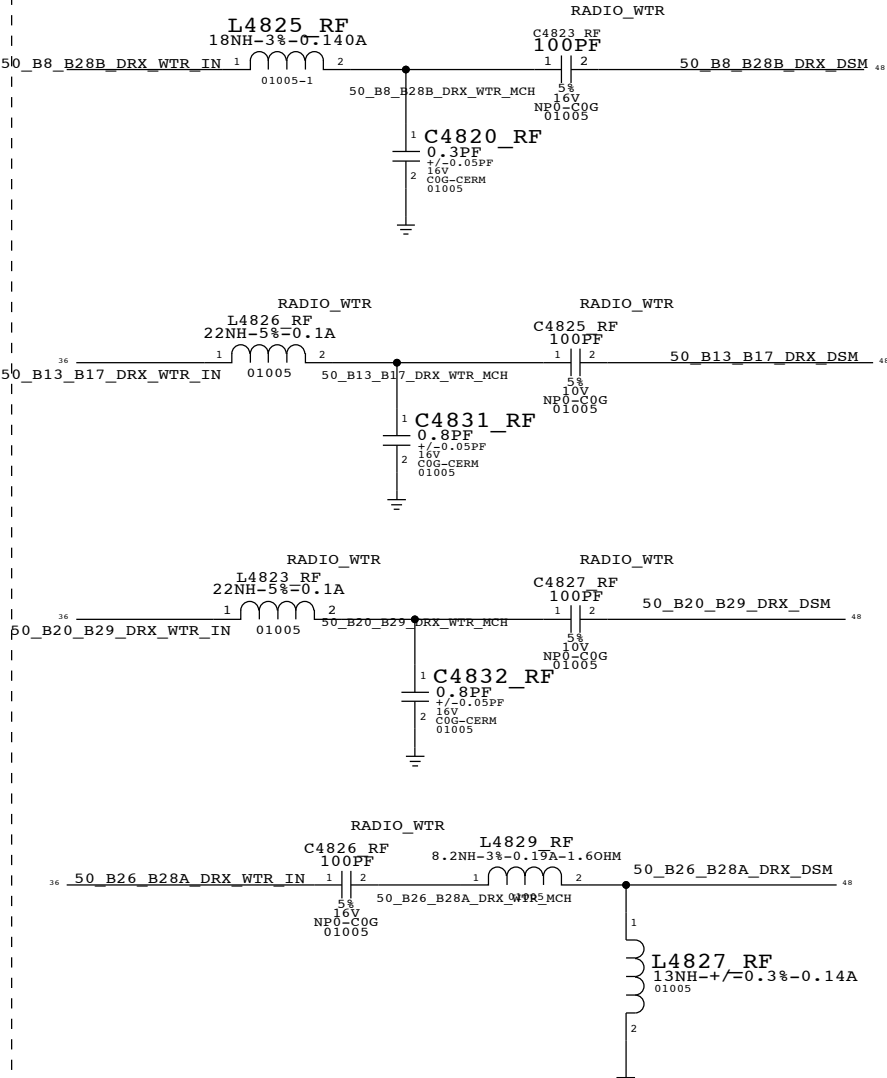
MIDBAND DIVERSITY - WTR



HIGHBAND DIVERSITY - WTR



LOWBAND DIVERSITY - WTR



RX DIVERSITY

Apple Inc.

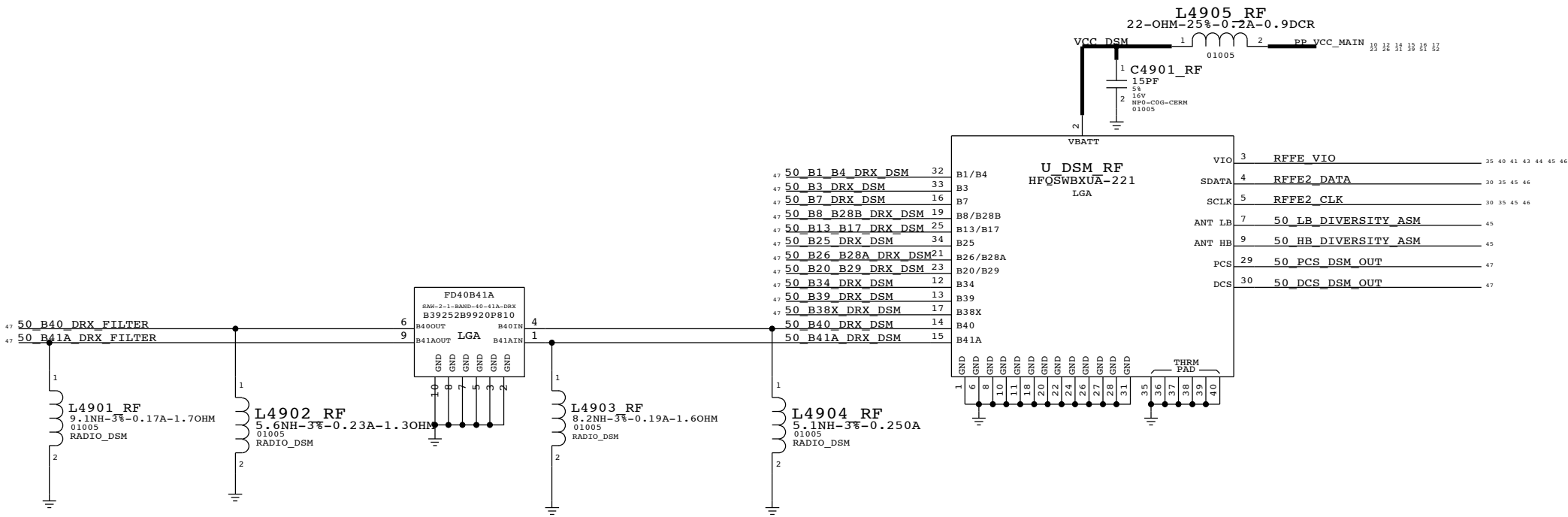
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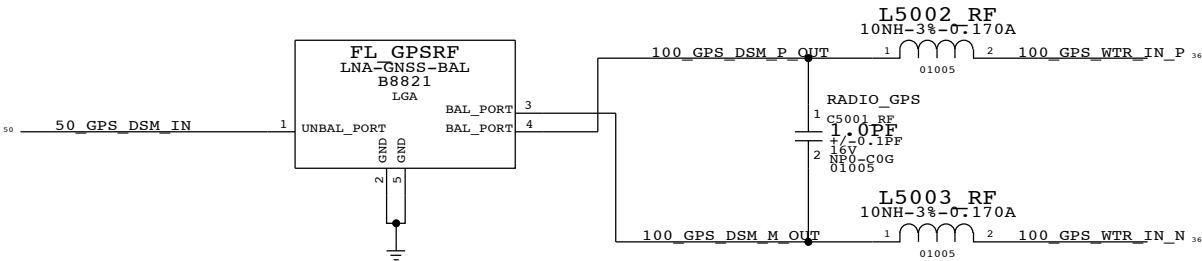
C1900  
R1900  
L1900  
U1901





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C1900
R1900
L1900
U1901



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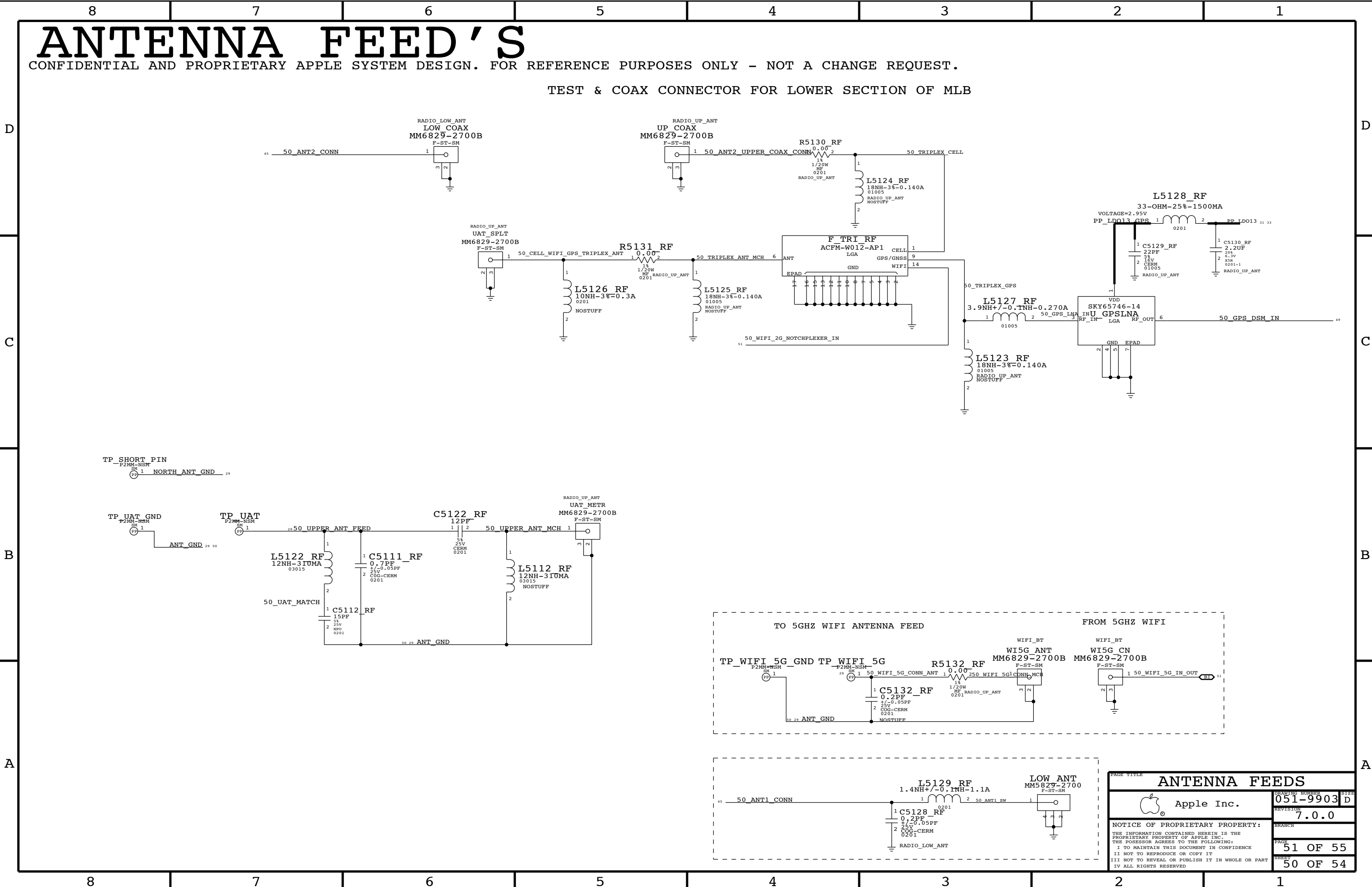
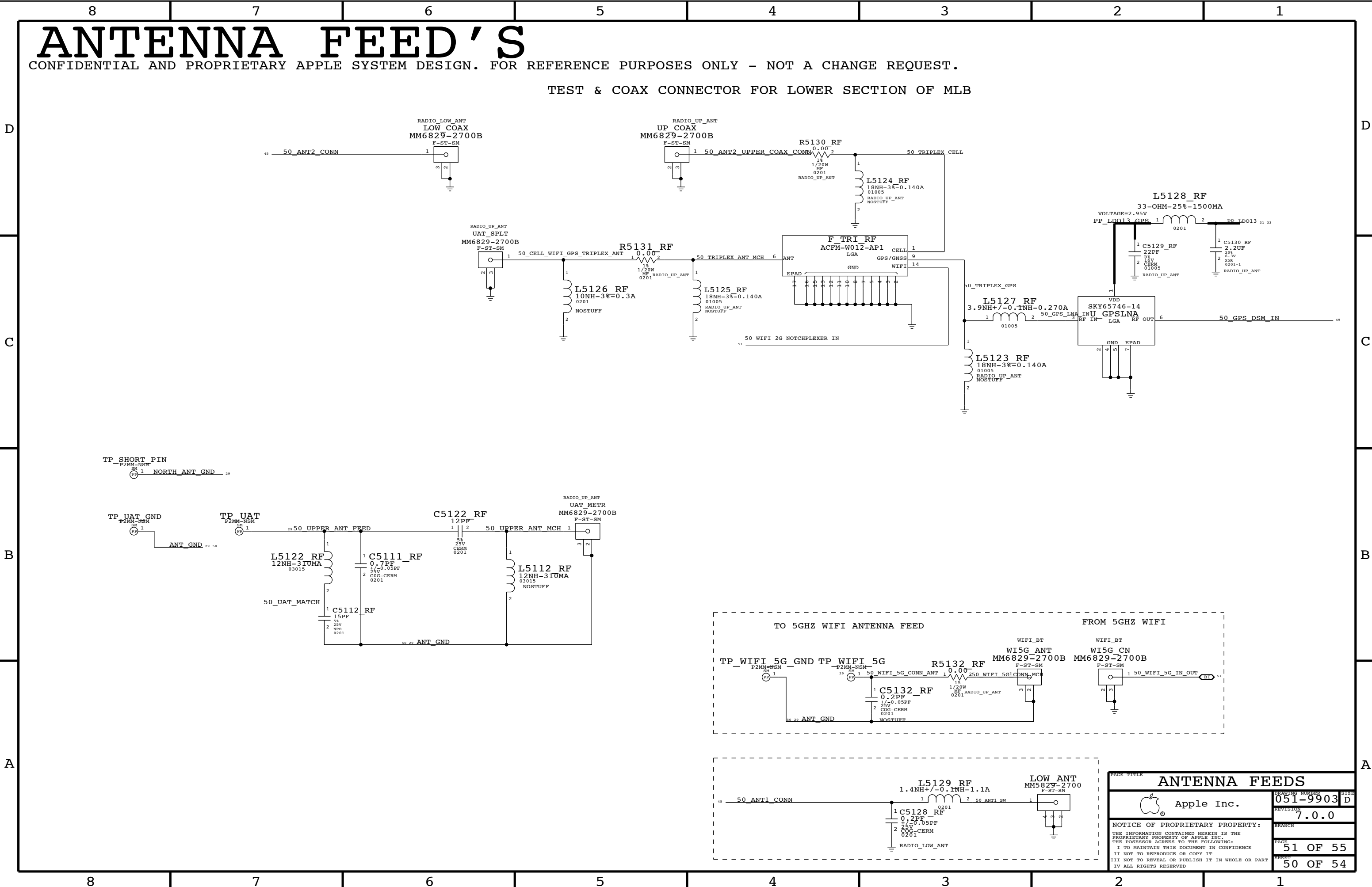
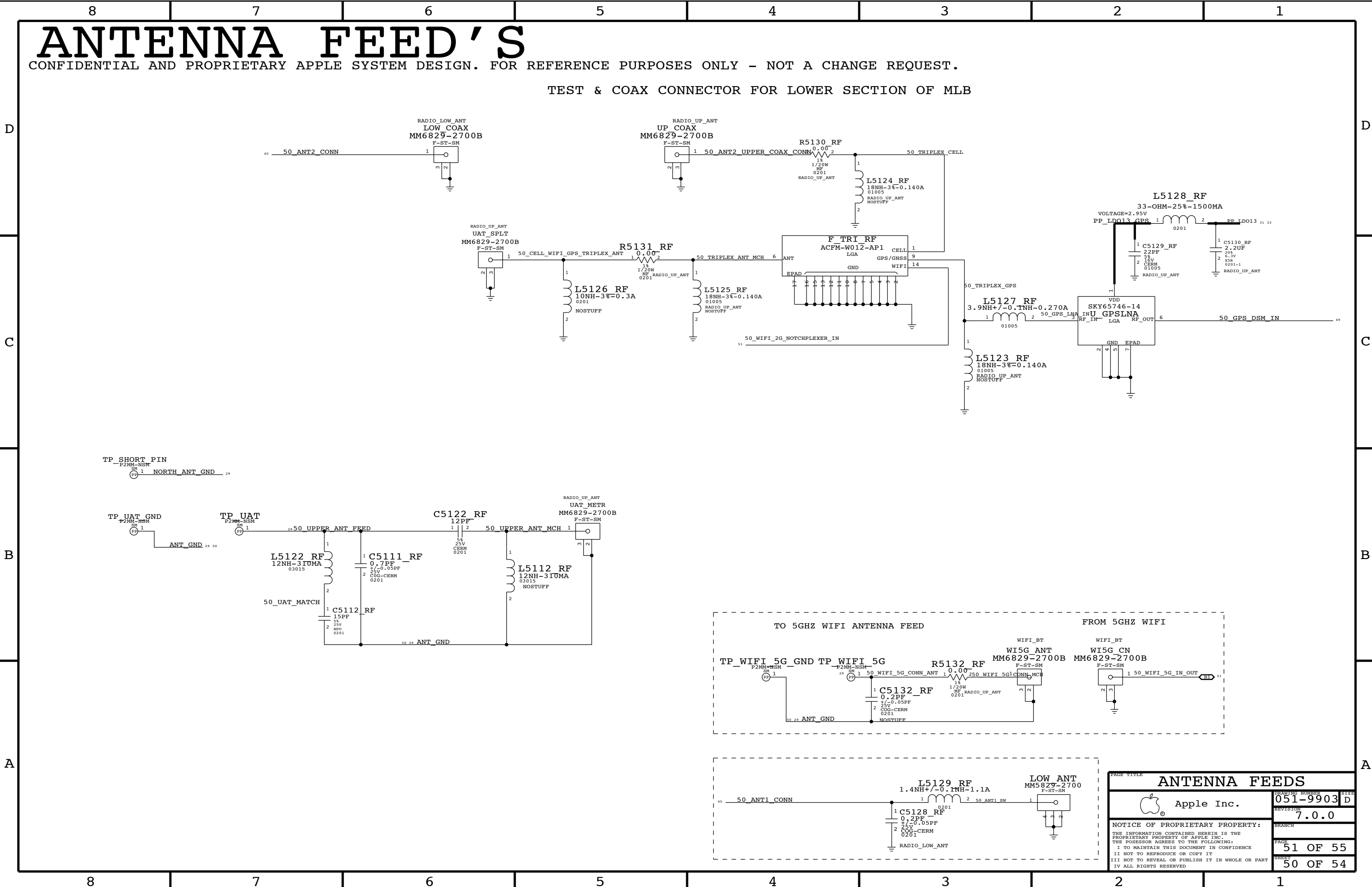
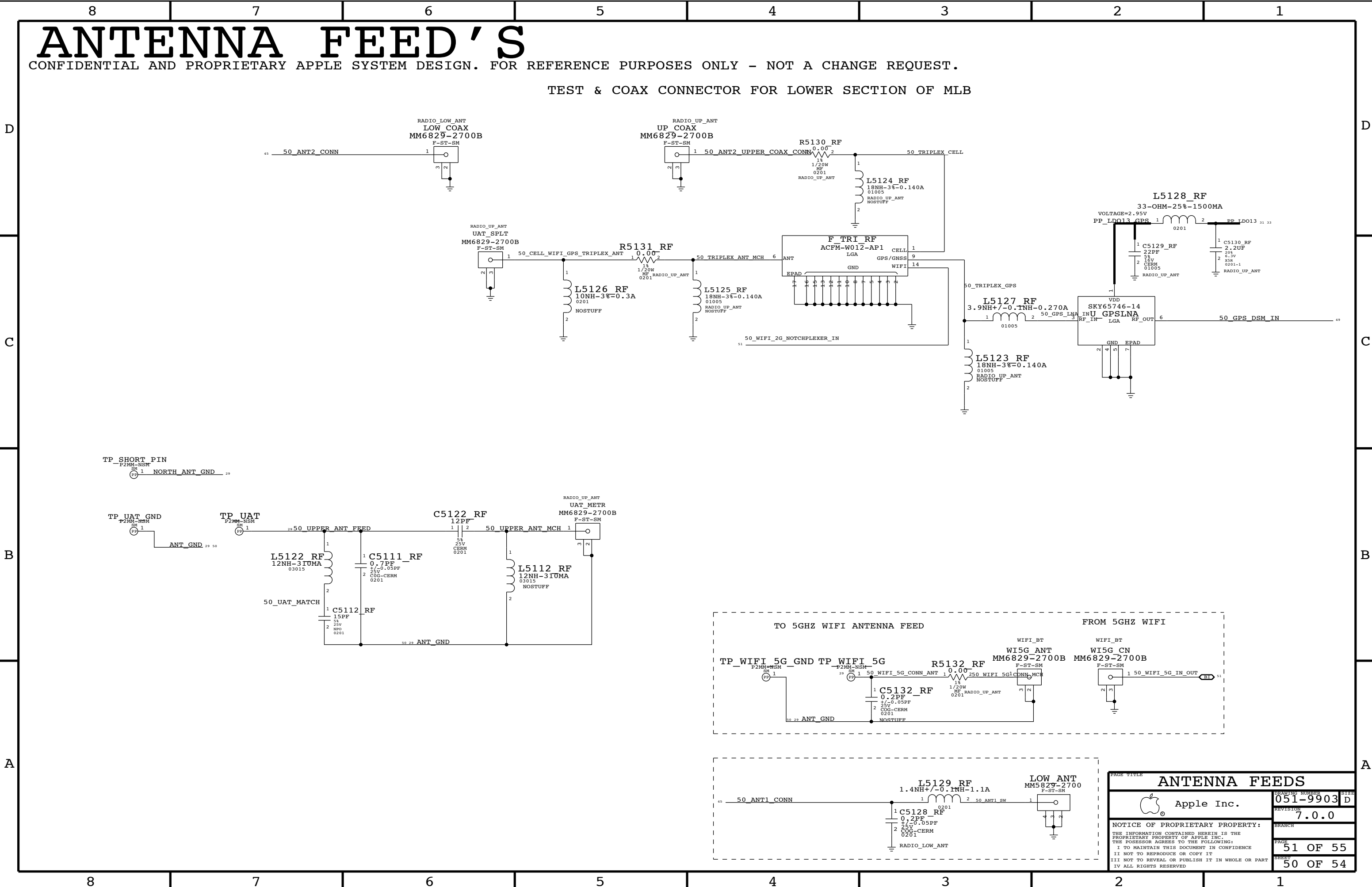
TEST & COAX CONNECTOR FOR LOWER SECTION OF MLB

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**ANTENNA FEED'S**

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TEST & COAX CONNECTOR FOR LOWER SECTION OF MLB

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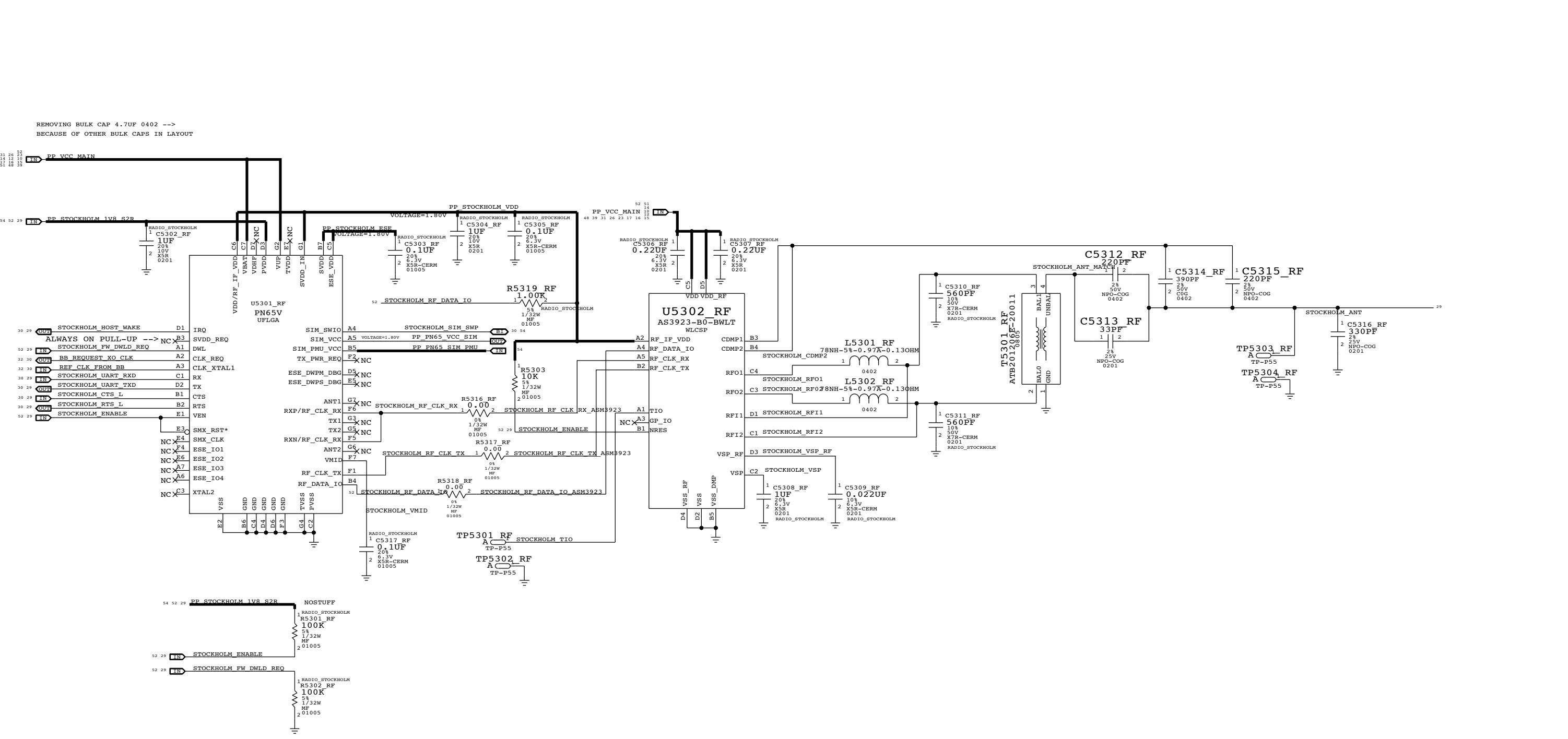
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# STOCKHOLM

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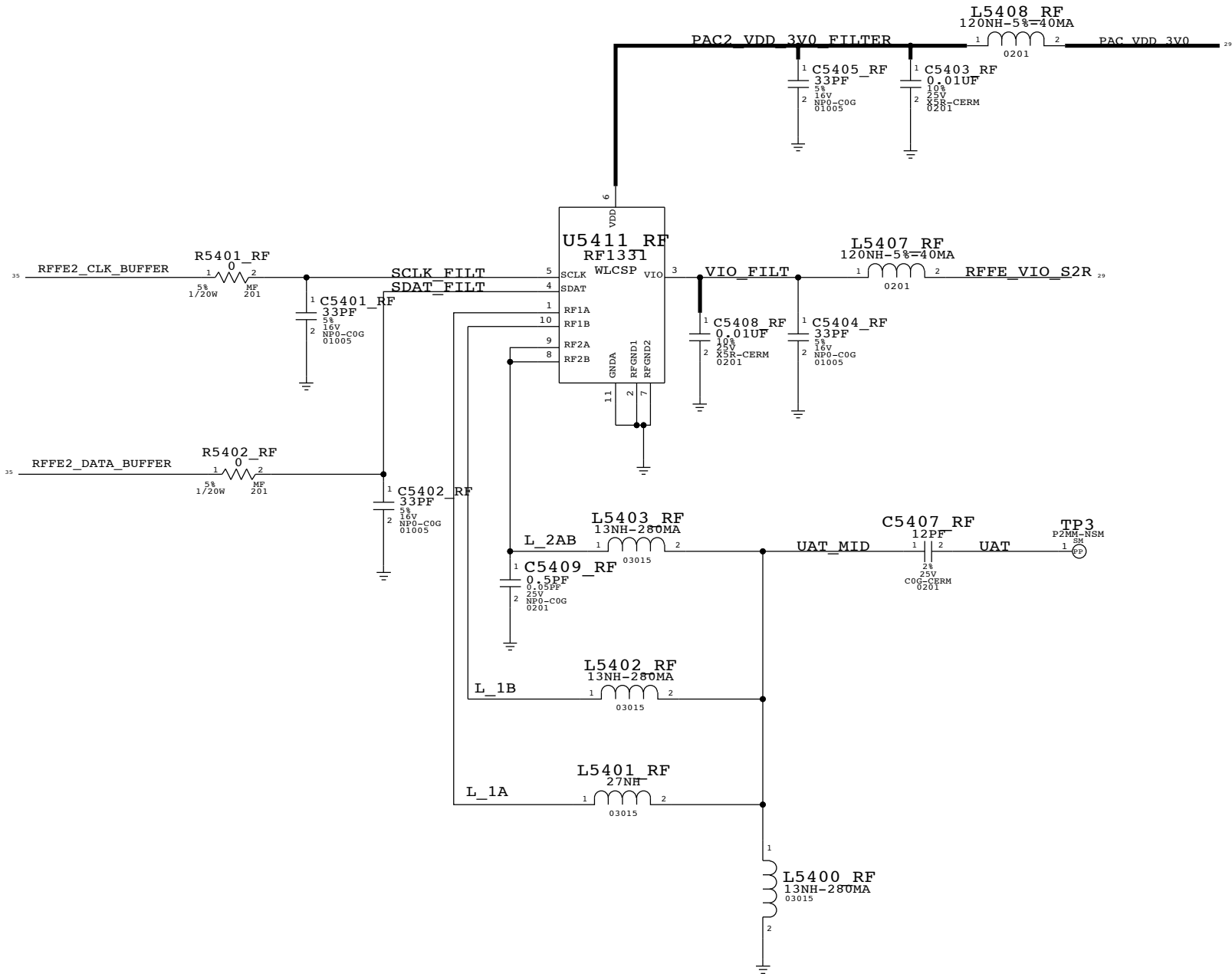
C2101
R2100
L2102
U2100




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# ON-BOARD JUMPER FLEX

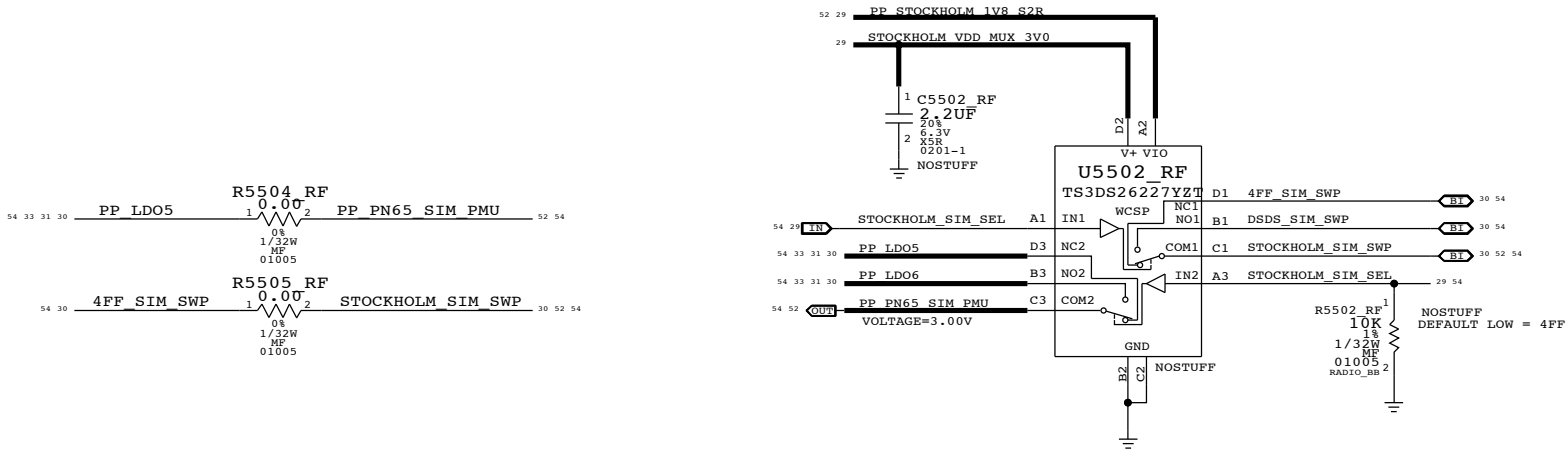
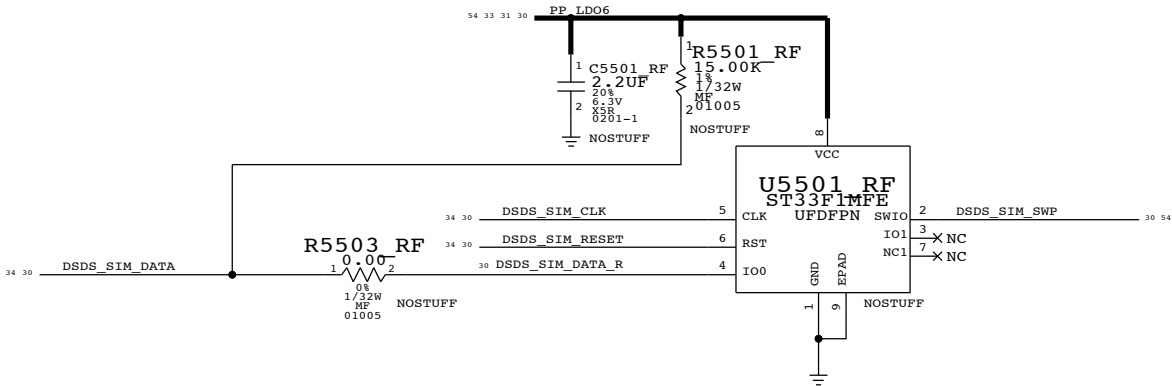
## UAT JUMPER




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