

Thu Apr 17 17:11:44 2014

N61 CARRIER BUILD

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.

PDF PAGE CONTENTS

2	2	SOC:MAIN	N56_MLB	08/29/2013
3	3	SOC:I/O5	N56_MLB	08/29/2013
4	4	SOC:VDDCA, VDD1/2, VDD, VDD_CPU, VDD_GPU	N56_MLB	08/29/2013
5	5	SOC:GND, VDDIO18, VDDIOD, VDD_VAR_SOC	N56_MLB	08/29/2013
6	6	SOC:NAND	N56_MLB	08/29/2013
7	7	SOC:CAM, LCD, LPDP, PCIE	N56_MLB	08/29/2013
8	8	IO:BUTTON FLEX CONN	N61_MLB	08/26/2013
9	9	AUDIO:L67 CODEC (1/2)	N61_MLB	08/26/2013
10	10	AUDIO:L67 CODEC (2/2)	N61_MLB	08/26/2013
11	11	CAMERA:FRONT FLEX CONN	N61_MLB	08/26/2013
12	12	POWER:ADI(1/2)	N56_MLB	08/29/2013
13	13	POWER:ADI(2/2)	N56_MLB	08/29/2013
14	14	POWER:TIGRIS, VIBE DRIVER	N61_MLB	08/21/2013
15	15	DISPLAY:CHESTNUT, BACKLIGHT DRIVER	N61_MLB	08/26/2013
16	16	AUDIO:SPKR AMP, STROBE	N61_MLB	08/26/2013
17	17	IO:TRISTAR2	N61_MLB	08/26/2013
18	18	IO:DOCK FLEX CONN	N61_MLB	08/26/2013
19	19	SENSORS:COMPASS	N61_MLB	08/26/2013
20	20	DISPLAY:FLEX CONN	N61_MLB	08/26/2013
21	21	SENSORS:MESA FLEX CONN	N61_MLB	08/26/2013
22	22	SENSORS:OSCAR, CARBON, PHOS, MAGNESIUM	N61_MLB	08/26/2013
23	23	CAMERA:REAR FLEX CONN	N61_MLB	08/26/2013
24	24	TOUCH:CUMULUS, MESON	N/A	N/A
25	25	POWER:BATT CONN, TPS, PD FEATURES	N61_MLB	08/26/2013
26	26	SYSTEM:VOLTAGE PROPERTIES	N56_MLB	09/10/2013
27	27	SYSTEM:N61 SPECIFIC	N56_MLB	09/10/2013
28	28	BLANK	N56_MLB	09/10/2013
29	30	CELL:ALIASES		
30	31	AP INTERFACE & DEBUG CONNECTORS	N61_RADIO_MLB	03/24/2014
31	32	BASEBAND PMU (1 OF 2)	N61_RADIO_MLB	03/24/2014
32	33	BASEBAND PMU (2 OF 2)	N61_RADIO_MLB	03/24/2014
33	34	BASEBAND (1 OF 2)	N61_RADIO_MLB	03/24/2014
34	35	BASEBAND (1 OF 2)	N61_RADIO_MLB	03/24/2014
35	36	MOBILE DATA MODEM (2 OF 2)	N61_RADIO_MLB	03/24/2014
36	37	RF TRANSCEIVER (1 OF 3)	N61_RADIO_MLB	03/24/2014
37	38	RF TRANSCEIVER (2 OF 3)	N61_RADIO_MLB	03/24/2014
38	39	RF TRANSCEIVER (3 OF 3)	N61_RADIO_MLB	03/24/2014
39	40	QFE DCDC	N61_RADIO_MLB	03/24/2014
40	41	2G PA	N61_RADIO_MLB	03/24/2014
41	42	VERY LOW BAND PAD	N61_RADIO_MLB	03/24/2014
42	43	LOW BAND PAD	N61_RADIO_MLB	03/24/2014
43	44	MID BAND PAD	N61_RADIO_MLB	03/24/2014
44	45	HIGH BAND PAD	N61_RADIO_MLB	03/24/2014
45	46	ANTENNA SWITCH	N61_RADIO_MLB	03/24/2014
46	47	HIGH BAND SWITCH	N61_RADIO_MLB	03/24/2014
47	48	RX DIVERSITY	N61_RADIO_MLB	03/24/2014
48	49	GPS	N61_RADIO_MLB	03/24/2014
49	50	GPS	N61_RADIO_MLB	03/24/2014
50	51	ANTENNA FEEDS	N61_RADIO_MLB	03/24/2014
51	52	WIFI/BT: MODULE AND FRONT END	N61_RADIO_MLB	03/24/2014
52	53		N61_RADIO_MLB	03/24/2014
53	54	JUMPER	N61_RADIO_MLB	03/24/2014
54	55	JUMPER	N61_RADIO_MLB	03/24/2014

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)

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	J0604	TOSHIBA, NAND, 16GB
335S1038	335S0998	ALTERNATE	J0604	HYNIX, NAND, 16GB
335S1040	335S0994	ALTERNATE	J0604	HYNIX, NAND, 64GB
335S00014	335S0994	ALTERNATE	J0604	TOSHIBA, NAND, 64GB
335S00015	335S00010	ALTERNATE	J0604	TOSHIBA, NAND128GB
335S00009	335S0994	ALTERNATE	J0604	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

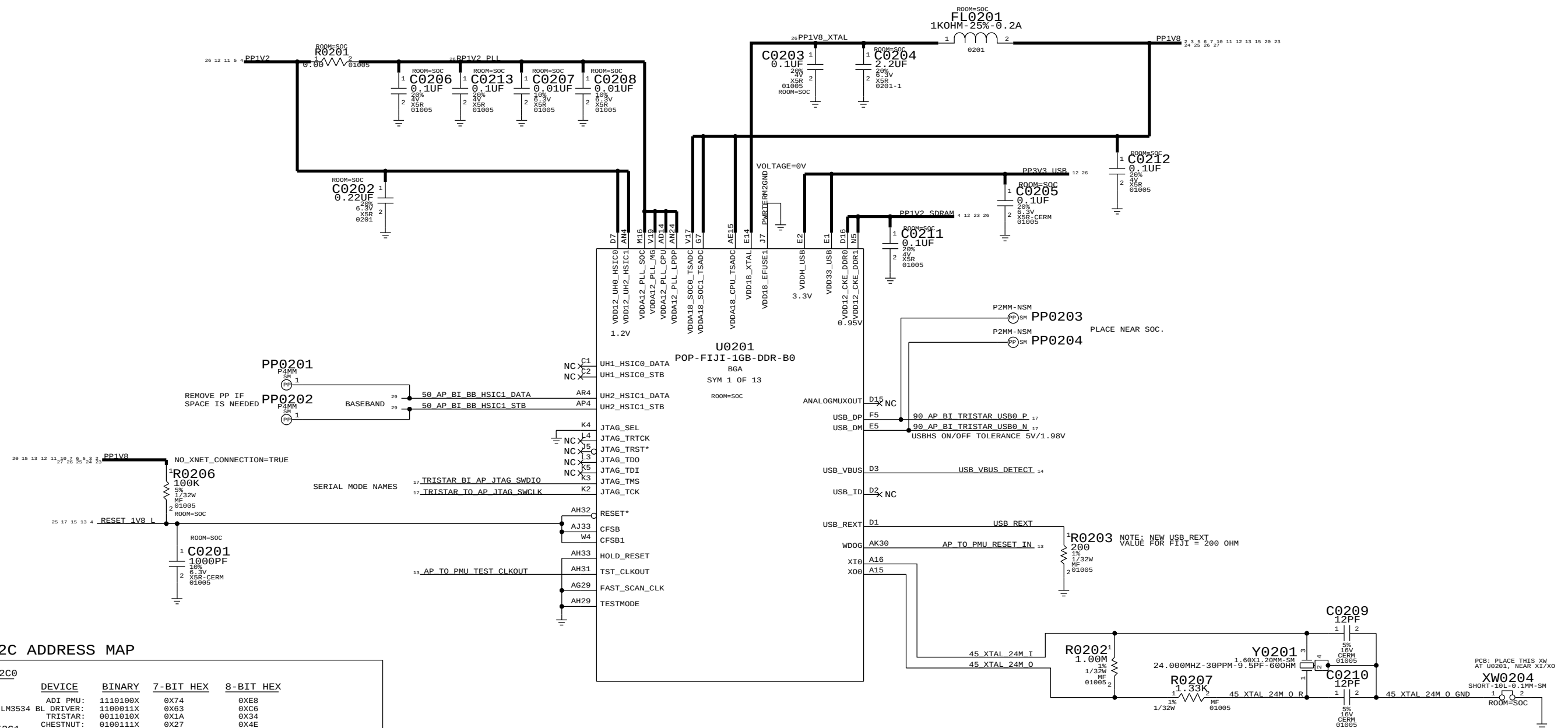
PART#	QTY	DESCRIPTION	REFERENCE DESIGNATOR(S)	CRITICAL	BOM OPTION
051-9903	1	SCH, MLB, N61	SCH	CRITICAL	?
820-3486	1	PCBF, MLB, N61	PCB	CRITICAL	?
825-6838	1	EEEE FOR 639-4237 16GB	EEEE_G16T	CRITICAL	EEEE_16G
825-6838	1	EEEE FOR 639-5838 32GB	EEEE_G16R	CRITICAL	EEEE_32G
825-6838	1	EEEE FOR 639-5839 64GB	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_FQK0	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	338S1262	ALTERNATE	U1601	L21 SPKAMP
152S2034	152S2033	ALTERNATE	L1209, L1211, L1213	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
343S0668	343S0638	ALTERNATE	U2401	CUMULUS C1, FAB4
138S00005	138S00003	ALTERNATE	C1290	15UF, 0402, HRTZL CAP
155S00011	155S00008	ALTERNATE	L1135	CMC, 90OHM, MURATA
377S0168	377S0140	ALTERNATE	0Z1113	SUPPL TRANS, VARISTOR, AMOTECH
155S0805	155S0610	ALTERNATE	FL1802, FL1803	FERR BD, 1500HM, 200MA, 01005
138S0648	138S0652	ALTERNATE	C1018	CAP, 4.7UF, 20%, 6.3V, 0402, H10, 65MM
138S0657	138S0702	ALTERNATE	C1106	CAP, 4.3UF, 20%, 4V, 0610
338S00028	338S00017	ALTERNATE	U2203	CARBON, BOSCH, BM1162BC
338S00029	338S00017	ALTERNATE	U2203	CARBON, ST, AP60S2AA
335S00013	335S0894	ALTERNATE	J0301	ST 8K EEPROM

DRAWING TITLE			
SCHEM, MLB, N61			
 Apple Inc.	DRAWING NUMBER	051-9903	SIZE D
	REVISION	7.0.0	
NOTICE OF PROPRIETARY PROPERTY: THE INFORMATION CONTAINED HEREIN IS THE PROPRIETARY PROPERTY OF APPLE INC. THE POSSESSOR AGREES TO THE FOLLOWING: I TO MAINTAIN THIS DOCUMENT IN CONFIDENCE II NOT TO REPRODUCE OR COPY IT III NOT TO REVEAL OR PUBLISH IT IN WHOLE OR PART IV ALL RIGHTS RESERVED		BRANCH	
		PAGE	1 OF 55
		SHEET	1 OF 54

FIJI: JTAG, USB, HSIC, XTAL



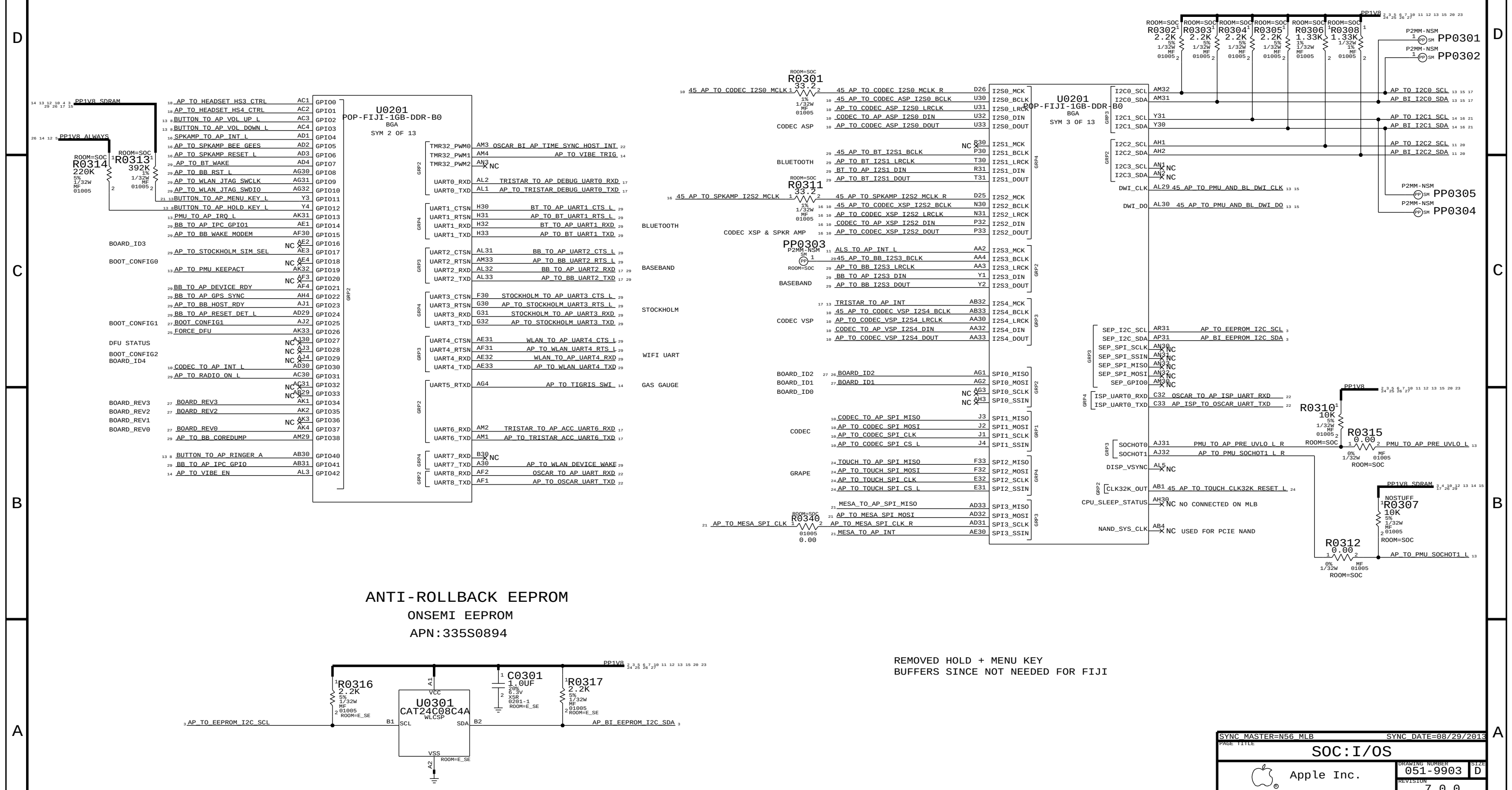
I2C ADDRESS MAP

<u>I2C0</u>	<u>DEVICE</u>	<u>BINARY</u>	<u>7-BIT HEX</u>	<u>8-BIT HEX</u>
	ADI PMU:	1110100X	0X74	0XE8
	LM3534 BL DRIVER:	1100011X	0X63	0XC6
	TR1STAR:	0011010X	0X1A	0X34
	CHESTNUT:	0100111X	0X27	0X4E
<u>I2C1</u>				
	TIGRIS CHARGER:	1110101X	0X75	0XE A
	LINEAR VIBE:	1011010X	0X5A	0XB4
	CS35L19B AMP:	1000000X	0X40	0XB8
MESA EEPROM (MEMORY):		1011110X	0X56	0XAC
MESA EEPROM (ID):		1011110X	0X5E	0XBC
<u>I2C2</u>				
	CT814 ALS:	0101001X	0X29	0X52
	DISPLAY EEPROM:	1010001X	0X51	0XA2
<u>RCAM I2C</u>				
	OPEL STROBE DRIVER:	1100011X	0X63	0XC6
	REAR FACING CAM:	0010000X	0X10	0X20
	VCM AF DRIVER:	0001100X	0X0C	0X18
<u>FCAM I2C</u>				
	FRONT FACING CAM:	0010000X	0X10	0X20

NOTE: ACCEL, GYRO, COMPASS ALL USING SPI (VIA OSCAR) FOR AP COMMUNICATION.

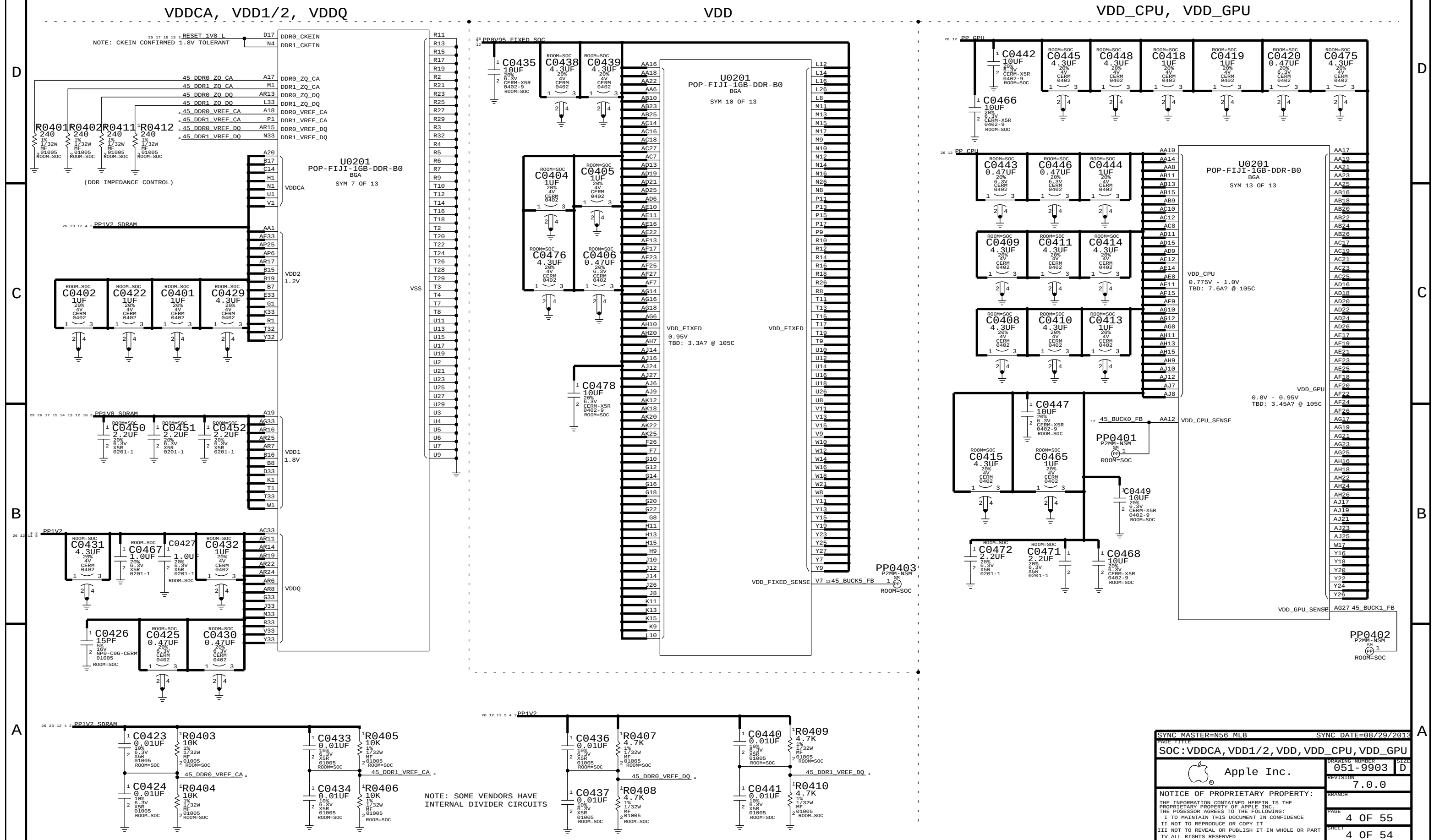
SYNC MASTER=N56 MLB		SYNC DATE=08/29/2013	
PAGE TITLE			
SOC:MAIN			
 Apple Inc.		DRAWING NUMBER 051-9903	
		SIZE D	
		REVISION 4.0.0	
NOTICE OF PROPRIETARY PROPERTY:		BRANCH	
THE INFORMATION CONTAINED HEREIN IS THE PROPRIETARY PROPERTY OF APPLE INC. THE POSSESSOR AGREES TO THE FOLLOWING: I TO MAINTAIN THIS DOCUMENT IN CONFIDENCE I NOT TO REPRODUCE OR COPY IT I NOT TO REVEAL OR PUBLISH IT IN WHOLE OR PART I ALL RIGHTS RESERVED		PAGE 2 OF 55	
		SHEET 2 OF 54	

FIJI: DIGITAL I/O, BOOTSTRAPPING



SYNC MASTER=N56 MLB		SYNC DATE=08/29/2013	
PAGE TITLE			
S0C:I/OS			
	Apple Inc.		DRAWING NUMBER 051-9903
			REVISOR 7.0.0
			SIZE D
NOTICE OF PROPRIETARY PROPERTY: THE INFORMATION CONTAINED HEREIN IS THE PROPRIETARY PROPERTY OF APPLE INC. THE POSSESSOR AGREES TO THE FOLLOWING: I TO MAINTAIN THIS DOCUMENT IN CONFIDENCE II NOT TO REPRODUCE OR COPY IT III NOT TO REVEAL OR PUBLISH IT IN WHOLE OR PART IV ALL RIGHTS RESERVED			
		BRANCH 	PAGE 3 OF 55
		SHEET 3 OF 54	

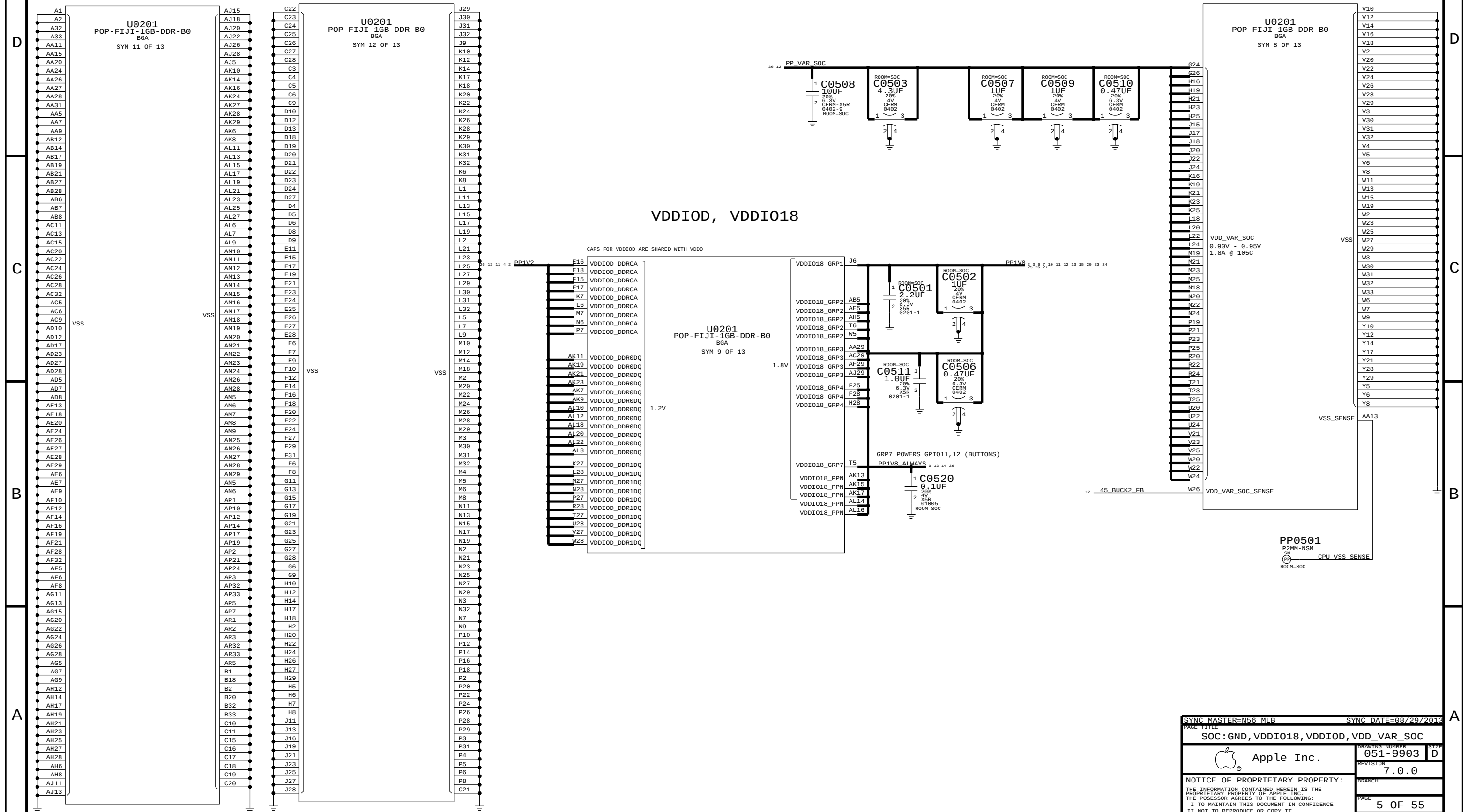
FIJI: VDDCA, VDD1/2, VDDQ, VDD, VDD_FIXED, VDD_CPU, VDD_GPU



FIJI: VDDIOD, VDDIO18, VDD_VAR_SOC

JUST A FEW GNDS

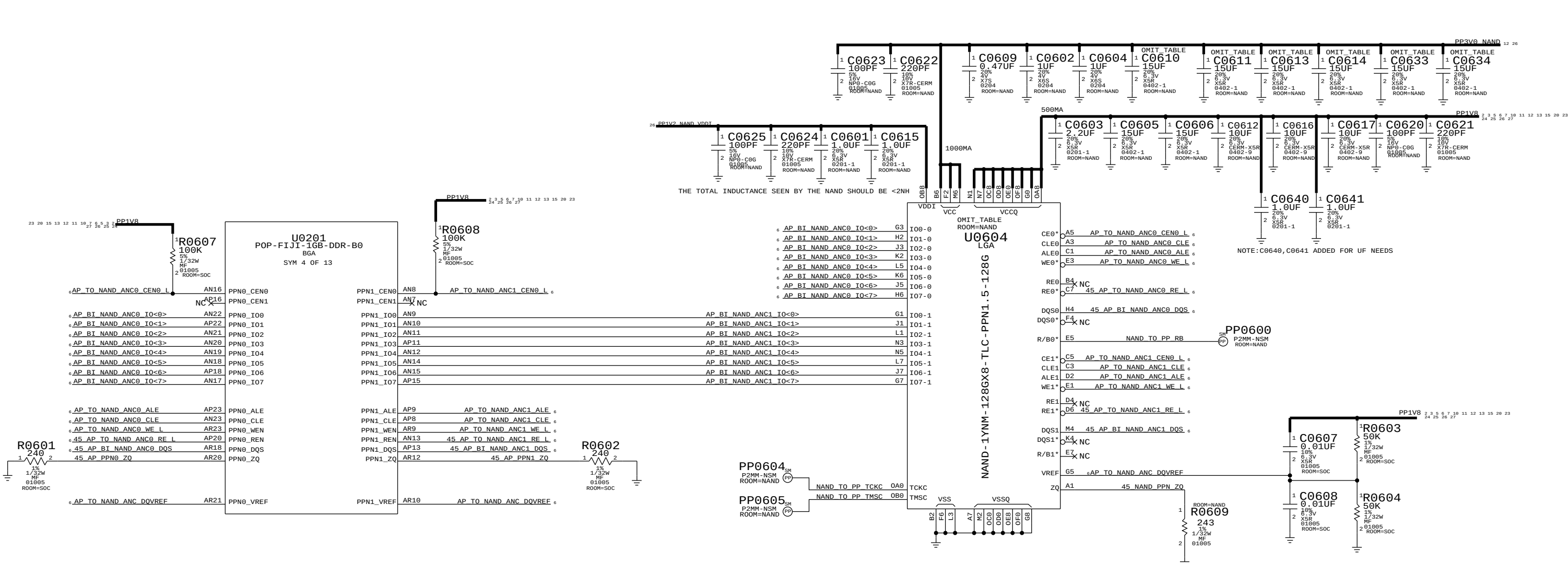
VDD_SRAM, VDD_SOC



SYNC MASTER=N56 MLB		SYNC DATE=08/29/2013	
PAGE TITLE		SOC: GND, VDDIO18, VDDIOD, VDD_VAR_SOC	
		DRAWING NUMBER	051-9903
		REVISION	7.0.0
NOTICE OF PROPRIETARY PROPERTY: THE INFORMATION CONTAINED HEREIN IS THE PROPRIETARY PROPERTY OF APPLE INC. THE POSSESSOR AGREES TO THE FOLLOWING: I TO MAINTAIN THIS DOCUMENT IN CONFIDENCE II NOT TO REPRODUCE OR COPY IT III NOT TO REVEAL OR PUBLISH IT IN WHOLE OR PART IV ALL RIGHTS RESERVED		BRANCH	
		PAGE	5 OF 55
		SHEET	5 OF 54

FIJI: NAND + 12X17 NAND PKG

SUPPORT FOR PPN1.5 (1.8V IO) ONLY

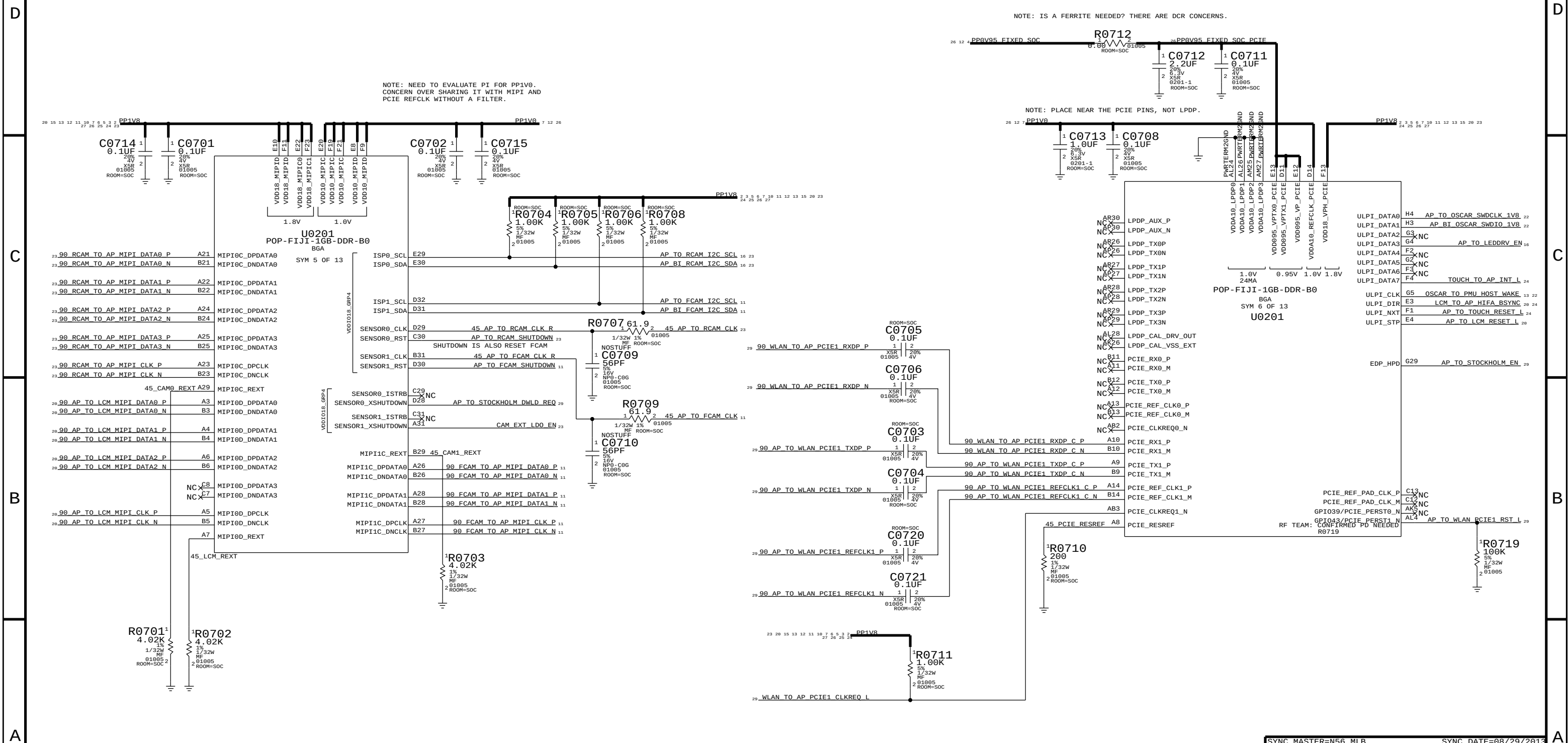


NOTE: NAND PADS SHOULD BE SHIELDED FROM TRACES WITH A GROUND PLANE

PP0601 P4MM ROOM=SOC 1 AP BI NAND ANC0 IO<6> 6
PP0602 P4MM ROOM=SOC 1 45 AP TO NAND ANC0 RE L 6
PP0603 P4MM ROOM=SOC 1 45 AP BI NAND ANC0 DQS 6

SYNC MASTER=N56 MLB		SYNC DATE=08/29/2013	
PAGE TITLE		SOC: NAND	
		DRAWING NUMBER	051-9903
		REVISION	7.0.0
NOTICE OF PROPRIETARY PROPERTY: THE INFORMATION CONTAINED HEREIN IS THE PROPRIETARY PROPERTY OF APPLE INC. THE POSSESSOR AGREES TO THE FOLLOWING: I TO MAINTAIN THIS DOCUMENT IN CONFIDENCE II NOT TO REPRODUCE OR COPY IT III NOT TO REVEAL OR PUBLISH IT IN WHOLE OR PART IV ALL RIGHTS RESERVED		BRANCH	
		PAGE	6 OF 55
		SHEET	6 OF 54

FIJI: HIGH SPEED DIG (CAM, LCD, LPDP, PCIE)

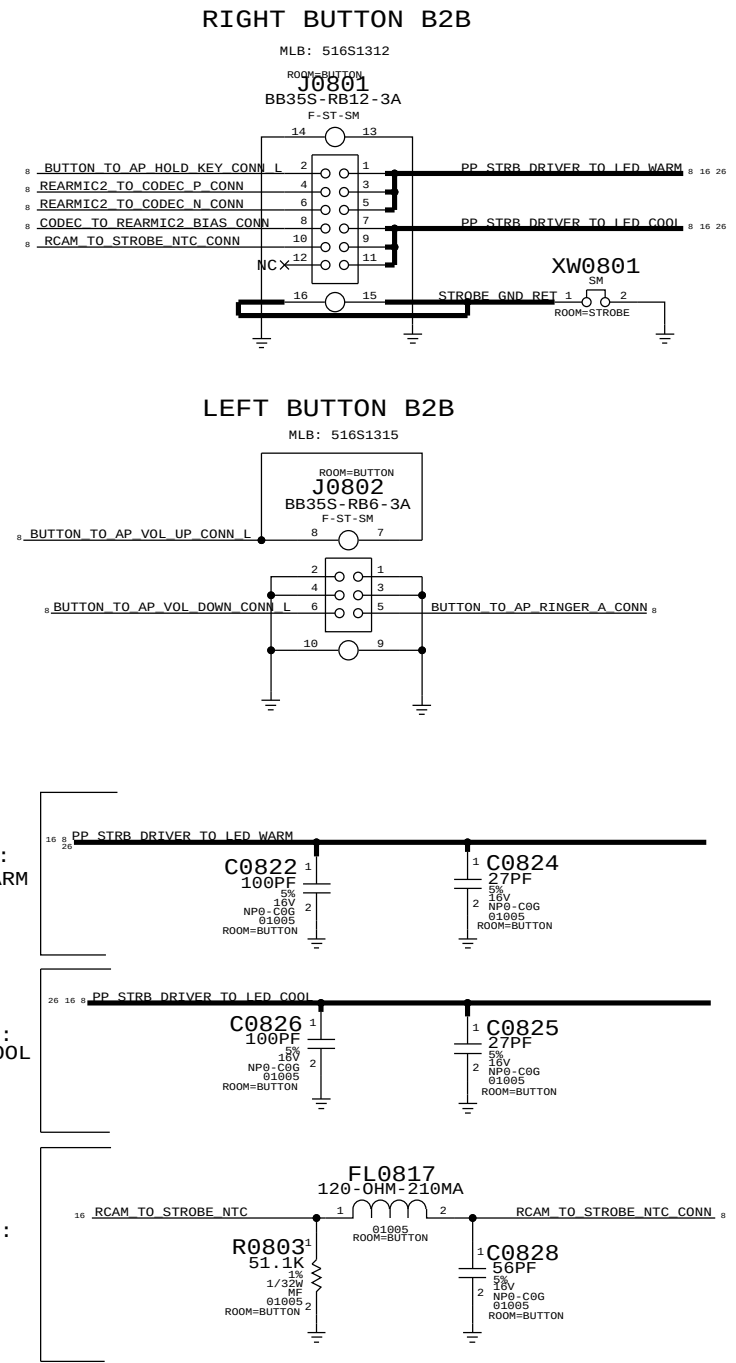
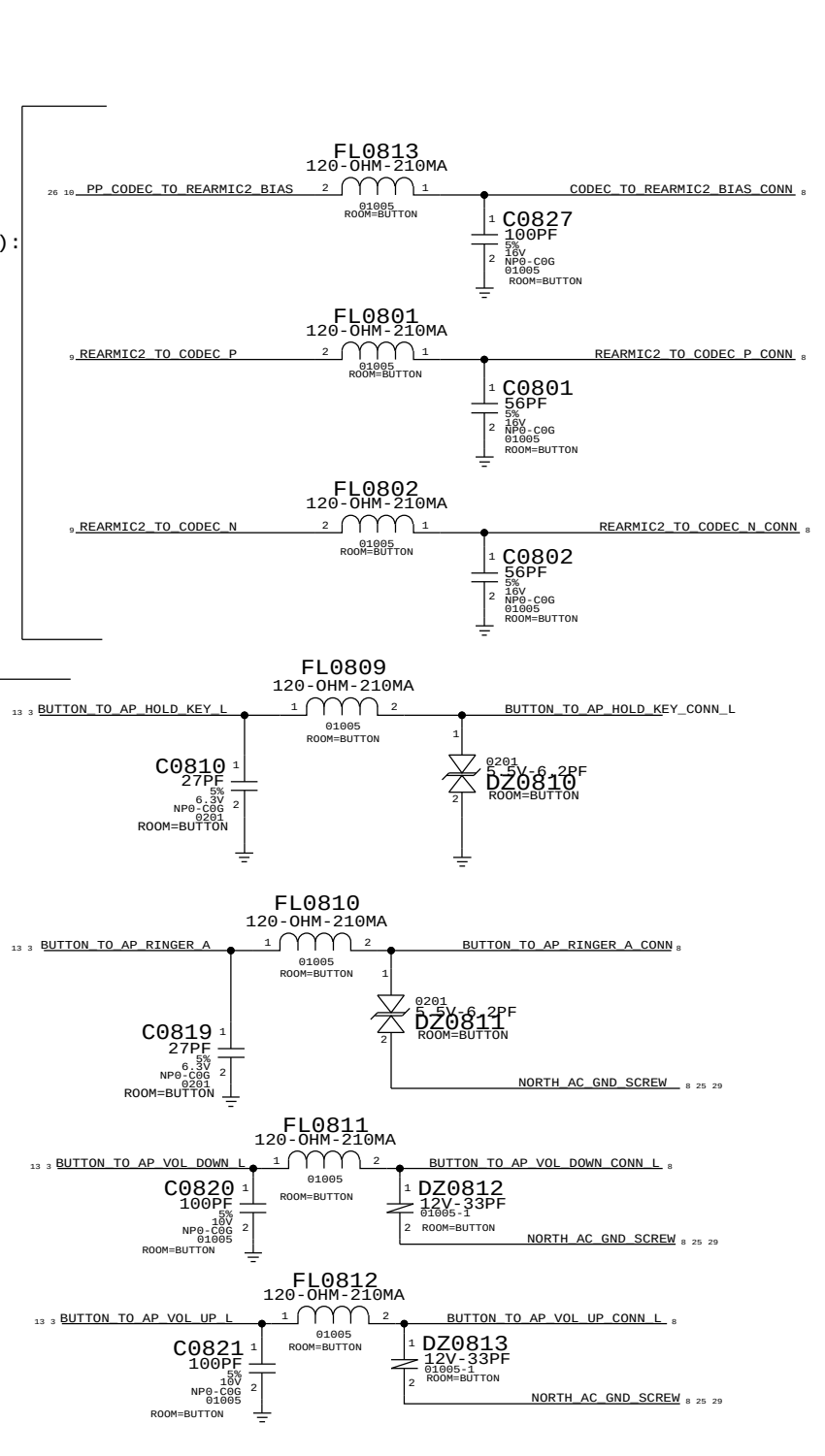


SYNCH MASTER=N56 MLB		SYNCH DATE=08/29/2013	
PAGE TITLE			
SOC:CAM, LCD, LPDP, PCIE			
 Apple Inc.	DRAWING NUMBER	SIZE	
	051-9903	D	
	REVISION	7.0.0	
NOTICE OF PROPRIETARY PROPERTY:		BRANCH	
THE INFORMATION CONTAINED HEREIN IS THE PROPRIETARY PROPERTY OF APPLE INC. THE POSSESSOR AGREES TO THE FOLLOWING: I TO MAINTAIN THIS DOCUMENT IN CONFIDENCE II NOT TO REPRODUCE OR COPY IT III NOT TO REVEAL OR PUBLISH IT IN WHOLE OR PART IV ALL RIGHTS RESERVED		PAGE	
		7 OF 55	
		SHEET	
		7 OF 54	

BUTTON FLEX (BUTTONS, ANC REF MIC, STROBE, STROBE_NTC, WIFI FLEX PAC)

MIC2 (ANC REF MIC):
MIC2/4 BIAS,
MIC2_P,_N

BUTTONS:
RINGER, HOLD,
VOL_UP/DOWN,

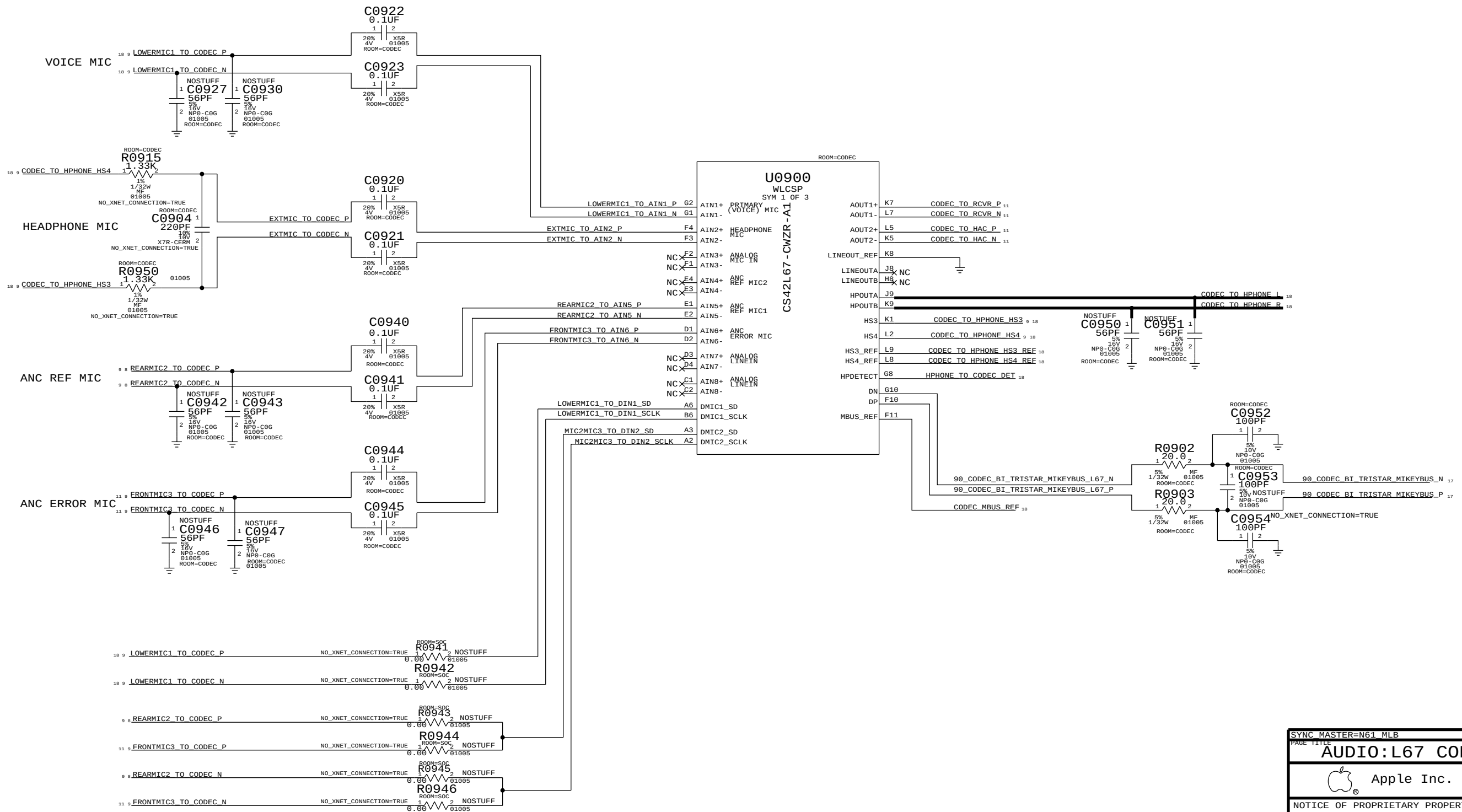


SYNC MASTER=N61 MLB		SYNC DATE=08/26/2013	
PAGE TITLE			
IO:BUTTON FLEX CONN			
 Apple Inc.		DRAWING NUMBER	051-9903
NOTICE OF PROPRIETARY PROPERTY: THE INFORMATION CONTAINED HEREIN IS THE PROPRIETARY PROPERTY OF APPLE INC. THE POSSESSOR AGREES TO THE FOLLOWING: I TO MAINTAIN THIS DOCUMENT IN CONFIDENCE II NOT TO REPRODUCE OR COPY IT III NOT TO REVEAL OR PUBLISH IT IN WHOLE OR PART IV ALL RIGHTS RESERVED		REVISION	7.0.0
		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)



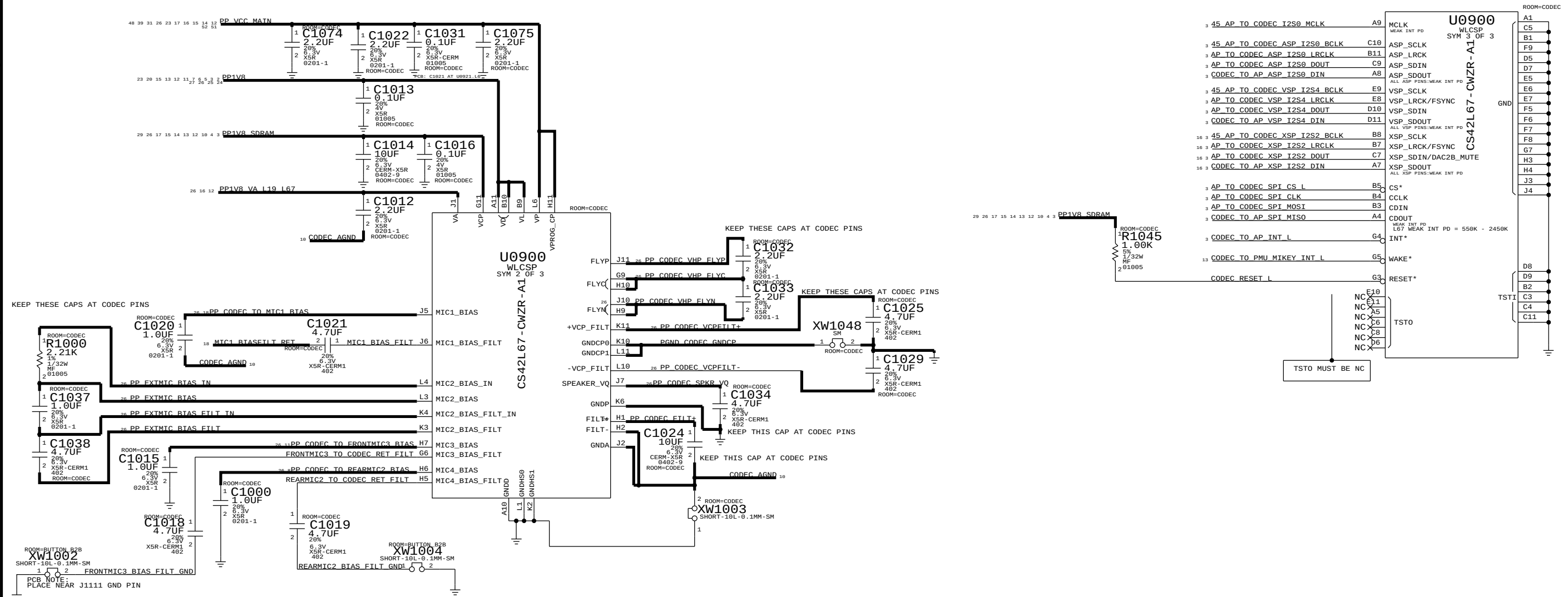
SYNC MASTER=N61 MLB		SYNC DATE=08/26/2013	
PAGE TITLE		AUDIO:L67 CODEC (1/2)	
Apple Inc.		DRAWING NUMBER	051-9903
		REVISION	7.0.0
NOTICE OF PROPRIETARY PROPERTY:		BRANCH	
THE INFORMATION CONTAINED HEREIN IS THE PROPRIETARY PROPERTY OF APPLE INC. THE POSSESSOR AGREES TO THE FOLLOWING:		PAGE	9 OF 55
I TO MAINTAIN THIS DOCUMENT IN CONFIDENCE		SHEET	9 OF 54
II NOT TO REPRODUCE OR COPY IT			
III NOT TO REVEAL OR PUBLISH IT IN WHOLE OR PART			
IV ALL RIGHTS RESERVED			

L67 AUDIO CODEC

POWER, MICBIAS

DIGITAL SYSTEM I/O

NOTE: C1022 WAS REDUCED TO 2.2UF BECAUSE OF
ADDITIONAL NEARBY VCC MAIN CAPS



SYNC MASTER=N61 MLB		SYNC DATE=08/26/2013	
PAGE TITLE			
AUDIO:L67 CODEC (2/2)			
 Apple Inc.		DRAWING NUMBER	SIZE
		051-9903	D
NOTICE OF PROPRIETARY PROPERTY: THE INFORMATION CONTAINED HEREIN IS THE PROPRIETARY PROPERTY OF APPLE INC. THE POSSESSOR AGREES TO THE FOLLOWING: I TO MAINTAIN THIS DOCUMENT IN CONFIDENCE I/ NOT TO REPRODUCE OR COPY IT I/ NOT TO REVEAL OR PUBLISH IT IN WHOLE OR PART I/ ALL RIGHTS RESERVED		REVISION	
			7.0.0
		BRANCH	
		PAGE	10 OF 55
		SHEET	
			10 OF 54

FRONT CAM FLEX B2B

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

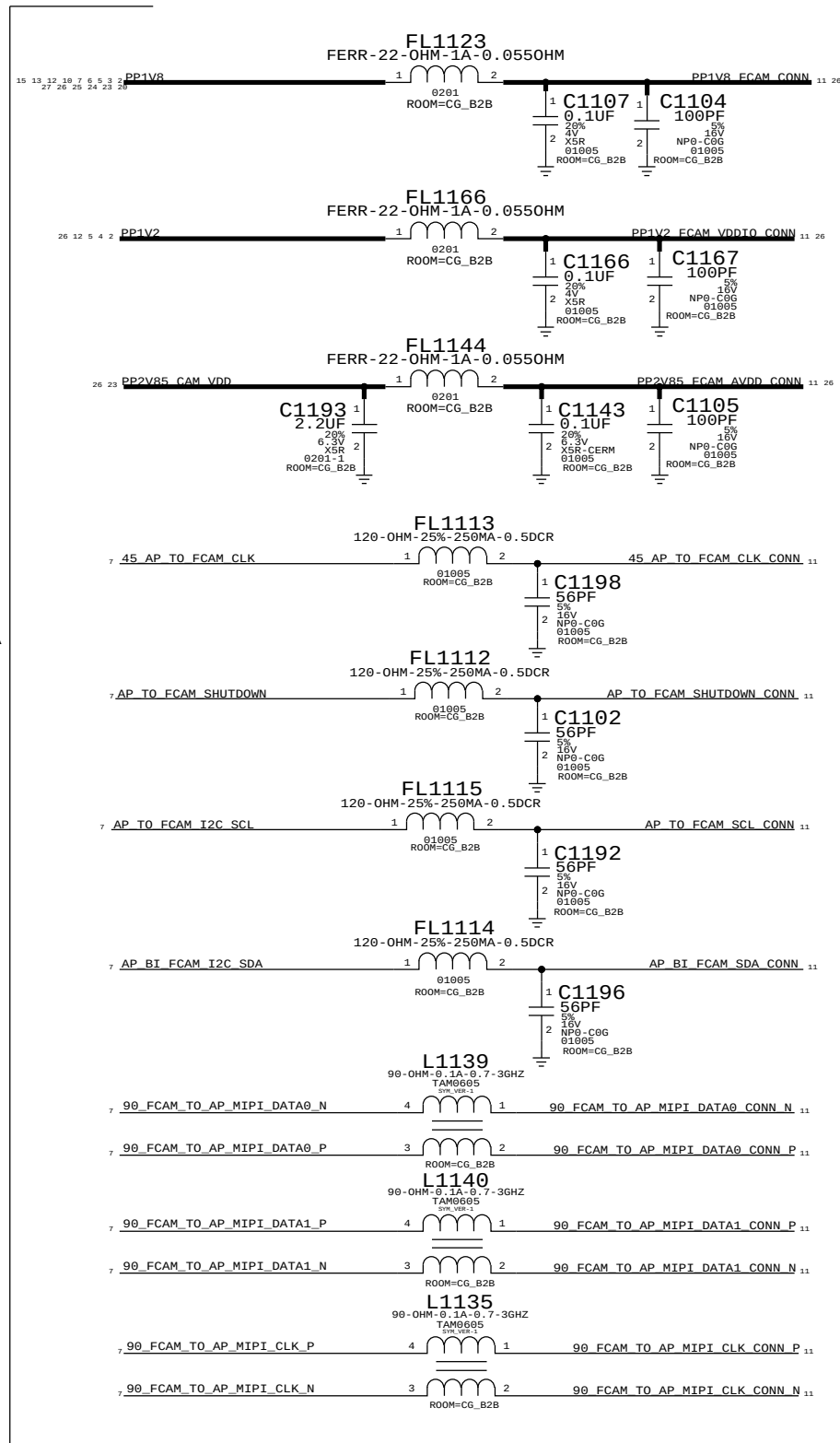
D

C

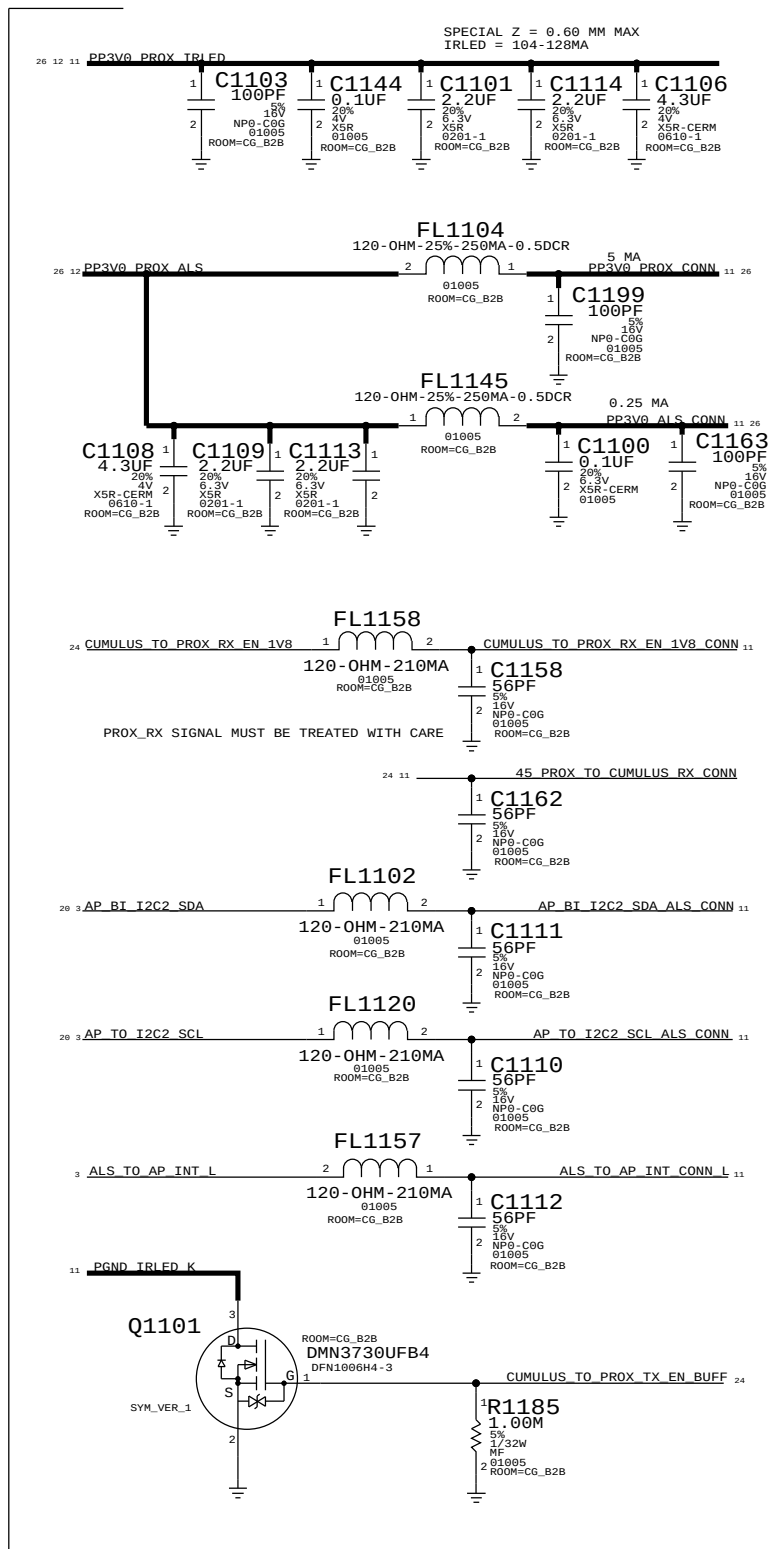
CAMERA

B

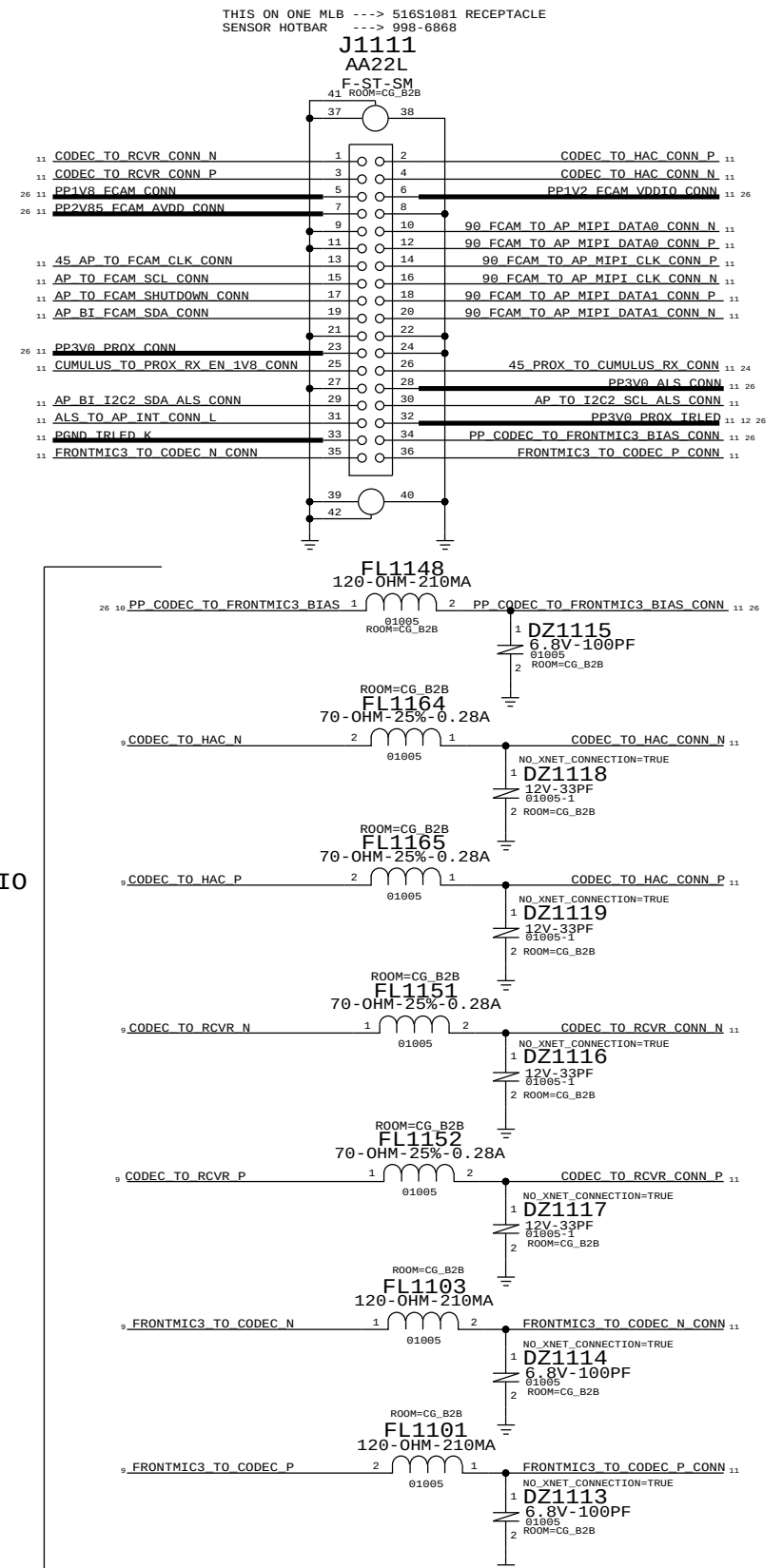
A



ALS,
PROX



AUDIO

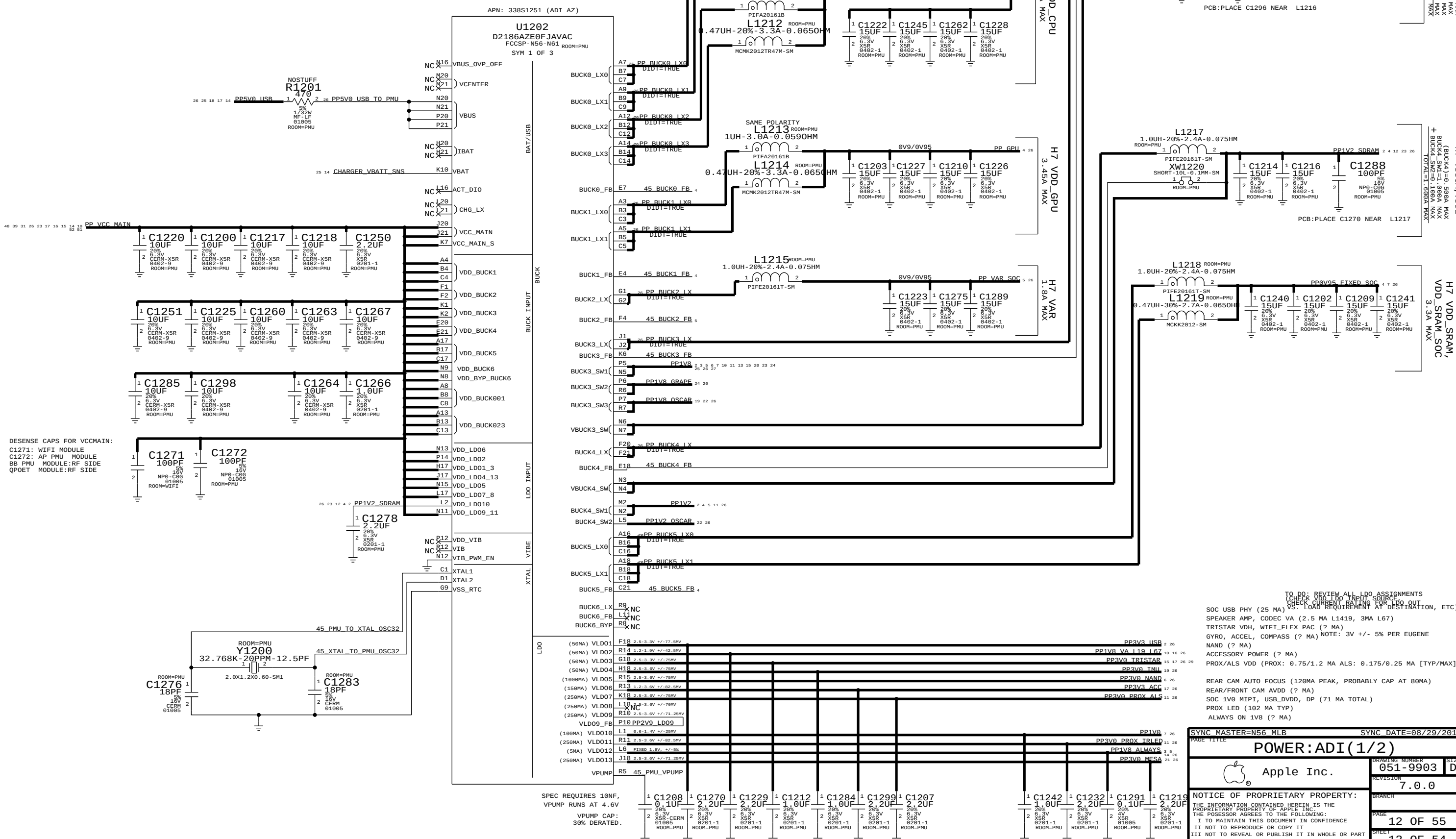


SYNC MASTER=N61 MLB		SYNC DATE=08/26/2013	
PAGE 11			
CAMERA:FRONT FLEX CONN			
 Apple Inc.		DRAWING NUMBER	051-9903
		REVISION	7.0.0
NOTICE OF PROPRIETARY PROPERTY:		BRANCH	
THE INFORMATION CONTAINED HEREIN IS THE PROPRIETARY PROPERTY OF APPLE INC. THE POSSESSOR AGREES TO THE FOLLOWING:		PAGE	11 OF 55
I TO MAINTAIN THIS DOCUMENT IN CONFIDENCE		SHEET	11 OF 54
II NOT TO REPRODUCE OR COPY IT			
III NOT TO REVEAL OR PUBLISH IT IN WHOLE OR PART			
IV ALL RIGHTS RESERVED			

ADI PMU

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

D
C
B
A



TO DO: REVIEW ALL LDO ASSIGNMENTS
(CHECK VDD LDO INPUT SOURCE)
VS - LOAD REQUIREMENT AT DESTINATION, ETC)
SPEAKER AMP, CODEC VA (2.5 MA L1419, 3MA L67)
TRISTAR VDH, WIFI_FLEX PAC (? MA)
GYRO, ACCEL, COMPASS (? MA) NOTE: 3V +/- 5% PER EUGENE
NAND (? MA)
ACCESSORY POWER (? MA)
PROX/ALS VDD (PROX: 0.75/1.2 MA ALS: 0.175/0.25 MA [TYP/MAX])

REAR CAM AUTO FOCUS (120MA PEAK, PROBABLY CAP AT 80MA)
REAR/FRONT CAM AVDD (? MA)
SOC IVO MIPI, USB_DVDD, DP (71 MA TOTAL)
PROX LED (102 MA TYP)
ALWAYS ON 1V8 (? MA)

PAGE TITLE		PAGE 1	
POWER:ADI (1/2)		DRAWING NUMBER	
Apple Inc.		051-9903	
REVISION		7.0.0	
NOTICE OF PROPRIETARY PROPERTY:		BRANCH	
THE INFORMATION CONTAINED HEREIN IS THE		PAGE	
PROPRIETARY PROPERTY OF APPLE INC.		12 OF 55	
THE POSSESSOR AGREES TO THE FOLLOWING:		SHEET	
I TO MAINTAIN THIS DOCUMENT IN CONFIDENCE		12 OF 54	
II NOT TO REPRODUCE OR COPY IT			
III NOT TO REVEAL OR PUBLISH IT IN WHOLE OR PART			
IV ALL RIGHTS RESERVED			

ADI PMU

(AMUX, GPIO, BUTTONS, ADC, THERMISTORS, SYSTEM I/F, GND)

D

D

C

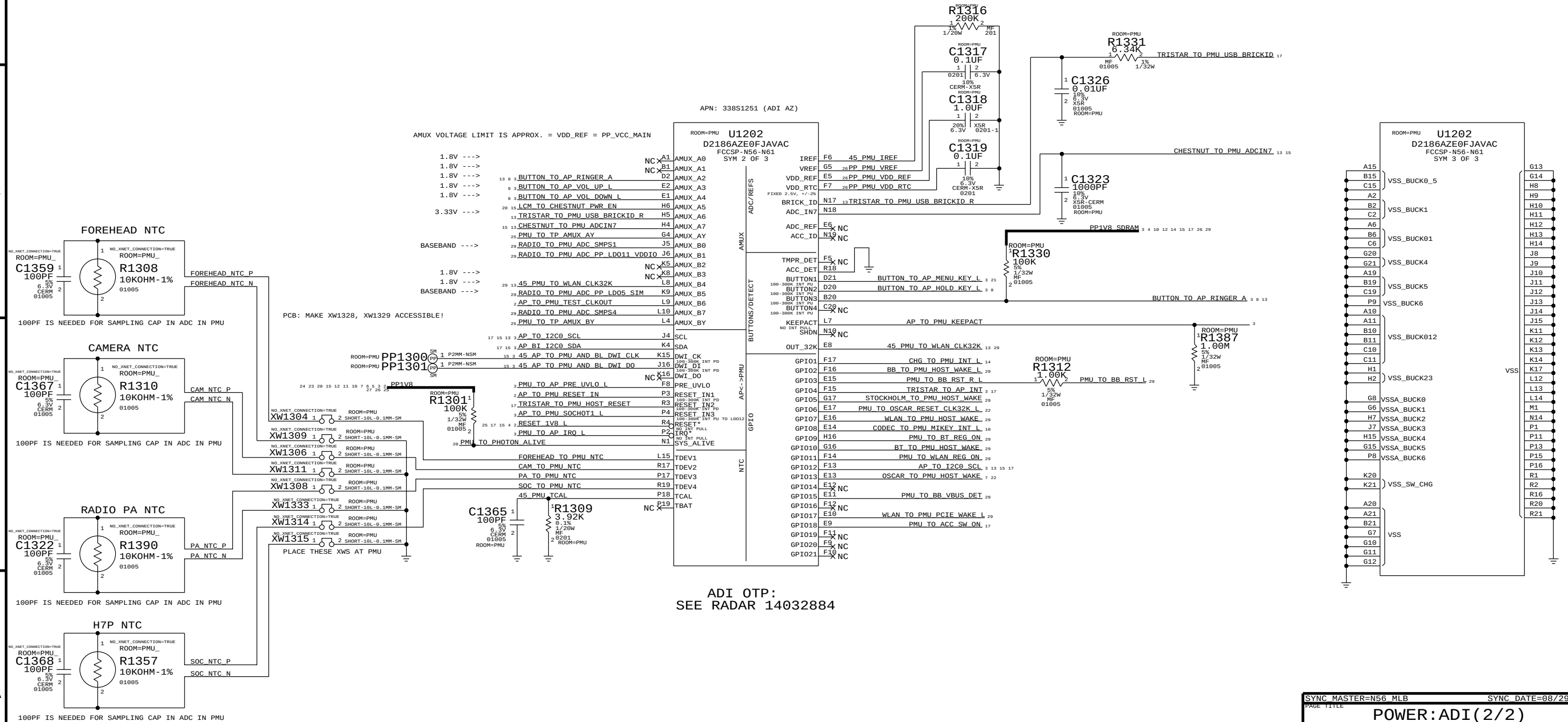
C

B

B

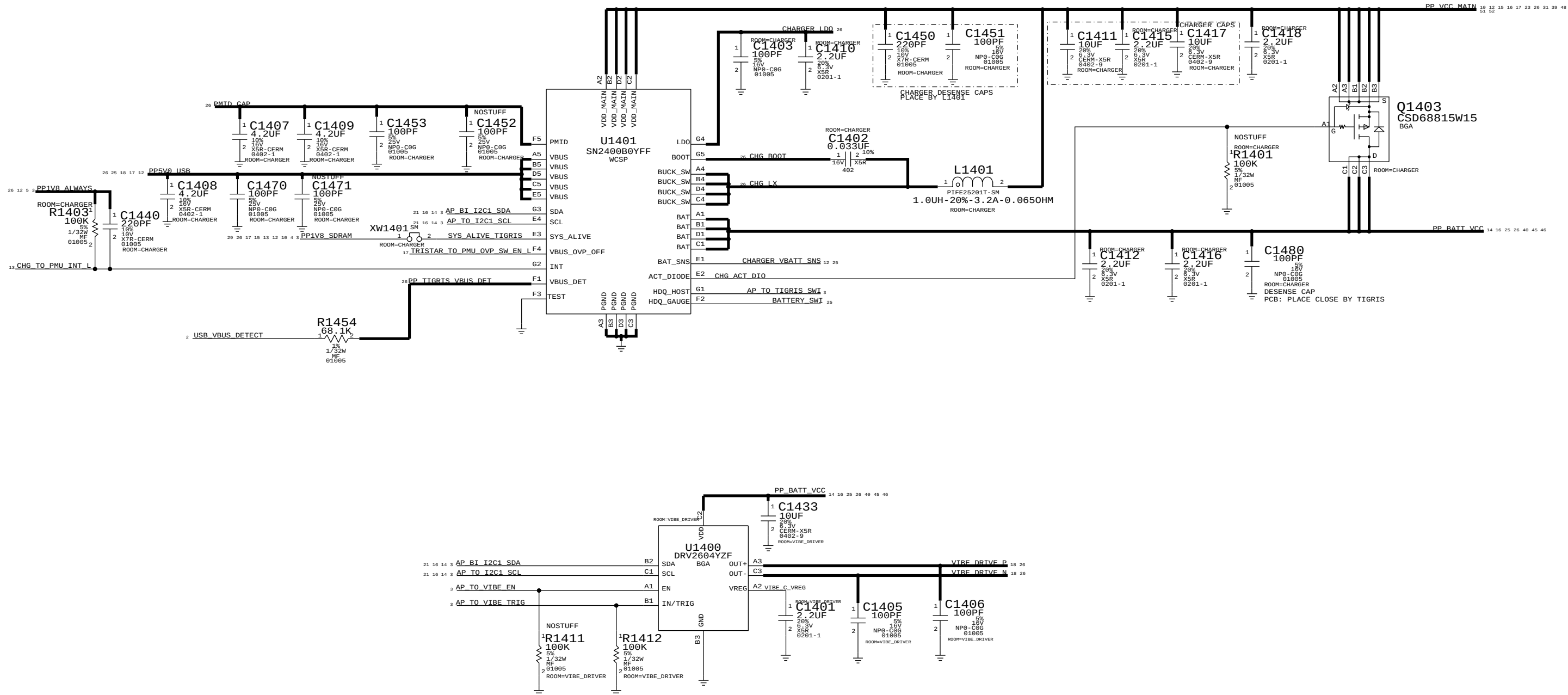
A

A



SYNC MASTER=N56 MLB		SYNC DATE=08/29/2013	
PAGE TITLE		POWER:ADI (2/2)	
 Apple Inc.		DRAWING NUMBER	051-9903
		REVISION	7.0.0
NOTICE OF PROPRIETARY PROPERTY:		BRANCH	
THE INFORMATION CONTAINED HEREIN IS THE PROPRIETARY PROPERTY OF APPLE INC. THE POSSESSOR AGREES TO THE FOLLOWING:		PAGE	13 OF 55
I TO MAINTAIN THIS DOCUMENT IN CONFIDENCE		SHEET	13 OF 54
II NOT TO REPRODUCE OR COPY IT			
III NOT TO REVEAL OR PUBLISH IT IN WHOLE OR PART			
IV ALL RIGHTS RESERVED			

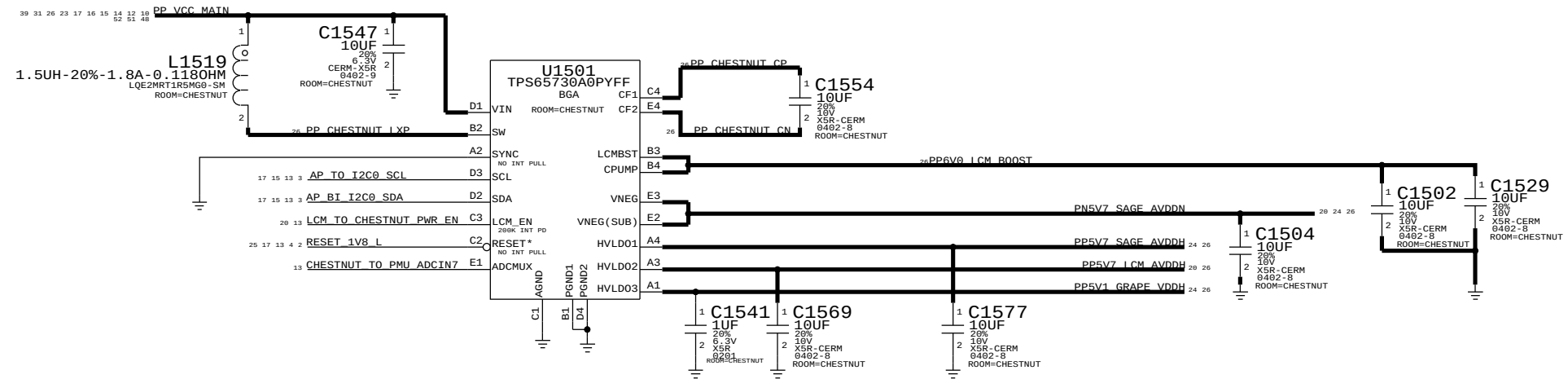
TIGRIS CHARGER & VIBE DRIVER



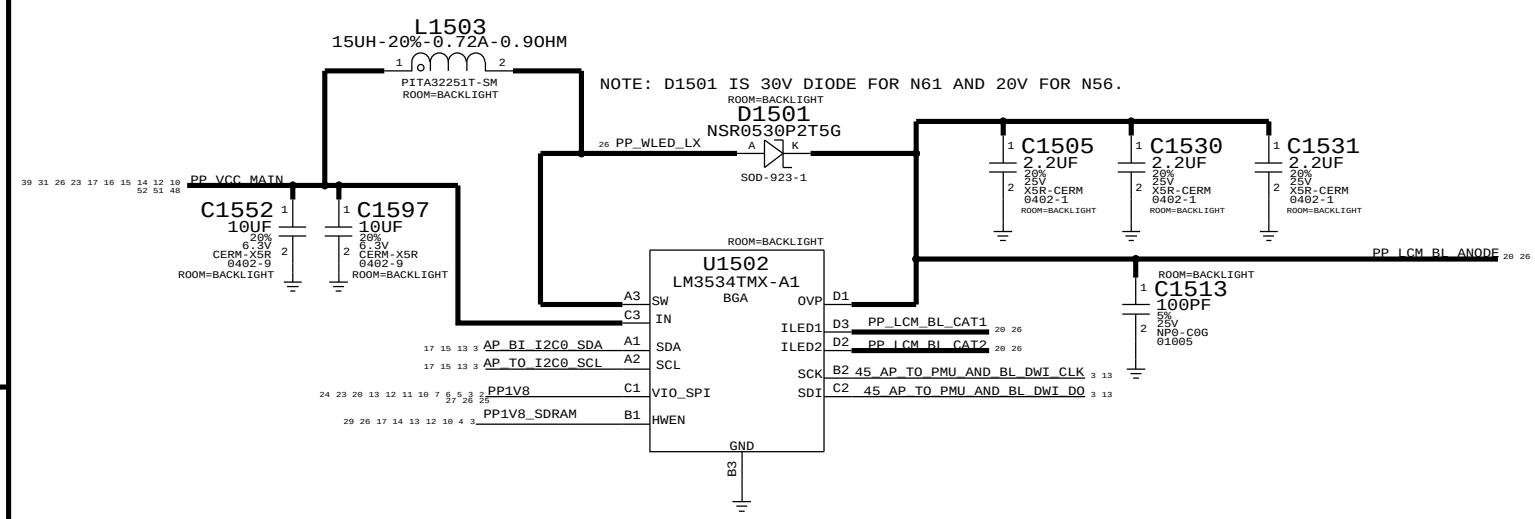
PAGE TITLE		
POWER:TIGRISR,VIBE DRIVER		
 Apple Inc.	DRAWING NUMBER	051-9903
	REVISION	7.0.0
NOTICE OF PROPRIETARY PROPERTY:		
THE INFORMATION CONTAINED HEREIN IS THE PROPRIETARY PROPERTY OF APPLE INC. THE POSSESSOR AGREES TO THE FOLLOWING:		
I TO MAINTAIN THIS DOCUMENT IN CONFIDENCE		
II NOT TO REPRODUCE OR COPY IT		
III NOT TO REVEAL OR PUBLISH IT IN WHOLE OR PART		
IV ALL RIGHTS RESERVED		
PAGE	14 OF 55	
SHEET	14 OF 54	

CHESTNUT, BACKLIGHT DRIVER, MESA BOOST

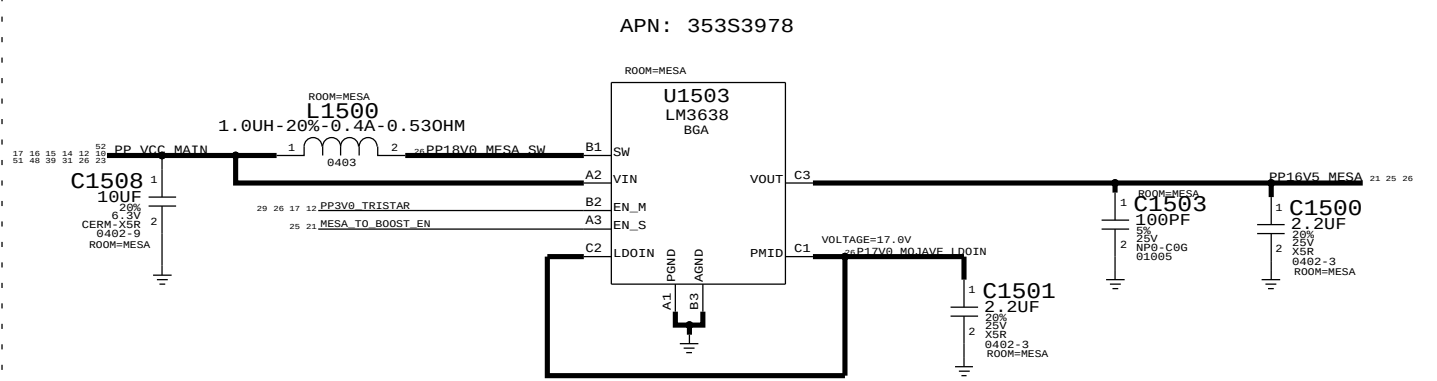
D500 DISPLAY PMU (TI CHESTNUT, 338S1149)



D500 BACKLIGHT DRIVER



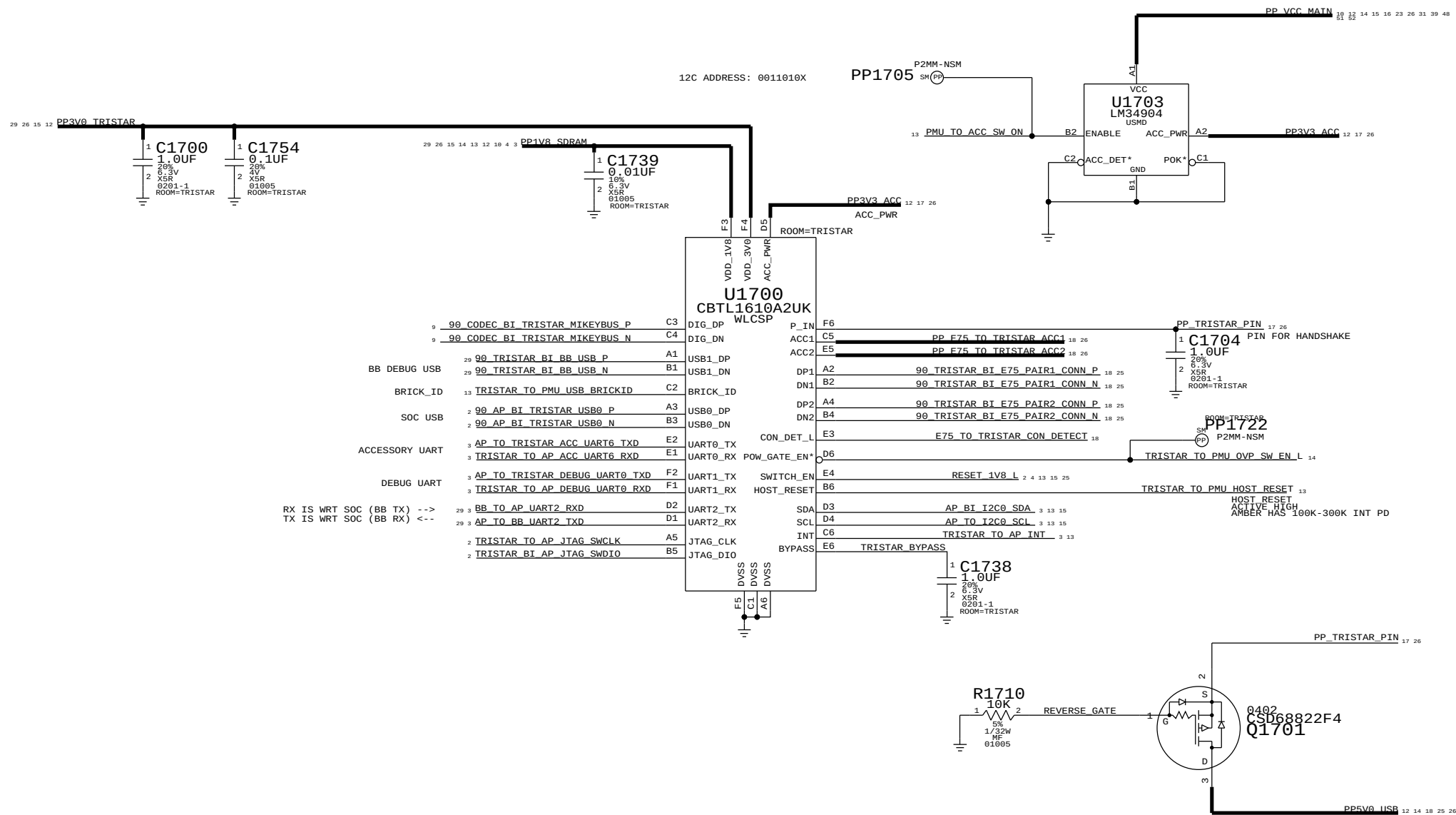
MESA BOOST A0



PAGE TITLE		PAGE TITLE	
DISPLAY:CHESTNUT, BACKLIGHT DRIVER		DRAWING NUMBER	
Apple Inc.		051-9903	
NOTICE OF PROPRIETARY PROPERTY:		REVISION	
THE INFORMATION CONTAINED HEREIN IS THE PROPRIETARY PROPERTY OF APPLE INC. THE POSSESSOR AGREES TO THE FOLLOWING:		7.0.0	
I TO MAINTAIN THIS DOCUMENT IN CONFIDENCE		BRANCH	
II NOT TO REPRODUCE OR COPY IT		PAGE	
III NOT TO REVEAL OR PUBLISH IT IN WHOLE OR PART		15 OF 55	
IV ALL RIGHTS RESERVED		SHEET	
		15 OF 54	

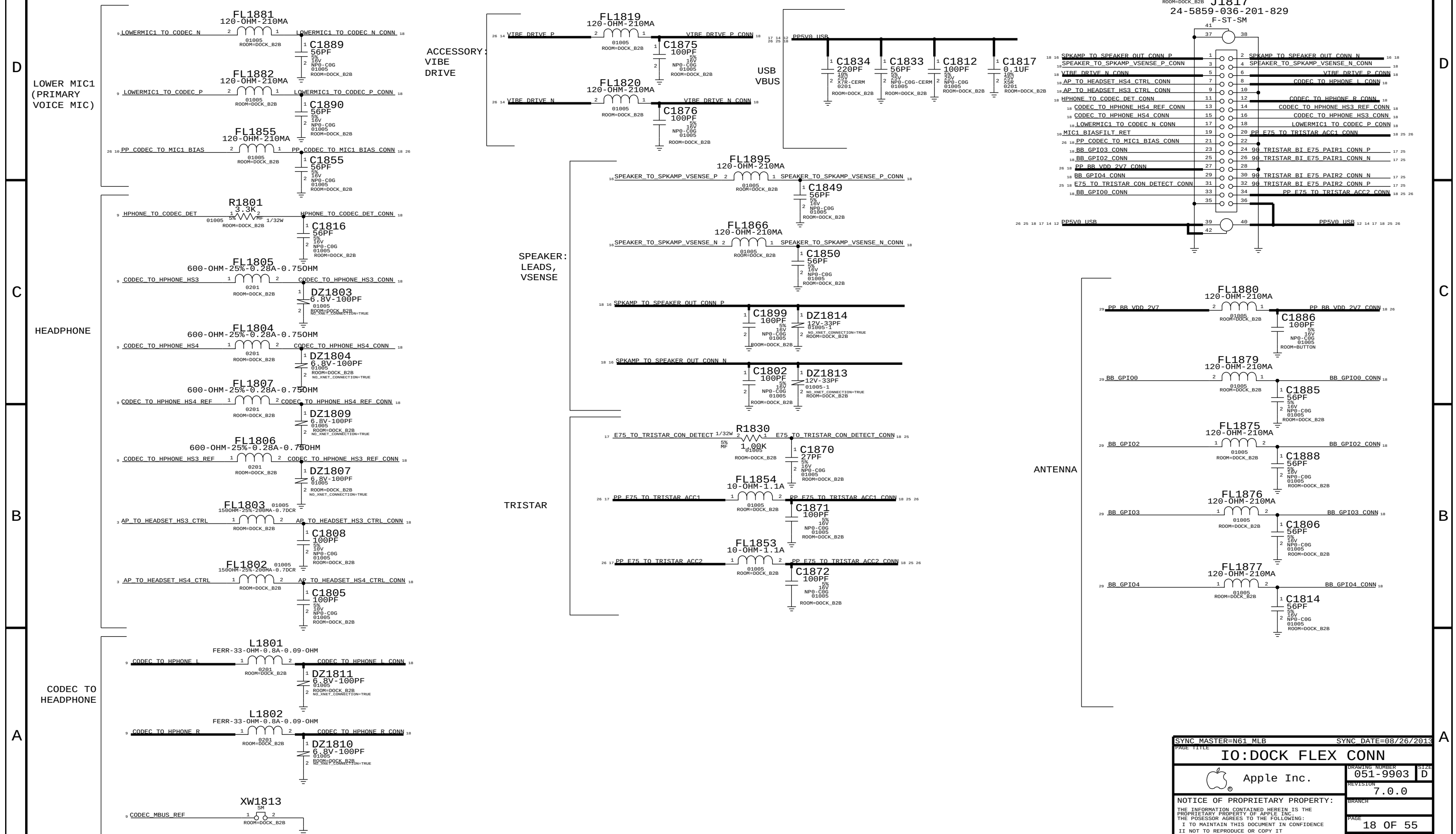
SYNCH MASTER=N61 MLB		SYNCH DATE=08/26/2013	
PAGE 11			
AUDIO:SPKR AMP, STROBE			
 Apple Inc.		DRAWING NUMBER 051-9903	
		REVISION 7.0.0	
NOTICE OF PROPRIETARY PROPERTY:		BRANCH	
THE INFORMATION CONTAINED HEREIN IS THE PROPRIETARY PROPERTY OF APPLE INC. THE POSSESSOR AGREES TO THE FOLLOWING: I TO MAINTAIN THIS DOCUMENT IN CONFIDENCE I NOT TO REPRODUCE OR COPY IT I NOT TO REVEAL OR PUBLISH IT IN WHOLE OR PART ALL RIGHTS RESERVED		PAGE 16 OF 55	
		SHEET 16 OF 54	

TRISTAR2



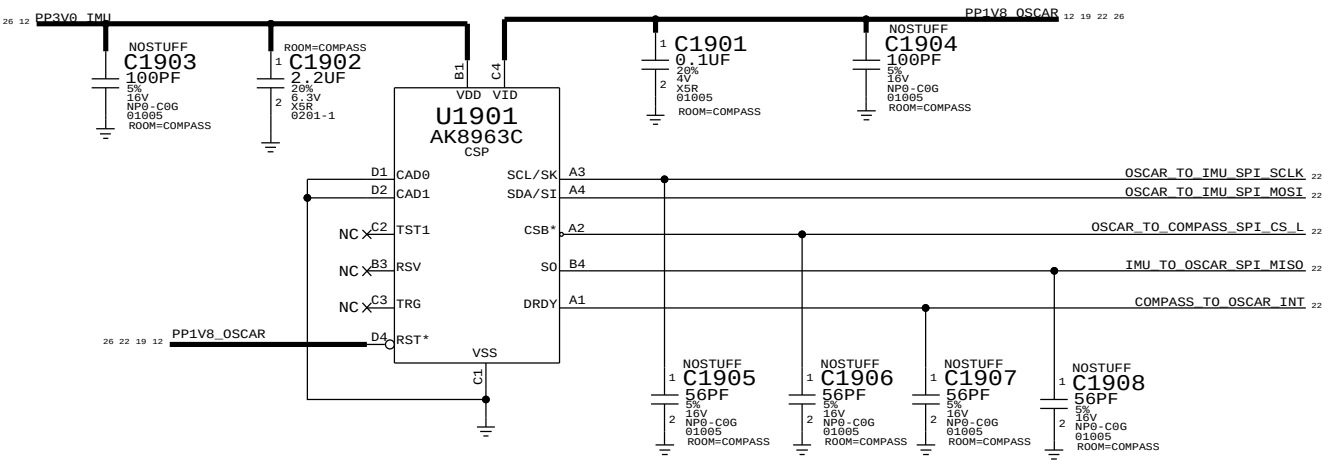
SYNC MASTER=N61 MLB		SYNC DATE=08/26/2013	
PAGE TITLE			
I0:TRISTAR2			
 Apple Inc.		DRAWING NUMBER	051-9903
		SIZE	D
NOTICE OF PROPRIETARY PROPERTY: THE INFORMATION CONTAINED HEREIN IS THE PROPRIETARY PROPERTY OF APPLE INC. THE POSSESSOR AGREES TO THE FOLLOWING: I TO MAINTAIN THIS DOCUMENT IN CONFIDENCE II NOT TO REPRODUCE OR COPY IT III NOT TO REVEAL OR PUBLISH IT IN WHOLE OR PART IV ALL RIGHTS RESERVED		REVISION	7.0.0
		BRANCH	
		PAGE	17 OF 55
		SHEET	17 OF 54

DOCKFLEX B2B (USB VBUS, SPEAKER, ANTENNA LAT SW CTRL, MIC1 (PRIMARY MIC), ACC DET/ID/PWR, E75 DIFFPAIRS)



COMPASS - AKM COMPASS IN POR LOCATION

COMPASS CSP: 338S1014

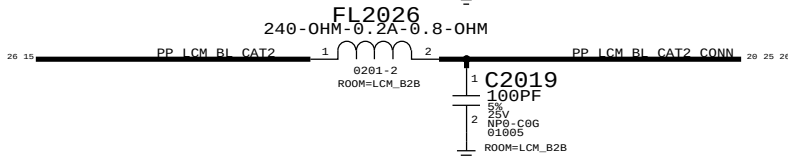
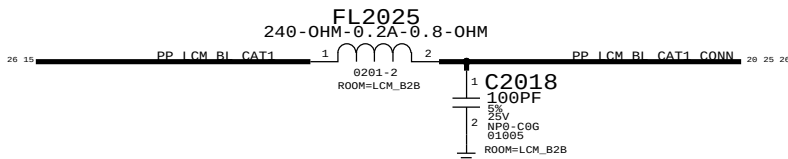
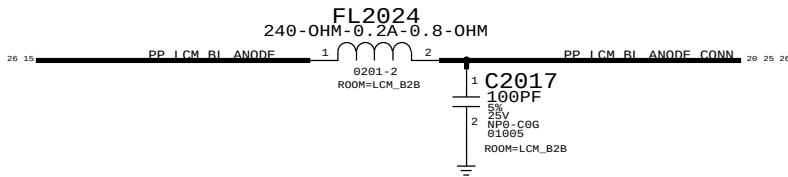


SYNC MASTER=N61 MLB		SYNC DATE=08/26/2013	
PAGE TITLE			
SENSORS : COMPASS			
 Apple Inc.		DRAWING NUMBER	051-9903
		REVISION	7.0.0
NOTICE OF PROPRIETARY PROPERTY: THE INFORMATION CONTAINED HEREIN IS THE PROPRIETARY PROPERTY OF APPLE INC. THE POSSESSOR AGREES TO THE FOLLOWING: I I TO MAINTAIN THIS DOCUMENT IN CONFIDENCE II NOT TO REPRODUCE OR COPY IT III NOT TO REVEAL OR PUBLISH IT IN WHOLE OR PART IV ALL RIGHTS RESERVED		BRANCH	
		PAGE	19 OF 55
		SHEET	19 OF 54

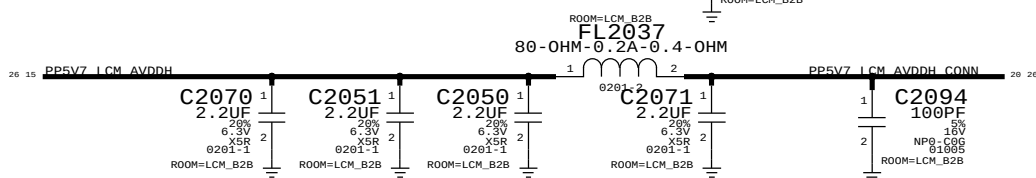
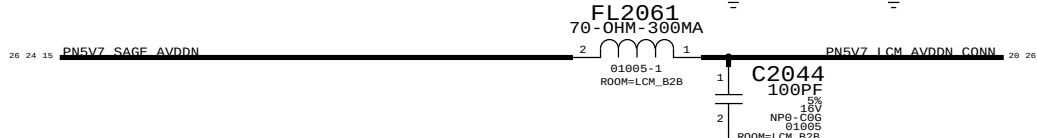
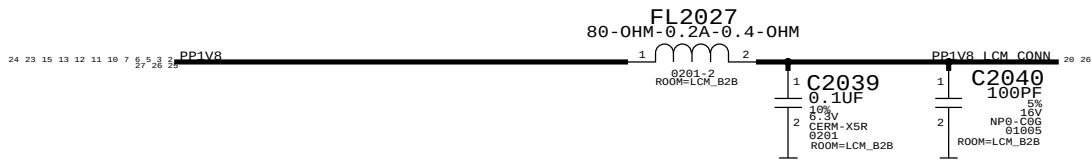
LCD B2B

Backlight

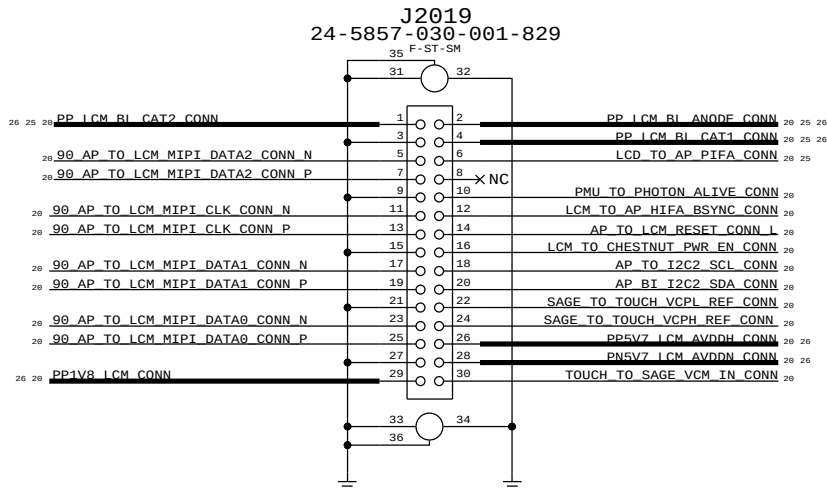
(N56 HAS A 2ND SET OF BL SIGNALS ON P. 19).



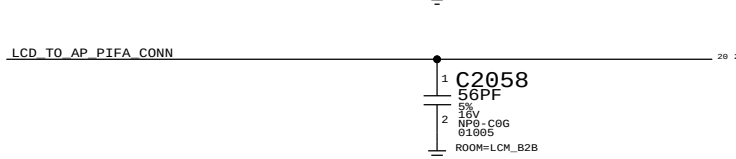
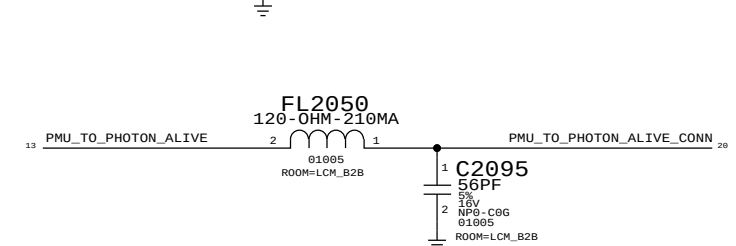
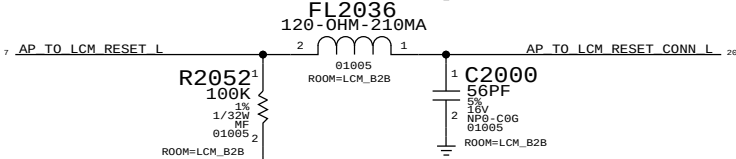
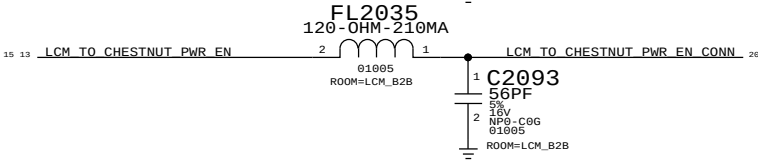
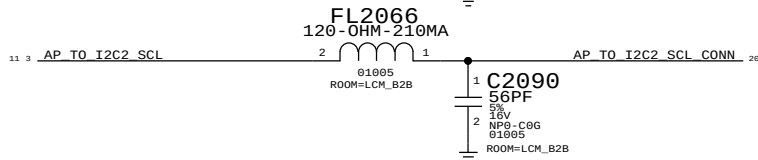
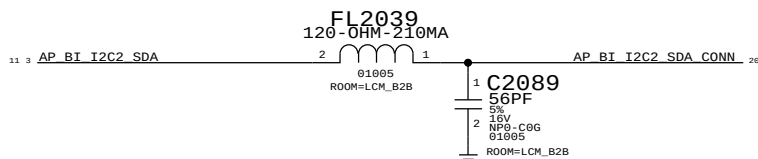
LCM Supplies



THIS ONE ON MLB ---> 516S1164

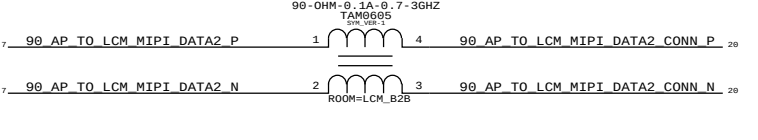
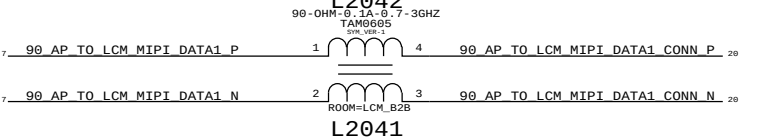
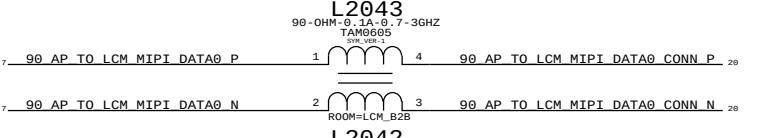
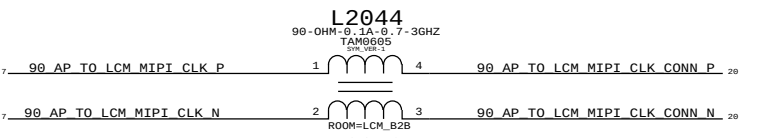


Digital Interfaces

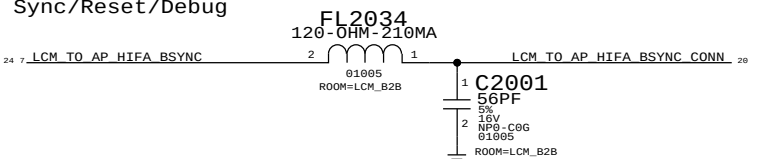


MIPI Common Mode Chokes

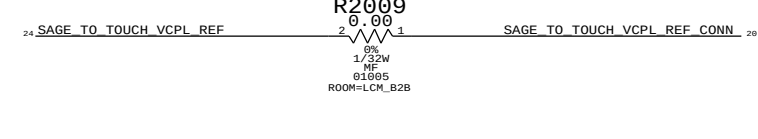
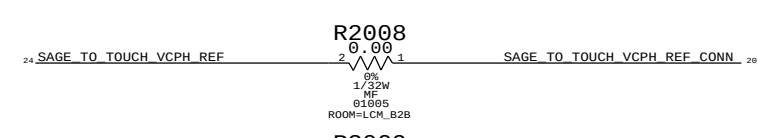
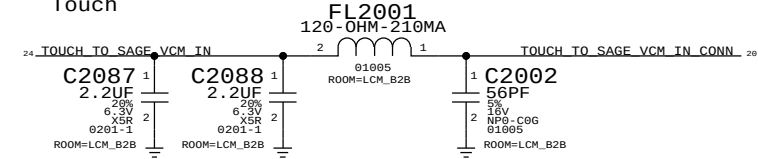
(N56 HAS A 4TH MIPI LANE ON P. 19).



Sync/Reset/Debug

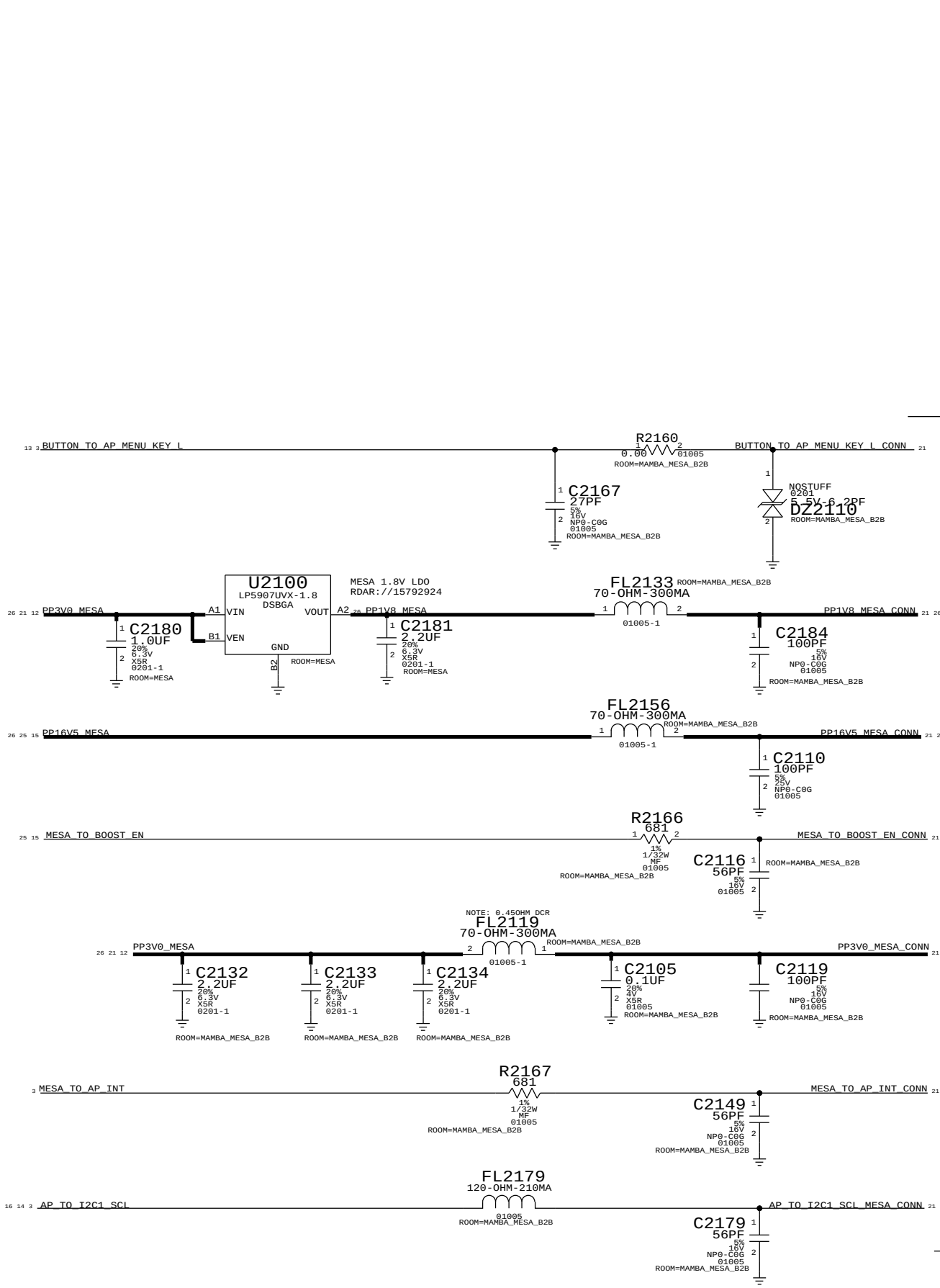


Touch

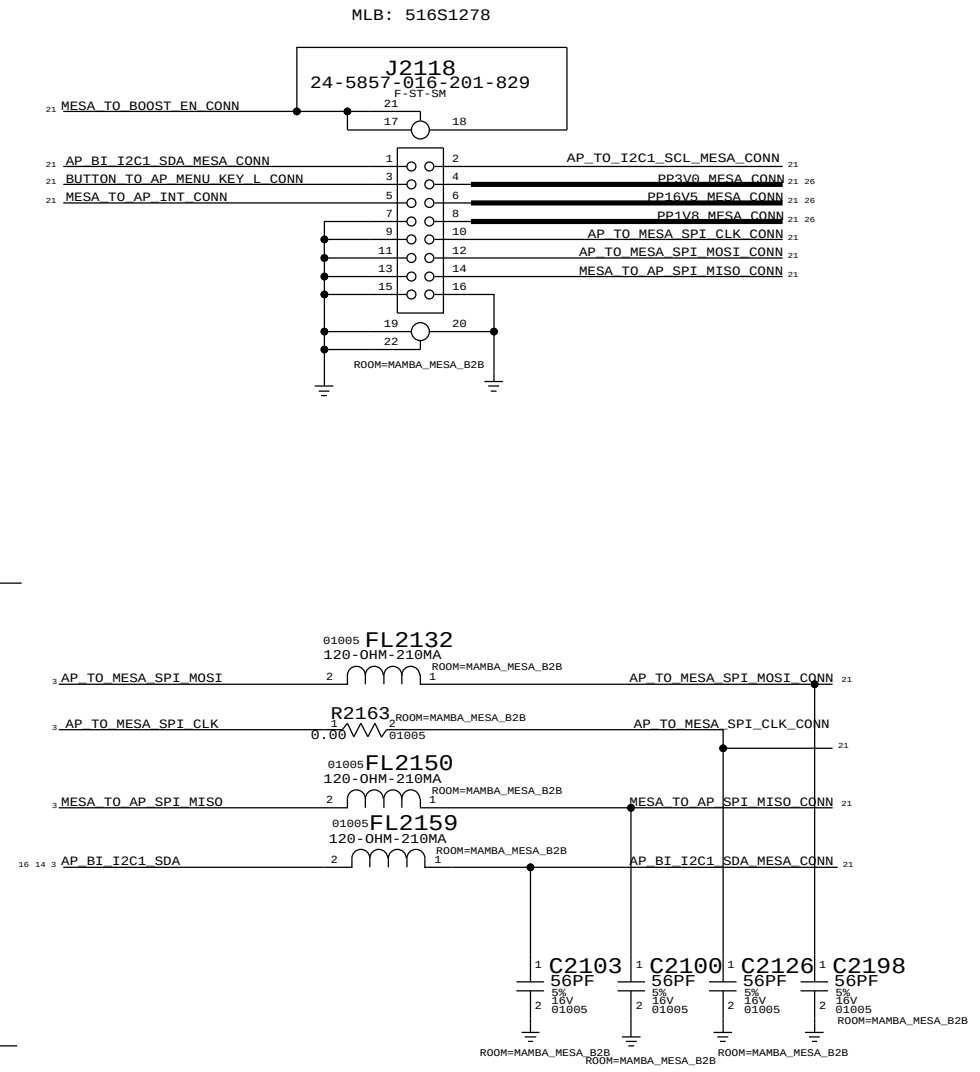


SYNC MASTER=N61 MLB		SYNC DATE=08/26/2013	
PAGE TITLE			
DISPLAY:FLEX CONN			
 Apple Inc.		DRAWING NUMBER	051-9903
		REVISION	7.0.0
NOTICE OF PROPRIETARY PROPERTY: THE INFORMATION CONTAINED HEREIN IS THE PROPRIETARY PROPERTY OF APPLE INC. THE POSSESSOR AGREES TO THE FOLLOWING: I TO MAINTAIN THIS DOCUMENT IN CONFIDENCE II NOT TO REPRODUCE OR COPY IT III NOT TO REVEAL OR PUBLISH IT IN WHOLE OR PART IV ALL RIGHTS RESERVED		BRANCH	
		PAGE	20 OF 55
		SHEET	20 OF 54

MESA CONNECTOR



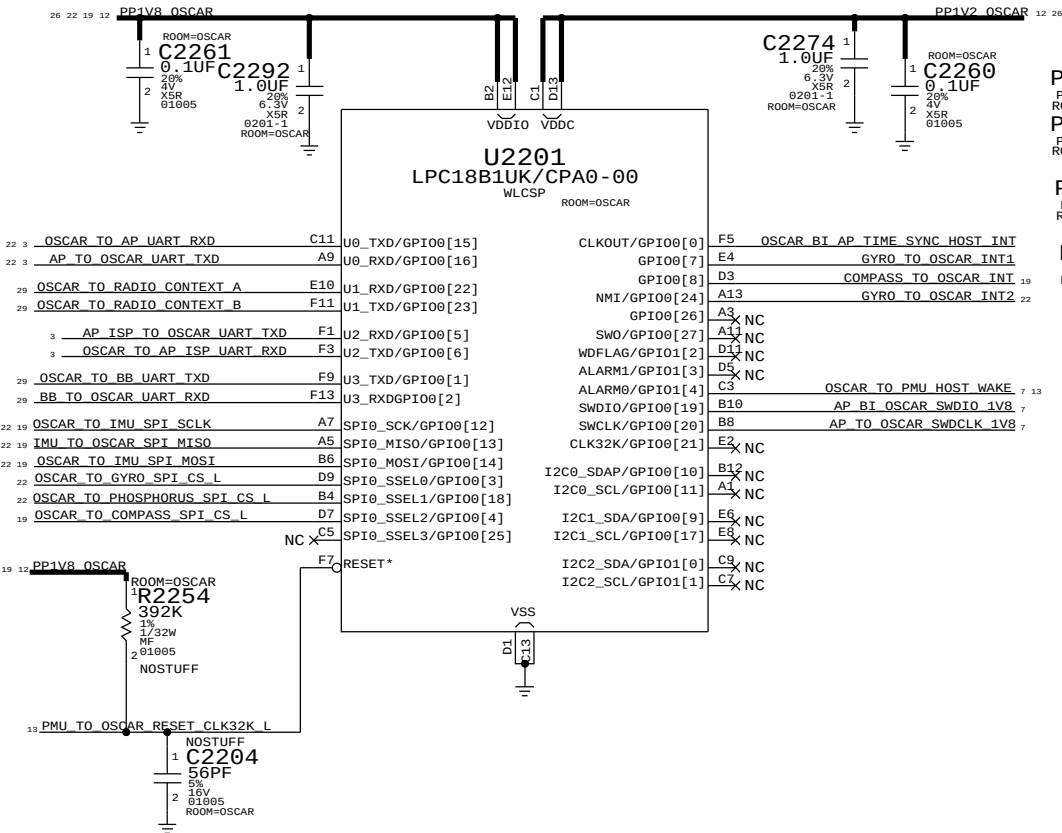
MESA SENSOR:



PAGE TITLE		
SENSORS:MESA FLEX CONN		
 Apple Inc.	DRAWING NUMBER	051-9903
	REVISION	7.0.0
NOTICE OF PROPRIETARY PROPERTY: THE INFORMATION CONTAINED HEREIN IS THE PROPRIETARY PROPERTY OF APPLE INC. THE POSSESSOR AGREES TO THE FOLLOWING: I TO MAINTAIN THIS DOCUMENT IN CONFIDENCE II NOT TO REPRODUCE OR COPY IT III NOT TO REVEAL OR PUBLISH IT IN WHOLE OR PART IV ALL RIGHTS RESERVED		BRANCH
		PAGE 21 OF 55
		SHEET 21 OF 54

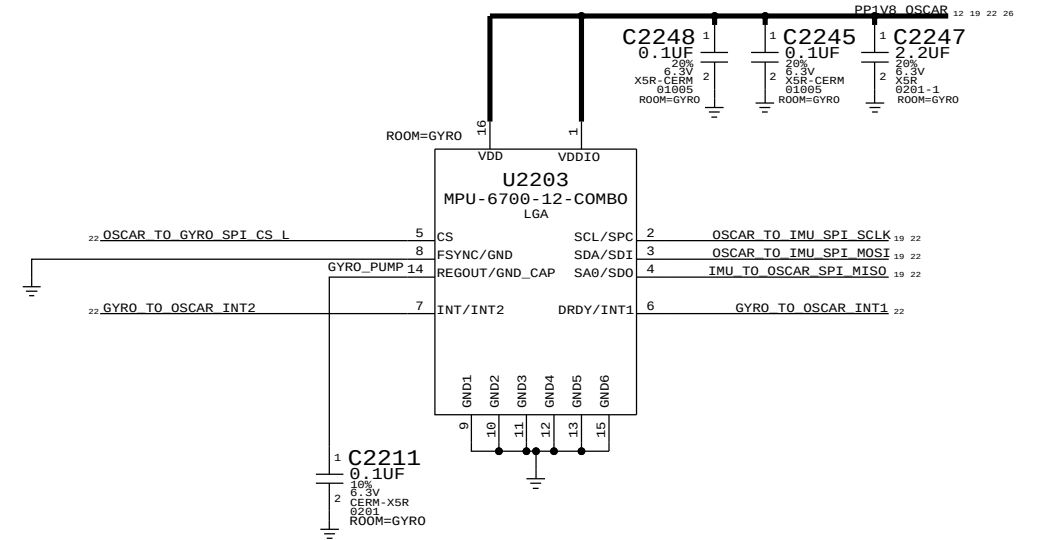
OSCAR + SENSORS

OSCAR VDDIO = 1.8V ALWAYS ON (NEED TO WAKE HOST & RUN PLL)
OSCAR CORE = 1.2V ALWAYS ON (NEED TO RUN IN S2RAM)

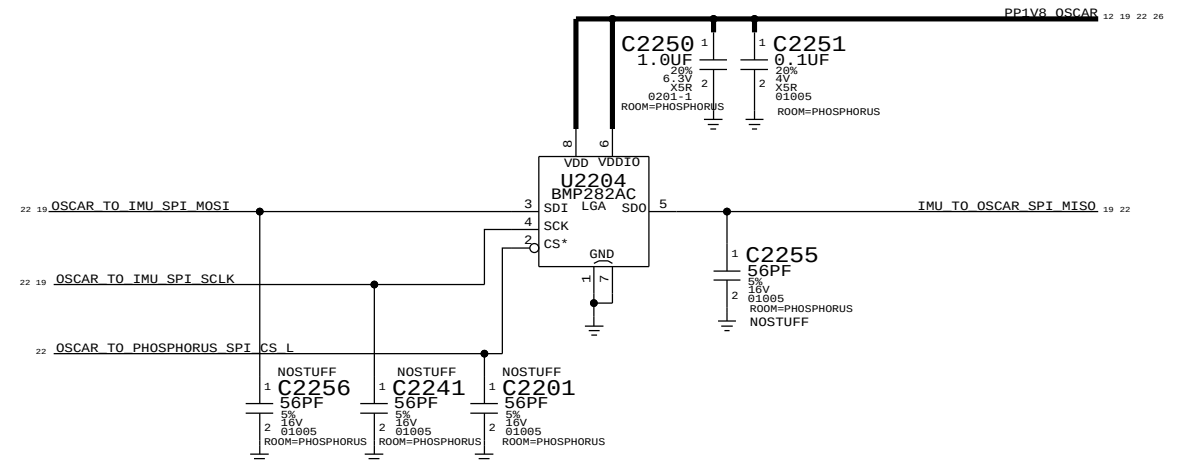


CARBON (ACCEL GYRO COMBO)

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



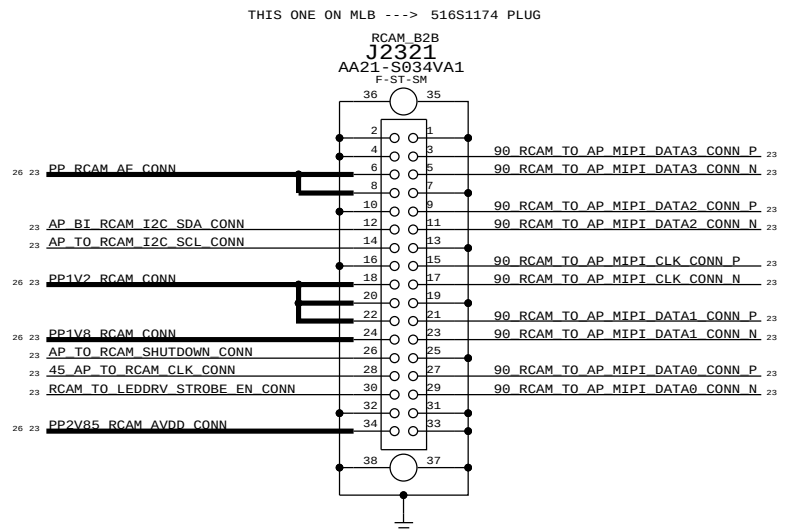
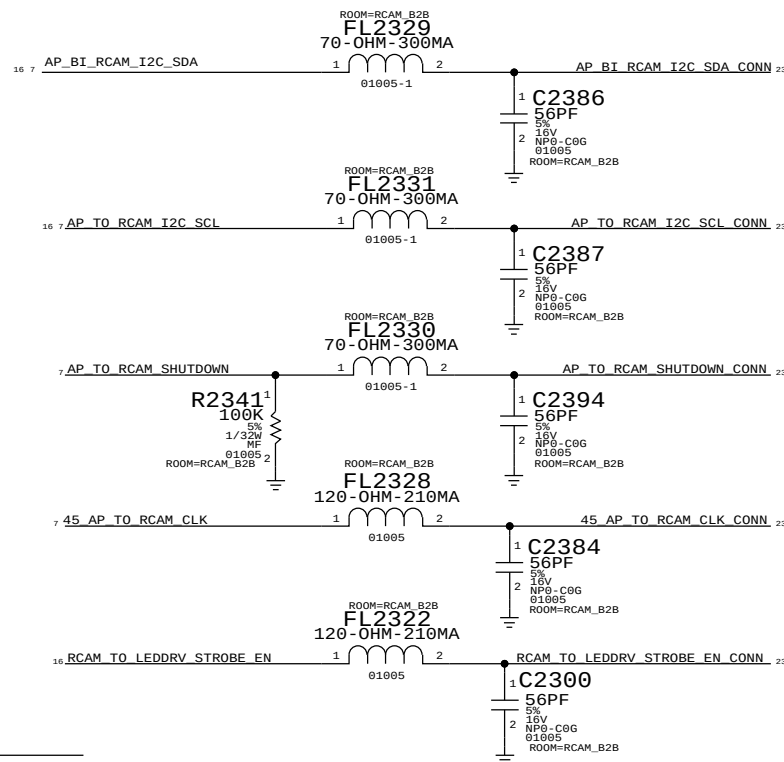
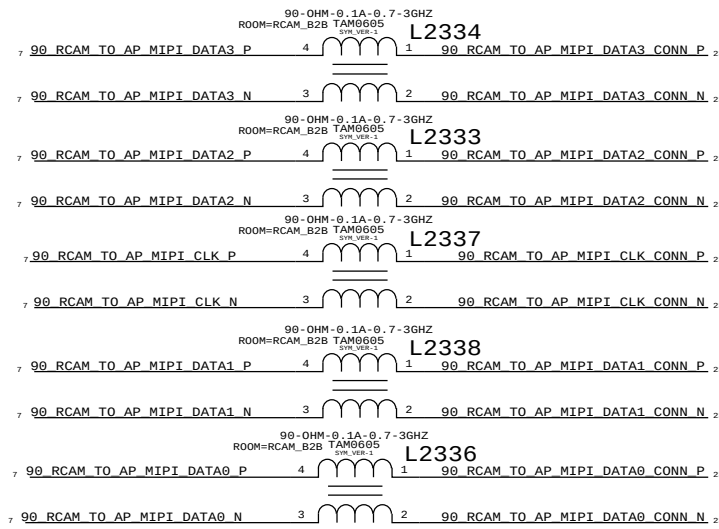
THIS IS OUTSIDE OF SHIELD IN TO THE RIGHT OF THE NAND PHOSPHORUS



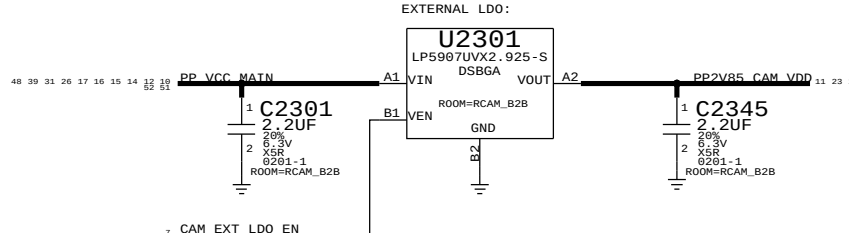
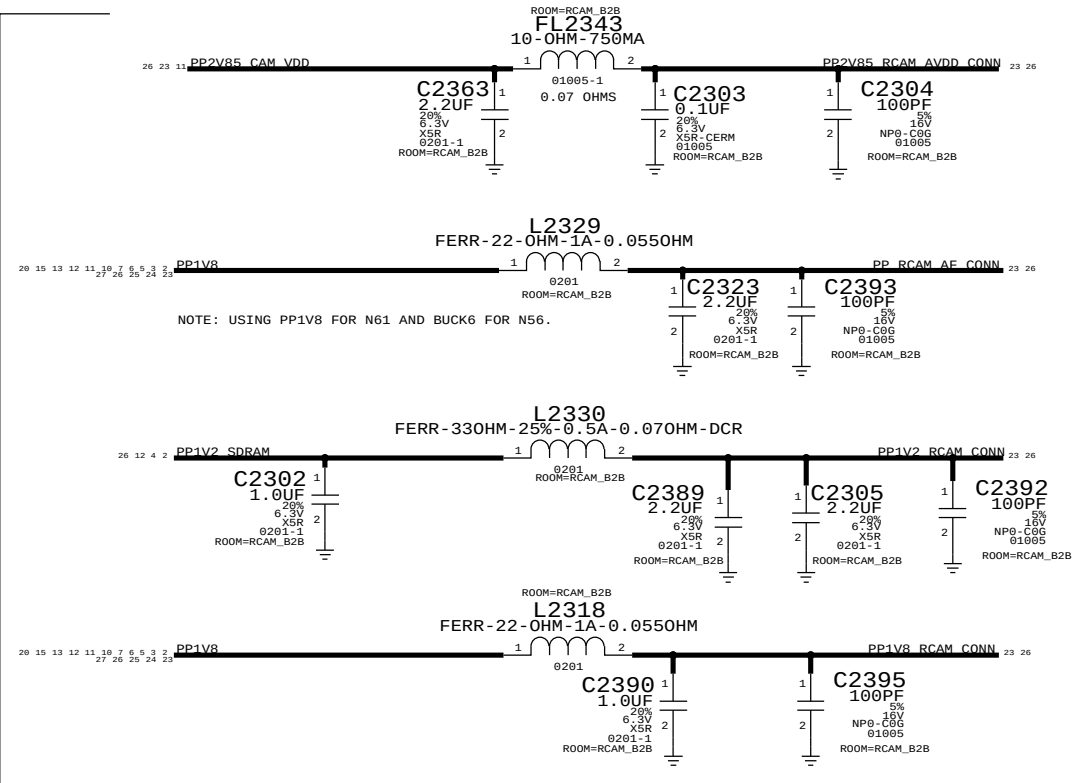
SYNC MASTER=N61 MLB		SYNC DATE=08/26/2013	
PAGE TITLE			
SENSORS: OSCAR, CARBON, PHOS, MAGNESIUM			
 Apple Inc.		DRAWING NUMBER	051-9903
		REVISION	7.0.0
NOTICE OF PROPRIETARY PROPERTY: THE INFORMATION CONTAINED HEREIN IS THE PROPRIETARY PROPERTY OF APPLE INC. THE POSSESSOR AGREES TO THE FOLLOWING: I TO MAINTAIN THIS DOCUMENT IN CONFIDENCE II NOT TO REPRODUCE OR COPY IT III NOT TO REVEAL OR PUBLISH IT IN WHOLE OR PART IV ALL RIGHTS RESERVED		BRANCH	
		PAGE	22 OF 55
		SHEET	22 OF 54

RCAM B2B (REAR CAMERA CONNECTOR)

RCAM:
4-LANE MIPI



RCAM/FCAM AVDD RAIL EXT. LDO:



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

SYNC MASTER=N61 MLB		SYNC DATE=08/26/2013	
PAGE TITLE		CAMERA: REAR FLEX CONN	
Apple Inc.		DRAWING NUMBER	051-9903
		REVISION	7.0.0
NOTICE OF PROPRIETARY PROPERTY:		BRANCH	
THE INFORMATION CONTAINED HEREIN IS THE PROPRIETARY PROPERTY OF APPLE INC. THE POSSESSOR AGREES TO THE FOLLOWING:		PAGE	23 OF 55
I TO MAINTAIN THIS DOCUMENT IN CONFIDENCE		SHEET	23 OF 54
II NOT TO REPRODUCE OR COPY IT			
III NOT TO REVEAL OR PUBLISH IT IN WHOLE OR PART			
IV ALL RIGHTS RESERVED			

8	7
---	---





史

史

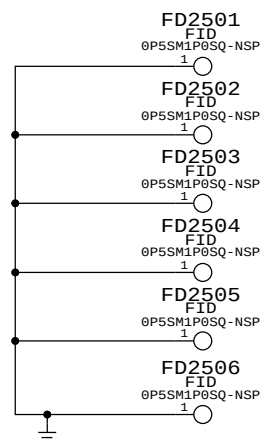
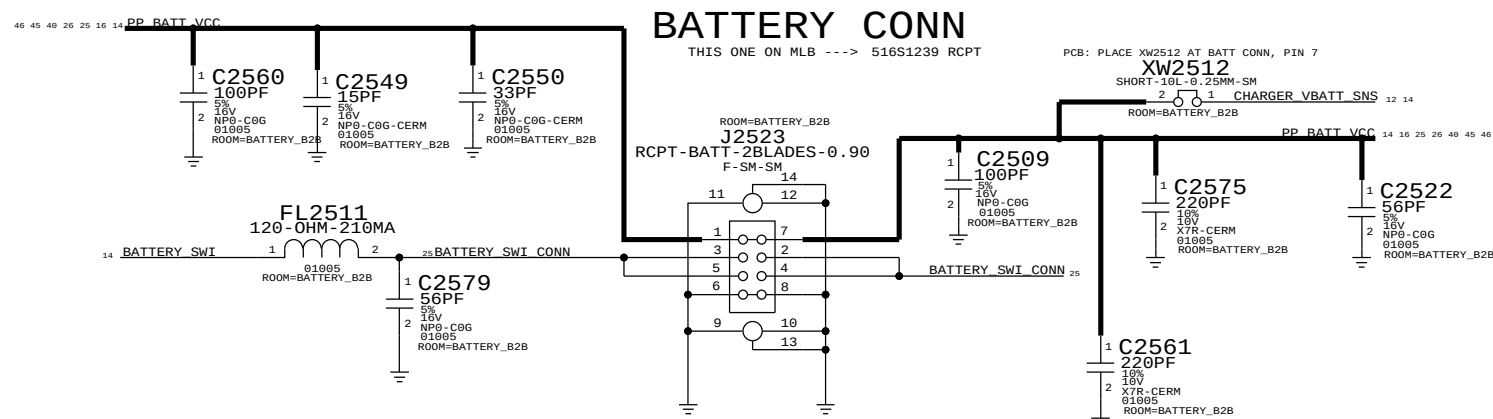


豆水

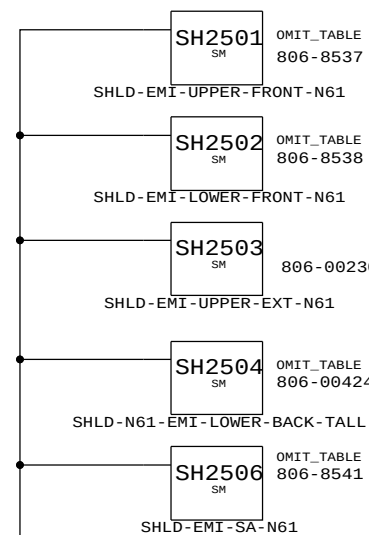




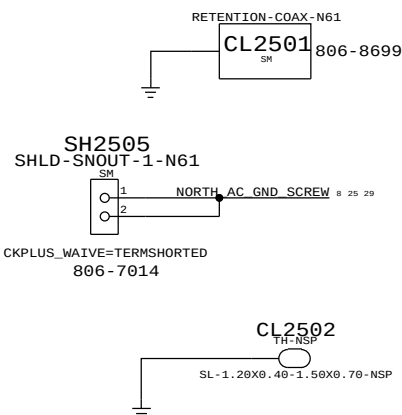
BATT CONN, TPS, STANDOFFS/SHIELDS/FIDUCIALS



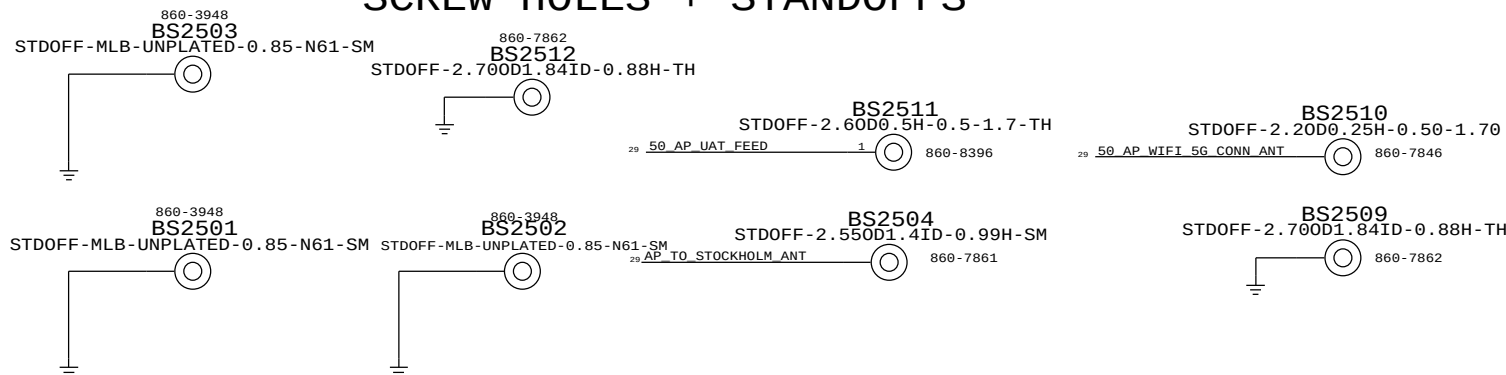
SHIELDS



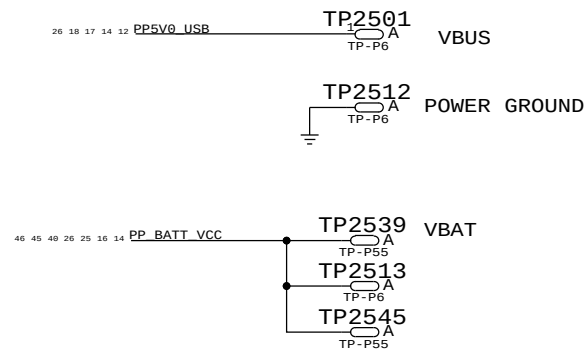
COWLING



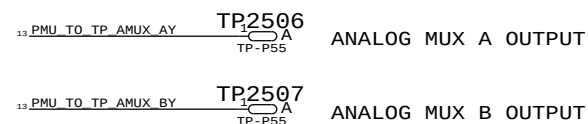
SCREW HOLES + STANDOFFS



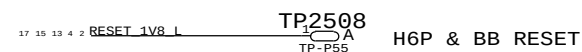
POWER TP



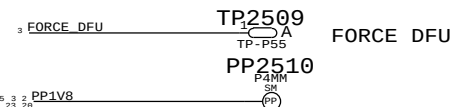
SUPER TP



RESET

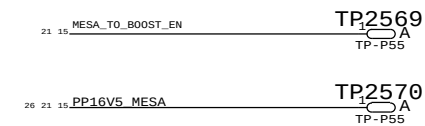


DFU

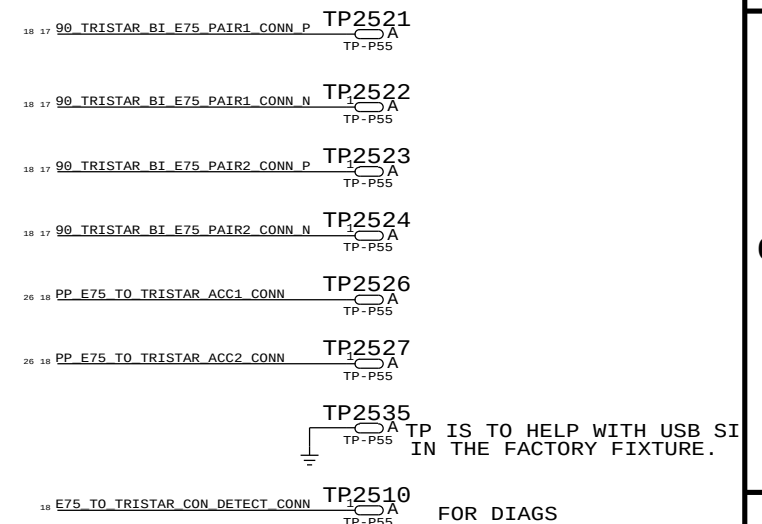


TESTPOINTS

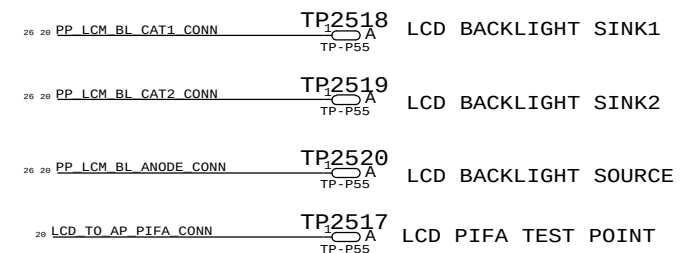
MOJAVE TP



E75 - USB/UART/ID/POWER



LCM BACKLIGHT



SYNC MASTER=N61 MLB		SYNC DATE=08/26/2013	
PAGE 111			
POWER : BATT CONN, TPS, PD FEATURES			
 Apple Inc.	DRAWING NUMBER	SIZE	
	051-9903		
NOTICE OF PROPRIETARY PROPERTY:	REVISION		
	7.0.0		
THE INFORMATION CONTAINED HEREIN IS THE PROPRIETARY PROPERTY OF APPLE INC. THE POSSESSOR AGREES TO THE FOLLOWING: I TO MAINTAIN THIS DOCUMENT IN CONFIDENCE I NOT TO REPRODUCE OR COPY IT III NOT TO REVEAL OR PUBLISH IT IN WHOLE OR PART IV ALL RIGHTS RESERVED	BRANCH		
	PAGE	25 OF 55	
	SHEET	25 OF 54	

VOLTAGE PROPERTIES

U655	VOLTAGE=3.3V	PP3V3_USB	2 12
U656	VOLTAGE=1.8V	PP1V8_VA_I19_I67	10 12 16
U657	VOLTAGE=3.0V	PP3V0_TRISTAR	12 15 17 29
U658	VOLTAGE=3.0V	PP3V0_IMU	12 19
U659	VOLTAGE=3.0V	PP3V0_NAND	6 12
U660	VOLTAGE=3.0V	PP3V0_ACC	12 17
U661	VOLTAGE=3.0V	PP3V0_PROX_ALS	11 12
U664	VOLTAGE=4.6V	PP_VCC_MAIN	18 12 14 15 16 17 23 31 39
U665	VOLTAGE=1.0V	PP1V0	7 12
U666	VOLTAGE=3.0V	PP3V0_PROX_TRIED	11 12
U667	VOLTAGE=1.8V	PP1V8_ALWAYS	1 5 12 14
U668	VOLTAGE=3.0V	PP3V0_MESA	12 21
U669	VOLTAGE=1.1V	PP_CPU	4 12
U670	VOLTAGE=1.1V	PP_GPU	4 12
U671	VOLTAGE=1.2V	PP1V2_SDRAM	2 4 12 23
U672	VOLTAGE=1.8V	PP1V8_SDRAM	3 4 10 12 13 14 15 17 29
U673	VOLTAGE=1.8V	PP1V8	2 4 5 8 9 7 10 11 12 13 15 20 23
U674	VOLTAGE=1.8V	PP1V8_GRAPE	12 24
U675	VOLTAGE=1.8V	PP1V8_OSCAR	12 19 22
U676	VOLTAGE=1.2V	PP1V2_NAND_VDDT	6
U677	VOLTAGE=1.8V	PP_EXTMTC_BIAS_FTILT_IN	10
U678	VOLTAGE=1.8V	BOARD_ID2	3 27
U679	VOLTAGE=1.2V	PP1V2	4 5 11 12
U680	VOLTAGE=5.0V	PP_E75_TO_TRISTAR_ACC1_CONN	18 25
U681	VOLTAGE=5.0V	PP_E75_TO_TRISTAR_ACC1	17 18
U682	VOLTAGE=22.0V	PP_LCM_BI_ANODE	15 20
U683	VOLTAGE=0.2V	PP_LCM_BI_CAT2	15 20
U684	VOLTAGE=0.2V	PP_LCM_BI_CAT1	15 20
U685	VOLTAGE=0.2V	PP_LCM_BI_CAT2_CONN	20 25
U686	VOLTAGE=0.2V	PP_LCM_BI_CAT1_CONN	20 25
U687	VOLTAGE=-5.7V	PP5V7_SAGE_AVDDN	15 20 24
U688	VOLTAGE=1.2V	PP1V2_OSCAR	12 22
U689	VOLTAGE=3.0V	PP3V0_MESA_CONN	21
U690	VOLTAGE=6V	PP6V0_LCM_BOOST	10
U691	VOLTAGE=5.0V	PP_STRB_DRIVER_TO_LED_WARM	9 16
U692	VOLTAGE=5.0V	PP_STRB_DRIVER_TO_LED_COOL	8 16
U693	VOLTAGE=1.8V	PP_CODEC_TO_MIC1_BIAS	10 18
U694	VOLTAGE=1.8V	PP_EXTMTC_BIAS_FTILT_IN	10
U695	VOLTAGE=1.8V	PP_EXTMTC_BIAS_FTILT	10
U696	VOLTAGE=1.8V	PP_CODEC_TO_FRONTMIC3_BIAS	10 11
U697	VOLTAGE=1.8V	PP_CODEC_TO_REARMIC2_BIAS	8 10
U698	VOLTAGE=1.8V	PP_CODEC_FTILT+	10
U699	VOLTAGE=2.2V	PP_CODEC_SPKR_V0	10
U700	VOLTAGE=2.5V	PP_CODEC_VCPETILT-	10
U701	VOLTAGE=2.5V	PP_CODEC_VCPETILT+	10
U702	VOLTAGE=2.5V	PP_CODEC_VHP_ELYN	10
U703	VOLTAGE=0.2V	PP_CODEC_VHP_ELYX	10
U704	VOLTAGE=2.5V	PP_CODEC_VHP_ELYP	10
U705	VOLTAGE=1.8V	PP1V8_ECAM_CONN	11
U706	VOLTAGE=3.0V	PP2V85_ECAM_AVDD_CONN	11
U707	VOLTAGE=1.8V	PP_CODEC_TO_FRONTMIC3_BIAS_CONN	11
U708	VOLTAGE=3.0V	PP3V0_ALS_CONN	11
U709	VOLTAGE=1.2V	PP1V2_ECAM_VDDIO_CONN	11
U710	VOLTAGE=5.0V	PP5V0_USB	12 14 17 18 25
U711	VOLTAGE=5.0V	PP5V0_USB_TO_PMI	12
U712	VOLTAGE=4.6V	PP_BUCK5_LX0	12
U713	VOLTAGE=4.6V	PP_BUCK3_LX	12
U714	VOLTAGE=4.6V	PP_BUCK4_LX	12
U715	VOLTAGE=4.6V	PP_BUCK2_LX	12
U716	VOLTAGE=4.6V	PP_BUCK1_LX1	12
U717	VOLTAGE=4.6V	PP_BUCK1_LX0	12
U718	VOLTAGE=4.6V	PP_BUCK0_LX3	12
U719	VOLTAGE=4.6V	PP_BUCK0_LX2	12
U720	VOLTAGE=4.6V	PP_BUCK0_LX1	12
U721	VOLTAGE=4.6V	PP_BUCK0_LX0	12
U722	VOLTAGE=6.0V	PP_CHESTNUT_LXP	15
U723	VOLTAGE=6.0V	PP_CHESTNUT_CP	15
U724	VOLTAGE=6.0V	PP_CHESTNUT_CN	15
U725	VOLTAGE=5.7V	PP5V7_SAGE_AVDDH	15 24
U726	VOLTAGE=5.7V	PP5V7_LCM_AVDDH	15 24
U727	VOLTAGE=5.1V	PP5V1_GRAPE_VDDH	15 24
U728	VOLTAGE=22.0V	PP_WLED_LX	15
U729	VOLTAGE=18.0V	PP18V0_MESA_SW	15
U730	VOLTAGE=17.0V	PP17V0_MOJAVE_IROUTN	15
U731	VOLTAGE=16.5V	PP16V5_MESA	15 21 25
U732	VOLTAGE=8.0V	PP_SPKAMP_SW	16
U733	VOLTAGE=8.0V	PP_I19_VB00ST	16
U734	VOLTAGE=1.8V	PP_SPKAMP_FTILT	16
U735	VOLTAGE=1.8V	PP_SPKAMP_IDO_FTILT	16
U736	VOLTAGE=5.0V	PP_LED_DRV_LX	16
U737	VOLTAGE=5.0V	PP_LED_BOOST_OUT	16
U738	VOLTAGE=2.9V	PP2V9_IDO9	12
U739	VOLTAGE=1.8V	PP_CODEC_TO_MIC1_BIAS_CONN	18
U740	VOLTAGE=4.6V	PP_E75_TO_TRISTAR_ACC2	17 18
U741	VOLTAGE=4.6V	PP_E75_TO_TRISTAR_ACC2_CONN	18 25
U742	VOLTAGE=1.8V	PP1V8_LCM_CONN	20
U743	VOLTAGE=22.0V	PP_LCM_BI_ANODE_CONN	20 25
U744	VOLTAGE=-5.7V	PP5V7_LCM_AVDDN_CONN	20
U745	VOLTAGE=5.7V	PP5V7_LCM_AVDDH_CONN	20
U746	VOLTAGE=1.8V	PP1V8_MESA	21
U747	VOLTAGE=16.5V	PP16V5_MESA_CONN	21
U748	VOLTAGE=5.0V	PP_TRISTAR_PIN	17
U749	VOLTAGE=1.2V	PP1V2_RCAM_CONN	23
U750	VOLTAGE=1.8V	PP1V8_RCAM_CONN	23
U751	VOLTAGE=3.0V	PP2V85_CAM_VDD	11 23
U752	VOLTAGE=1.8V	PP2V85_RCAM_AVDD_CONN	23
U753	VOLTAGE=1.8V	PP_CUMULUS_VDDCORE	24
U754	VOLTAGE=1.2V	PP_CUMULUS_VDDANA	24
U755	VOLTAGE=13.5V	PP_SAGE_TO_TOUCH_VCPH_CONN	24
U756	VOLTAGE=-12V	PP_SAGE_TO_TOUCH_VCPH_CONN	24
U757	VOLTAGE=13.5V	PP_SAGE_TO_TOUCH_VCPH	24
U758	VOLTAGE=-12V	PP_SAGE_TO_TOUCH_VCPH	24
U759	VOLTAGE=-12V	PP_SAGE_VCPH_F	24
U760	VOLTAGE=-12V	PP_SAGE_VCPH_F	24
U761	VOLTAGE=5.7V	PP_SAGE_LX	24
U762	VOLTAGE=17.0V	PP_SAGE_LX	24
U763	VOLTAGE=1.8V	PP_PMI_VREF	13
U764	VOLTAGE=14V	PP_SAGE_VBST_OUTH	24
U765	VOLTAGE=5.0V	PP_TTGRIS_VBUS_DET	14
U766	VOLTAGE=2.5V	PP_PMI_VDD_REF	13
U767	VOLTAGE=1.8V	PP_EXTMTC_BIAS	10
U768	VOLTAGE=1.8V	PP1V8_XTAL	2
U769	VOLTAGE=1.8V	PP_PMI_VDD_RTC	13
U770	VOLTAGE=4.6V	PP_BATT_VCC	14 16 25 40 45 46
U771	VOLTAGE=1.8V	PP1V8_MESA_CONN	21
U772	VOLTAGE=3.0V	PP3V0_PROX_CONN	11
U773	VOLTAGE=1.0V	PP0V95_FIXED_SOC	4 7 12
U774	VOLTAGE=1.0V	PP0V95_FIXED_SOC_PCIE	7
U775	VOLTAGE=1.2V	PP1V2_PL1	2
U776	VOLTAGE=1.0V	PP_BUCK5_LX1	12
U777	VOLTAGE=1.0V	PP_VAR_SOC	5 12
U778	VOLTAGE=5.0V	PMID_CAP	14
U779	VOLTAGE=5.0V	CHARGER_ID0	14
U780	VOLTAGE=4.6V	CHG_BOOT	14
U781	VOLTAGE=4.6V	CHG_LX	14
U782	VOLTAGE=3.0V	VTRF_DRIVE_P	14 18
U783	VOLTAGE=3.0V	VTRF_DRIVE_N	14 18
U784	VOLTAGE=1.8V	PP_RCAM_AE_CONN	23
U785	VOLTAGE=-14.0V	PP_SAGE_VBST_OUTL	24
U786	VOLTAGE=-12.0V	PP_SAGE_TO_TOUCH_VCPH_FTILT	24
U787	VOLTAGE=2.7V	PP_BB_VDD_2V7_CONN	18

PAGE TITLE		
SYSTEM:VOLTAGE PROPERTIES		
 Apple Inc.	DRAWING NUMBER	051-9903
	REVISION	7.0.0
NOTICE OF PROPRIETARY PROPERTY:		BRANCH
THE INFORMATION CONTAINED HEREIN IS THE PROPRIETARY PROPERTY OF APPLE INC. THE POSSESSOR AGREES TO THE FOLLOWING:		PAGE
I TO MAINTAIN THIS DOCUMENT IN CONFIDENCE		26 OF 55
II NOT TO REPRODUCE OR COPY IT		SHEET
III NOT TO REVEAL OR PUBLISH IT IN WHOLE OR PART		26 OF 54
IV ALL RIGHTS RESERVED		

N61 SPECIFIC

BOOTSTRAPPING (BOARD_REV, BOARD_ID, BOOT_CFG)

BOARD_REV[3:0]={GPIO34, GPIO35, GPIO36, GPIO37}
FLOAT=LOW, PULLUP=HIGH

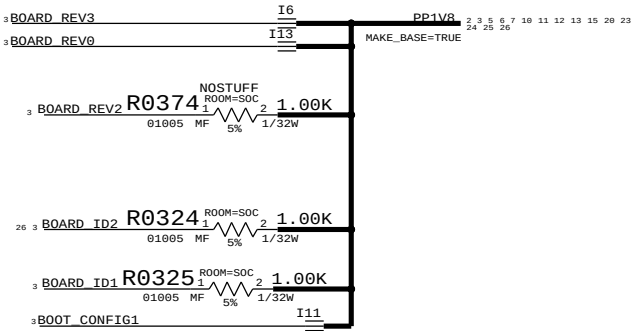
1111 PROTOMLB1
1110 PROTOMLB2
1101 PROTO1
1100 PROTO2
1011 EVT
1010 EVT SPLIT CARBON DOE
1001 CARRIER BUILD <--- SELECTED
1000 DVT

BOARD_ID[4:0]={GPIO29, GPIO16, SPI0_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



PAGE TITLE		
SYSTEM:N61 SPECIFIC		
 Apple Inc.	DRAWING NUMBER	051-9903
	REVISION	7.0.0
NOTICE OF PROPRIETARY PROPERTY:		BRANCH
THE INFORMATION CONTAINED HEREIN IS THE PROPRIETARY PROPERTY OF APPLE INC. THE POSSESSOR AGREES TO THE FOLLOWING:		PAGE
I TO MAINTAIN THIS DOCUMENT IN CONFIDENCE		27 OF 55
II NOT TO REPRODUCE OR COPY IT		SHEET
III NOT TO REVEAL OR PUBLISH IT IN WHOLE OR PART		27 OF 54
IV ALL RIGHTS RESERVED		

D

C

B

A

D

C

B

A

PAGE TITLE		BLANK	
 Apple Inc.	DRAWING NUMBER	051-9903	SIZE
	REVISION	7.0.0	D
NOTICE OF PROPRIETARY PROPERTY:		BRANCH	
THE INFORMATION CONTAINED HEREIN IS THE PROPRIETARY PROPERTY OF APPLE INC. THE POSSESSOR AGREES TO THE FOLLOWING:		PAGE	
I TO MAINTAIN THIS DOCUMENT IN CONFIDENCE		28 OF 55	
II NOT TO REPRODUCE OR COPY IT		SHEET	
III NOT TO REVEAL OR PUBLISH IT IN WHOLE OR PART		28 OF 54	
IV ALL RIGHTS RESERVED			

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_LEDDRVR_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	I386	90_BB_USB_N	30 34
17	90_TRISTAR_BI_BB_USB_P	MAKE_BASE=TRUE	I388	90_BB_USB_P	30 34

RADIO ANTENNA CONTROL

18	PP_BB_VDD_2V7	MAKE_BASE=TRUE	I389	PP_LD014_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_LD011_VDDIO	MAKE_BASE=TRUE	I396	ADC_PP_LD011	30
13	RADIO_TO_PMU_ADC_PP_LD05_SIM	MAKE_BASE=TRUE	I398	ADC_PP_LD05	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
20 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
		MAKE_BASE=TRUE	I315	PP_STOCKHOLM_1V8_S2R	52 54
		MAKE_BASE=TRUE	I407	REFE_VT0_S2R	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	99_WLAN_TO_AP_PCIE1_RXDP_P	MAKE_BASE=TRUE	I337	90_WLAN_PCIE_TDP	30 51
7	99_WLAN_TO_AP_PCIE1_RXDP_N	MAKE_BASE=TRUE	I340	90_WLAN_PCIE_TDN	30 51
7	99_AP_TO_WLAN_PCIE1_TXDP_P	MAKE_BASE=TRUE	I338	90_WLAN_PCIE_RDP	30 51
7	99_AP_TO_WLAN_PCIE1_TXDP_N	MAKE_BASE=TRUE	I339	90_WLAN_PCIE_RDN	30 51
7	99_AP_TO_WLAN_PCIE1_REFCLK1_P	MAKE_BASE=TRUE	I342	90_WLAN_PCIE_REFCLK_P	51
7	99_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

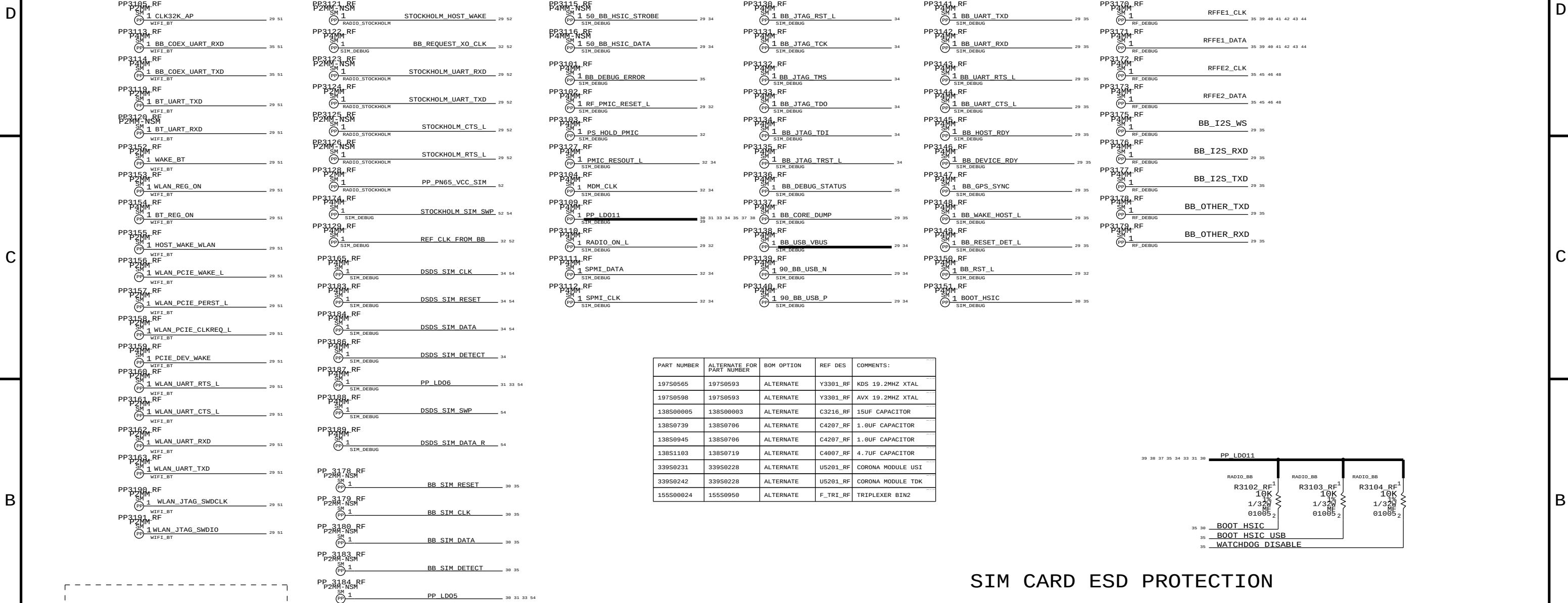
STOCKHOLM

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
7	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	I486	STOCKHOLM_ANT	52

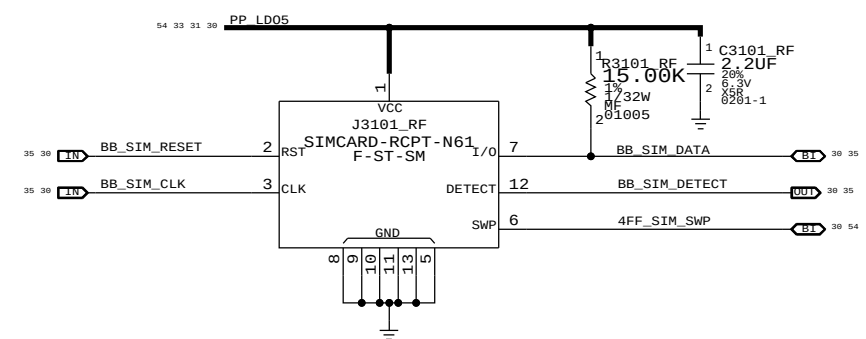
PAGE TITLE	
CELL:ALIASES	
 Apple Inc.	DRAWING NUMBER 051-9903
	SIZE D
REVISION 7.0.0	
NOTICE OF PROPRIETARY PROPERTY: THE INFORMATION CONTAINED HEREIN IS THE PROPRIETARY PROPERTY OF APPLE INC. THE POSSESSOR AGREES TO THE FOLLOWING: I TO MAINTAIN THIS DOCUMENT IN CONFIDENCE II NOT TO REPRODUCE OR COPY IT III NOT TO REVEAL OR PUBLISH IT IN WHOLE OR PART IV ALL RIGHTS RESERVED	
BRANCH	PAGE 30 OF 55
	SHEET 29 OF 54

AP INTERFACE & DEBUG CONNECTORS

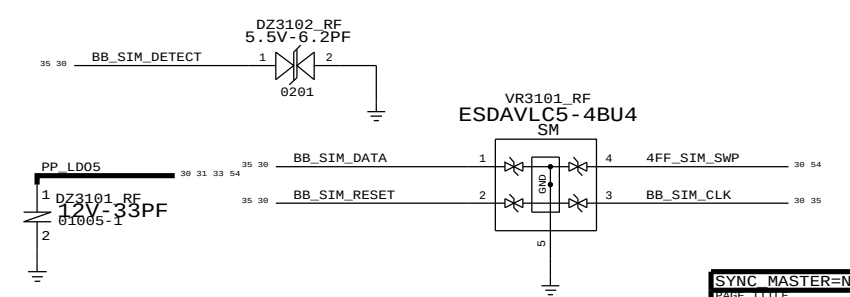
PROBE POINTS



SIM CARD CONNECTOR



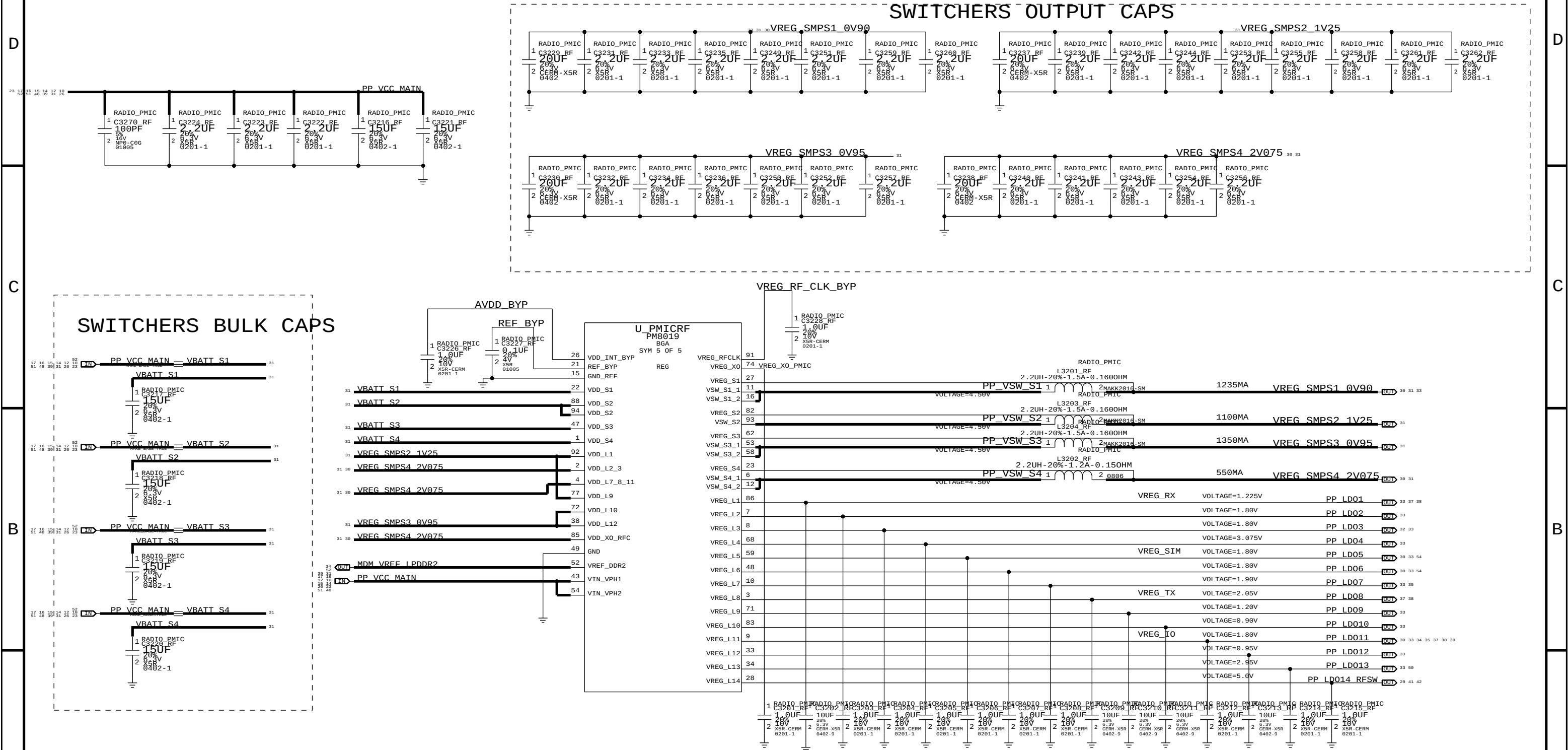
SIM CARD ESD PROTECTION



PAGE TITLE		SYNC DATE=N/A	
AP INTERFACE & DEBUG CONNECTORS		DRAWING NUMBER	
Apple Inc.		051-9903	
REVISION		SIZE	
7.0.0		D	
NOTICE OF PROPRIETARY PROPERTY:		BRANCH	
THE INFORMATION CONTAINED HEREIN IS THE PROPRIETARY PROPERTY OF APPLE INC. THE POSSESSOR AGREES TO THE FOLLOWING:		PAGE	
I TO MAINTAIN THIS DOCUMENT IN CONFIDENCE		31 OF 55	
II NOT TO REPRODUCE OR COPY IT		SHEET	
III NOT TO REVEAL OR PUBLISH IT IN WHOLE OR PART		30 OF 54	
IV ALL RIGHTS RESERVED			

BASEBAND PMU (1 OF 2)

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



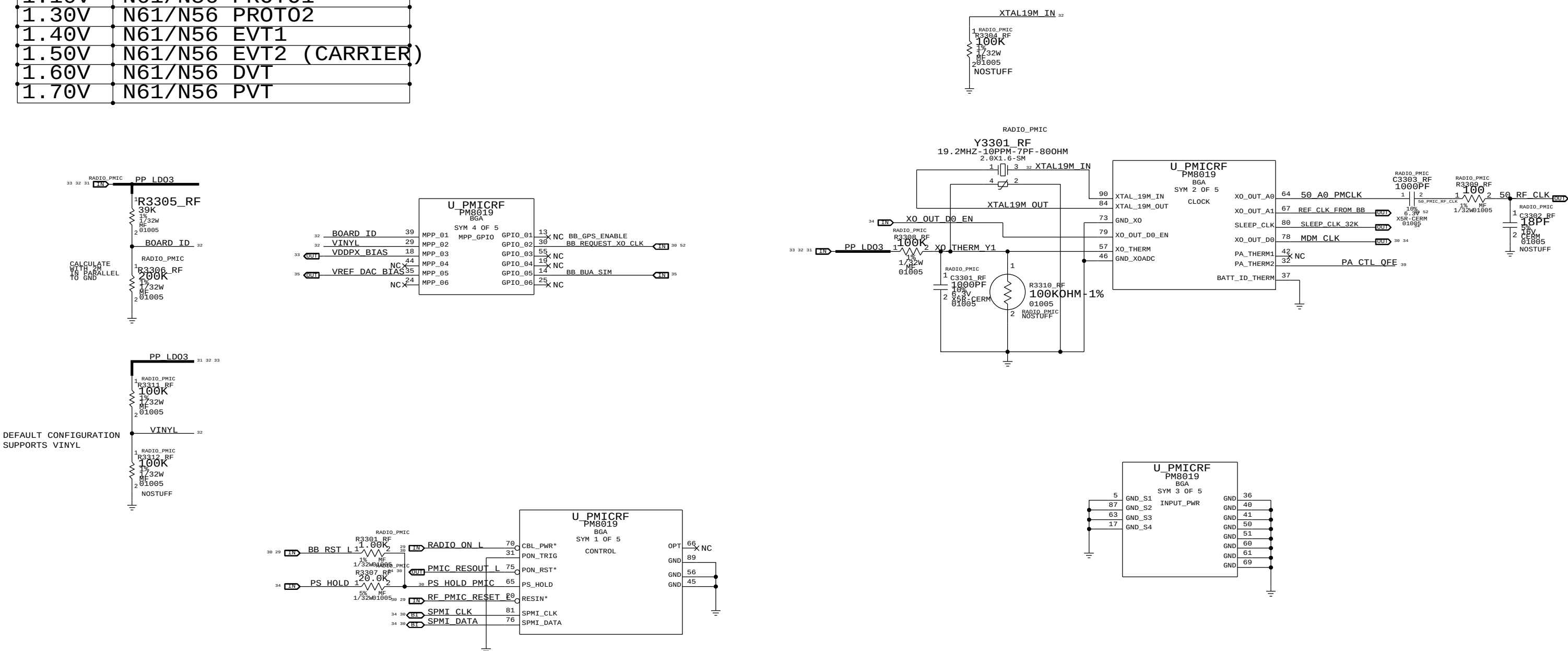
BASEBAND PMU (1 OF 2)

Apple Inc.		051-9903 D	SIZE
NOTICE OF PROPRIETARY PROPERTY:		7.0.0	REVISION
THE INFORMATION CONTAINED HEREIN IS THE PROPRIETARY PROPERTY OF APPLE INC. THE POSSESSOR AGREES TO THE FOLLOWING:		32 OF 55	PAGE
I TO MAINTAIN THIS DOCUMENT IN CONFIDENCE		31 OF 54	SHEET
II NOT TO REPRODUCE OR COPY IT			
III NOT TO REVEAL OR PUBLISH IT IN WHOLE OR PART			
IV ALL RIGHTS RESERVED			

BASEBAND PMU (2 OF 2)

	Apple Inc.	DRAWING NUMBER	051-9903	SIZE	D
		REVISION	7.0.0		
NOTICE OF PROPRIETARY PROPERTY:		BRANCH			
THE INFORMATION CONTAINED HEREIN IS THE PROPRIETARY PROPERTY OF APPLE INC. THE POSSESSOR AGREES TO THE FOLLOWING:		PAGE			
I TO MAINTAIN THIS DOCUMENT IN CONFIDENCE		33 OF 55			
I NOT TO REPRODUCE OR COPY IT		SHEET			
I NOT TO REVEAL OR PUBLISH IT IN WHOLE OR PART		32 OF 54			
I ALL RIGHTS RESERVED					

C401
R411
L400
U404



BASEBAND (1 OF 3)

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

C538
R500
L500
U502

D

C

B

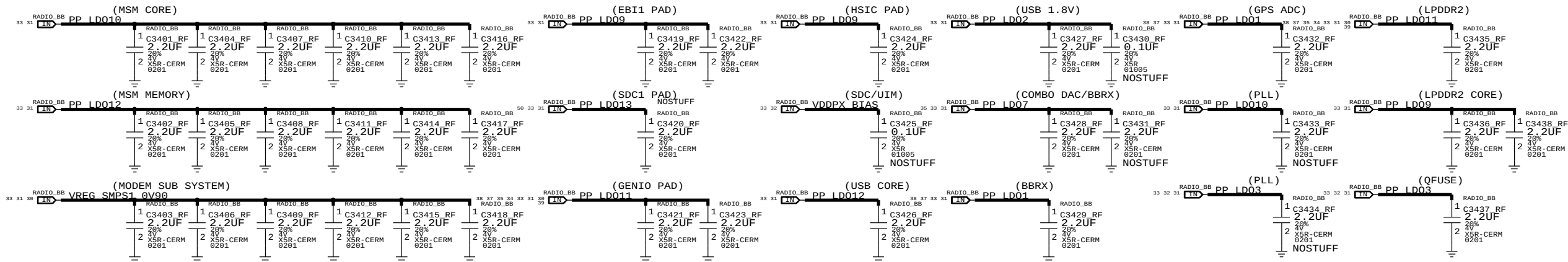
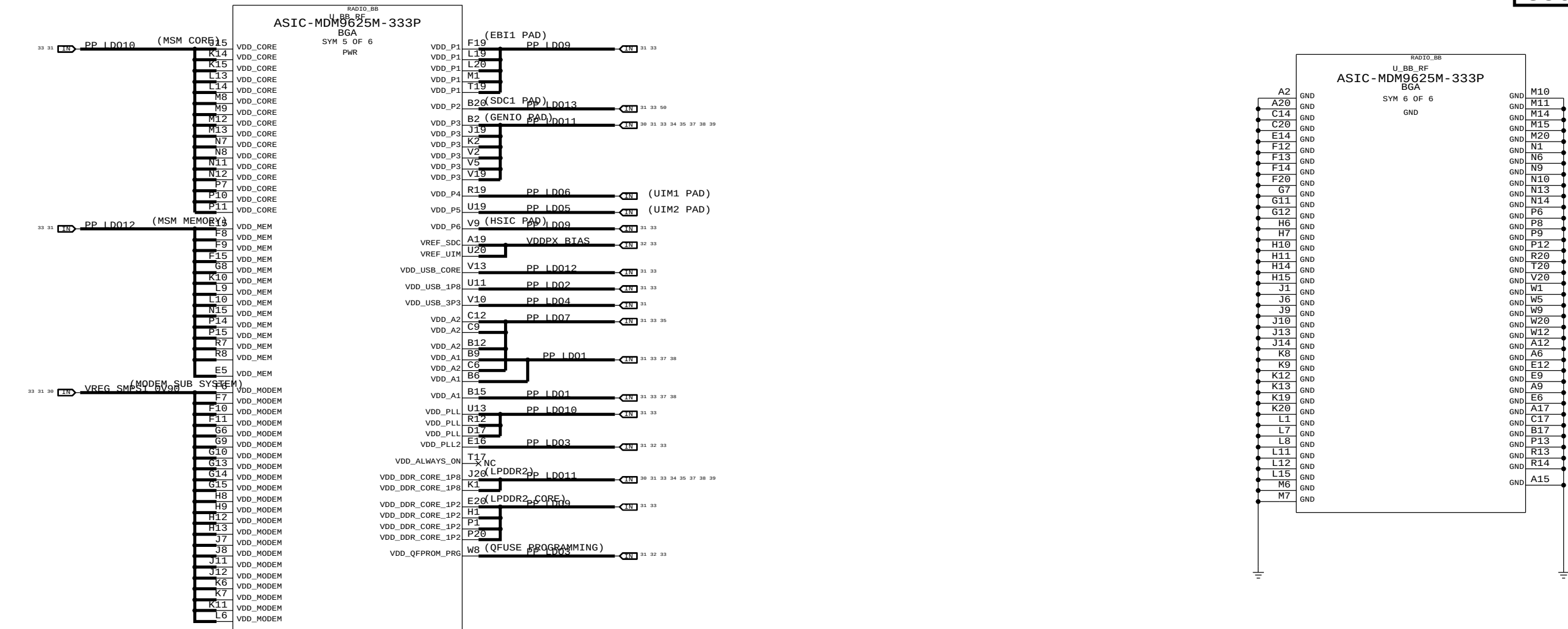
A

D

C

B

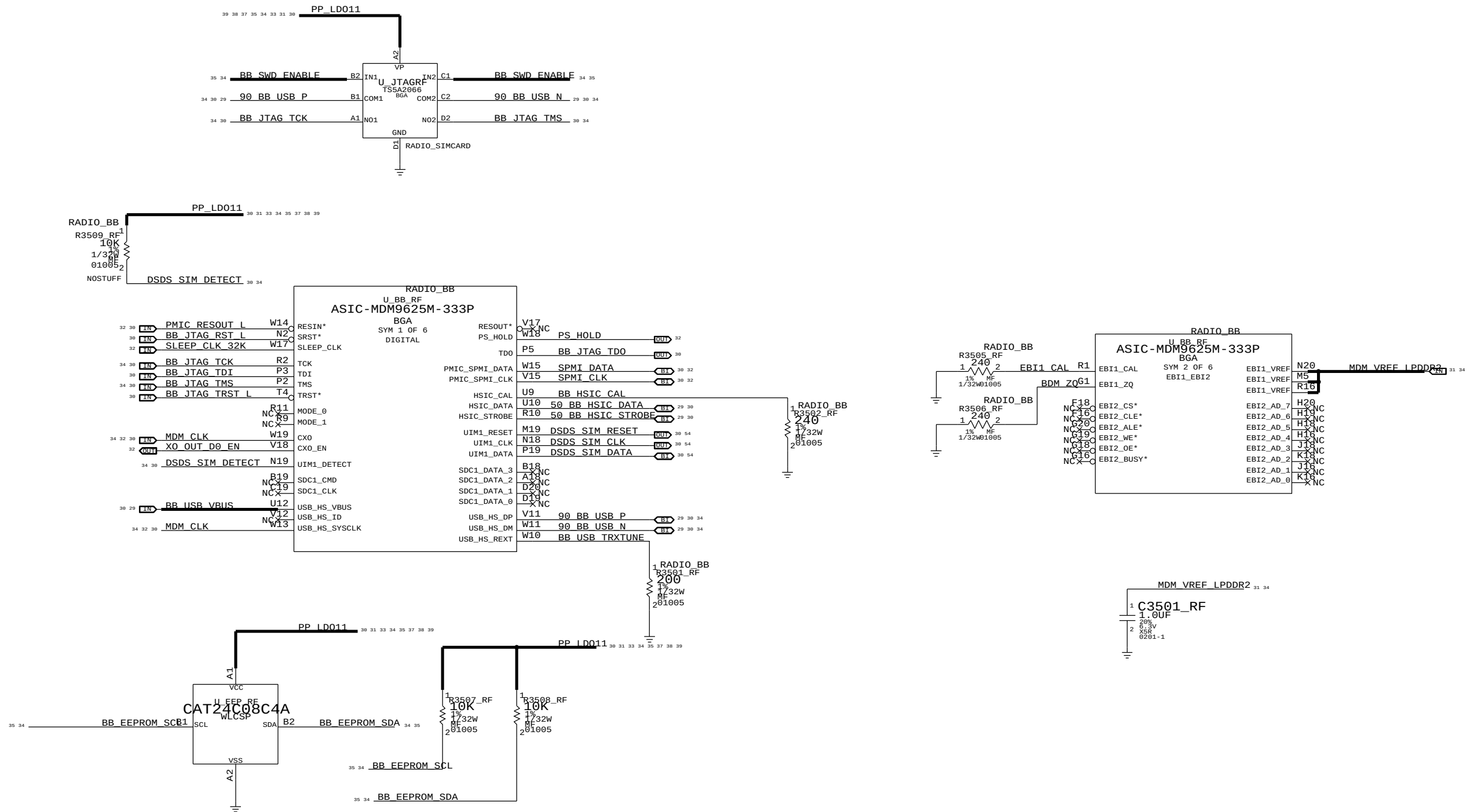
A



BASEBAND (1 OF 2)		
 Apple Inc.	051-9903	SIZE
	7.0.0	REVISION
NOTICE OF PROPRIETARY PROPERTY:		
THE INFORMATION CONTAINED HEREIN IS THE PROPRIETARY PROPERTY OF APPLE INC. THE POSSESSOR AGREES TO THE FOLLOWING:		
I TO MAINTAIN THIS DOCUMENT IN CONFIDENCE		
II NOT TO REPRODUCE OR COPY IT		
III NOT TO REVEAL OR PUBLISH IT IN WHOLE OR PART		
IV ALL RIGHTS RESERVED		
PAGE	34 OF 55	
SHEET	33 OF 54	

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

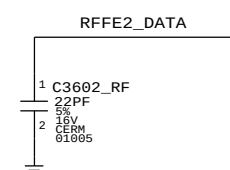
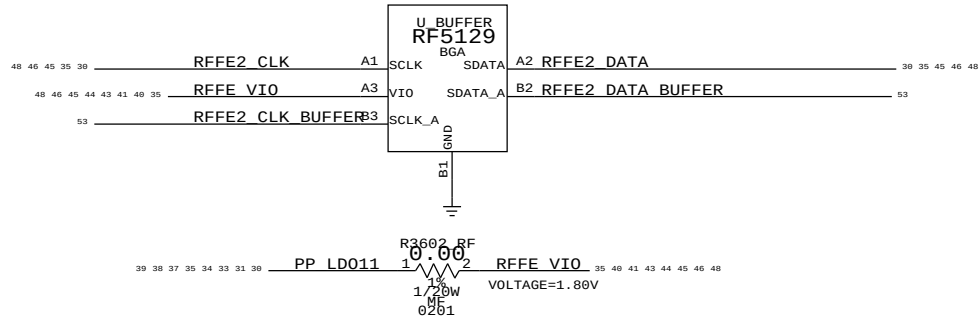
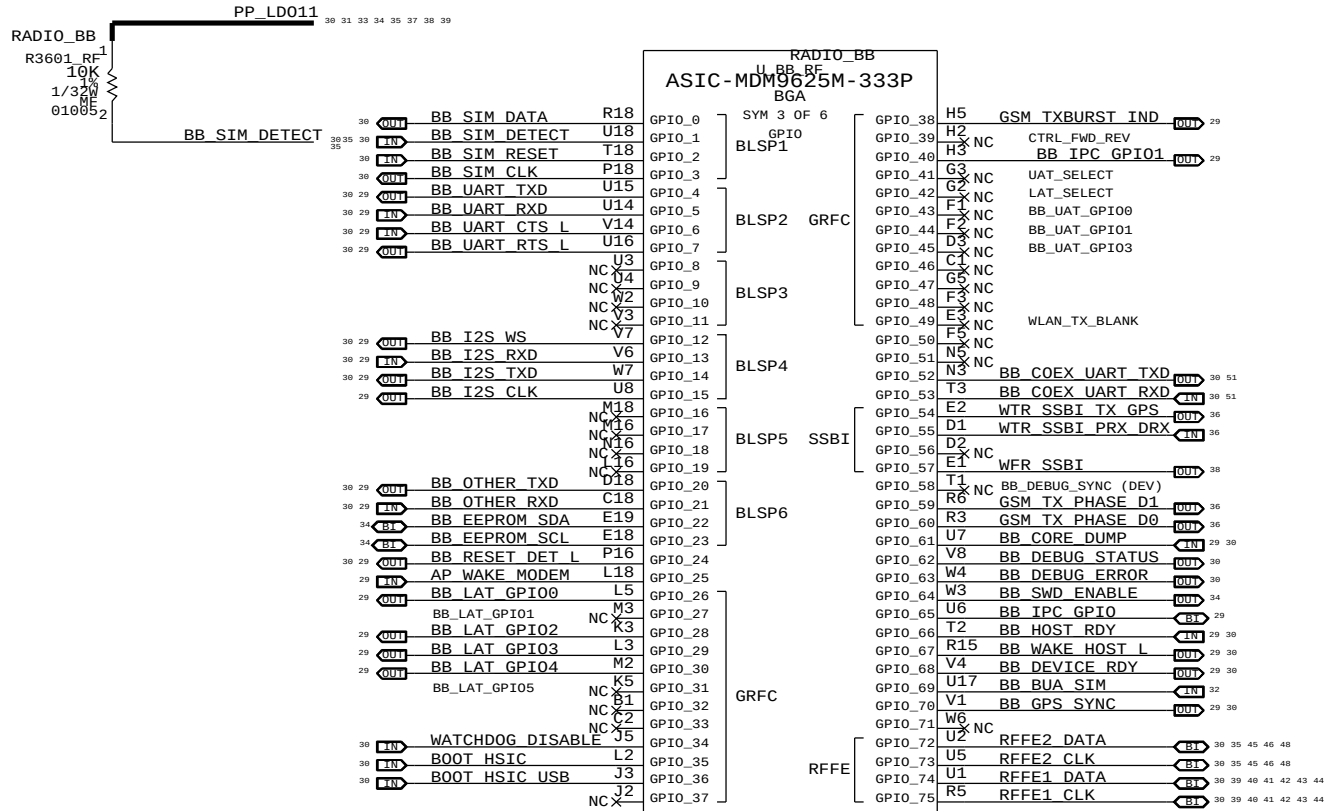
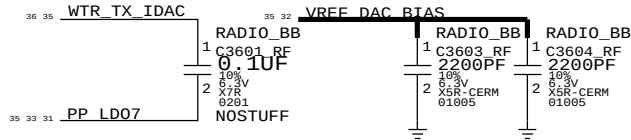
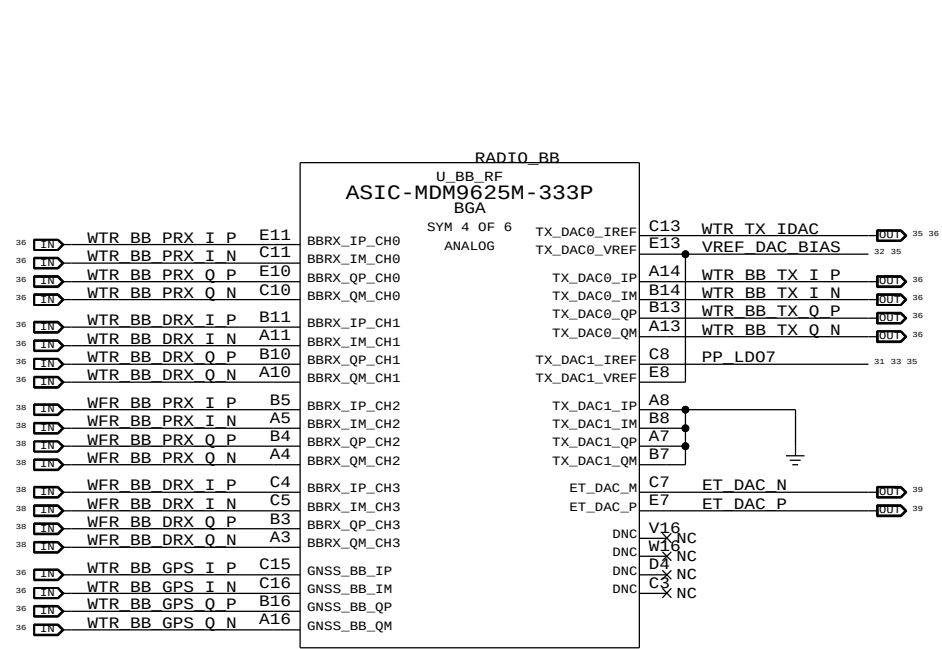
C600
R606
L600
U602



BASEBAND (3 OF 3)

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

C704
R700
L700
U702



MOBILE DATA MODEM (2 OF 2)

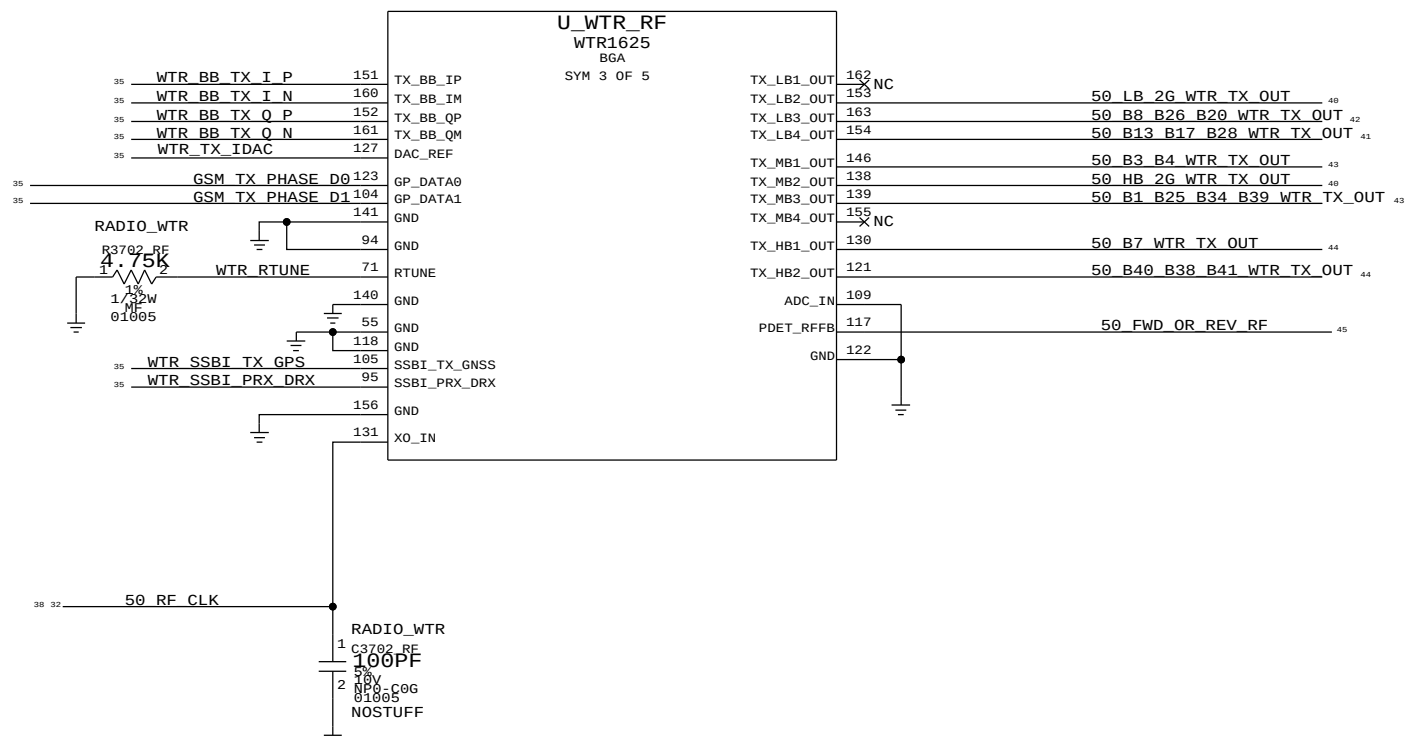
Apple Inc.		051-9903	SIZE
7.0.0		REVISION	
36 OF 55		PAGE	
35 OF 54		SHEET	

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

RF TRANSCEIVER (1 OF 3)

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

DRAWING NUMBER		SIZE
051-9903		D
REVISION		
7.0.0		
BRANCH		
PAGE		
37 OF 55		
SHEET		
36 OF 54		

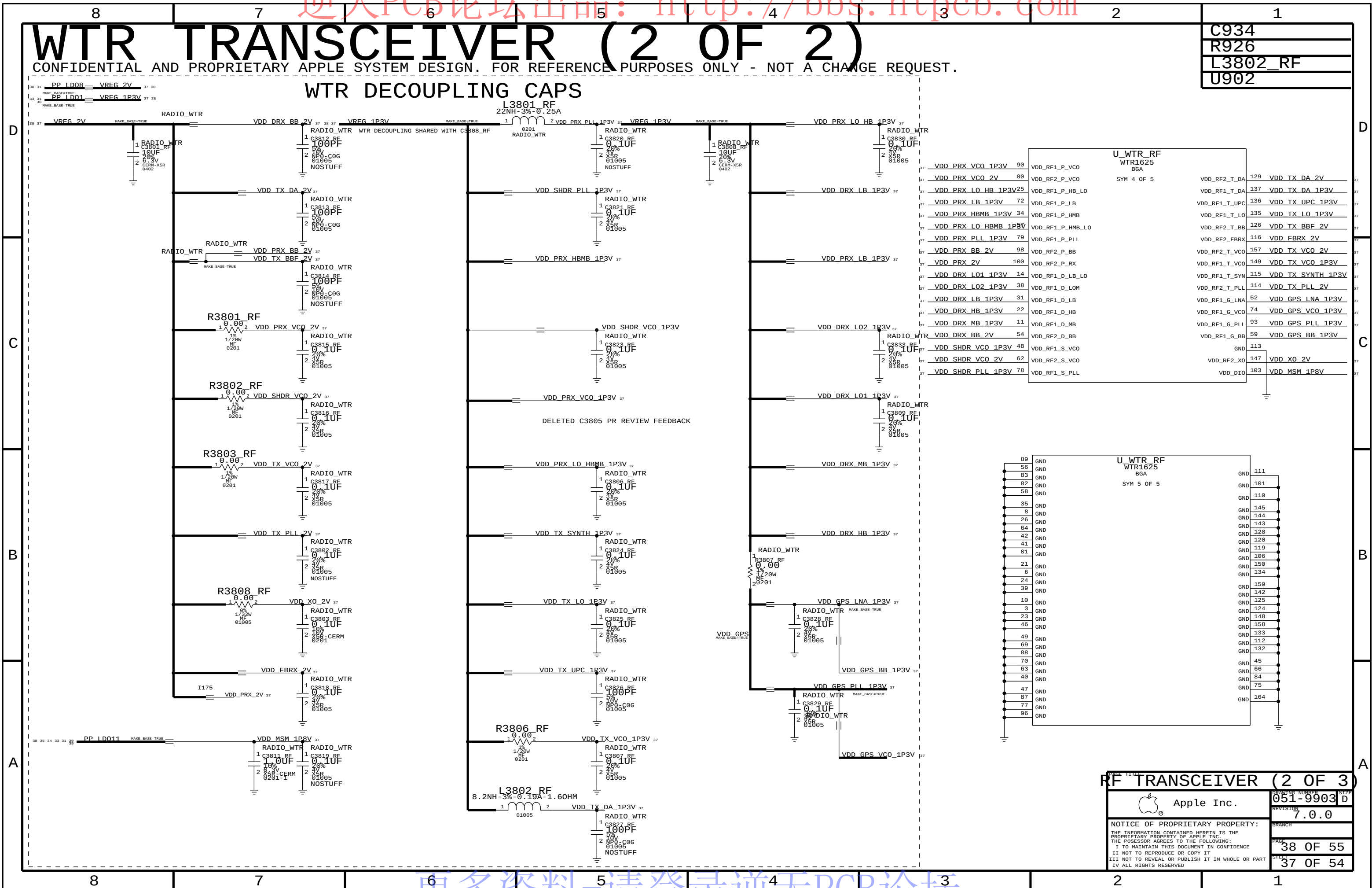


RF_CLK IS SHARED BETWEEN WTR AND WFR. LENGTH DIFFERENCE BETWEEN THE TWO SHOULD BE < 5MM.

RF TRANSCEIVER (2 OF 3)

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

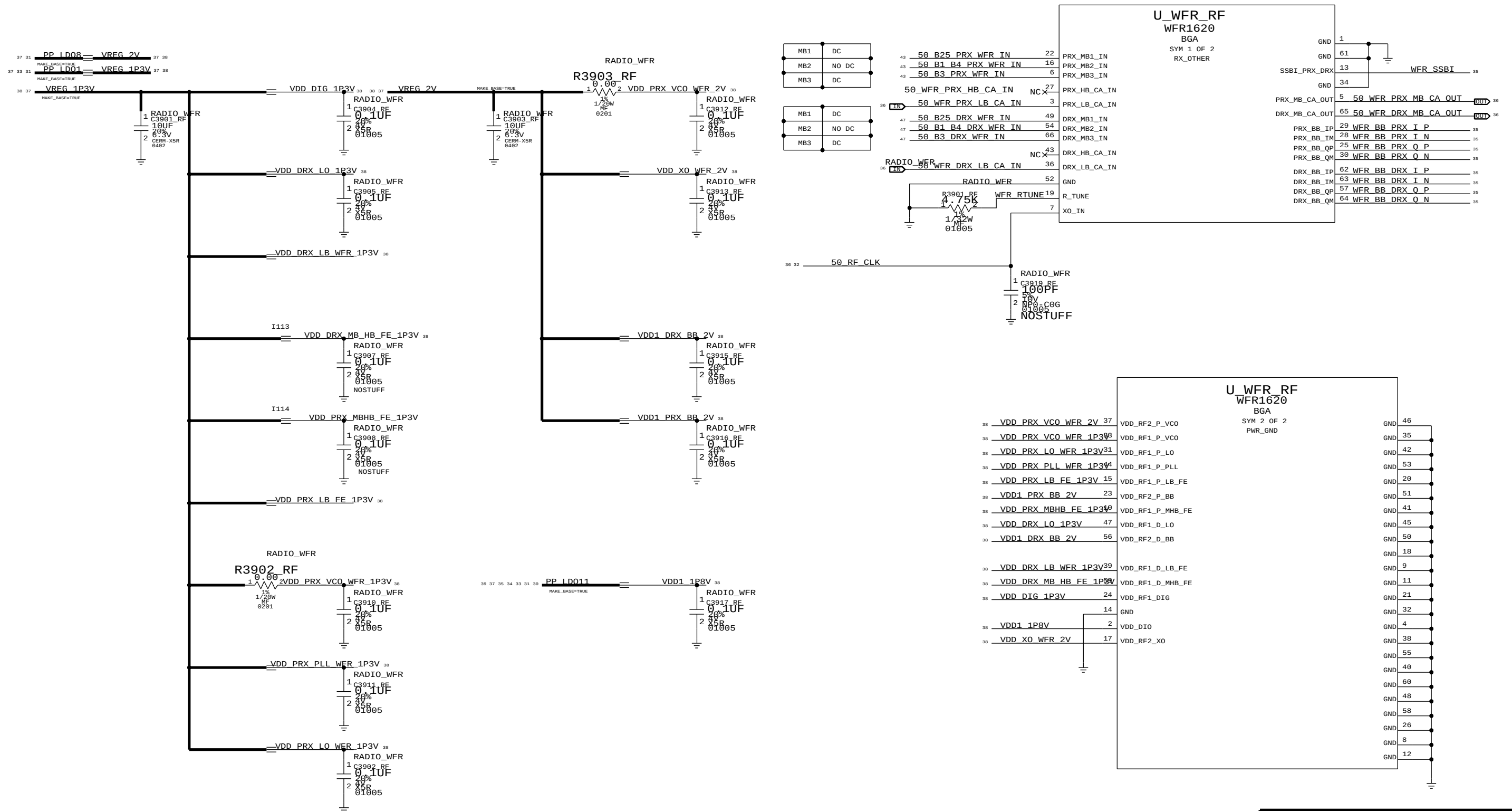
DRAWING NUMBER		SIZE
051-9903		D
REVISION		
7.0.0		
BRANCH		
PAGE		
38 OF 55		
SHEET		
37 OF 54		



WFR TRANSCEIVER

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

C1019
R1016
L1000
U1002



RF TRANSCEIVER (3 OF 3)



Apple Inc.

NOTICE OF PROPRIETARY PROPERTY:

THE INFORMATION CONTAINED HEREIN IS THE
 PROPRIETARY PROPERTY OF APPLE INC.
 THE OSSOR AGREE TO THE FOLLOWING:

- I I TO MAINTAIN THIS DOCUMENT IN CONFIDENCE
- II NOT TO REPRODUCE OR COPY IT
- III NOT TO REVEAL OR PUBLISH IT IN WHOLE OR PART
- IV ALL RIGHTS RESERVED

DRAWING NUMBER	SIZE
051 0003	D

REVISION 7.0.0

13:ZANICH

PAGE 39 OF 55

SHEET
38 OF 54

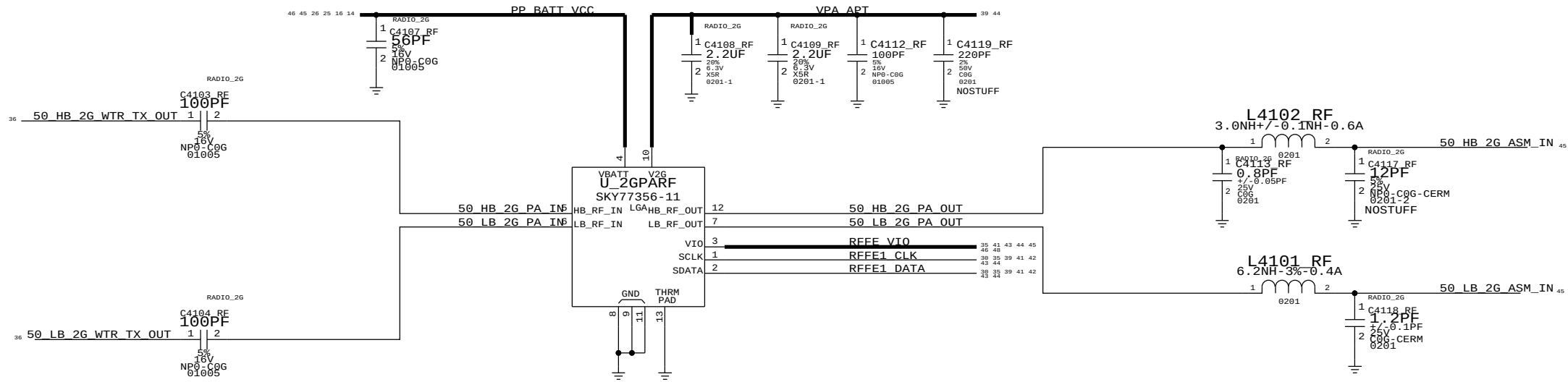
~~CONFIDENTIAL AND PROPRIETARY APPLE SYSTEM DESIGN. FOR REFERENCE PURPOSES ONLY - NOT A CHANGE REQUEST.~~

PAGE TITLE		QFE DCDC	
 Apple Inc.	DRAWING NUMBER		051-9903
	REVISION		7.0.0
NOTICE OF PROPRIETARY PROPERTY:		SIZE	
THE INFORMATION CONTAINED HEREIN IS THE PROPRIETARY PROPERTY OF APPLE INC. THE POSSESSOR AGREES TO THE FOLLOWING: I I TO MAINTAIN THIS DOCUMENT IN CONFIDENCE II NOT TO REPRODUCE OR COPY IT III NOT TO REVEAL OR PUBLISH IT IN WHOLE OR PART IV ALL RIGHTS RESERVED		BRANCH	
		PAGE	
		40 OF 55	
		SHEET	
		39 OF 54	

2G PA

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

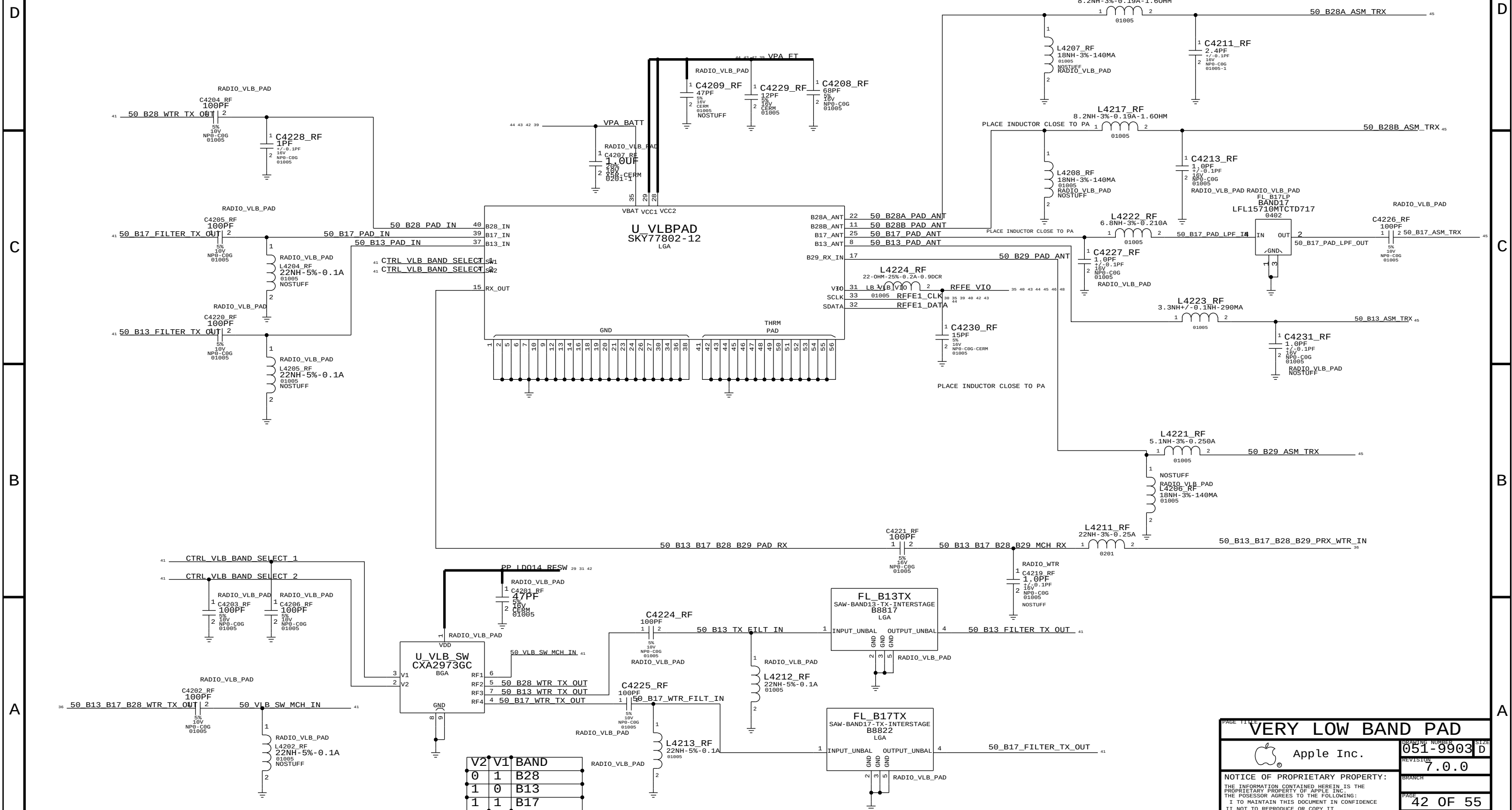
C1208
R1200
L1204
U1201



PAGE TITLE		2G PA	
 Apple Inc.	DRAWING NUMBER	051-9903	SIZE D
	REVISION	7.0.0	
NOTICE OF PROPRIETARY PROPERTY: THE INFORMATION CONTAINED HEREIN IS THE PROPRIETARY PROPERTY OF APPLE INC. THE POSSESSOR AGREES TO THE FOLLOWING: I TO MAINTAIN THIS DOCUMENT IN CONFIDENCE II NOT TO REPRODUCE OR COPY IT III NOT TO REVEAL OR PUBLISH IT IN WHOLE OR PART IV ALL RIGHTS RESERVED		BRANCH	
		PAGE	41 OF 55
		SHEET	40 OF 54

C1332
R1300
L4215_RF
U1304

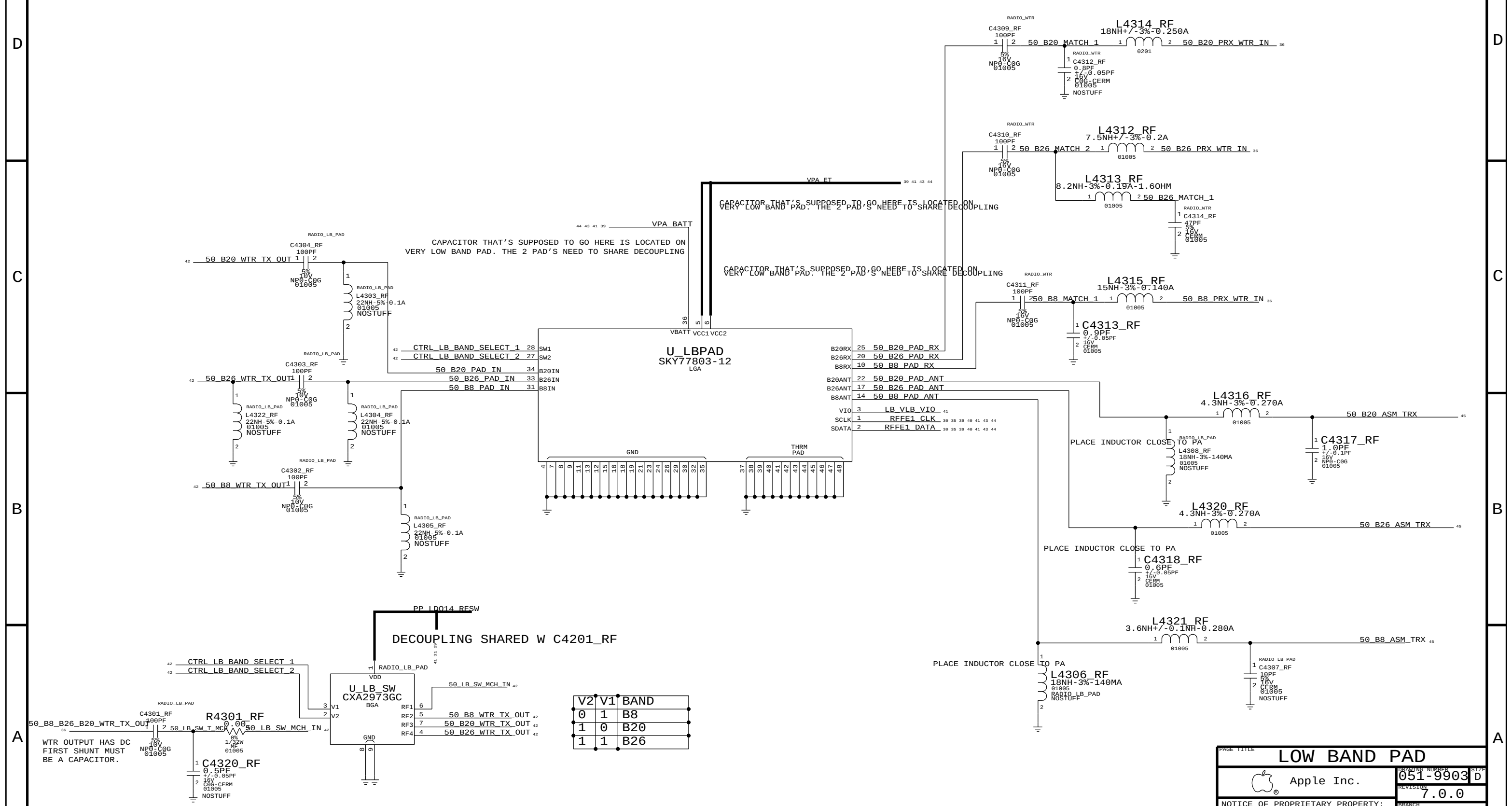
C1332
R1300
L4215_RF
U1304



LOW BAND PAD (B8, B26, B20)

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

C4318_RF
R1400
L4322_RF
U1402



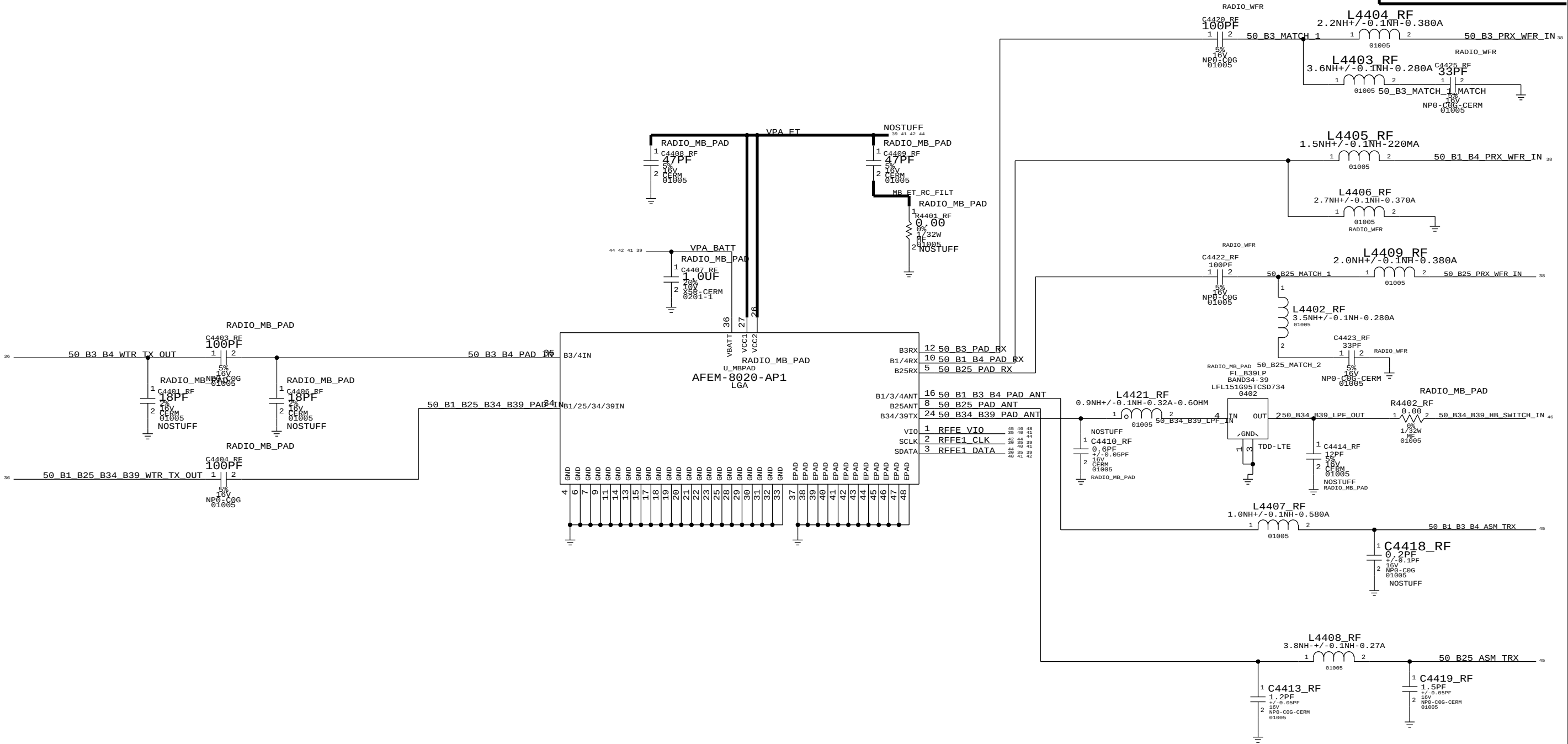
V2	V1	BAND
0	1	B8
1	0	B20
1	1	B26

PAGE TITLE		LOW BAND PAD	
 Apple Inc.		DRAWING NUMBER 051-9903	SIZE D
		REVISION 7.0.0	
NOTICE OF PROPRIETARY PROPERTY:		BRANCH	
THE INFORMATION CONTAINED HEREIN IS THE PROPRIETARY PROPERTY OF APPLE INC. THE POSSESSOR AGREES TO THE FOLLOWING: I TO MAINTAIN THIS DOCUMENT IN CONFIDENCE II NOT TO REPRODUCE OR COPY IT III NOT TO REVEAL OR PUBLISH IT IN WHOLE OR PART IV ALL RIGHTS RESERVED		PAGE 43 OF 55	
		SHEET 42 OF 54	

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

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

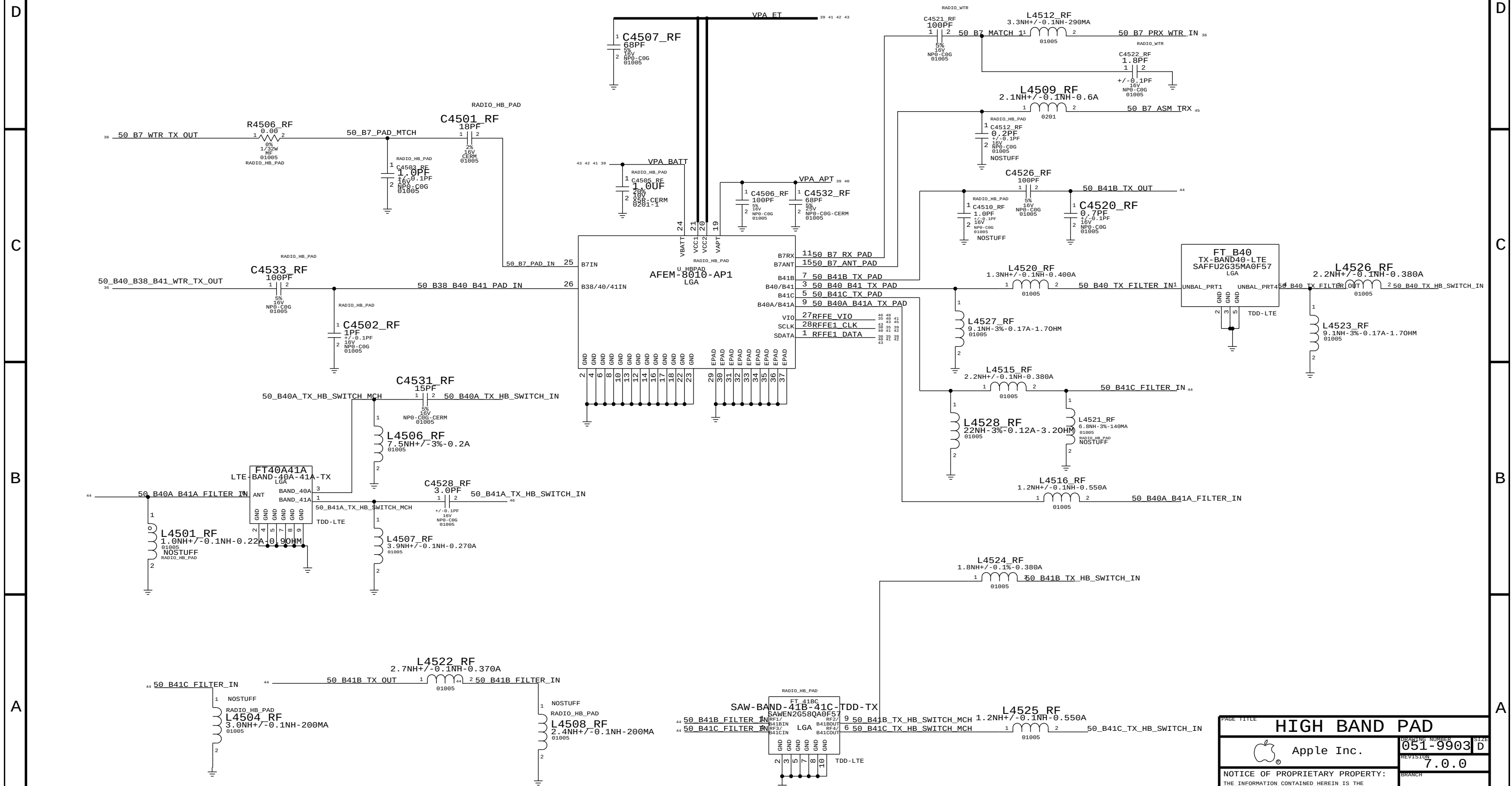
C4426_RF
R1500
L4409_RF
U1501



PAGE TITLE		MID BAND PAD	
Apple Inc.		DRAWING NUMBER	051-9903 D
NOTICE OF PROPRIETARY PROPERTY:		REVISION	7.0.0
THE INFORMATION CONTAINED HEREIN IS THE PROPRIETARY PROPERTY OF APPLE INC. THE POSSESSOR AGREES TO THE FOLLOWING:		BRANCH	
I TO MAINTAIN THIS DOCUMENT IN CONFIDENCE		PAGE	44 OF 55
II NOT TO REPRODUCE OR COPY IT		SHEET	43 OF 54
III NOT TO REVEAL OR PUBLISH IT IN WHOLE OR PART			
IV ALL RIGHTS RESERVED			

C4533_RF
R1600
L1616
U1601

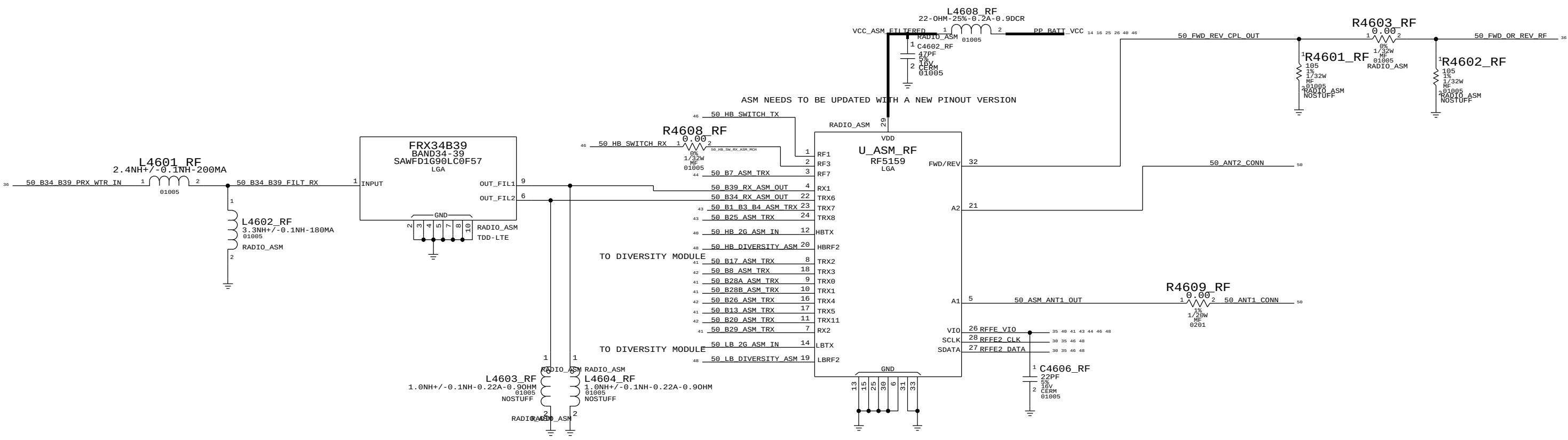
CONFIDENTIAL AND PROPRIETARY APPLE SYSTEM DESIGN. FOR REFERENCE PURPOSES ONLY - NOT A CHANGE REQUEST.



ANTENNA SWITCH

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

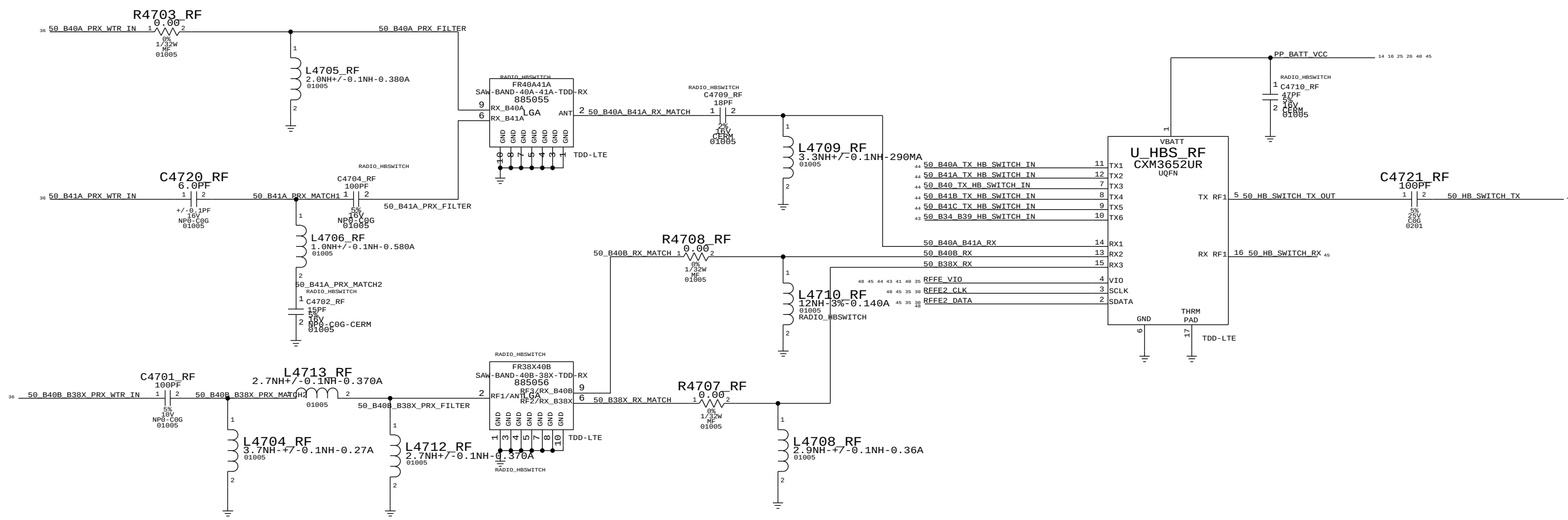
C1702
R1700
L4608_RF
U1702



PAGE TITLE		ANTENNA SWITCH	
 Apple Inc.	DRAWING NUMBER	051-9903	SIZE
	REVISION	7.0.0	
NOTICE OF PROPRIETARY PROPERTY: THE INFORMATION CONTAINED HEREIN IS THE PROPRIETARY PROPERTY OF APPLE INC. THE POSSESSOR AGREES TO THE FOLLOWING: I TO MAINTAIN THIS DOCUMENT IN CONFIDENCE II NOT TO REPRODUCE OR COPY IT III NOT TO REVEAL OR PUBLISH IT IN WHOLE OR PART IV ALL RIGHTS RESERVED		BRANCH	
		PAGE	46 OF 55
		SHEET	45 OF 54

HIGH BAND SWITCH

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



PAGE TITLE		
HIGH BAND SWITCH		
 Apple Inc.	DRAWING NUMBER	051-9903
	REVISION	7.0.0
NOTICE OF PROPRIETARY PROPERTY: THE INFORMATION CONTAINED HEREIN IS THE PROPRIETARY PROPERTY OF APPLE INC. THE POSSESSOR AGREES TO THE FOLLOWING: I TO MAINTAIN THIS DOCUMENT IN CONFIDENCE II NOT TO REPRODUCE OR COPY IT III NOT TO REVEAL OR PUBLISH IT IN WHOLE OR PART IV ALL RIGHTS RESERVED		
BRANCH		PAGE
		47 OF 55
		SHEET
		46 OF 54

RX DIVERSITY (1)

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

C4826_RF
R1800
L1829
U1801

D

D

C

C

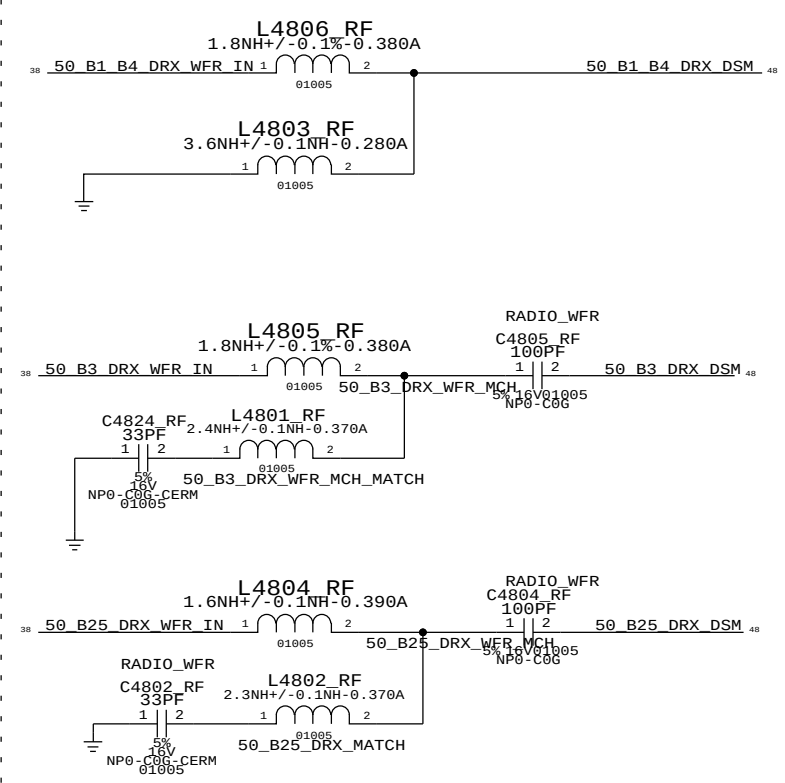
B

B

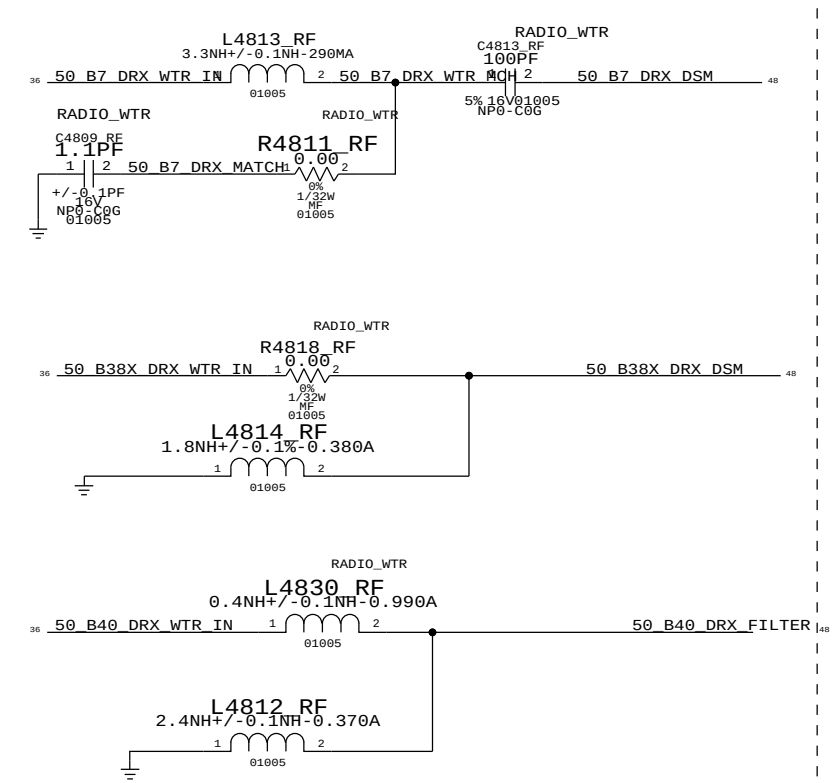
A

A

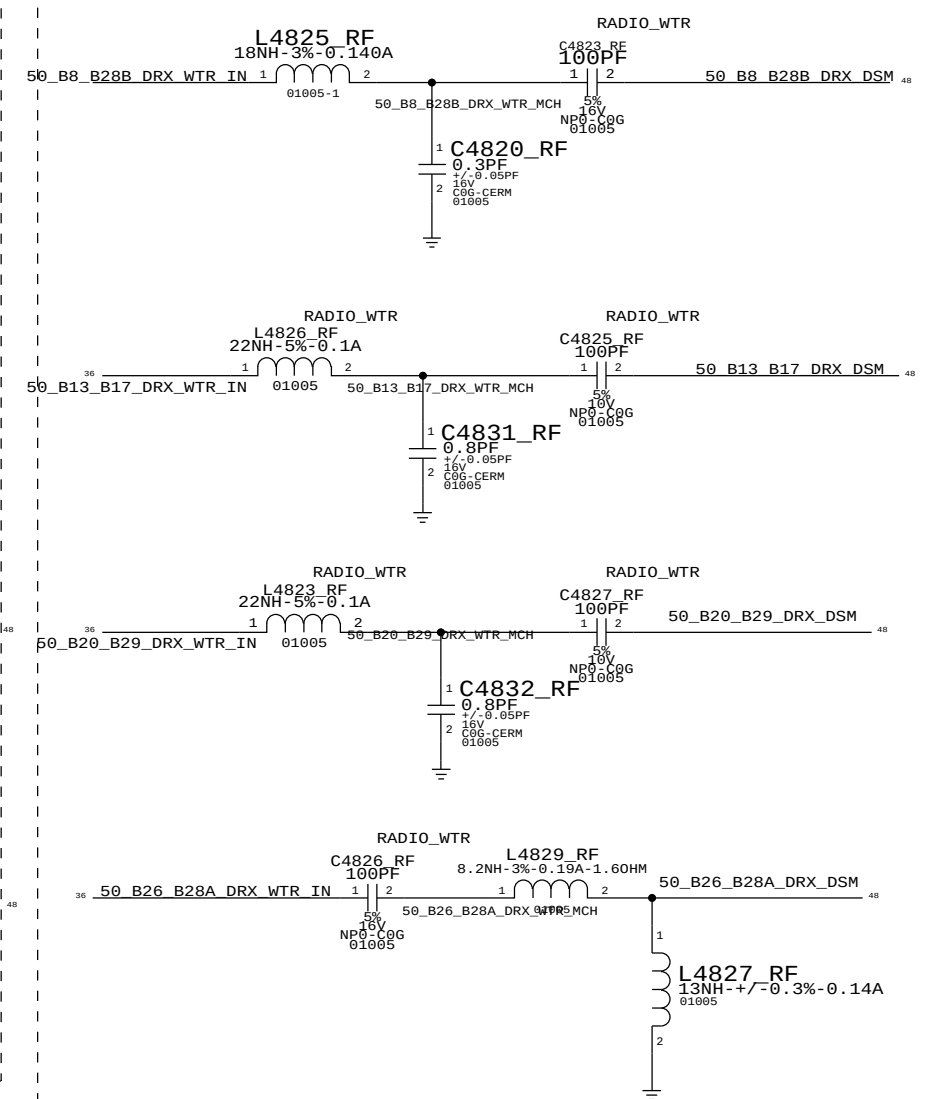
MIDBAND MIDBAND DIVERSITY - WFR



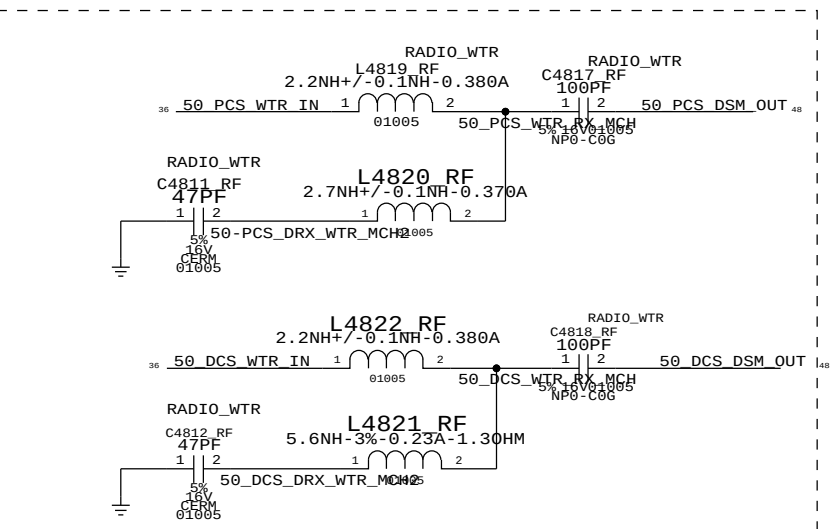
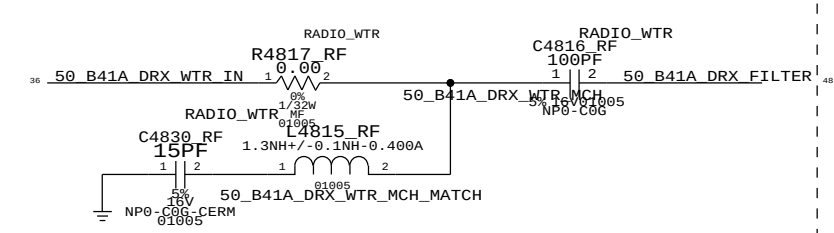
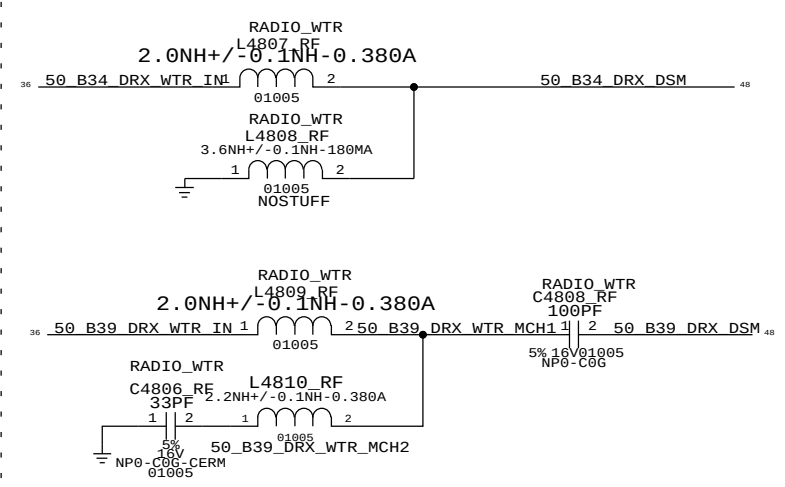
HIGHBAND DIVERSITY - WTR



LOWBAND DIVERSITY - WTR



MIDBAND DIVERSITY - WTR

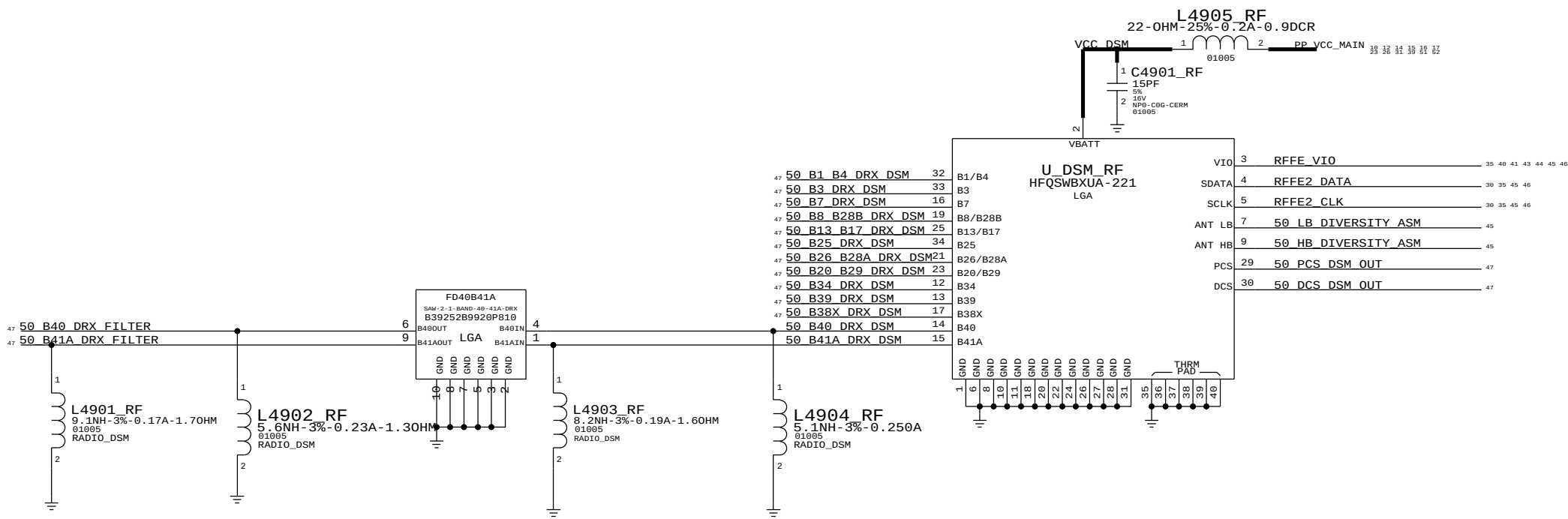


PAGE TITLE		RX DIVERSITY	
Apple Inc.		DRAWING NUMBER	051-9903 D
NOTICE OF PROPRIETARY PROPERTY: THE INFORMATION CONTAINED HEREIN IS THE PROPRIETARY PROPERTY OF APPLE INC. THE POSSESSOR AGREES TO THE FOLLOWING: I TO MAINTAIN THIS DOCUMENT IN CONFIDENCE II NOT TO REPRODUCE OR COPY IT III NOT TO REVEAL OR PUBLISH IT IN WHOLE OR PART IV ALL RIGHTS RESERVED		REVISION	7.0.0
		BRANCH	
		PAGE	48 OF 55
		SHEET	47 OF 54

RX DIVERSITY (2)

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

C1900
R1900
L1900
U1901

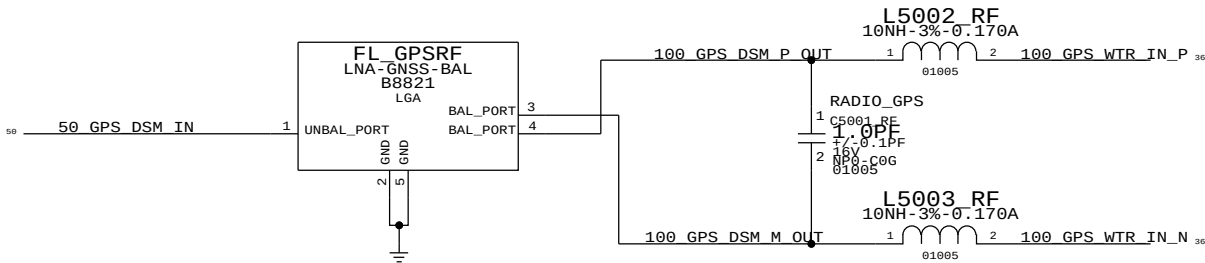


PAGE TITLE		GPS	
Apple Inc.		DRAWING NUMBER	051-9903 D
		REVISION	7.0.0
NOTICE OF PROPRIETARY PROPERTY: THE INFORMATION CONTAINED HEREIN IS THE PROPRIETARY PROPERTY OF APPLE INC. THE POSSESSOR AGREES TO THE FOLLOWING: I TO MAINTAIN THIS DOCUMENT IN CONFIDENCE II NOT TO REPRODUCE OR COPY IT III NOT TO REVEAL OR PUBLISH IT IN WHOLE OR PART IV ALL RIGHTS RESERVED		BRANCH	
		PAGE	49 OF 55
		SHEET	48 OF 54

GPS

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

C1900
R1900
L1900
U1901

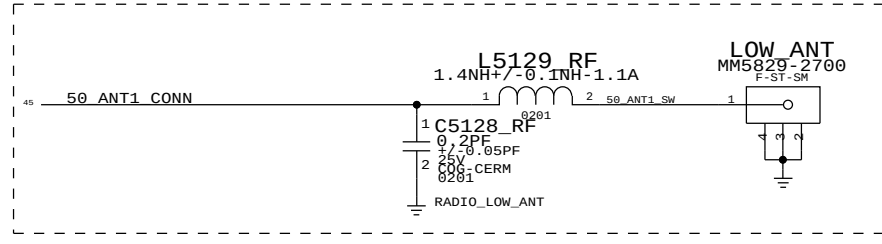
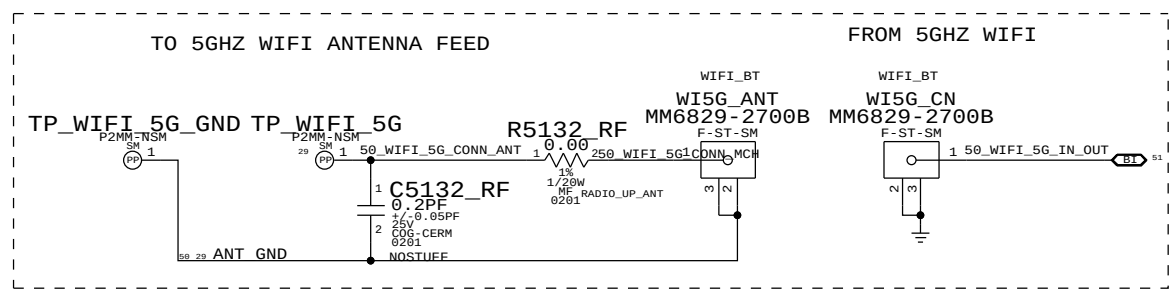
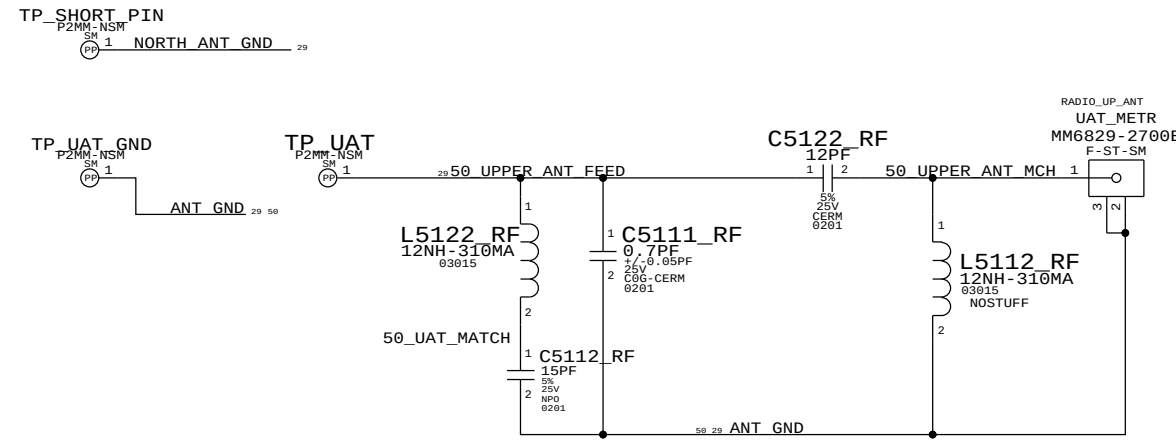
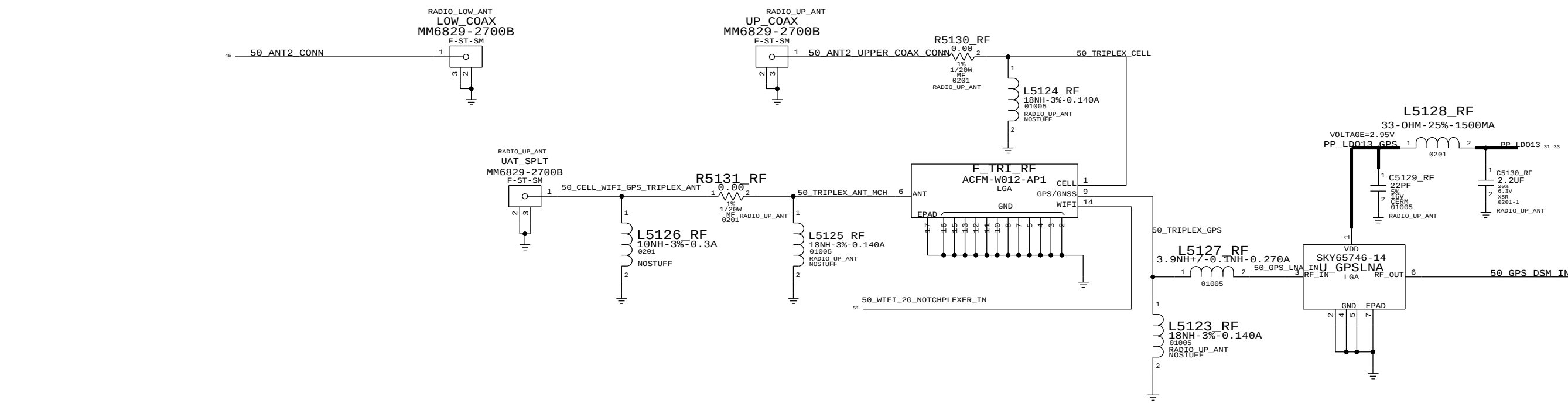


PAGE TITLE			
GPS			
 Apple Inc.	DRAWING NUMBER	051-9903	SIZE D
	REVISION	7.0.0	
NOTICE OF PROPRIETARY PROPERTY:		BRANCH	
THE INFORMATION CONTAINED HEREIN IS THE PROPRIETARY PROPERTY OF APPLE INC. THE POSSESSOR AGREES TO THE FOLLOWING:		PAGE	
I TO MAINTAIN THIS DOCUMENT IN CONFIDENCE		50 OF 55	
II NOT TO REPRODUCE OR COPY IT		SHEET	
III NOT TO REVEAL OR PUBLISH IT IN WHOLE OR PART		49 OF 54	
IV ALL RIGHTS RESERVED			

ANTENNA FEED'S

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

TEST & COAX CONNECTOR FOR LOWER SECTION OF MLB



PAGE TITLE		ANTENNA FEEDS	
 Apple Inc.	DRAWING NUMBER		051-9903 D
	REVISION		7.0.0
NOTICE OF PROPRIETARY PROPERTY: THE INFORMATION CONTAINED HEREIN IS THE PROPRIETARY PROPERTY OF APPLE INC. THE POSSESSOR AGREES TO THE FOLLOWING: I TO MAINTAIN THIS DOCUMENT IN CONFIDENCE II NOT TO REPRODUCE OR COPY IT III NOT TO REVEAL OR PUBLISH IT IN WHOLE OR PART IV ALL RIGHTS RESERVED		BRANCH	
		PAGE	51 OF 55
		SHEET	50 OF 54

MODULE BOOT-STRAPPED TO PCIE INTERNALLY



DC BLOCKS LOCATED ON AP SIDE
SWIZZLE DATA LANE ON TOP-LEVEL

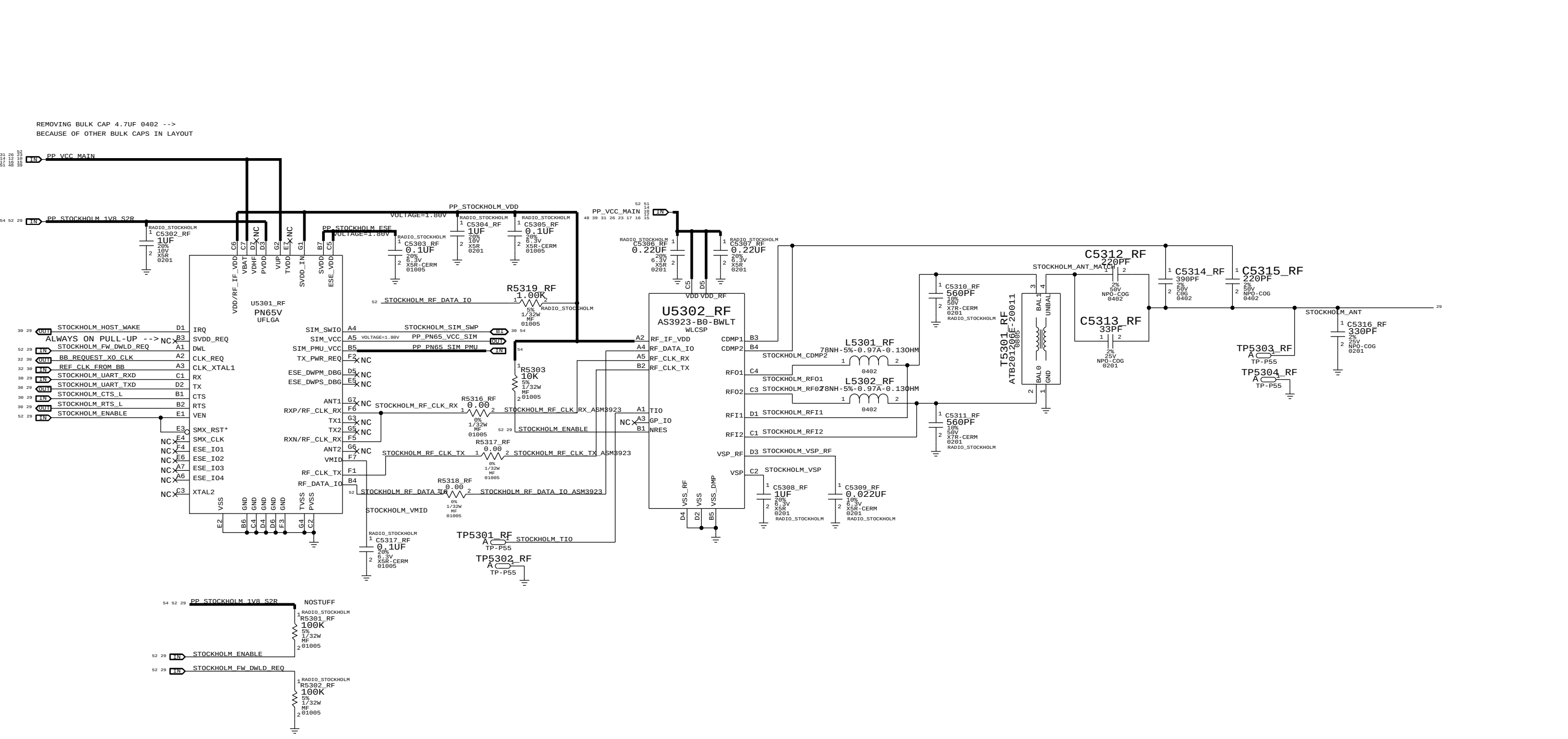
MODULE BOOT-STRAPPED TO PCIE INTERNALLY

SYNC MASTER=N/A		SYNC DATE=N/A	
PAGE TITLE		PAGE NO	
WIFI/BT: MODULE AND FRONT END			
 Apple Inc.		DRAWING NUMBER	SIZE
		051-9903	D
NOTICE OF PROPRIETARY PROPERTY: THE INFORMATION CONTAINED HEREIN IS THE PROPRIETARY PROPERTY OF APPLE INC. THE POSSESSOR AGREES TO THE FOLLOWING: I TO MAINTAIN THIS DOCUMENT IN CONFIDENCE I NOT TO REPRODUCE OR COPY IT I NOT TO REVEAL OR PUBLISH IT IN WHOLE OR PART I ALL RIGHTS RESERVED		REVISION	
		7.0.0	
		BRANCH	
		PAGE	
		52 OF 55	
		SHEET	
		51 OF 54	

STOCKHOLM

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

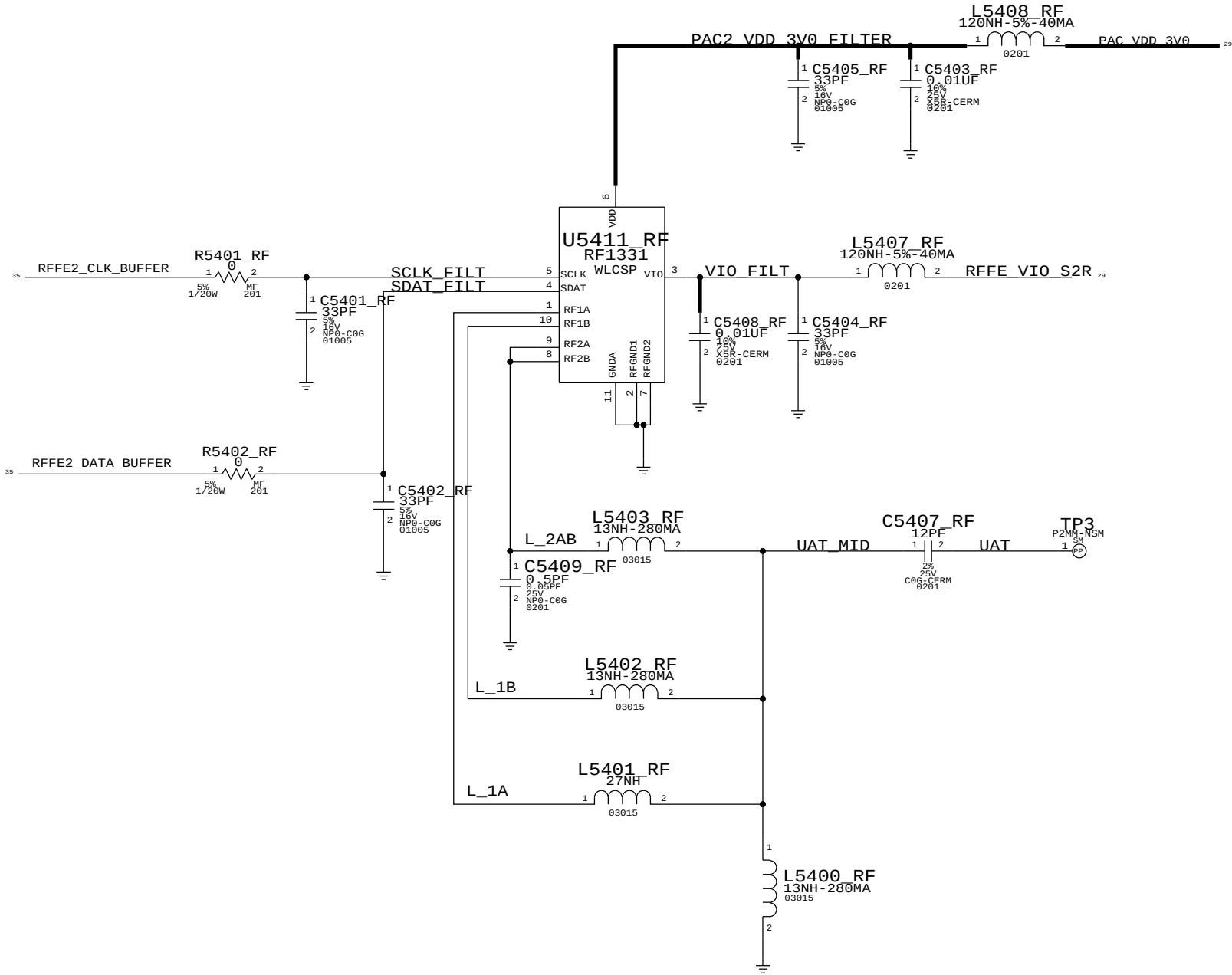
C2101
R2100
L2102
U2100



SYNC MASTER=N/A		SYNC DATE=N/A	
PAGE TITLE			
	Apple Inc.	DRAWING NUMBER	051-9903
		SIZE	D
		REVISION	7.0.0
NOTICE OF PROPRIETARY PROPERTY:		BRANCH	
THE INFORMATION CONTAINED HEREIN IS THE PROPRIETARY PROPERTY OF APPLE INC. THE POSSESSOR AGREES TO THE FOLLOWING:			
I TO MAINTAIN THIS DOCUMENT IN CONFIDENCE			
II NOT TO REPRODUCE OR COPY IT			
III NOT TO REVEAL OR PUBLISH IT IN WHOLE OR PART			
IV ALL RIGHTS RESERVED			
		PAGE	53 OF 55
		SHEET	52 OF 54

ON-BOARD JUMPER FLEX

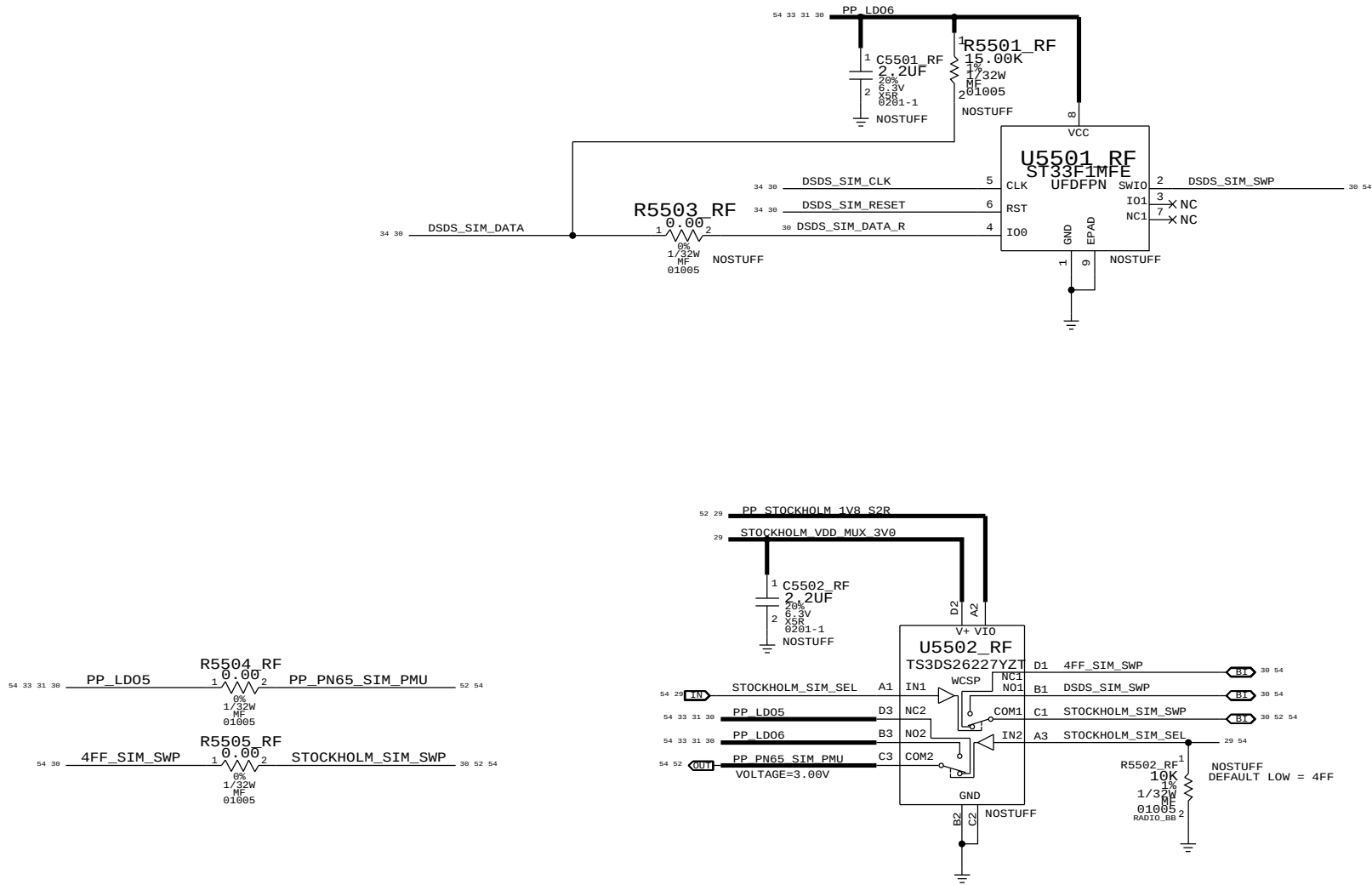
UAT JUMPER



PAGE TITLE		
JUMPER		
 Apple Inc.	DRAWING NUMBER	051-9903
	REVISION	7.0.0
NOTICE OF PROPRIETARY PROPERTY:		
THE INFORMATION CONTAINED HEREIN IS THE PROPRIETARY PROPERTY OF APPLE INC. THE POSSESSOR AGREES TO THE FOLLOWING:		
I TO MAINTAIN THIS DOCUMENT IN CONFIDENCE		
II NOT TO REPRODUCE OR COPY IT		
III NOT TO REVEAL OR PUBLISH IT IN WHOLE OR PART		
IV ALL RIGHTS RESERVED		
PAGE	54 OF 55	
SHEET	53 OF 54	

DSDS

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



PAGE TITLE		JUMPER	
 Apple Inc.	DRAWING NUMBER		051-9903
	REVISION		7.0.0
	BRANCH		
NOTICE OF PROPRIETARY PROPERTY: THE INFORMATION CONTAINED HEREIN IS THE PROPRIETARY PROPERTY OF APPLE INC. THE POSSESSOR AGREES TO THE FOLLOWING: I TO MAINTAIN THIS DOCUMENT IN CONFIDENCE II NOT TO REPRODUCE OR COPY IT III NOT TO REVEAL OR PUBLISH IT IN WHOLE OR PART IV ALL RIGHTS RESERVED		PAGE	55 OF 55
		SHEET	54 OF 54

射频和天线设计培训课程推荐

易迪拓培训(www.edatop.com)由数名来自于研发第一线的资深工程师发起成立,致力并专注于微波、射频、天线设计研发人才的培养;我们于 2006 年整合合并微波 EDA 网(www.mweda.com),现已发展成为国内最大的微波射频和天线设计人才培养基地,成功推出多套微波射频以及天线设计经典培训课程和 ADS、HFSS 等专业软件使用培训课程,广受客户好评;并先后与人民邮电出版社、电子工业出版社合作出版了多本专业图书,帮助数万名工程师提升了专业技术能力。客户遍布中兴通讯、研通高频、埃威航电、国人通信等多家国内知名公司,以及台湾工业技术研究院、永业科技、全一电子等多家台湾地区企业。

易迪拓培训推荐课程列表: <http://www.edatop.com/peixun/tuijian/>



射频工程师养成培训课程套装

该套装精选了射频专业基础培训课程、射频仿真设计培训课程和射频电路测量培训课程三个类别共 30 门视频培训课程和 3 本图书教材;旨在引领学员全面学习一个射频工程师需要熟悉、理解和掌握的专业知识和研发设计能力。通过套装的学习,能够让学员完全达到和胜任一个合格的射频工程师的要求...

课程网址: <http://www.edatop.com/peixun/rfe/110.html>

手机天线设计培训视频课程

该套课程全面讲授了当前手机天线相关设计技术,内容涵盖了早期的外置螺旋手机天线设计,最常用的几种手机内置天线类型——如 monopole 天线、PIFA 天线、Loop 天线和 FICA 天线的设计,以及当前高端智能手机中较常用的金属边框和全金属外壳手机天线的设计;通过该套课程的学习,可以帮助您快速、全面、系统地学习、了解和掌握各种类型的手机天线设计,以及天线及其匹配电路的设计和调试...

课程网址: <http://www.edatop.com/peixun/antenna/133.html>



WiFi 和蓝牙天线设计培训课程



该套课程是李明洋老师应邀给惠普 (HP)公司工程师讲授的 3 天员工内训课程录像,课程内容是李明洋老师十多年工作经验积累和总结,主要讲解了 WiFi 天线设计、HFSS 天线设计软件的使用,匹配电路设计调试、矢量网络分析仪的使用操作、WiFi 射频电路和 PCB Layout 知识,以及 EMC 问题的分析解决思路等内容。对于正在从事射频设计和天线设计领域工作的您,绝对值得拥有和学习!...

课程网址: <http://www.edatop.com/peixun/antenna/134.html>

CST 学习培训课程套装

该培训套装由易迪拓培训联合微波 EDA 网共同推出,是最全面、系统、专业的 CST 微波工作室培训课程套装,所有课程都由经验丰富的专家授课,视频教学,可以帮助您从零开始,全面系统地学习 CST 微波工作的各项功能及其在微波射频、天线设计等领域的设计应用。且购买该套装,还可超值赠送 3 个月免费学习答疑...

课程网址: <http://www.edatop.com/peixun/cst/24.html>



HFSS 学习培训课程套装

该套课程套装包含了本站全部 HFSS 培训课程,是迄今国内最全面、最专业的 HFSS 培训教程套装,可以帮助您从零开始,全面深入学习 HFSS 的各项功能和在多个方面的工程应用。购买套装,更可超值赠送 3 个月免费学习答疑,随时解答您学习过程中遇到的棘手问题,让您的 HFSS 学习更加轻松顺畅...

课程网址: <http://www.edatop.com/peixun/hfss/11.html>

ADS 学习培训课程套装

该套装是迄今国内最全面、最权威的 ADS 培训教程,共包含 10 门 ADS 学习培训课程。课程是由具有多年 ADS 使用经验的微波射频与通信系统设计领域资深专家讲解,并多结合设计实例,由浅入深、详细而又全面地讲解了 ADS 在微波射频电路设计、通信系统设计和电磁仿真设计方面的内容。能让您在最短的时间内学会使用 ADS,迅速提升个人技术能力,把 ADS 真正应用到实际研发工作中去,成为 ADS 设计专家...

课程网址: <http://www.edatop.com/peixun/ads/13.html>



我们的课程优势:

- ※ 成立于 2004 年,10 多年丰富的行业经验,
- ※ 一直致力并专注于微波射频和天线设计工程师的培养,更了解该行业对人才的要求
- ※ 经验丰富的一线资深工程师讲授,结合实际工程案例,直观、实用、易学

联系我们:

- ※ 易迪拓培训官网: <http://www.edatop.com>
- ※ 微波 EDA 网: <http://www.mweda.com>
- ※ 官方淘宝店: <http://shop36920890.taobao.com>