1. ALL RESISTANCE VALUES ARE IN OHMS, 0.1 WATT +/- 5%.
2. ALL CAPACITANCE VALUES ARE IN MICROFARADS.
3. ALL CRYSTALS & OSCILLATOR VALUES ARE IN HERTZ.

REV	ECN	DESCRIPTION OF REVISION	CK APPD / DATE
A	0004600844	PRODUCTION RELEASED	2015-07-30

N66 MLB - PVT

LAST_MODIFICATION=Thu Jul 30 15:54:57 2015

SCH 051-00094
BRD 820-00040
MCO 056-00472

BOM 639-00299 (BETTER, DB30)
BOM 639-00301 (ULTRA, DB30)
BOM 639-00302 (SUPREME, DB30)
BOM 639-01063 (BETTER, B30)
BOM 639-01064 (ULTRA, B30)
BOM 639-01065 (SUPREME, B30)

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Active Diode Alternate

PART NUMBER	ALTERNATE FOR PART NUMBER	BOM OPTION	REF DES	COMMENTS:
376S00106	376S00047	ALTERNATE	Q2300	DIODES INC. ACT DIODE

NAND BOM Options

PART#	QTY	DESCRIPTION	REFERENCE DESIGNATOR(S)	CRITICAL	BOM OPTION
335S00039	1	NAND,1YNM,16GX8,S3E,64G,T,SLGA70	U1500	CRITICAL	NAND_16G
335S00075	1	NAND,1YNM,64GX8,S3E,MLB,64G,H,SLGA70	U1500	CRITICAL	NAND_64G
335S00079	1	NAND,1YNM,64GX8,S3E,128G,H,SLGA70	U1500	CRITICAL	NAND_128G

PART NUMBER	ALTERNATE FOR PART NUMBER	BOM OPTION	REF DES	COMMENTS:
335S00074	335S00039	NAND_16G	U1500	HYNIX 16G SLGA70 C DIE
335S00078	335S00075	NAND_64G	U1500	HYNIX 64G SLGA70
335S00064	335S00075	NAND_64G	U1500	SANDISK 64G SLGA70 1Z
335S00065	335S00079	NAND_128G	U1500	SANDISK 128G SLGA70

Carbon BOM Options

PART#	QTY	DESCRIPTION	REFERENCE DESIGNATOR(S)	CRITICAL	BOM OPTION
338S1163	1	DISCRETE ACCEL, BOSCH	U3030	CRITICAL	NOSTUFF
338S1163	1	DISCRETE ACCEL, BOSCH	U3030	CRITICAL	CARBON_INVENSENSE
338S00017	1	CARBON, INVENSENSE	U3010	CRITICAL	CARBON_INVENSENSE
338S00087	1	CARBON, INVENSENSE MPU-6800	U3010	CRITICAL	CARBON_INVENSENSE_6800

Power Inductor Alternates

PART NUMBER	ALTERNATE FOR PART NUMBER	BOM OPTION	REF DES	COMMENTS:
152S00118	152S00075	ALTERNATE	$??	IND,PWR,SHLD,1.2`UH,3.0A,0.080`OHM,2016
152S00120	152S00077	ALTERNATE	$??	IND,PWR,SHLD,1.0`UH,2.25A,0.150`OHM,2016
152S2052	152S1929	ALTERNATE	$??	IND,MULT,1UH,1.2A,0.320`OHM,0603

DDR PLL Alternate

PART NUMBER	ALTERNATE FOR PART NUMBER	BOM OPTION	REF DES	COMMENTS:
155S00095	155S00068	ALTERNATE	FL1280	FERR 8D,1800OHM,25%,100MA,2OHM,01005

SEP EEPROM Alternate

PART NUMBER	ALTERNATE FOR PART NUMBER	BOM OPTION	REF DES	COMMENTS:
335S00066	335S0946	ALTERNATE	U0900	IC,EEPROM,16KX8,1.8V,I2C,WLCSP4,ON&EMI

Low Noise Caps

PART#	QTY	DESCRIPTION	REFERENCE DESIGNATOR(S)	BOM OPTION
138S0867	3	CAP,X5R,10UF,20%,6.3V,0.65MM,HRZTL,0402	C2085, C2086, C2087	CAPS_NORMAL
998-01223	3	CAP,X5R,10UF,20%,6.3V,0.65MM,0402,INTPOSER	C2085, C2086, C2087	CAPS_LOW_NOISE

Schematic & PCB Callouts

PART#	QTY	DESCRIPTION	REFERENCE DESIGNATOR(S)	CRITICAL	BOM OPTION
051-00094	1	SCH,SINGLE_BRD,N66	SCH	CRITICAL	?
820-00040	1	PCBF,SINGLE_BRD,N66	PCB	CRITICAL	?
825-6838	1	EEEE CODE FOR 639-00299	EEEE_G360	CRITICAL	EEEE_BETTER_DB30
825-6838	1	EEEE CODE FOR 639-00301	EEEE_G35W	CRITICAL	EEEE_ULTRA_DB30
825-6838	1	EEEE CODE FOR 639-00302	EEEE_G35V	CRITICAL	EEEE_SUPREME_DB30
825-6838	1	EEEE CODE FOR 639-01063	EEEE_GKKY	CRITICAL	EEEE_BETTER_B30
825-6838	1	EEEE CODE FOR 639-01064	EEEE_GKL0	CRITICAL	EEEE_ULTRA_B30
825-6838	1	EEEE CODE FOR 639-01065	EEEE_GKL1	CRITICAL	EEEE_SUPREME_B30
825-6838	1	EEEE CODE FOR 939-01539	EEEE_GPMW	CRITICAL	EEEE_BETTER_DARWIN

Global Capacitor Alternates

PART NUMBER	ALTERNATE FOR PART NUMBER	BOM OPTION	REF DES	COMMENTS:
118S0764	118S0717	ALTERNATE	?	RES, 3.92K, 0.1%, 0201
138S0702	138S0657	ALTERNATE	?	CAP, X5R, 4.3UF, 4V, 0610
138S00006	138S0835	ALTERNATE	?	CAP, 3-TERM, 4.3UF, 4V, 0402
138S00005	138S00003	ALTERNATE	?	CAP,X5R,15UF,6.3V,0.65MM,0402,TAIYO
138S00048	138S00003	ALTERNATE	?	CAP,X5R,15UF,6.3V,0.65MM,0402,KYOCERA
138S0648	138S0652	ALTERNATE	?	CAP,X5R,4.7UF,6.3V,0.65MM,0402,TAIYO
132S0400	132S0436	ALTERNATE	?	CAP,X5R,0.22UF,6.3V,01005,TDK
138S00032	138S0831	ALTERNATE	?	CAP,X5R,2.2UF,6.3V,0201,TAIYO
138S00049	138S0831	ALTERNATE	?	CAP,X5R,2.2UF,6.3V,0201,KYOCERA
138S00024	138S0986	ALTERNATE	?	CAP,C0G,0.75PF,7.5UF,10%,4V,0402,TAIYO/TDK
138S0706	138S0739	ALTERNATE	?	CAP,CER,1UF,20%,10V,X5R,0201,MURATA
138S0945	138S0739	ALTERNATE	?	CAP,CER,1UF,20%,10V,X5R,0201,KYOCERA

Global Ferrite Alternates

PART NUMBER	ALTERNATE FOR PART NUMBER	BOM OPTION	REF DES	COMMENTS:
152S2052	152S1929	ALTERNATE	?	IND, 1UH, 1.2A, 0603
155S0773	155S0453	ALTERNATE	?	FERR, 120OHM, 0.8OHM DCR, 01005
155S0653	155S0511	ALTERNATE	?	FERR, 33OHM, 0.09OHM DCR, 0201
155S00067	155S0581	ALTERNATE	?	FERR, 240OHM, 0.38OHM DCR, 0201
155S00012	155S00009	ALTERNATE	?	FLTR, 65 OHMS, 0605
155S0960	155S0941	ALTERNATE	?	FERR, 70 OHMS, 01005
155S0660	155S0513	ALTERNATE	?	FERR, 22 OHMS, 0201

Global Varistor Alternates

PART NUMBER	ALTERNATE FOR PART NUMBER	BOM OPTION	REF DES	COMMENTS:
377S0168	377S0140	ALTERNATE	?	VARISTOR, 6.8V, 100PF, 01005

Inductor Sub BOMs

PART#	QTY	DESCRIPTION	REFERENCE DESIGNATOR(S)	BOM OPTION
685-00083	1	SUBBOM,SINGLE,BRD,CYNTEC,N66	SUBBOM_IND	COMMON
152S00074	12	IND,PWR,SHLD,1.0UH,3.6A,0.0600 HM,2016	L2001,L2003,L2010,L2011,L2021,L2030,L2040,L2041,L2050,L2060,L2080,L2081,L2091,L2092	CYNTEC
152S00081	6	IND,PWR,SHLD,0.47UH,3.8A,0.048 OHM,2012	L2001,L2003,L2011,L2013,L2021,L2041	CYNTEC

PART#	QTY	DESCRIPTION	REFERENCE DESIGNATOR(S)	BOM OPTION
152S00117	12	IND,PWR,SHLD,1.0UH,3.6A,0.0600 HM,2016	L2001,L2003,L2010,L2011,L2021,L2030,L2040,L2041,L2050,L2060,L2080,L2081,L2091,L2092	TAIYO
152S00121	6	IND,PWR,SHLD,0.47UH,3.8A,0.048 OHM,2012	L2001,L2003,L2011,L2013,L2021,L2041	TAIYO

PART NUMBER	ALTERNATE FOR PART NUMBER	BOM OPTION	REF DES	COMMENTS:
685-00082	685-00083	ALTERNATE	SUBBOM_IND	SUBBOM,SINGLE,BRD,TAIYO,N66

SOC/PMU SUB BOMS

PART#	QTY	DESCRIPTION	REFERENCE DESIGNATOR(S)	BOM OPTION
685-00071	1	SUBBOM,MLB,MAUI,N66	SUBBOM_SOC	COMMON
338S00120	1	IC,PMU,ANTIGUA,A1,AL,WLCSP380	U2000	MAUI
118S0631	1	RES,MF,100 OHM,1%,1/32W,01005	R0730	MAUI
131S0307	1	CAP,CER,NP0/C0G,100PF,5%,16V,01005	C0730	MAUI
339S00112	1	PROD FUSED, M DRAM	U0600	MAUI
117S0161	1	RES, MF, 0 OHM, 01005	R0651	MAUI

PART#	QTY	DESCRIPTION	REFERENCE DESIGNATOR(S)	BOM OPTION
338S00122	1	IC,PMU,ANTIGUA,A1,ZL,WLCSP380	U2000	MALTA
118S00009	1	RES,MF,3.01KOHM,1%,1/32W,01005	R0730	MALTA
131S0307	1	CAP,CER,NP0/C0G,100PF,5%,16V,01005	C0730	NOSTUFF
339S00124	1	M PROD FUSED, M DRAM	U0600	MALTA
118S00025	1	RES, MF, 330 OHM, 1%, 1/32W, 01005	R0651	MALTA

PART NUMBER	ALTERNATE FOR PART NUMBER	BOM OPTION	REF DES	COMMENTS:
685-00072	685-00071	ALTERNATE	SUBBOM_SOC	SUBBOM,MLB,MALTA,N66

AP Alternates

PART NUMBER	ALTERNATE FOR PART NUMBER	BOM OPTION	REF DES	COMMENTS:
339S00113	339S00112	MAUI	U0600	PROD FUSED, M DRAM
339S00114	339S00112	MAUI	U0600	PROD FUSED, S DRAM

339S00125	339S00124	MALTA	U0600	M PROD FUSED, H DRAM, ATK
339S00126	339S00124	MALTA	U0600	M PROD FUSED, S DRAM, ATK
339S00127	339S00124	MALTA	U0600	M PROD FUSED, M DRAM, SCK
339S00128	339S00124	MALTA	U0600	M PROD FUSED, H DRAM, SCK
339S00129	339S00124	MALTA	U0600	M PROD FUSED, S DRAM, SCK

Shield Callouts

PART#	QTY	DESCRIPTION	REFERENCE DESIGNATOR(S)	CRITICAL	BOM OPTION
806-04265	1	LOWER FRONT SHIELD	SH0501	CRITICAL	COMMON

SIM Callouts

PART#	QTY	DESCRIPTION	REFERENCE DESIGNATOR(S)	CRITICAL	BOM OPTION
512S00013	1	SIM, Integrated Eject, N66	J3001_RF	CRITICAL	COMMON

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SYSTEM:BOM TABLES

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TESTPOINTS

POWER

TP00 — TP-P5 — ROOM=TEST — A — VOLTAGE=0V — POWER GROUND

TP01 — TP-P55 — ROOM=TEST — A — 32 31 17 PP5V0_USB — VBUS

TP02 — TP-P5 — ROOM=TEST — A — 18 17 PP_BATT_VCC — VBATT

TP03 — TP-P5 — ROOM=TEST — A

TP04 — TP-P5 — ROOM=TEST — A — POWER GROUND

RESET

PP06 — P4MM-NSM — SM — ROOM=TEST — 34 16 9 5 PMU_TO_SYSTEM_COLD_RESET_L — SOC & BB RESET

DFU

TP07 — TP-P55 — ROOM=TEST — A — 34 8 FORCE_DFU — FORCE DFU

PP07 — P4MM-NSM — SM — ROOM=TEST — 21 20 17 14 13 12 9 8 7 6 5 3 34 30 PP1V8

PP08 — P4MM-NSM — SM — ROOM=TEST — 34 8 DFU_STATUS

AMUX

TP16 — TP-P55 — ROOM=TEST — A — 16 PMU_AMUX_AY — ANALOG MUX A OUTPUT

TP17 — TP-P55 — ROOM=TEST — A — 16 PMU_AMUX_BY — ANALOG MUX B OUTPUT

MOJAVE

TP18 — TP-P55 — ROOM=TEST — A — 29 28 MESA_TO_BOOST_EN

TP19 — TP-P55 — ROOM=TEST — A — 29 28 PP16V5_MESA

LCM

TP20 — TP-P55 — ROOM=TEST — A — 30 PP_LCM_BL_CAT1_CONN — LCM BACKLIGHT SINK1

TP21 — TP-P55 — ROOM=TEST — A — 30 PP_LCM_BL_CAT2_CONN — LCM BACKLIGHT SINK2

TP22 — TP-P55 — ROOM=TEST — A — 30 PP_LCM_BL_ANODE_CONN — LCM BACKLIGHT SOURCE

TP23 — TP-P55 — ROOM=TEST — A — 30 PP_LCM_BL_CAT3_CONN — LCM BACKLIGHT SINK3

TP24 — TP-P55 — ROOM=TEST — A — 30 PP_LCM_BL_CAT4_CONN — LCM BACKLIGHT SINK4

TP25 — TP-P55 — ROOM=TEST — A — 30 PP_LCM_BL34_ANODE_CONN — LCM BACKLIGHT SOURCE (3/4)

UAT GND Ring Opening

PP09 — 0.50MM — SM — 1 — GND

N66 I2C DEVICE MAP

I2C BUS	DEVICE	BINARY	7-BIT HEX	8-BIT HEX
I2C0	ANTIGUA PMU	1110100X	0X74	0XE8
	CHESTNUT	0100111X	0X27	0X4E
	BACKLIGHT 1	1100011X	0X62	0XC4
I2C1	TIGRIS	1110101X	0X75	0XEA
	ARC DRIVER	1000001X	0X41	0X82
	SPEAKER AMP	1000000X	0X40	0X80
	TRISTAR	0011010X	0X1A	0X34
I2C2	ALS	0101001X	0X29	0X52
	DISP EEPROM	1010001X	0X51	0XA2
	BACKLIGHT 2	1100011X	0X62	0XC4
OWL	UNUSED	N/A	N/A	N/A
ISP I2C0	REAR CAM	TBD	TBD	TBD
	LED DRIVER	1100011X	0X63	0XC6
ISP I2C1	FRONT CAM	0010000X	0X10	0X20
TOUCH I2C	MESON	1000000X	0x40	0x80
	MAMBA	1100000X	0x60	0xC0
	DOPPLER	1011000X	0x58	0xB0
SEP I2C	SEP EEPROM	1010001X	0x51	0xA2

E75

TP08 — TP-P5 — ROOM=TEST — A — 32 31 TRISTAR_DP1_CONN_P

TP09 — TP-P5 — ROOM=TEST — A — 32 31 TRISTAR_DP1_CONN_N

TP10 — TP-P5 — ROOM=TEST — A — 32 31 TRISTAR_DP2_CONN_P

TP11 — TP-P5 — ROOM=TEST — A — 32 31 TRISTAR_DP2_CONN_N

TP12 — TP-P5 — ROOM=TEST — A — 32 31 PP_TRISTAR_ACC1 — ACCESSORY ID AND POWER

TP13 — TP-P5 — ROOM=TEST — A — 32 31 PP_TRISTAR_ACC2

TP14 — TP-P55 — ROOM=TEST — A — TP IS TO HELP WITH USB SI IN THE FACTORY FIXTURE.

TP15 — TP-P55 — ROOM=TEST — A — 32 31 TRISTAR_CON_DETECT_L — FOR DIAGS

BOOTSTRAPPING:BOARD REV / BOARD ID / BOOT CONFIG

8 BOARD_REV3 — R0400 — ROOM=SOC — 01005 MF 5% 1/32W — 1.00K — PP1V8 (3 5 6 7 8 9 12 13 14 17 20 21 30 34)

8 BOARD_REV2 — NOSTUFF R0401 — ROOM=SOC — 01005 MF 5% 1/32W — 1.00K

8 BOARD_REV1 — NOSTUFF R0402 — ROOM=SOC — 01005 MF 5% 1/32W — 1.00K

8 BOARD_REV0 — R0403 — ROOM=SOC — 01005 MF 5% 1/32W — 1.00K — SELECTED -->

BOARD_REV[3:0]
FLOAT=LOW, PULLUP=HIGH

1111	PROTO1
1110	PROTO2
1101	EVT
1100	EVT-MD
1011	CARRIER
1010	DVT
1001	PVT

8 BOARD_ID4 — NOSTUFF R0404 — ROOM=SOC — 01005 MF 5% 1/32W — 1.00K

8 BOARD_ID3 — NOSTUFF R0405 — ROOM=SOC — 01005 MF 5% 1/32W — 1.00K

8 BOARD_ID2 — R0406 — ROOM=SOC — 01005 MF 5% 1/32W — 1.00K

8 BOARD_ID1 — R0407 — ROOM=SOC — 01005 MF 5% 1/32W — 1.00K — SELECTED -->

8 BOARD_ID0 — NOSTUFF R0408 — ROOM=SOC — 01005 MF 5% 1/32W — 1.00K

BOARD_ID[4:0]
FLOAT=LOW, PULLUP=HIGH

00100	N71 MLB
00101	N71 DEV
00110	N66 MLB
00111	N66 DEV

8 BOOT_CONFIG2 — NOSTUFF R0409 — ROOM=SOC — 01005 MF 5% 1/32W — 1.00K

8 BOOT_CONFIG1 — R0410 — ROOM=SOC — 01005 MF 5% 1/32W — 1.00K — SELECTED -->

8 BOOT_CONFIG0 — NOSTUFF R0411 — ROOM=SOC — 01005 MF 5% 1/32W — 1.00K

BOOT_CONFIG[2:0]
FLOAT=LOW, PULLUP=HIGH

000	SPI0
001	SPI0 TEST MODE
010	NVME0_X2
011	NVME0 X2 TEST
100	NVME0 X1
101	NVME0 X1 TEST
111	FAST SPI0

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TUBE STANDOFF
860-00177

ROOM=ASSEMBLY
BS0530
STDOFF-2.60D0.648H-TH
1
ROOM=ASSEMBLY
BS0531
STDOFF-2.60D0.648H-TH
1
33 4 NORTH_AC_GND_SCREW

TUBE STANDOFF: STOCKHOLM FEED
860-5189

34 AP_TO_STOCKHOLM_ANT 1
BS0520
STDOFF-2.490D1.4ID-1.25H-SM
ROOM=ASSEMBLY

TUBE STANDOFF
860-00176
BS0513
STDOFF-2.60D0.808H
ROOM=ASSEMBLY

THREADED STANDOFF
860-00175
BS0510
STDOFF-2.90D0.888H-SM
ROOM=ASSEMBLY

THREADED STANDOFF
860-00175
BS0511
STDOFF-2.90D0.888H-SM
ROOM=ASSEMBLY

THREADED STANDOFF
860-00175
BS0512
STDOFF-2.90D0.888H-SM
ROOM=ASSEMBLY

PLATED SLOTTED THRU-HOLE
998-00099
CL0502
TH-NSP
SL-1.20X0.40-1.50X0.70-NSP

806-02349
SHLD-EMI-UPPER-FRONT-N66
SH0500
SM
ROOM=ASSEMBLY

TOP SIDE

MLB NORTH PENINSULA AC CHASSIS SHORT
(BLOCKS DC CURRENT THROUGH COMPASS REGION)

33 4 NORTH_AC_GND_SCREW

C0550 220PF 10% 16V X7R-CERM 01005 ROOM=ASSEMBLY
C0551 100PF 5% 16V NP0-C0G 01005 ROOM=ASSEMBLY
C0552 100PF 5% 16V NP0-C0G 01005 ROOM=ASSEMBLY
C0553 4.7PF +/-0.1PF 16V NP0-C0G 01005 ROOM=ASSEMBLY

TODO: TUNE AC CAPS FOR ANTENNA RF GND

CL0501
SM
COAX CLIP BRACE
806-02354
CLIP-BRACE-COAX-N66

806-02352
SHLD-EMI-UPPER-BACK-N66
SH0503
SM
ROOM=ASSEMBLY

DOUBLE COAX CLIP
806-01802
CLIP-RETENTION-COAX-DOUBLE
CL0500
SM

806-02353
SHLD-EMI-LOWER-BACK-N66
SH0504
SM
ROOM=ASSEMBLY

BOTTOM SIDE

FIDUCIALS

FD0501 FID 0P5SM1P05Q-NSP ROOM=ASSEMBLY
FD0503 FID 0P5SM1P05Q-NSP ROOM=ASSEMBLY
FD0504 FID 0P5SM1P05Q-NSP ROOM=ASSEMBLY
FD0505 FID 0P5SM1P05Q-NSP ROOM=ASSEMBLY
FD0510 FID 0P5SQ-SMP3SQ-NSP ROOM=ASSEMBLY
FD0511 FID 0P5SQ-SMP3SQ-NSP ROOM=ASSEMBLY
FD0512 FID 0P5SQ-SMP3SQ-NSP ROOM=ASSEMBLY
FD0513 FID 0P5SQ-SMP3SQ-NSP ROOM=ASSEMBLY
FD0514 FID 0P5SQ-SMP3SQ-NSP ROOM=ASSEMBLY
FD0515 FID 0P5SQ-SMP3SQ-NSP ROOM=ASSEMBLY

FD0502 FID 0P5SM1P05Q-NSP ROOM=ASSEMBLY
28 27 26 25 23 22 21 17 15 14 14 29 PP_VCC_MAIN

806-04265
SHLD-EMI-LOWER-FRONT-CLOSE-N66
OMIT_TABLE
SH0501
SM
ROOM=ASSEMBLY

TIGRIS/SPKR INDUCTOR SHIELD
806-04068
SHLD-EMI-SA-OPEN-N66
SH0502
SM
ROOM=ASSEMBLY

SOUTH TUBE STANDOFF
860-00176
BS0500
STDOFF-2.60D0.808H
ROOM=ASSEMBLY

PAGE TITLE
SYSTEM: MECHANICAL COMPONENTS

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MAUI - USB, JTAG, XTAL

VDD12_PLL_LPDP:1.14-1.26V @2mA MAX
VDD12_PLL_SOC: 1.14-1.26V @12mA MAX
VDD12_PLL_CPU: 1.14-1.26V @2mA MAX

VDD18_USB: 1.71-1.89V @20mA MAX
VDD18_XTAL:1.62-1.98V @2mA MAX

PP1V2 — R0600 0.00 5% 1/32W MF 01005 ROOM=SOC — PP1V2_PLL VOLTAGE=1.2V

C0600 0.1UF 20% 6.3V X5R-CERM 01005 ROOM=SOC
C0601 0.1UF 20% 6.3V X5R-CERM 01005 ROOM=SOC
C0602 0.01UF 10% 6.3V X5R 01005 ROOM=SOC
C0603 0.01UF 10% 6.3V X5R 01005 ROOM=SOC
C0612 0.1UF 20% 6.3V X5R-CERM 01005 ROOM=SOC

PP1V8 — FL0610 1KOHM-25%-0.2A 0201 ROOM=SOC

PP1V8_XTAL VOLTAGE=1.8V
C0611 0.1UF 20% 6.3V X5R-CERM 01005 ROOM=SOC
C0610 2.2UF 20% 6.3V X5R-CERM 0201 ROOM=SOC

PP3V3_USB
C0620 0.1UF 20% 6.3V X5R-CERM 01005 ROOM=SOC
3.14-3.46V @5mA MAX

OMIT_TABLE
CRITICAL
U0600
MAUI-2GB-25NM-DDR-H
FCMSP
SC58980B0B-A040
SYM 1 OF 14
ROOM=SOC

AP21	VDD12_UH1_HSIC0	VDD18_USB	AL21
C15	VDD12_UH2_HSIC1	VDD33_USB	AN20
F22	VDD12_PLL_LPDP	VDD18_XTAL	AL34
U20	VDD12_PLL_SOC		
T19			
W19			
AF13	VDD12_PLL_CPU		

AN22	NC	UH1_HSIC0_DATA	
AN21	NC	UH1_HSIC0_STB	
C16	NC	UH2_HSIC1_DATA	
D15	NC	UH2_HSIC1_STB	
Y32		JTAG_SEL	
AC32	NC	JTAG_TRST*	
AB31	NC	JTAG_TDO	
AA32	NC	JTAG_TDI	
AB32		JTAG_TMS	
AA31		JTAG_TCK	
AC31		COLD_RESET*	
H33		CFSB	
AR23		TST_CLKOUT	
AN23		S3E_RESET*	
H32		HOLD_RESET	
AF6		TESTMODE	
AL22		FUSE1_FSRC	
AG25		FUSE2_FSRC	

ANALOGMUX_OUT	AP24	AP_TO_PMU_AMUX_OUT	16
USB_D_P	AT20	USB_AP_DATA_P	5 31
USB_D_N	AT19	USB_AP_DATA_N	5 31
USB_VBUS	AP19	USB_VBUS_DETECT	17
USB_ID	AR19	NC	
USB_REXT	AP18	USB_REXT	
WDOG	Y33	AP_TO_PMU_WDOG_RESET	16
XI0	AK35	XTAL_AP_24M_IN	
XO0	AL35	XTAL_AP_24M_OUT	

31 SWD_DOCK_BI_AP_SWDIO
31 SWD_DOCK_TO_AP_SWCLK
34 16 9 3 PMU_TO_SYSTEM_COLD_RESET_L
31 28 16 9 PMU_TO_OWL_ACTIVE_READY
16 5 AP_TO_PMU_TEST_CLKOUT
13 AP_TO_NAND_RESET_L

R0640 200 1% 1/32W MF 01005 ROOM=SOC

R0650 511K 1% 1/32W MF 01005 ROOM=SOC

OMIT_TABLE R0651 0.00 5% 1/32W MF 01005 ROOM=SOC

CRITICAL ROOM=SOC Y0600 1.60X1.20MM-SM 24.000MHZ-30PPM-9.5PF-60OHM SOC_24M_O

C0650 12PF 5% 16V C0G CERM 01005 ROOM=SOC
C0651 12PF 5% 16V C0G CERM 01005 ROOM=SOC

AP_XTAL_GND VOLTAGE=0V

PCB: PLACE THIS XW AT U1, NEAR XI/XO
XW0650 SHORT-10L-0.1MM-SM ROOM=SOC

PROBE POINTS

31 5 USB_AP_DATA_P — PP0600 P3MM-NSM ROOM=SOC
31 5 USB_AP_DATA_N — PP0601 P3MM-NSM ROOM=SOC
16 5 AP_TO_PMU_TEST_CLKOUT — PP0610 P3MM-NSM ROOM=SOC

SYNC_MASTER=N71_SINGLE_BRD SYNC_DATE=05/29/2014

PAGE TITLE: SOC:JTAG,USB,XTAL

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MAUI - PCIE INTERFACES

VDD12_PCIE_REFBUF:1.08-1.26V @50mA MAX
VDD12_PCIE_TXPLL: 1.08-1.32V @10mA MAX
VDD12_PCIE: 1.14-1.26V @115mA MAX
PP1V2

VDD085_PCIE:0.802-TBDV @TBDmA MAX
PP_FIXED

C0740 2.2UF 20% 6.3V X5R-CERM 0201 ROOM=SOC
C0741 1.0UF 20% 6.3V X5R 0201-1 ROOM=SOC
C0742 0.1UF 20% 6.3V X5R-CERM 01005 ROOM=SOC
C0743 0.1UF 20% 6.3V X5R-CERM 01005 ROOM=SOC
C0731 0.1UF 20% 6.3V X5R-CERM 01005 ROOM=SOC
C0752 0.1UF 20% 6.3V X5R-CERM 01005 ROOM=SOC
C0751 1.0UF 20% 6.3V X5R 0201-1 ROOM=SOC
C0750 2.2UF 20% 6.3V X5R-CERM 0201 ROOM=SOC

AK28 VDD12_PCIE
AK25 VDD12_PCIE
AL24 VDD12_PCIE
AL27 VDD12_PCIE
AL26 VDD12_PCIE_TXPLL
AA26 VDD12_PCIE_REFBUF
AH28 VDD085_PCIE
AJ25 VDD085_PCIE
AL23 VDD085_PCIE
AJ29 VDD085_PCIE
AL29 VDD085_PCIE
AJ24 VDD085_PCIE
AK27 VDD085_PCIE
AJ27 VDD085_PCIE

PCIE EXT C — AP29 PCIE_EXT_C

OMIT_TABLE
CRITICAL
U0600
MAUI-2GB-25NM-DDR-H
FCMSP
SC58980B0B-A040
SYM 2 OF 14
ROOM=SOC

PCIE LINK 0

PCIE_NAND_TO_AP_RXD0_P	C0701 0.1UF	PCIE_NAND_TO_AP_RXD0_C_P	AM30 PCIE_RX0_P
PCIE_NAND_TO_AP_RXD0_N	C0702 0.1UF	PCIE_NAND_TO_AP_RXD0_C_N	AN30 PCIE_RX0_N
PCIE_AP_TO_NAND_TXD0_P	C0703 0.1UF	PCIE_AP_TO_NAND_TXD0_C_P	AT32 PCIE_TX0_P
PCIE_AP_TO_NAND_TXD0_N	C0704 0.1UF	PCIE_AP_TO_NAND_TXD0_C_N	AR32 PCIE_TX0_N
PCIE_NAND_TO_AP_RXD1_P	C0705 0.1UF	PCIE_NAND_TO_AP_RXD1_C_P	AM28 PCIE_RX1_P
PCIE_NAND_TO_AP_RXD1_N	C0706 0.1UF	PCIE_NAND_TO_AP_RXD1_C_N	AN28 PCIE_RX1_N
PCIE_AP_TO_NAND_TXD1_P	C0707 0.1UF	PCIE_AP_TO_NAND_TXD1_C_P	AT31 PCIE_TX1_P
PCIE_AP_TO_NAND_TXD1_N	C0708 0.1UF	PCIE_AP_TO_NAND_TXD1_C_N	AR31 PCIE_TX1_N

PCIE LINK 1

PCIE_WLAN_TO_AP_RXD_P	C0709 0.1UF	PCIE_WLAN_TO_AP_RXD_C_P	AM27 PCIE_RX2_P
PCIE_WLAN_TO_AP_RXD_N	C0710 0.1UF	PCIE_WLAN_TO_AP_RXD_C_N	AN27 PCIE_RX2_N
PCIE_AP_TO_WLAN_TXD_P	C0711 0.1UF	PCIE_AP_TO_WLAN_TXD_C_P	AT28 PCIE_TX2_P
PCIE_AP_TO_WLAN_TXD_N	C0712 0.1UF	PCIE_AP_TO_WLAN_TXD_C_N	AR28 PCIE_TX2_N

PCIE LINK 2

PCIE_BB_TO_AP_RXD_P	C0715 0.1UF	PCIE_BB_TO_AP_RXD_C_P	AM26 PCIE_RX3_P
PCIE_BB_TO_AP_RXD_N	C0716 0.1UF	PCIE_BB_TO_AP_RXD_C_N	AN26 PCIE_RX3_N
PCIE_AP_TO_BB_TXD_P	C0717 0.1UF	PCIE_AP_TO_BB_TXD_C_P	AT26 PCIE_TX3_P
PCIE_AP_TO_BB_TXD_N	C0718 0.1UF	PCIE_AP_TO_BB_TXD_C_N	AR26 PCIE_TX3_N

AM25 NC PCIE_RX4_P
AN25 NC PCIE_RX4_N
AR24 NC PCIE_TX4_P
AT24 NC PCIE_TX4_N

PCIE_REF_CLK0_P	AN35	PCIE_AP_TO_NAND_REFCLK_P
PCIE_REF_CLK0_N	AP35	PCIE_AP_TO_NAND_REFCLK_N
PCIE_REF_CLK1_P	AN34	PCIE_AP_TO_WLAN_REFCLK_P
PCIE_REF_CLK1_N	AP34	PCIE_AP_TO_WLAN_REFCLK_N
PCIE_REF_CLK2_P	AM32	PCIE_AP_TO_BB_REFCLK_P
PCIE_REF_CLK2_N	AN32	PCIE_AP_TO_BB_REFCLK_N
PCIE_REF_CLK3_P	AM31 NC	
PCIE_REF_CLK3_N	AN31 NC	

PP1V8 (NOSTUFF)
R0720 100K 5% 1/32W MF 01005 ROOM=SOC
R0721 100K 5% 1/32W MF 01005 ROOM=SOC
R0722 100K 5% 1/32W MF 01005 ROOM=SOC

PCIE_CLKREQ0*	AT11	PCIE_NAND_TO_AP_CLKREQ_L
PCIE_CLKREQ1*	AP12	PCIE_WLAN_TO_AP_CLKREQ_L
PCIE_CLKREQ2*	AR12	PCIE_BB_BI_AP_CLKREQ_L
PCIE_CLKREQ3*	AT12 NC	

PCIE_PERST0*	AR10	PCIE_AP_TO_NAND_RESET_L
PCIE_PERST1*	AT10	PCIE_AP_TO_WLAN_RESET_L
PCIE_PERST2*	AP11	PCIE_AP_TO_BB_RESET_L
PCIE_PERST3*	AR11 NC	

R0700 100K 5% 1/32W MF 01005 ROOM=SOC
R0701 100K 5% 1/32W MF 01005 ROOM=SOC
R0702 100K 5% 1/32W MF 01005 ROOM=SOC

PCIE_EXT_REF_CLK_P	AR33	
PCIE_EXT_REF_CLK_N	AT33	
PCIE_RX_TX_BYPASS_CLK_P	AT29	
PCIE_RX_TX_BYPASS_CLK_N	AR29	

PCIE_RCAL_P — AT30 PCIE_RCAL_P
PCIE_RCAL_N — AR30 PCIE_RCAL_N
OMIT_TABLE R0730 100 1% 1/32W MF 01005 ROOM=SOC
OMIT_TABLE C0730 100PF 5% 10V NP0-C0G 01005 ROOM=SOC

PROBE POINTS

PCIE RX CAPS ARE PLACED CLOSER TO TX DRIVERS
PROBE POINTS ADDED FOR MEASUREMENTS AT RX DRIVER

PCIE_BB_TO_AP_RXD_C_P — PP0706 P3MM-NSM ROOM=SOC
PCIE_BB_TO_AP_RXD_C_N — PP0707 P3MM-NSM ROOM=SOC

SYNC_MASTER=N71_SINGLE_BRD SYNC_DATE=05/29/2014
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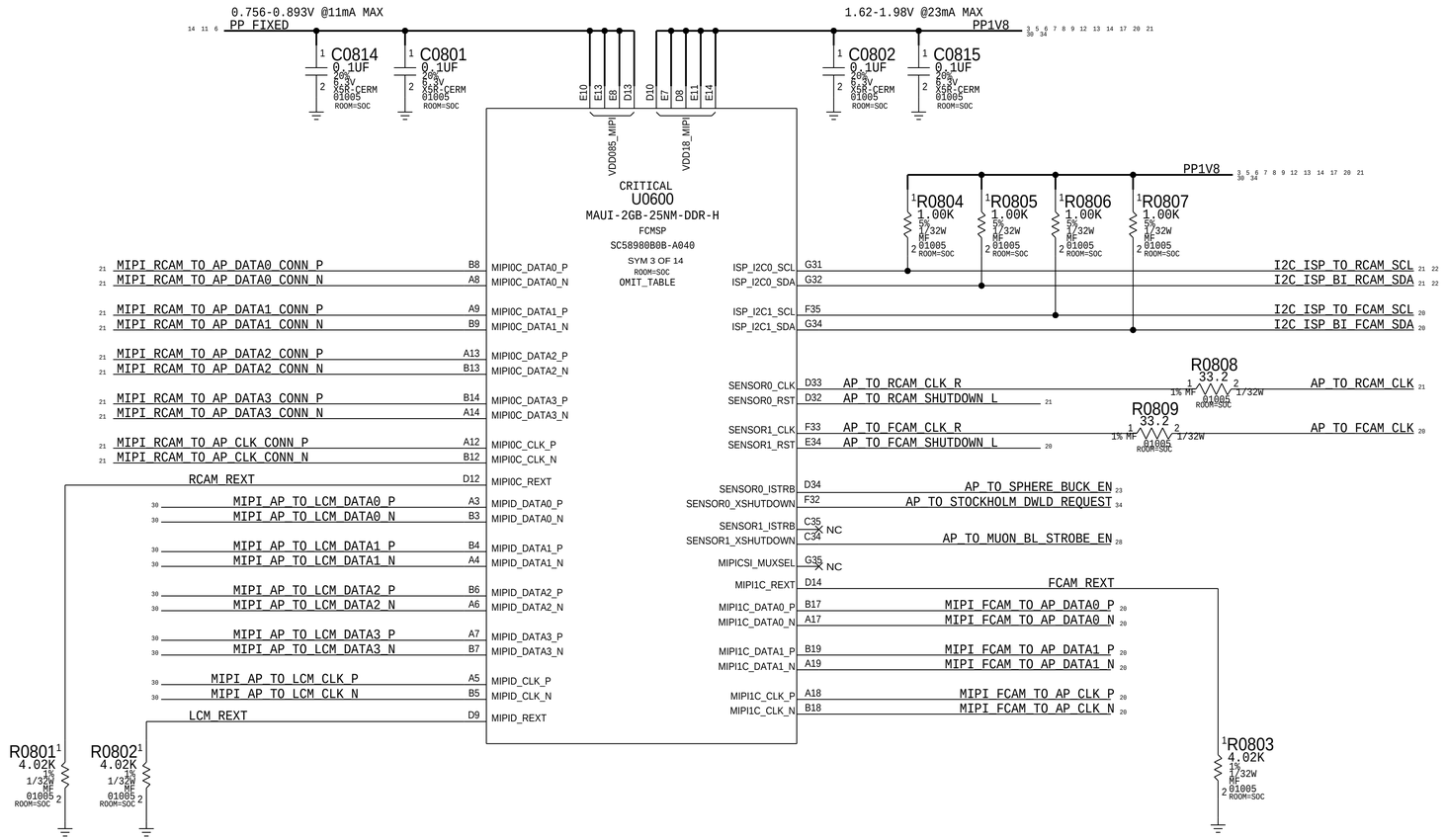
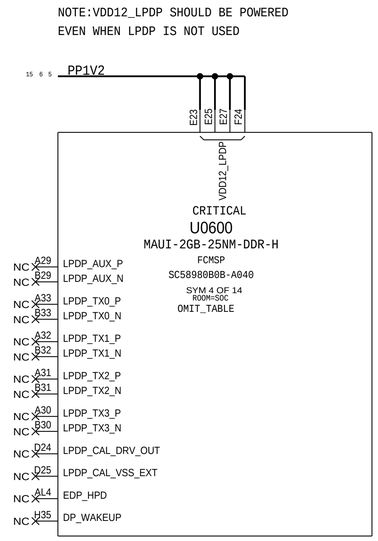
MAUI - CAMERA & DISPLAY INTERFACES





SYNC_MASTER=N71_SINGLE_BRD SYNC_DATE=05/29/2014

PAGE TITLE: SOC:CAMERA & DISPLAY

Apple Inc.

DRAWING NUMBER: 051-00094 SIZE: D

REVISION: A.0.0

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MAUI - GPIO & SERIAL INTERFACES

U0600
MAUI-2GB-25NM-DDR-H
FCMSP
SC58980B0B-A040
SYM 5 OF 14
CRITICAL
ROOM=SOC
OMIT_TABLE

AP_TO_HP_HS3_CTRL	C1	GPIO_0		
AP_TO_HP_HS4_CTRL	D2	GPIO_1		
BUTTON_VOL_UP_L	D1	GPIO_2		
BUTTON_VOL_DOWN_L	F1	GPIO_3		
SPEAKERAMP_TO_AP_INT_L	E2	GPIO_4		
AP_TO_SPEAKERAMP_STAYIN_ALIVE	F3	GPIO_5		
AP_TO_SPEAKERAMP_RESET_L	F2	GPIO_6		
AP_TO_BT_WAKE	H3	GPIO_7		
AP_TO_BB_RESET_L	G3	GPIO_8		
PCIE_AP_TO_WLAN_DEV_WAKE	J1	GPIO_9		
AP_TO_LED_DRIVER_EN	H4	GPIO_10		
AP_TO_TOUCH_RESET_L	K1	GPIO_11		
AP_TO_LCM_RESET_L	J3	GPIO_12		
PMU_TO_AP_IRQ_L	K2	GPIO_13		
AP_TO_BB_PCIE_DEV_WAKE	J4	GPIO_14		
AP_TO_STOCKHOLM_DEV_WAKE	L2	GPIO_15		
BOARD_ID3	K3	GPIO_16		
NC_AP_TO_STOCKHOLM_SIM_SEL (NO_TEST=1)	L3	GPIO_17		
BOOT_CONFIG0	N1	GPIO_18		
AP_TO_ARC_RESET_L	AH2	GPIO_19		
LCM_TO_OWL_BSYNC	AH3	GPIO_20		
ARC_TO_AP_INT_L	AH4	GPIO_21		
BB_TO_AP_GPS_TIME_MARK	AJ1	GPIO_22		
AP_TO_ARC_STAYIN_ALIVE	AJ2	GPIO_23		
BB_TO_AP_RESET_DETECT_L	AJ3	GPIO_24		
BOOT_CONFIG1	AJ4	GPIO_25		
FORCE_DFU	AK1	GPIO_26		
DFU_STATUS	AP3	GPIO_27		
BOOT_CONFIG2	AN4	GPIO_28		
BOARD_ID4	AP4	GPIO_29		
CODEC_TO_AP_PMU_INT_L	AP5	GPIO_30		
AP_TO_BB_RADIO_UP_L	AR2	GPIO_31		
AP_TO_NAND_FW_STRAP	AR3	GPIO_32		
TOUCH_TO_AP_INT_L	AR4	GPIO_33		
BOARD_REV3	AP6	GPIO_34		
BOARD_REV2	AT3	GPIO_35		
BOARD_REV1	AT4	GPIO_36		
BOARD_REV0	AR6	GPIO_37		
AP_TO_BB_COREDUMP	AP7	GPIO_38		
BB_IPC_GPIO	AT5	GPIO_39		
BUTTON_RINGER_A	AP8	GPIO_40		
AP_TO_BB_MESA_ON_L	AP9	GPIO_41		
MAMBA_EXT_LDO_EN	AP10	GPIO_42		
			TMR32_PWM0	AE1
			TMR32_PWM1	AF2
			TMR32_PWM2	AF3
			UART0_RXD	AE3
			UART0_TXD	AE4
			UART1_CTS*	K31
			UART1_RTS*	K32
			UART1_RXD	L33
			UART1_TXD	L32
			UART2_CTS*	AT23
			UART2_RTS*	AR20
			UART2_RXD	AP23
			UART2_TXD	AR22
			UART3_CTS*	N4
			UART3_RTS*	P3
			UART3_RXD	R3
			UART3_TXD	R2
			UART4_CTS*	J33
			UART4_RTS*	J34
			UART4_RXD	J35
			UART4_TXD	K33
			UART5_RTXD	T32
			UART6_RXD	AF1
			UART6_TXD	AE2
			UART7_RXD	J31
			UART7_TXD	J32

TMR32_PWM0 → AP_TO_SPHERE_BUCK_MODE (23)
TMR32_PWM1, TMR32_PWM2 → NC
UART0_RXD → UART_AP_DEBUG_RXD (31 34)
UART0_TXD → UART_AP_DEBUG_TXD (31 34)
UART1_CTS* → UART_BT_TO_AP_CTS_L (34)
UART1_RTS* → UART_AP_TO_BT_RTS_L (34)
UART1_RXD → UART_BT_TO_AP_RXD (34)
UART1_TXD → UART_AP_TO_BT_TXD (34)
UART2_CTS* → NC
UART2_RTS* → CAM_EXT_LDO_EN (21)
UART2_RXD → NC
UART2_TXD → NC
UART3_CTS* → UART_STOCKHOLM_TO_AP_CTS_L (34)
UART3_RTS* → UART_AP_TO_STOCKHOLM_RTS_L (34)
UART3_RXD → UART_STOCKHOLM_TO_AP_RXD (34)
UART3_TXD → UART_AP_TO_STOCKHOLM_TXD (34)
UART4_CTS* → UART_WLAN_TO_AP_CTS_L (34)
UART4_RTS* → UART_AP_TO_WLAN_RTS_L (34)
UART4_RXD → UART_WLAN_TO_AP_RXD (34)
UART4_TXD → UART_AP_TO_WLAN_TXD (34)
UART5_RTXD → SWI_AP_BI_TIGRIS (9 17)
UART6_RXD → UART_ACCESSORY_TO_AP_RXD (31)
UART6_TXD → UART_AP_TO_ACCESSORY_TXD (31)
UART7_RXD → SPI_AP_TO_TOUCH_SCLK (30)
UART7_TXD → NC

PP1V8 (21 20 17 14 13 12 9 8 7 6 5 3 34 30)
R0911 1.00K 5% 1/32W MF 01005 ROOM=SOC
ANALOG_PROX
PROX_SELECT

PIN J31 (UART7_RXD) SHOULD BE
SET TO INTERNAL PULL-DOWN.
STUFF R0911 FOR ANALOG PROX.
NOSTUFF R0911 FOR DOPPLER PROX.

R0920 33.2 1% 1/32W MF 01005 ROOM=SOC
R0921 33.2 1% 1/32W MF 01005 ROOM=SOC
R0922 33.2 1% 1/32W MF 01005 ROOM=SOC

I2S_AP_TO_CODEC_MCLK (25)		I2S_AP_TO_CODEC_MCLK_R	P34
I2S_AP_TO_ARC_MCLK (27)		I2S_AP_OWL_TO_CODEC_XSP_BCLK (25 9)	R34
I2S_AP_TO_SPEAKERAMP_MCLK (26)		I2S_AP_OWL_TO_CODEC_XSP_LRCLK (25 9)	N34
		I2S_CODEC_TO_AP_OWL_XSP_DIN (25 9)	N35
		I2S_AP_TO_CODEC_XSP_DOUT (25)	M33
		I2S_AP_TO_ARC_MCLK_R	M4
		I2S_AP_TO_BT_BCLK (34)	M3
		I2S_AP_TO_BT_LRCLK (34)	P1
		I2S_BT_TO_AP_DIN (34)	N3
		I2S_AP_TO_BT_DOUT (34)	L4
		I2S_AP_TO_SPEAKERAMP_MCLK_R	U32
		I2S_AP_TO_CODEC_ASP_BCLK (27 26 25)	V33
		I2S_AP_TO_CODEC_ASP_LRCLK (27 26 25)	U33
		I2S_CODEC_TO_AP_ASP_DIN (27 26 25)	T33
		I2S_AP_TO_CODEC_ASP_DOUT (27 26 25)	V34
		ALS_TO_AP_INT_L (20)	AM3
		I2S_AP_TO_BB_BCLK (34)	AM4
		I2S_AP_TO_BB_LRCLK (34)	AN2
		I2S_BB_TO_AP_DIN (34)	AP1
		I2S_AP_TO_BB_DOUT (34)	AN1
		TRISTAR_TO_AP_INT (31 16)	R32
		I2S_AP_TO_CODEC_MSP_BCLK (25)	R31
		I2S_AP_TO_CODEC_MSP_LRCLK (25)	V32
		I2S_CODEC_TO_AP_MSP_DIN (25)	P31
		I2S_AP_TO_CODEC_MSP_DOUT (25)	P32
		BOARD_ID2 (3)	AD4
		BOARD_ID1 (3)	AC3
		BOARD_ID0 (3)	AB2
		NC	AD3
		SPI_CODEC_TO_AP_MISO (25)	P33
		SPI_AP_TO_CODEC_MOSI (25)	V35
		SPI_AP_TO_CODEC_SCLK (25)	N32
		SPI_AP_TO_CODEC_CS_L (25)	M31
		SPI_TOUCH_TO_AP_MISO (30 8)	E33
		SPI_AP_TO_TOUCH_MOSI (30)	E35
		SPI_AP_TO_TOUCH_SCLK_R	F34
		SPI_AP_TO_TOUCH_CS_L (30)	F31
		SPI_MESA_TO_AP_MISO (29)	AA2
		SPI_AP_TO_MESA_MOSI (29)	Y2
		SPI_AP_TO_MESA_SCLK_R	AA3
		MESA_TO_AP_INT (29)	AC4

R0960 0.00 0% 1/32W MF 01005 ROOM=SOC (SPI_AP_TO_TOUCH_SCLK)
R0930 0.00 0% 1/32W MF 01005 ROOM=SOC (SPI_AP_TO_MESA_SCLK)

U0600
MAUI-2GB-25NM-DDR-H
FCMSP
SC58980B0B-A040
SYM 6 OF 14
CRITICAL
ROOM=SOC
OMIT_TABLE

I2S0_MCK	GRP2	I2C0_SCL	E31
I2S0_BCLK	GRP2	I2C0_SDA	D35
I2S0_LRCK	GRP2	I2C1_SCL	AH1
I2S0_DIN	GRP2	I2C1_SDA	AG4
I2S0_DOUT	GRP2	I2C2_SCL	L31
I2S1_MCK	GRP1	I2C2_SDA	M32
I2S1_BCLK	GRP1	SEP_SPI0_SCLK	W3
I2S1_LRCK	GRP1	SEP_SPI0_MISO	AA4
I2S1_DIN	GRP1	SEP_SPI0_MOSI	U2
I2S1_DOUT	GRP1	SEP_I2C_SCL	V3
I2S2_MCK	GRP1	SEP_I2C_SDA	Y4
I2S2_BCLK	GRP1	SEP_GPIO0	Y3
I2S2_LRCK	GRP1	SEP_GPIO1	AB4
I2S2_DIN	GRP1	SOCHOT0	AM1
I2S2_DOUT	GRP1	SOCHOT1	AM2
I2S3_MCK	GRP3	CPU_ACTIVE_STATUS	H31
I2S3_BCLK	GRP3	CLK32K_OUT	H34
I2S3_LRCK	GRP3	NAND_SYS_CLK	AM24
I2S3_DIN	GRP3		
I2S3_DOUT	GRP3		
I2S4_MCK	GRP1		
I2S4_BCLK	GRP1		
I2S4_LRCK	GRP1		
I2S4_DIN	GRP1		
I2S4_DOUT	GRP1		
SPI0_MISO	GRP3		
SPI0_MOSI	GRP3		
SPI0_SCLK	GRP3		
SPI0_SSIN	GRP3		
SPI1_MISO	GRP1		
SPI1_MOSI	GRP1		
SPI1_SCLK	GRP1		
SPI1_SSIN	GRP1		
SPI2_MISO	GRP1		
SPI2_MOSI	GRP1		
SPI2_SCLK	GRP1		
SPI2_SSIN	GRP1		
SPI3_MISO			
SPI3_MOSI			
SPI3_SCLK			
SPI3_SSIN			

PP1V8 (3 5 6 7 8 9 12 13 14 17 20 21 30 34)
R0900 1.00K 5% 1/32W MF 01005 ROOM=SOC
R0901 2.2K 5% 1/32W MF 01005 ROOM=SOC
R0902 2.2K 5% 1/32W MF 01005 ROOM=SOC
R0903 2.2K 5% 1/32W MF 01005 ROOM=SOC
R0904 1.00K 5% 1/32W MF 01005 ROOM=SOC
R0905 1.33K 5% 1/32W MF 01005 ROOM=SOC

I2C0_AP_SCL (8 16 28 34)
I2C0_AP_SDA (8 16 28 34)
I2C1_AP_SCL (8 17 26 27 31 34)
I2C1_AP_SDA (8 17 26 27 31 34)
I2C2_AP_SCL (20 28 30)
I2C2_AP_SDA (20 28 30)

PP1V8 (3 5 6 7 8 9 12 13 14 17 20 21 30 34)
R0906 2.2K 5% 1/32W MF 01005 ROOM=SOC
R0907 2.2K 5% 1/32W MF 01005 ROOM=SOC
I2C_SEP_TO_EEPROM_SCL (8)
I2C_SEP_BI_EEPROM_SDA (8)

PP1V8 (3 5 6 7 8 9 12 13 14 17 20 21 30 34)
PP1V8_ALWAYS (8 12 15 17)
R0909 10K 5% 1/32W MF 01005 ROOM=SOC
R0910 10K 5% 1/32W MF 01005 ROOM=SOC (NOSTUFF)
R0941 10K 5% 1/32W MF 01005 ROOM=SOC
R0940 0.00 0% MF 1/32W 01005 ROOM=SOC
SOCHOT0 → PMU_TO_AP_SOCHOT0_R_L → PMU_TO_AP_SOCHOT0_L (16)
SOCHOT1 → AP_TO_PMU_SOCHOT1_L (16)
CLK32K_OUT → AP_TO_TOUCH_CLK32K_RESET_L (30)
R0945 0.00 0% 1/32W MF 01005 ROOM=SOC
NAND_SYS_CLK → AP_TO_NAND_SYS_CLK (13)

SPI PROBE POINTS

SPI_TOUCH_TO_AP_MISO (30 8) → PP0906 P3MM-NSM ROOM=SOC PLACE_SIDE=TOP

I2C PROBE POINTS

I2C0_AP_SCL (34 28 16 8)	PP0900	P3MM-NSM ROOM=SOC
I2C0_AP_SDA (34 28 16 8)	PP0901	P3MM-NSM ROOM=SOC
I2C1_AP_SCL (34 31 27 26 17 8)	PP0902	P3MM-NSM ROOM=SOC PLACE_SIDE=TOP
I2C1_AP_SDA (34 31 27 26 17 8)	PP0903	P3MM-NSM ROOM=SOC PLACE_SIDE=TOP

ANTI-ROLLBACK EEPROM

128kbit
APN:335S0946

PP1V8 (21 20 17 14 13 12 9 8 7 6 5 3 34 30)
C0900 1.0UF 20% 6.3V X5R 0201-1 ROOM=SOC
U0900 M34128-FCS6_P/ (CRITICAL)
A1 VCC, B1 SCL, WLCSP, SDA A2, VSS B2, ROOM=SOC
I2C_SEP_BI_EEPROM_SDA (8)
I2C_SEP_TO_EEPROM_SCL (8)

BUTTON PULL-UP RESISTORS

PP1V8_SDRAM (12 14 15 16 25 28 31 32 34)
R0950 191K 1% 1/32W MF 01005 ROOM=SOC
R0951 100K 5% 1/32W MF 01005 ROOM=SOC
BUTTON_MENU_KEY_L (34 29 16 9)
BUTTON_RINGER_A (34 33 16 8)
PP1V8_ALWAYS (8 12 15 17)
R0952 220K 5% 1/32W MF 01005 ROOM=SOC
BUTTON_HOLD_KEY_L (34 33 16 9)

SYNC_MASTER=N71_SINGLE_BRD
SYNC_DATE=05/29/2014
PAGE TITLE: SOC:SERIAL & GPIO
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MAUI - OWL

POWER STATE CONTROL PROBE POINTS

16 9 OWL_TO_PMU_ACTIVE_REQUEST — 1 — SM PP — PP1020 P3MM-NSM ROOM=SOC

31 28 16 9 5 PMU_TO_OWL_ACTIVE_READY — 1 — SM PP — PP1021 P3MM-NSM ROOM=SOC

16 9 OWL_TO_PMU_SLEEP1_REQUEST — 1 — SM PP — PP1022 P3MM-NSM ROOM=SOC

16 11 9 PMU_TO_OWL_SLEEP1_READY — 1 — SM PP — PP1023 P3MM-NSM ROOM=SOC

PP1V8 3 5 6 7 8 12 13 14 17 20 21 30 34

NOSTUFF R1002 1.00K 5% 1/32W MF 01005 (1, 2)

U0600
MAUI-2GB-25NM-DDR-H
FCMSP
SC58980B0B-A040
SYM 7 OF 14
CRITICAL
ROOM=SOC
OMIT_TABLE

16 9 OWL_TO_PMU_SLEEP1_REQUEST	AD30	OWL_DDR_REQ	CFSB_AOP	W33	PMU_TO_SYSTEM_COLD_RESET_L 3 5 16 34
16 11 9 PMU_TO_OWL_SLEEP1_READY	AB33	OWL_DDR_RESET*	AWAKE_REQ	AA33	OWL_TO_PMU_ACTIVE_REQUEST 9 16
			AWAKE_RESET*	AD32	PMU_TO_OWL_ACTIVE_READY 5 9 16 28 31
19 SPI_OWL_TO_COMPASS_CS_L	AF35	OWL_FUNC_0	PMGR_MISO	AL2	DWI_PMU_TO_PMGR_MISO 16
19 COMPASS_TO_OWL_INT	AH32	OWL_FUNC_1	PMGR_MOSI	AL1	DWI_PMGR_TO_PMU_BACKLIGHT_MOSI 16 28
19 DISCRETE_ACCEL_TO_OWL_INT2	AG32	OWL_FUNC_2	PMGR_SCLK0	AK4	DWI_PMGR_TO_PMU_SCLK 16
19 ACCEL_GYRO_TO_OWL_INT1	AG31	OWL_FUNC_3	PMGR_SSCLK1	AL3	DWI_PMGR_TO_BACKLIGHT_SCLK 28
19 SPI_OWL_TO_ACCEL_GYRO_CS_L	AG30	OWL_FUNC_4			
19 ACCEL_GYRO_TO_OWL_INT2	AF33	OWL_FUNC_5	RT_CLK32768	AD31	PMU_TO_OWL_CLK32K 16
19 SPI_OWL_TO_PHOSPHOROUS_CS_L	AE34	OWL_FUNC_6			
34 30 8 LCM_TO_OWL_BSYNC	AF34	OWL_FUNC_7	OWL_SWD_TCK_OUT	AE33	SWD_AP_PERIPHERAL_SWCLK 13 34
9 OWL_TO_PMU_SHDN_BI_TIGRIS_SWI	AF31	OWL_FUNC_8	OWL_SWD_TMS0	AD35	
19 PHOSPHORUS_TO_OWL_IRQ	AF32	OWL_FUNC_9 EXT OSC IN	OWL_SWD_TMS1	AC33	SWD_AP_BI_BB_SWDIO 34
19 SPI_OWL_TO_DISCRETE_ACCEL_CS_L	AH31	OWL_I2CM_SCL GPO	SWD_TMS2	U31	SWD_AP_BI_NAND_SWDIO 13
19 DISCRETE_ACCEL_TO_OWL_INT1	AH33	OWL_I2CM_SDA	SWD_TMS3	T31	NC
19 SPI_IMU_TO_OWL_MISO	AK31	OWL_SPI_MISO	HOLD_KEY*	U3	BUTTON_HOLD_KEY_L 8 16 33 34
19 SPI_OWL_TO_IMU_MOSI	AK32	OWL_SPI_MOSI GPO	VDD_SOC SKEY*	W4	NC
19 SPI_OWL_TO_IMU_SCLK	AL33	OWL_SPI_SCLK GPO	MENU_KEY*	V4	BUTTON_MENU_KEY_L 8 16 29 34
34 UART_BB_TO_OWL_RXD	AJ32	OWL_UART0_RXD			
34 UART_OWL_TO_BB_TXD	AK33	OWL_UART0_TXD			
34 OWL_TO_WLAN_CONTEXT_B	AH30	OWL_UART1_RXD			
34 OWL_TO_WLAN_CONTEXT_A	AJ31	OWL_UART1_TXD			
30 TOUCH_TO_OWL_ACCEL_DATA_REQUEST	AJ34	OWL_UART2_RXD			
30 UART_OWL_TO_TOUCH_TXD	AJ33	OWL_UART2_TXD			
25 8 I2S_AP_OWL_TO_CODEC_XSP_BCLK	AD34	OWL_I2S_BCLK			
25 8 I2S_CODEC_TO_AP_OWL_XSP_DIN	AA34	OWL_I2S_DIN			
NC	AE32	OWL_I2S_MCK			
25 8 I2S_AP_OWL_TO_CODEC_XSP_LRCLK	AE31	OWL_I2S_LRCK			

OWL SYSTEM SHUTDOWN OPTION

9 OWL_TO_PMU_SHDN_BI_TIGRIS_SWI

NOSTUFF R1020 10 MF 5% 1/32W 01005 ROOM=SOC (1, 2) — SWI_AP_BI_TIGRIS 8 17

NOSTUFF R1021 10 MF 5% 1/32W 01005 ROOM=SOC (1, 2) — OWL_TO_PMU_SHDN 16

SYNC_MASTER=N71_SINGLE_BRD SYNC_DATE=05/29/2014

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MAUI - CPU, GPU & SOC RAILS

PP_GPU
0.8V @10.5A MAX

TP1120 0.50MM SM
PP_GPU

C1101 10UF 20% 6.3V CERM-X5R 0402-9 ROOM=SOC
C1102 10UF 20% 6.3V CERM-X5R 0402-9 ROOM=SOC
C1103 2.2UF 20% 6.3V X5R-CERM 0201 ROOM=SOC
C1104 2.2UF 20% 6.3V X5R-CERM 0201 ROOM=SOC
C1105 2.2UF 20% 6.3V X5R-CERM 0201 ROOM=SOC

C1106 4.3UF 20% 4V CERM 0402
C1107 7.5UF 20% 4V CERM 0402
C1108 4.3UF 20% 4V CERM 0402
C1109 7.5UF 20% 4V CERM 0402
C1110 4.3UF 20% 4V CERM 0402
C1111 7.5UF 20% 4V CERM 0402

C1112 1UF 20% 4V CERM 0402
C1113 1UF 20% 4V CERM 0402
C1114 1UF 20% 4V CERM 0402
C1115 1UF 20% 4V CERM 0402
C1116 0.47UF 20% 6.3V CERM 0402
C1117 0.47UF 20% 6.3V CERM 0402

XW1110 SHORT-10L-0.1MM-SM ROOM=SOC
BUCK1_PP_GPU_FB

PP_CPU
0.625V @TBDA MAX
0.9V @10.5A MAX
1.0V @12.5A MAX

TP1100 0.50MM SM
PP_CPU

C1120 10UF 20% 6.3V CERM-X5R 0402-9 ROOM=SOC
C1121 10UF 20% 6.3V CERM-X5R 0402-9 ROOM=SOC
C1122 2.2UF 20% 6.3V X5R-CERM 0201 ROOM=SOC
C1123 2.2UF 20% 6.3V X5R-CERM 0201 ROOM=SOC
C1124 2.2UF 20% 6.3V X5R-CERM 0201 ROOM=SOC
C1125 2.2UF 20% 6.3V X5R-CERM 0201 ROOM=SOC

C1126 7.5UF 20% 4V CERM 0402
C1127 7.5UF 20% 4V CERM 0402
C1128 4.3UF 20% 4V CERM 0402
C1129 4.3UF 20% 4V CERM 0402
C1130 4.3UF 20% 4V CERM 0402
C1131 7.5UF 20% 4V CERM 0402

C1132 4.3UF 20% 4V CERM 0402
C1133 7.5UF 20% 4V CERM 0402
C1134 1UF 20% 4V CERM 0402
C1135 1UF 20% 4V CERM 0402
C1136 1UF 20% 4V CERM 0402
C1137 1UF 20% 4V CERM 0402

C1138 0.47UF 20% 6.3V CERM 0402
C1139 0.47UF 20% 6.3V CERM 0402
C1140 0.47UF 20% 6.3V CERM 0402
C1141 0.47UF 20% 6.3V CERM 0402

XW1100 SHORT-10L-0.1MM-SM ROOM=SOC
BUCK0_PP_CPU_FB

U0600
MAUI-2GB-25NM-DDR-H
FCMSP
SC58980B0B-A040
SYM 8 OF 14
CRITICAL
ROOM=SOC
OMIT_TABLE

VDD_CPU: AA7 AA9 AA11 AB6 AB10 AB12 AC13 AD6 AD8 AD10 AD12 AE7 AE9 AE11 AE13 AF8 AF10 AF12 AH6 AH8 AH10 AH12 AJ5 AJ7 AJ9 AJ11 AJ13 AK6 AK10 AL7 AL9 AL11 AM6 AM8 AM10 AN7 AN11 AL13 Y8 Y10 Y12 AM12

VDD_GPU: G15 W13 T12 M6 U9 V12 W9 M12 M18 N15 N21 N9 F10 H14 H16 H20 H22 H6 H8 J11 J13 J17 J19 J23 J7 K10 K14 K16 K20 K22 K6 K8 L11 L13 L15 L17 L19 L21 M24 L7 L9 F8 M8 N11 N13 N17 N19 P10 G11 P12 P14 P16 P20 R15 R19 G13 R9 T10 T14 T16 U11 V14 V16 G7 R23 G9 H10 T24 P22 W17 N23 G17 G21 T18 T20

VDD_SOC: AA17 AA19 AA23 AB14 AB16 AB20 AB22 AB24 AB26 AC17 AC19 AC23 AD16 AD20 AD22 AD24 AD26 AE5 AE15 AE17 AE19 AE23 AF14 AF16 AF20 AF22 AF24 AF26 AG17 AG19 AG23 AH16 AH20 AH22 AH24 AH26 AJ15 AJ17 AJ19 AJ23 AK14 J29 G23 AK22 F6 F14 AL15 AM5 G25 G27 H24 H26 H28 J27 K24 K26 K28 L27 L23 M26 M28 AL19 N7 N27 P24 P26 P28 R17 R27 R29 T22 T26 T7 T28 U17 V8 V20 V22 V24 V26 W7 W11 Y28

VSS: W23 Y14 Y16 Y20 Y22 Y24 Y26 G29 AA27 F17 F20 L29 N29 V28 L22 L24 L26 L28 M1 M5 M7 M9 M11 M13 M17 M21 M23 M25 M27 M29 M35 N6 N10 N12 N14 N16 N18 G19 N22 N24 N26 N28 N30 N33 P9 P11 P13 P15 P17 P19 P21 P23 P25 P27 P29 P35 R4 R6 R8 R10 R12 R14 M19 R18 R20 R22 R24 R26 R28 R30 T1 T2 R33 T9 T11 T13 T15 T17 P7 T23 T25 T27 T30 T35 U6 U10 U12

PP_SOC
0.825V @4.7A MAX
0.725V @TBDA MAX

C1151 10UF 20% 6.3V CERM-X5R 0402-9 ROOM=SOC

XW1120 SHORT-10L-0.1MM-SM ROOM=SOC
BUCK2_PP_SOC_FB

C1153 4.3UF 20% 4V CERM 0402
C1154 1UF 20% 4V CERM 0402
C1155 1UF 20% 4V CERM 0402
C1156 0.47UF 20% 6.3V CERM 0402
C1157 0.47UF 20% 6.3V CERM 0402

PP1105 P2MM-NSM AP_SOC_SENSE_P AJ20 VDD_SOC_SENSE
PP1104 P2MM-NSM AP_SOC_SENSE_N AK21 VSS_SOC_SENSE

PP1100 P2MM-NSM AP_CPU_SENSE_P Y6 VDD_CPU_SENSE
PP1101 P2MM-NSM AP_CPU_SENSE_N Y7 VSS_CPU_SENSE

VDD_GPU_SENSE G20 AP_GPU_SENSE_P
VSS_GPU_SENSE H19 AP_GPU_SENSE_N
PP1102 P2MM-NSM

NOTE: AP_GPU_SENSE_P probe location @ R2205.2

SYNC_MASTER=N71_SINGLE_BRD SYNC_DATE=05/29/2014

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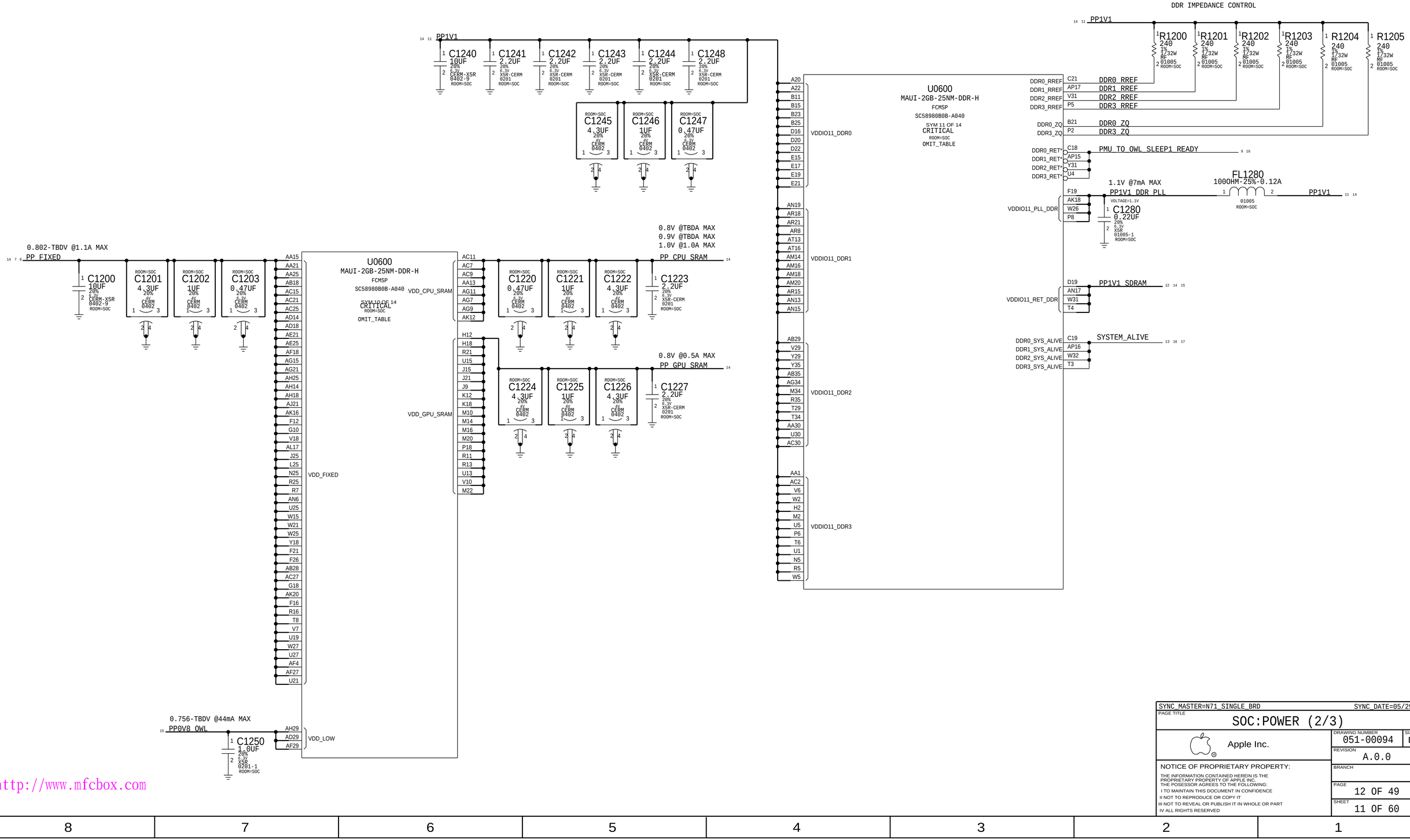
MAUI - POWER SUPPLIES



SYNC_MASTER=N71_SINGLE_BRD SYNC_DATE=05/29/2014

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SOC:POWER (2/3)

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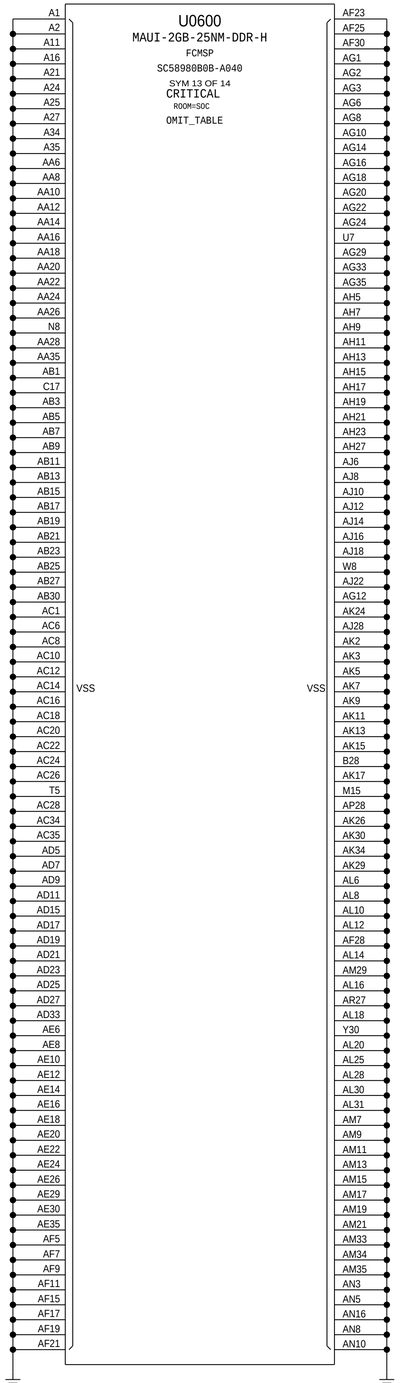
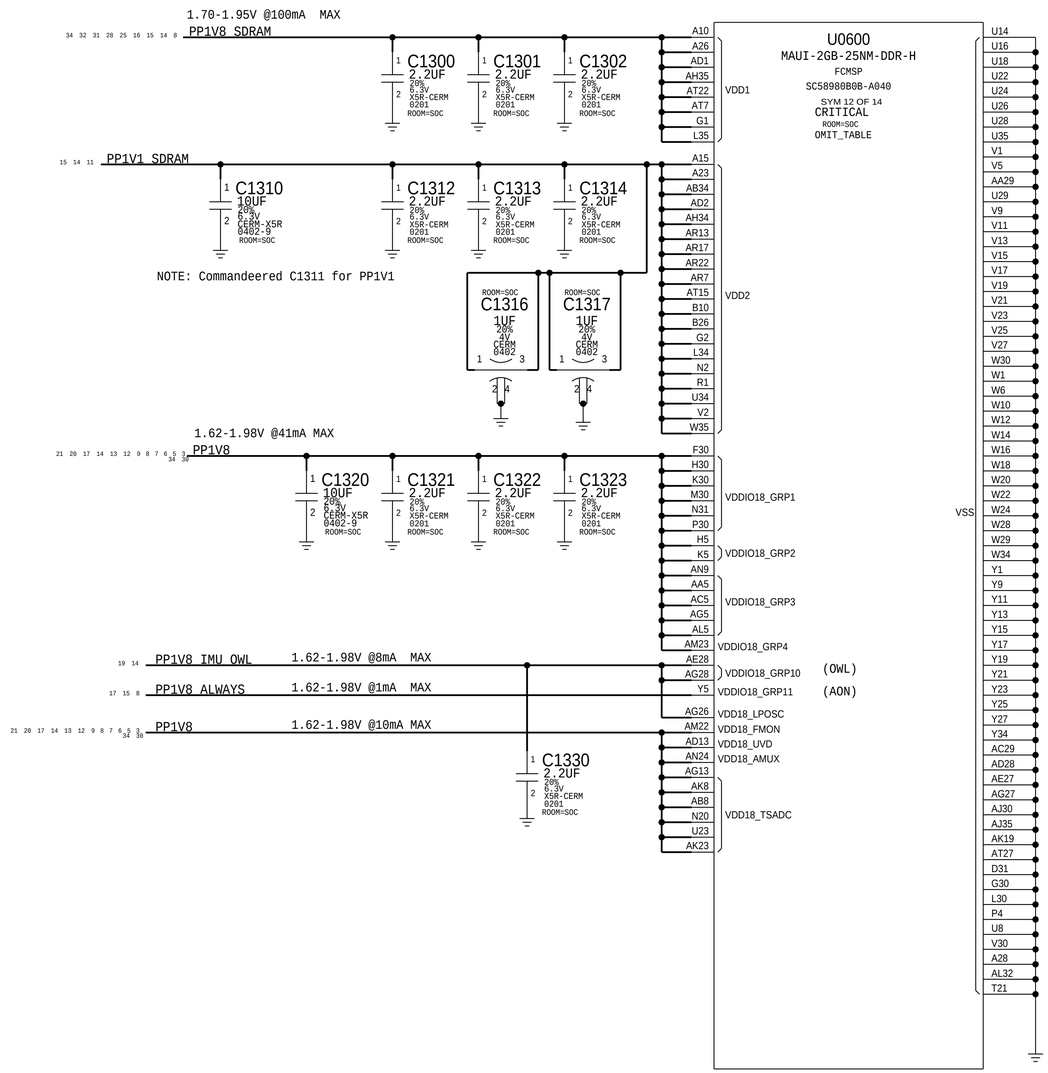
MAUI - POWER SUPPLIES





SYNC_MASTER=N71_SINGLE_BRD SYNC_DATE=05/29/2014

PAGE TITLE
SOC:POWER (3/3)

Apple Inc.

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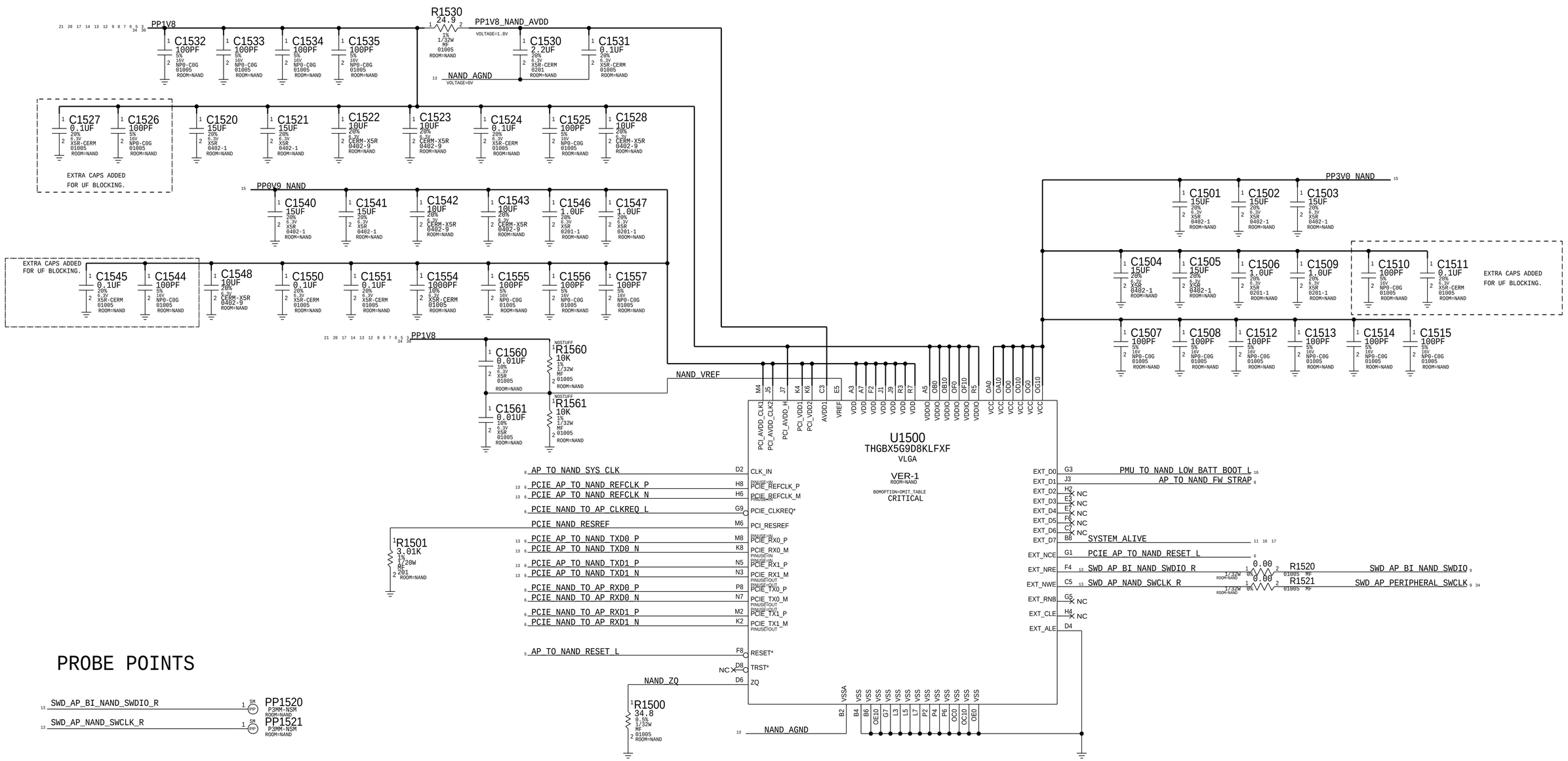
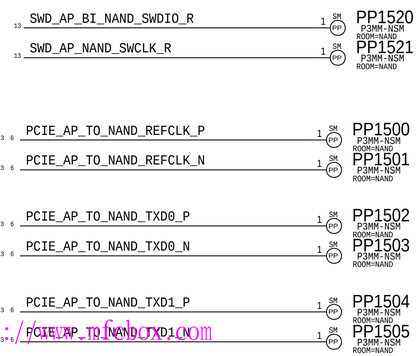
S3E NAND



PROBE POINTS



SYNC_MASTER=N71_SINGLE_BRD SYNC_DATE=05/29/2014

PAGE TITLE: NAND

Apple Inc.

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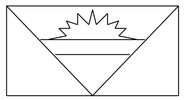
ANTIGUA PMU - Buck Supplies



OMIT_TABLE

U2000
D2255A080UXUVAI2
CSP
ROOM=PMU
SYM 2 OF 5
CRITICAL

PP_VCC_MAIN
VCC_MAIN_SNS
VDD_MAIN_SNS
VDD_MAIN
BAT/USB

C2085 10UF 20% 6.3V 0402 ROOM=PMU
C2086 10UF 20% 6.3V 0402 ROOM=PMU
C2087 10UF 20% 6.3V 0402 ROOM=PMU
C2088 10UF 20% 6.3V X5R-CERM-X5R 0402-9 ROOM=PMU
C2089 2.2UF 20% 6.3V X5R-CERM 0201 ROOM=PMU
C2090 2.2UF 20% 6.3V X5R-CERM 0201 ROOM=PMU
C2091 2.2UF 20% 6.3V X5R-CERM 0201 ROOM=PMU
C2092 2.2UF 20% 6.3V X5R-CERM 0201 ROOM=PMU
C2093 2.2UF 20% 6.3V X5R-CERM 0201 ROOM=PMU
C2094 2.2UF 20% 6.3V X5R-CERM 0201 ROOM=PMU
C2095 2.2UF 20% 6.3V X5R-CERM 0201 ROOM=PMU
C2096 2.2UF 20% 6.3V X5R-CERM 0201 ROOM=PMU
C2097 2.2UF 20% 6.3V X5R-CERM 0201 ROOM=PMU
C2098 2.2UF 20% 6.3V X5R-CERM 0201 ROOM=PMU
C2099 100PF 5% 16V NP0-C0G 01005 ROOM=PMU

VDD_BUCK0_01
VDD_BUCK0_23
VDD_BUCK1_01
VDD_BUCK1_23
VDD_BUCK2
VDD_BUCK3
VDD_BUCK4
VDD_BUCK5
VDD_BUCK6
VDD_BUCK7
VDD_BUCK8

PP1V8 VOLTAGE=1.8
PP1V8_TOUCH VOLTAGE=1.8V
PP1V8_IMU_OWL VOLTAGE=1.8V
PP1V1 VOLTAGE=1.1V

BUCK3_SW1
BUCK3_SW2
BUCK3_SW3
BUCK4_SW1

BUCK INPUT

BUCK0 12.5A MAX

BUCK0_LX0 — L2000 OMIT_TABLE 1.0UH-20%-3.6A-0.060OHM PIQA20161T-SM ROOM=PMU CRITICAL
BUCK0_LX1 — L2001 OMIT_TABLE 0.47UH-20%-3.8A-0.048OHM PIQA20121T-SM ROOM=PMU CRITICAL
BUCK0_LX2 — L2002 OMIT_TABLE 1.0UH-20%-3.6A-0.060OHM PIQA20161T-SM ROOM=PMU CRITICAL
BUCK0_LX3 — L2003 OMIT_TABLE 0.47UH-20%-3.8A-0.048OHM PIQA20121T-SM ROOM=PMU CRITICAL
BUCK0_FB — BUCK0_PP_CPU_FB

C2000 15UF 20% 6.3V X5R 0402-1 ROOM=PMU
C2001 15UF 20% 6.3V X5R 0402-1 ROOM=PMU
C2002 15UF 20% 6.3V X5R 0402-1 ROOM=PMU
C2003 15UF 20% 6.3V X5R 0402-1 ROOM=PMU
C2004 15UF 20% 6.3V X5R 0402-1 ROOM=PMU
C2005 15UF 20% 6.3V X5R 0402-1 ROOM=PMU
C2006 15UF 20% 6.3V X5R 0402-1 ROOM=PMU
C2007 15UF 20% 6.3V X5R 0402-1 ROOM=PMU
C2008 15UF 20% 6.3V X5R 0402-1 ROOM=PMU
C2009 15UF 20% 6.3V X5R 0402-1 ROOM=PMU
C2010 15UF 20% 6.3V X5R 0402-1 ROOM=PMU

PP_CPU VOLTAGE=1V 0.775V/0.95V/1.0V

BUCK1 10.5A MAX

BUCK1_LX0 — L2010 OMIT_TABLE 1.0UH-20%-3.6A-0.060OHM PIQA20161T-SM ROOM=PMU CRITICAL
BUCK1_LX1 — L2011 OMIT_TABLE 0.47UH-20%-3.8A-0.048OHM PIQA20121T-SM ROOM=PMU CRITICAL
BUCK1_LX2 — L2012 OMIT_TABLE 1.0UH-20%-3.6A-0.060OHM PIQA20161T-SM ROOM=PMU CRITICAL
BUCK1_LX3 — L2013 OMIT_TABLE 0.47UH-20%-3.8A-0.048OHM PIQA20121T-SM ROOM=PMU CRITICAL
BUCK1_FB — BUCK1_PP_GPU_FB

C2011 15UF 20% 6.3V X5R 0402-1 ROOM=PMU
C2012 15UF 20% 6.3V X5R 0402-1 ROOM=PMU
C2013 15UF 20% 6.3V X5R 0402-1 ROOM=PMU
C2014 15UF 20% 6.3V X5R 0402-1 ROOM=PMU
C2015 15UF 20% 6.3V X5R 0402-1 ROOM=PMU
C2016 15UF 20% 6.3V X5R 0402-1 ROOM=PMU
C2017 15UF 20% 6.3V X5R 0402-1 ROOM=PMU
C2018 15UF 20% 6.3V X5R 0402-1 ROOM=PMU
C2019 15UF 20% 6.3V X5R 0402-1 ROOM=PMU
C2020 15UF 20% 6.3V X5R 0402-1 ROOM=PMU
C2021 15UF 20% 6.3V X5R 0402-1 ROOM=PMU

PP_GPU VOLTAGE=1V 0.80V/0.90V/1.0V

BUCK2 4.7A MAX

BUCK2_LX0 — L2020 OMIT_TABLE 1.0UH-20%-3.6A-0.060OHM PIQA20161T-SM ROOM=PMU CRITICAL
BUCK2_LX1 — L2021 OMIT_TABLE 0.47UH-20%-3.8A-0.048OHM PIQA20121T-SM ROOM=PMU CRITICAL
BUCK2_FB — BUCK2_PP_SOC_FB

C2022 15UF 20% 6.3V X5R 0402-1 ROOM=PMU
C2023 15UF 20% 6.3V X5R 0402-1 ROOM=PMU
C2024 15UF 20% 6.3V X5R 0402-1 ROOM=PMU
C2025 15UF 20% 6.3V X5R 0402-1 ROOM=PMU
C2026 15UF 20% 6.3V X5R 0402-1 ROOM=PMU

PP_SOC VOLTAGE=1.1V 0.725V/0.825V

BUCK3 1.5A MAX

BUCK3_LX0 — L2030 OMIT_TABLE 1.0UH-20%-3.6A-0.060OHM PIQA20161T-SM ROOM=PMU CRITICAL
BUCK3_FB — XW2030 SHORT-10L-0.1MM-SM ROOM=PMU
VBUCK3_SW

C2030 15UF 20% 6.3V X5R 0402-1 ROOM=PMU
C2031 15UF 20% 6.3V X5R 0402-1 ROOM=PMU
C2032 100PF 5% 16V NP0-C0G 01005 ROOM=PMU

PP1V8_SDRAM VOLTAGE=1.8V

BUCK4 4.7A MAX

BUCK4_LX0 — L2040 OMIT_TABLE 1.0UH-20%-3.6A-0.060OHM PIQA20161T-SM ROOM=PMU CRITICAL
BUCK4_LX1 — L2041 OMIT_TABLE 0.47UH-20%-3.8A-0.048OHM PIQA20121T-SM ROOM=PMU CRITICAL
BUCK4_FB — XW2040 SHORT-10L-0.1MM-SM ROOM=PMU
VBUCK4_SW

C2040 15UF 20% 6.3V X5R 0402-1 ROOM=PMU
C2041 15UF 20% 6.3V X5R 0402-1 ROOM=PMU
C2042 15UF 20% 6.3V X5R 0402-1 ROOM=PMU
C2043 15UF 20% 6.3V X5R 0402-1 ROOM=PMU
C2044 100PF 5% 16V NP0-C0G 01005 ROOM=PMU

PP1V1_SDRAM VOLTAGE=1.1V

BUCK5 1.1A MAX

PP_FIXED VOLTAGE=0.85V
L2050 OMIT_TABLE 1.0UH-20%-3.6A-0.060OHM PIQA20161T-SM ROOM=PMU CRITICAL
XW2050 SHORT-10L-0.1MM-SM ROOM=PMU
C2050 15UF 20% 6.3V X5R 0402-1 ROOM=PMU
C2051 15UF 20% 6.3V X5R 0402-1 ROOM=PMU

BUCK6 400mA MAX

PP1V2_CAMERA VOLTAGE=1.2V
L2060 1UH-20%-1.2A-0.320OHM 0603 ROOM=PMU CRITICAL
C2060 15UF 20% 6.3V X5R 0402-1 ROOM=PMU
C2061 15UF 20% 6.3V X5R 0402-1 ROOM=PMU
C2062 100PF 5% 16V NP0-C0G 01005 ROOM=PMU

BUCK7 1.1A MAX

PP_CPU_SRAM VOLTAGE=1V 0.80V/0.90V/1.0V
L2070 1.0UH-20%-2.25A-0.150HM PIXB2016FE-SM ROOM=PMU CRITICAL
XW2070 SHORT-10L-0.1MM-SM ROOM=PMU
C2070 15UF 20% 6.3V X5R 0402-1 ROOM=PMU
C2071 15UF 20% 6.3V X5R 0402-1 ROOM=PMU

BUCK8 1.1A MAX

PP_GPU_SRAM VOLTAGE=1V 0.80V/0.90V/1.0V
L2080 1.0UH-20%-2.25A-0.150HM PIXB2016FE-SM ROOM=PMU CRITICAL
XW2080 SHORT-10L-0.1MM-SM ROOM=PMU
C2080 15UF 20% 6.3V X5R 0402-1 ROOM=PMU
C2081 15UF 20% 6.3V X5R 0402-1 ROOM=PMU

SYNC_MASTER=N71_SINGLE_BRD SYNC_DATE=05/29/2014

PAGE TITLE
SYSTEM POWER:PMU (1/3)

Apple Inc.

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ANTIGUA PMU - LDOs

ANTIGUA LDO SPECS

LDO#	ADJ.RANGE	ACCURACY	MAX.CURRENT
LDO1 (A)	2.5-3.3V	+/-1.4%	50mA
LDO2 (B)	1.2-2.0V	+/-2.5%	50mA
LDO3 (A)	2.5-3.3V	+/-1.4%	50mA
LDO4 (D)	0.7-1.2V	+/-2.5%	100mA
LDO5 (F)	2.5-3.3V	+/-2.5%	1000mA
LDO6 (C1)	1.2-3.6V	+/-2.5%	150mA
LDO7 (C)	2.5-3.3V	+/-25mV	250mA
LDO8 (C)	2.5-3.3V	+/-25mV	250mA
LDO9 (C)	2.5-3.3V	+/-25mV	250mA
LDO10 (G)	0.7-1.2V	+/-5.5%	1335mA
LDO11 (C)	2.5-3.3V	+/-25mV	250mA
LDO12 (E)	1.8V	+/-5%	10mA
LDO13 (C)	2.5-3.3V	+/-25mV	250mA
LDO14 (H)	0.8-1.5V	+/-2.5%	250mA
LDO15 (B)	1.2-2.0V	+/-2.5%	50mA

PP VCC MAIN

C2120 10UF 20% 6.3V CERM-X5R 0402-9 ROOM=PMU
C2121 10UF 20% 6.3V CERM-X5R 0402-9 ROOM=PMU
C2122 10UF 20% 6.3V CERM-X5R 0402-9 ROOM=PMU

XW2105 SHORT-10L-0.1MM-SM ROOM=PMU PLACE_NEAR=U2000.V2:2MM

VCC MAIN SNS

C2123 10UF 20% 6.3V CERM-X5R 0402-9 ROOM=PMU
C2124 10UF 20% 6.3V CERM-X5R 0402-9 ROOM=PMU
C2125 10UF 20% 6.3V CERM-X5R 0402-9 ROOM=PMU
C2126 10UF 20% 6.3V CERM-X5R 0402-9 ROOM=PMU
C2127 10UF 20% 6.3V CERM-X5R 0402-9 ROOM=PMU

PP1V1 SDRAM

C2130 2.2UF 20% 6.3V X5R-CERM 0201 ROOM=PMU
C2131 2.2UF 20% 6.3V X5R-CERM 0201 ROOM=PMU

PP1V8 SDRAM

C2132 2.2UF 20% 6.3V X5R-CERM 0201 ROOM=PMU

OMIT_TABLE
U2000
D2255A080UXUVAI2
CSP
SYM 1 OF 5
CRITICAL
ROOM=PMU

LDO INPUT

VDD_LDO1_3 (M3)
VDD_LDO2 (V2)
VDD_LDO4 (M2)
VDD_LDO5 (U1, U2)
VDD_LDO6 (L2)
VDD_LDO7 (Y6)
VDD_LDO8 (Y4)
VDD_LDO9 (Y3)
VDD_LDO10 (Y9, Z9)
VDD_LDO11 (R3)
VDD_LDO13 (Y5)
VDD_LDO14 (Y7)
VDD_LDO15 (N2)
VDD_BYPASS (K3)
VPP_OTP (P12)

LDO

VLDO1 M1 — VOLTAGE=3.3V — PP3V3_USB
VLDO2 V1 — VOLTAGE=1.8V — PP1V8_VA
VLDO3 L1 — VOLTAGE=3.0V — PP3V0_TRISTAR
VLDO4 N1 — VOLTAGE=0.8V — PP0V8_OWL
VLDO5 T1, T2 — VOLTAGE=3.0V — PP3V0_NAND
VLDO6 K1
VBYPASS K2 — VOLTAGE=3.3V — PP3V3_ACC
VLDO7 Z6
VLDO8 Z4 — VOLTAGE=3.0V — PP3V0_PROX_ALS
VLDO9 Z3 — VOLTAGE=2.75V — PMU_LDO8
VLDO9_FB Y2 — CAM_AVDD_FB — PLACE_NEAR=U2000.Y2:2mm ROOM=PMU — XW2100 SHORT-10L-0.25MM-SM — VOLTAGE=2.875V — PP2V85_CAM_AVDD_PMU
VLDO10 Y8, Z8 — VOLTAGE=0.9V — PP0V9_NAND
VLDO11 R2 — VOLTAGE=3.0V — PP3V0_PROX_IRLED
VLDO12 K6 — VOLTAGE=1.8V — PP1V8_ALWAYS
VLDO13 Z5 — VOLTAGE=3.0V — PP3V0_MESA
VLDO14 Z7 — VOLTAGE=1.2V — PP1V2
VLDO15 P2 — VOLTAGE=1.8V — PP1V8_MESA
VPUMP U19 — PMU_VPUMP

VPUMP:10nF min. @ 4.6V

C2100 47NF 20% 6.3V X5R-CERM 01005 ROOM=PMU
C2101 2.2UF 20% 6.3V X5R-CERM 0201 ROOM=PMU
C2102 2.2UF 20% 6.3V X5R-CERM 0201 ROOM=PMU
C2103 2.2UF 20% 6.3V X5R-CERM 0201 ROOM=PMU
C2104 2.2UF 20% 6.3V X5R-CERM 0201 ROOM=PMU
C2105 2.2UF 20% 6.3V X5R-CERM 0201 ROOM=PMU
C2106 2.2UF 20% 6.3V X5R-CERM 0201 ROOM=PMU
C2107 4.3UF 20% 4V X5R-CERM 0610 ROOM=PMU
C2108 2.2UF 20% 6.3V X5R-CERM 0201 ROOM=PMU
C2109 2.2UF 20% 6.3V X5R-CERM 0201 ROOM=PMU
C2110 2.2UF 20% 6.3V X5R-CERM 0201 ROOM=PMU
C2111 4.3UF 20% 4V X5R-CERM 0610 ROOM=PMU
C2112 2.2UF 20% 6.3V X5R-CERM 0201 ROOM=PMU
C2113 2.2UF 20% 6.3V X5R-CERM 0201 ROOM=PMU
C2114 2.2UF 20% 6.3V X5R-CERM 0201 ROOM=PMU
C2115 4.3UF 20% 4V X5R-CERM 0610 ROOM=PMU

OMIT_TABLE
U2000
D2255A080UXUVAI2
CSP
SYM 2 OF 5
CRITICAL
ROOM=PMU

D10 D11 D12 D13 D14 D15 D16 D17 D18 D2 D5 D6 D7 D8 D9 D3 E10 E11 E12 E13 D4 E15 E16 E3 E4 E5 E7 E8 E9 F14 F15 F16 F3 F4 G14 G15 G16 G3 G4 H15 H16 H3 H4 — NC

J15 J16 J3 J4 K15 K16 L15 L16 M14 M15 M16 N14 N15 N16 P13 P14 P15 P16 P17 R13 R14 R15 R16 R17 T10 T11 T12 T13 T14 T15 T17 U10 U11 U12 U13 U14 U4 U5 U6 V4 V5 V6 — NC

OMIT_TABLE
U2000
D2255A080UXUVAI2
CSP
SYM 4 OF 5
CRITICAL
ROOM=PMU

A1 A10 A14 A18 A19 A2 A6 B1 B10 B14 B18 B19 B2 B6 C10 C14 C18 C2 C6 D1 D19 E14 G1 G17 G18 G19 G2 H7 J6 K12 K7 L17 L18 L19 L6 L7 — VSS

L9 M8 M9 N10 N12 N13 N9 P10 P11 P18 P19 P5 R10 R11 R12 R9 T16 T3 T6 T8 U3 U9 V10 V14 V8 V9 Y1 Y10 Y14 Y19 Z1 Z10 Z14 Z19 Z2 — XTAL GND

T3 — PMU_VSS_RTC

SYNC_MASTER=N71_SINGLE_BRD
SYNC_DATE=05/29/2014

PAGE TITLE: SYSTEM POWER:PMU (2/3)

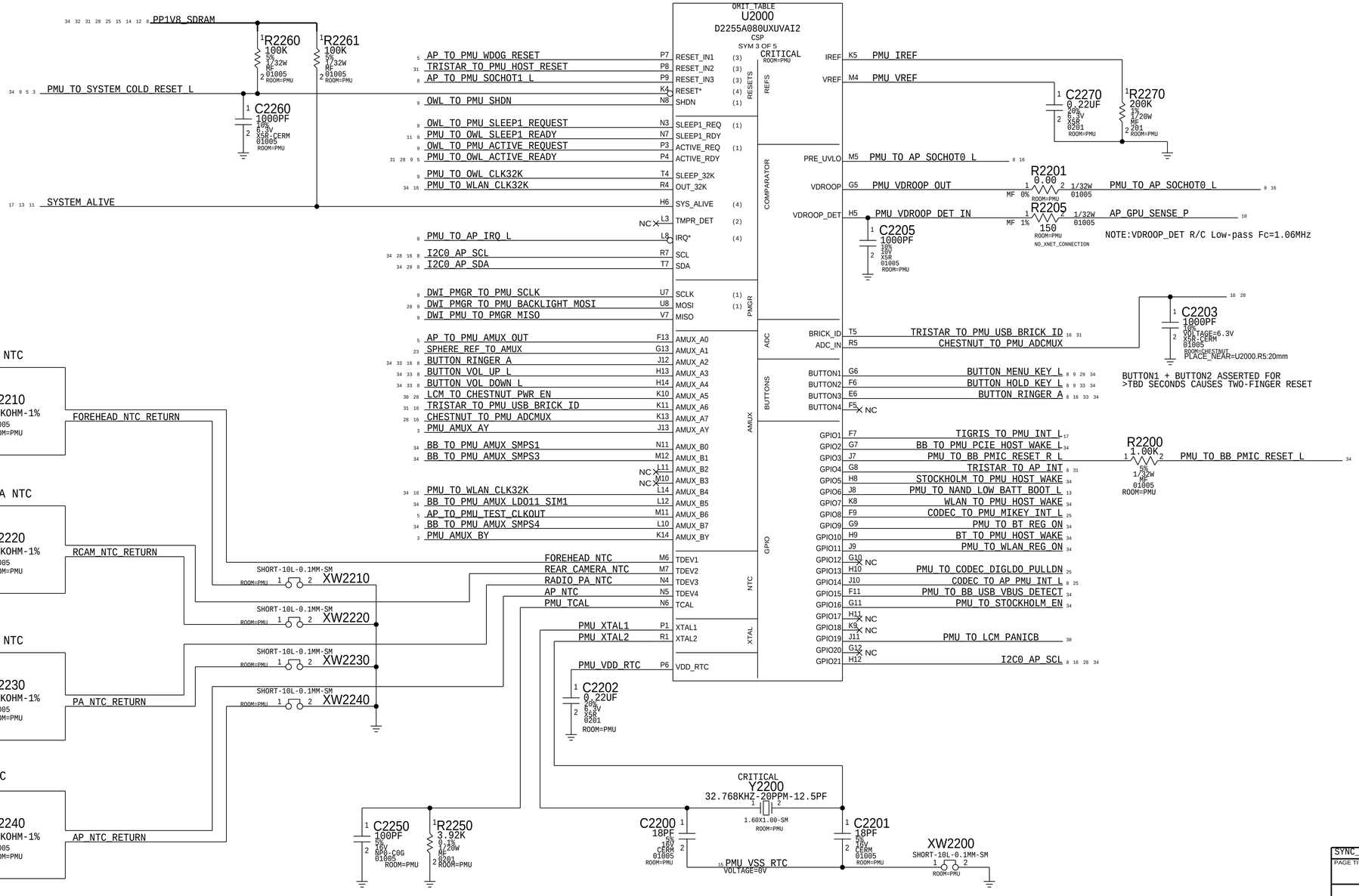
Apple Inc.

DRAWING NUMBER: 051-00094
SIZE: D
REVISION: A.0.0
BRANCH:
PAGE: 21 OF 49
SHEET: 15 OF 60

ANTIGUA PMU - GPIOs, NTCs

CONTROL PIN NOTES:

NOTE (1):INPUT PULL-DOWN 100-300k
NOTE (2):INPUT PULL-DOWN 1M
NOTE (3):INPUT PULL-UP OR DOWN 100k-300k
NOTE (4):OUTPUT OPEN-DRAIN, REQUIRES PULL-UP

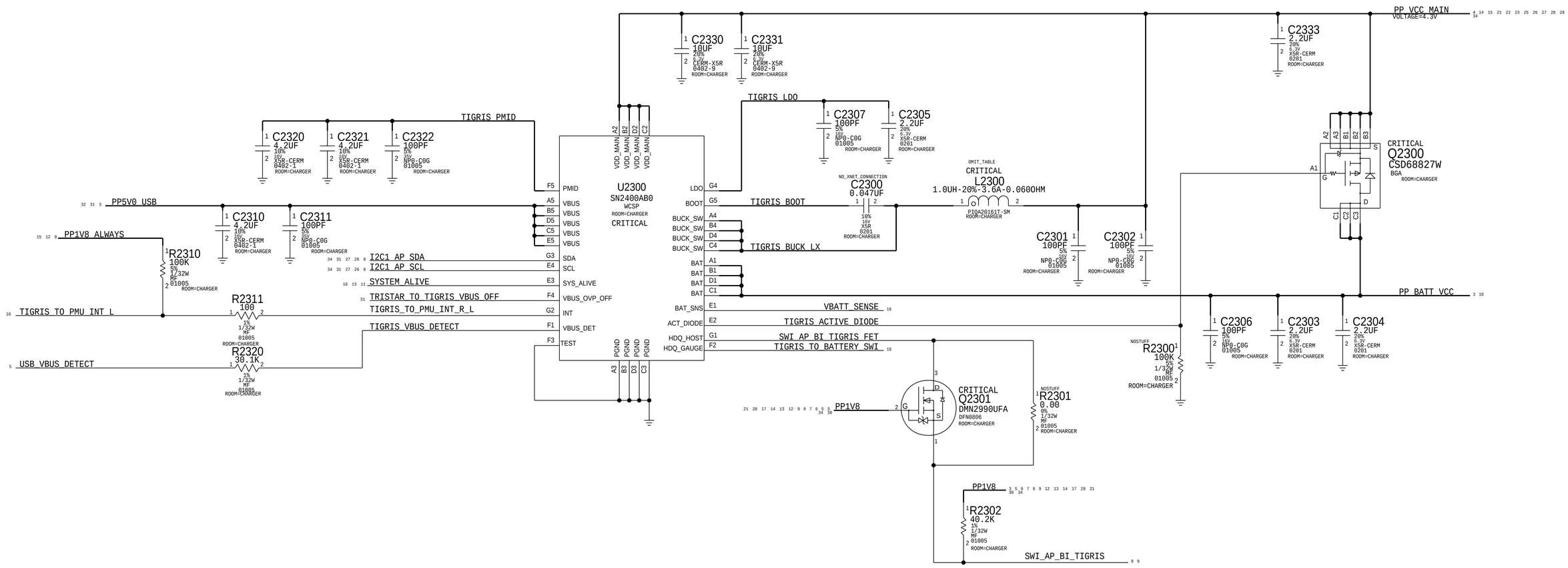


NOTE:100PF CAPS ARE THE SAMPLING CAPS FOR PMU ADC

SYNC_MASTER=N/A	SYNC_DATE=N/A
PAGE TITLE	SYSTEM POWER:PMU (3/3)
Apple Inc.	DRAWING NUMBER 051-00094 SIZE D
	REVISION A.0.0
	BRANCH
	PAGE 22 OF 49
	SHEET 16 OF 60

TIGRIS CHARGER

APN:343S00033



SYNC_MASTER=N71_SINGLE_BRD SYNC_DATE=05/29/2014

PAGE TITLE

SYSTEM POWER:CHARGER

Apple Inc.

DRAWING NUMBER 051-00094 SIZE D

REVISION A.0.0

BRANCH

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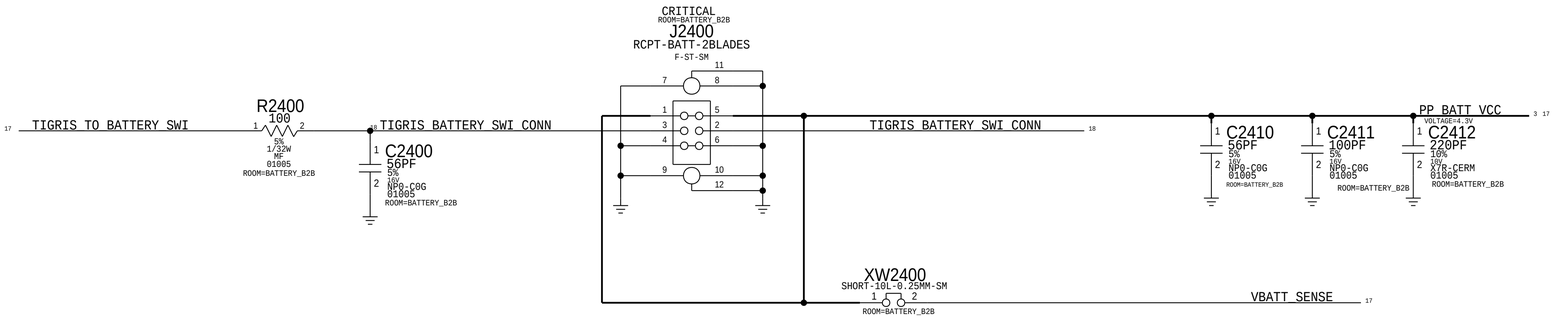
BATTERY CONNECTOR

THIS ONE ON MLB ---> 516S00104 (RCPT)
516????? (PLUG)



SYNC_MASTER=N71_SINGLE_BRD SYNC_DATE=04/29/2014

PAGE TITLE
SYSTEM POWER:BATTERY CONN

Apple Inc.

DRAWING NUMBER 051-00094 SIZE D
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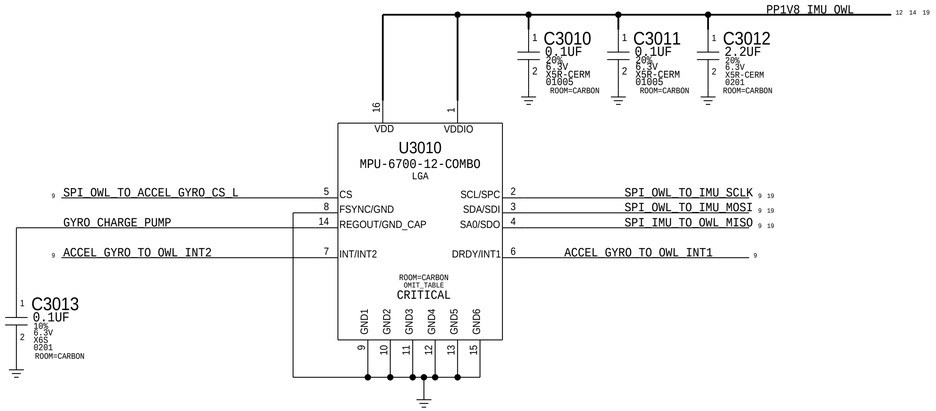
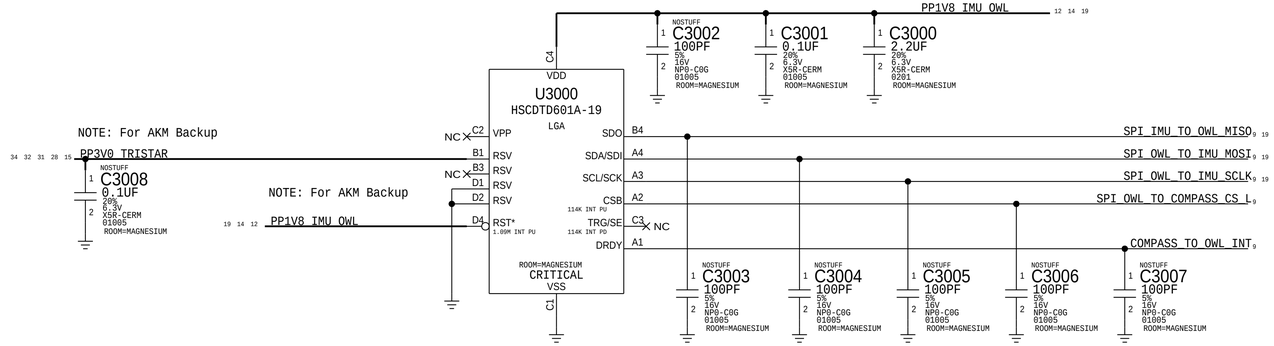
CARBON - ACCEL & GYRO

INVENSENSE, MPU-6700 (APN 338S00017): C3013=0.1UF
INVENSENSE, MPU-6800 (APN 338S00087): C3013=0.1UF



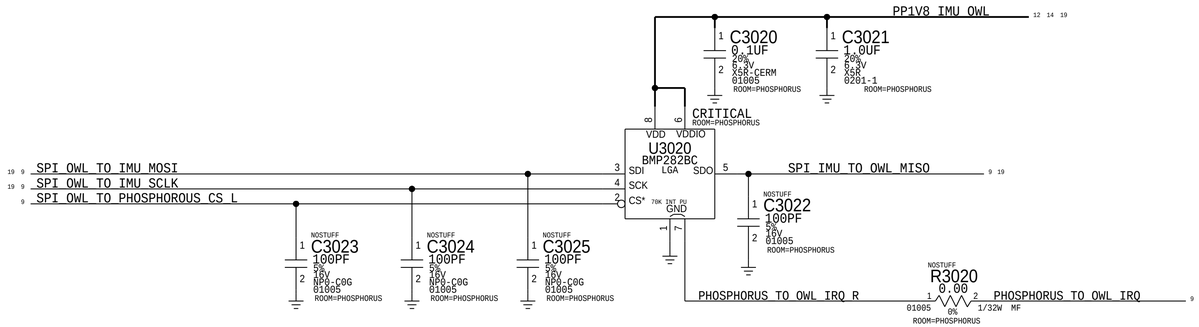
MAGNESIUM - COMPASS

APN:338S00084



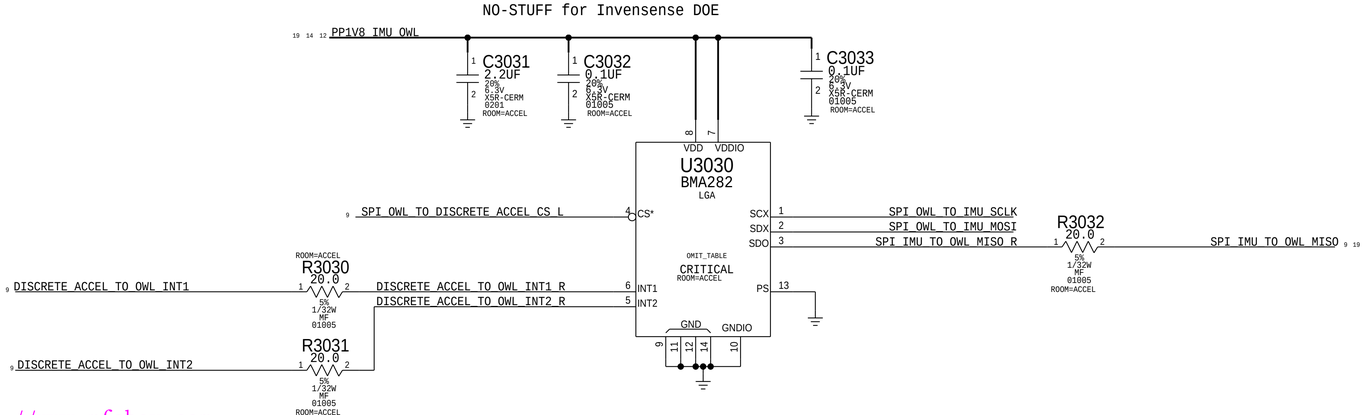
PHOSPHOROUS

BOSCH (APN:338S00044)



DISCRETE ACCEL

BOSCH APN 338S1163
NO-STUFF for Invensense DOE



SYNC_MASTER=N71_SINGLE_BRD SYNC_DATE=05/29/2014

PAGE TITLE
SENSORS:MOTION SENSORS

Apple Inc.

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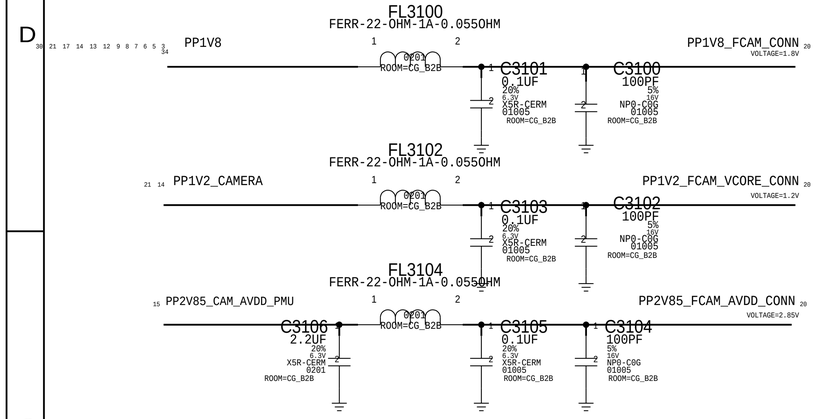
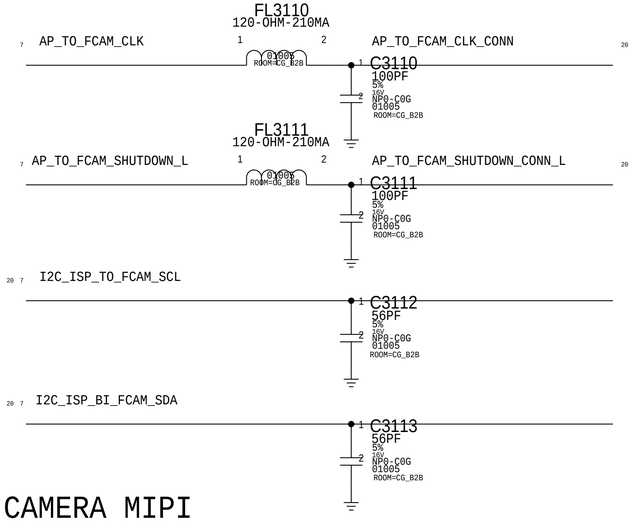
FRONT CAMERA FLEX

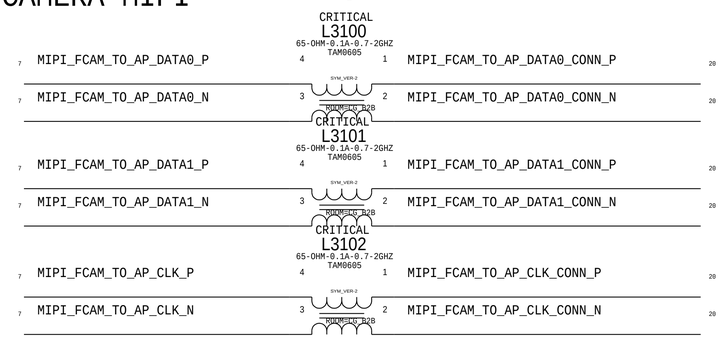
CAMERA POWER



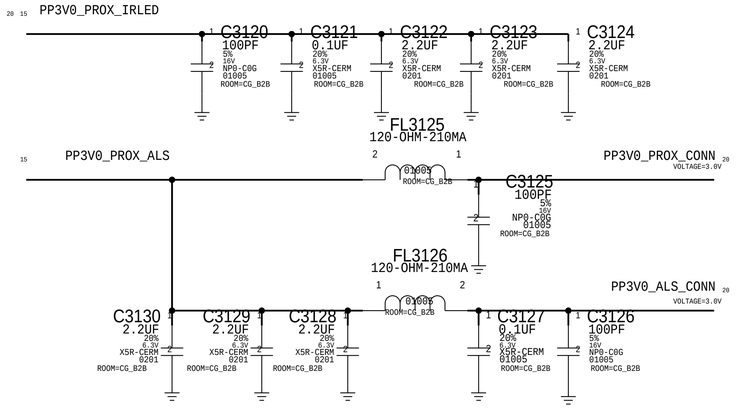
CAMERA I/O



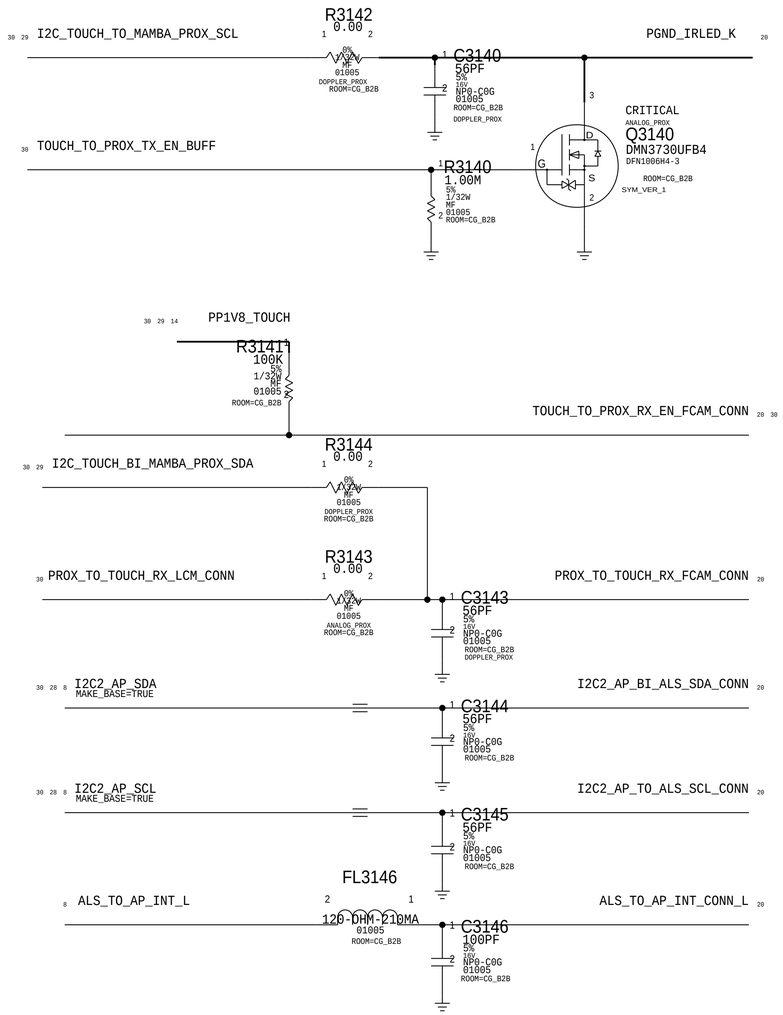
CAMERA MIPI



PROX & ALS POWER

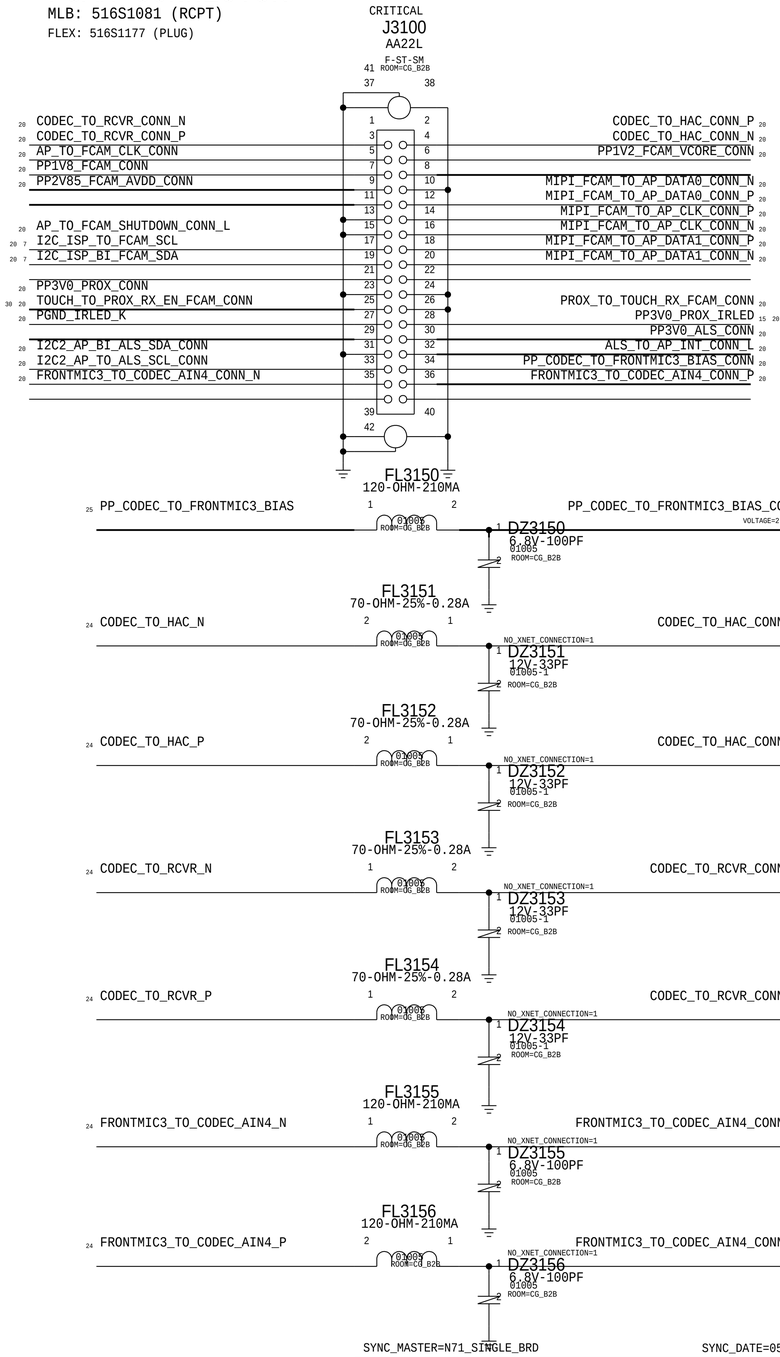


PROX & ALS INTERFACE



FCAM CONNECTOR

MLB: 516S1081 (RCPT)
FLEX: 516S1177 (PLUG)



PAGE TITLE: CAMERA:FRONT CAMERA B2B

Apple Inc.

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SIZE: D
REVISION: A.0.0
BRANCH:
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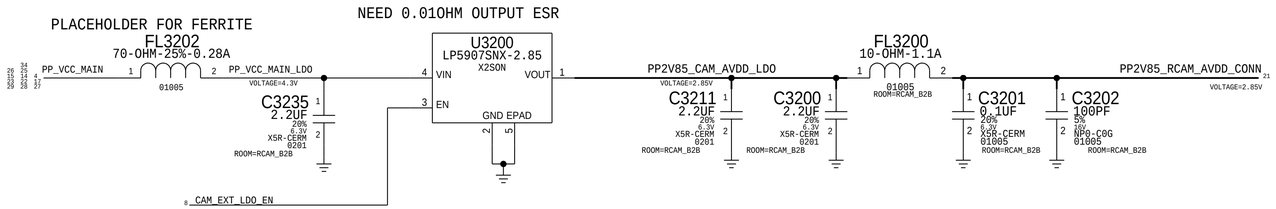
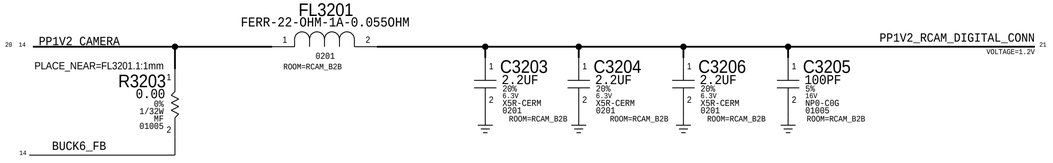
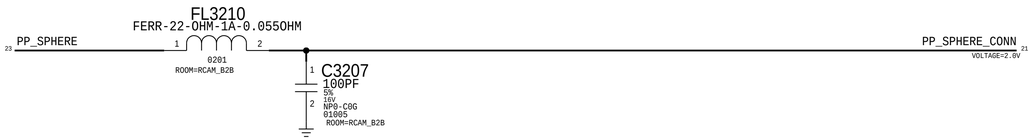
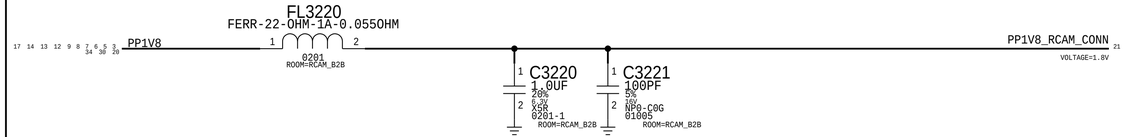
REAR CAMERA FLEX

CAMERA POWER/MAMBA LDO





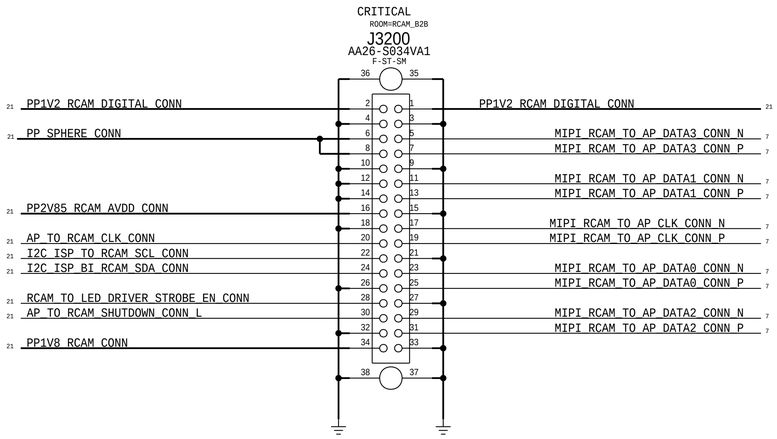




RCAM CONNECTOR

MLB: 516S00043 (RCPT)

FLEX: 516S00042 (PLUG)



Digital I/O

SYNC_MASTER=N71_SINGLE_BRD SYNC_DATE=05/29/2014

PAGE TITLE: CAMERA:REAR CAMERA B2B

Apple Inc.

DRAWING NUMBER: 051-00094 SIZE: D

REVISION: A.0.0

BRANCH:

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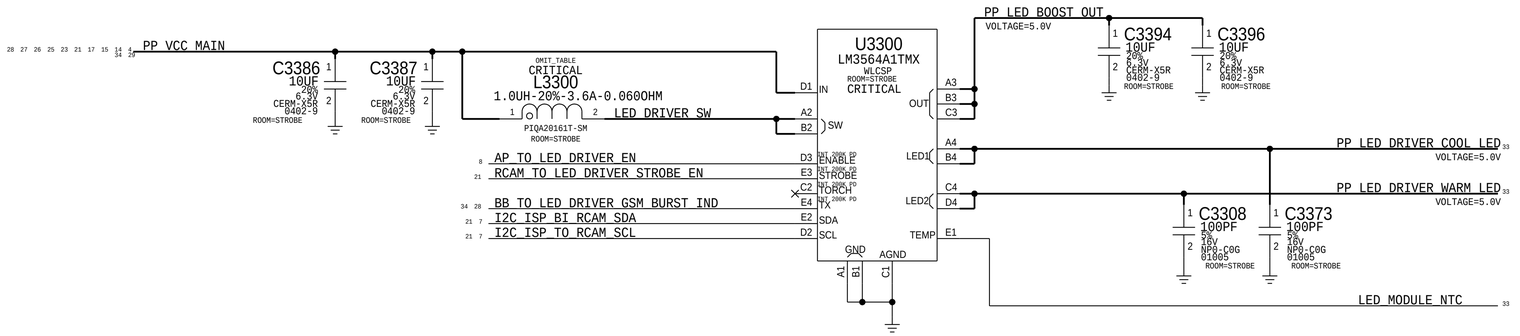
DUAL LED STROBE DRIVER

APN:353S3899



SYNC_MASTER=N71_SINGLE_BRD SYNC_DATE=05/29/2014

PAGE TITLE

CAMERA:STROBE DRIVER

Apple Inc.

DRAWING NUMBER 051-00094 SIZE D

REVISION A.0.0

BRANCH

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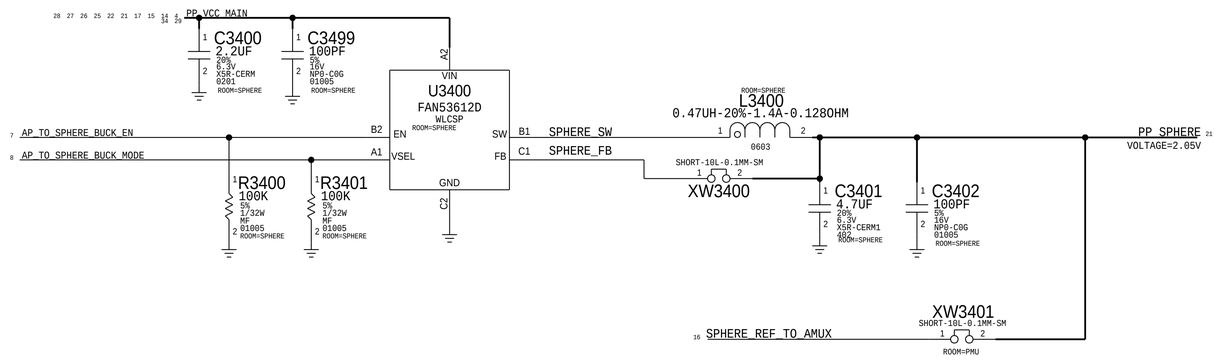
Sphere Driver

APN:353S00584



PAGE TITLE
CAMERA: SPHERE DRIVER

Apple Inc.

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REVISION A.0.0
BRANCH
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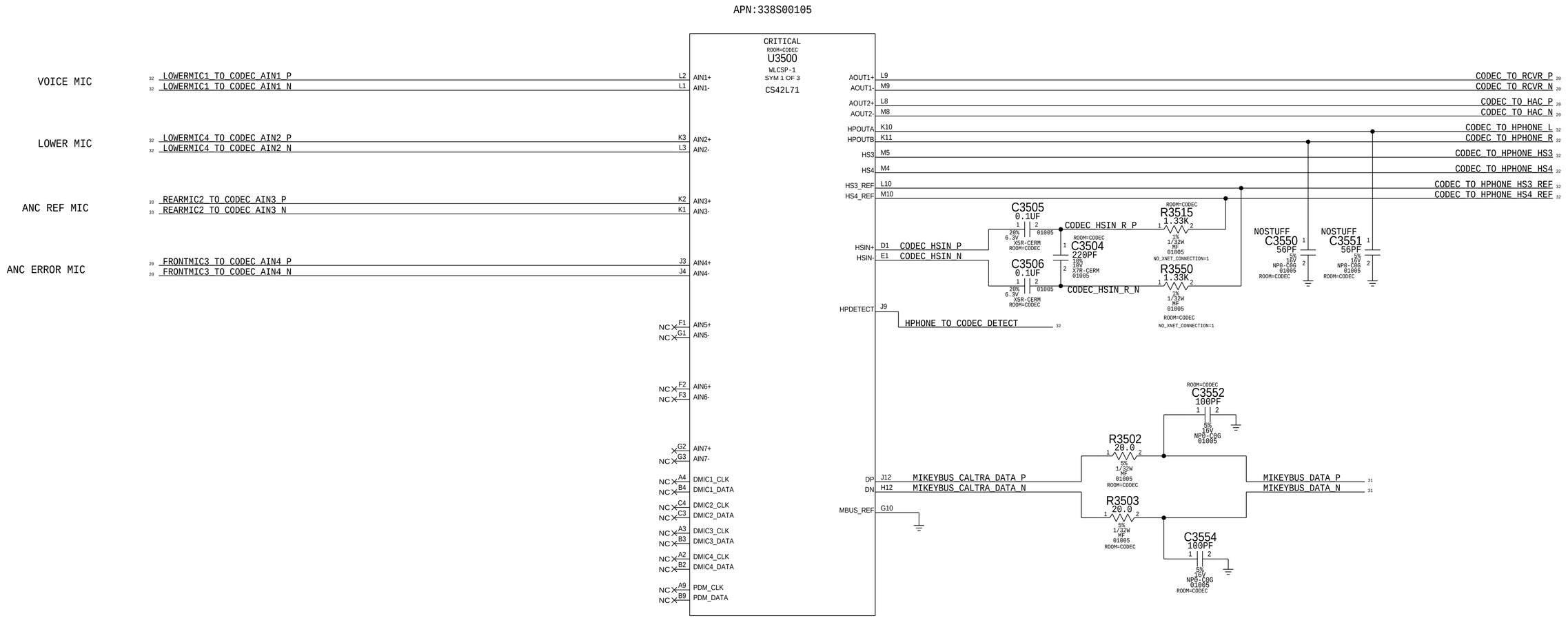
CALTRA AUDIO CODEC (ANALOG INPUTS & OUTPUTS)

APN:338S00105



http://www.mfcbox.com

SYNC_MASTER=N71_SINGLE_BRD	SYNC_DATE=05/29/2014
PAGE TITLE	AUDIO:CALTRA CODEC (1/2)
Apple Inc.	DRAWING NUMBER 051-00094 · SIZE D
	REVISION A.0.0
NOTICE OF PROPRIETARY PROPERTY:	BRANCH
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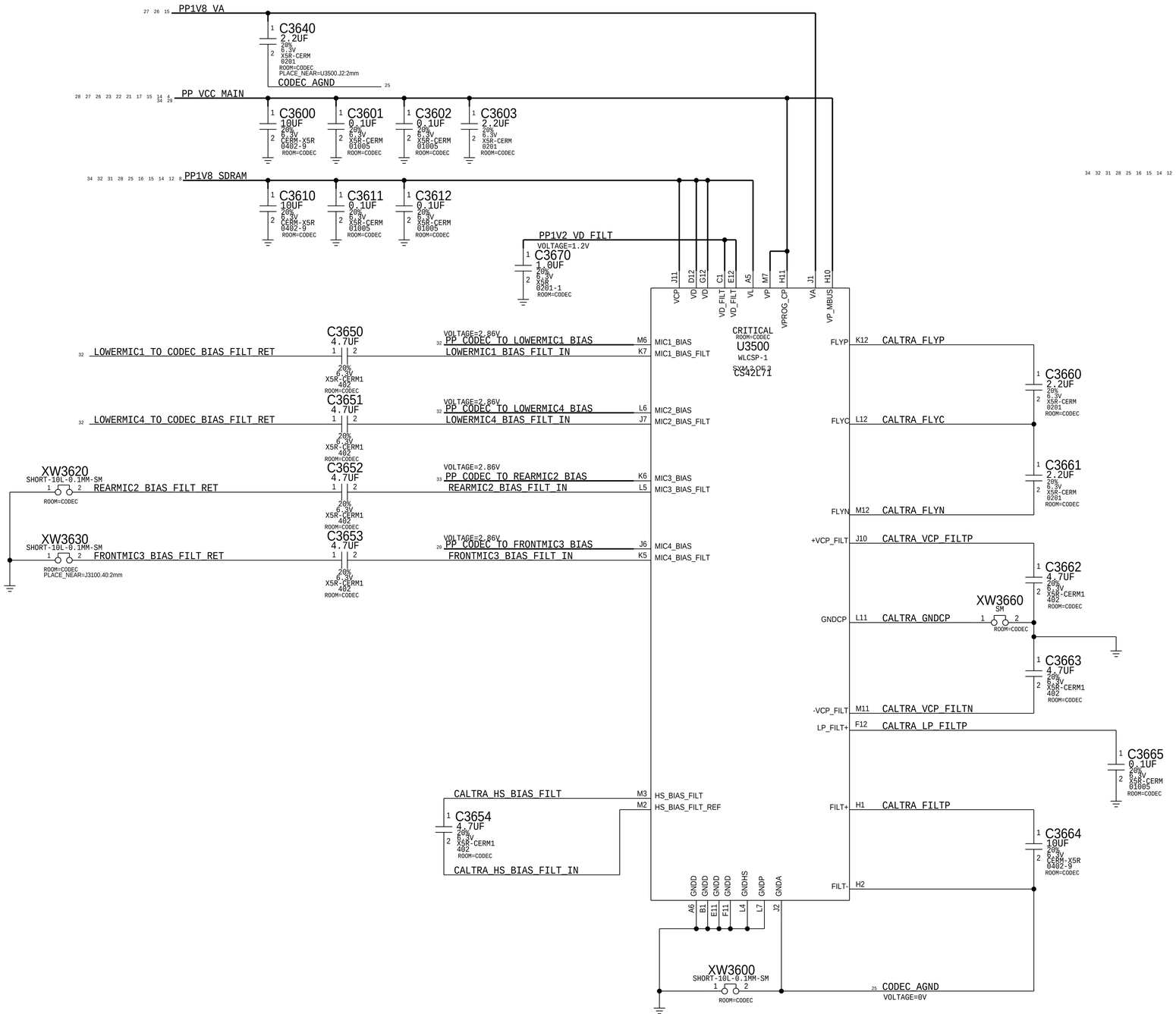
	SHEET 24 OF 60

CALTRA AUDIO CODEC (POWER & I/O)



SYNC_MASTER=N71_SINGLE_BRD SYNC_DATE=05/29/2014

PAGE TITLE: AUDIO:CALTRA CODEC (2/2)

Apple Inc.

DRAWING NUMBER: 051-00094 SIZE: D

REVISION: A.0.0

BRANCH:

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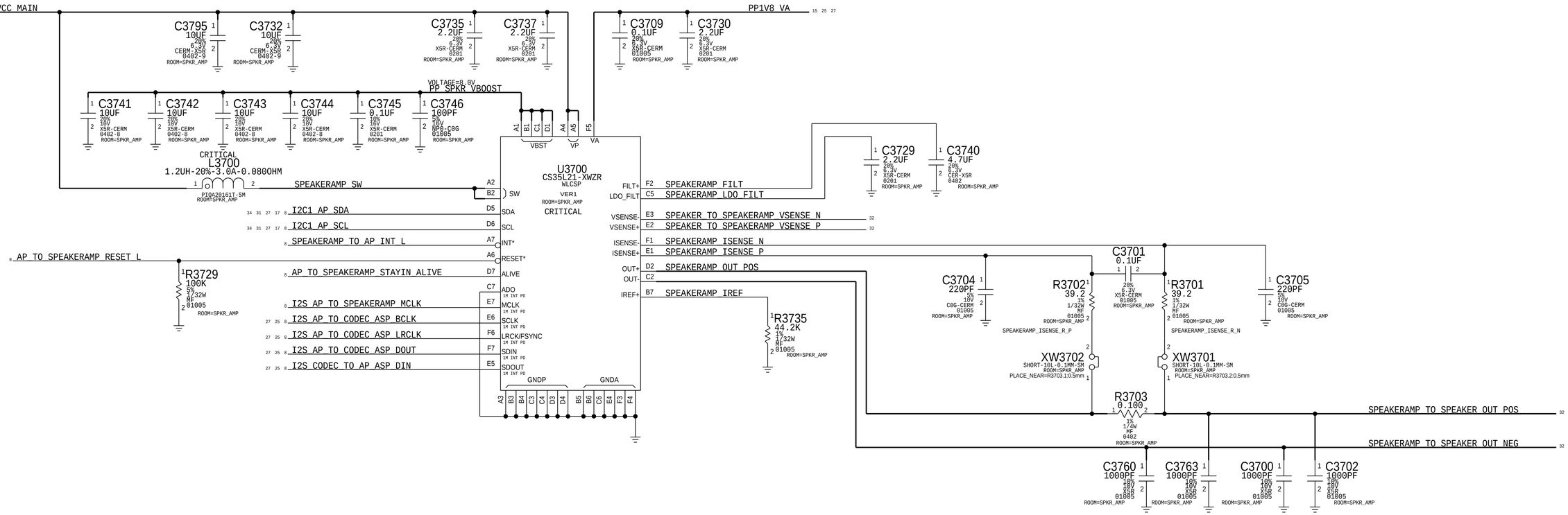
SHEET: 25 OF 60

SPEAKER AMPLIFIER

APN: 338S1285
I2C ADDRESS: 1000000



SYNC_MASTER=N71_SINGLE_BRD
SYNC_DATE=05/29/2014

PAGE TITLE
AUDIO:SPEAKER DRIVER

Apple Inc.

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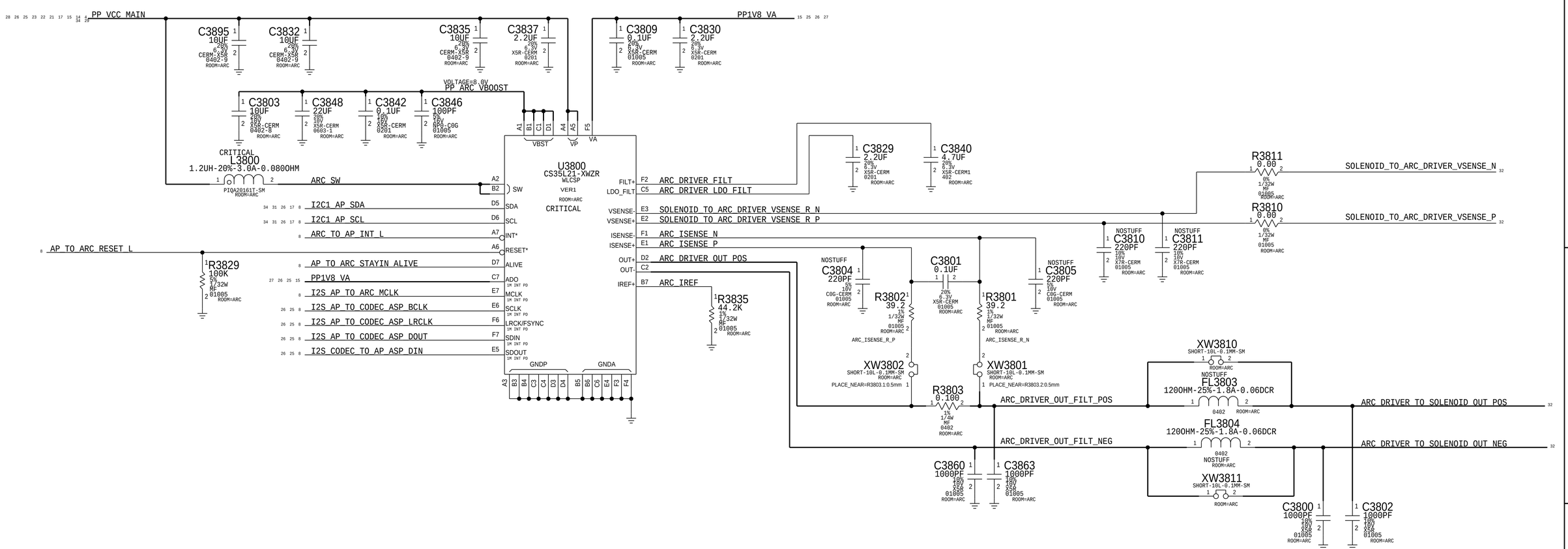
ARC DRIVER

APN: 338S1285
I2C ADDRESS: 1000001



PAGE TITLE
AUDIO:ARC DRIVER

Apple Inc.

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DISPLAY & TOUCH - POWER SUPPLIES

CHESTNUT DISPLAY PMU

APN:338S1172

PP_VCC_MAIN
CRITICAL
L4000
1.0UH-20%-2.25A-0.150HM
PIXB2016FE-SM
ROOM=CHESTNUT
C4000 10UF 20% VOLTAGE=6.3V CERM-X5R 0402-9 ROOM=CHESTNUT
CHESTNUT_SW 6.3V

U4000
TPS65730A0PYFF
BGA
ROOM=CHESTNUT
CRITICAL

D1	VIN	CF1	C4
B2	SW	CF2	E4
A2	SYNC (NO INT PULL)	LCMBST	B3
D3	SCL	CPUMP	B4
D2	SDA	VNEG	E3
C3	LCM_EN (200K INT PD)	VNEG(SUB)	E2
C2	RESET* (NO INT PULL)	HVLDO1	A4
E1	ADCMUX	HVLDO2	A3
	AGND C1	HVLDO3	A1
	PGND1 B1		
	PGND2 D4		

PP_CHESTNUT_CP VOLTAGE=6.0V
C4002 10UF 20% VOLTAGE=10V X5R-CERM 0402-8 ROOM=CHESTNUT
PN_CHESTNUT_CN VOLTAGE=-6.0V
PP6V0_LCM_BOOST VOLTAGE=6.0V

I2C0_AP_SCL
I2C0_AP_SDA
LCM_TO_CHESTNUT_PWR_EN
PMU_TO_OWL_ACTIVE_READY
CHESTNUT_TO_PMU_ADCMUX

PN5V7_LCM_MESON_AVDDN VOLTAGE=-5.7V
PP5V7_MESON_AVDDH VOLTAGE=5.7V
PP5V7_LCM_AVDDH VOLTAGE=5.7V
PP5V1_TOUCH_VDDH VOLTAGE=5.1V

C4003 1UF 20% VOLTAGE=16V CER-X5R 0201 ROOM=CHESTNUT
C4004 10UF 20% VOLTAGE=10V X5R-CERM 0402-8 ROOM=CHESTNUT
C4005 10UF 20% VOLTAGE=10V X5R-CERM 0402-8 ROOM=CHESTNUT
C4006 10UF 20% VOLTAGE=10V X5R-CERM 0402-8 ROOM=CHESTNUT
C4007 10UF 20% VOLTAGE=10V X5R-CERM 0402-8 ROOM=CHESTNUT
C4008 10UF 20% VOLTAGE=10V X5R-CERM 0402-8 ROOM=CHESTNUT
C4009 100PF 5% 50V NPO-C0G 01005 ROOM=CHESTNUT

LED BACKLIGHT DRIVERS

APN:353S00407

PP_VCC_MAIN
C4020 10UF 20% 6.3V CERM-X5R 0402-9 ROOM=BACKLIGHT
C4021 10UF 20% 6.3V CERM-X5R 0402-9 ROOM=BACKLIGHT

OMIT_TABLE
CRITICAL
L4021
1.0UH-20%-3.6A-0.060OHM
PIQA20161T-SM
ROOM=BACKLIGHT
BL_SW2

CRITICAL
L4020
15UH-20%-0.72A-0.90HM
PITA32251T-SM
ROOM=BACKLIGHT
BL_SW1

CRITICAL
D4021
DSN2
NSR05F30NXT5G
ROOM=BACKLIGHT

CRITICAL
D4020
NSR0530P2T5G
SOD-923-1
ROOM=BACKLIGHT

PP_LCM_BL_ANODE VOLTAGE=25V

C4022 100PF 5% 35V NPO-C0G 01005 ROOM=BACKLIGHT
C4023 10UF 20% 35V X5R-CERM 0603 ROOM=BACKLIGHT

U4020
LM3539A0YFFR
DSBGA
CRITICAL
ROOM=BACKLIGHT

D4	IN	OUT	A1
D3	VIO/HWEN	SW1	C4
C2	SDI	SW2_1	A3
C3	SCK	SW2_2	A4
B2	SDA	LED1	C1
A2	SCL	LED2	B1
D1	TRIG		
D2	INHIBIT		
	GND B3		
	GND B4		

PP1V8_SDRAM
DWI_PMGR_TO_PMU_BACKLIGHT_MOSI
DWI_PMGR_TO_BACKLIGHT_SCLK
I2C0_AP_SDA
I2C0_AP_SCL_MUON
AP_TO_MUON_BL_STROBE_EN
BB_TO_LED_DRIVER_GSM_BURST_IND

VOLTAGE=0.26V
PP_LCM_BL_CAT1
PP_LCM_BL_CAT2
VOLTAGE=0.26V

R4021 1.00K 5% 1/32W MF 01005
C4024 12PF 5% 16V CERM 01005 ROOM=BACKLIGHT
C4025 150PF 10% 10V X7R 01005-1 ROOM=BACKLIGHT
C4026 12PF 5% 16V CERM 01005 ROOM=BACKLIGHT NOSTUFF
R4020 200K 1% 1/32W MF 01005 ROOM=BACKLIGHT

OMIT_TABLE
CRITICAL
L4051
1.0UH-20%-3.6A-0.060OHM
PIQA20161T-SM
ROOM=BACKLIGHT
BL34_SW2

CRITICAL
L4050
15UH-20%-0.72A-0.90HM
PITA32251T-SM
ROOM=BACKLIGHT
BL34_SW1

CRITICAL
D4051
DSN2
NSR05F30NXT5G
ROOM=BACKLIGHT

CRITICAL
D4050
NSR0530P2T5G
SOD-923-1
ROOM=BACKLIGHT

PP_LCM_BL34_ANODE VOLTAGE=25V

C4050 10UF 20% 6.3V CERM-X5R 0402-9 ROOM=BACKLIGHT
C4051 10UF 20% 6.3V CERM-X5R 0402-9 ROOM=BACKLIGHT
C4099 2.2UF 20% 6.3V X5R-CERM 0201 ROOM=BACKLIGHT
C4098 2.2UF 20% 6.3V X5R-CERM 0201 ROOM=BACKLIGHT
C4052 100PF 5% 35V NPO-C0G 01005 ROOM=BACKLIGHT
C4053 10UF 20% 35V X5R-CERM 0603 ROOM=BACKLIGHT

U4050
LM3539A0YFFR
DSBGA
CRITICAL
ROOM=BACKLIGHT

D4	IN	OUT	A1
D3	VIO/HWEN	SW1	C4
C2	SDI	SW2_1	A3
C3	SCK	SW2_2	A4
B2	SDA	LED1	C1
A2	SCL	LED2	B1
D1	TRIG		
D2	INHIBIT		
	GND B3		
	GND B4		

PP1V8_SDRAM
DWI_PMGR_TO_PMU_BACKLIGHT_MOSI
DWI_PMGR_TO_BACKLIGHT_SCLK
I2C2_AP_SDA
I2C2_AP_SCL_MUON
AP_TO_MUON_BL_STROBE_EN
BB_TO_LED_DRIVER_GSM_BURST_IND

VOLTAGE=0.26V
PP_LCM_BL_CAT3
PP_LCM_BL_CAT4
VOLTAGE=0.26V

R4051 1.00K 5% 1/32W MF 01005
C4054 12PF 5% 16V CERM 01005 ROOM=BACKLIGHT NOSTUFF
C4055 150PF 10% 10V X7R 01005-1 ROOM=BACKLIGHT
C4056 12PF 5% 16V CERM 01005 ROOM=BACKLIGHT NOSTUFF

MOJAVE MESA BOOST

APN:353S00671

PP_VCC_MAIN
C4040 10UF 20% VOLTAGE=6.3V CERM-X5R 0402-9 ROOM=MOJAVE

CRITICAL
L4040
1.0UH-20%-0.4A-0.636OHM
0403
ROOM=MOJAVE
POS18V0_MESA_SW

U4040
LM3638A0
BGA
ROOM=MOJAVE
CRITICAL

B1	SW	VOUT	C3
A2	VIN		
B2	EN_M		
A3	EN_S		
C2	LDOIN	PMID	C1
	PGND A1		
	AGND B3		

PP3V0_TRISTAR
R4040 0.00 5% 1/32W MF 01005 NOSTUFF
MOJAVE_EN_M
PP17V0_MOJAVE_LDOIN VOLTAGE=17.0V
MESA_TO_BOOST_EN
R4041 0.00 5% 1/32W MF 01005

C4042 100PF 5% 50V NPO-C0G 01005 ROOM=MOJAVE
C4043 2.2UF 20% VOLTAGE=35V X5R-CERM 0402 ROOM=MOJAVE
PP16V5_MESA VOLTAGE=16.5V
C4041 2.2UF 20% VOLTAGE=35V X5R-CERM 0402 ROOM=MOJAVE

SYNC_MASTER=N71_SINGLE_BRD SYNC_DATE=05/29/2014

PAGE TITLE
DISPLAY:POWER

Apple Inc.

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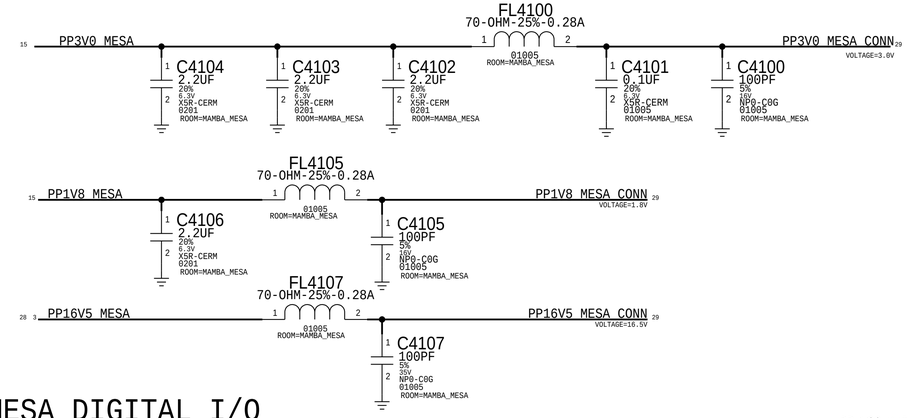
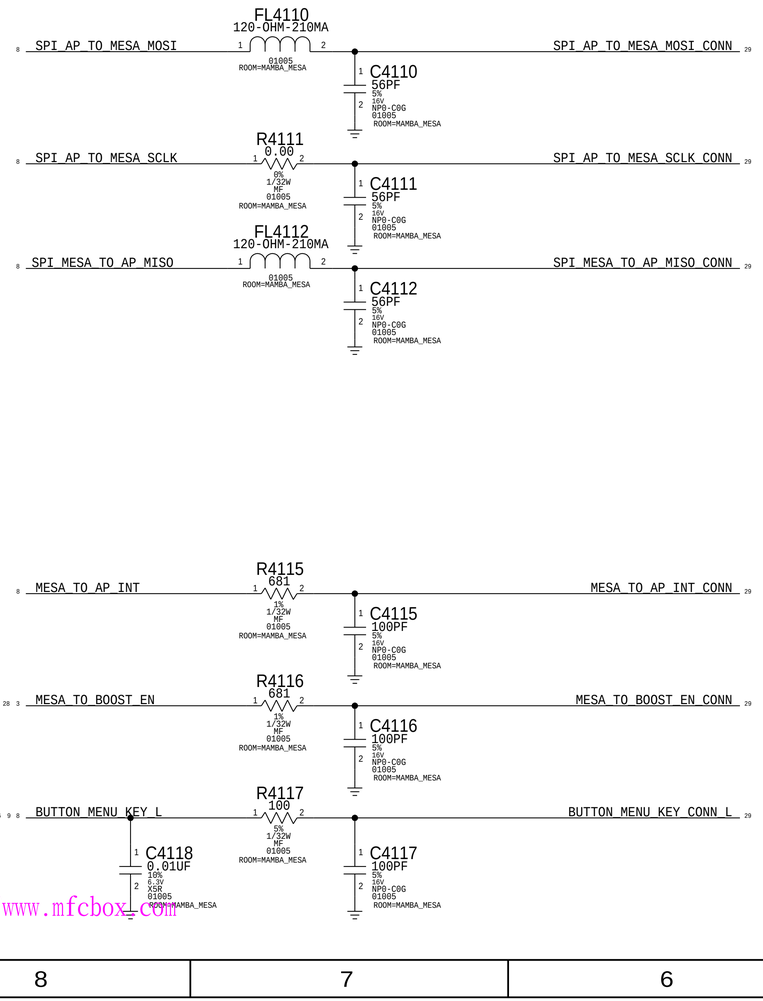
MAMBA & MESA FLEX

MESA POWER

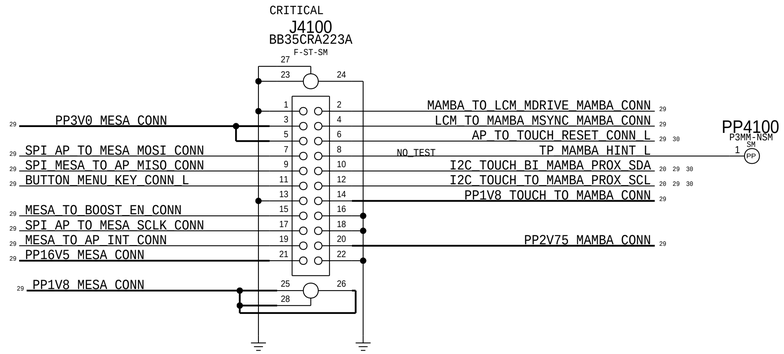


MESA DIGITAL I/O

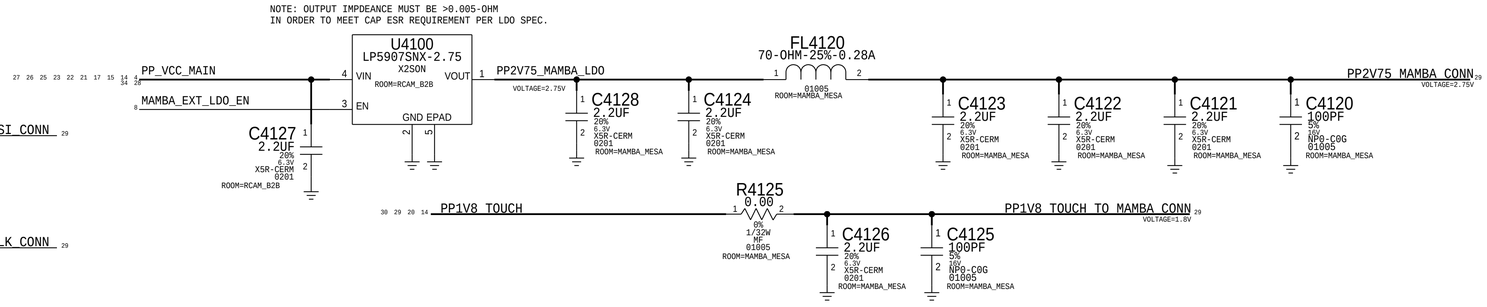


ORB & MESA CONNECTOR

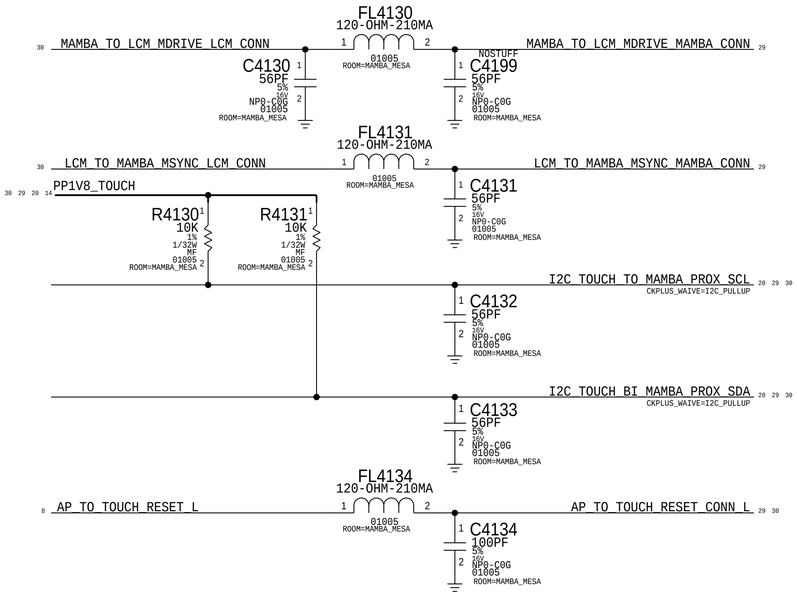
MLB: 516S00056 (RCPT)



MAMBA POWER



MAMBA DIGITAL I/O



NOTE:MAMBA I2C PULL-UPS TO PP1V8_TOUCH INSIDE KEPLER
ADDING R4130, R4131 AS OPTION FOR TWEAKING VALUE

SYNC_MASTER=N71_SINGLE_BRD SYNC_DATE=05/29/2014

PAGE TITLE: TOUCH:ORB & MESA B2B

Apple Inc.

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DISPLAY POWER

PP5V7_LCM_AVDDH → FL4200 2400OHM-350MA 0201 → PP5V7_LCM_AVDDH_CONN (VOLTAGE=5.7V)
- C4200 2.2UF 20% 6.3V X5R-CERM 0201
- C4201 2.2UF 20% 6.3V X5R-CERM 0201
- C4202 2.2UF 20% 6.3V X5R-CERM 0201
- C4203 2.2UF 20% 6.3V X5R-CERM 0201
- C4204 100PF 5% 16V NP0-C0G 01005

PP1V8 → FL4205 2400HM-350MA 0201 → PP1V8_LCM_CONN (VOLTAGE=1.8V)
- C4205 2.2UF 20% 6.3V X5R-CERM 0201
- C4206 100PF 5% 16V NP0-C0G 01005

PN5V7_LCM_MESON_AVDDN → FL4207 70-OHM-25%-0.28A 01005 → PN5V7_LCM_MESON_AVDDN_CONN (VOLTAGE=-5.7V)
- C4207 100PF 5% 16V NP0-C0G 01005

PP5V7_MESON_AVDDH → FL4208 2400HM-350MA 0201 → PP5V7_MESON_AVDDH_CONN (VOLTAGE=5.7V)
- C4208 100PF 5% 16V NP0-C0G 01005

PP1V8_TOUCH → FL4209 2400HM-350MA 0201 → PP1V8_TOUCH_CONN (VOLTAGE=1.8V)
- C4215 2.2UF 20% 6.3V X5R-CERM 0201
- C4209 100PF 5% 16V NP0-C0G 01005

PP5V1_TOUCH_VDDH → FL4210 2400HM-350MA 0201 → PP5V1_TOUCH_VDDH_CONN (VOLTAGE=5.1V)
- C4210 100PF 5% 16V NP0-C0G 01005

BACKLIGHT

PP_LCM_BL_ANODE → FL4211 2400HM-350MA 0201 → PP_LCM_BL_ANODE_CONN (VOLTAGE=25V)
- C4211 100PF 5% 35V NP0-C0G 01005

PP_LCM_BL_CAT1 → FL4212 2400HM-350MA 0201 → PP_LCM_BL_CAT1_CONN (VOLTAGE=0.26V)
- C4212 100PF 5% 35V NP0-C0G 01005

PP_LCM_BL_CAT2 → FL4213 2400HM-350MA 0201 → PP_LCM_BL_CAT2_CONN (VOLTAGE=0.26V)
- C4213 100PF 5% 35V NP0-C0G 01005

PP_LCM_BL34_ANODE → FL4291 2400HM-350MA 0201 → PP_LCM_BL34_ANODE_CONN (VOLTAGE=25V)
- C4291 100PF 5% 35V NP0-C0G 01005

PP_LCM_BL_CAT3 → FL4292 2400HM-350MA 0201 → PP_LCM_BL_CAT3_CONN (VOLTAGE=0.26V)
- C4292 100PF 5% 35V NP0-C0G 01005

PP_LCM_BL_CAT4 → FL4293 2400HM-350MA 0201 → PP_LCM_BL_CAT4_CONN (VOLTAGE=0.26V)
- C4293 100PF 5% 35V NP0-C0G 01005

DISPLAY EEPROM I2C

- I2C2_AP_SDA — C4223 NOSTUFF 56PF 5% 16V NP0-C0G 01005
- I2C2_AP_SCL — C4224 NOSTUFF 56PF 5% 16V NP0-C0G 01005

DISPLAY MIPI

- MIPI_AP_TO_LCM_CLK_P → L4200 CRITICAL 65-OHM-0.1A-0.7-2GHZ TAM0605 → MIPI_AP_TO_LCM_CLK_CONN_P
- MIPI_AP_TO_LCM_CLK_N → L4200 → MIPI_AP_TO_LCM_CLK_CONN_N
- MIPI_AP_TO_LCM_DATA0_P → L4201 CRITICAL → MIPI_AP_TO_LCM_DATA0_CONN_P
- MIPI_AP_TO_LCM_DATA0_N → L4201 → MIPI_AP_TO_LCM_DATA0_CONN_N
- MIPI_AP_TO_LCM_DATA1_P → L4202 CRITICAL → MIPI_AP_TO_LCM_DATA1_CONN_P
- MIPI_AP_TO_LCM_DATA1_N → L4202 → MIPI_AP_TO_LCM_DATA1_CONN_N
- MIPI_AP_TO_LCM_DATA2_P → L4293 CRITICAL → MIPI_AP_TO_LCM_DATA2_CONN_P
- MIPI_AP_TO_LCM_DATA2_N → L4293 → MIPI_AP_TO_LCM_DATA2_CONN_N
- MIPI_AP_TO_LCM_DATA3_P → L4294 CRITICAL → MIPI_AP_TO_LCM_DATA3_CONN_P
- MIPI_AP_TO_LCM_DATA3_N → L4294 → MIPI_AP_TO_LCM_DATA3_CONN_N

DISPLAY CONTROL SIGNALS

LCM_TO_CHESTNUT_PWR_EN → FL4220 120-OHM-210MA 01005 → LCM_TO_CHESTNUT_PWR_EN_CONN
- C4220 100PF 5% 16V NP0-C0G 01005

AP_TO_LCM_RESET_L → FL4221 120-OHM-210MA 01005 → AP_TO_LCM_RESET_CONN_L
- R4220 100K 5% 1/32W MF 01005
- C4221 100PF 5% 16V NP0-C0G 01005

PMU_TO_LCM_PANICB → R4222 10 5% 1/32W MF 01005 → PMU_TO_LCM_PANICB_CONN
- C4222 100PF 5% 16V NP0-C0G 01005

OWL/TOUCH INTERFACE

- LCM_TO_OWL_BSYNC → FL4230 120-OHM-210MA 01005 → LCM_TO_OWL_BSYNC_CONN — C4230 56PF 5% 16V NP0-C0G 01005
- UART_OWL_TO_TOUCH_TXD → FL4231 120-OHM-210MA 01005 → UART_OWL_TO_TOUCH_TXD_CONN — C4231 56PF 5% 16V NP0-C0G 01005
- TOUCH_TO_OWL_ACCEL_DATA_REQUEST → FL4232 120-OHM-210MA 01005 → TOUCH_TO_OWL_ACCEL_DATA_REQUEST_CONN — C4232 56PF 5% 16V NP0-C0G 01005

PROX/TOUCH INTERFACE

PP1V8_TOUCH
- R4240 100K 5% 1/32W MF 01005
- C4240 0.22UF 20% 6.3V X5R 01005-1
- U4240 74AUP1G04GX SOT1226 (VER:3)

TOUCH_TO_PROX_TX_EN_CONN_L → TOUCH_TO_PROX_TX_EN_BUFF

TOUCH_TO_PROX_RX_EN_FCAM_CONN → FL4241 120-OHM-210MA 01005 → TOUCH_TO_PROX_RX_EN_LCM_CONN — C4241 100PF 5% 16V NP0-C0G 01005

KEPLER CONNECTOR

MLB: 516S00051 (RCPT)
FLEX: 516S00050 (PLUG)

CRITICAL J4200 AA27-S054VA1 F-ST-SM

PP_LCM_BL_CAT3_CONN	1	2	PP_LCM_BL_CAT2_CONN
PP_LCM_BL_CAT4_CONN	3	4	PP_LCM_BL_CAT1_CONN
PP_LCM_BL34_ANODE_CONN	5	6	PP_LCM_BL_ANODE_CONN
	7	8	NC_KEPLER_MESON_TEST2_MUX_CONN
MIPI_AP_TO_LCM_DATA3_CONN_N	9	10	NC_KEPLER_MESON_TEST0_MUX_CONN
MIPI_AP_TO_LCM_DATA3_CONN_P	11	12	SPI_AP_TO_TOUCH_CS_CONN_L
	13	14	I2C2_AP_SDA
MIPI_AP_TO_LCM_DATA2_CONN_N	15	16	
MIPI_AP_TO_LCM_DATA2_CONN_P	17	18	TOUCH_TO_OWL_ACCEL_DATA_REQUEST_CONN
	19	20	I2C_TOUCH_BI_MAMBA_PROX_SDA
MIPI_AP_TO_LCM_CLK_CONN_N	21	22	SPI_AP_TO_TOUCH_SCLK_CONN
MIPI_AP_TO_LCM_CLK_CONN_P	23	24	TOUCH_TO_PROX_RX_EN_LCM_CONN
	25	26	AP_TO_TOUCH_RESET_CONN_L
MIPI_AP_TO_LCM_DATA1_CONN_N	27	28	TOUCH_TO_PROX_TX_EN_CONN_L
MIPI_AP_TO_LCM_DATA1_CONN_P	29	30	PROX_TO_TOUCH_RX_LCM_CONN
	31	32	SPI_TOUCH_TO_AP_MISO_CONN
MIPI_AP_TO_LCM_DATA0_CONN_N	33	34	SPI_AP_TO_TOUCH_MOSI_CONN
MIPI_AP_TO_LCM_DATA0_CONN_P	35	36	LCM_TO_OWL_BSYNC_CONN
	37	38	I2C2_AP_SCL
MAMBA_TO_LCM_MDRIVE_LCM_CONN	39	40	I2C_TOUCH_TO_MAMBA_PROX_SCL
LCM_TO_MAMBA_MSYNC_LCM_CONN	41	42	UART_OWL_TO_TOUCH_TXD_CONN
PP5V1_TOUCH_VDDH_CONN	43	44	NC_KEPLER_PHOTON_PIFA_CONN
PP5V7_MESON_AVDDH_CONN	45	46	PMU_TO_LCM_PANICB_CONN
PP1V8_LCM_CONN	47	48	AP_TO_LCM_RESET_CONN_L
PP5V7_LCM_AVDDH_CONN	49	50	LCM_TO_CHESTNUT_PWR_EN_CONN
PN5V7_LCM_MESON_AVDDN_CONN	51	52	TOUCH_TO_AP_INT_L_CONN
PP1V8_TOUCH_CONN	53	54	AP_TO_TOUCH_CLK32K_RESET_CONN_L
	57	58	

ROOM=DISPLAY

AP/TOUCH INTERFACE

- SPI_AP_TO_TOUCH_CS_L → FL4250 120-OHM-210MA 01005 → SPI_AP_TO_TOUCH_CS_CONN_L — C4250 56PF 5% 16V NP0-C0G 01005
- SPI_AP_TO_TOUCH_SCLK → FL4251 120-OHM-210MA 01005 → SPI_AP_TO_TOUCH_SCLK_CONN_L — C4251 56PF 5% 16V NP0-C0G 01005; NOSTUFF C4299 56PF 5% 16V NP0-C0G 01005
- SPI_AP_TO_TOUCH_MOSI → FL4252 120-OHM-210MA 01005 → SPI_AP_TO_TOUCH_MOSI_CONN — C4252 56PF 5% 16V NP0-C0G 01005
- SPI_TOUCH_TO_AP_MISO → FL4253 120-OHM-210MA 01005 → SPI_TOUCH_TO_AP_MISO_CONN — C4253 56PF 5% 16V NP0-C0G 01005
- TOUCH_TO_AP_INT_L → FL4254 120-OHM-210MA 01005 → TOUCH_TO_AP_INT_L_CONN — C4254 100PF 5% 16V NP0-C0G 01005
- AP_TO_TOUCH_CLK32K_RESET_L → FL4255 120-OHM-210MA 01005 → AP_TO_TOUCH_CLK32K_RESET_CONN_L — C4255 100PF 5% 16V NP0-C0G 01005

I2C_TOUCH_BI_MAMBA_PROX_SDA
- C4260 NOSTUFF 56PF 5% 16V NP0-C0G 01005

I2C_TOUCH_TO_MAMBA_PROX_SCL
- C4261 NOSTUFF 56PF 5% 16V NP0-C0G 01005

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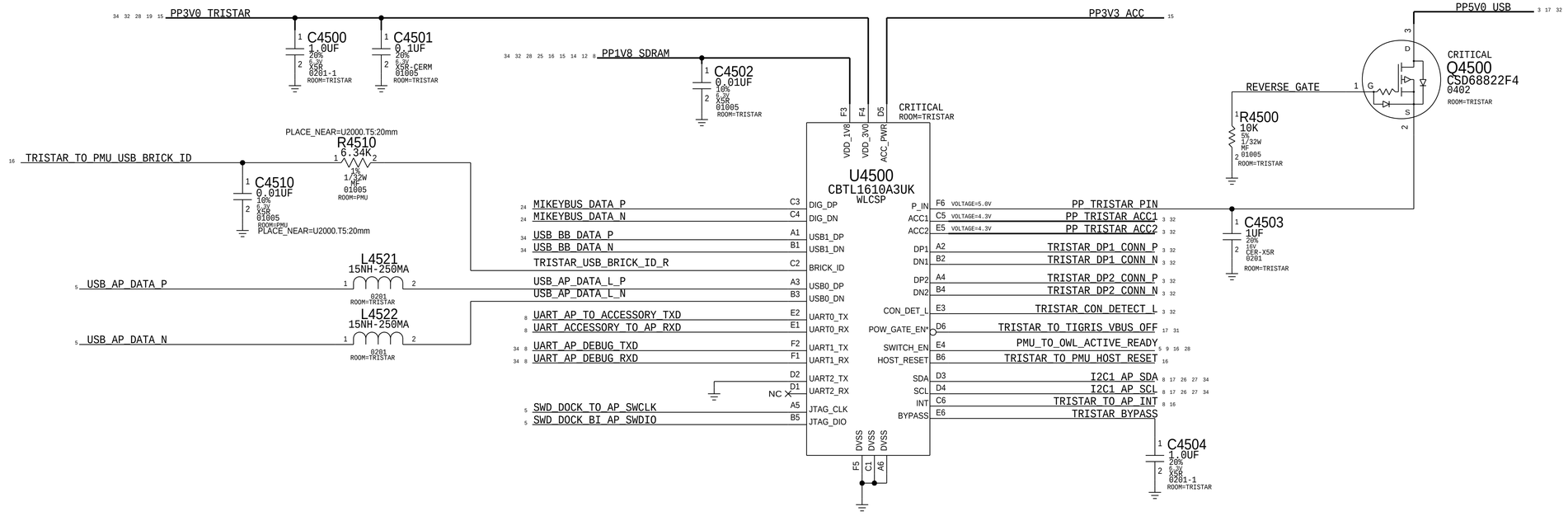
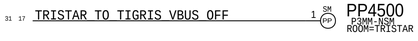
Apple Inc.

TRISTAR 2

APN:343S0695



PROBE POINTS



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Apple Inc.	DRAWING NUMBER 051-00094 SIZE D
	REVISION A.0.0
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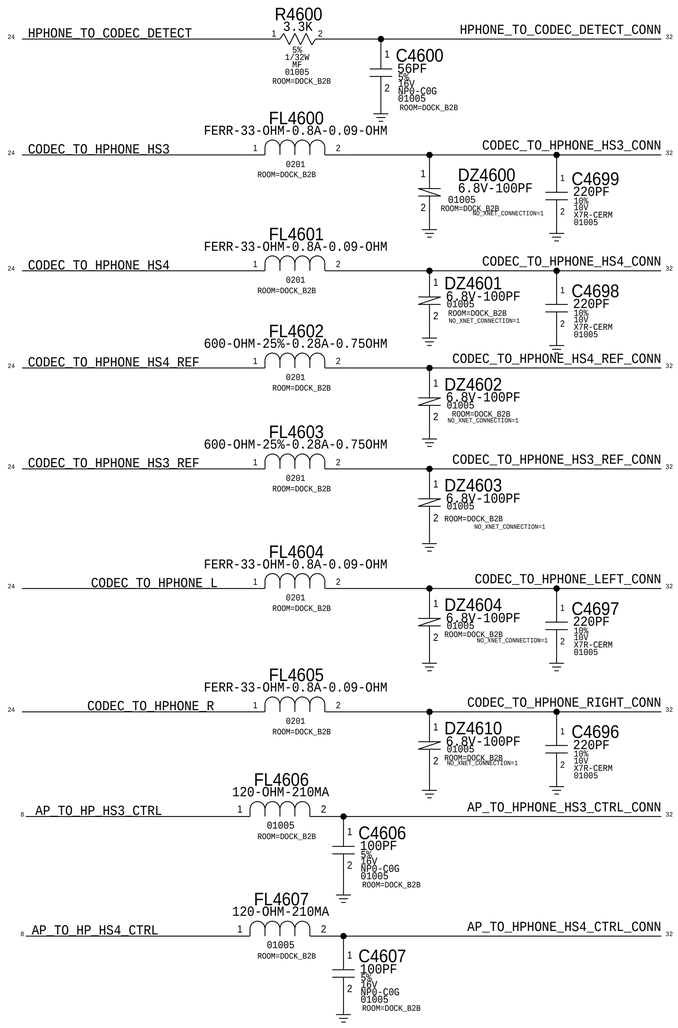
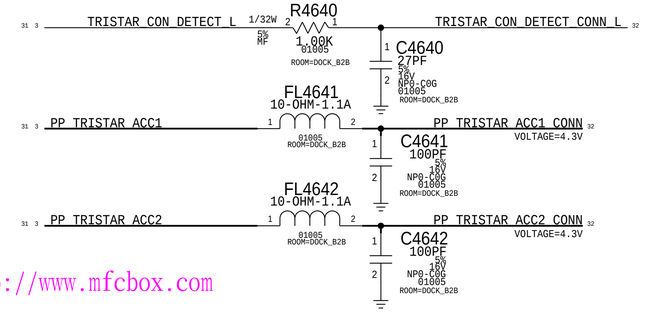
	SHEET 31 OF 60

DOCK FLEX CONNECTOR

AUDIO JACK



TRISTAR



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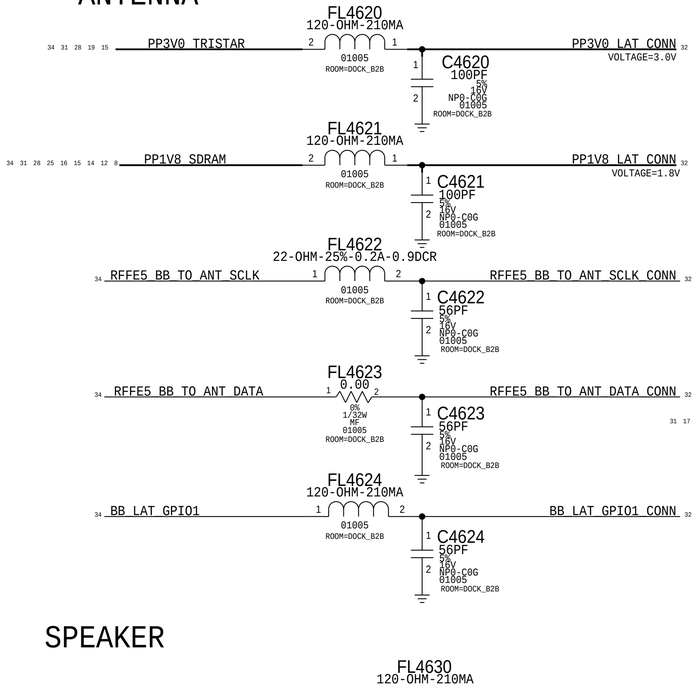
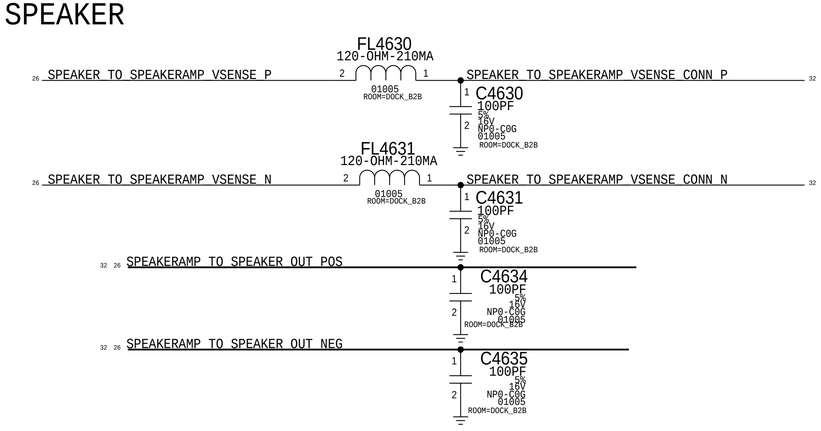


SPEAKER



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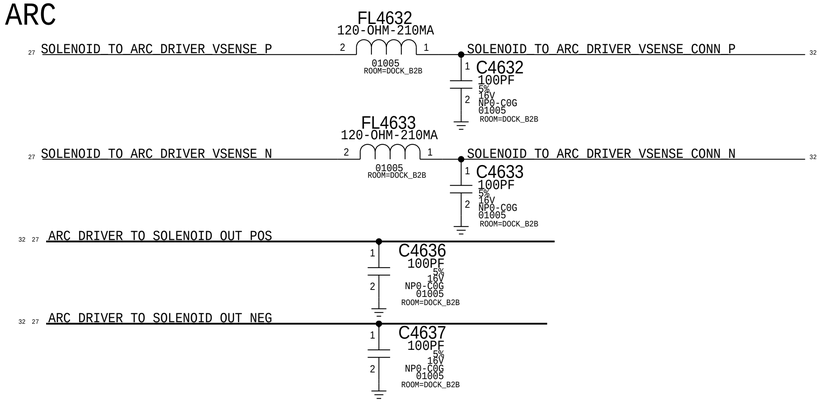

DOCK FLEX CONNECTOR

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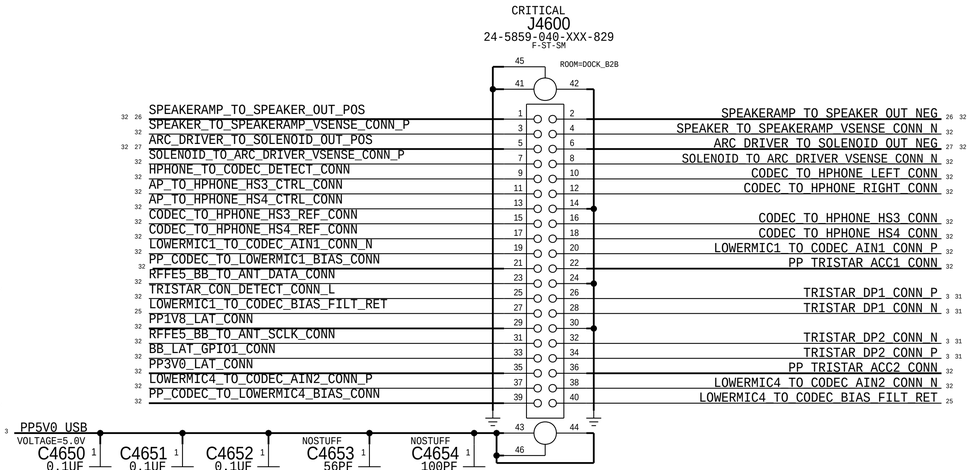
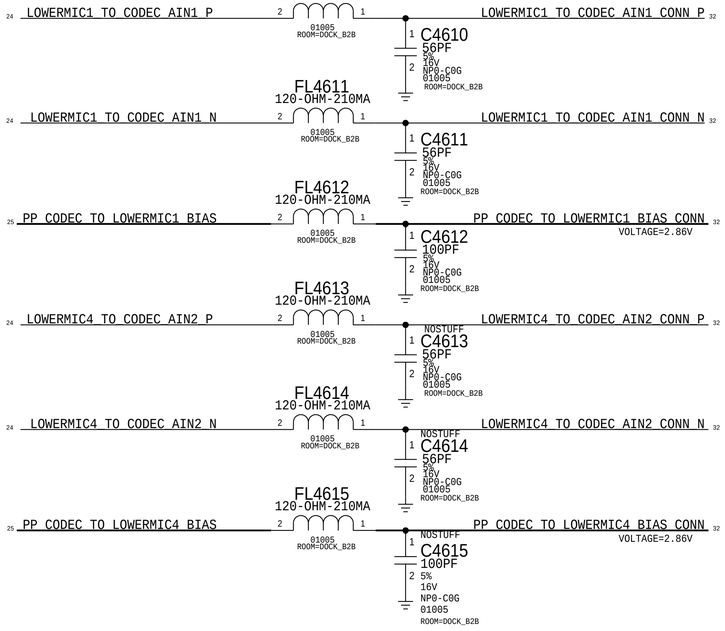
FLEX: 516S00034 (PLUG)



LOWER MIC1/4



SYNC_MASTER=N71_SINGLE_BRD SYNC_DATE=05/29/2014

PAGE TITLE: I/O:DOCK FLEX B2B

Apple Inc.

DRAWING NUMBER: 051-00094 SIZE: D

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BUTTON FLEX

MIC2
ANC REF MIC

FL4700
120-OHM-210MA
01005
ROOM=BUTTON_B2B

PP CODEC TO REARMIC2 BIAS
PP CODEC TO REARMIC2 BIAS CONN
VOLTAGE=2.86V

C4700
100PF
5%
16V
NP0-C0G
01005
ROOM=BUTTON_B2B

FL4701
120-OHM-210MA
01005
ROOM=BUTTON_B2B

REARMIC2 TO CODEC AIN3 P
REARMIC2 TO CODEC AIN3 CONN P

C4701
56PF
5%
16V
NP0-C0G
01005
ROOM=BUTTON_B2B

FL4702
120-OHM-210MA
01005
ROOM=BUTTON_B2B

REARMIC2 TO CODEC AIN3 N
REARMIC2 TO CODEC AIN3 CONN N

C4702
56PF
5%
16V
NP0-C0G
01005
ROOM=BUTTON_B2B

R4710
0.00
0%
1/32W
MF
01005
ROOM=BUTTON_B2B

BUTTON_HOLD_KEY_L
BUTTON_HOLD_KEY_CONN_L

C4710
27PF
5%
6.3V
NP0-C0G
0201
ROOM=BUTTON_B2B

DZ4710
5.5V-6.2PF
0201
ROOM=BUTTON_B2B

FL4711
120-OHM-210MA
01005
ROOM=L_BUTTON_B2B

BUTTON_RINGER_A
BUTTON_RINGER_A_CONN

C4711
27PF
5%
6.3V
NP0-C0G
0201
ROOM=L_BUTTON_B2B

DZ4711
5.5V-6.2PF
0201
ROOM=L_BUTTON_B2B

NORTH_AC_GND_SCREW

FL4712
120-OHM-210MA
01005
ROOM=L_BUTTON_B2B

BUTTON_VOL_DOWN_L
BUTTON_VOL_DOWN_CONN_L

C4712
100PF
5%
16V
NP0-C0G
01005
ROOM=L_BUTTON_B2B

DZ4712
12V-33PF
01005-1
ROOM=L_BUTTON_B2B

NORTH_AC_GND_SCREW

FL4713
120-OHM-210MA
01005
ROOM=L_BUTTON_B2B

BUTTON_VOL_UP_L
BUTTON_VOL_UP_CONN_L

C4713
100PF
5%
16V
NP0-C0G
01005
ROOM=L_BUTTON_B2B

DZ4713
12V-33PF
01005-1
ROOM=L_BUTTON_B2B

NORTH_AC_GND_SCREW

BUTTONS:
HOLD
RINGER
VOL UP/DOWN

RIGHT BUTTON FLEX CONNECTOR

MLB: 516S00047 (RCPT)
FLEX: 516S00046 (PLUG)
CRITICAL
ROOM=BUTTON_B2B

J4700
BM28P0.6-10DS-0.35V
F-ST-SM

PP LED DRIVER COOL LED
BUTTON HOLD KEY CONN L
REARMIC2 TO CODEC AIN3 CONN P
REARMIC2 TO CODEC AIN3 CONN N
PP CODEC TO REARMIC2 BIAS CONN
LED MODULE NTC CONN
PP LED DRIVER WARM LED

LEFT BUTTON FLEX CONNECTOR

MLB: 516S1317
CRITICAL
ROOM=L_BUTTON_B2B

J4701
505066-0610
F-ST-SM

NC
NC
BUTTON VOL DOWN CONN L
BUTTON VOL UP CONN L
BUTTON RINGER A CONN

XW4701
SHORT-10L-0.1MM-SM
LEFT BTN RTN

STROBE:
WARM LED
COOL LED
MODULE NTC

PP LED DRIVER WARM LED

C4723
100PF
5%
16V
NP0-C0G
01005
ROOM=BUTTON_B2B

C4724
27PF
5%
16V
NP0-C0G
01005
ROOM=BUTTON_B2B

PP LED DRIVER COOL LED

C4721
100PF
5%
16V
NP0-C0G
01005
ROOM=BUTTON_B2B

C4722
27PF
5%
16V
NP0-C0G
01005
ROOM=BUTTON_B2B

FL4720
120-OHM-210MA
01005
ROOM=BUTTON_B2B

LED_MODULE_NTC
LED_MODULE_NTC_CONN

R4720
51.1K
1%
1/32W
MF
01005
ROOM=BUTTON_B2B

C4720
100PF
5%
16V
NP0-C0G
01005
ROOM=BUTTON_B2B

SYNC_MASTER=N71_SINGLE_BRD
SYNC_DATE=05/29/2014

PAGE TITLE
I/O:BUTTON FLEX B2B

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BASEBAND, WLAN, BT & STOCKHOLM

SUBDESIGN_SUFFIX=RF

RADIO_MLB_MIMO

SHARED POWER

PP_VCC_MAIN	PP_VCC_MAIN
PP3V0_TRISTAR	PP3V0_TRISTAR
PP1V8_SDRAM	PP1V8_SDRAM

BASEBAND

PCIE_AP_TO_BB_TXD_P	PCIE0_AP_TO_BB_TX_P
PCIE_AP_TO_BB_TXD_N	PCIE0_AP_TO_BB_TX_N
PCIE_BB_TO_AP_RXD_P	PCIE0_BB_TO_AP_TX_P
PCIE_BB_TO_AP_RXD_N	PCIE0_BB_TO_AP_TX_N
PCIE_AP_TO_BB_REFCLK_P	PCIE0_AP_TO_BB_REFCLK_P
PCIE_AP_TO_BB_REFCLK_N	PCIE0_AP_TO_BB_REFCLK_N
PCIE_AP_TO_BB_RESET_L	PCIE0_AP_TO_BB_PERST_L
PCIE_BB_BI_AP_CLKREQ_L	PCIE0_AP_TO_BB_CLKREQ_L
BB_TO_PMU_PCIE_HOST_WAKE_L	PCIE0_BB_TO_PMU_HOST_WAKE_L
AP_TO_BB_PCIE_DEV_WAKE	PCIE0_AP_TO_BB_DEV_WAKE
I2S_AP_TO_BB_LRCLK	I2S_AP_TO_BB_WS
I2S_AP_TO_BB_BCLK	I2S_AP_TO_BB_CLK
I2S_AP_TO_BB_DOUT	I2S_AP_TO_BB_TX
I2S_BB_TO_AP_DIN	I2S_BB_TO_AP_TX
AP_TO_BB_RADIO_UP_L	AP_TO_BBPMU_RADIO_ON_L
PMU_TO_BB_PMIC_RESET_L	PMU_TO_BBPMU_RESET_L
AP_TO_BB_RESET_L	AP_TO_BB_RST_L
BB_TO_AP_RESET_DETECT_L	BB_TO_AP_RESET_DET_L
BB_TO_LED_DRIVER_GSM_BURST_IND	BB_TO_AP_GSM_TXBURST_IND
AP_TO_BB_MESA_ON_L	AP_TO_BB_MESA_ON_L
BB_TO_AP_GPS_TIME_MARK	BB_TO_AP_GPS_TIME_MARK
AP_TO_BB_COREDUMP	AP_TO_BB_COREDUMP_TRIG
BB_IPC_GPIO	AP_TO_BB_IPC_GPIO
LCM_TO_OWL_BSYNC	TOUCH_TO_BBPMU_FORCE_PWM
UART_OWL_TO_BB_TXD	UART0_OWL_TO_BB_TX
UART_BB_TO_OWL_RXD	UART0_BB_TO_OWL_TX
USB_BB_DATA_P	USB_BB_P
USB_BB_DATA_N	USB_BB_N
PMU_TO_BB_USB_VBUS_DETECT	USB_BB_VBUS_DETECT
SWD_AP_PERIPHERAL_SWCLK	SWD_CLK_BB_JTAG_TCK
SWD_AP_BI_BB_SWDIO	SWD_IO_BB_JTAG_TMS
RFFE5_BB_TO_ANT_SCLK	75_RFFE5_SCLK_BB
RFFE5_BB_TO_ANT_DATA	75_RFFE5_SDATA_BB
BB_LAT_GPIO1	RFFE_BUFFER_LAT_GPIO1
BB_TO_PMU_AMUX_LDO11_SIM1	BB_TO_PMU_AMUX_LDO11_SIM1
BB_TO_PMU_AMUX_SMPS1	BB_TO_PMU_AMUX_SMPS1
BB_TO_PMU_AMUX_SMPS3	BB_TO_PMU_AMUX_SMPS3
BB_TO_PMU_AMUX_SMPS4	BB_TO_PMU_AMUX_SMPS4

ANT

AP_TO_STOCKHOLM_ANT	STOCKHOLM_ANT

AP DEBUG

PP1V8	PP1V8
DFU_STATUS	DFU_STATUS
FORCE_DFU	FORCE_DFU
PMU_TO_SYSTEM_COLD_RESET_L	PMU_TO_SYSTEM_COLD_RESET_L
I2C0_AP_SCL	I2C0_AP_SCL
I2C0_AP_SDA	I2C0_AP_SDA
I2C1_AP_SCL	I2C1_AP_SCL
I2C1_AP_SDA	I2C1_AP_SDA
BUTTON_HOLD_KEY_L	BUTTON_HOLD_KEY_L
BUTTON_MENU_KEY_L	BUTTON_MENU_KEY_L
BUTTON_RINGER_A	BUTTON_RINGER_A
BUTTON_VOL_DOWN_L	BUTTON_VOL_DOWN_L
BUTTON_VOL_UP_L	BUTTON_VOL_UP_L
NC_PMU_GPIO20 (NO_TEST)	PMU_GPIO20
NC_PMU_GPIO21 (NO_TEST)	PMU_GPIO21
NC_OWL_FUNC2 (NO_TEST)	OWL_FUNC2
NC_AP_RESERVED2 (NO_TEST)	AP_RESERVED2
UART_AP_DEBUG_RXD	AP_RESERVED1
UART_AP_DEBUG_TXD	AP_RESERVED0
NC_PMU_AMUX_AY (NO_TEST)	PMU_AMUX_AY
NC_PMU_AMUX_BY (NO_TEST)	PMU_AMUX_BY

WLAN

PCIE_AP_TO_WLAN_TXD_P	PCIE_AP_TO_WLAN_TX_P
PCIE_AP_TO_WLAN_TXD_N	PCIE_AP_TO_WLAN_TX_N
PCIE_WLAN_TO_AP_RXD_P	PCIE_WLAN_TO_AP_TX_P
PCIE_WLAN_TO_AP_RXD_N	PCIE_WLAN_TO_AP_TX_N
PCIE_AP_TO_WLAN_REFCLK_P	PCIE_AP_TO_WLAN_REFCLK_P
PCIE_AP_TO_WLAN_REFCLK_N	PCIE_AP_TO_WLAN_REFCLK_N
PCIE_AP_TO_WLAN_RESET_L	PCIE_AP_TO_WLAN_PERST_L
PCIE_AP_TO_WLAN_DEV_WAKE	PCIE_AP_TO_WLAN_DEV_WAKE
PCIE_WLAN_TO_AP_CLKREQ_L	PCIE_WLAN_TO_AP_CLKREQ_L
UART_AP_TO_WLAN_TXD	UART4_AP_TO_WLAN_TX
UART_AP_TO_WLAN_RTS_L	UART4_AP_TO_WLAN_RTS_L
UART_WLAN_TO_AP_RXD	UART4_WLAN_TO_AP_TX
UART_WLAN_TO_AP_CTS_L	UART4_WLAN_TO_AP_RTS_L
PMU_TO_WLAN_CLK32K	PMU_TO_WLAN_32K_CLK
PMU_TO_WLAN_REG_ON	PMU_TO_WLAN_REG_ON
WLAN_TO_PMU_HOST_WAKE	WLAN_TO_PMU_HOST_WAKE
OWL_TO_WLAN_CONTEXT_A	OWL_TO_WLAN_CONTEXT_A
OWL_TO_WLAN_CONTEXT_B	OWL_TO_WLAN_CONTEXT_B

BLUETOOTH

I2S_AP_TO_BT_LRCLK	I2S_AP_TO_BT_LRCK
I2S_AP_TO_BT_BCLK	I2S_AP_TO_BT_BCLK
I2S_AP_TO_BT_DOUT	I2S_AP_TO_BT_DOUT
I2S_BT_TO_AP_DIN	I2S_BT_TO_AP_DOUT
UART_AP_TO_BT_TXD	UART1_AP_TO_BT_TX
UART_AP_TO_BT_RTS_L	UART1_AP_TO_BT_RTS_L
UART_BT_TO_AP_RXD	UART1_BT_TO_AP_TX
UART_BT_TO_AP_CTS_L	UART1_BT_TO_AP_RTS_L
PMU_TO_BT_REG_ON	PMU_TO_BT_REG_ON
BT_TO_PMU_HOST_WAKE	BT_TO_PMU_HOST_WAKE
AP_TO_BT_WAKE	AP_TO_BT_WAKE

STOCKHOLM

UART_AP_TO_STOCKHOLM_TXD	UART3_AP_TO_STOCKHOLM_TXD
UART_AP_TO_STOCKHOLM_RTS_L	UART3_AP_TO_STOCKHOLM_RTS_L
UART_STOCKHOLM_TO_AP_RXD	UART3_STOCKHOLM_TO_AP_TXD
UART_STOCKHOLM_TO_AP_CTS_L	UART3_STOCKHOLM_TO_AP_RTS_L
PMU_TO_STOCKHOLM_EN	PMU_TO_STOCKHOLM_EN
STOCKHOLM_TO_PMU_HOST_WAKE	STOCKHOLM_TO_PMU_HOST_WAKE
AP_TO_STOCKHOLM_DEV_WAKE	AP_TO_STOCKHOLM_DEV_WAKE
AP_TO_STOCKHOLM_DWLD_REQUEST	AP_TO_STOCKHOLM_FW_DWLD_REQ

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1. ALL RESISTANCE VALUES ARE IN OHMS, 0.1 WATT +/- 5%.
2. ALL CAPACITANCE VALUES ARE IN MICROFARADS.
3. ALL CRYSTALS & OSCILLATOR VALUES ARE IN HERTZ.

REV	ECN	DESCRIPTION OF REVISION	CK APPD / DATE
A	0004600844	PRODUCTION RELEASED	2015-07-30

N66 RADIO_MLB_MIMO - PVT
JULY 30, 2015

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SIM ESD DIODE ALTERNATE

PART NUMBER	ALTERNATE FOR PART NUMBER	BOM OPTION	REF DES	COMMENTS:
377S0163	377S00042	ALTERNATE	VR301_RF	ST ESD DIODE

19.2MHZ XTAL ALTERNATE

PART NUMBER	ALTERNATE FOR PART NUMBER	BOM OPTION	REF DES	COMMENTS:
197S0565	197S0593	ALTERNATE	Y_XO_RF	XTAL, 19.2MHZ
197S0598	197S0593	ALTERNATE	Y_XO_RF	XTAL, 19.2MHZ

ROW HB PAD MATCHING BOM OPTIONS

PART#	QTY	DESCRIPTION	REFERENCE DESIGNATOR(S)	BOM OPTION
152S1907	1	3.3NH, INDUCTOR	L4105_RF	ROW
152S2007	1	8.2NH, INDUCTOR	L4401_RF	ROW
131S0426	1	22PF, CAPACITOR	C4405_RF	ROW
152S2042	1	1.8NH, INDUCTOR	C4406_RF	ROW
131S0425	1	0.5PF, CAPACITOR	L4407_RF	ROW
152S2041	1	10.0NH, INDUCTOR	L4403_RF	ROW
131S00071	1	33PF, CAPACITOR	C4407_RF	ROW
152S00143	1	15NH, INDUCTOR	L4404_RF	ROW
131S00071	1	33PF, CAPACITOR	C4408_RF	ROW
117S0108	1	51 OHM, RESISTOR	L4410_RF	ROW
131S0599	1	1.5PF, CAPACITOR	C3921_RF	ROW
152S00052	1	3.4NH, INDUCTOR	L3910_RF	ROW
117S0201	1	0 OHM, RESISTOR	L3911_RF	ROW
152S2039	1	3.8NH, INDUCTOR	L3919_RF	ROW
131S0414	1	5.0PF, CAPACITOR	C4410_RF	ROW

ROW LB PAD MATCHING BOM OPTIONS

PART#	QTY	DESCRIPTION	REFERENCE DESIGNATOR(S)	BOM OPTION
131S0555	1	1.0PF, CAPACITOR	L4203_RF	ROW
152S00158	1	4.1NH, INDUCTOR	C4205_RF	ROW
131S0425	1	0.5PF, CAPACITOR	L4204_RF	ROW
152S2053	1	4.7NH, INDUCTOR	C4206_RF	ROW
131S0555	1	1.0PF, CAPACITOR	L4205_RF	ROW
152S00027	1	3.7NH, INDUCTOR	C4207_RF	ROW
131S0557	1	0.7PF, CAPACITOR	L4206_RF	ROW
152S2001	1	2.4NH, INDUCTOR	C4208_RF	ROW
131S0351	1	0.4PF, CAPACITOR	L4207_RF	ROW
152S2002	1	2.7NH, INDUCTOR	C4209_RF	ROW
152S2002	1	2.7NH, INDUCTOR	C4211_RF	ROW
152S2056	1	5.6NH, INDUCTOR	C4212_RF	ROW
131S0340	1	2.0PF, CAPACITOR	L4219_RF	ROW
152S2021	1	1.5NH, INDUCTOR	C4213_RF	ROW
118S0724	1	0 OHM, RESISTOR	R4201_RF	ROW
131S0551	1	1.2PF, CAPACITOR	L4601_RF	ROW
152S1342	1	15NH, INDUCTOR	L3902_RF	ROW
131S0630	1	27PF, CAPACITOR	C3902_RF	ROW

RF2 HB PAD MATCHING BOM OPTIONS

PART#	QTY	DESCRIPTION	REFERENCE DESIGNATOR(S)	BOM OPTION
152S1990	1	3.0NH, INDUCTOR	L4105_RF	RF2
131S0377	1	1.2PF, CAPACITOR	C4108_RF	RF2
131S0631	1	0.3PF, CAPACITOR	L4401_RF	RF2
152S2042	1	1.8NH, INDUCTOR	C4405_RF	RF2
152S2042	1	1.8NH, INDUCTOR	C4406_RF	RF2
131S0631	1	0.3PF, CAPACITOR	L4407_RF	RF2
131S00001	1	0.1PF, CAPACITOR	L4403_RF	RF2
152S2051	1	1.3NH, INDUCTOR	C4407_RF	RF2
152S2051	1	1.3NH, INDUCTOR	C4408_RF	RF2
131S0805	1	100PF, CAPACITOR	C4409_RF	RF2
131S0431	1	0.2PF, CAPACITOR	L4410_RF	RF2
131S0381	1	1.6PF, CAPACITOR	C3921_RF	RF2
152S00027	1	3.7NH, INDUCTOR	L3910_RF	RF2
117S0201	1	0 OHM, RESISTOR	L3911_RF	RF2
152S2045	1	3.0NH, INDUCTOR	L3919_RF	RF2
152S00052	1	3.4NH, INDUCTOR	L3912_RF	RF2
131S0599	1	1.5PF, CAPACITOR	C3922_RF	RF2
131S0630	1	27PF, CAPACITOR	C3911_RF	RF2
131S0414	1	5.0PF, CAPACITOR	C4410_RF	RF2

RF2 LB PAD MATCHING BOM OPTIONS

PART#	TRUE QTY	DESCRIPTION	REFERENCE DESIGNATOR(S)	BOM OPTION
131S0555	TRUE	1.0PF, CAPACITOR	L4203_RF	RF2
152S00158	TRUE	4.1NH, INDUCTOR	C4205_RF	RF2
131S0425	TRUE	0.5PF, CAPACITOR	L4204_RF	RF2
152S2053	TRUE	4.7NH, INDUCTOR	C4206_RF	RF2
131S0555	TRUE	1.0PF, CAPACITOR	L4205_RF	RF2
152S00027	TRUE	3.7NH, INDUCTOR	C4207_RF	RF2
131S0557	TRUE	0.7PF, CAPACITOR	L4206_RF	RF2
152S2001	TRUE	2.4NH, INDUCTOR	C4208_RF	RF2
131S0351	TRUE	0.4PF, CAPACITOR	L4207_RF	RF2
152S2002	TRUE	2.7NH, INDUCTOR	C4209_RF	RF2
152S2002	TRUE	2.7NH, INDUCTOR	C4211_RF	RF2
152S2056	TRUE	5.6NH, INDUCTOR	C4212_RF	RF2
131S0340	TRUE	2.0PF, CAPACITOR	L4219_RF	RF2
152S2021	TRUE	1.5NH, INDUCTOR	C4213_RF	RF2
118S0724	TRUE	0 OHM, RESISTOR	R4201_RF	RF2
131S0551	TRUE	1.2PF, CAPACITOR	L4601_RF	RF2
152S1342	TRUE	15NH, INDUCTOR	L3902_RF	RF2
131S0630	1	27PF, CAPACITOR	C3902_RF	RF2

HB PAD

PART#	QTY	DESCRIPTION	REFERENCE DESIGNATOR(S)	BOM OPTION
353S00376	1	IC,PWR AMP,HB_PAD,TQS	UHBPA_RF	ROW
353S4494	1	IC,PWR AMP,HB_PAD,AVAGO	UHBPA_RF	RF2
353S00478	1	IC,PWR AMP,HB_PAD,PT	UHBPA_RF	DARWIN

LB PAD

PART#	QTY	DESCRIPTION	REFERENCE DESIGNATOR(S)	BOM OPTION
353S00461	1	IC,PWR AMP,LB_PAD,SKWS	ULBPA_RF	ROW
353S00461	1	IC,PWR AMP,LB_PAD,SKWS	ULBPA_RF	RF2
353S00541	1	IC,PWR AMP,LB_PAD,PT	ULBPA_RF	DARWIN

MB PAD

PART#	QTY	DESCRIPTION	REFERENCE DESIGNATOR(S)	BOM OPTION
353S4495	1	IC,PWR AMP,MB_PAD	UMBPA_RF	ROW
353S4495	1	IC,PWR AMP,MB_PAD	UMBPA_RF	RF2
353S00477	1	IC,PWR AMP,MB_PAD, PT	UMBPA_RF	DARWIN

HW_REV1_ID RESISTOR

PART#	QTY	DESCRIPTION	REFERENCE DESIGNATOR(S)	BOM OPTION
118S0646	1	51.1 KOHM, RESISTOR	R3503_RF	DARWIN

?

DRAWING TITLE: SCHEM,MLB,N66

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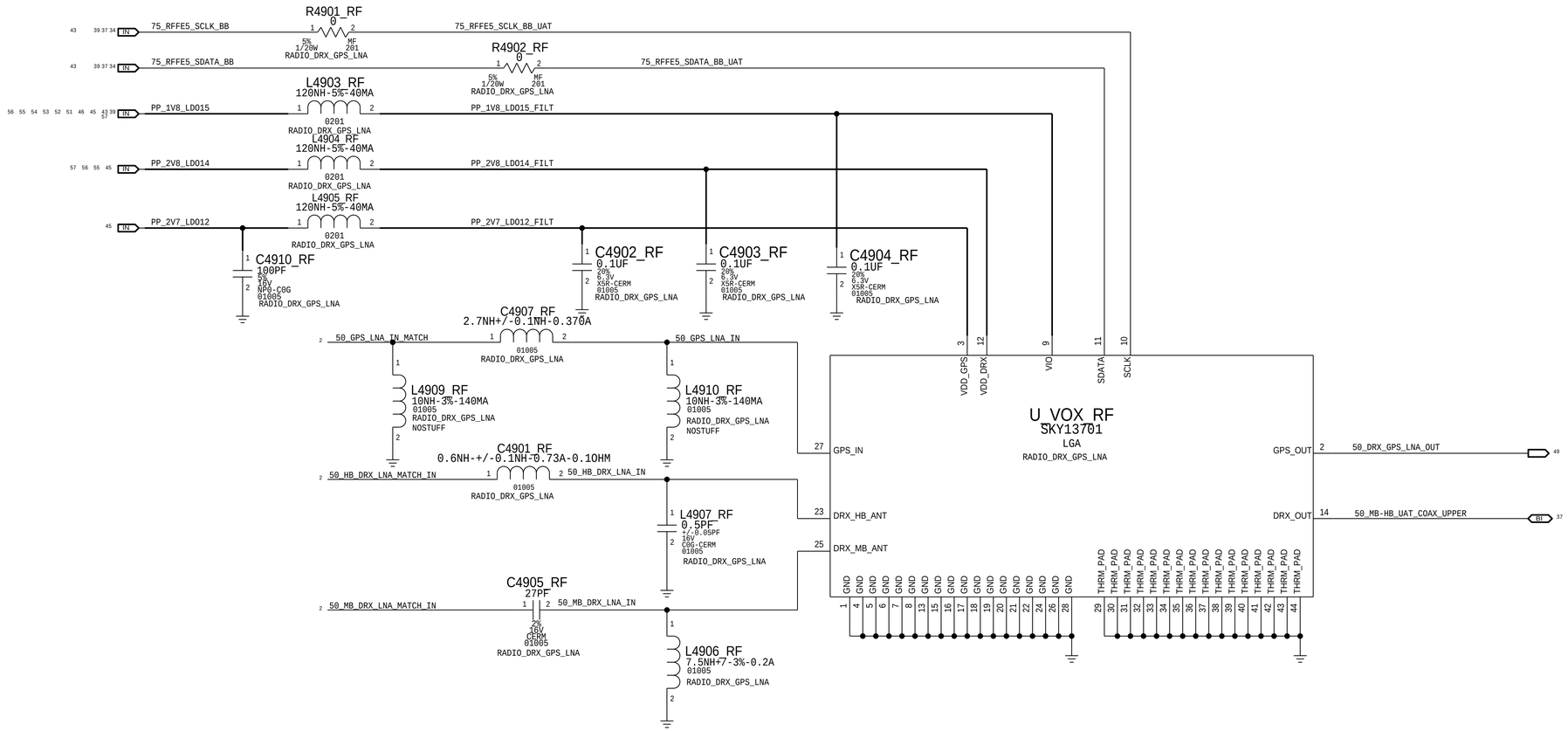
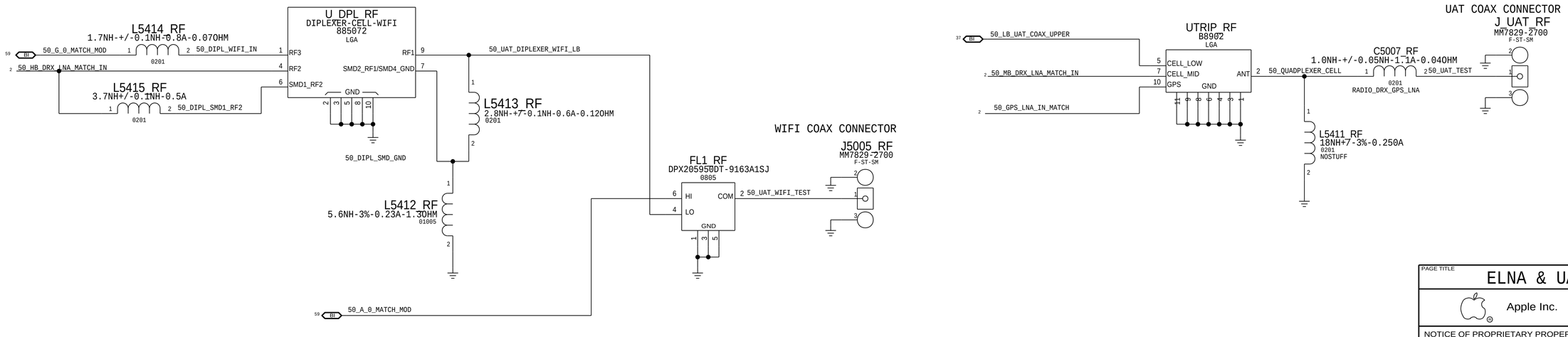
DIVERSITY LNA



UAT ANT FEED



PAGE TITLE: ELNA & UAT ANT FEED

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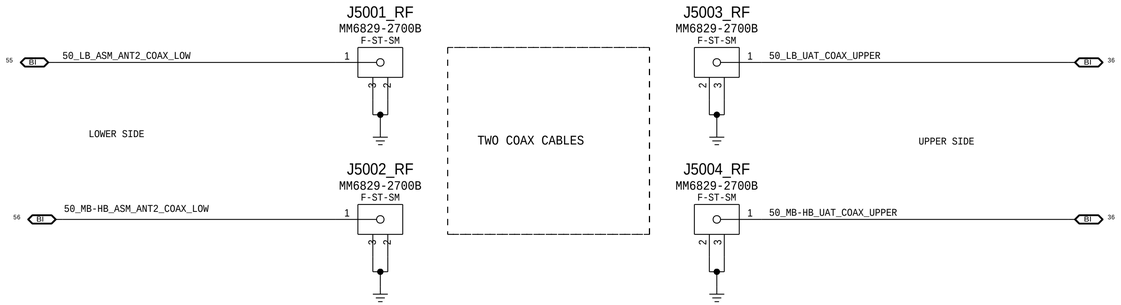
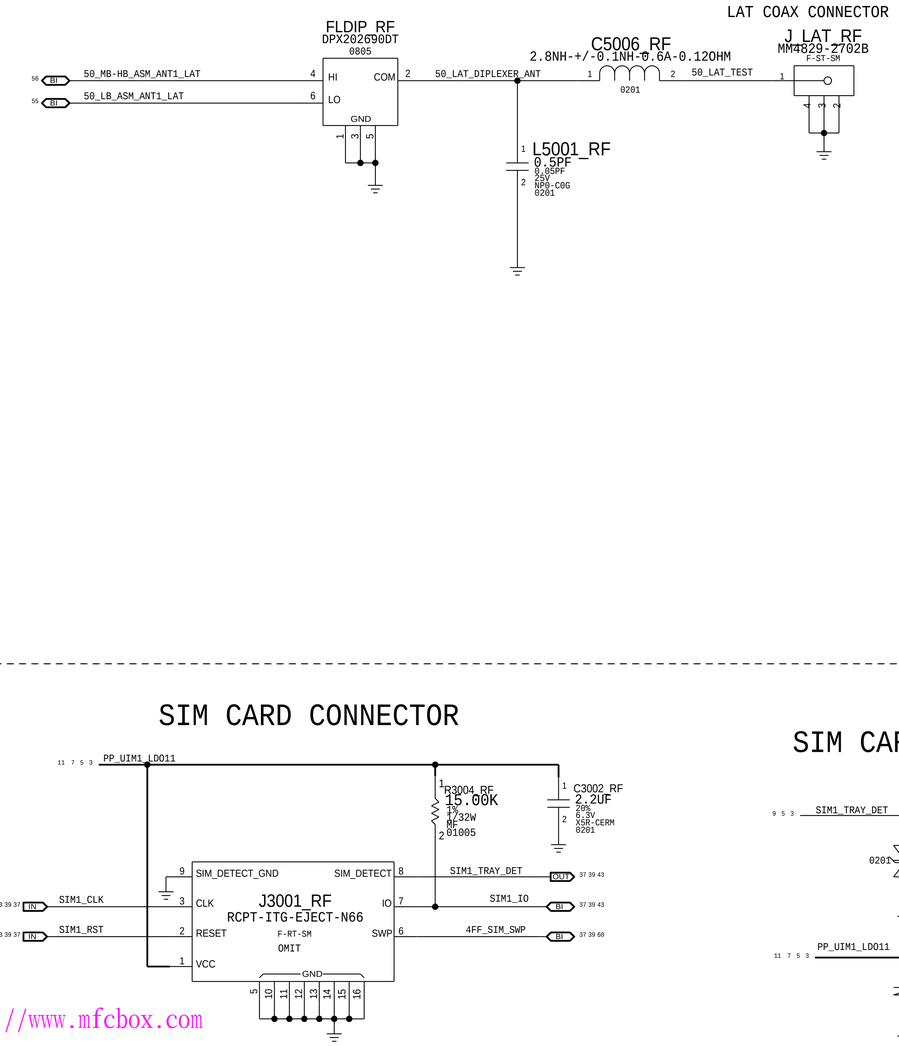
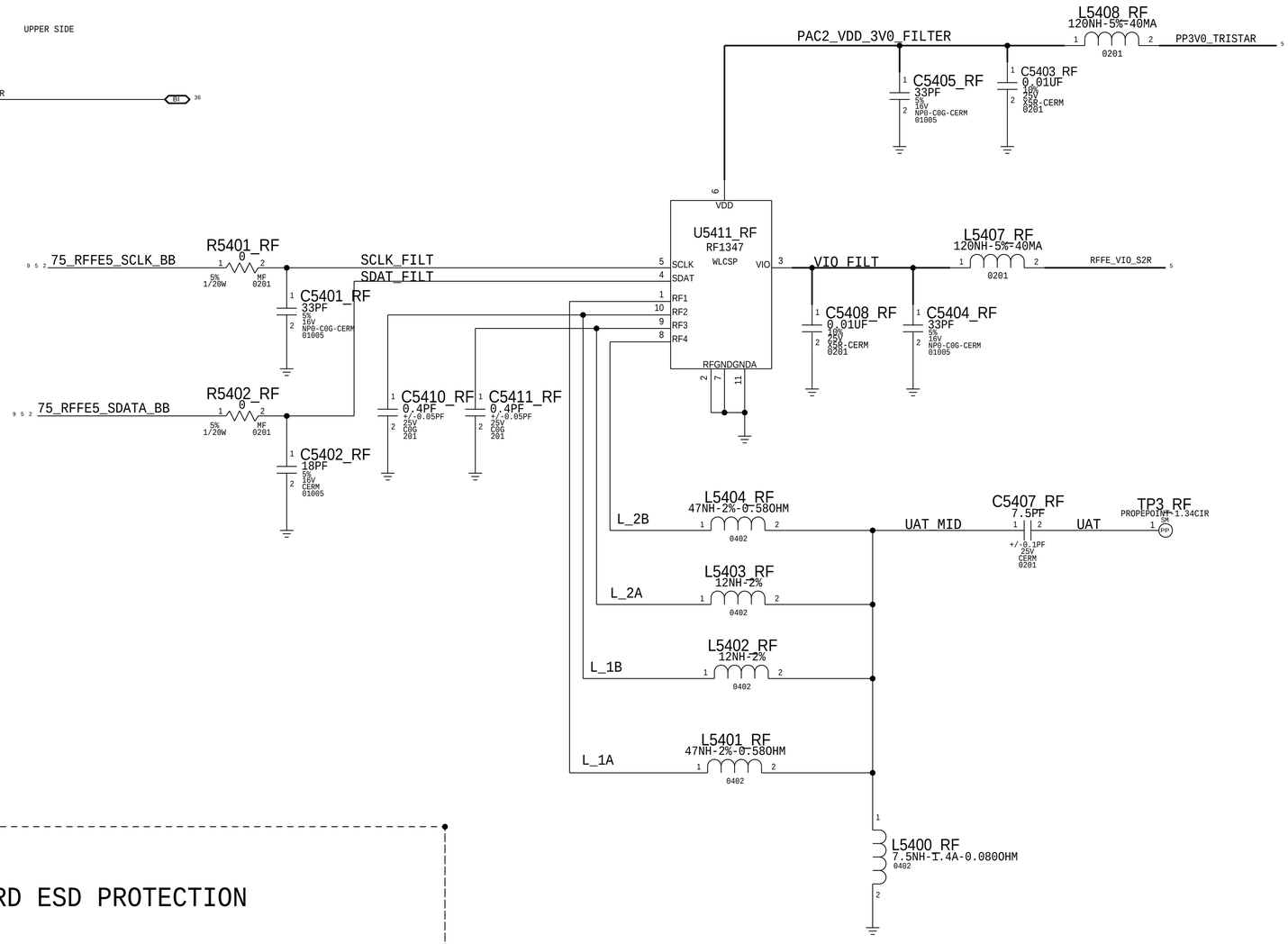
ANTENNA FEEDS AND CONNECTORS



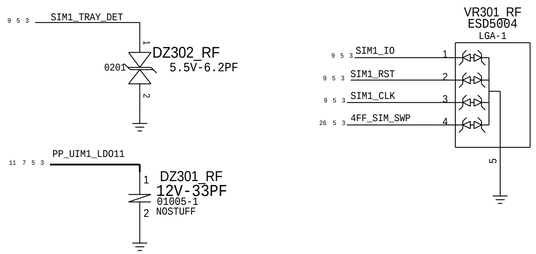


UAT TUNER



SIM CARD CONNECTOR

SIM CARD ESD PROTECTION



PAGE TITLE
CELLULAR FRONT END: ANTENNA CONNECTORS AND FEEDS

Apple Inc.

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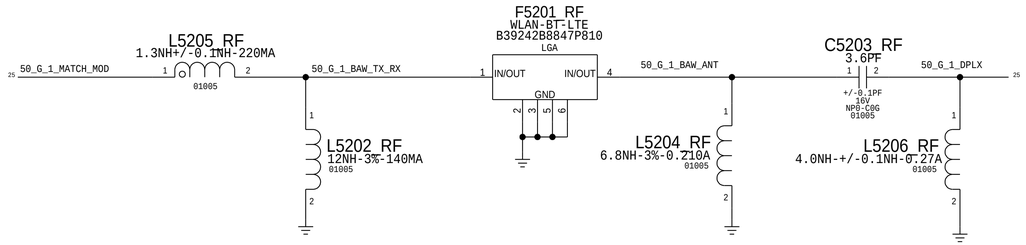
N66-SPECIFIC RADIO PAGE 4

WLAN LAT 2.4GHZ BAW BPF



DARWIN HB PAD MATCHING BOM OPTIONS

PART#	QTY	DESCRIPTION	REFERENCE DESIGNATOR(S)	BOM OPTION
152S1907	1	3.3NH, INDUCTOR	L4105_RF	DARWIN
152S2007	1	8.2NH, INDUCTOR	L4401_RF	DARWIN
131S0426	1	22PF, CAPACITOR	C4405_RF	DARWIN
152S2042	1	1.8NH, INDUCTOR	C4406_RF	DARWIN
131S0425	1	0.5PF, CAPACITOR	L4407_RF	DARWIN
152S2041	1	10.0NH, INDUCTOR	L4403_RF	DARWIN
131S00071	1	33PF, CAPACITOR	C4407_RF	DARWIN
152S00143	1	15NH, INDUCTOR	L4404_RF	DARWIN
131S00071	1	33PF, CAPACITOR	C4408_RF	DARWIN
117S0108	1	51 OHM, RESISTOR	L4410_RF	DARWIN
131S0599	1	1.5PF, CAPACITOR	C3921_RF	DARWIN
152S00052	1	3.4NH, INDUCTOR	L3910_RF	DARWIN
117S0201	1	0 OHM, RESISTOR	L3911_RF	DARWIN
152S2039	1	3.8NH, INDUCTOR	L3919_RF	DARWIN
131S0414	1	5.0PF, CAPACITOR	C4410_RF	DARWIN

DARWIN LB PAD MATCHING BOM OPTIONS

PART#	QTY	DESCRIPTION	REFERENCE DESIGNATOR(S)	BOM OPTION
131S0555	1	1.0PF, CAPACITOR	L4203_RF	DARWIN
152S00158	1	4.1NH, INDUCTOR	C4205_RF	DARWIN
131S0425	1	0.5PF, CAPACITOR	L4204_RF	DARWIN
152S2053	1	4.7NH, INDUCTOR	C4206_RF	DARWIN
131S0555	1	1.0PF, CAPACITOR	L4205_RF	DARWIN
152S00027	1	3.7NH, INDUCTOR	C4207_RF	DARWIN
131S0557	1	0.7PF, CAPACITOR	L4206_RF	DARWIN
152S2001	1	2.4NH, INDUCTOR	C4208_RF	DARWIN
131S0351	1	0.4PF, CAPACITOR	L4207_RF	DARWIN
152S2002	1	2.7NH, INDUCTOR	C4209_RF	DARWIN
152S2002	1	2.7NH, INDUCTOR	C4211_RF	DARWIN
152S2056	1	5.6NH, INDUCTOR	C4212_RF	DARWIN
131S0340	1	2.0PF, CAPACITOR	L4219_RF	DARWIN
152S2021	1	1.5NH, INDUCTOR	C4213_RF	DARWIN
118S0724	1	0 OHM, RESISTOR	R4201_RF	DARWIN
131S0551	1	1.2PF, CAPACITOR	L4601_RF	DARWIN
152S1342	1	15NH, INDUCTOR	L3902_RF	DARWIN
131S0630	1	27PF, CAPACITOR	C3902_RF	DARWIN

PAGE TITLE: WLAN LAT 2.4GHZ BAW BPF

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AP TO BB/WLAN/BT/SH CONNECTIONS

BASEBAND

26 25 20 18 17 12 11 PP_VCC_MAIN — IO
10 5 AP_TO_BBPMU_RADIO_ON_L — IN 34 44
10 5 PMU_TO_BBPMU_RESET_L — 34 39 44
10 AP_TO_BB_RST_L — IN 34 44
9 BB_TO_AP_RESET_DET_L — OUT 34 43
9 5 BB_TO_AP_GSM_TXBURST_IND — OUT 34 39 43
9 5 AP_TO_BB_MESA_ON_L — IN 34 39 43
9 5 BB_TO_AP_GPS_TIME_MARK — OUT 34 39 43
9 5 AP_TO_BB_COREDUMP_TRIG — IN 34 39 43
9 AP_TO_BB_IPC_GPIO — IN 34 43
10 5 TOUCH_TO_BBPMU_FORCE_PWM — IN 34 39 44

SINGLE_NODENET

9 5 UART0_BB_TO_OWL_TX — OUT 34 39 43
9 5 UART0_OWL_TO_BB_TX — IN 34 39 43

8 5 PCIE0_AP_TO_BB_REFCLK_P — IN 34 39 42
8 5 PCIE0_AP_TO_BB_REFCLK_N — IN 34 39 42

8 5 PCIE0_AP_TO_BB_TX_P — IN 34 39 42
8 5 PCIE0_AP_TO_BB_TX_N — IN 34 39 42

8 5 PCIE0_BB_TO_AP_TX_P — OUT 34 39 42
8 5 PCIE0_BB_TO_AP_TX_N — OUT 34 39 42

9 5 PCIE0_AP_TO_BB_PERST_L — IN 34 39 43
9 5 PCIE0_AP_TO_BB_CLKREQ_L — IN 34 39 43
9 5 PCIE0_BB_TO_PMU_HOST_WAKE_L — OUT 34 39 43
9 5 PCIE0_AP_TO_BB_DEV_WAKE — IN 34 39 43

9 5 I2S_AP_TO_BB_WS — IN 34 39 43
9 5 I2S_AP_TO_BB_CLK — IN 34 39 43
9 5 I2S_AP_TO_BB_TX — IN 34 39 43
9 5 I2S_BB_TO_AP_TX — OUT 34 39 43

8 5 USB_BB_P — OUT 34 42
8 5 USB_BB_N — OUT 34 42
10 5 USB_BB_VBUS_DETECT — IN 34 44

8 5 SWD_CLK_BB_JTAG_TCK — IN 34 42
8 5 SWD_IO_BB_JTAG_TMS — IN 34 39 42

9 5 RFFE_BUFFER_LAT_GPIO1 — OUT 34 43
9 5 3 2 75_RFFE5_SDATA_BB — OUT 34 36 37 39 43
9 5 3 2 75_RFFE5_SCLK_BB — OUT 34 36 37 39 43
5 3 PP3V0_TRISTAR — IN 34 37 39

11 BB_TO_PMU_AMUX_SMPS1 — OUT 34 45
11 BB_TO_PMU_AMUX_SMPS3 — OUT 34 45
11 BB_TO_PMU_AMUX_SMPS4 — OUT 34 45
11 BB_TO_PMU_AMUX_LDO11_SIM1 — OUT 34 45

AP DEBUG

PP1V8 — IN 34 39
FORCE_DFU — OUTP 34 39
DFU_STATUS — IN 34
PMU_AMUX_AY — IN 34
PMU_AMUX_BY — IN 34
PMU_TO_SYSTEM_COLD_RESET_L — IN 34
I2C0_AP_SDA — IO
I2C0_AP_SCL — IO
I2C1_AP_SDA — IO
I2C1_AP_SCL — IO
BUTTON_HOLD_KEY_L — OUTP 34 39
BUTTON_MENU_KEY_L — OUTP 34 39
BUTTON_VOL_DOWN_L — OUTP 34 39
BUTTON_VOL_UP_L — OUTP 34 39
BUTTON_RINGER_A — OUTP 34 39
PMU_GPIO20 — IO
PMU_GPIO21 — IO
OWL_FUNC2 — IO
AP_RESERVED0 — IN 34
AP_RESERVED1 — IN 34
AP_RESERVED2 — IN 34

POWER

5 PP1V8_SDRAM — VOLTAGE=1.8V
MAKE_BASE=TRUE
PP_1V8_S2R_VDDIO_WLAN_BT — VOLTAGE=1.8V — 25
PP_STOCKHOLM_1V8_S2R — VOLTAGE=1.8V — 26
RFFE_VIO_S2R — VOLTAGE=1.8V — 3

WLAN/BT

25 PMU_TO_WLAN_32K_CLK — IN 34 59
25 PMU_TO_WLAN_REG_ON — IN 34 59
25 PMU_TO_BT_REG_ON — IN 34 59
25 WLAN_TO_PMU_HOST_WAKE — OUT 34 59
25 BT_TO_PMU_HOST_WAKE — OUT 34 59
25 AP_TO_BT_WAKE — IN 34 59

25 UART1_AP_TO_BT_TX — IN 34 59
25 UART1_BT_TO_AP_TX — OUT 34 59
25 UART1_AP_TO_BT_RTS_L — IN 34 59
25 UART1_BT_TO_AP_RTS_L — OUT 34 59

25 I2S_AP_TO_BT_BCLK — IN 34 59
25 I2S_AP_TO_BT_LRCK — IN 34 59
25 I2S_BT_TO_AP_DOUT — OUT 34 59
25 I2S_AP_TO_BT_DOUT — IN 34 59

25 UART4_AP_TO_WLAN_TX — IN 34 59
25 UART4_WLAN_TO_AP_TX — OUT 34 59
25 UART4_WLAN_TO_AP_RTS_L — OUT 34 59
25 UART4_AP_TO_WLAN_RTS_L — IN 34 59

25 PCIE_WLAN_TO_AP_CLKREQ_L — OUT 34 59
25 PCIE_AP_TO_WLAN_PERST_L — IN 34 59
25 PCIE_AP_TO_WLAN_DEV_WAKE — IN 34 59
25 PCIE_AP_TO_WLAN_TX_P — IN 34 59
25 PCIE_AP_TO_WLAN_TX_N — IN 34 59
25 PCIE_AP_TO_WLAN_REFCLK_P — IN 34 59
25 PCIE_AP_TO_WLAN_REFCLK_N — IN 34 59
25 PCIE_WLAN_TO_AP_TX_P — OUT 34 59
25 PCIE_WLAN_TO_AP_TX_N — OUT 34 59

25 OWL_TO_WLAN_CONTEXT_A — IN 34 59
25 OWL_TO_WLAN_CONTEXT_B — IN 34 59

STOCKHOLM

6 PP1V8_SDRAM — IN 34 39
AP_TO_STOCKHOLM_SIM_SEL
STOCKHOLM_TO_PMU_HOST_WAKE
26 AP_TO_STOCKHOLM_FW_DWLD_REQ — OUT 34 60
26 PMU_TO_STOCKHOLM_EN — IN 34 60
26 AP_TO_STOCKHOLM_DEV_WAKE — IN 34 60
26 UART3_AP_TO_STOCKHOLM_TXD — IN 34 39 60
26 5 UART3_STOCKHOLM_TO_AP_TXD — OUT 34 39 60
26 5 UART3_AP_TO_STOCKHOLM_RTS_L — IN 34 39 60
26 5 UART3_STOCKHOLM_TO_AP_RTS_L — OUT 34 39 60

ANT

26 STOCKHOLM_ANT — IN 34 60

MLB PROBE POINTS

PCIE

PP3073_RF P2MM-NSM SM PP 1 PCIE0_AP_TO_BB_PERST_L — 5 9
RADIO_DEBUG
PP3074_RF P2MM-NSM SM PP 1 PCIE0_BB_TO_PMU_HOST_WAKE_L — 5 9
RADIO_DEBUG
PP3075_RF P2MM-NSM SM PP 1 PCIE0_AP_TO_BB_CLKREQ_L — 5 9
RADIO_DEBUG
PP3076_RF P2MM-NSM SM PP 1 PCIE0_AP_TO_BB_DEV_WAKE — 5 9
RADIO_DEBUG
PP3080_RF P2MM-NSM SM PP 1 PCIE0_AP_TO_BB_REFCLK_P — 5 8
RADIO_DEBUG
PP3081_RF P2MM-NSM SM PP 1 PCIE0_AP_TO_BB_REFCLK_N — 5 8
RADIO_DEBUG
PP3082_RF P2MM SM PP 1 PCIE0_BB_TO_AP_TX_P — 5 8
RADIO_DEBUG
PP3083_RF P2MM SM PP 1 PCIE0_BB_TO_AP_TX_N — 5 8
RADIO_DEBUG
PP3084_RF P2MM-NSM SM PP 1 PCIE0_AP_TO_BB_TX_P — 5 8
RADIO_DEBUG
PP3085_RF P2MM-NSM SM PP 1 PCIE0_AP_TO_BB_TX_N — 5 8
RADIO_DEBUG
PP3090_RF P2MM-NSM SM PP 1 BB_JTAG_SRST_L — 5 8
RADIO_DEBUG
PP3091_RF P2MM-NSM SM PP 1 SWD_IO_BB_JTAG_TMS — 5 8
RADIO_DEBUG

PMU

PP3032_RF P2MM SM PP 1 PMIC_RESOUT_L — 8 10
RADIO_DEBUG
PP3033_RF P2MM SM PP 1 50_SLEEP_CLK_32K — 8 10
RADIO_DEBUG
PP3034_RF P2MM SM PP 1 XO_OUT_D0_EN — 8 10
RADIO_DEBUG
PP3036_RF P2MM-NSM SM PP 1 SPMI_CLK — 8 10
RADIO_DEBUG
PP3037_RF P2MM-NSM SM PP 1 SPMI_DATA — 8 10
RADIO_DEBUG

BASEBAND

PP3017_RF P2MM-NSM SM PP 1 BB_DEBUG_ERROR — 9
PP3018_RF P2MM SM PP 1 50_MDM_PCIE_CLK — 8 10
RADIO_DEBUG
PP3019_RF P2MM-NSM SM PP 1 50_BBPMU_TO_STOCKHOLM_19P2M_CLK — 10
PP3006_RF P2MM-NSM SM PP 1 STOCKHOLM_TO_BBPMU_CLK_REQ — 10
RADIO_DEBUG
PP3007_RF P2MM SM PP 1 TOUCH_TO_BBPMU_FORCE_PWM — 5 10
RADIO_DEBUG

DEBUG CONNECTOR

ESD CAPS

PCIE0_AP_TO_BB_PERST_L
BB_JTAG_SRST_L
PMU_TO_BBPMU_RESET_L
SIM2_RESET
C5101_RF 100PF 5% 16V NP0-C0G 01005
C3503_RF 100PF 5% 16V NP0-C0G 01005
C3312_RF 100PF 5% 16V NP0-C0G 01005 RADIO_BB
C3408_RF 100PF 5% 16V NP0-C0G 01005 RADIO_BB

NOSTUFF
J3000_RF AXE550124 F-ST-SM

25 9 UART_WLAN_TO_BB_COEX_TX
5 I2C0_AP_SDA
5 I2C0_AP_SCL
5 BUTTON_VOL_DOWN_L
5 BUTTON_VOL_UP_L
5 BUTTON_RINGER_A
24 9 5 SIM2_RESET
24 9 SIM2_DATA
25 9 UART_BB_TO_WLAN_COEX_TX
9 SIM2_DETECT
24 SIM2_DATA_R

SIM1_CLK — 3 9
SIM1_RST — 3 9
SIM1_IO — 3 9
PP_UIM1_LDO11 — 3 7 11
SIM1_TRAY_DET — 3 9
4FF_SIM_SWP — 3 24 26
I2C1_AP_SDA — 5
I2C1_AP_SCL — 5
BUTTON_HOLD_KEY_L — 5
BUTTON_MENU_KEY_L — 5
PP1V8 — 5
FORCE_DFU — 5
SIM2_CLK — 9 24
PP_UIM2_LDO13 — 7 11 24

ANT TUNER

PP3001_RF P2MM-NSM SM PP 1 75_RFFE5_SDATA_BB — 2 3 5 9
RADIO_DEBUG
PP3002_RF P2MM-NSM SM PP 1 75_RFFE5_SCLK_BB — 2 3 5 9
RADIO_DEBUG
PP3003_RF P2MM-NSM SM PP 1 PP3V0_TRISTAR — 3 5
RADIO_DEBUG
PP3004_RF P2MM-NSM SM PP 1 PP1V8_SDRAM — 5
RADIO_DEBUG
PP3005_RF P2MM SM PP 1 PP_1V8_LDO15 — 2 9 11 12 17 18 19 20 21 22 23
RADIO_DEBUG

PP3008_RF P2MM SM PP 1 I2S_AP_TO_BB_WS — 5 9
RADIO_DEBUG
PP3009_RF P2MM SM PP 1 I2S_AP_TO_BB_CLK — 5 9
RADIO_DEBUG
PP3010_RF P2MM SM PP 1 I2S_AP_TO_BB_TX — 5 9
RADIO_DEBUG
PP3011_RF P2MM SM PP 1 I2S_BB_TO_AP_TX — 5 9
RADIO_DEBUG
PP3012_RF P2MM SM PP 1 AP_TO_BB_MESA_ON_L — 5 9
RADIO_DEBUG
PP3013_RF P2MM-NSM SM PP 1 BB_TO_AP_GSM_TXBURST_IND — 5 9
RADIO_DEBUG
PP3014_RF P2MM SM PP 1 BB_TO_AP_GPS_TIME_MARK — 5 9
RADIO_DEBUG
PP3015_RF P2MM SM PP 1 AP_TO_BB_COREDUMP_TRIG — 5 9
RADIO_DEBUG
PP3016_RF P2MM-NSM SM PP 1 UART0_BB_TO_OWL_TX — 5 9
RADIO_DEBUG
PP3020_RF P2MM-NSM SM PP 1 UART0_OWL_TO_BB_TX — 5 9
RADIO_DEBUG

RFFE

PP3056_RF P2MM SM PP 1 75_RFFE1_SDATA_BB — 9 16
RADIO_DEBUG
PP3077_RF P2MM SM PP 1 75_RFFE4_SDATA_BB — 9 12
RADIO_DEBUG
PP3051_RF P2MM SM PP 1 75_RFFE5_SCLK_BB_BUFFER — 9
RADIO_DEBUG
PP3052_RF P2MM-NSM SM PP 1 75_RFFE5_SDATA_BB_BUFFER — 9
PP3053_RF P2MM SM PP 1 75_RFFE2_SDATA_BB — 9 17 18 19 20 21 22
RADIO_DEBUG
PP3054_RF P2MM-NSM SM PP 1 75_RFFE3_SDATA_BB — 9 23

STOCKHOLM

PP3062_RF P2MM-NSM SM PP 1 STOCKHOLM_DWPM_DBG — 26
PP3063_RF P2MM-NSM SM PP 1 STOCKHOLM_DWPS_DBG — 26
PP3064_RF P2MM-NSM SM PP 1 UART3_AP_TO_STOCKHOLM_TXD — 5 26
PP3065_RF P2MM-NSM SM PP 1 UART3_STOCKHOLM_TO_AP_TXD — 5 26
PP3066_RF P2MM-NSM SM PP 1 UART3_AP_TO_STOCKHOLM_RTS_L — 5 26
PP3067_RF P2MM-NSM SM PP 1 UART3_STOCKHOLM_TO_AP_RTS_L — 5 26

PAGE TITLE: DEBUG CONN & TEST POINTS

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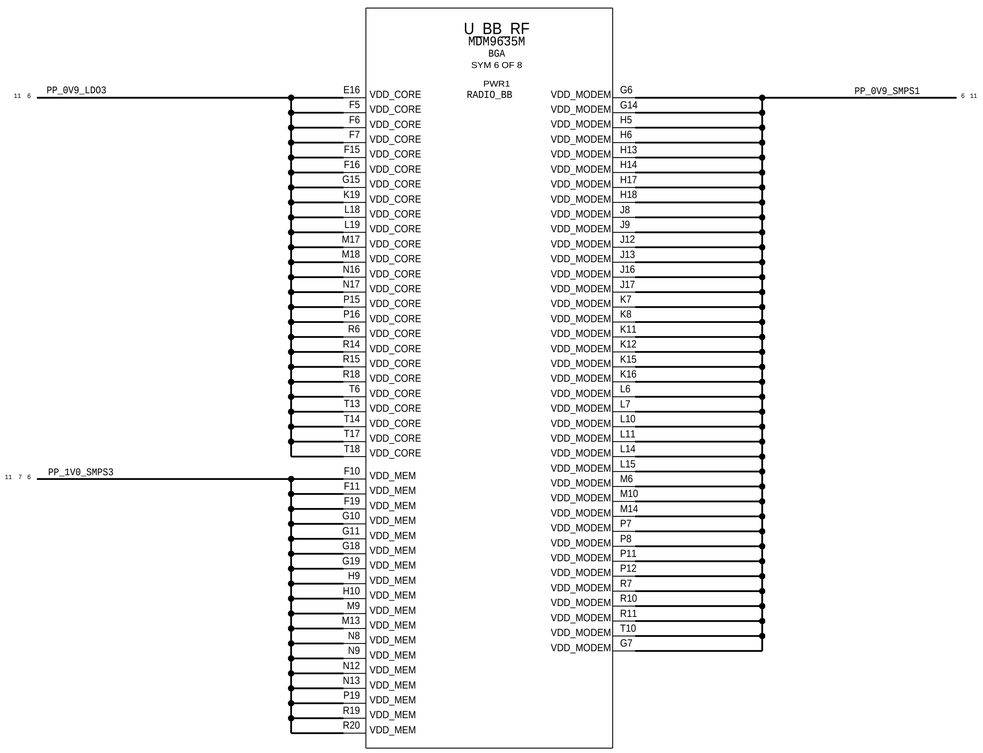
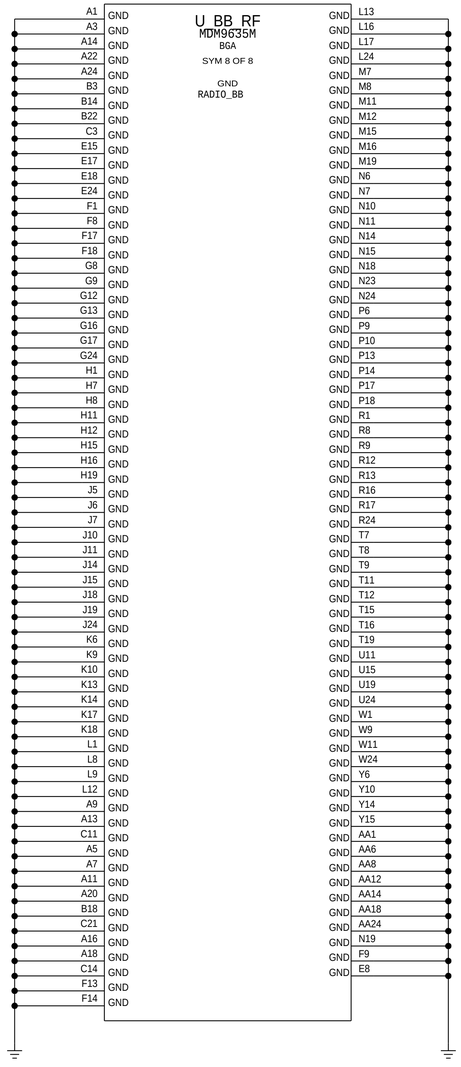
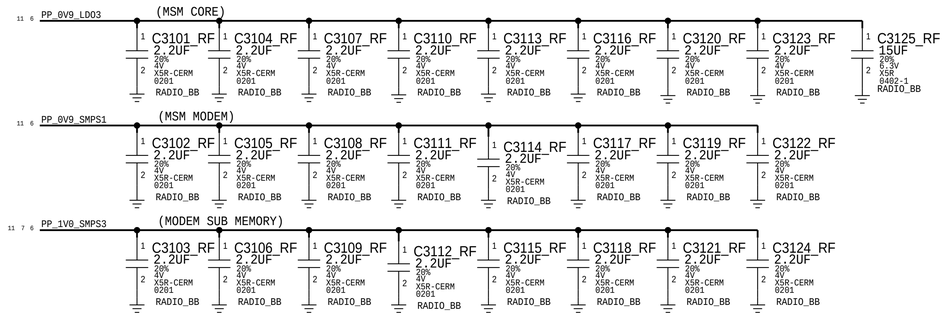
BASEBAND: POWER 1







PAGE TITLE: CELLULAR BASEBAND: POWER1

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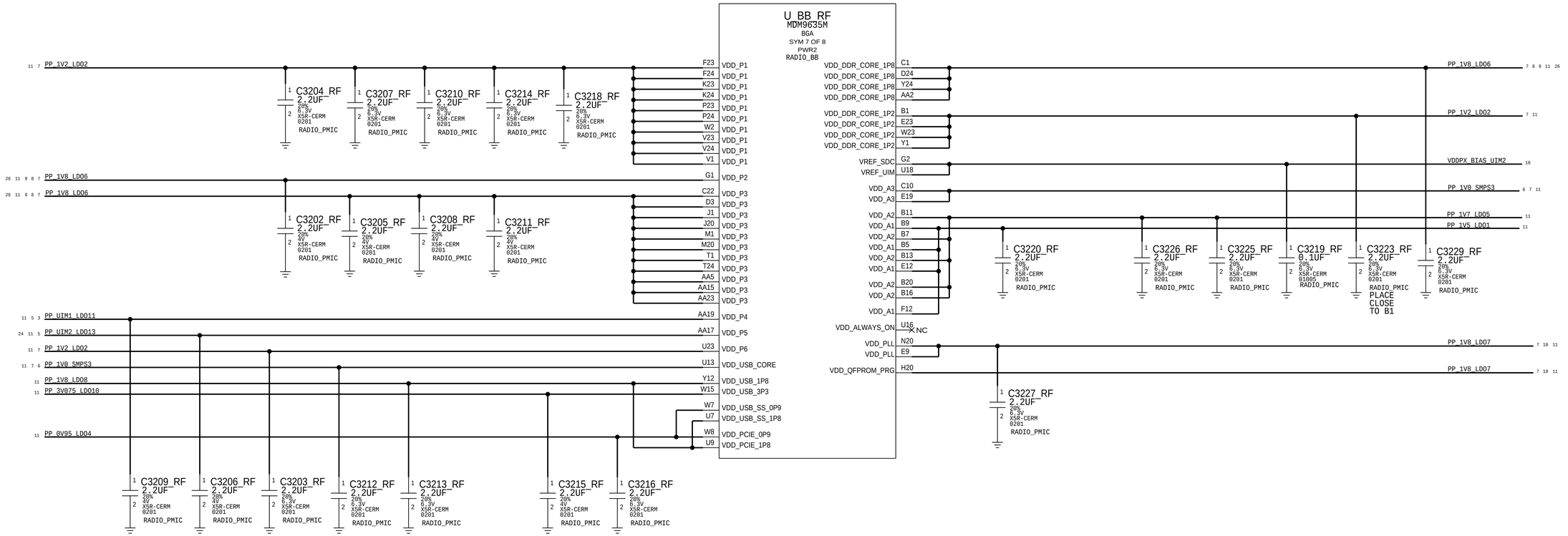
BASEBAND: POWER 2



PAGE TITLE: CELLULAR BASEBAND: POWER2

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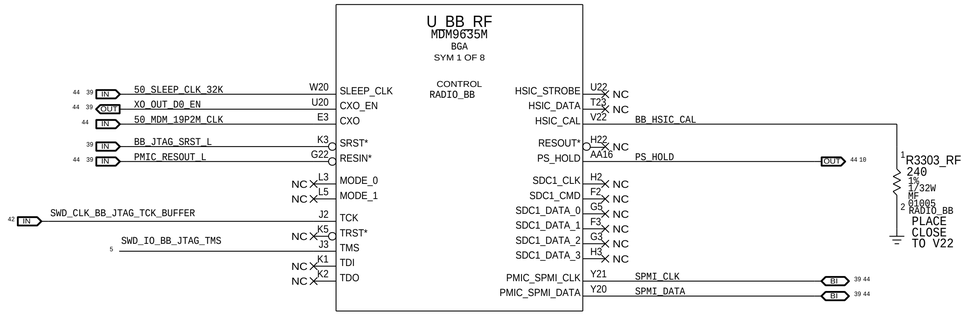
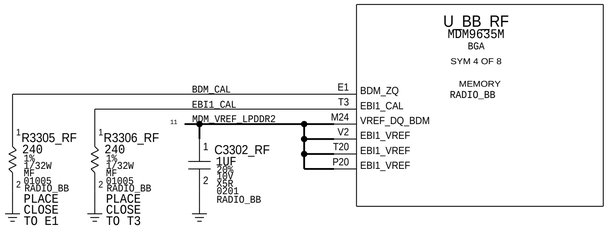
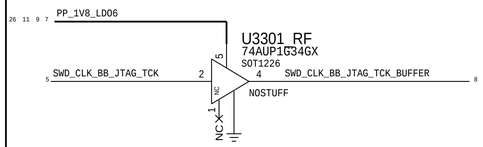
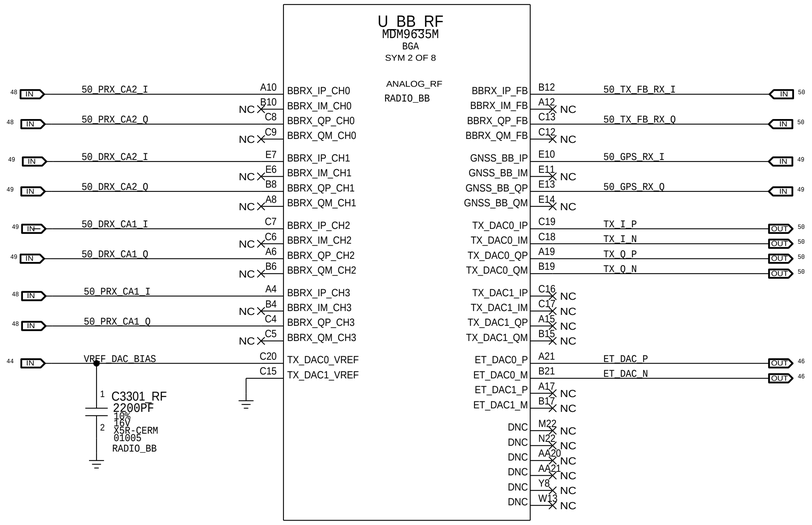
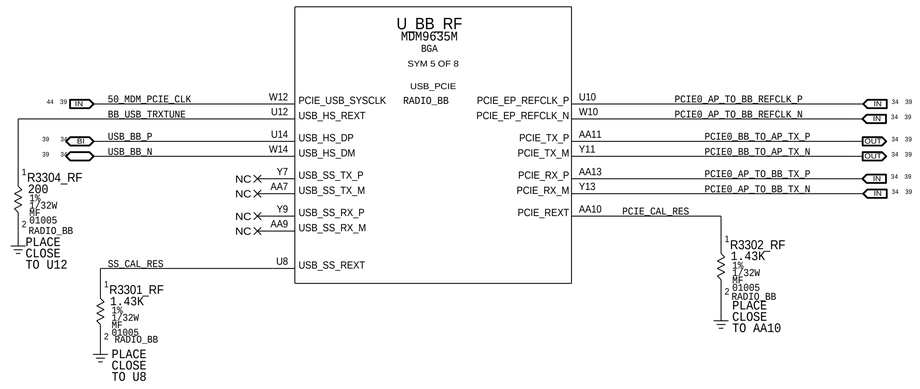
BASEBAND: CONTROL AND INTERFACES











PAGE TITLE
CELLULAR BASEBAND: CONTROL AND INTERFACES

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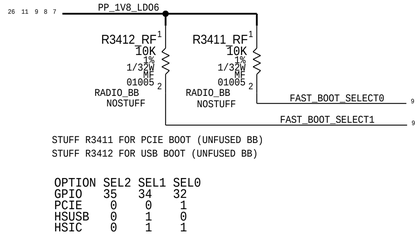
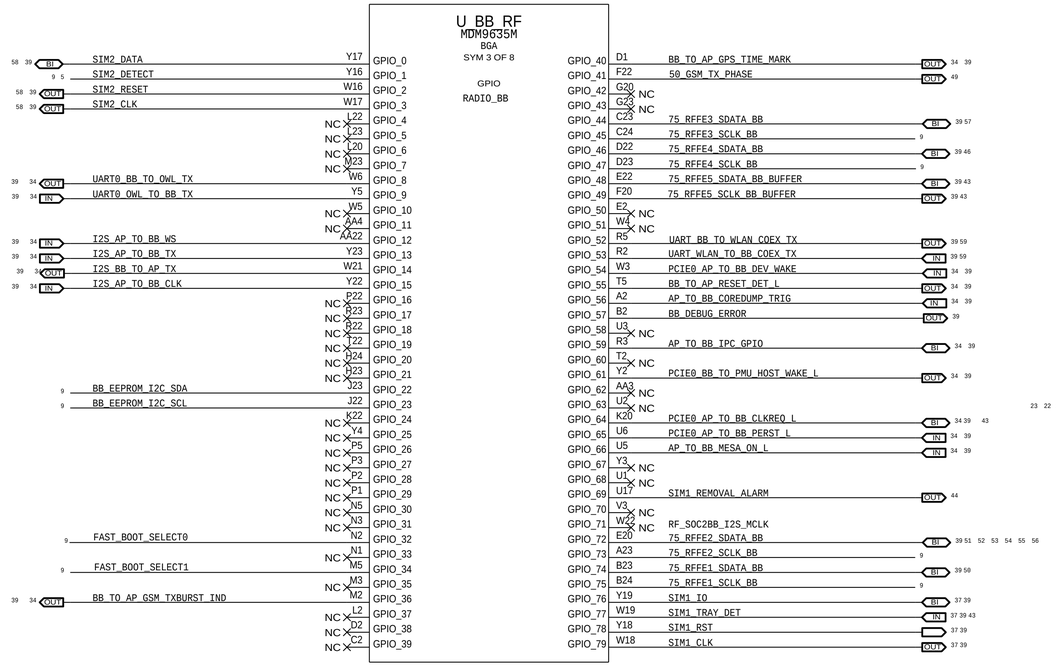
BASEBAND: GPIOS

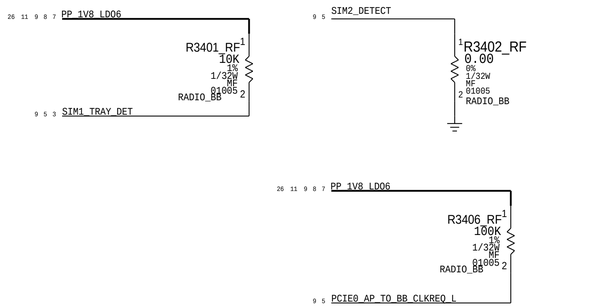


STUFF R3411 FOR PCIE BOOT (UNFUSED BB)
STUFF R3412 FOR USB BOOT (UNFUSED BB)

OPTION	SEL2	SEL1	SEL0
GPIO	35	34	32
PCIE	0	0	1
HSUSB	0	1	0
HSIC	0	1	1

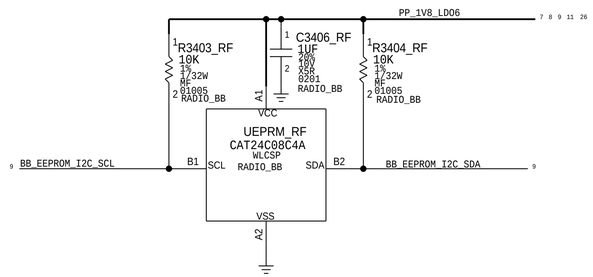


ALWAYS STUFF - VINYL PERMANENTLY REMOVED

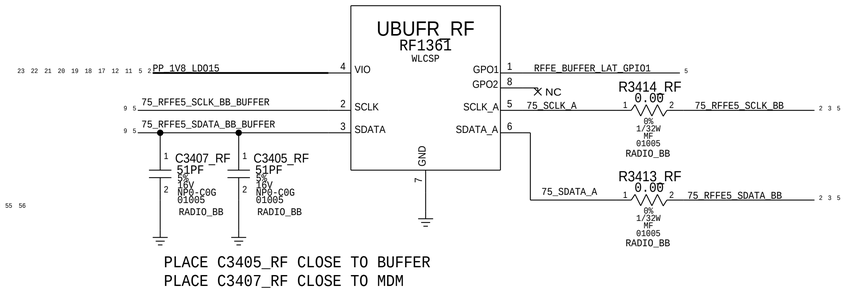


PCIE PULL-UPS TO BB RAIL

BB EEPROM

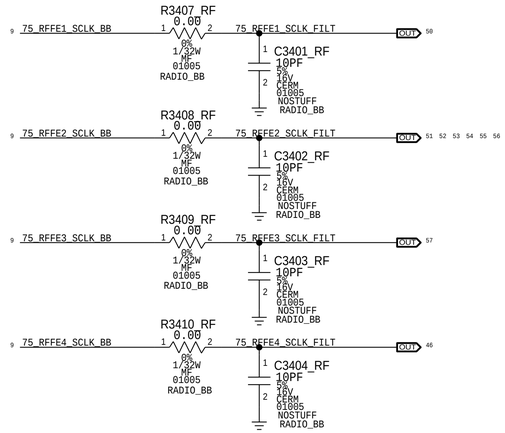


BUFFER ON RFFE5
SCLK/SDATA_A IS OUTPUT



PLACE C3405_RF CLOSE TO BUFFER
PLACE C3407_RF CLOSE TO MDM

RFFE CLOCK FILTERS



RFFE USAGE TABLE

RFFE1 WTR
RFFE2 LB/MB/HB PAD, 2G PA, LB/MB/HB ASM
RFFE3 DIV ASM
RFFE4 QPOET
RFFE5 DIV LNA, ANT TUNERS

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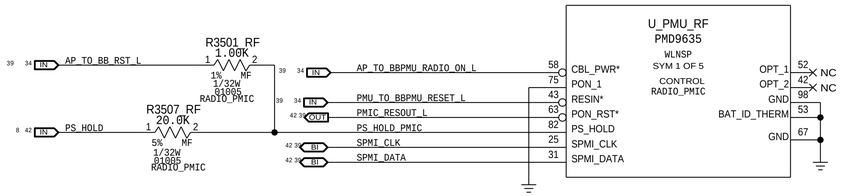
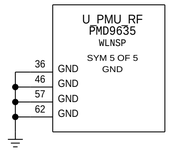
PMU: CONTROL AND CLOCKS

HW_REV1_ID	R3502	R3503	CONFIG
1.80V	698K	-	MLB
0.12V	698K	51.1K	SELF GEN

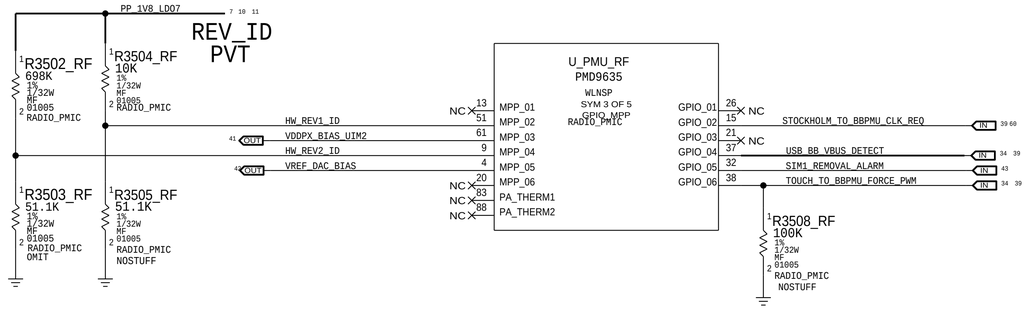
HW_REV_ID	R3504	R3505	REVISION
0.10V	887K	51.1K	DEV1
0.30V	255K	51.1K	DEV2
0.50V	124K	51.1K	DEV3
0.70V	82.5K	51.1K	DEV4/PROTOMLB1
0.90V	51.1K	51.1K	PROTOMLB2
1.10V	31.6K	51.1K	DEV5/PROTO1
1.20V	50K	100K	PROTO2
1.31V	39K	105K	EVT
1.43V	13.3K	51.1K	EVT_ALT
1.55V	8.25K	51.1K	CARRIER BUILD
1.67V	3.92K	51.1K	DVT
1.80V	10K	-	PVT

RESET AND CONTROL: PMU

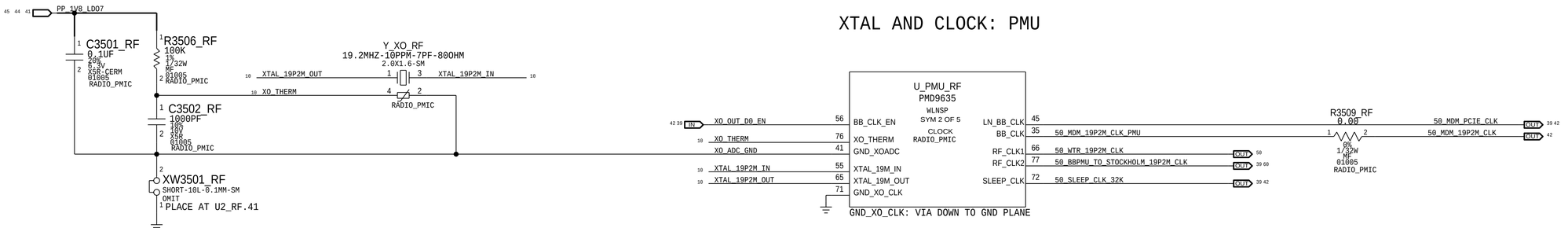




MPPS AND GPIOS: PMU



XTAL AND CLOCK: PMU



PAGE TITLE
CELLULAR PMU: CONTROL AND CLOCKS

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PMU: SWITCHERS AND LDOS

SWITCHERS BULK CAPS

I296
PP_VCC_MAIN
VBATT_S1
C3640_RF 15UF 20% 6.3V X5R 0402-1 RADIO_PMIC
C3616_RF 15UF 20% 6.3V X5R 0402-1 RADIO_PMIC
XW3601_RF SHORT-10L-0.25MM-SM OMIT
XW3602_RF SHORT-10L-0.25MM-SM OMIT
XW3603_RF SHORT-10L-0.25MM-SM OMIT
S1_GND

I295
PP_VCC_MAIN
VBATT_S2
C3615_RF 15UF 20% 6.3V X5R 0402-1 RADIO_PMIC
C3617_RF 15UF 20% 6.3V X5R 0402-1 RADIO_PMIC
XW3604_RF SHORT-10L-0.25MM-SM OMIT
XW3605_RF SHORT-10L-0.25MM-SM OMIT
S2_GND

I279
PP_VCC_MAIN
VBATT_S3
C3634_RF 4.7UF 20% 6.3V CER-X5R 0402 RADIO_PMIC
C3618_RF 15UF 20% 6.3V X5R 0402-1 RADIO_PMIC
XW3606_RF SHORT-10L-0.25MM-SM OMIT
XW3607_RF SHORT-10L-0.25MM-SM OMIT
XW3608_RF SHORT-10L-0.25MM-SM OMIT
S3_GND

I275
PP_VCC_MAIN
VBATT_S4
C3619_RF 15UF 20% 6.3V X5R 0402-1 RADIO_PMIC
XW3609_RF SHORT-10L-0.25MM-SM OMIT
XW3610_RF SHORT-10L-0.25MM-SM OMIT
S4_GND

I274
PP_VCC_MAIN
VBATT_S5
C3620_RF 15UF 20% 6.3V X5R 0402-1 RADIO_PMIC
XW3611_RF SHORT-10L-0.25MM-SM OMIT
XW3612_RF SHORT-10L-0.25MM-SM OMIT
S5_GND

U_PMU_RF PMD9635 WLNSP SYM 4 OF 5 POWER

VBATT_S1	5	VDD_S1	
	16	VDD_S1	
	6	GND_S1	
	17	GND_S1	
	28	GND_S1	
	33	GND_S1	
VBATT_S2	92	VDD_S2	
	103	VDD_S2	
S2_GND	102	GND_S2	
VBATT_S3	70	VDD_S3	
S3_GND	49	GND_S3	
	54	GND_S3	
VBATT_S4	8	VDD_S4	
	1	GND_S4	
	7	GND_S4	
VBATT_S5	94	VDD_S5	
S5_GND	93	GND_S5	
PP_1V225_SMPS2	86	VDD_L1_2_16	
PP_1V0_SMPS3	44	VDD_L3_4	
PP_1V85_SMPS4	14	VDD_L5_6_15	
	23	VDD_L7_8	
PP_1V0_SMPS5	89	VDD_L9	
PP_VCC_MAIN	90	VIN_VPH1	
	47	VIN_VPH2	
VDD_OTP	73	VDD_OTP	
MDM_VREF_LPDDR2	78	VREF_DDR	
AVDD_BYP	74	AVDD_BYP	
REF_BYP	79	REF_BYP	
	68	GND_REF	
	24	VDD_XO_RF	

VREG_S1	10		
VSW_S1	11		
VSW_S1	22		
VSW_S1	27		
VREG_S2	91		
VSW_S2	97		
VREG_S3	69		
VSW_S3	59		
VSW_S3	64		
VREG_S4	12		
VSW_S4	2		
VREG_S5	87		
VSW_S5	99		
VREG_L1	80	VOLTAGE=1.5V	MDM LOW VOLTAGE ANALOG
VREG_L2	81	VOLTAGE=1.2V	MDM EBI1, DDR CORE
VREG_L3	39	VOLTAGE=0.9V	MDM CORE
VREG_L4_16	48	VOLTAGE=0.95V	MDM PCIE
VREG_L5	19	VOLTAGE=1.7V	MDM HIGH VOLTAGE ANALOG
VREG_L6	3	VOLTAGE=1.8V	MDM 1.8V I/O, DDR, SHARED 1.8V VOLTAGE RAIL
VREG_L7	18	VOLTAGE=1.8V	MDM PLL
VREG_L8	29	VOLTAGE=1.8V	MDM LOW VOLTAGE USB
VREG_L9	100	VOLTAGE=1.0V	WTR
VREG_L10	84	VOLTAGE=3.075V	MDM HIGH VOLTAGE USB
VREG_L11	95	VOLTAGE=1.8V	UIM1
VREG_L12	85	VOLTAGE=2.7V	GPS LNA
VREG_L13	96	VOLTAGE=1.8V	UIM2
VREG_L14	101	VOLTAGE=2.8V	FRONT END SUPPLY
VREG_L15	30	VOLTAGE=1.8V	RFFE VIO
VREG_XO	34	VREG_XO	
GND_XO	40	VREG_XO_GND	
VREG_RF	60	VREG_RF_CLK	
GND_RF_CLK	50	VREG_RF_CLK_GND	

L3601_RF 1UH-20%-0.054OHM-3.4A 2520 RADIO_PMIC	PP_VSW_S1	VOLTAGE=0.9V	
L3602_RF 2.2UH-20%-0.14OHM-1.6A 0806 RADIO_PMIC	PP_VSW_S2	VOLTAGE=1.225V	
L3603_RF 1.0UH-20%-2.7A-0.056OHM 0806 RADIO_PMIC	PP_VSW_S3	VOLTAGE=1.0V	
L3604_RF 2.2UH-20%-0.14OHM-1.6A 0806 RADIO_PMIC	PP_VSW_S4	VOLTAGE=1.85V	
L3605_RF 2.2UH-20%-0.14OHM-1.6A 0806 RADIO_PMIC	PP_VSW_S5	VOLTAGE=1.0V	

C3609_RF 43UF 20% 4V X5R 0603 S1_GND	C3614_RF 43UF 20% 4V X5R 0603 NOSTUFF	MDM MODEM TCXO SHUTDOWN: ON	3400MA	VOLTAGE=0.9V	PP_0V9_SMPS1
C3610_RF 43UF 20% 4V X5R 0603 S2_GND		LOW VOLTAGE LDOS TCXO SHUTDOWN: ON	587MA	PP_1V225_SMPS2	VOLTAGE=1.225V
C3611_RF 43UF 20% 4V X5R 0603 S3_GND		MDM MEMORY, MDM USB TCXO SHUTDOWN: ON	2234MA	PP_1V0_SMPS3	VOLTAGE=1.0V
C3612_RF 43UF 20% 4V X5R 0603 S4_GND		HIGH VOLTAGE LDOS TCXO SHUTDOWN: ON	653MA	PP_1V85_SMPS4	VOLTAGE=1.85V
C3613_RF 43UF 20% 4V X5R 0603 S5_GND		LDO9->WTR TCXO SHUTDOWN: OFF	700MA	PP_1V0_SMPS5	VOLTAGE=1.0V

PP_1V5_LDO1	
PP_1V2_LDO2	
PP_0V9_LDO3	
PP_0V95_LDO4	
PP_1V7_LDO5	
PP_1V8_LDO6	
PP_1V8_LDO7	
PP_1V8_LDO8	
PP_1V0_LDO9	
PP_3V075_LDO10	
PP_UIM1_LDO11	
PP_2V7_LDO12	
PP_UIM2_LDO13	
PP_2V8_LDO14	
PP_1V8_LDO15	

C3621_RF 1UF 20% 10V X5R 0201 RADIO_PMIC
C3622_RF 0.1UF 20% 6.3V X5R-CERM 01005 RADIO_PMIC
XW3613_RF SHORT-10L-0.1MM-SM OMIT
REF_BYP_GND
R3603_RF 0.00 0% 1/32W MF 01005
MDM_VREF_LPDDR2
AVDD_BYP
REF_BYP

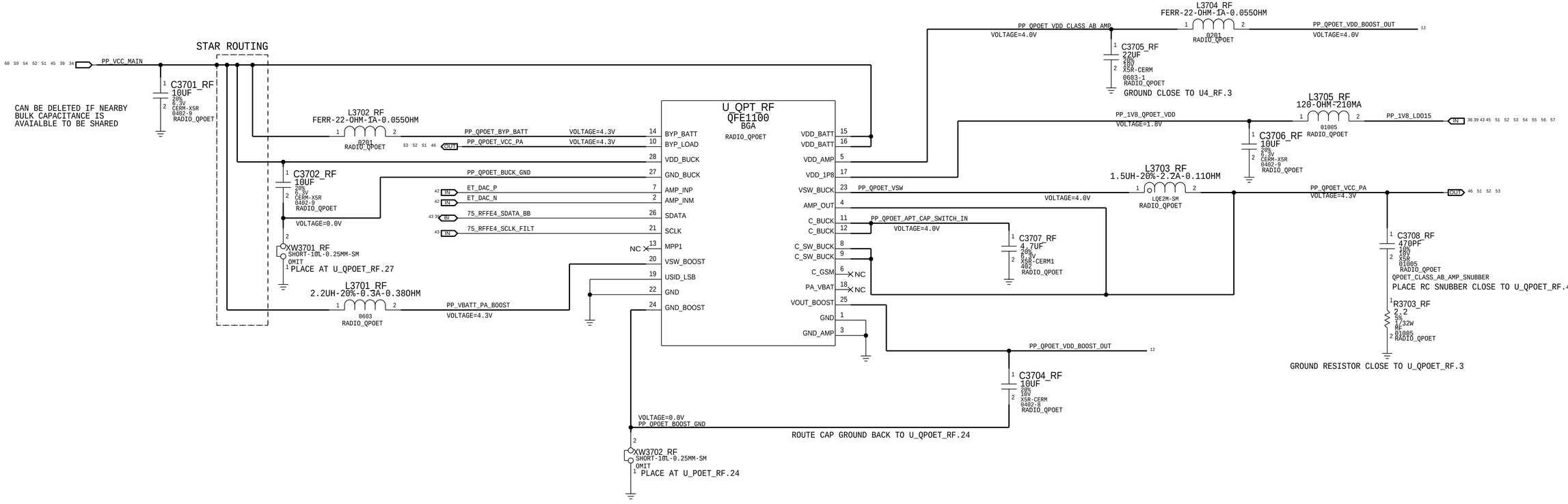
C3630_RF 1UF 20% 10V X5R 0201 RADIO_PMIC
C3631_RF 1UF 20% 10V X5R 0201 RADIO_PMIC
VREG_XO_GND
VREG_RF_CLK_GND
XW3614_RF SHORT-10L-0.1MM-SM OMIT
XW3615_RF SHORT-10L-0.1MM-SM OMIT
XO_GND
RF_CLK_GND

PLACE XW CLOSE TO PMU
VIA XW DOWN TO THE GND PLANE

C3624_RF 1UF 20% 10V X5R 0201 RADIO_PMIC NOSTUFF
C3625_RF 10UF 6.3V CERM-X5R 0402-9 RADIO_PMIC
C3632_RF 15UF 20% 6.3V X5R 0402-1 RADIO_PMIC
C3633_RF 15UF 20% 6.3V X5R 0402-1 RADIO_PMIC
C3635_RF 4.7UF 20% 6.3V CER-X5R 0402 RADIO_PMIC NOSTUFF
C3636_RF 4.7UF 20% 6.3V CER-X5R 0402 RADIO_PMIC NOSTUFF
C3603_RF 1UF 20% 10V X5R 0201 RADIO_PMIC
C3626_RF 4.7UF 20% 6.3V CER-X5R 0402 RADIO_PMIC
C3627_RF 10UF 20% 6.3V CERM-X5R 0402-9 RADIO_PMIC
C3605_RF 1UF 20% 10V X5R 0201 RADIO_PMIC
C3606_RF 1UF 20% 10V X5R 0201 RADIO_PMIC
C3629_RF 1UF 20% 10V X5R 0201 RADIO_PMIC
C3608_RF 1UF 20% 10V X5R 0201 RADIO_PMIC
C3607_RF 1UF 20% 10V X5R 0201 RADIO_PMIC

XW3616_RF SHORT-10L-0.25MM-SM OMIT	PP_0V9_SMPS1	BB_TO_PMU_AMUX_SMPS1	
XW3617_RF SHORT-10L-0.25MM-SM OMIT	PP_1V0_SMPS3	BB_TO_PMU_AMUX_SMPS3	
XW3618_RF SHORT-10L-0.25MM-SM OMIT	PP_1V85_SMPS4	BB_TO_PMU_AMUX_SMPS4	
XW3619_RF SHORT-10L-0.25MM-SM OMIT	PP_UIM1_LDO11	BB_TO_PMU_AMUX_LDO11_SIM1	

PMU: ET MODULATOR



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CELLULAR PMU: ET MODULATOR

Apple Inc.

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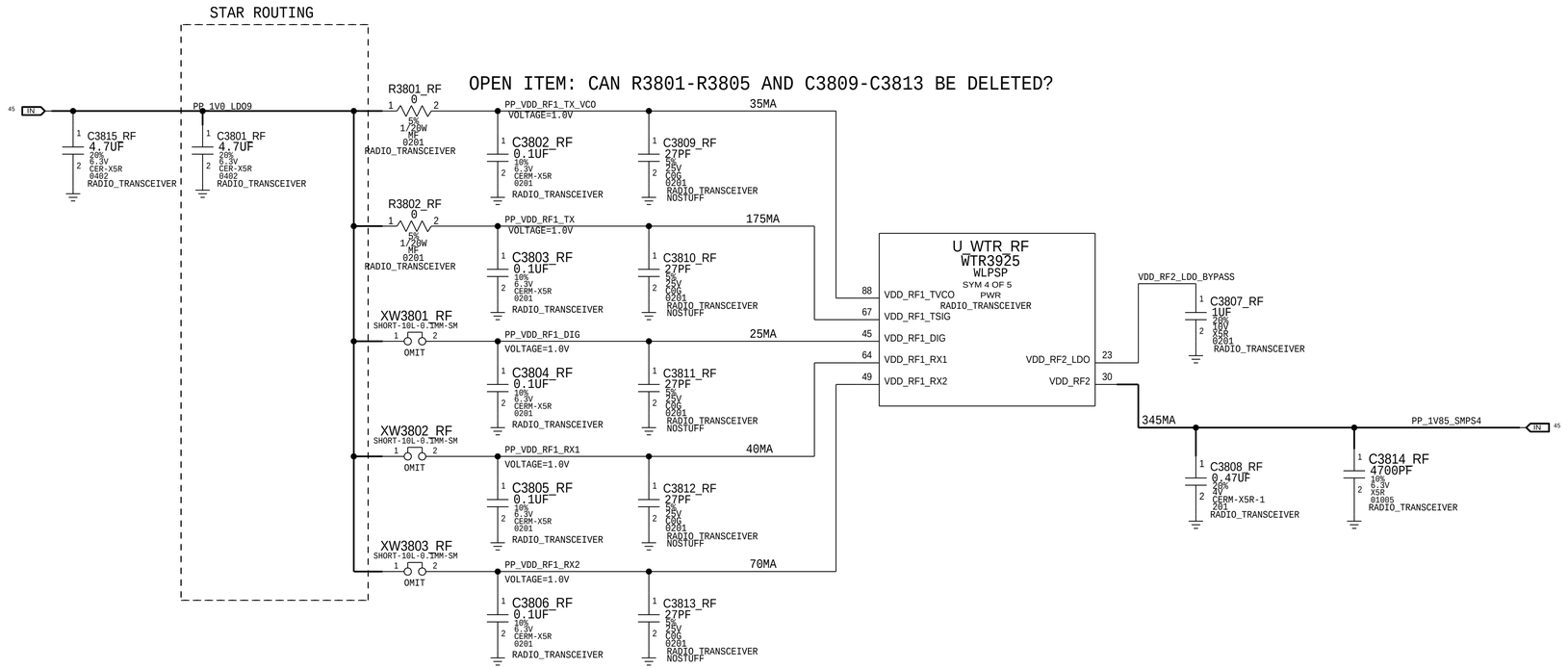
TRANSCEIVER: POWER



PAGE TITLE
CELLULAR TRANSCEIVER: POWER

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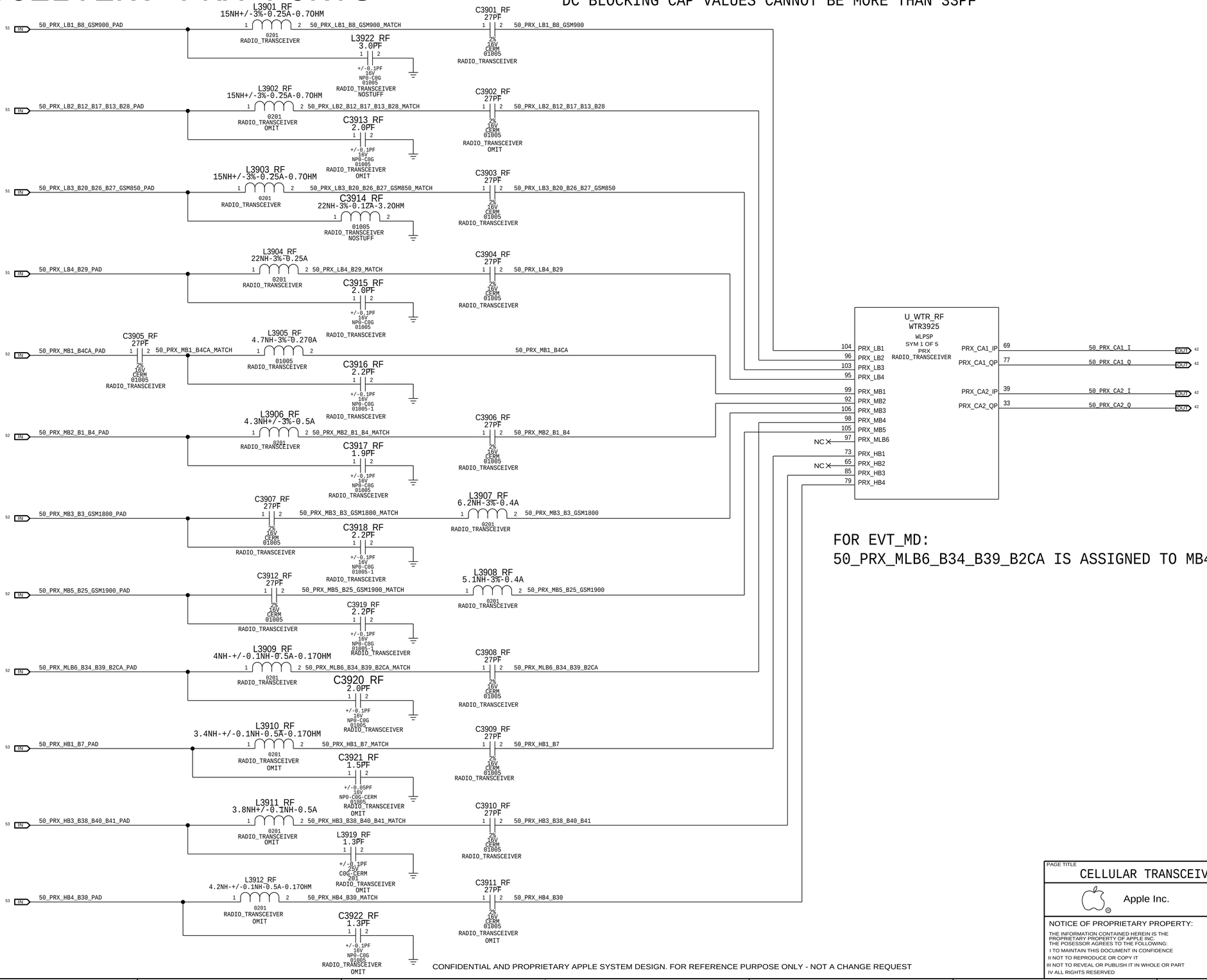
TRANSCEIVER: PRX PORTS

DC BLOCKING CAP VALUES CANNOT BE MORE THAN 33PF



FOR EVT_MD:
50_PRX_MLB6_B34_B39_B2CA IS ASSIGNED TO MB4

PAGE TITLE
CELLULAR TRANSCEIVER: PRX PORTS

Apple Inc.

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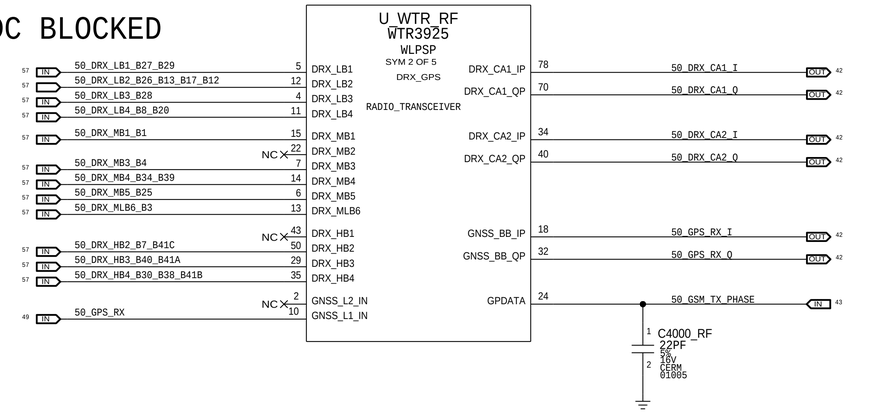
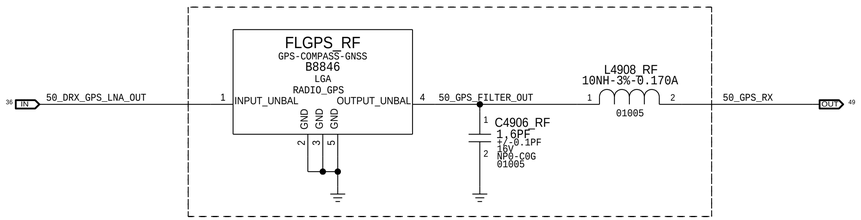
TRANSCEIVER: DRX/GPS PORTS

DRX MODULE PORTS ARE DC BLOCKED



GPS FILTER

PLACE NEAR U_WTR



PAGE TITLE: CELLULAR TRANSCEIVER: DRX/GPS PORTS

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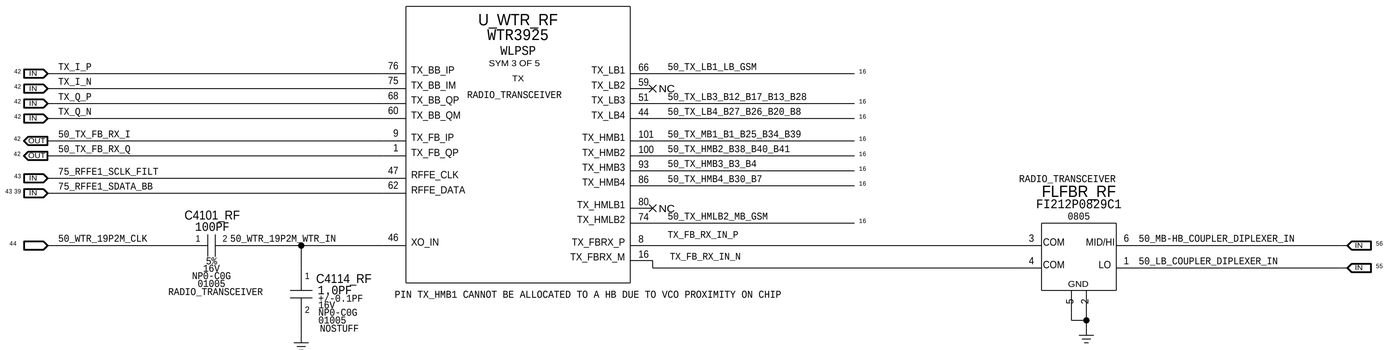
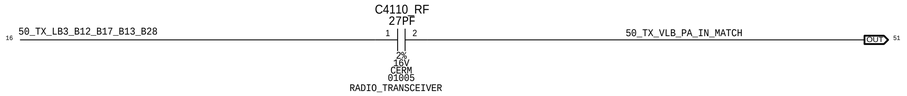
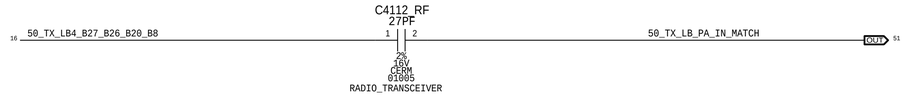
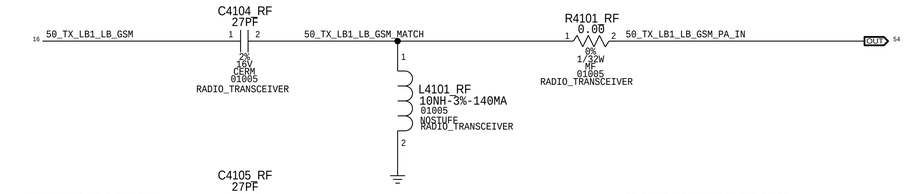
TRANSCEIVER: TX PORTS

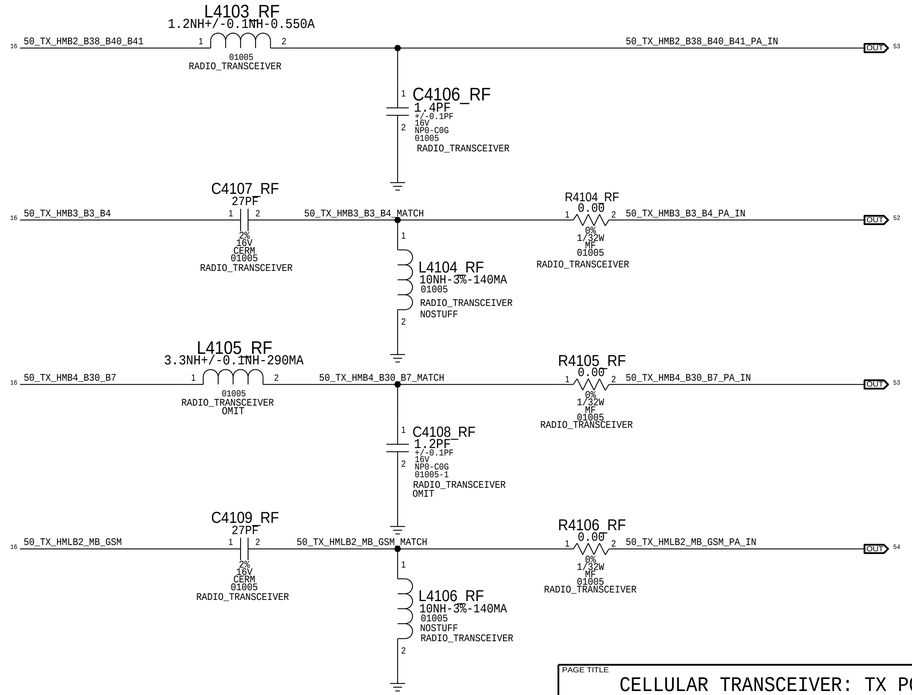
B12/13 TX INTERSTAGE FILTER REMOVED











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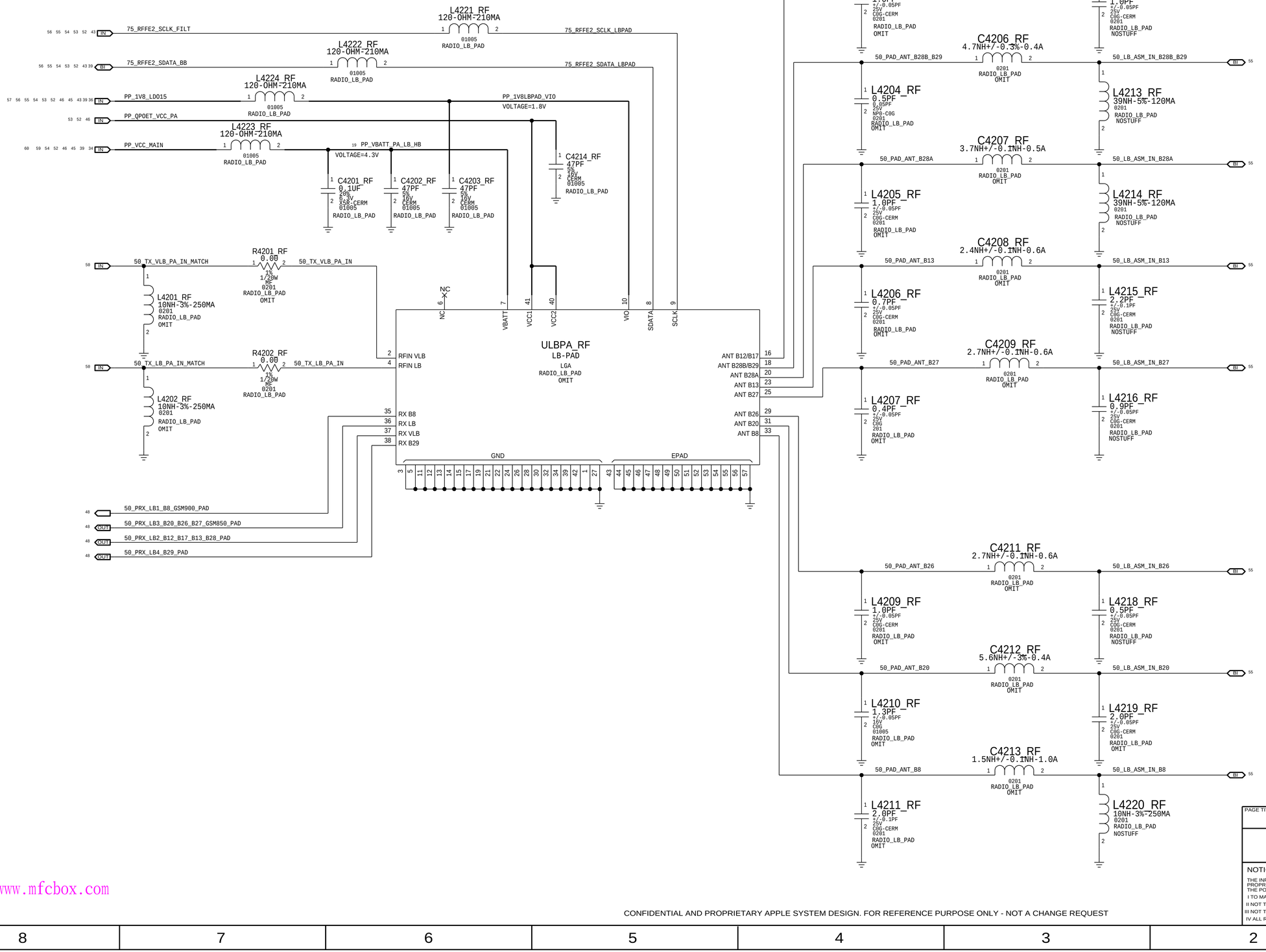
LOW BAND PA+DUPLEXERS



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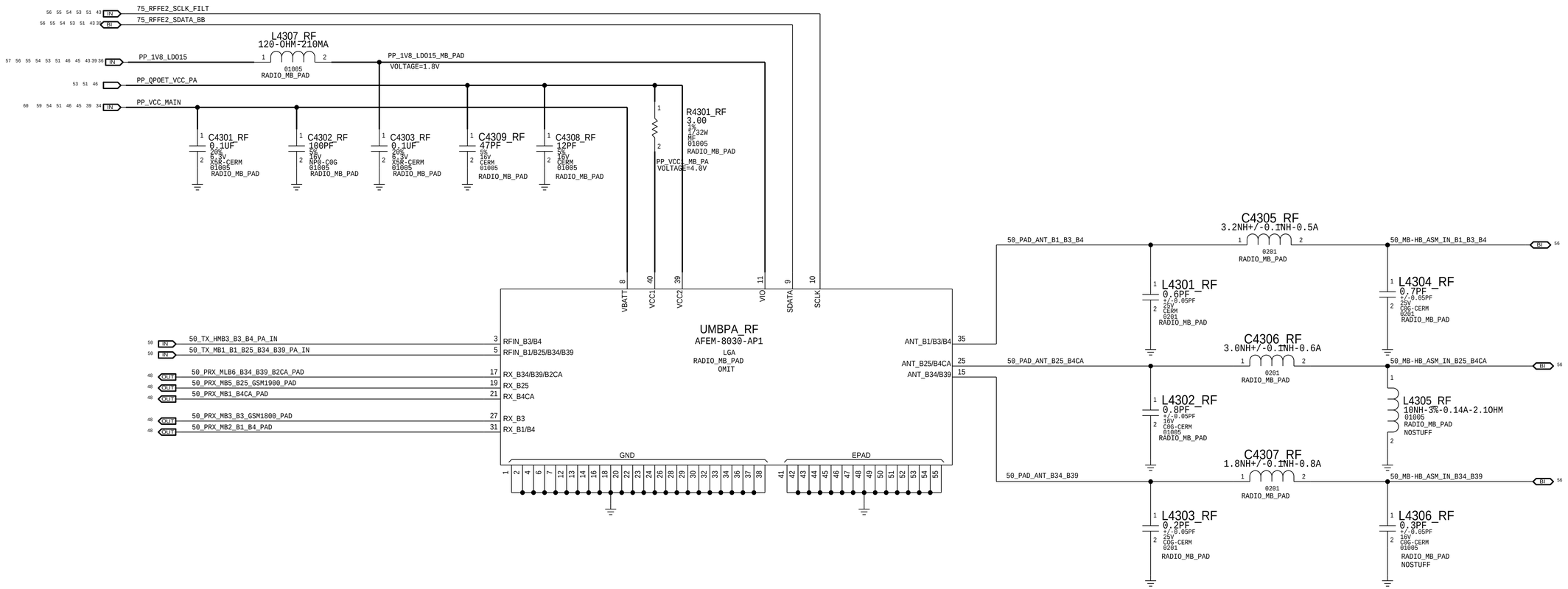
MID BAND PA+DUPLEXERS



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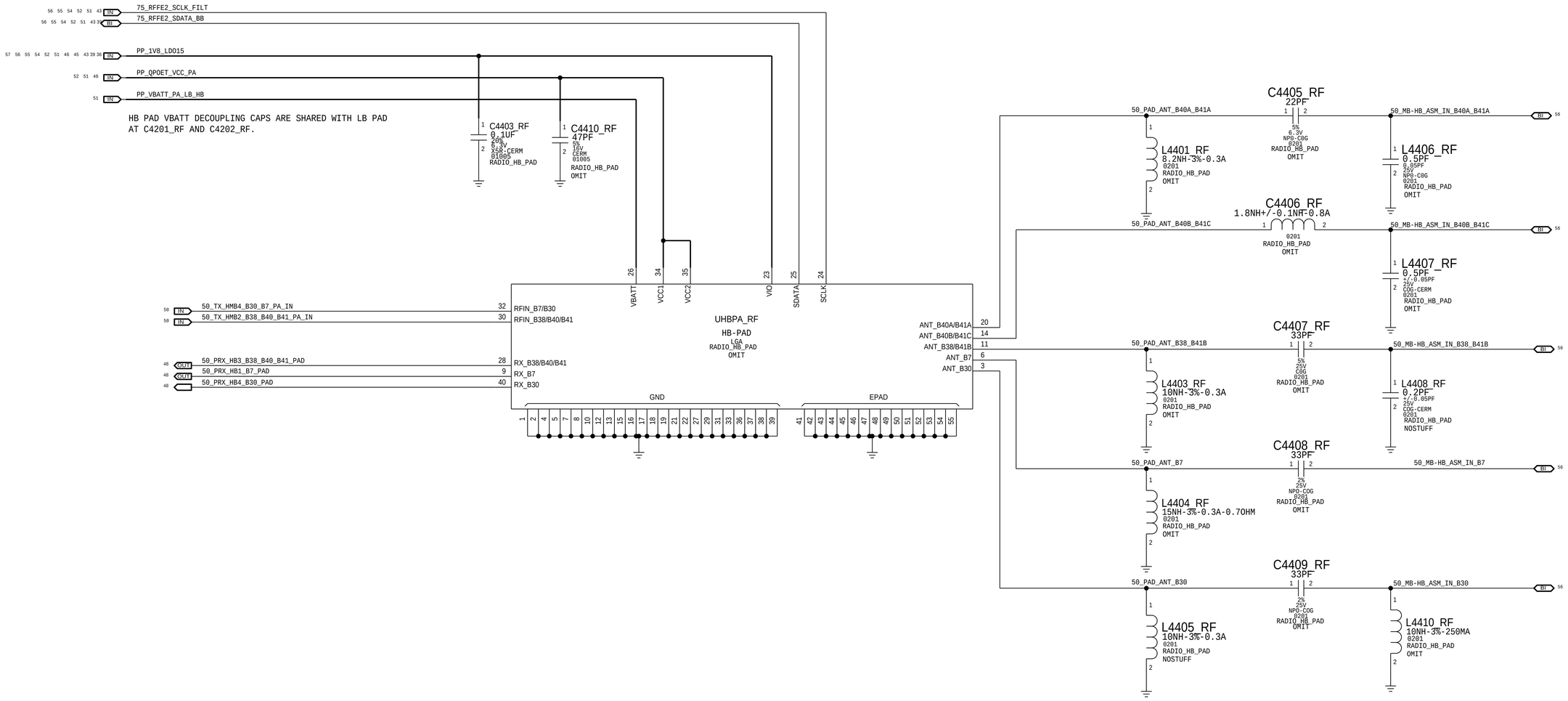
HIGH BAND PA+DUPLEXERS



PAGE TITLE: CELLULAR FRONT END: HB PAD

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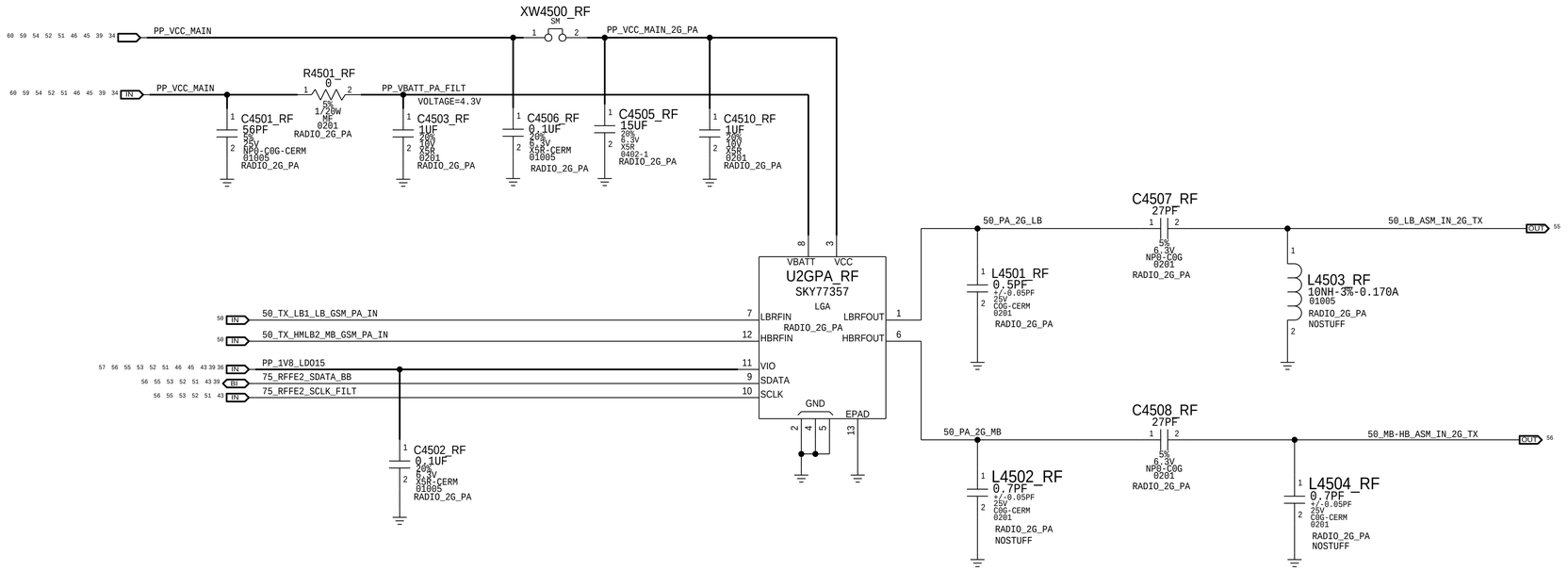
2G PA



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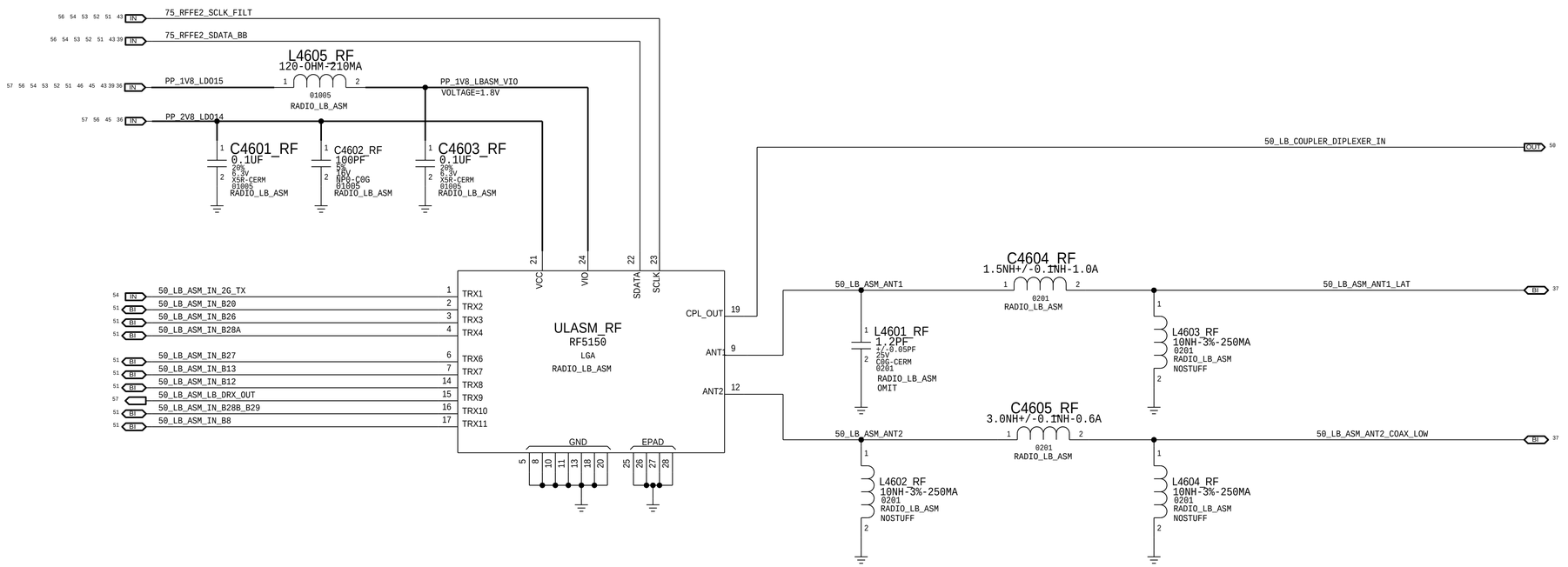
LOW BAND ANTENNA SWITCH MODULE



PAGE TITLE
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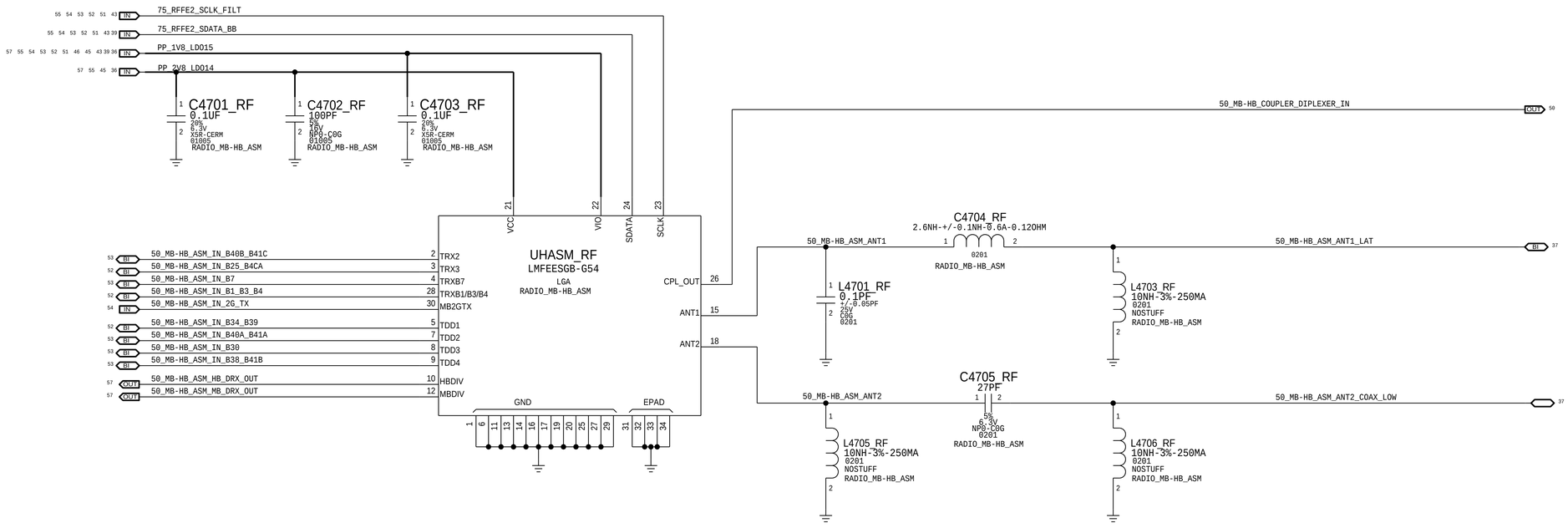
MID-HIGH BAND ANTENNA SWITCH MODULE

EVT ASM ASSIGNMENT:
B40B/B41C - TRX2
B30 - TDD3



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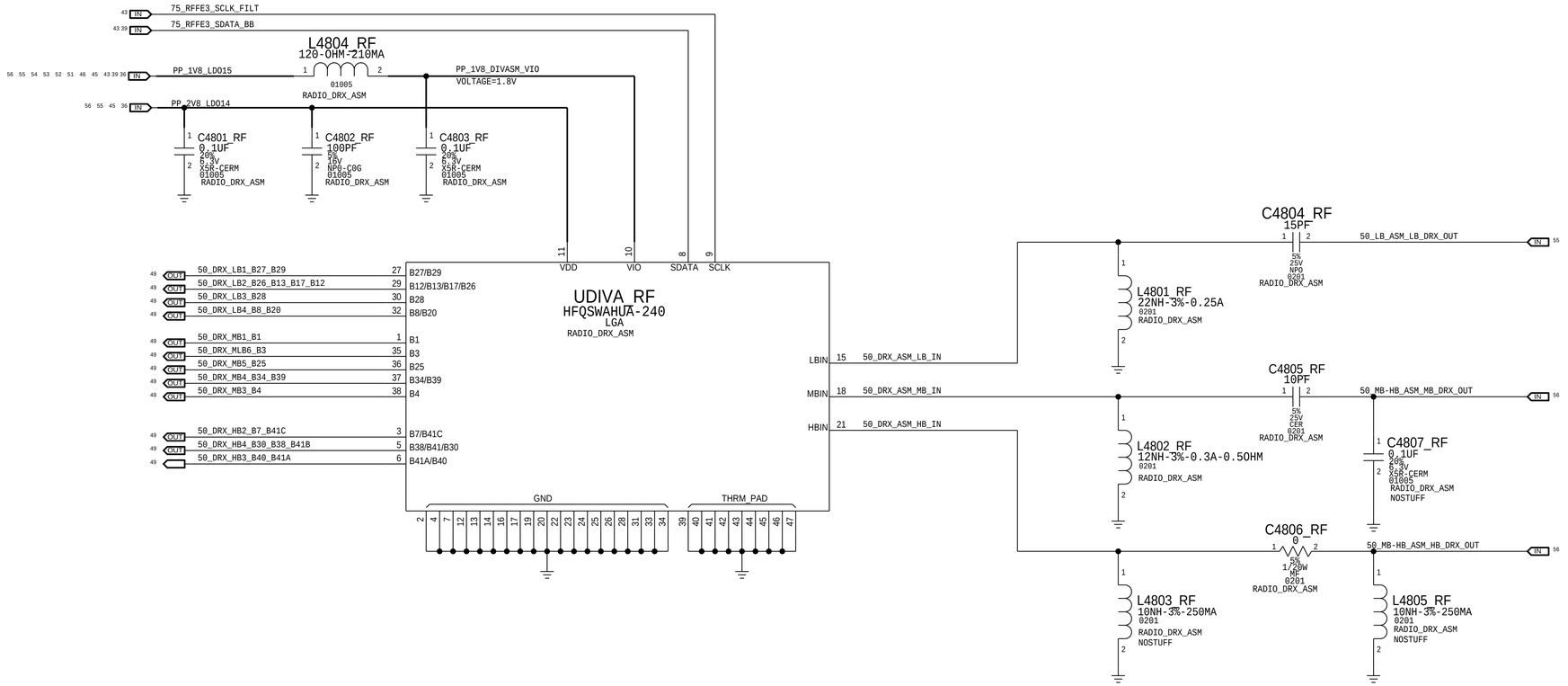
DIVERSITY MODULE



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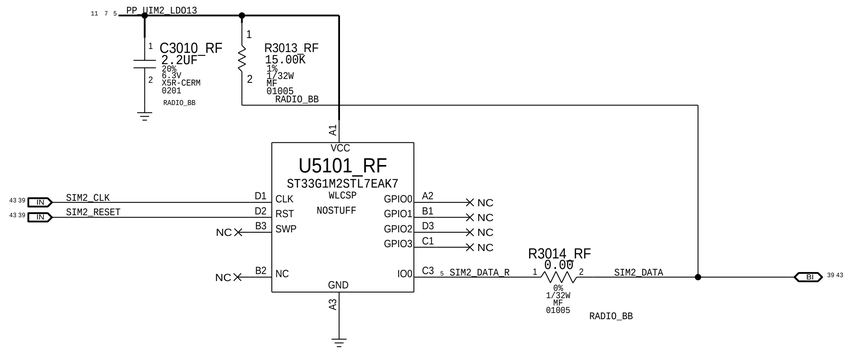
SIM



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WIFI/BT

U5200_RF
LBEE5UM1EE-775
LGA
SYM 2 OF 2

1	GND	THRM_PAD	106
20	GND	THRM_PAD	107
25	GND	THRM_PAD	108
27	GND	THRM_PAD	109
32	GND	THRM_PAD	110
34	GND	THRM_PAD	111
40	GND	THRM_PAD	112
42	GND	THRM_PAD	113
45	GND	THRM_PAD	114
48	GND	THRM_PAD	115
51	GND	THRM_PAD	116
55	GND	THRM_PAD	117
56	GND	THRM_PAD	118
58	GND	THRM_PAD	119
61	GND	THRM_PAD	120
63	GND	THRM_PAD	121
66	GND	THRM_PAD	122
67	GND	THRM_PAD	123
68	GND	THRM_PAD	124
70	GND	THRM_PAD	125
71	GND	THRM_PAD	126
72	GND	THRM_PAD	127
		THRM_PAD	128
		THRM_PAD	129
		THRM_PAD	130
		THRM_PAD	131
73	THRM_PAD	THRM_PAD	132
74	THRM_PAD	THRM_PAD	133
75	THRM_PAD	THRM_PAD	134
76	THRM_PAD	THRM_PAD	135
77	THRM_PAD	THRM_PAD	136
78	THRM_PAD	THRM_PAD	137
79	THRM_PAD	THRM_PAD	138
80	THRM_PAD	THRM_PAD	139
81	THRM_PAD	THRM_PAD	140
82	THRM_PAD	THRM_PAD	141
83	THRM_PAD	THRM_PAD	142
84	THRM_PAD	THRM_PAD	143
85	THRM_PAD	THRM_PAD	144
86	THRM_PAD	THRM_PAD	145
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89	THRM_PAD	THRM_PAD	148
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92	THRM_PAD	THRM_PAD	151
93	THRM_PAD	THRM_PAD	152
94	THRM_PAD	THRM_PAD	153
95	THRM_PAD	THRM_PAD	154
96	THRM_PAD	THRM_PAD	155
97	THRM_PAD	THRM_PAD	156
98	THRM_PAD	THRM_PAD	157
99	THRM_PAD	THRM_PAD	158
100	THRM_PAD	THRM_PAD	159
101	THRM_PAD	THRM_PAD	160
102	THRM_PAD	THRM_PAD	161
103	THRM_PAD	THRM_PAD	162
104	THRM_PAD		
105	THRM_PAD		

R5213_RF 0.00 0% 1/32W MF 01005
C5201_RF 27PF 5% 16V NP0-C0G 01005
C2500_RF 0.01UF 10% 6.3V X5R 01005
PP_1V8_S2R_VDDIO_WLAN_BT
PP_WL_VDDIO
VOLTAGE=1.8V

PP_VCC_MAIN
VOLTAGE=4.3V
C5283_RF 4.7UF 20% 6.3V X5R-CERM1 402
C5284_RF 4.7UF 20% 6.3V X5R-CERM1 402

VDDIO_1P8V
BATT_VCC
BATT_VCC

PP_WL_VDDIO
NO STUFF
R5200_RF 10K 5% 1/32W MF 01005
JTAG_WLAN_SEL

PMU_TO_WLAN_32K_CLK	41	CLK32K_AP	
UART4_AP_TO_WLAN_TX	14	GPIO_11_FAST_UART_RX	
UART4_WLAN_TO_AP_TX	13	GPIO_12_FAST_UART_TX	
UART4_WLAN_TO_AP_RTS_L	15	GPIO_7_FAST_RTS_OUT	
PMU_TO_WLAN_REG_ON	29	WL_REG_ON	
PMU_TO_BT_REG_ON	28	BT_REG_ON	
JTAG_WLAN_SEL	37	JTAG_SEL	
NC	17	ANT_SWITCH_CORE1	
NC	16	ANT_SWITCH_CORE0	
PCIE_AP_TO_WLAN_DEV_WAKE	39	GPIO_1_HSIC_HOST_READY	
UART4_AP_TO_WLAN_RTS_L	22	GPIO_2_HSIC_RESUME/JTAG_TCK	
GPIO_3_JTAG_TMS	23	GPIO_3_JTAG_TMS	
UART_BB_TO_WLAN_COEX_TX	21	GPIO_6_SEC_IN/JTAG_TRST	
GPIO_4_JTAG_TDI	18	GPIO_4_JTAG_TDI	
UART_WLAN_TO_BB_COEX_TX	19	GPIO_5_SEC_OUT/JTAG_TDO	
BT_TO_PMU_HOST_WAKE	5	HOST_WAKE_BT	
50_G_0_MATCH_MOD	57	2G_ANT_CORE0	
50_G_1_MATCH_MOD	69	2G_ANT_CORE1	
50_A_0_MATCH_MOD	62	5G_ANT_CORE0	
50_A_1_MATCH_MOD	26	5G_ANT_CORE1	
NC	3	BT_GPIO_3	
NC	2	BT_GPIO_5	

XW1_RF SM
XW2_RF SM
XW3_RF SM

U5200_RF
LBEE5UM1EE-775
LGA
SYM 1 OF 2

BT_GPIO_4	10	NC	
BT_WAKE	4	AP_TO_BT_WAKE	IN
BT_UART_RXD	8	UART1_AP_TO_BT_TX	IN
BT_UART_TXD	9	UART1_BT_TO_AP_TX	OUT
BT_UART_CTS*	7	UART1_AP_TO_BT_RTS_L	IN
BT_UART_RTS*	6	UART1_BT_TO_AP_RTS_L	OUT
BT_PCM_CLK	60	I2S_AP_TO_BT_BCLK	IN
BT_PCM_SYNC	64	I2S_AP_TO_BT_LRCK	IN
BT_PCM_OUT	65	I2S_BT_TO_AP_DOUT	OUT
BT_PCM_IN	59	I2S_AP_TO_BT_DOUT	IN
GPIO_13_WLAN_THROTTLE	24	GPIO_13_WLAN_THROTTLE	
GPIO_0_WL_HOST_WAKE	38	WLAN_TO_PMU_HOST_WAKE	OUT
PCI_PME	52	PCIE_PME	
PCIE_CLKREQ	53	PCIE_WLAN_TO_AP_CLKREQ_L	BI
PERST	54	PCIE_AP_TO_WLAN_PERST_L	IN
PCIE_RDP0	50	PCIE_AP_TO_WLAN_TX_P	IN
PCIE_RDN0	49	PCIE_AP_TO_WLAN_TX_N	IN
PCIE_TDP0	47	PCIE_WLAN_TO_AP_TX_P	OUT
PCIE_TDN0	46	PCIE_WLAN_TO_AP_TX_N	OUT
PCIE_REFCLKP	44	PCIE_AP_TO_WLAN_REFCLK_P	IN
PCIE_REFCLKN	43	PCIE_AP_TO_WLAN_REFCLK_N	IN
GPIO_14_WL_UART_RX	11	OWL_TO_WLAN_CONTEXT_A	
GPIO_15_WL_UART_TX	12	OWL_TO_WLAN_CONTEXT_B	
SR_VLX	33	SRVTX	
VIN_LDO	31		

L5201_RF 2.2UH-20%-0.28A-0.250HM 0805
C5200_RF 4.7UF 20% 6.3V X5R-CERM1 402

PART NUMBER	ALTERNATE FOR PART NUMBER	BOM OPTION	REF DES	COMMENTS:
339S00043	339S00033		U5200_RF	ALT WIFI/BT MODULE

WIFI LAT COAX CONNECTOR

R5202_RF 0.6NH-+/-0.1NH-0.73A-0.1OHM 01005
C5215_RF 0.2PF +/-0.1PF 16V NP0-C0G 01005 NO STUFF
C5205_RF 0.2PF +/-0.05PF 16V CERM 01005
F5202_RF DPX205950DT-9163A1SJ 0805
R5205_RF 1.0NH+/-0.1NH-0.580A 01005
C5209_RF 0.2PF +/-0.1PF 16V NP0-C0G 01005 NO STUFF
C5210_RF 0.3PF +/-0.05PF 16V C0G-CERM 01005
JWLAT_RF MM5829-2700 F-ST-SM1

WLAN LAT 2.4GHZ BAW BPF ON CSA 4

LAST UPDATED: 4/14/2014

OWL_TO_WLAN_CONTEXT_A	PP5290_RF	PMU_TO_WLAN_32K_CLK	PP5288_RF
OWL_TO_WLAN_CONTEXT_B	PP5291_RF	WLAN_TO_PMU_HOST_WAKE	PP5285_RF
GPIO_13_WLAN_THROTTLE	PP5292_RF	PCIE_AP_TO_WLAN_REFCLK_P	PP5289_RF
GPIO_2_JTAG_TCK	PP5293_RF	PCIE_AP_TO_WLAN_REFCLK_N	PP5299_RF
PCIE_PME	PP5294_RF	PCIE_AP_TO_WLAN_TX_P	PP5300_RF
GPIO_3_JTAG_TMS	PP5295_RF	PCIE_AP_TO_WLAN_TX_N	PP5301_RF
GPIO_6_JTAG_TRST	PP5296_RF	PMU_TO_WLAN_REG_ON	PP5287_RF
GPIO_4_JTAG_TDI	PP5297_RF	PMU_TO_BT_REG_ON	PP5286_RF
GPIO_5_JTAG_TDO	PP5298_RF		

UART1_AP_TO_BT_TX	PP5200_RF	PCIE_AP_TO_WLAN_DEV_WAKE	PP5302_RF
UART1_BT_TO_AP_TX	PP5201_RF	BT_TO_PMU_HOST_WAKE	PP5303_RF
UART1_AP_TO_BT_RTS_L	PP5202_RF	PCIE_AP_TO_WLAN_PERST_L	PP5305_RF
UART1_BT_TO_AP_RTS_L	PP5203_RF	UART4_AP_TO_WLAN_TX	PP5306_RF
		UART4_WLAN_TO_AP_TX	PP5307_RF

SYNC_MASTER=WIFI	SYNC_DATE=01/30/2014
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STOCKHOLM

ALL NETNAMES NEED TO BE CHECKED

INSTALL R5312 AND REMOVE R5311
WHEN VINYL PRESENT

PP_VCC_MAIN
PP_1V8_LDO6
STOCKHOLM_5V
STOCKHOLM_DC_BOOST_EN
STOCKHOLM_TVDD
STOCKHOLM_AVDD
STOCKHOLM_DVDD
PP_STOCKHOLM_1V8_S2R
PP_STOCKHOLM_ESE
STOCKHOLM_SVDD

U5302_RF
WLCSP
FAN48614BUC50X
VIN
SW
SW
EN
PGND
PGND
AGND
VOUT
VOUT

L5303_RF
1.8UH-0.7A
0603
STOCKHOLM_BOOST_SW

C5321_RF 15UF 20% 6.3V X5R 0402-1
C5322_RF 15UF 20% 6.3V X5R 0402-1
C5323_RF 15UF 20% 6.3V X5R 0402-1
C5320_RF 0.1UF 20% 6.3V X5R-CERM 01005
C5324_RF 1UF 20% 10V X5R 0201
C5330_RF 1UF 20% 10V X5R 0201
C5302_RF 1UF 20% 10V X5R 0201
C5304_RF 1UF 20% 10V X5R 0201
C5303_RF 0.22UF 20% 10V CERM-X5R 0201
C5317_RF 0.1UF 20% 6.3V X5R-CERM 01005

R5310_RF 0.00 0% 1/32W MF 01005
R5314_RF 0.00 0% 1/32W MF 01005 VOLTAGE=1.80V
R5316_RF 0.00 0% 1/32W MF 01005 NOSTUFF
R5315_RF 0.00 0% 1/32W MF 01005

U5301_RF
PN66VEU3-A101D010
UFLGA

C5308_RF 1000PF 2% 25V C0G-NP0 0201
R5303_RF 560 5% 1/20W MF 201
C5309_RF 1000PF 2% 25V C0G-NP0 0201
R5304_RF 560 5% 1/20W MF 201

L5301_RF 160NH-10%-0.48A-0.330HM 0402
L5302_RF 160NH-10%-0.48A-0.330HM 0402
C5310_RF 820PF 2% 25V C0G-NP0 0201
C5311_RF 820PF 2% 25V C0G-NP0 0201

T5301_RF ATB2012D6E-20011 0805
BAL1
UNBAL
BAL0
GND

C5312_RF 220PF 2% 50V C0G 0201
C5313_RF 22PF 5% 50V C0G 0201 NOSTUFF
C5314_RF 22PF 5% 50V C0G 0201 NOSTUFF

STOCKHOLM_ANT_MATCH
STOCKHOLM_ANT
STOCKHOLM_BAL1
STOCKHOLM_BAL0
STOCKHOLM_RXP_CAP
STOCKHOLM_RXN_CAP

C5315_RF 1000PF 2% 25V C0G-NP0 0201
C5316_RF 1000PF 2% 25V C0G-NP0 0201 NOSTUFF
C5318_RF 560PF 2% 25V NP0-C0G 0201
C5319_RF 100PF 2% 50V C0G 0201 NOSTUFF
TP5303_RF TP-P55
TP5304_RF TP-P55
TP5301_RF TP-P55

Q5301_RF
DMP22D4UFA
DFN0806
NOSTUFF

R5301_RF 100K 5% 1/32W MF 01005 NOSTUFF
R5302_RF 100K 5% 1/32W MF 01005
R5305_RF 100K 5% 1/32W MF 01005

STOCKHOLM_TO_PMU_HOST_WAKE	D1	IRQ
	A5	SVDD_REQ
AP_TO_STOCKHOLM_FW_DWLD_REQ	B2	DWL
STOCKHOLM_TO_BBPMU_CLK_REQ	A2	CLK_REQ
50_BBPMU_TO_STOCKHOLM_19P2M_CLK	A3	NFC_CLK_XTAL1
UART3_AP_TO_STOCKHOLM_TXD	C1	RX
UART3_STOCKHOLM_TO_AP_TXD	B1	TX
UART3_AP_TO_STOCKHOLM_RTS_L	D2	CTS
UART3_STOCKHOLM_TO_AP_RTS_L	A1	RTS
PMU_TO_STOCKHOLM_EN	E1	VEN
PP_STOCKHOLM_ESE	E3	SMX_RST*
	E4	SMX_CLK
	F4	ESE_IO1
	B3	SPIM_MOSI
	B4	SPIM_MISO
	E6	SPIM_SCK
	C3	XTAL2
	E2	VSS
	D4	AVSS
	D6	AVSS
	E3	AVSS
	B6	DVSS
	C4	DVSS
	G4	TVSS
	C2	PVSS
	F1	SPIM_IRQ
	A4	SIM_SWIO
	A7	GPIO0
	A6	SPIM_NSS
	D5	TX_PWR_REQ
	G7	ESE_DWPM_DBG
	G6	ESE_DWPS_DBG
	F6	RXP
	F5	RXN
	G3	TX1
	G5	TX2
AP_TO_STOCKHOLM_DEV_WAKE	E5	WKUP_REQ
	F7	VMID
	F2	SE2_PWR_REQ
	G1	SE2_SVDD_IN
4FF_SIM_SWP		
STOCKHOLM_SIM_PRES		
STOCKHOLM_DWPM_DBG		
STOCKHOLM_DWPS_DBG		
STOCKHOLM_RXP		
STOCKHOLM_RXN		
STOCKHOLM_TX1		
STOCKHOLM_TX2		
STOCKHOLM_VMID		
SE2_PWR_REQ		
SE2_SVDD_IN		

STOCKHOLM_SPIM_MOSI		
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