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
3	0001890418	ENGINEERING RELEASED	2013-03-19

X64 EVT SINGLE_BRD

Tue Mar 19 16:23:08 2013

SCH 051-0143
BRD 820-3581

BOM 639-4501

X64 BOM CALLOUTS

PART#	QTY	DESCRIPTION	REFERENCE DESIGNATOR(S)	CRITICAL	BOM OPTION
051-0143	1	SCH, SINGLE_BRD, X64	SCH	Y	?
820-3581	1	PCB, SINGLE_BRD, X64	PCB	Y	?
825-6838	1	LABEL FOR X64 639-4501	EEEE_FF16	Y	EEEE_16G
825-6838	1	LABEL FOR X64 639-4768	EEEE_FHFH	Y	EEEE_DTD

COMPASS BOM OPTIONS

PART#	QTY	DESCRIPTION	REFERENCE DESIGNATOR(S)	CRITICAL	BOM OPTION
639-4024	1	ST GYRO - COMPASS POP	U16	Y	COMPASS_POP

NAND BOM OPTIONS

PART#	QTY	DESCRIPTION	REFERENCE DESIGNATOR(S)	CRITICAL	BOM OPTION
335S0878	1	NAND,19NM,16GX8,MLC,PPN1.5	U4	Y	NAND_16G

BOARD_ID RADIO BOM OPTIONS

PART#	QTY	DESCRIPTION	REFERENCE DESIGNATOR(S)	CRITICAL	BOM OPTION
118S0659	1	255K 1% 01005	R25_RF	Y	N48_CFG_A
118S0626	1	100K 1% 01005	R26_RF	Y	N48_CFG_A
118S0689	1	147K 1% 01005	R25_RF	Y	N48_CFG_B
118S0626	1	100K 1% 01005	R26_RF	Y	N48_CFG_B
118S0626	1	100K 1% 01005	R25_RF	Y	N49_ALL
118S0650	1	499K 1% 01005	R26_RF	Y	N49_ALL
118S0732	1	50K 1% 01005	R25_RF	Y	N49_DTD
118S0621	1	1.00M 1% 01005	R26_RF	Y	N49_DTD

CONFIG ALL/DTD BOM OPTIONS

PART#	QTY	DESCRIPTION	REFERENCE DESIGNATOR(S)	CRITICAL	BOM OPTION
152S1656	1	3.0NH +/-0.1NH 200MA 01005	C249_RF	CRITICAL	N49_ALL
117S0161	1	0.00OHM 01005	C249_RF		N49_DTD
131S0639	1	0.8PF 01005	C252_RF	CRITICAL	N49_ALL
118S0652	1	49.9OHM 1% 01005	C252_RF		N49_DTD
152S1577	1	15NH 3% 140MA 01005	C263_RF	CRITICAL	N49_ALL
118S0652	1	49.9OHM 1% 01005	C263_RF		N49_DTD
152S1336	1	8.2NH +/-3% 0.25A 0.7OHM 0201	C114_RF	CRITICAL	N49_ALL
118S0407	1	49.9OHM 1% 0201	C114_RF		N49_DTD
152S1320	1	7.5NH 0.30A 0201	C115_RF	CRITICAL	N49_ALL
118S0407	1	49.9OHM 1% 0201	C115_RF		N49_DTD
152S1568	1	3.6NH +/-1NH 180MA 01005	C93_RF		NOSTUFF
118S0652	1	49.9OHM 1% 01005	C93_RF		N49_DTD
152S1336	1	8.2NH +/-3% 0.25A 0.7OHM 0201	L41_RF	CRITICAL	N49_ALL
118S0407	1	49.9OHM 1% 0201	L41_RF		N49_DTD
152S1408	1	7.5NH 5NH% 140MA 01005	L56_RF	CRITICAL	N49_ALL
118S0652	1	49.9OHM 1% 01005	L56_RF		N49_DTD
152S1623	1	5.1NH 3% 0.16A 01005	L77_RF	CRITICAL	N49_ALL
118S0652	1	49.9OHM 1% 01005	L77_RF		N49_DTD
152S1567	1	3.3NH +/-0.1NH 180MA 01005	L63_RF	CRITICAL	N49_ALL
118S0652	1	49.9OHM 1% 01005	L63_RF		N49_DTD

CHESTNUT BOM OPTIONS

PART#	QTY	DESCRIPTION	REFERENCE DESIGNATOR(S)	CRITICAL	BOM OPTION
152S1802	1	TI CHESTNUT - 1.5 UH IND	L19	Y	CHESTNUT_TI_CYN
152S1842	1	TI CHESTNUT -1.5 UH IND	L19	Y	CHESTNUT_TI_TY
152S1849	1	TI CHESTNUT -1.5 UH IND	L19	Y	CHESTNUT_TI_MU

L46_RF BOM OPTIONS

PART#	QTY	DESCRIPTION	REFERENCE DESIGNATOR(S)	CRITICAL	BOM OPTION
131S0447	1	7.5PF CAPACITOR VALUE	L46_RF	Y	L46_RF_ALL
117S0161	1	0 OHM RES	L46_RF	Y	L46_RF_DTD

VCM RESISTOR BOM OPTIONS

PART#	QTY	DESCRIPTION	REFERENCE DESIGNATOR(S)	CRITICAL	BOM OPTION
118S0765	1	RES 11.OHM 01005 1%	R56	Y	VCM_RES

ALTERNATES

PART NUMBER	ALTERNATE FOR PART NUMBER	BOM OPTION	REF DES	COMMENTS:
138S0648	138S0652	ALTERNATE	?	4.7UF CERM 0402 6.3V
339S0178	339S0177	ALTERNATE	?	H5P ALTERNATE
107S0146	107S0208	ALTERNATE	?	THERMISTOR,NTC,10K
127S0162	127S0160	ALTERNATE	?	CAP,TANT,1UF,20%,25V
127S0164	127S0160	ALTERNATE	?	CAP,TANT,1UF,20%,25V
138S0703	138S0648	ALTERNATE	?	CAP,CER,X5R,4.7UF,20%
138S0702	138S0657	ALTERNATE	?	CAP,CER,610,4.7UF,20%
138S0697	138S0695	ALTERNATE	?	CAP,CER,X6S,1UF,20%
138S0746	138S0705	ALTERNATE	?	CAP,CER,X6S,1UF,20%
138S0739	138S0706	ALTERNATE	?	CAP,CER,X6S,1UF,20%
155S0773	155S0453	ALTERNATE	?	FERR BD,120OHM,210MA
155S0667	155S0583	ALTERNATE	?	FLTR,COMMON MODE,90OHM
197S0369	197S0392	ALTERNATE	?	XTAL,32.768KHZ
197S0399	197S0392	ALTERNATE	?	XTAL,32.768KHZ
311S0591	311S0273	ALTERNATE	?	IC,74LVCG32 OR GATE
335S0895	335S0874	ALTERNATE	?	U6_RF
311S0591	311S0273	ALTERNATE	?	IC,74LVCG32 OR GATE
335S0895	335S0874	ALTERNATE	?	U6_RF
376S1120	376S0774	ALTERNATE	?	CSD75202W15
118S0764	118S0717	ALTERNATE	?	R54 ALTERNATE
152S1850	152S1721	ALTERNATE	?	L11 ALTERNATE
152S1836	152S1844	ALTERNATE	L4	L4 ALTERNATE
335S0895	335S0874	ALTERNATE	U6_RF	RF WINBOND NOR ALT
339S0204	339S0205	ALTERNATE	U8_RF	RF USI WIFI ALT
339S0209	339S0205	ALTERNATE	U8_RF	RF TDK WIFI ALT
197S0491	197S0470	ALTERNATE	Y1_RF	RF KYOCERA ALT
197S0482	197S0470	ALTERNATE	Y1_RF	RF EPSON ALT
152S1803	152S1805	ALTERNATE	L14	L14 ALTERNATE
376S1060	376S0882	ALTERNATE	?	CSD68803W15
338S1213	338S1116	ALTERNATE	U21	L81 ALT, SSMC FLOW

DRAWING TITLE: SCHEM, MLB

Apple Inc.

DRAWING NUMBER: 051-0143 SIZE: D
REVISION: 3.0.0
BRANCH:
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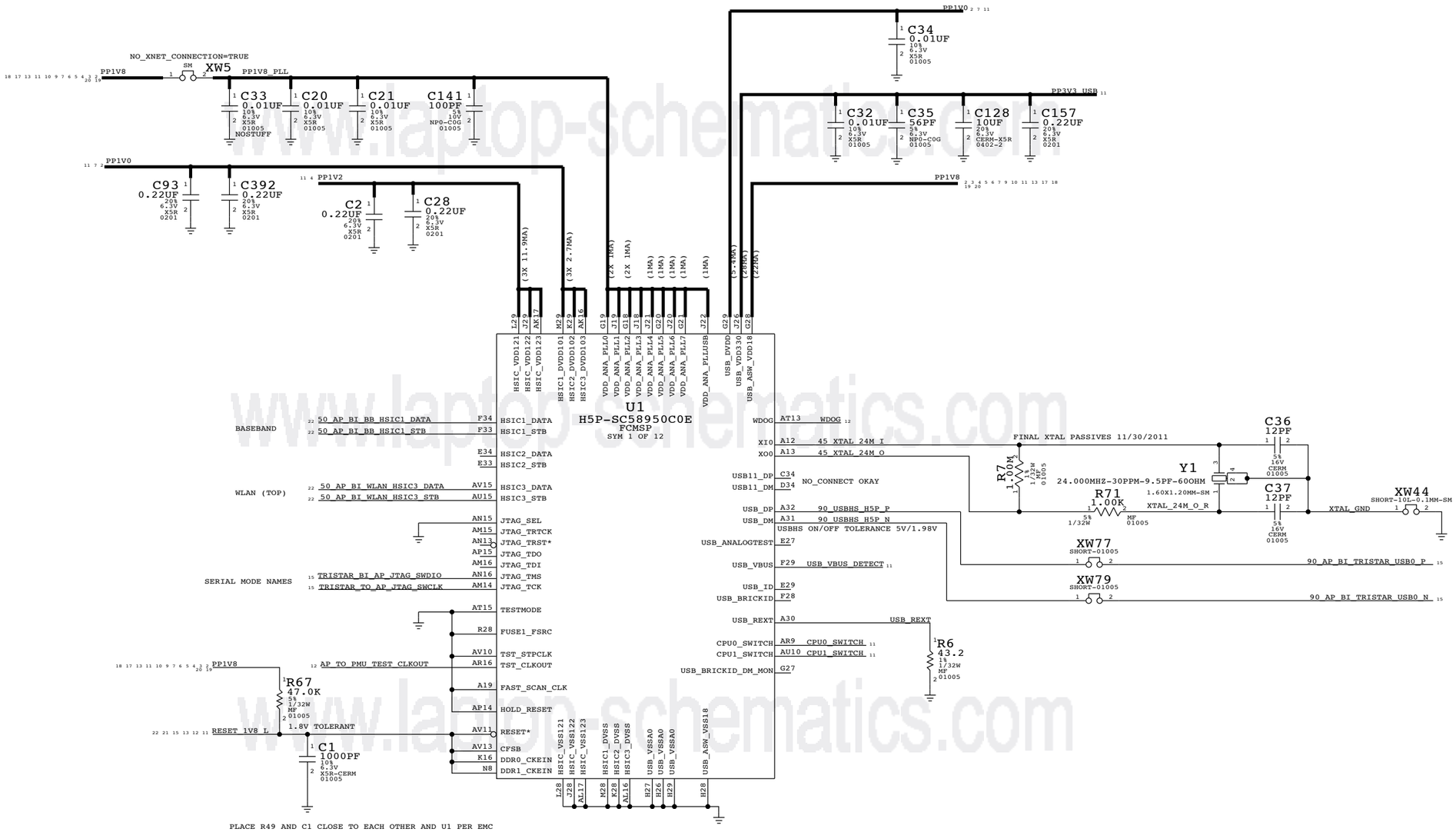


SYNC_MASTER=N/A SYNC_DATE=N/A

PAGE TITLE: H5P JTAG, USB ,PLL

Apple Inc.

DRAWING NUMBER: 051-0143 SIZE: D

REVISION: 3.0.0

BRANCH:

PAGE: 2 OF 22

SHEET: 2 OF 49

BOARD_REV[3:0]={EHCI_PORT3,EHCI_PORT_PWR2,EHCI_PORT_PWR1,EHCI_PORT_PWR0}
FLOAT=LOW, PULLUP=HIGH

1011 - PROTO1 TRISTAR 2
1010 - EVT TRISTAR 2 <---EVT SELECTED

BOARD_ID[3:0]={GPIO16,SPIO0_MISO,SPI0_MOSI,SPI0_SCLK}
FLOAT=LOW, PULLUP=HIGH
1110 X64 MLB <--- SELECTED

BOOT_CONFIG[3:0]={GPIO29_CONFIG3,GPIO28_CONFIG2,GPIO25_CONFIG1,GPIO18_CONFIG0}
FLOAT=LOW, PULLUP=HIGH

0000	SPI0
0001	SPI3
0010	SPI0 W/TEST
0011	SPI3 W/TEST
0100	FMI0 2CS
0101	FMI0 4CS
0110	FMI0 4CS W/TEST
0111	RESERVED
1000	FMI1 2 CS
1001	FMI1 4 CS
1010	FMI1 4CS W/TEST
1100	FMI0/1 2/2 CS <--- SELECTED
1101	FMI0/1 4/4 CS
1110	FMI0/1 4/4 CS W/TEST
1111	RESERVED

COMMON PULL UP FOR BOARD_REV, BOARD_ID AND BOOT_CONFIG PINS

3 BOARD_INFO — R12 1.00K 01005 — PP1V8

R12 MUST WIN OVER 6X INTERNAL PULL-DOWNS THAT ARE ~100K

22 15 13 12 11 9 4 PP1V8_SDRAM

R52 220K 5% 1/32W MF 01005

12 3 BUTTON_TO_AP_MENU_KEY_BUFF_L
12 3 BUTTON_TO_AP_HOLD_KEY_BUFF_L
12 8 BUTTON_TO_AP_VOL_UP_L
12 8 BUTTON_TO_AP_VOL_DOWN_L
12 8 BUTTON_TO_AP_RINGER_A

14 SPKAMP_TO_AP_INT_L
12 PMU_TO_AP_IRQ_L
22 AP_TO_BT_WAKE

(OPEN DRAIN@PMU) NEW --->

L19A KEEP (STAYING) ALIVE --> 14 AP_TO_SPKAMP_BEE_GEES

22 BB_TO_AP_HSIC1_REMOTE_WAKE
BB_JTAG_TCK 22 AP_TO_BB_JTAG_TCK
RESERVED BB_JTAG_TDI 22 AP_TO_BB_JTAG_TDI
BB_JTAG_TMS 22 AP_TO_BB_JTAG_TMS
BB_JTAG_TDO 22 BB_TO_AP_JTAG_TDO

BOARD_ID3 3 BOARD_INFO
22 AP_TO_BB_HSIC1_RDY
BOOT_CONFIG0
12 KEEPACT
22 WLAN_TO_AP_HSIC2_REMOTE_WAKE
17 TOUCH_TO_AP_INT_L
18 AP_TO_LCM_RESET_L
18 17 LCM_TO_AP_HIFA_BSYNC
22 AP_TO_BB_RST_L
BOOT_CONFIG1
21 FORCE_DFU
DFU STATUS
BOOT_CONFIG2 20 PP1V8
19 18 17 15 11 10 9 7 5 4
BOOT_CONFIG3 20 PP1V8
20 19 18 17 11 10 9 7 5 3
9 CODEC_TO_AP_INT_L
DEV_HSIC1_RDY 22 BB_TO_AP_HSIC1_RDY
22 AP_TO_RADIO_ON_L
19 GYRO_TO_AP_INT1
PP5 P2MM-NSM 1 — 13 COMPASS_TO_AP_INT_2
22 AP_TO_BB_WAKE_MODEM
19 ACCEL_TO_AP_INT2

RESERVED FOR NON-TRISTAR DESIGN --->

10 ALS_TO_AP_INT_L
17 AP_TO_TOUCH_GRAPE_RESET_L

16 AP_TO_HEADSET_HS3_CTRL
16 AP_TO_HEADSET_HS4_CTRL

U1 H5P-SC589500E0 FCMSP SYM 2 OF 12

GPIO0	W3		
GPIO1	N2		
GPIO2	M4		
GPIO3	V3		
GPIO4	T4		
GPIO5	W2		
GPIO6	P3		
GPIO7	M3		
GPIO8	U3		
GPIO9	P4		
GPIO10/SDIO_D3	W1		
GPIO11/SDIO_D2	M2		
GPIO12/SDIO_D1	R3		
GPIO13/SDIO_D0	N3		
GPIO14/SDIO_CMD	M1		
GPIO15/SDIO_CLK	AC3		
GPIO16	T3		
GPIO17	V1		
GPIO18	AC2		
GPIO19	V4		
GPIO20	R31		
GPIO21	P34		
GPIO22	P33		
GPIO23	P32		
GPIO24	N32		
GPIO25	L33		
GPIO26	P30		
GPIO27	P31	UART4_CTSN/SPI4_SSIN	AJ4
GPIO28	L34	UART4_RTSN/SPI4_SCLK	AE1
GPIO29	M32	UART4_RXD/SPI4_MISO	AJ2
GPIO30	K32	UART4_TXD/SPI_MOSI	AH4
GPIO31	L32		
GPIO32	C22	UART5_RXD	AK4
GPIO33	D22	UART5_TXD	AJ3
GPIO34	C21		
GPIO35	D21	UART6_CTSN	AH2
GPIO36	C20	UART6_RTSN	AL1
GPIO37 <50MHZ	D20	UART6_RXD	AK3
GPIO38	C19	UART6_TXD	AD1
GPIO39 <50MHZ	D19		
GPIO_3V0	AT11	GPIO_SVSEL18_FMI	AU13
GPIO_3V1	AP12	GPIO_SVSEL25_FMI	AR14
		GPIO_VSEL25_I2C2	AR13
		GPIO_VSEL25_SPI3	AT12

FMI, 00=1.8V | 01=3.0V | 10=3.3V
I2C2, 0=1.8V | 1=3.0V
SPI3, 0=1.8V | 1=3.0V

EHCI_PORT_PWR0 AE4 — BOARD_REV0
EHCI_PORT_PWR1 AD3 — PP1V8 — BOARD_REV1
EHCI_PORT_PWR2 AD4 — BOARD_REV2
EHCI_PORT_PWR3 AE3 — PP1V8 — BOARD_REV3

TMR32_PWM0 AT6 — GYRO_TO_AP_INT2 19
TMR32_PWM1 AP8 — VIB_PWM 8
TMR32_PWM2 AP1 — 45_AP_TO_TOUCH_CLK32K_RESET_L 17

UART0_RXD AR15
UART0_TXD AU12 — AP_TO_LEDDRV_EN 14

UART1_CTSN AA3 — BB_TO_AP_UART1_CTS_L 22
UART1_RTSN AB2 — AP_TO_BB_UART1_RTS_L 22 — BB
UART1_RXD AB3 — BB_TO_AP_UART1_RXD 15 22
UART1_TXD AF5 — AP_TO_BB_UART1_TXD 15 22

UART2_CTSN AG3 — TRISTAR_TO_AP_INT 12 15
UART2_RTSN AA1 — ACCEL_TO_AP_INT1 19
UART2_RXD AE2 — TRISTAR_TO_AP_ACC_UART2_RXD 15
UART2_TXD AF3 — AP_TO_TRISTAR_ACC_UART2_TXD 15

UART3_CTSN AH3 — BT_TO_AP_UART3_CTS_L 22
UART3_RTSN AB1 — AP_TO_BT_UART3_RTS_L 22 — BT
UART3_RXD AF4 — BT_TO_AP_UART3_RXD 22
UART3_TXD AG4 — AP_TO_BT_UART3_TXD 22

AP_TO_BB_JTAG_TRST_L 22
AP_TO_CAM_RF_VDDCORE_EN 20
WLAN_TO_AP_UART4_RXD 22 — WIFI UART
AP_TO_WLAN_UART4_TXD 22

AP_BI_BATTERY_SWI 12 21 — GAS GAUGE
BB_TO_AP_PP_SYNC 22
AP_TO_SPKAMP_RESET_L 14
TRISTAR_TO_AP_DEBUG_UART6_RXD 15
AP_TO_TRISTAR_DEBUG_UART6_TXD 15

DEBUG UART: TOLERANCE 1.98V

U1 H5P-SC58950C0E FCMSP SYM 3 OF 12

I2S0_MCK	AP30	I2C0_SCL	AR7
I2S0_BCLK	AM30	I2C0_SDA	AT4
I2S0_LRCK	AH31		
I2S0_DIN	AH30	I2C1_SCL	AV6
I2S0_DOUT	AJ30	I2C1_SDA	AT3
I2S1_MCK	AK29	I2C2_SCL	AT9
I2S1_BCLK	AL31	I2C2_SDA	AR8
I2S1_LRCK	AN31		
I2S1_DIN	AH29	SWI_DATA	AP5
I2S1_DOUT	AH32	DWI_CLK	AT7
I2S2_MCK	AM29	DWI_DI	AV7
I2S2_BCLK	AM28	DWI_DO	AM8
I2S2_LRCK	AJ31		
I2S2_DIN	AM33		
I2S2_DOUT	AN30		
I2S3_MCK	AM31		
I2S3_BCLK	AK31		
I2S3_LRCK	AL28		
I2S3_DIN	AL30		
I2S3_DOUT	AP31		
I2S4_MCK	AK30		
I2S4_BCLK	AM32		
I2S4_LRCK	AP32		
I2S4_DIN	AK32		
I2S4_DOUT	AR32		
SPDIF	AR31		
SPI0_MISO	AM4		
SPI0_MOSI	AR5		
SPI0_SCLK	AM2		
SPI0_SSIN	AP3		
SPI1_MISO	AN3		
SPI1_MOSI	AL3		
SPI1_SCLK	AK1		
SPI1_SSIN	AR4		
SPI2_MISO	AN4		
SPI2_MOSI	AM3		
SPI2_SCLK	AN6		
SPI2_SSIN	AN1		
SPI3_MISO	AP9		
SPI3_MOSI	AM9		
SPI3_SCLK	AM13		
SPI3_SSIN	AN12		

17 TOUCH_TO_AP_SPI1_MISO
17 AP_TO_TOUCH_SPI1_MOSI
17 AP_TO_TOUCH_SPI1_CLK
17 AP_TO_TOUCH_SPI1_CS_L

22 BB_TO_AP_IPC_GPIO
22 AP_TO_WLAN_HSIC2_RDY
22 WLAN_TO_AP_HSIC2_RDY

9 CODEC_TO_AP_SPI3_MISO
9 AP_TO_CODEC_SPI3_MOSI
9 AP_TO_CODEC_SPI3_CLK
9 AP_TO_CODEC_SPI3_CS_L

CODEC

SPKR AMP
14 45_AP_TO_SPKAMP_I2S2_MCLK — R5 33.2 1% 1/32W MF 01005 — 45_I2S2_MCK_R
14 3 45_AP_TO_SPKAMP_XSP_I2S2_BCLK
14 AP_TO_SPKAMP_XSP_I2S2_LRCLK
14 3 SPKAMP_TO_AP_XSP_I2S2_DIN
14 3 AP_TO_SPKAMP_XSP_I2S2_DOUT

CODEC ASP
9 45_AP_TO_CODEC_I2S_MCLK — R16 33.2 1% 1/32W MF 01005 — 45_I2S0_MCK_R
9 3 45_AP_TO_CODEC_ASP_I2S0_BCLK
9 AP_TO_CODEC_ASP_I2S0_LRCLK
9 3 CODEC_TO_AP_ASP_I2S0_DIN
9 3 AP_TO_CODEC_ASP_I2S0_DOUT

BASEBAND
22 45_BB_TO_AP_I2S1_BCLK
22 BB_TO_AP_I2S1_LRCLK
22 BB_TO_AP_I2S1_DIN
22 AP_TO_BB_I2S1_DOUT

BLUETOOTH
22 3 45_AP_TO_BT_I2S3_BCLK
22 AP_TO_BT_I2S3_LRCLK
22 3 BT_TO_AP_I2S3_DIN
22 3 AP_TO_BT_I2S3_DOUT

CODEC XSP
9 3 45_AP_TO_CODEC_XSP_I2S4_BCLK
9 AP_TO_CODEC_XSP_I2S4_LRCLK
9 3 CODEC_TO_AP_XSP_I2S4_DIN
9 3 AP_TO_CODEC_XSP_I2S4_DOUT

GRAPE

PP1V8
R17 2.2K 5% 1/32W MF 01005
R18 2.2K 5% 1/32W MF 01005
R19 2.2K 5% 1/32W MF 01005
R21 2.2K 5% 1/32W MF 01005
R91 2.2K 5% 1/32W MF 01005
R92 2.2K 5% 1/32W MF 01005

PP13 P2MM-NSM SN
PP15 P2MM-NSM SN

AP_TO_I2C0_SCL 12 13 14 15 19
AP_BI_I2C0_SDA 12 13 14 15 19
I2C0
AP_TO_I2C1_SCL 19
AP_BI_I2C1_SDA 19
I2C1
AP_TO_I2C2_SCL 10
AP_BI_I2C2_SDA 10
I2C2

AGATHA PMU: 1110100X
CS35L20 AMP: 7777777?
AP3GDL20-BC_GYRO: 1101010X
TRISTAR: 0011010X
LM3534: 1100011X
CHESTNUT: 0100111X
AP3DSH ACCEL: 0011101X
AK8963C COMPASS: 0001100X
CT814 ALS: 0101001X

R47 33.2 1% 1/32W MF 01005
45_AP_TO_PMU_DWI_CLK_H5P
45_AP_TO_PMU_DWI_CLK 12 13
AP_TO_PMU_DWI_DI 12
45_AP_TO_PMU_DWI_DO 12 13

I2S PROBE POINTS

9 3 45_AP_TO_CODEC_ASP_I2S0_BCLK — PP194
14 3 45_AP_TO_SPKAMP_XSP_I2S2_BCLK — PP195
22 3 45_AP_TO_BT_I2S3_BCLK — PP196
9 3 45_AP_TO_CODEC_XSP_I2S4_BCLK — PP197
9 3 CODEC_TO_AP_ASP_I2S0_DIN — PP198
9 3 AP_TO_CODEC_ASP_I2S0_DOUT — PP199
14 3 SPKAMP_TO_AP_XSP_I2S2_DIN — PP200
14 3 AP_TO_SPKAMP_XSP_I2S2_DOUT — PP201
22 3 BT_TO_AP_I2S3_DIN — PP202
22 3 AP_TO_BT_I2S3_DOUT — PP203
9 3 CODEC_TO_AP_XSP_I2S4_DIN — PP204
9 3 AP_TO_CODEC_XSP_I2S4_DOUT — PP205

MENU & POWER / HOLD KEY

11 PP1V8_ALWAYS

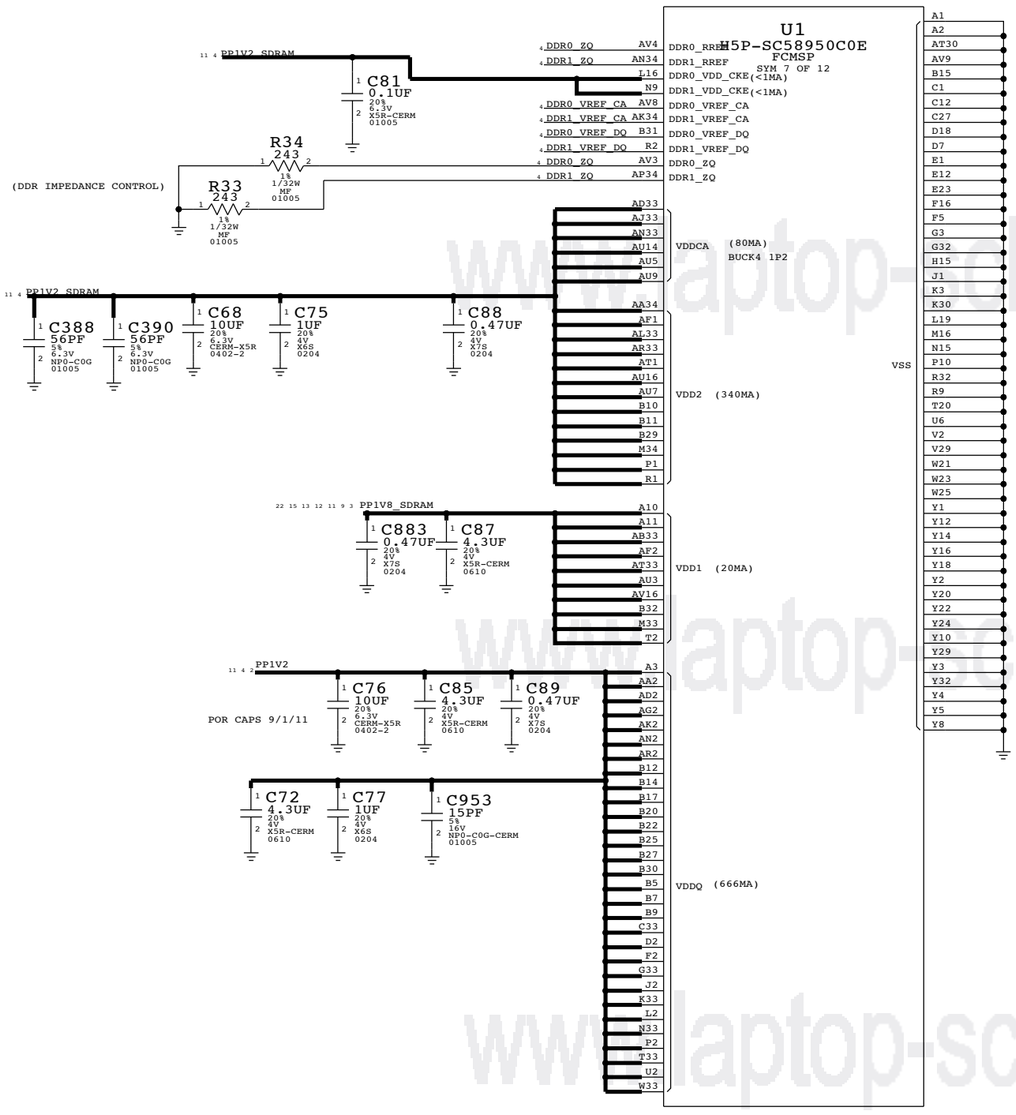
R22 392K 1% 1/32W MF 01005
R20 392K 1% 1/32W MF 01005

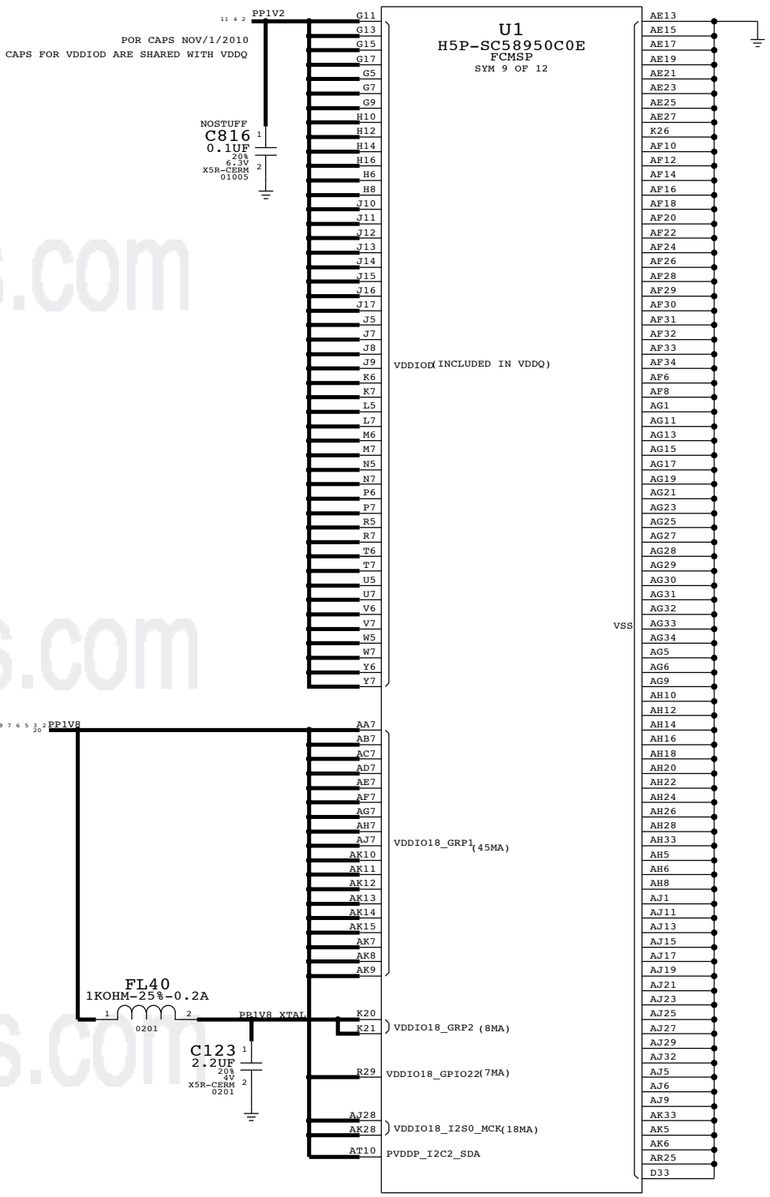
U25 74AUP2G34GN SOT1115 VCC GND
16 BUTTON_TO_AP_MENU_KEY_L — 1A — 1Y — BUTTON_TO_AP_MENU_KEY_BUFF_L 3 12
8 BUTTON_TO_AP_HOLD_KEY_L — 2A — 2Y — BUTTON_TO_AP_HOLD_KEY_BUFF_L 3 12

SYNC MASTER=N/A SYNC DATE=N/A
PAGE TITLE
H5P GPIO & CONTROL

Apple Inc.

DRAWING NUMBER 051-0143 SIZE D
REVISION 3.0.0
BRANCH
PAGE 3 OF 22
SHEET 3 OF 49





SYNC_MASTER=N/A SYNC_DATE=N/A

PAGE TITLE

H5P IO POWER

Apple Inc.

DRAWING NUMBER 051-0143 SIZE D

REVISION 3.0.0

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C83 MOVED TO CPUB FROM 1V2_SDRAM PER SEG SIM RESULTS

C104 MOVED TO CPU0 FROM PP1V8 PER SEG SIMS

POR CAPS 9/1/2011

POR CAPS 5/6/2011

NAND POWER GROUP
POR CAPS 12/14/2011

THERE WERE 10X 0.01UF HERE
BUT THEY WERE NOT NEEDED PER P.CODD 1/6/11

C86 MOVED TO PP1V1_SOC FROM PP1V2, PER SEG SIMS

C181,C177,C174 CHANGED FROM 0.47UF TO 1UF
PER SEG - ZHENGGANG - 09/01/12 PRE-PROTO1

SYNC MASTER=N/A	SYNC DATE=N/A
PAGE TITLE	H5P SOC/CPU/SRAM PWR
Apple Inc.	DRAWING NUMBER 051-0143 SIZE D
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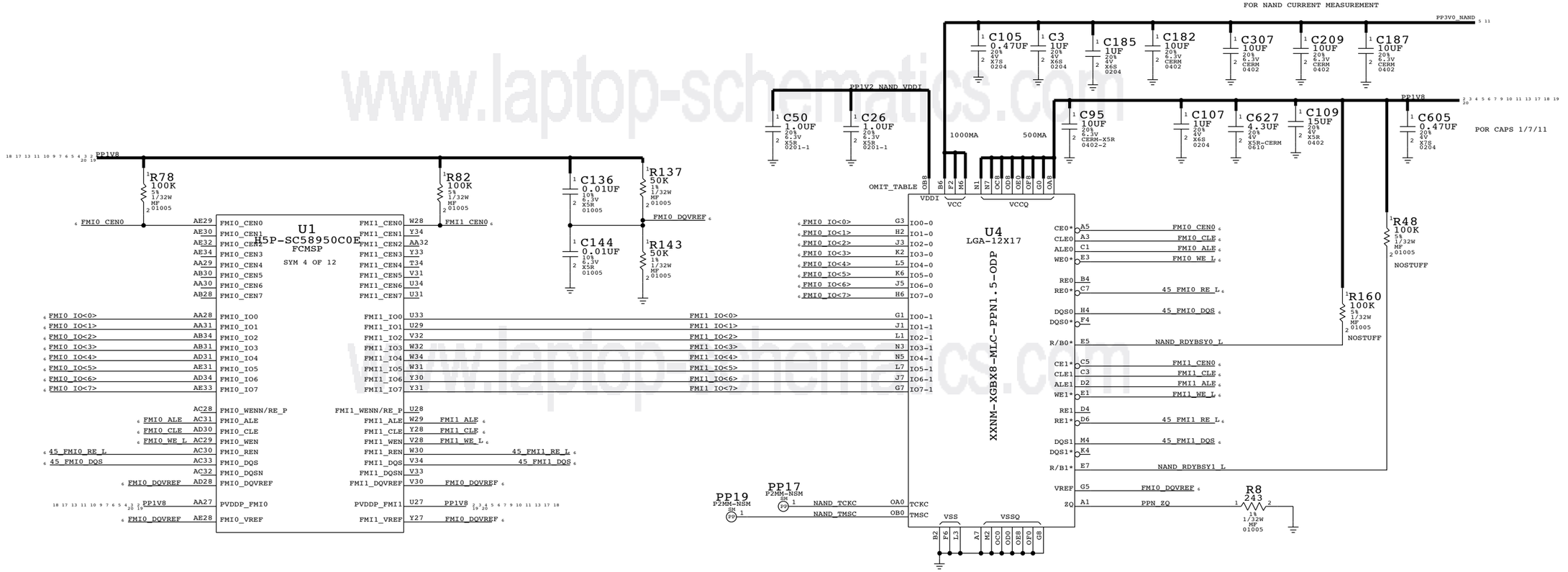
NAND



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

SYNC MASTER=N/A SYNC DATE=N/A

PAGE TITLE: H5P W/ NAND

Apple Inc.

DRAWING NUMBER: 051-0143 SIZE: D

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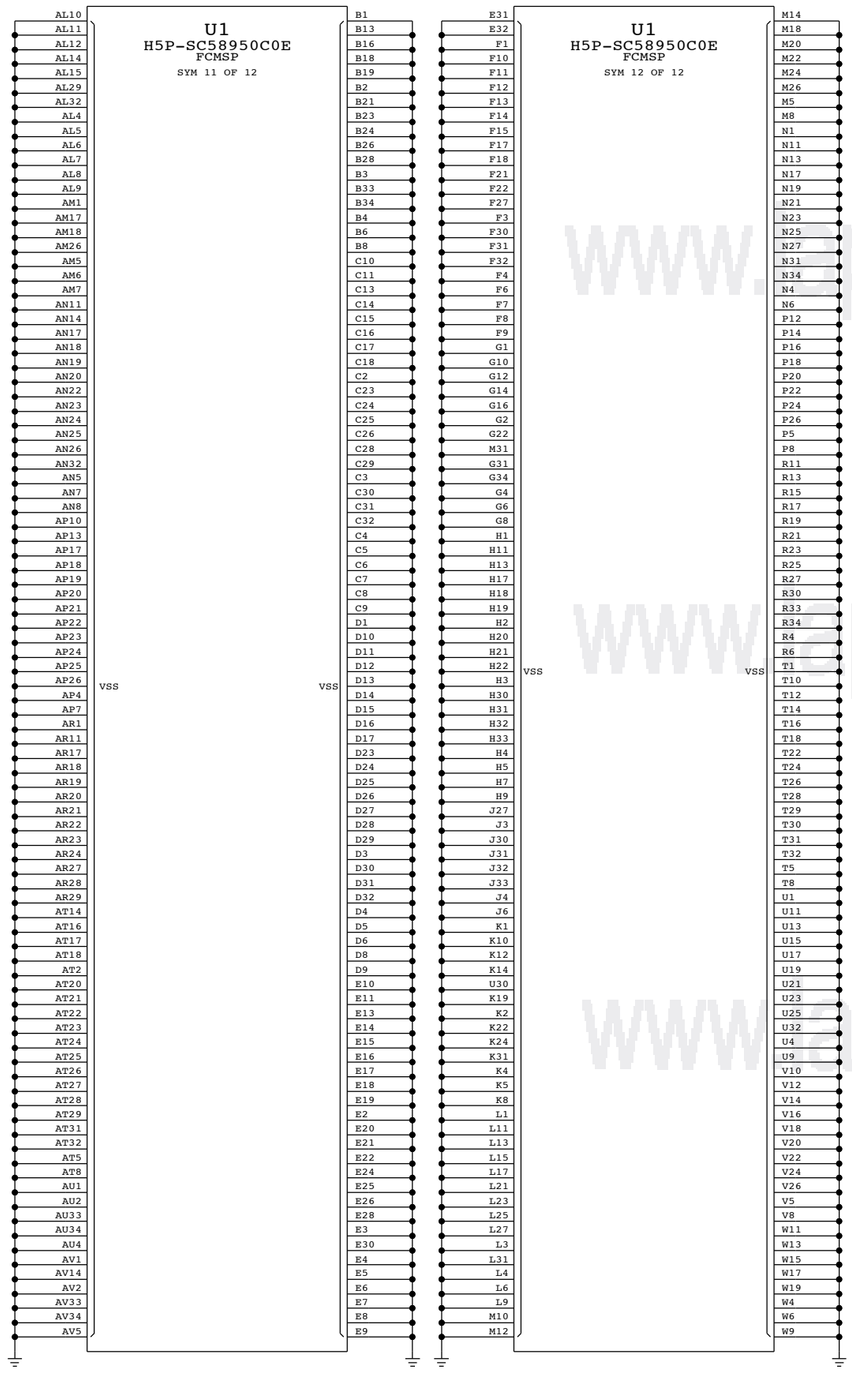
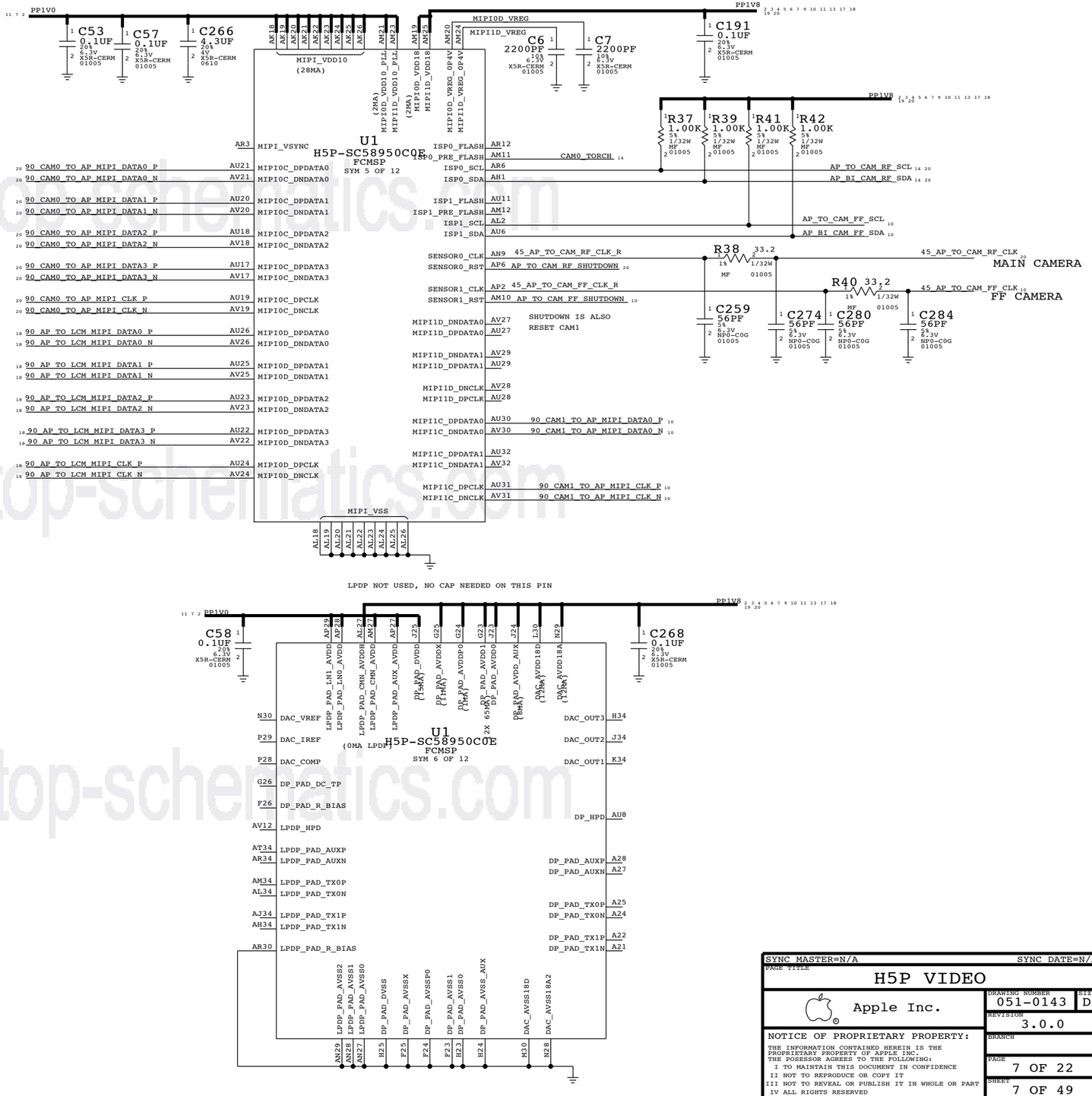
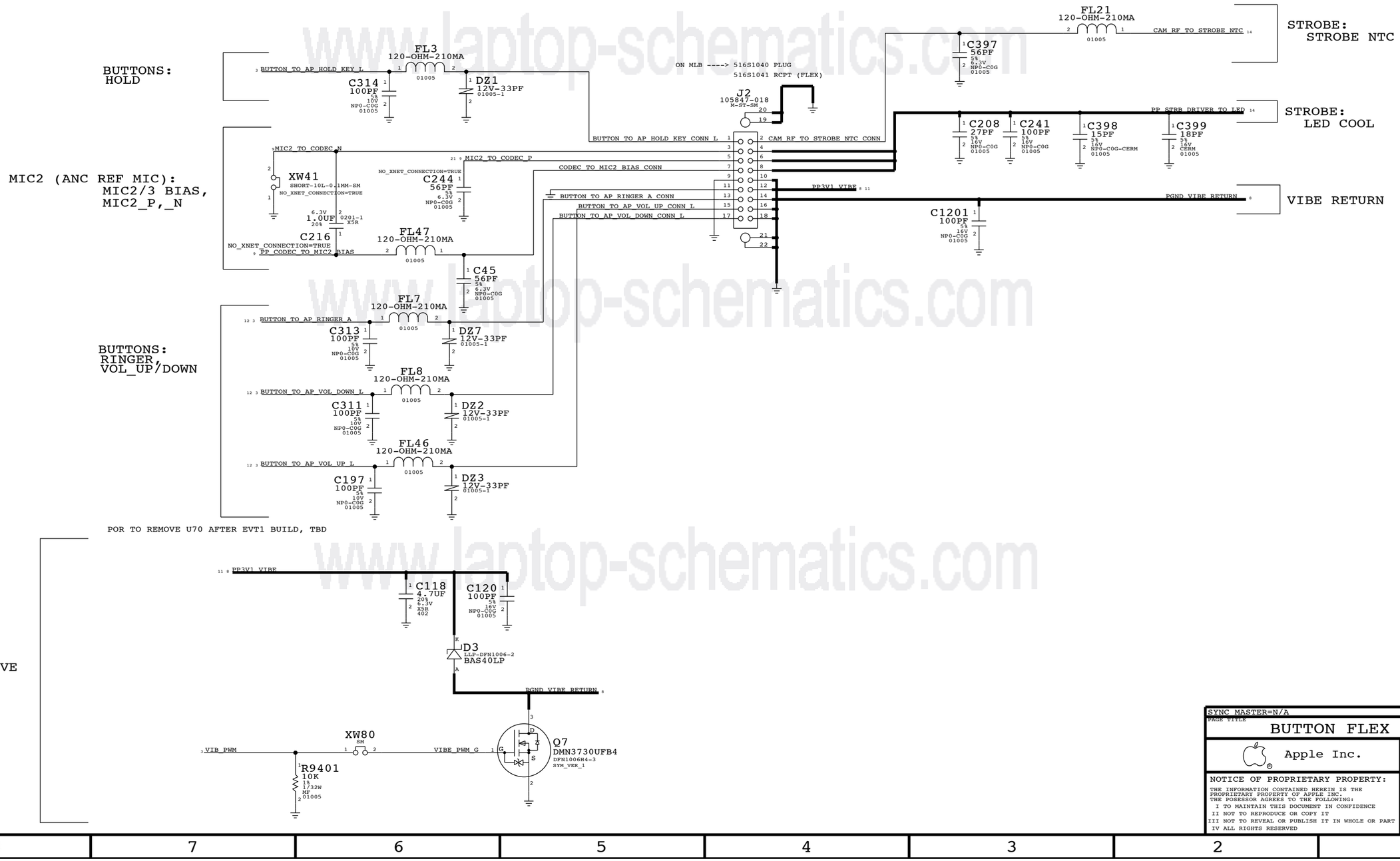




BUTTON FLEX (VIBE DRIVER, BUTTONS, ANC REF MIC, STROBE, STROBE_NTC)



SYNC MASTER=N/A SYNC DATE=N/A

PAGE TITLE: BUTTON FLEX B2B

Apple Inc.

DRAWING NUMBER: 051-0143 SIZE: D

REVISION: 3.0.0

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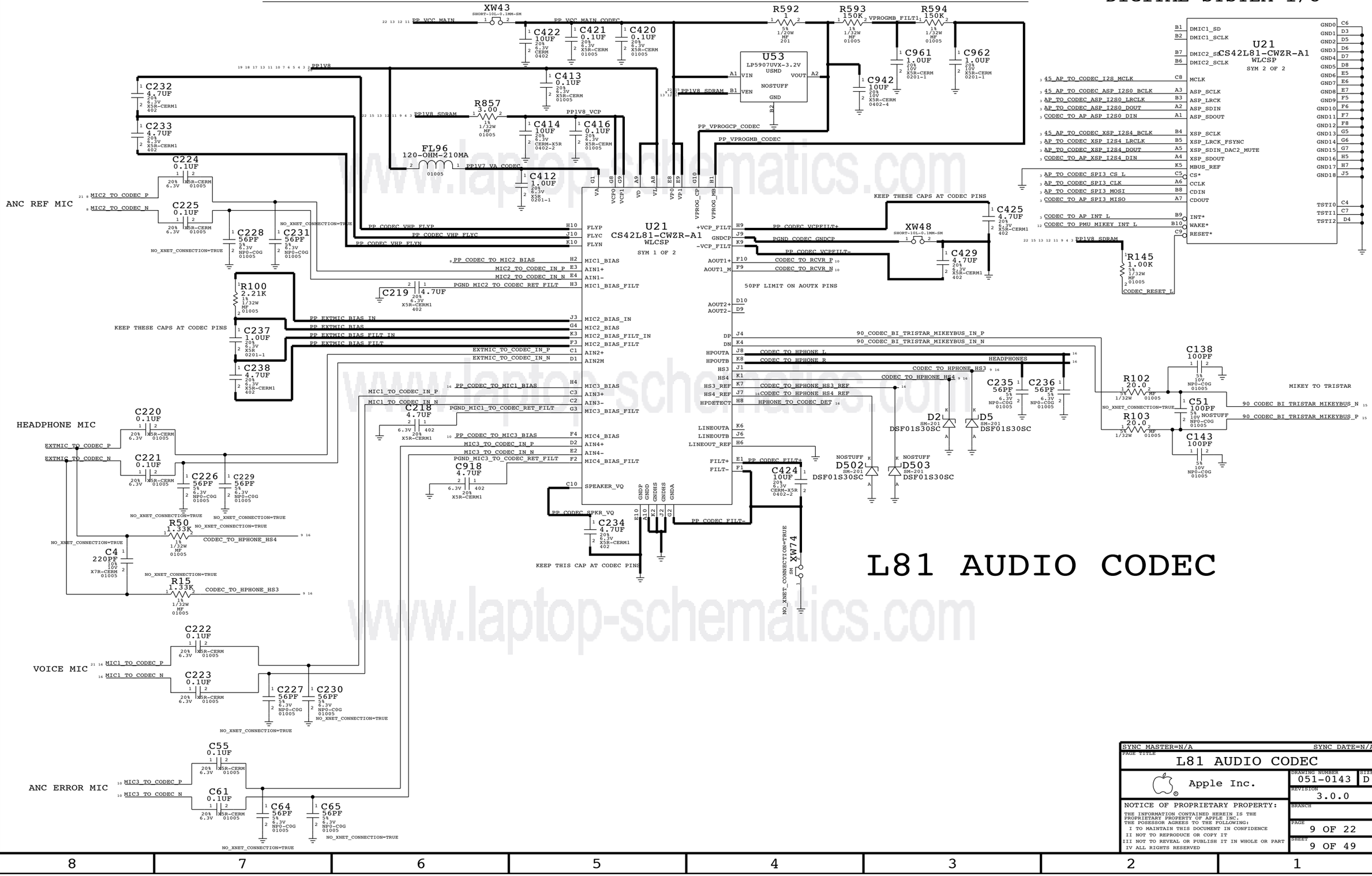
POWER, MICBIAS

DIGITAL SYSTEM I/O



L81 AUDIO CODEC

SYNC MASTER=N/A	SYNC DATE=N/A
PAGE TITLE	L81 AUDIO CODEC
Apple Inc.	DRAWING NUMBER 051-0143 · SIZE D
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CG FLEX B2B

(FF CAM, PROX, ALS, RECEIVER, ANC ERROR MIC)

FRONT CAM: CLK, I2C, SHDN

PROX: POWER, RX, RX_EN

ALS: POWER, I2C, INT

RECEIVER

FRONT CAM: POWER AND MIPI

MIC3 (ANC ERROR MIC)

CAM1 ALS INT

PROX: PWR, TX EN

THIS ON ONE MLB ----> 516S0986 RCPT
516S0987 PLUG

PROX_RX SIGNAL MUST BE TREATED WITH CARE

PCB: PLACE THESE AT J1 CONN

NOTE: J1.30 GROUNDED ON BOTH MLB AND FLEX SIDE - RADAR://12828034

IRLED = 104-128MA

SPECIAL Z = 0.60 MM MAX

SYNC MASTER=N/A	SYNC DATE=N/A
PAGE TITLE	CG FLEX B2B
Apple Inc.	DRAWING NUMBER 051-0143 SIZE D
	REVISION 3.0.0
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FOREHEAD NTC

NTC_FOREHEAD_P → I394 R108 10KOHM-1%-0.31MA 0201 → NTC_FOREHEAD_N → XW6 SHORT-10L-0.1MM-SM

C159 100PF 5% 16V NPO-COG 01005 — NO_XNET_CONNECTION=TRUE

PLACE CLOSE TO PMU

100PF IS NEEDED FOR SAMPLING CAP IN ADC IN PMU

CAMERA NTC

NTC_CAM_P → I390 R110 10KOHM-1%-0.31MA 0201 → NTC_CAM_N → XW8 SHORT-10L-0.1MM-SM

C167 100PF 5% 16V NPO-COG 01005 — NO_XNET_CONNECTION=TRUE

PLACE CLOSE TO PMU

H5P NTC

NTC_H5P_P → I382 R57 10KOHM-1%-0.31MA 0201 → NTC_H5P_N → XW9 SHORT-10L-0.1MM-SM

C168 100PF 5% 16V NPO-COG 01005 — NO_XNET_CONNECTION=TRUE

PLACE CLOSE TO PMU

RADIO PA NTC

NTC_PA_P → I649 R90 10KOHM-1%-0.31MA 0201 → NTC_PA_N → XW11 SHORT-10L-0.1MM-SM

C322 100PF 5% 16V NPO-COG 01005 — NO_XNET_CONNECTION=TRUE

PLACE CLOSE TO PMU

NOTE: PLACE C987 UNDERNEATH C270

NOTE: ROUTE TRACES BETWEEN LDO AND CAP TO ALLOW 0.050 OHM ESR

SYNC_MASTER=N/A	SYNC_DATE=N/A
PAGE TITLE	AGATHA PMU(1/2)
Apple Inc.	DRAWING NUMBER 051-0143 · SIZE D
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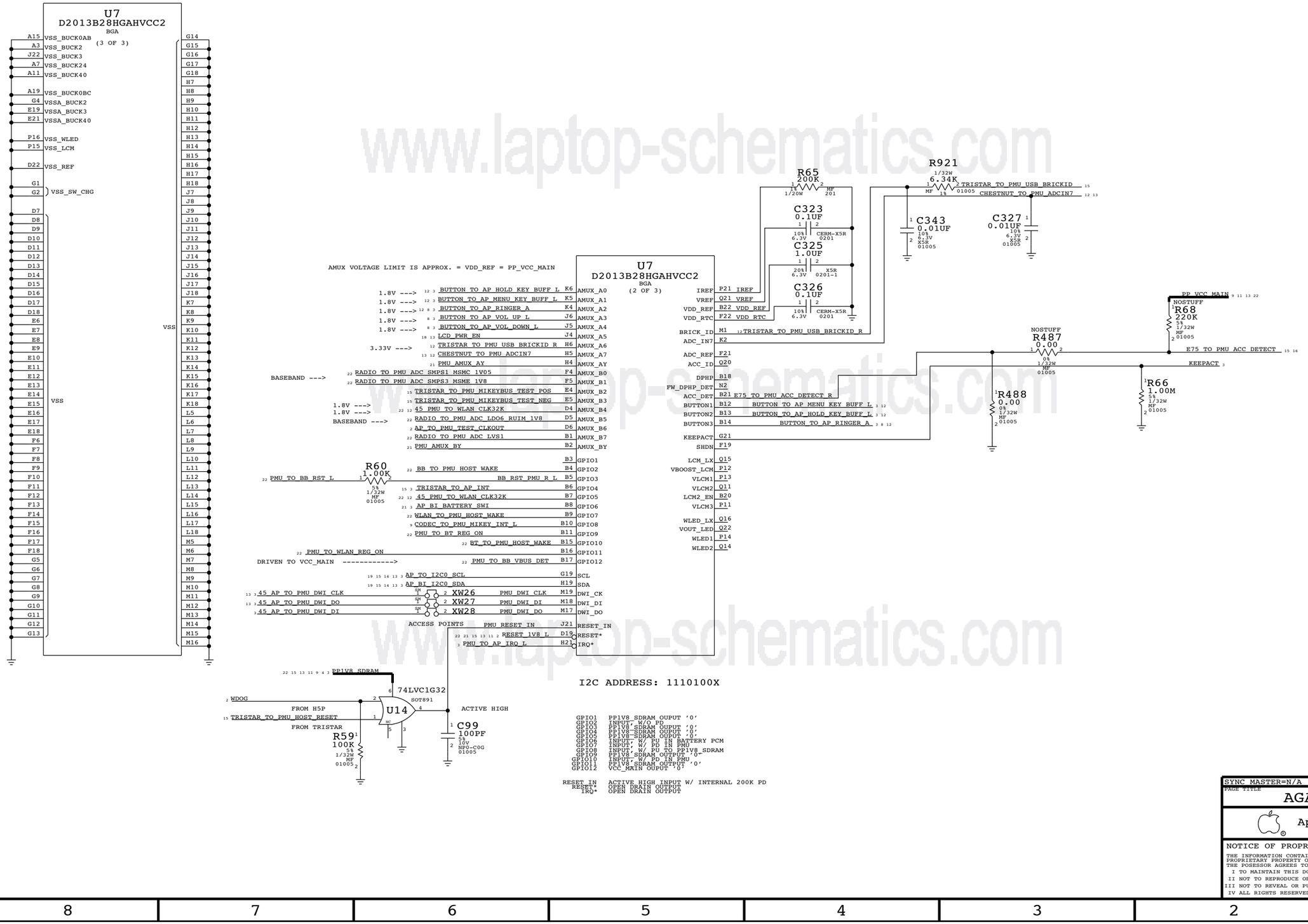

SYNC MASTER=N/A	SYNC DATE=N/A
PAGE TITLE	AGATHA PMU(2/2)
Apple Inc.	DRAWING NUMBER 051-0143 SIZE D
	REVISION 3.0.0
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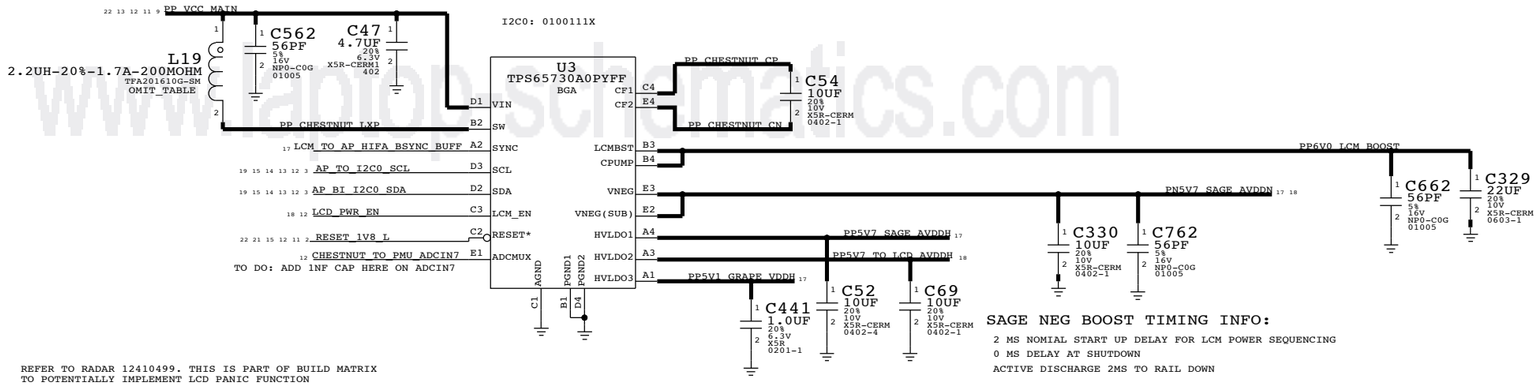
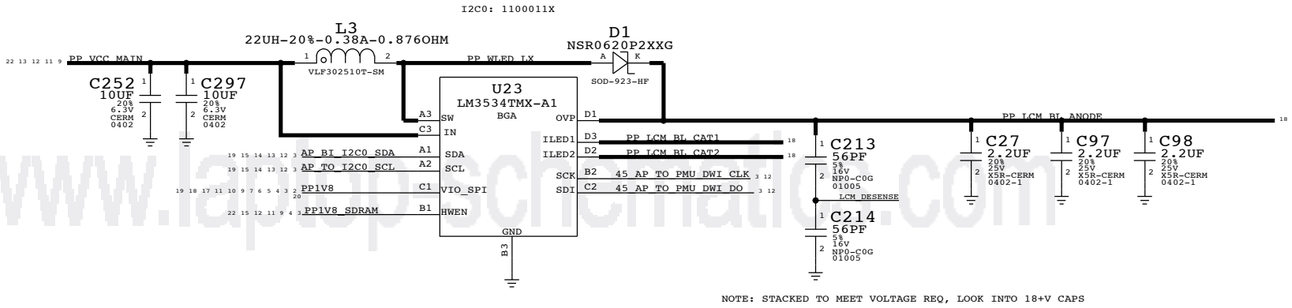
	SHEET 12 OF 49

CHESTNUT, BACKLIGHT DRIVER

D404 DISPLAY PMU (INTERSIL CHESTNUT, 338S1168) (TI CHESTNUT, 338S1172)



D404 BACKLIGHT DRIVER



SYNC_MASTER=N/A SYNC_DATE=N/A

PAGE TITLE
CHESTNUT + BACKLIGHT DRIVER

Apple Inc.

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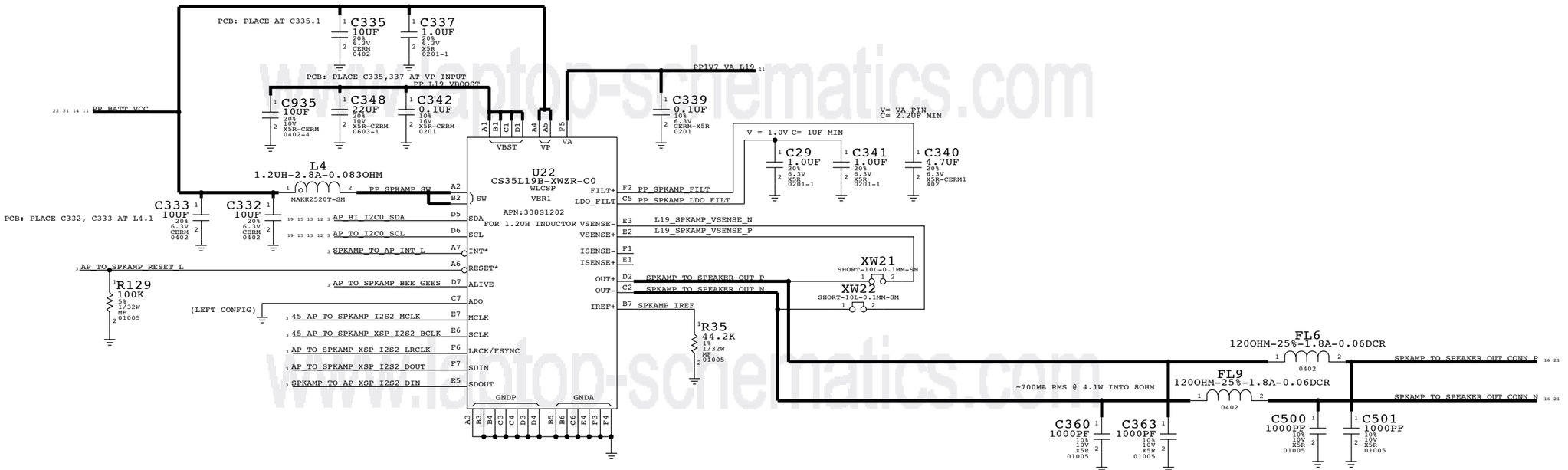
SPEAKER AMP, LED DRIVER

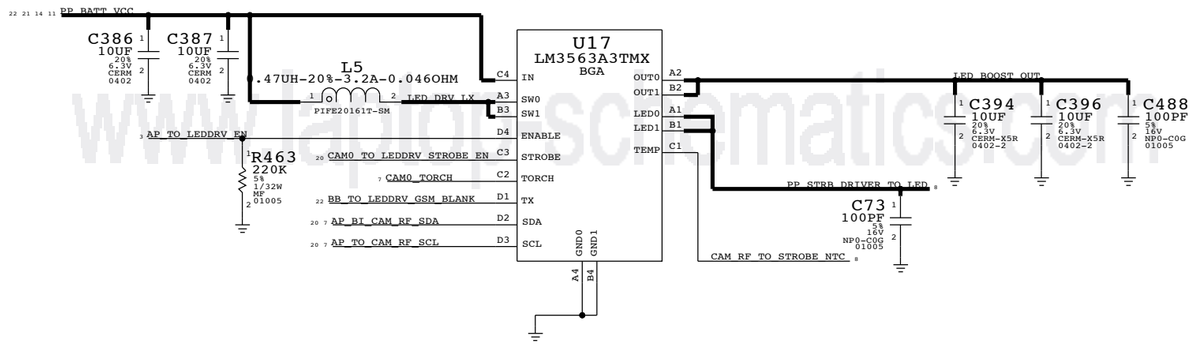
SPEAKER AMP L19

I2C ADDRESS: 1000000X



LED DRIVER

I2C ADDRESS: 1100011X



SYNC MASTER=N/A	SYNC DATE=N/A
PAGE TITLE	SPKR AMP + LED DRIVER
Apple Inc.	DRAWING NUMBER 051-0143 · SIZE D
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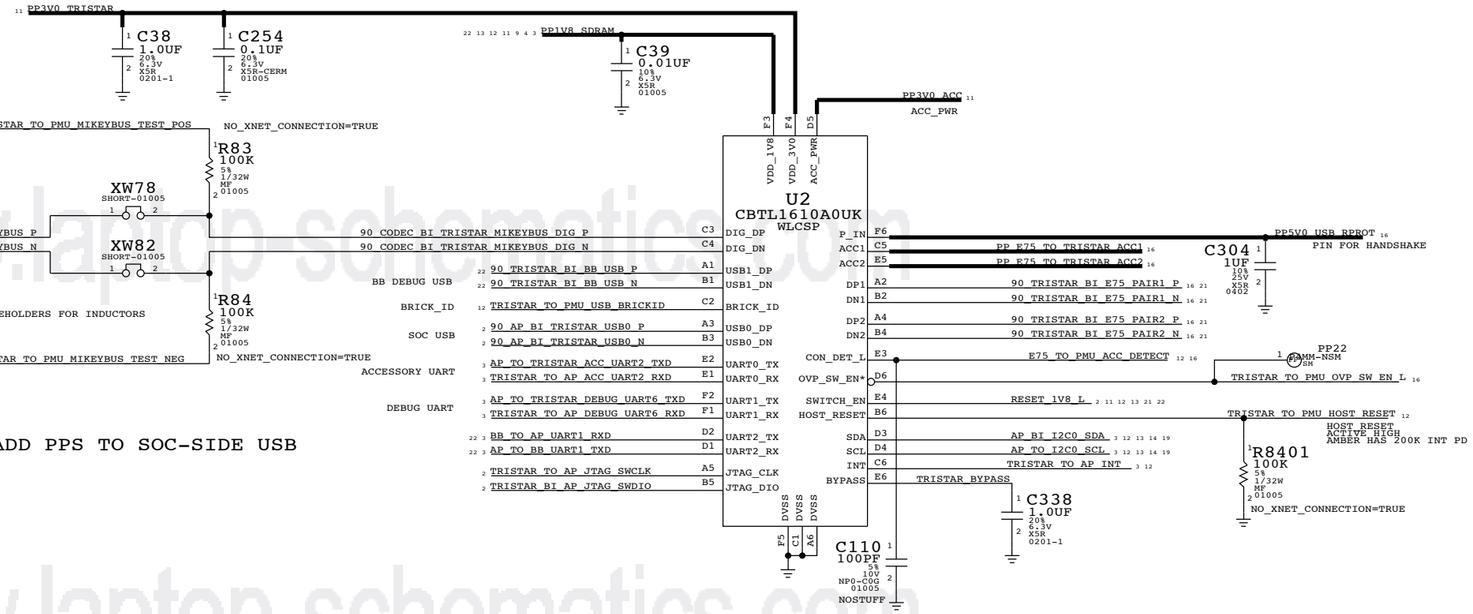
TRISTAR

I2C ADDRESS: 0011010X



TO DO: ADD PPS TO SOC-SIDE USB

SYNC MASTER=N/A SYNC DATE=N/A

PAGE TITLE: TRISTAR

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DRAWING NUMBER: 051-0143 SIZE: D

REVISION: 3.0.0

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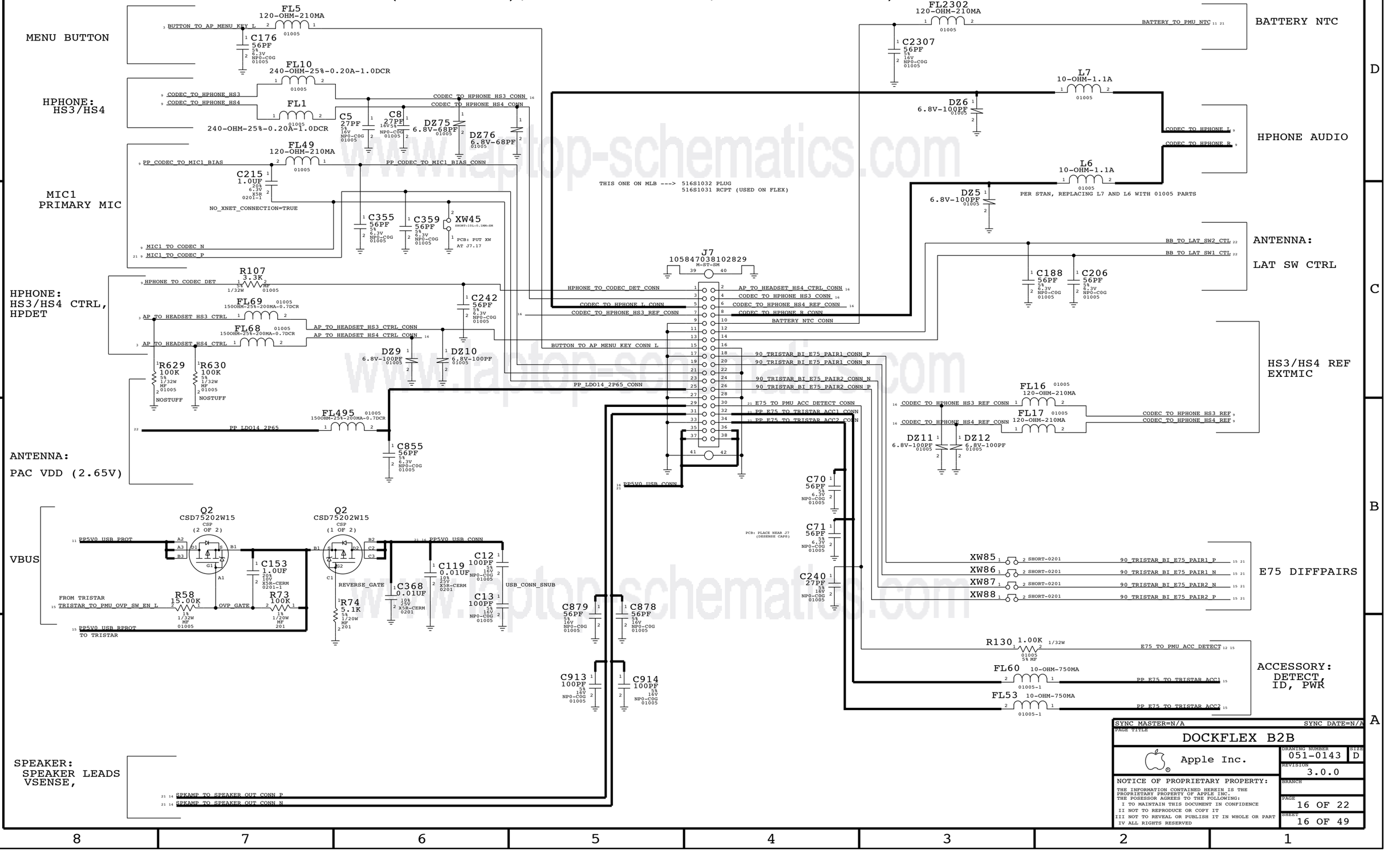
DOCKFLEX B2B (USB VBUS, MENU BTN, SPEAKER, HP, HP EXTMIC, NAVAJO, ANTENNA PAC/LAT SW CTRL, MIC1 (VOICE MIC), ACC DET/ID/PWR, E75 DIFFPAIRS)



SYNC_MASTER=N/A SYNC_DATE=N/A

PAGE TITLE: DOCKFLEX B2B

Apple Inc.

DRAWING NUMBER: 051-0143 SIZE: D

REVISION: 3.0.0

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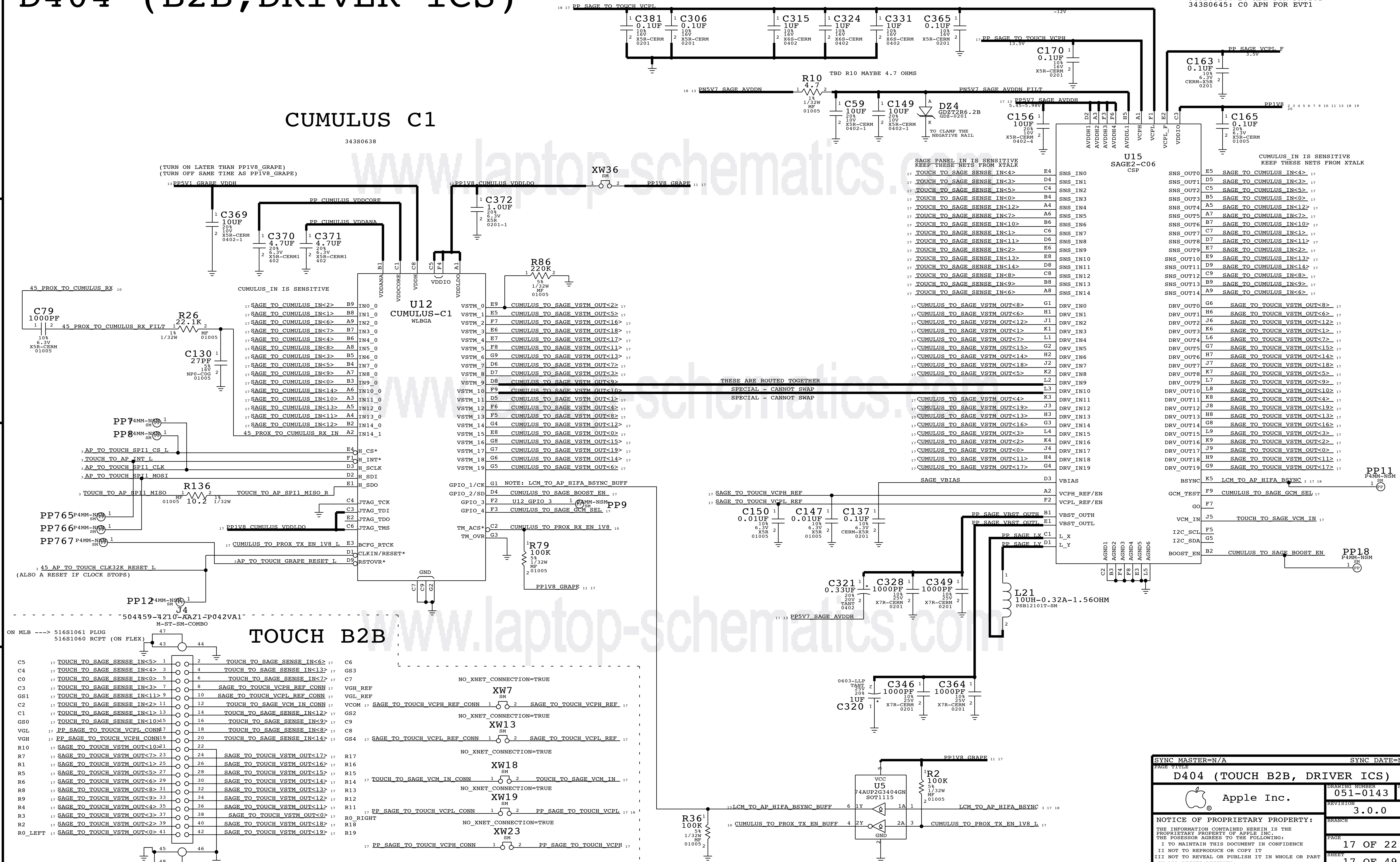
D404 (B2B,DRIVER ICS)



CUMULUS C1
343S0638
U12
CUMULUS-C1
WLBGA
SAGE2 C0
343S0628: B0 APN FOR PROTO1
343S0645: C0 APN FOR EVT1
U15
SAGE2-C06
CSP
TOUCH B2B
J4
504459-4210-AA21-P042VA1
M-ST-SM-COMBO
ON MLB ---> 516S1061 PLUG
516S1060 RCPT (ON FLEX)
(TURN ON LATER THAN PP1V8_GRAPE)
(TURN OFF SAME TIME AS PP1V8_GRAPE)
CUMULUS_IN IS SENSITIVE
SAGE_PANEL_IN IS SENSITIVE
KEEP THESE NETS FROM XTALK
CUMULUS_IN IS SENSITIVE
KEEP THESE NETS FROM XTALK
THESE ARE ROUTED TOGETHER
SPECIAL - CANNOT SWAP
SPECIAL - CANNOT SWAP
TBD R10 MAYBE 4.7 OHMS
TO CLAMP THE NEGATIVE RAIL
(ALSO A RESET IF CLOCK STOPS)
NOTE: LCM_TO_AP_HIFA_BSYNC_BUFF
NO_XNET_CONNECTION=TRUE
XW7
XW13
XW18
XW19
XW23
XW36
U5
74AUP2G3404GN
SOT1115
L21
10UH-0.32A-1.56OHM
PSB12101T-SM
DZ4
GDZT2R6.2B
GDZ-0201
R10
R26
R36
R79
R86
R136
R2
PP7
PP8
PP9
PP11
PP12
PP18
PP765
PP766
PP767

SYNC_MASTER=N/A	SYNC_DATE=N/A
PAGE TITLE	D404 (TOUCH B2B, DRIVER ICS)
DRAWING NUMBER	051-0143
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LCM B2B

LCM CONNECTOR

THIS ONE ON MLB ---> 516S1066 PLUG
516S1065 RCPT (FLEX)

XW83
SHORT-01005

J5
AA22LB-P
M-ST-SM

L2
90-OHM-50MA
TCM0605-1

L9
90-OHM-50MA
TCM0605-1

L8
90-OHM-50MA
TCM0605-1

L10
90-OHM-50MA
TCM0605-1

L1
90-OHM-50MA
TCM0605-1

FL25
120-OHM-210MA
01005

FL18
80-OHM-0.2A-0.4-OHM
0201-2
NO_XNET_CONNECTION=TRUE

FL26
80-OHM-0.2A-0.4-OHM
0201-2

FL27
120-OHM-210MA
01005

FL34
120-OHM-210MA
01005

FL61
120-OHM-210MA
01005

FL35
240-OHM-0.2A-0.8-OHM
0201-2

FL24
240-OHM-0.2A-0.8-OHM
0201-2

FL36
240-OHM-0.2A-0.8-OHM
0201-2

C610 56PF 5% 16V NPO-C0G 01005
C42 56PF 5% 6.3V NPO-C0G 01005
C46 0.1UF 10% 6.3V CERM-X5R 0201
C30 56PF 5% 16V NPO-C0G 01005
C43 4.7UF 20% 6.3V X5R 402
C49 4.7UF 20% 6.3V X5R 402
C40 56PF 5% 6.3V NPO-C0G 01005
C24 56PF 5% 6.3V NPO-C0G 01005
C19 56PF 5% 6.3V NPO-C0G 01005
C41 56PF 5% 6.3V NPO-C0G 01005
C10 56PF 5% 16V NPO-C0G 01005
C15 56PF 5% 16V NPO-C0G 01005
C14 56PF 5% 16V NPO-C0G 01005
C18 56PF 5% 16V NPO-C0G 01005

R971 100K 1% 1/32W MF 01005 BOMOPTION=NOSTUFF
R4 1.00K 5% 1/32W MF 01005 NOSTUFF
R32 100K 5% 1/32W MF 01005
R31 100K 1% 1/32W MF 01005

17 PP_SAGE_TO_TOUCH_VCPL
PP_SAGE_TO_LCM_VCPL_CONN
PN5V7_SAGE_AVDDN 13 17
PP1V8 2 3 4 5 6 7 9 10 11 13 17 18 19 30
PP5V7_TO_LCD_AVDDH 13
LCD_PWR_EN 12 13
LCM_TO_AP_PIFA 3
LCM_TO_AP_HIFA_BSYNC 3 17
AP_TO_LCM_RESET_L 3
PP_LCM_BL_CAT2 13
PP_LCM_BL_CAT1 13
PP_LCM_BL_ANODE 13

9 90_AP_TO_LCM_MIPI_DATA0_P
9 90_AP_TO_LCM_MIPI_DATA0_N
90_LCM_MIPI_DATA0_CONN_P
90_LCM_MIPI_DATA0_CONN_N
9 90_AP_TO_LCM_MIPI_DATA1_P
9 90_AP_TO_LCM_MIPI_DATA1_N
90_LCM_MIPI_DATA1_CONN_P
90_LCM_MIPI_DATA1_CONN_N
9 90_AP_TO_LCM_MIPI_CLK_P
9 90_AP_TO_LCM_MIPI_CLK_N
90_LCM_MIPI_CLK_CONN_P
90_LCM_MIPI_CLK_CONN_N
9 90_AP_TO_LCM_MIPI_DATA2_P
9 90_AP_TO_LCM_MIPI_DATA2_N
90_LCM_MIPI_DATA2_CONN_P
90_LCM_MIPI_DATA2_CONN_N
9 90_AP_TO_LCM_MIPI_DATA3_N
9 90_AP_TO_LCM_MIPI_DATA3_P
90_LCM_MIPI_DATA3_CONN_N
90_LCM_MIPI_DATA3_CONN_P

PN5V7_LCM_AVDDN_CONN
PP5V7_LCD_AVDDH_CONN
PP1V8_LCM_CONN
LCD_PWR_EN_CONN
LCD_RESET_L_CONN
LCD_HIFA_BSYNC_CONN
LCD_PANIC_L_CONN
LCD_PIFA
21 LCD_BL_CA_CONN
21 LCD_BL_CC1_CONN
21 LCD_BL_CC2_CONN

LCD_DESENSE_CONN

SYNC_MASTER=N/A SYNC_DATE=N/A
PAGE TITLE
LCM CONNECTOR

Apple Inc.

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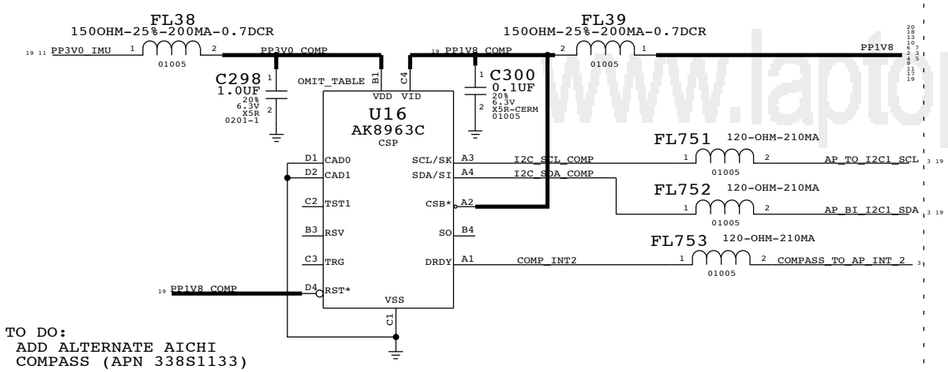
SENSORS

THIS PART OUTSIDE OF SHIELD

COMPASS

COMPASS DEVICE: 338S1014
COMPASS INTERPOSER: 998-5120

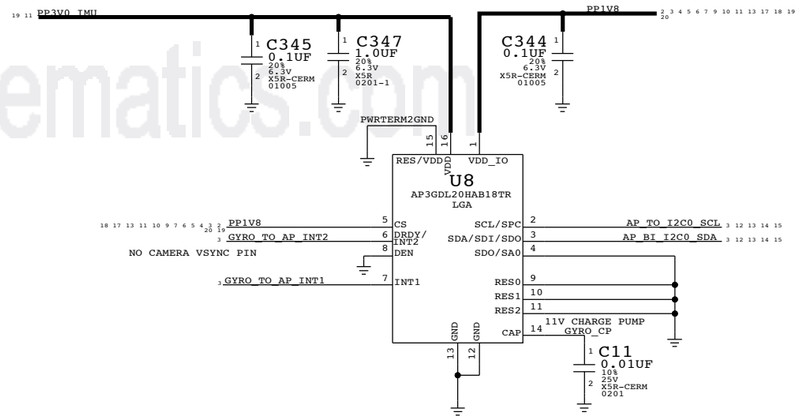


TO DO:
ADD ALTERNATE AICHI
COMPASS (APN 338S1133)

THESE PARTS INSIDE OF SHIELD

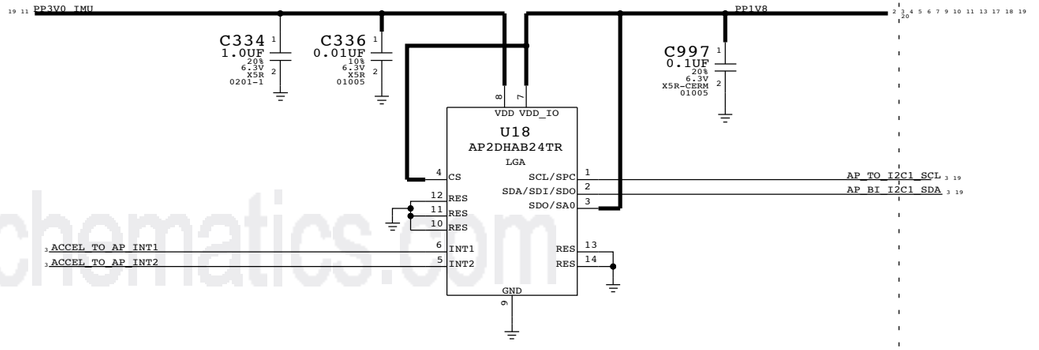
GYRO

AP3GDL20HAB, APN 338S1192



ACCELEROMETER

AP2DHAB, APN 338S1191



TO DO: VERIFY CONNECTIONS ON ACCEL (CS, SDO PINS)

SYNC_MASTER=N/A SYNC_DATE=N/A

PAGE TITLE: OSCAR + SENSORS

Apple Inc.

DRAWING NUMBER: 051-0143 SIZE: D
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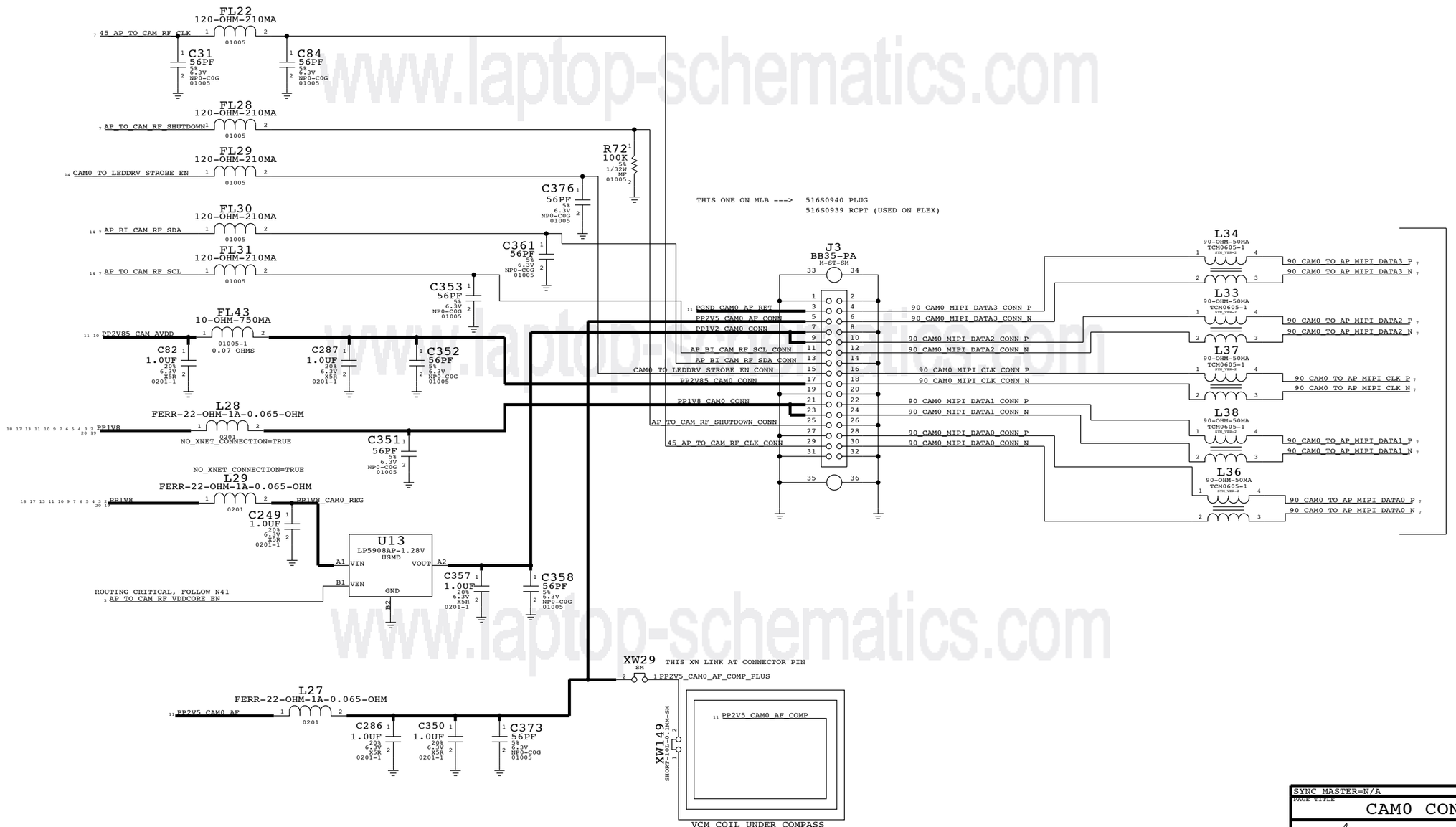
CAM0: MAIN CAMERA CONNECTOR



SYNC MASTER=N/A SYNC DATE=N/A

PAGE TITLE
CAM0 CONNECTOR

Apple Inc.

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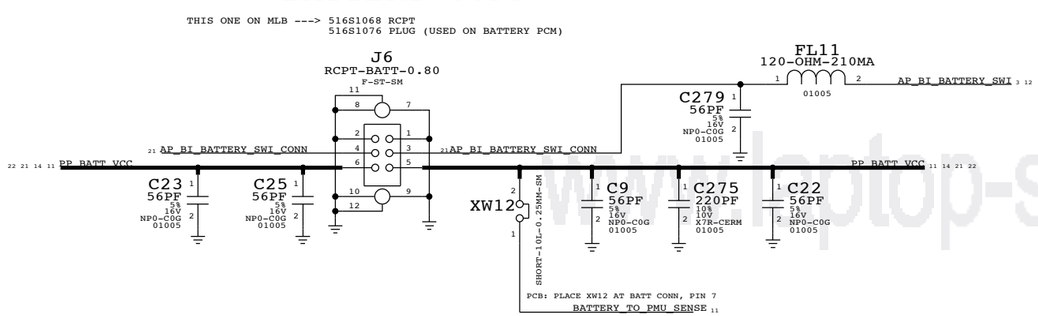
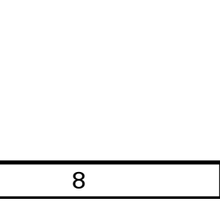
BATT CONN, TPS, STANDOFFS/SHIELDS/FIDUCIALS

BATTERY CONN



FIDUCIALS



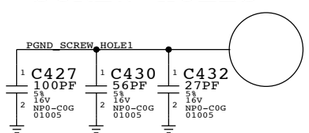
COWLING UPPER LEFT

SHIELDS

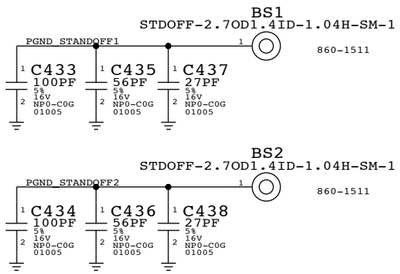
AC COUPLED SCREW HOLES + STANDOFFS

(ON NORTH END OF SINGLE_BRD, TO MITIGATE COMPASS RETURN CURRENTS)

SCREW HOLES



STANDOFFS



TESTPOINTS

POWER TP

PP5V0_USB_CONN	TP1	VBUS
	TP2	POWER GROUND
PP_BATT_VCC	TP3	VBATT
	TP11	VBATT GROUND
	TP34	POWER GROUND
PP_BATT_VCC	TP4	VBATT
PP_BATT_VCC	TP40	VBATT
PP_BATT_VCC	TP50	VBATT
BATTERY_TO_PMU_NTC	TP5	BATTERY NTC

SUPER TP

PMU_AMUX_AY	TP6	ANALOG MUX A OUTPUT
PMU_AMUX_BY	TP7	ANALOG MUX B OUTPUT

RESET

RESET_1V8_L	TP8	H6P & BB RESET

DFU

FORCE_DFU	TP9	FORCE DFU

LCM BACKLIGHT

LCD_BL_CC2_CONN	TP18	LCD BACKLIGHT SINK1
LCD_BL_CC1_CONN	TP19	LCD BACKLIGHT SINK2
LCD_BL_CA_CONN	TP20	LCD BACKLIGHT SOURCE

SPKAMP OUTPUT TP

SPKAMP_TO_SPEAKER_OUT_CONN_P	TP91	
SPKAMP_TO_SPEAKER_OUT_CONN_N	TP92	

E75 - USB/UART/ID/POWER

90_TRISTAR_BI_E75_PAIR1_P	TP21	
90_TRISTAR_BI_E75_PAIR1_N	TP22	
90_TRISTAR_BI_E75_PAIR2_P	TP23	
90_TRISTAR_BI_E75_PAIR2_N	TP24	
PP_E75_TO_TRISTAR_ACC1_CONN	TP26	ACCESSORY ID AND POWER
PP_E75_TO_TRISTAR_ACC2_CONN	TP27	
	TP25	POWER GROUND
	TP32	POWER GROUND
E75_TO_PMU_ACC_DETECT_CONN	TP10	FOR DIAGS

MIC AUDIO

MIC1_TO_CODEC_P	TP15	MIC1 POSITIVE
MIC2_TO_CODEC_P	TP16	MIC2 POSITIVE
MIC3_TO_CODEC_CONN_P	TP17	MIC3 POSITIVE

DRIVE MIC WRT NEAREST GROUND TEST POINT

CODEC_TO_RCVR_TP_P	TP65	RCVR POSITIVE
CODEC_TO_RCVR_TP_N	TP66	RCVR NEGATIVE

SYNC_MASTER=N/A SYNC_DATE=N/A

PAGE TITLE

BATT B2B, TPS, PD FEATURES

Apple Inc.

DRAWING NUMBER 051-0143 SIZE D

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RADIO_MLB HIERARCHICAL SYMBOL

AP/RADIO INTERFACE

SYNC_MASTER=N/A SYNC_DATE=N/A

PAGE TITLE
RADIO_MLB HIERARCH. SYMBOL

Apple Inc.

DRAWING NUMBER 051-0143 SIZE D

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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
3	0001890418	ENGINEERING RELEASED	2013-03-19

X64 RADIO MLB SUBDESIGN EVT1
03/19/2013

PDF PAGE	CSA PAGE	CONTENTS
2	2	AP INTERFACE & DEBUG CONNECTORS
3	3	PMU (1 0F 2)
4	4	PMU (2 OF 2)
5	5	BASEBAND (1 OF 2)
6	6	BASEBAND (2 OF 2)
7	7	RF TRANSCEIVER (1 0F 2)
8	8	RF TRANSCEIVER (2 OF 2)
9	9	RX MATCHING
10	10	TX INTERSTAGE FILTERS
11	11	BAND 1/34/39/38/40 TX
12	12	BAND 2/3 PAD
13	13	BAND 7/20 PAD
14	14	BAND 5/8 PAD
15	15	2G PA
16	16	PA DCDC CONVERTER
17	17	PRIMARY ASM
18	18	RX DIVERSITY
19	19	GPS
20	20	ANTENNA FEEDS
21	21	SWITCH LOGIC
22	22	BLANK
23	23	WIFI/BT

SCH :951-3301
BOM :639-4501
BOARD :820-3581

PART#	QTY	DESCRIPTION	REFERENCE DESIGNATOR(S)	CRITICAL	BOM OPTION
951-3301	1	X64_RADIO_MLB	SCH	Y	
825-2029	1	EEE FOR 939-0308	EEEE_????	Y	NA

DRAWING TITLE: SCHEM, MLB

Apple Inc.

DRAWING NUMBER: 051-0143 SIZE: D
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AP INTERFACE & DEBUG CONNECTORS

AP CONNECTIONS

IN = FROM AP
OUT = TO AP

16 15 14 13 12 11 3 2 PP_BATT_VCC_CONN OUT
23 PP_VCC_MAIN_WLAN OUT
6 TX_GTR_THRESH OUT
4 2 BB_RST_L IN
6 2 RESET_DET_L OUT
4 2 RADIO_ON_L IN
4 2 RESET_PMU_L IN
6 2 HOST_WAKE_BB OUT
2 RF_RESET_L OUT
6 2 PBL_RUN_BB_HSIC1_RDY OUT
23 2 WLAN_HSIC3_RESUME OUT
6 AP_WAKE_MODEM OUT
6 2 AP_HSIC1_RDY IN
5 2 50_HSIC_BB_DATA IO
5 2 50_HSIC_BB_STROBE IO
6 BB_HSIC1_REMOTE_WAKE OUT
6 2 BB_UART_TXD OUT
6 2 BB_UART_RXD IN
6 2 BB_UART_RTS_L OUT
6 2 BB_UART_CTS_L IN
5 2 BB_USB_VBUS IN
5 2 90_BB_USB_D_P IO
5 2 90_BB_USB_D_N IO
6 2 BB_I2S_CLK IN
6 2 BB_I2S_WS IN
6 2 BB_I2S_TXD OUT
6 2 BB_I2S_RXD IN
6 PP_SYNC OUT
23 PP_WL_BT_VDDIO_AP IN
23 2 CLK32K_AP IN
23 2 WLAN_REG_ON IN
23 WLAN_UART_TXD OUT
23 WLAN_UART_RXD IN
23 HOST_WAKE_WLAN OUT
23 2 WLAN_HSIC3_DEVICE_RDY OUT
23 2 AP_HSIC3_RDY IN
23 2 50_HSIC_WLAN_DATA IO
23 2 50_HSIC_WLAN_STROBE IO
23 HOST_WAKE_BT OUT
23 2 BT_WAKE IN
23 2 BT_UART_TXD OUT
23 2 BT_UART_RXD IN
23 BT_UART_RTS_L OUT
23 BT_UART_CTS_L IN
23 2 BT_REG_ON IN
23 BT_PCM_CLK IO
23 BT_PCM_SYNC IO
23 BT_PCM_OUT IO
23 BT_PCM_IN IO
6 2 LAT_SW1_CTL OUT
6 LAT_SW2_CTL OUT

20 6 BB_SPI_TO_PAC_CS OUT
20 6 BB_SPI_TO_PAC_DATA_MOSI OUT
20 6 BB_SPI_TO_PAC_CLK OUT
20 6 PAC_TO_BB_SPI_DATA_MISO IN
20 18 17 11 10 3 PP_LDO14_2V65 OUT
5 2 BB_JTAG_TCK IN
5 2 BB_JTAG_TDI IN
5 2 BB_JTAG_TMS IN
5 2 BB_JTAG_TRST_L IN
5 2 BB_JTAG_TDO OUT
2 ADC_SMPS1_MSMC_1V05 OUT
2 ADC_SMPS3_MSME_1V8 OUT
2 ADC_LDO6_RUIM_1V8 OUT
2 ADC_LVS1 OUT
6 BB_IPC_GPIO OUT
23 6 OSCAR_CONTEXT_A IN
23 6 OSCAR_CONTEXT_B IN

PROBE POINTS

PP1_RF P4MM-NSM — 1 BB_ERROR_FLAG — 6
PP2_RF P4MM-NSM — 1 SLEEP_CLK_32K — 4 5
PP3_RF P4MM-NSM — 1 PMIC_SSBI — 4 5
PP11_RF P4MM-NSM — 1 CLK32K_AP — 2 23
PP14_RF P4MM-NSM — 1 AP_HSIC3_RDY — 2 23
PP15_RF P4MM-NSM — 1 WLAN_HSIC3_DEVICE_RDY — 2 23
PP18_RF P4MM-NSM — 1 WLAN_HSIC3_RESUME — 2 23
PP19_RF P4MM-NSM — 1 WTR_SSBI_TX_GPS — 6 7
PP20_RF P4MM-NSM — 1 WTR_SSBI_PRX_DRX — 6 7
PP21_RF P4MM-NSM — 1 WTR_RX_ON — 6 7
PP22_RF P4MM-NSM — 1 WTR_RF_ON — 6 7
PP40_RF P4MM-NSM — 1 WLAN_COEX_TXD — 23
PP41_RF P4MM-NSM — 1 LTE_COEX_TXD — 6 23
PP42_RF P4MM-NSM — 1 50_HSIC_BB_STROBE — 2 5
PP43_RF P4MM-NSM — 1 50_HSIC_BB_DATA — 2 5
PP44_RF P4MM-NSM — 1 50_HSIC_WLAN_STROBE — 2 23
PP45_RF P4MM-NSM — 1 50_HSIC_WLAN_DATA — 2 23
PP46_RF P4MM-NSM — 1 BT_UART_TXD — 2 23
PP47_RF P4MM-NSM — 1 BT_UART_RXD — 2 23
PP4_RF P4MM-NSM — 1 BB_I2S_CLK — 2 6
PP5_RF P4MM-NSM — 1 BB_I2S_WS — 2 6
PP6_RF P4MM-NSM — 1 BB_I2S_RXD — 2 6
PP7_RF P4MM-NSM — 1 BB_I2S_TXD — 2 6

PP10_RF P4MM-NSM — 1 SPI_DATA_MOSI — 6
PP12_RF P4MM-NSM — 1 SPI_CLK — 6
PP13_RF P4MM-NSM — 1 SPI_CS_L — 6
PP16_RF P4MM-NSM — 1 SPI_DATA_MISO — 6

PROBE POINTS NEAR AP

PP60_RF P4MM-NSM — 1 50_HSIC_BB_STROBE — 2 5
PP61_RF P4MM-NSM — 1 50_HSIC_BB_DATA — 2 5

DEBUG CONNECTOR

J1_RF
AXE654124
M-ST-SM

5 OUT	DEBUG_RST_L	10	9 PP_SMPS3_MSME_1V8 IN 2 3 5 6 8
4 2 OUT	RESET_PMU_L	12	11 BT_WAKE OUT 2 23
4 2 OUT	RADIO_ON_L	14	13
		16	15 PP_LDO6_RUIM_1V8 IN 2 3 5
5 2 OUT	BB_USB_VBUS	18	17 WLAN_REG_ON OUT 2 23
5 2 BI	90_BB_USB_D_N	20	19 NC
5 2 BI	90_BB_USB_D_P	22	21 NC
2 OUT	RF_RESET_L	24	23 PMIC_RESOUT_L IN 4 5
5 2 OUT	BB_JTAG_TCK	26	25 NC
5 2 OUT	BB_JTAG_TMS	28	27
5 2 IN	BB_JTAG_TDO	30	29 AP_HSIC1_RDY IN 2 6
5 2 OUT	BB_JTAG_TDI	32	31 BT_REG_ON IN 2 23
5 2 OUT	BB_JTAG_TRST_L	34	33 HOST_WAKE_BB IN 2 6
5 OUT	BB_JTAG_RTCLK	36	35 NC
		38	37 RESET_DET_L IN 2 6
4 OUT	PS_HOLD_PMIC	40	39 SIMCRD_CLK_CONN IN 2 6
6 2 IN	BB_UART_TXD	42	41 SIMCRD_IO_CONN BI 2 6
6 2 OUT	BB_UART_RXD	44	43 SIM_TRAY_DETECT OUT 2 6
6 2 IN	BB_UART_RTS_L	46	45 BB_RST_L OUT 2 4
6 2 OUT	BB_UART_CTS_L	48	47 SIMCRD_RST_CONN IN 2 6
6 IN	GPIO_DEBUG_LED	50	49 PBL_RUN_BB_HSIC1_RDY IN 2 6
6 OUT	GPIO_51	52 GPIO51/BOOT_CONFIG_3	51 GPIO54/BOOT_CONFIG_0 ANT_SEL_2 OUT 2 17 18
18 17 11 6 OUT	ANT_SEL_1	54 GPIO53/BOOT_CONFIG_1	53 GPIO48/BOOT_CONFIG_6 LAT_SW1_CTL OUT 2 6
		58	57

BOOT OPTIONS	BOOT_CONFIG SW REGISTER VALUE	GPIO/BOOT_CONFIG CONFIGURATION							
		6	5	4	3	2	1	0	
		47	48	49	50	51	52	53	54	55
BOOT_DEFAULT_OPTION	0X00	X	0	0	0	0	0	0	X
BOOT_NAND_OPTION	0X01	X	1	0	0	0	0	1	X
BOOT_HSIC_OPTION	0X02	X	1	0	0	0	1	0	X
BOOT_USB_OPTION	0X03	X	1	0	0	0	1	1	X
ENABLE SAHARA PROTOCOL	0X08	X	1	0	0	1	0	X	X	X

J2_RF
MM4829-2702
F-ST-SM
NOSTUFF — 1 — 50_HSIC_BB_DATA 2 5

J3_RF
MM4829-2702
F-ST-SM
NOSTUFF — 1 — 50_HSIC_BB_STROBE 2 5

SIM CARD CONNECTOR

5 3 2 PP_LDO6_RUIM_1V8
R3_RF 15.00K 1% 1/32W MF 01005
J11_RF SIM-CARD-N48 F-ST-SM
6 2 IN SIMCRD_RST_CONN — 2 RST
6 2 IN SIMCRD_CLK_CONN — 3 CLK
I/O 7 — SIMCRD_IO_CONN BI 2 6
DETECT 12 — SIM_TRAY_DETECT OUT 2 6
SWP 6
GND — 8 9 10 11 13 5
C700_RF 100PF 5% 16V NP0-C0G 01005

SIM CARD ESD PROTECTION

C1_RF 12V-33PF 01005 — PP_LDO6_RUIM_1V8 2 3 5
U5_RF TPD4E101DPWR SON4
6 2 SIMCRD_IO_CONN — 1 — 4 SIM_TRAY_DETECT 2 6
5 GND
6 2 SIMCRD_RST_CONN — 2 — 3 SIMCRD_CLK_CONN 2 6

XW12–XW15_RF

XW12_RF SHORT-10L-0.1MM-SM — 5 3 PP_SMPS1_MSMC_1V05 — ADC_SMPS1_MSMC_1V05 2
XW13_RF SHORT-10L-0.1MM-SM — 8 6 5 3 2 PP_SMPS3_MSME_1V8 — ADC_SMPS3_MSME_1V8 2
XW14_RF SHORT-10L-0.1MM-SM — 5 3 2 PP_LDO6_RUIM_1V8 — ADC_LDO6_RUIM_1V8 2
XW15_RF SHORT-10L-0.1MM-SM — 5 3 PP_LVS1 — ADC_LVS1 2

PAGE TITLE: AP INTERFACE & DEBUG CONNECTORS
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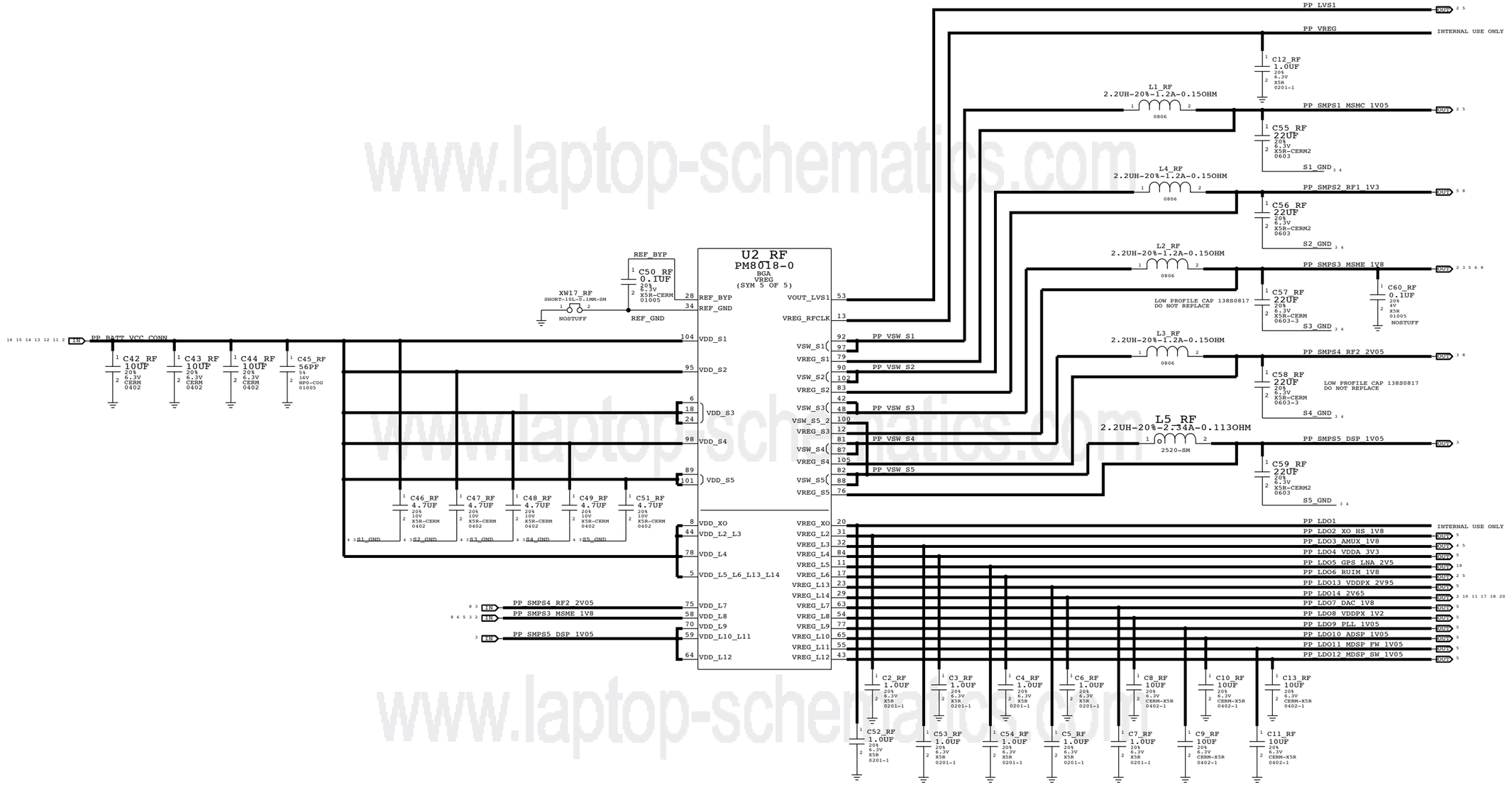
PMU (1 OF 2)



PAGE TITLE: PMU (1 0F 2)

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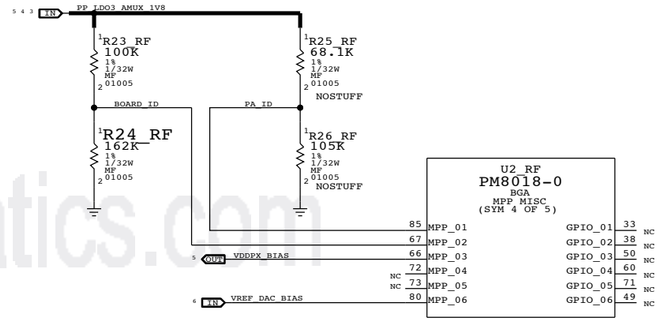
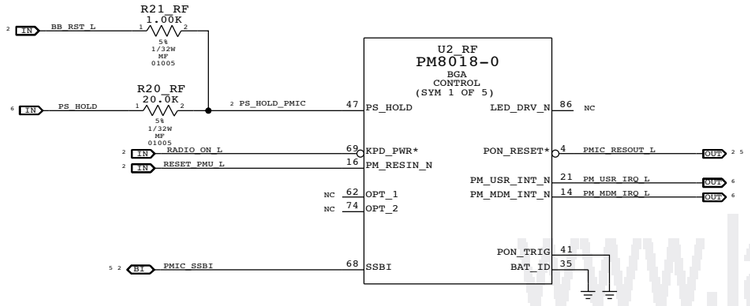
PMU (2 OF 2)

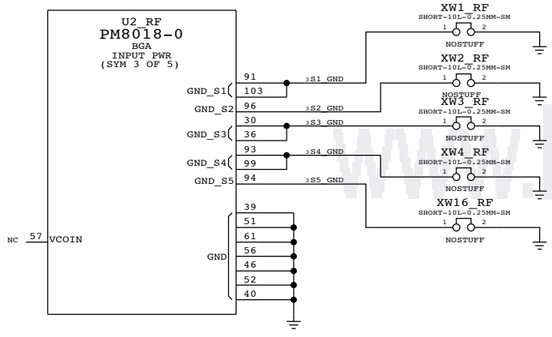
PA_ID	CONFIG
1.1V	MAV7 APAC
1.3V	MAV7 EU
1.5V	MAV7.3 APAC
1.7V	MAV7.3 EU

BOARD_ID	REVISION
0.1V	UNUSED
0.3V	UNUSED
0.5V	UNUSED
0.7V	PROTO1
0.9V	PROTO2
1.1V	EVT1
1.3V	E1C
1.5V	EVT2
1.7V	DVT/PVT

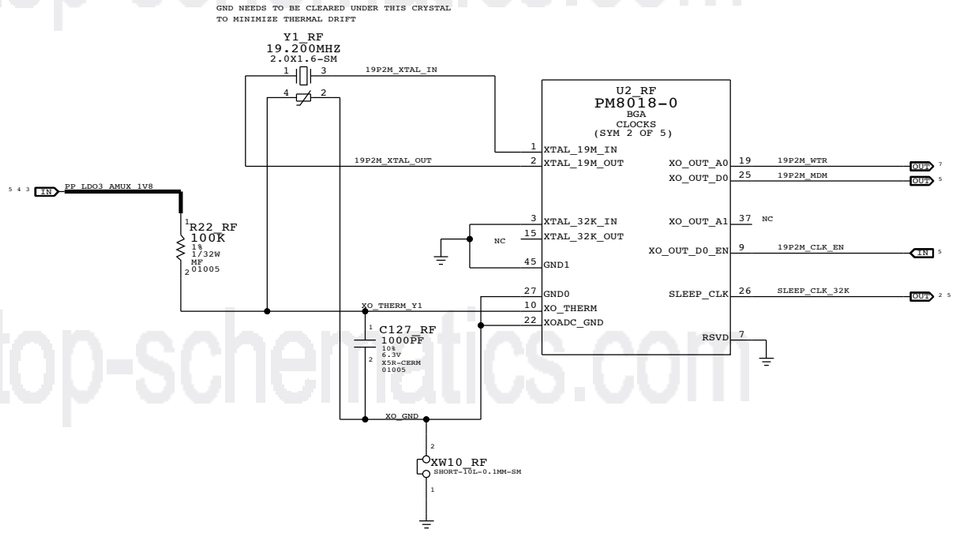


AP SECTION NEEDS ITS OWN THERMISTOR PLACED NEAR THE PA'S.





GND NEEDS TO BE CLEARED UNDER THIS CRYSTAL
TO MINIMIZE THERMAL DRIFT



PAGE TITLE: PMU (2 OF 2)

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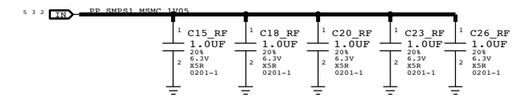
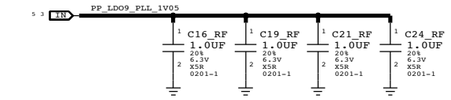
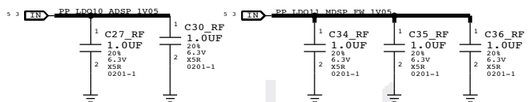
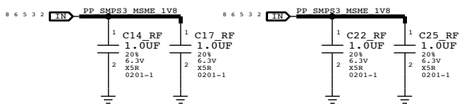
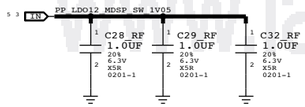
BASEBAND (1 OF 2)

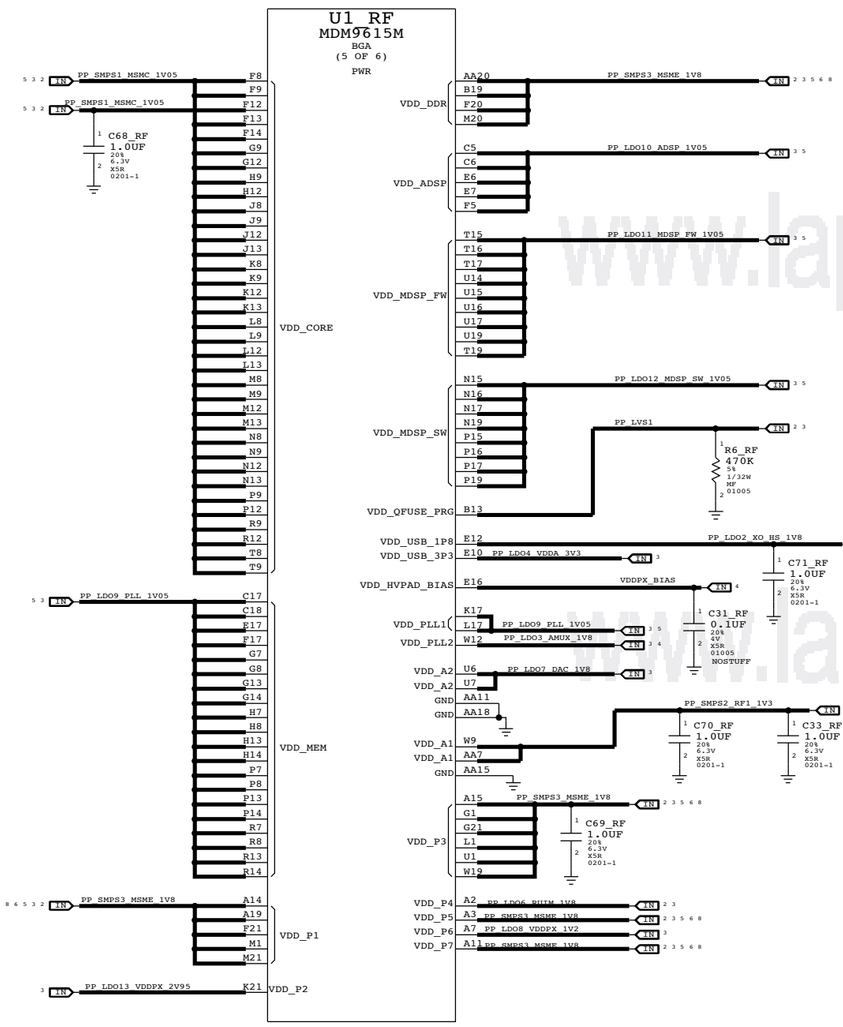


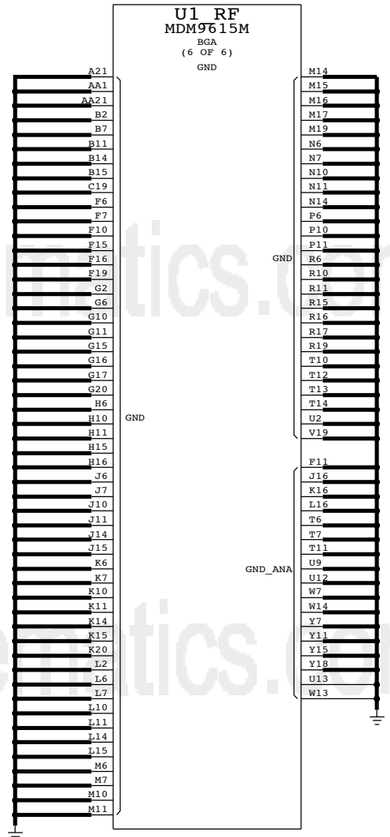


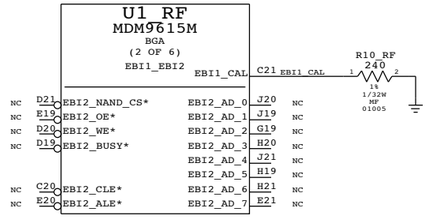


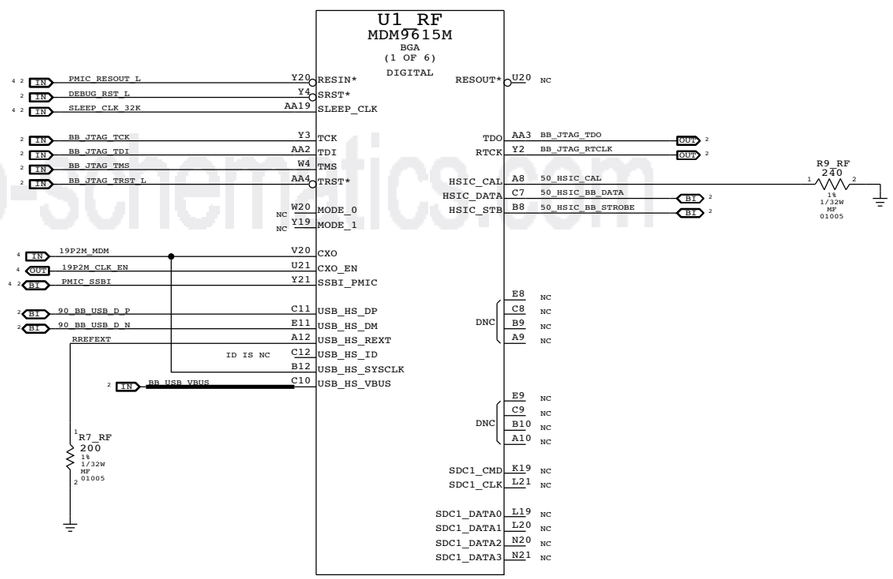












PAGE TITLE: BASEBAND (1 OF 2)

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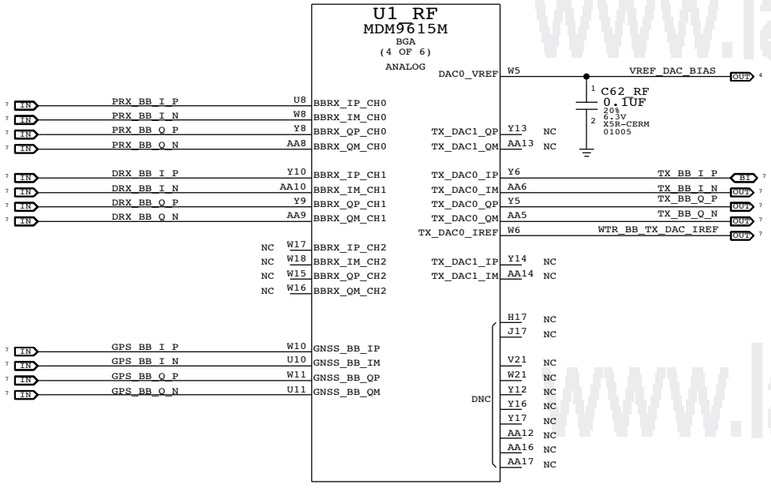
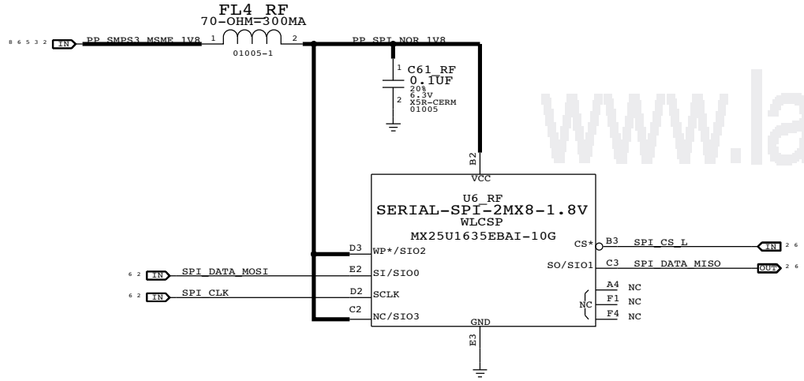
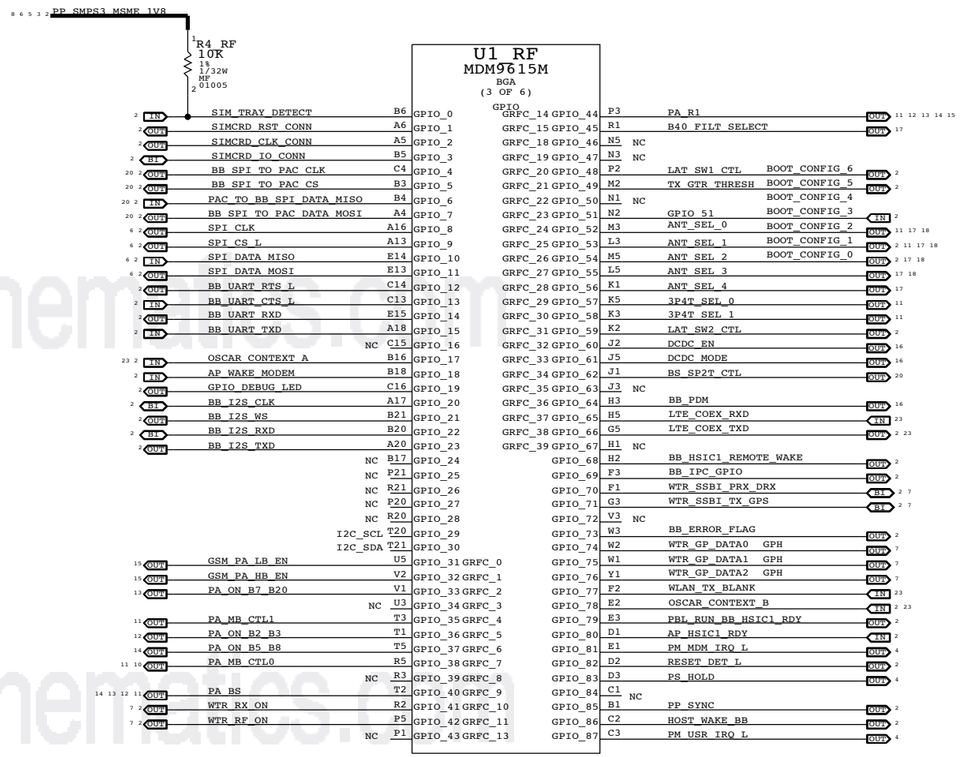
BASEBAND (2 OF 2)







PAGE TITLE: BASEBAND (2 OF 2)

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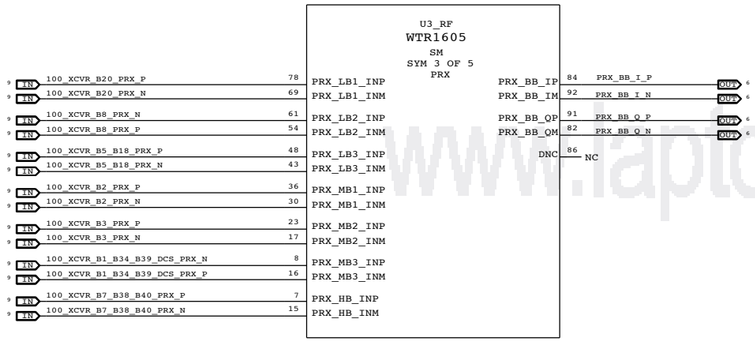
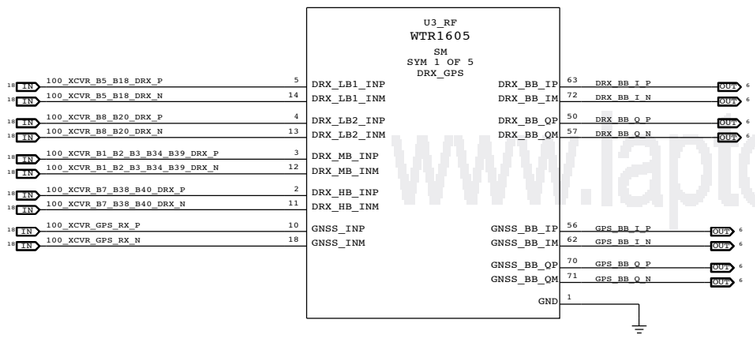
RF TRANSCEIVER (1 OF 2)

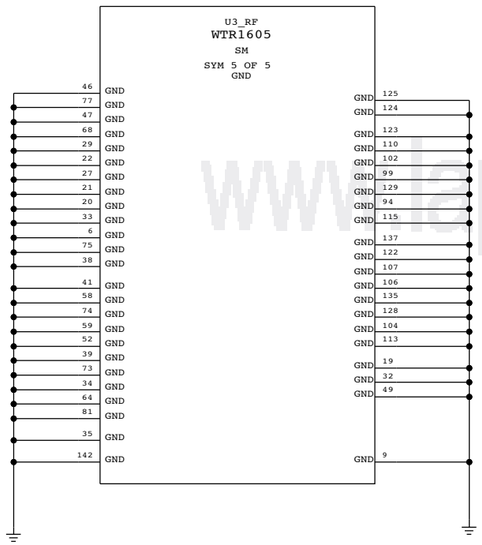
PRX TRANSCEIVER RF AND IQ PORTS



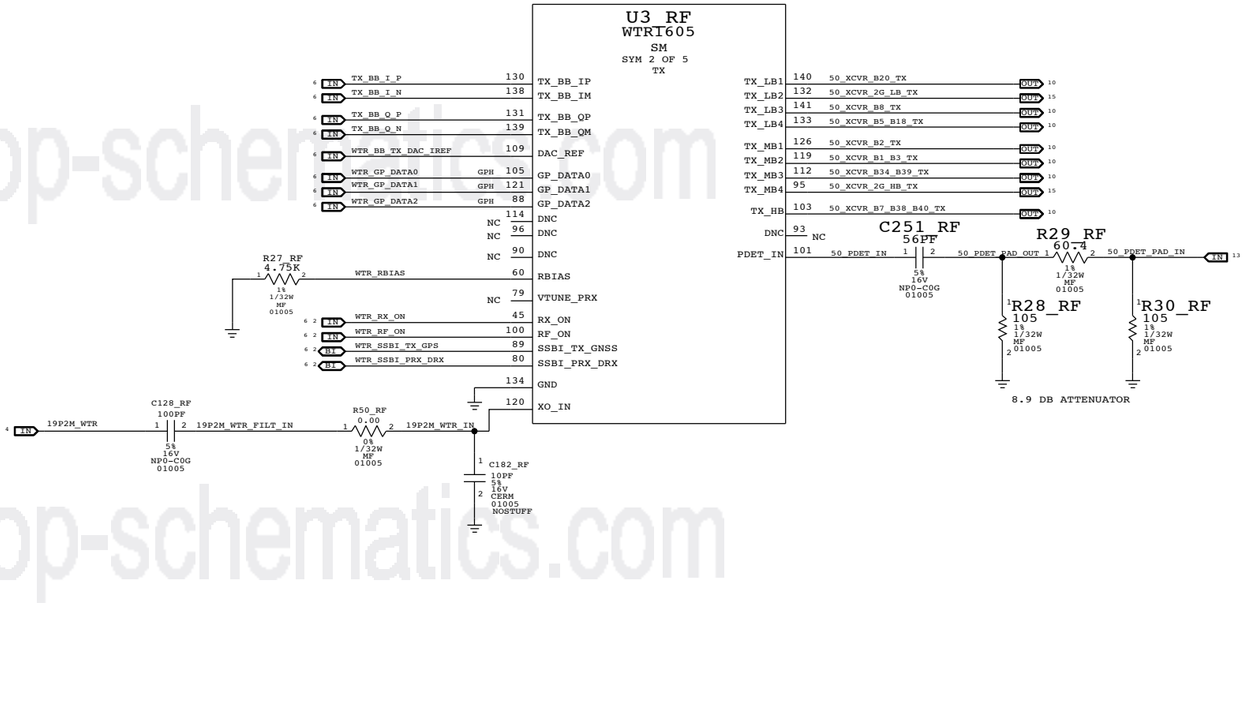
DRX TRANSCEIVER RF AND IQ PORTS



TRANSCEIVER GROUND CONNECTIONS



TRANSCEIVER PHASE CONTROL, TX RF & IQ PORTS



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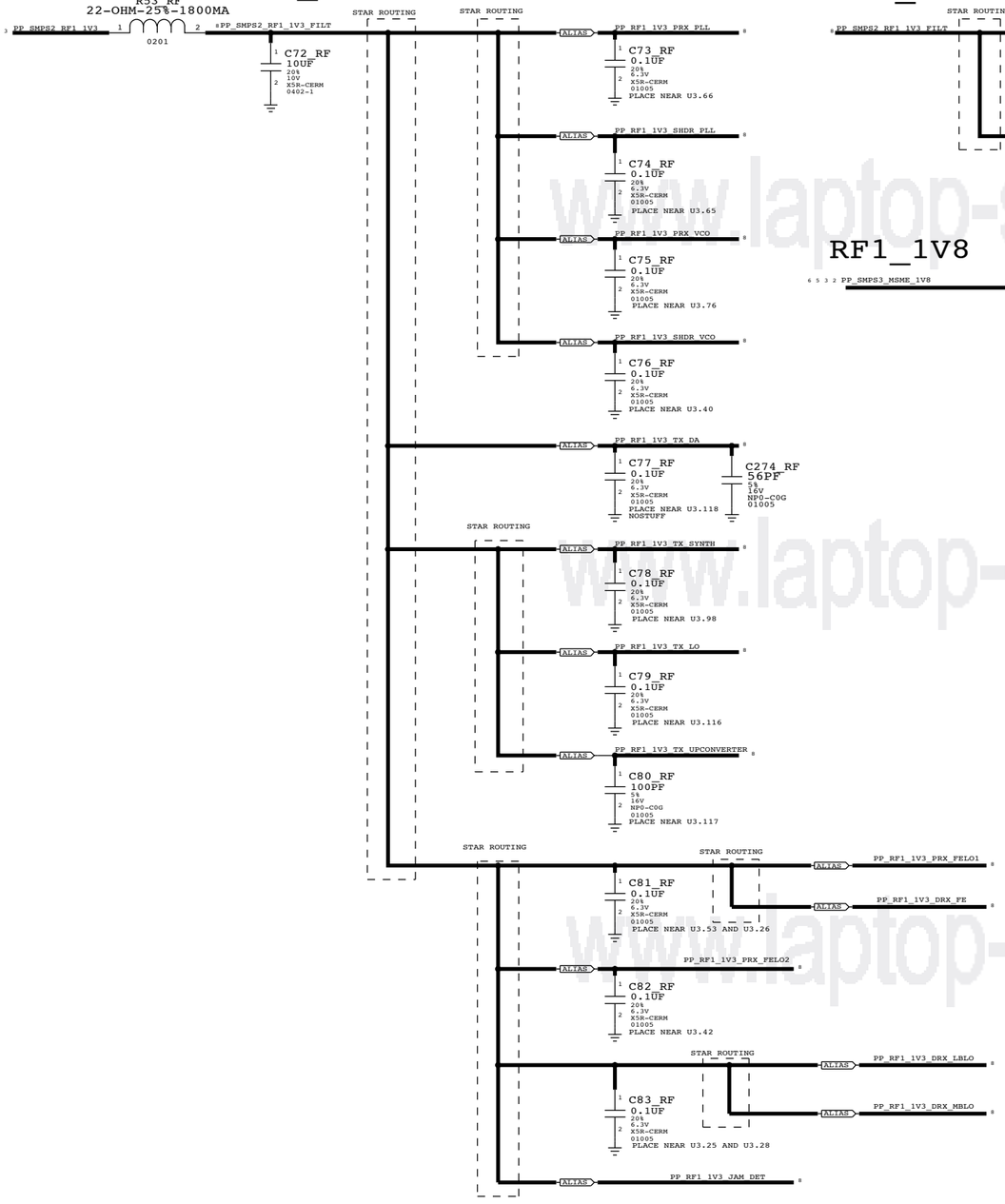
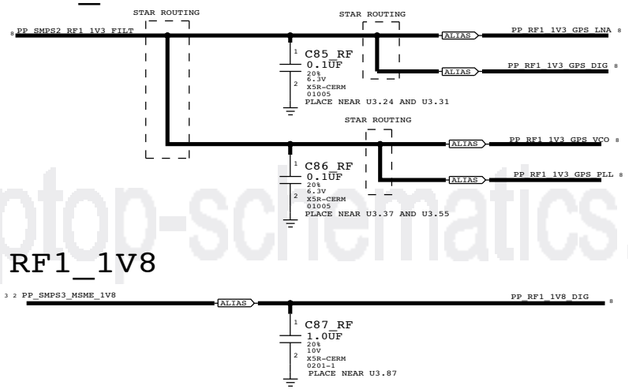
RF TRANSCEIVER (2 OF 2)

RF1_1V3

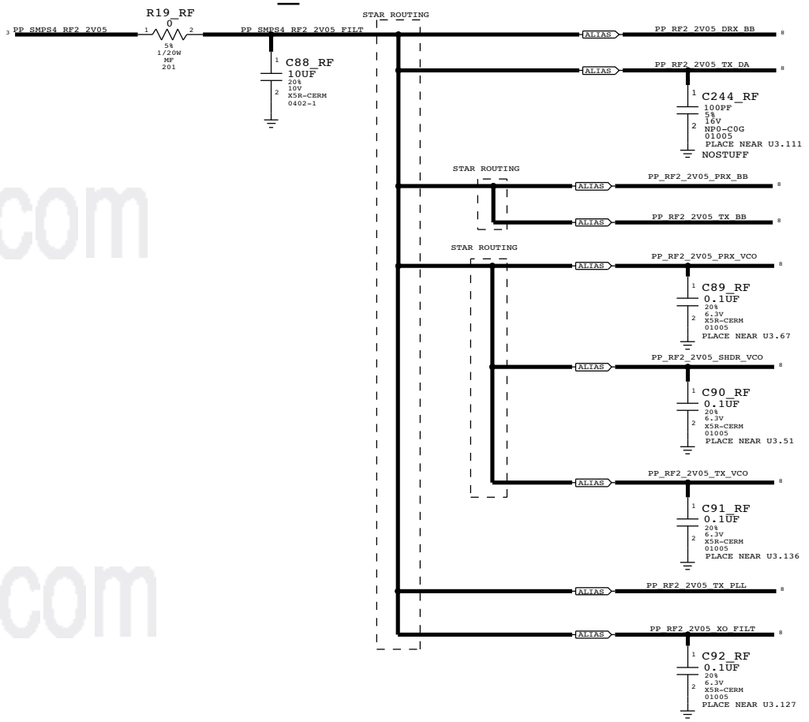


RF1_1V3

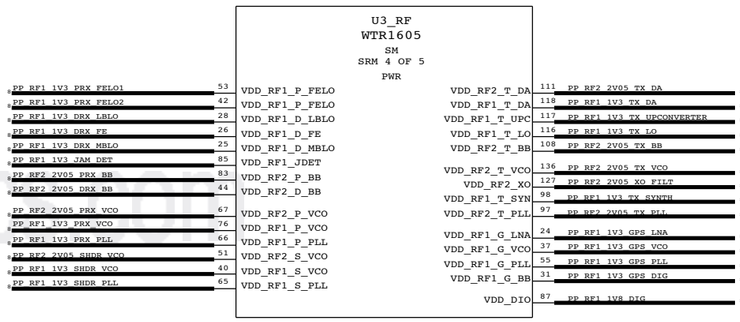


RF1_1V8

RF2_2V05



TRANSCEIVER POWER CONNECTIONS



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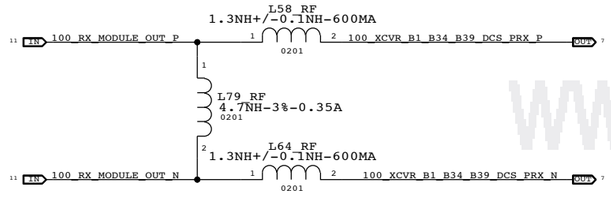
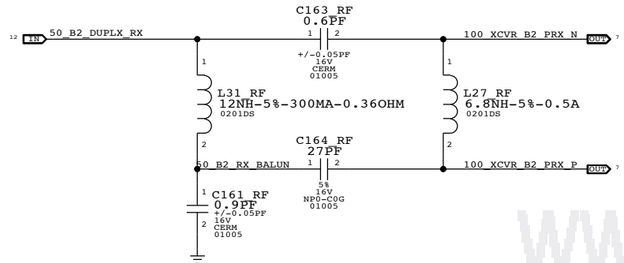
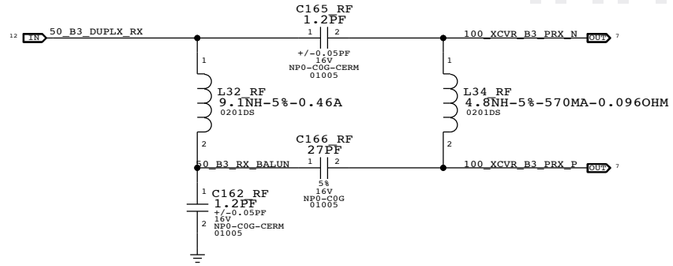
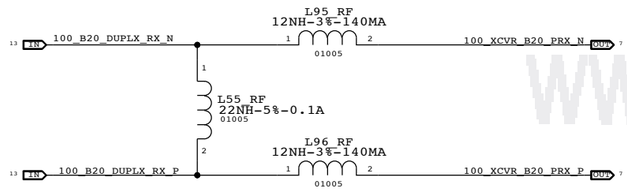
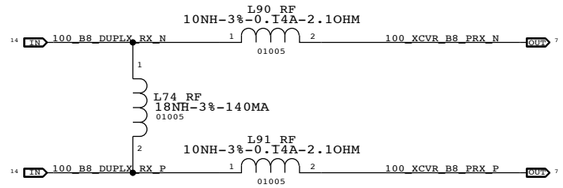
RX MATCHING

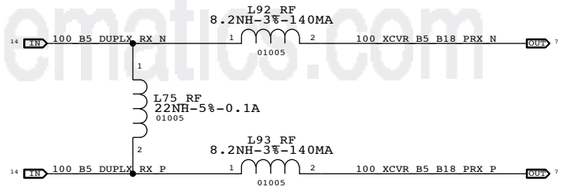


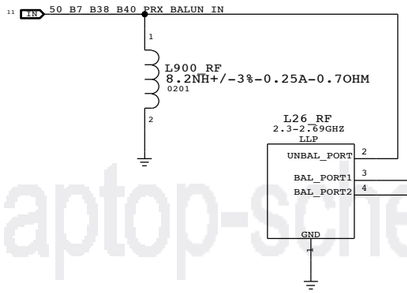


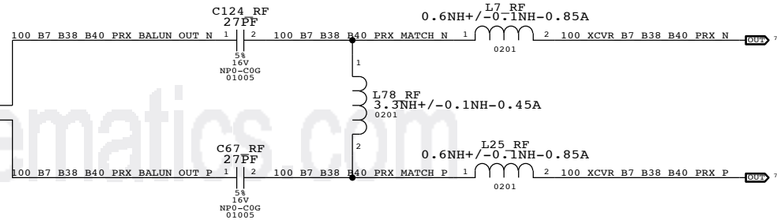


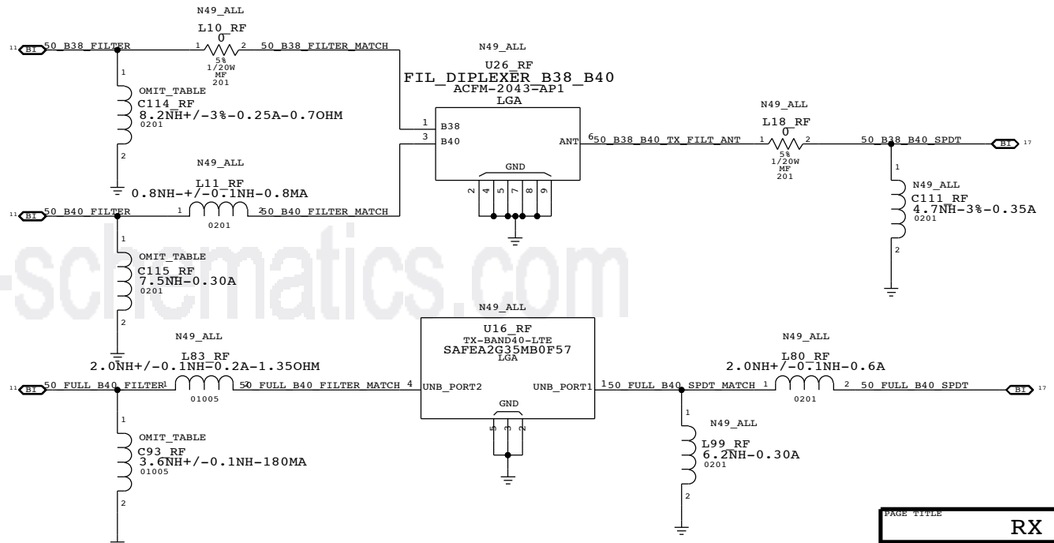












PAGE TITLE: RX MATCHING

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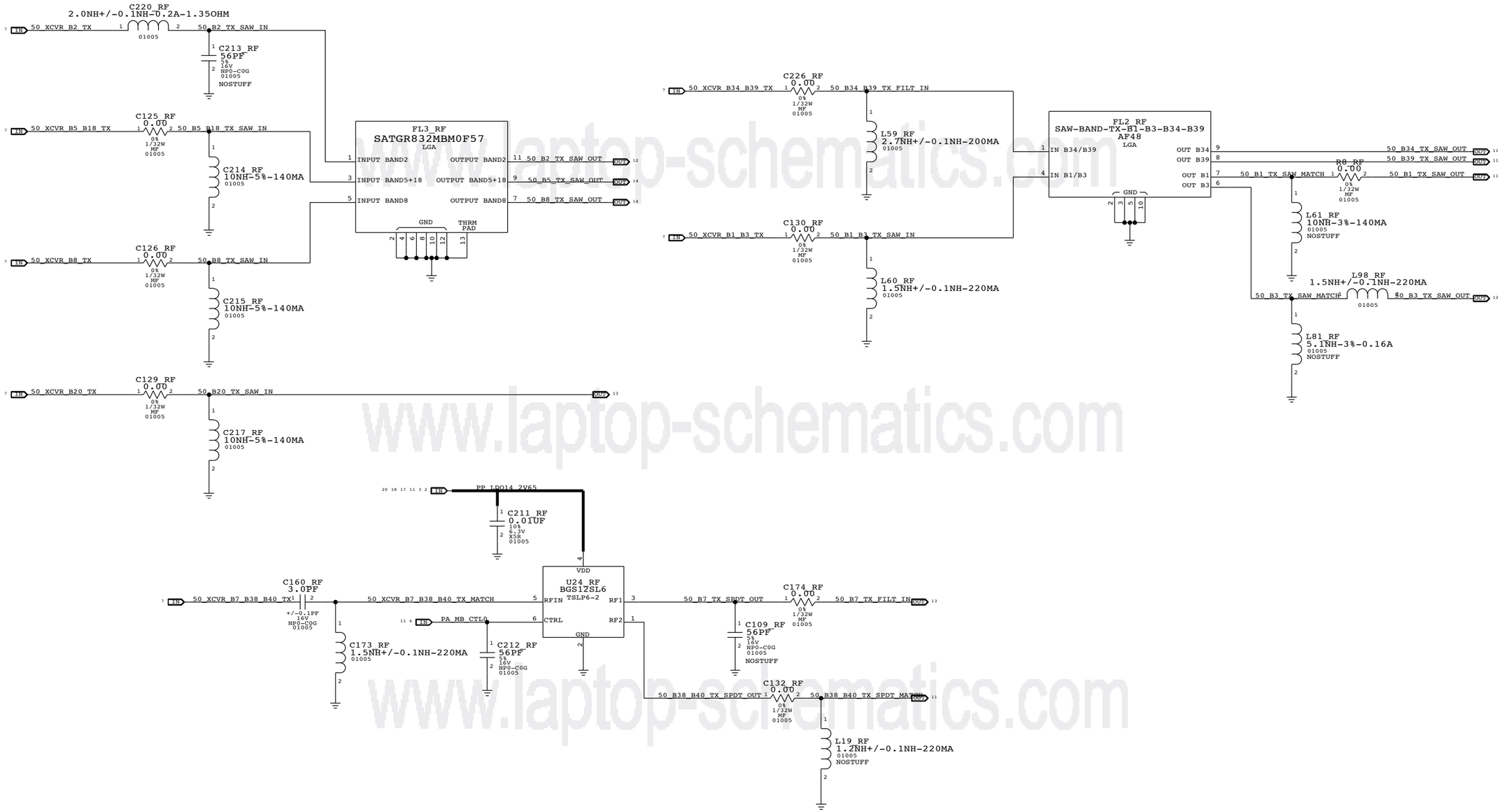
TX INTERSTAGE FILTERS



PAGE TITLE
RF TRANSCEIVER (3 OF 4)

Apple Inc.

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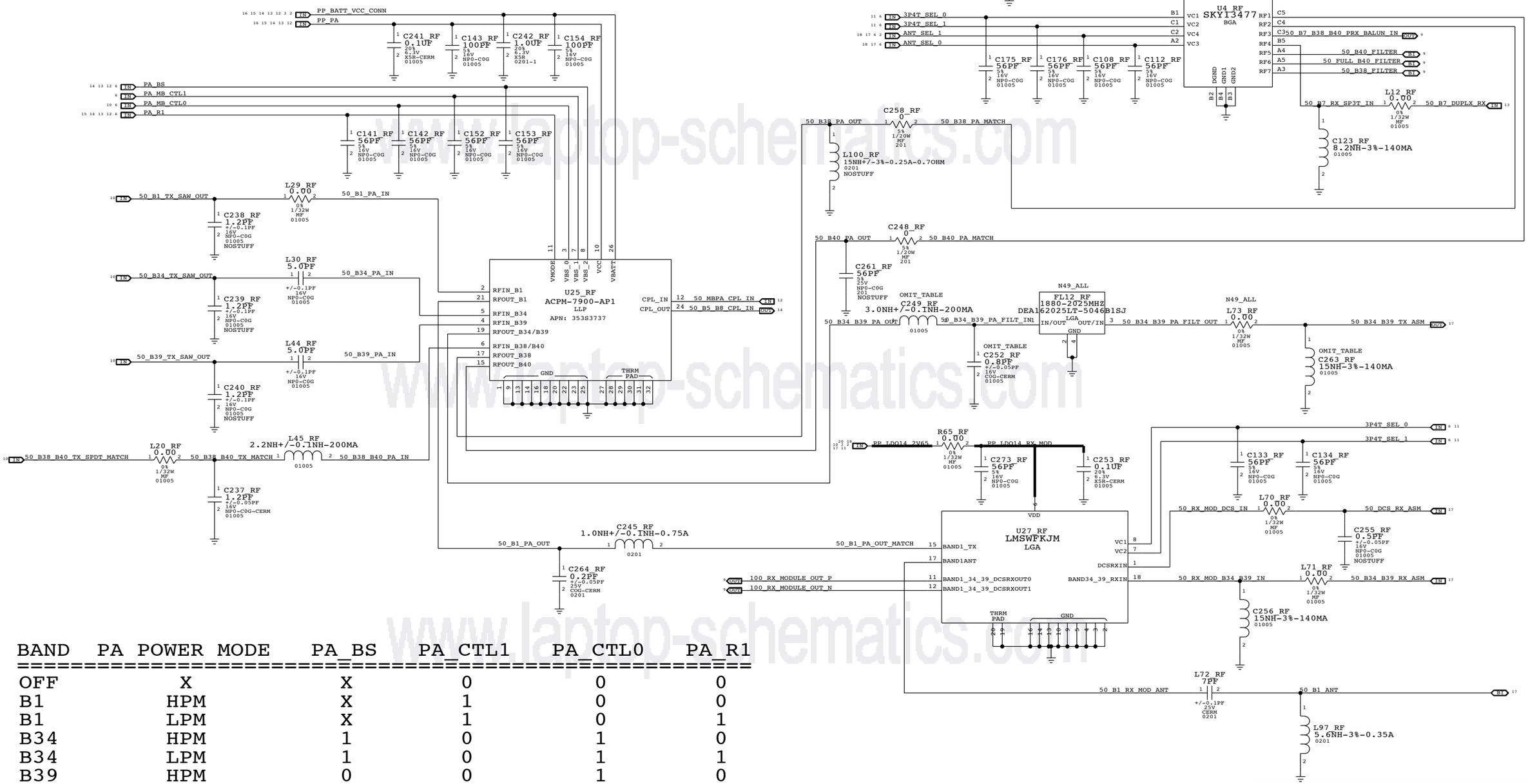
BAND 1/34/39/38/40 TX



BAND	PA POWER MODE	PA_BS	PA_CTL1	PA_CTL0	PA_R1
OFF	X	X	0	0	0
B1	HPM	X	1	0	0
B1	LPM	X	1	0	1
B34	HPM	1	0	1	0
B34	LPM	1	0	1	1
B39	HPM	0	0	1	0
B39	LPM	0	0	1	1
B38	HPM	1	1	1	0
B38	LPM	1	1	1	1
B40	HPM	0	1	1	0
B40	LPM	0	1	1	1

PAGE TITLE: PENTABAND PA

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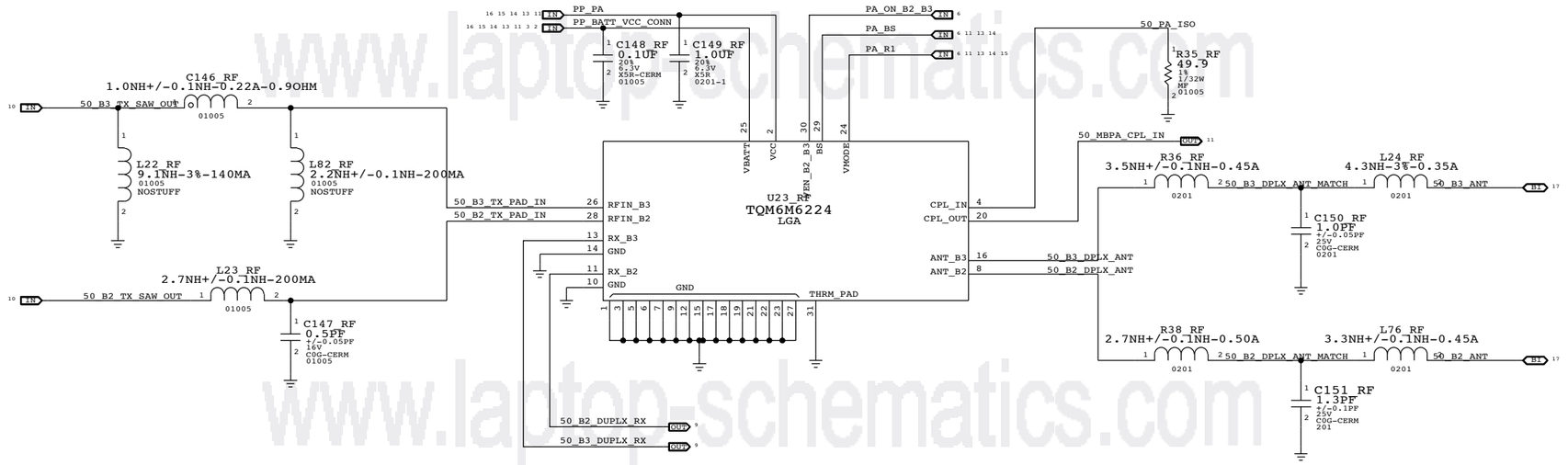
BAND 2/3 PAD



BAND	PA POWER MODE	PA_BS	PA_ON_B2_B3	PA_R1
OFF	X	X	0	X
B3	HPM	0	1	0
B3	LPM	0	1	1
B2	HPM	1	1	0
B2	LPM	1	1	1

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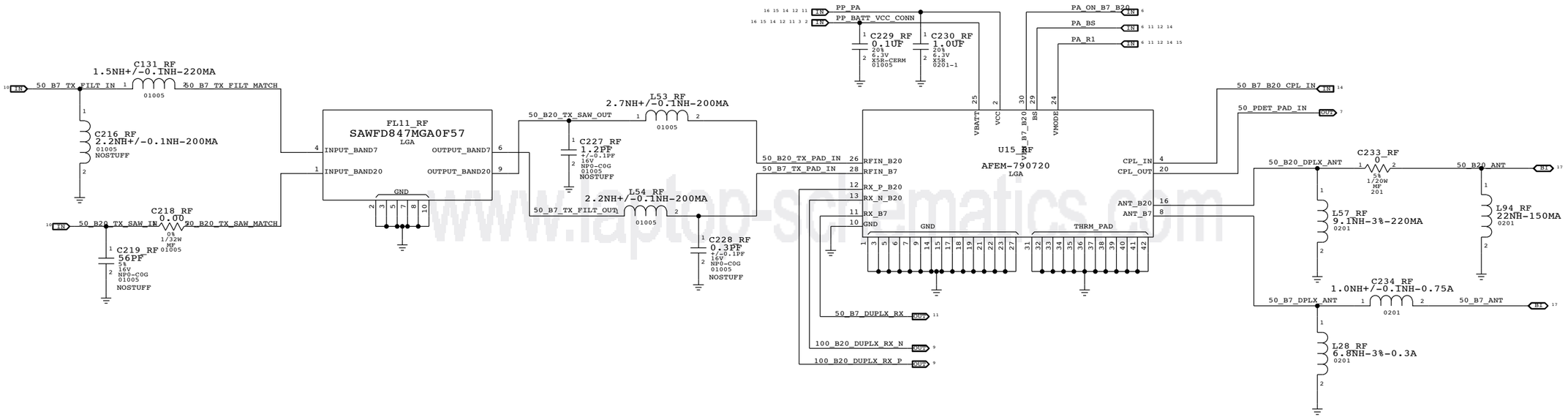
BAND 20/7 PAD



BAND	PA POWER MODE	PA_BS	PA_ON_B20_B7	PA_R1
OFF	X	X	0	X
B20	HPM	0	1	0
B20	LPM	0	1	1
B7	HPM	1	1	0
B7	LPM	1	1	1

PAGE TITLE: BAND 7/20 PAD

Apple Inc.

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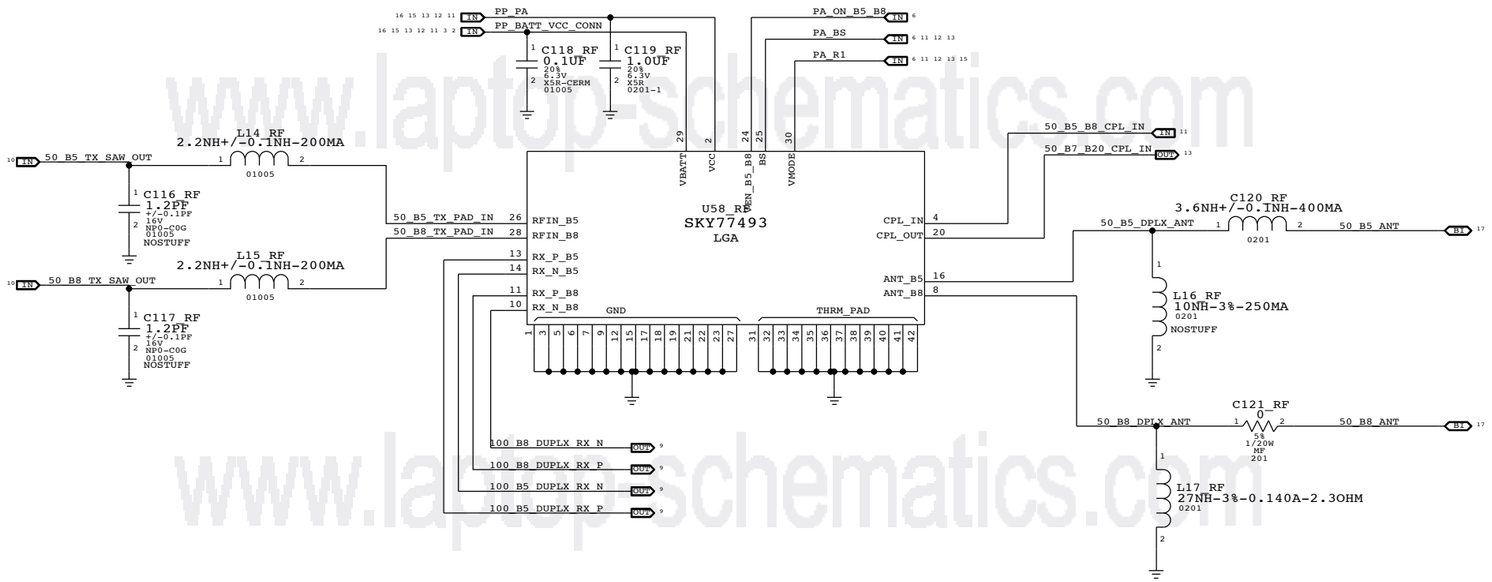
BAND 5/8 PAD



BAND	PA POWER MODE	PA_BS	PA_ON_B5_B8	PA_R1
OFF	X	X	0	X
B5	HPM	0	1	0
B5	LPM	0	1	1
B8	HPM	1	1	0
B8	LPM	1	1	1

PAGE TITLE: BAND 5/8 PAD

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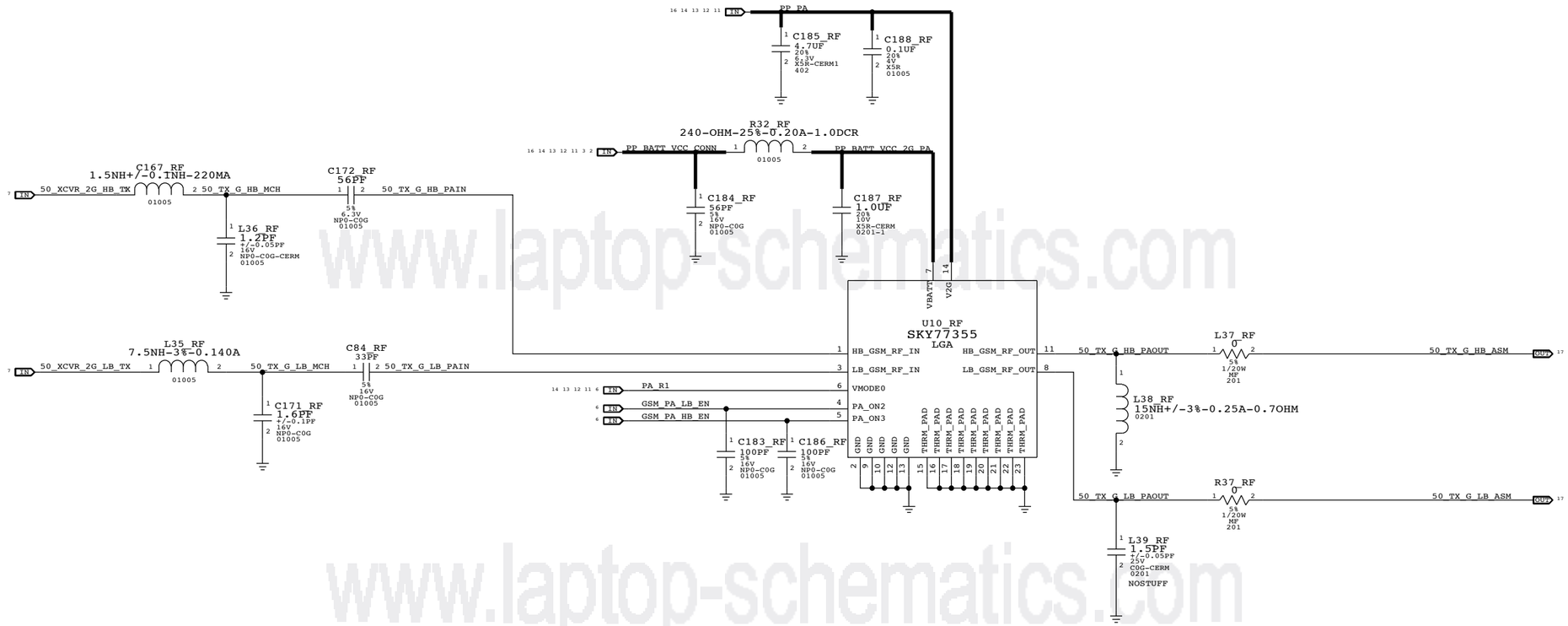
2G PA

2G PA GAIN MODES

BAND	MODE	GAIN MODE	PA_R1	PCL RANGE
LOW BAND	GSM	ULTRA LOW	HIGH	16 TO 19
LOW BAND	GSM	LOW	HIGH	14 TO 15
LOW BAND	GSM	MEDIUM	LOW	7 TO 13
LOW BAND	GSM	HIGH	LOW	5 TO 6
HIGH BAND	GSM	ULTRA LOW	HIGH	10 TO 15
HIGH BAND	GSM	LOW	HIGH	7 TO 9
HIGH BAND	GSM	HIGH	LOW	0 TO 6
LOW BAND	EDGE	LOW	HIGH	15 TO 19
LOW BAND	EDGE	MEDIUM	LOW	10 TO 14
LOW BAND	EDGE	HIGH	LOW	8 TO 9
HIGH BAND	EDGE	LOW	HIGH	9 TO 15
HIGH BAND	EDGE	HIGH	LOW	2 TO 8



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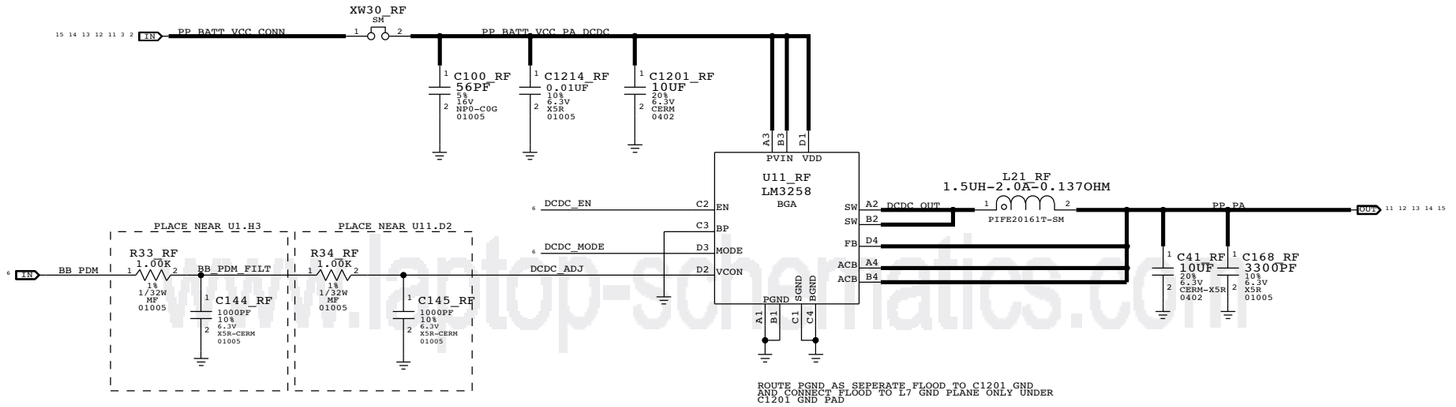
PA DC/DC CONVERTER



PAGE TITLE: PA DCDC CONVERTER

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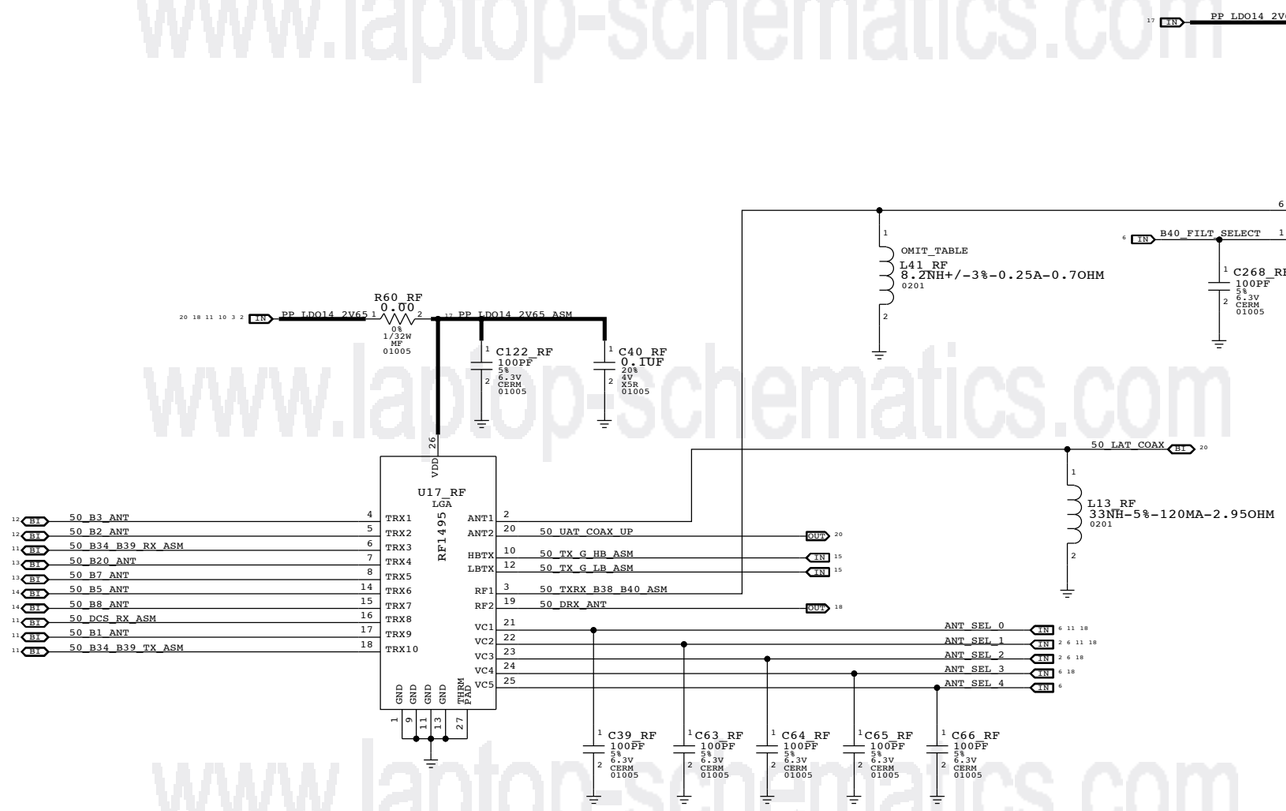
PRIMARY ASM



PAGE TITLE
ASM AND HB LTE FRONT-END

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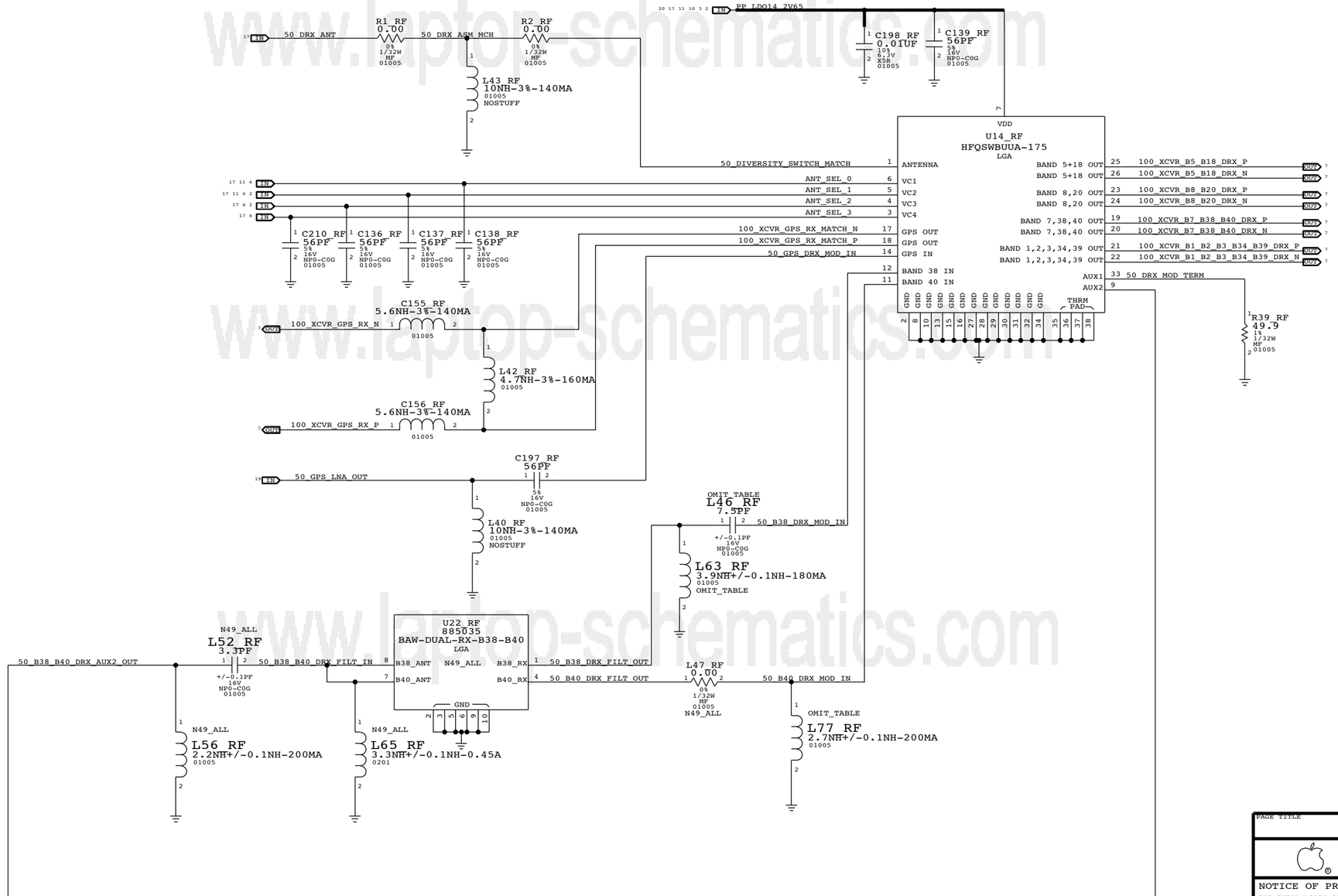
RX DIVERSITY



PAGE TITLE: RX DIVERSITY

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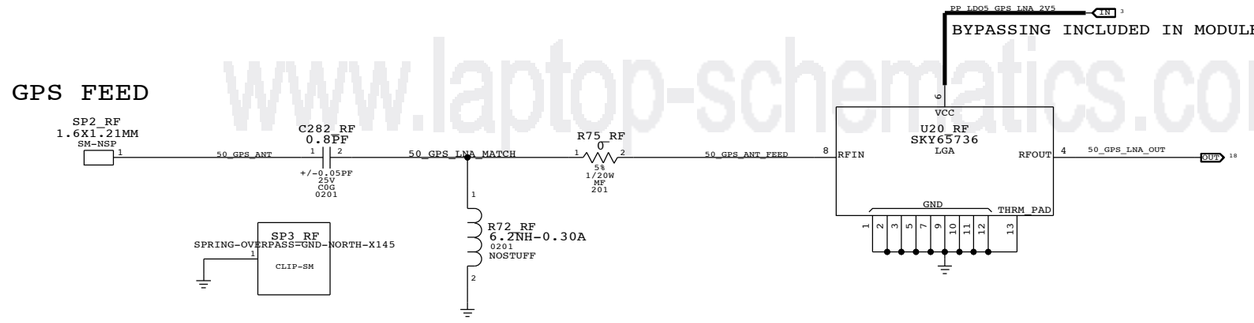
GPS

BYPASSING INCLUDED IN MODULE

PP_LDO5_GPS_LNA_2V5



PAGE TITLE: GPS

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ANTENNA FEEDS

UAT1

SP1_RF
BRKT-FEED-UAT-SX200-N48
50_UPPER_ANT_FEED

FL1701_RF
FLTR-GPS-0603
LFE1832MHC1D449
NC

L1732_RF
2.4NH+/-0.2NH-0.57A-0.07OHM
03015
50_NTCH_FLT_OUT
50_UPPER_MCH_1

C1726_RF
0.8PF
+/-0.05PF
16V
C0G-CERM
01005

PP_LDO14_PAC_2V65
L69_RF
5.6NH-3%-140MA
01005
PP_LDO14_2V65

C247_RF
56PF
5%
16V
NP0-C0G
01005

C99_RF
0.01UF
10%
6.3V
X5R
01005

U7_RF
RFI112
WLCSP
VDD
MISO
RF1
CS
MOSI
SCLK
RF2
NC
GND

TP1_RF
A
TP-P6

U18_RF
0.3-2170MHZ
LLP
IN/OUT
OUT/IN
GND
50_UAT_CELL
50_UAT1_LPF

L8_RF
8.2NH-+/-0.2NH-0.35A-0.000230HM
03015

L6_RF
5.6NH-3%-140MA
01005
PAC_TO_BB_SPI_DATA_MISO
PAC_TO_BB_SPI_DATA_MISO_FILT

L66_RF
5.6NH-3%-140MA
01005
BB_SPI_TO_PAC_CS
BB_SPI_TO_PAC_CS_FILT

L67_RF
5.6NH-3%-140MA
01005
BB_SPI_TO_PAC_DATA_MOSI
BB_SPI_TO_PAC_DATA_MOSI_FILT

L68_RF
5.6NH-3%-140MA
01005
BB_SPI_TO_PAC_CLK
BB_SPI_TO_PAC_CLK_FILT

R5_RF
10K
1%
1/32W
MF
01005

C96_RF
56PF
5%
16V
NP0-C0G
01005

C97_RF
56PF
5%
16V
NP0-C0G
01005

C98_RF
56PF
5%
16V
NP0-C0G
01005

C38_RF
56PF
5%
16V
NP0-C0G
01005

L48_RF
1.5NH+/-0.1NH-600MA
0201
50_WLAN_G
50_EXTRACTOR_WIFI

U9_RF
885041
DIPLEXER-CELL-WIFI
LGA
ANT
SMD2_ANT/
SMD4_GND
SMD3/WLAN
RF2/CELL_SMD1
SMD1
GND

L51_RF
4.3NH-3%-0.35A
0201
50_EXTRACTOR_CELL
50_B7_B38_B40_SPDT

C271_RF
56PF
5%
16V
NP0-C0G
01005

C157_RF
0.01UF
10%
6.3V
X5R
01005

PP_LDO14_2V65

UAT1 COAX

U13_RF
SKY13448
WLCSP
VDD
RF1
RF2
ANT
V1
GND
50_UAT_COAX_DOWN

J6_RF
MM5829-2700
F-ST-SM

J5_RF
MM5829-2700
F-ST-SM
50_UAT_COAX_UP

BS_SP2T_CTL

C158_RF
56PF
5%
16V
NP0-C0G
01005

UAT2

DPX165950DT-8030C1

U12_RF
SM
LOW_BAND
HIGH_BAND
COMMON
GND
50_UAT2_DIPLEX
50_WLAN_A

L50_RF
3.2NH+/-0.1NH-0.45A-025OHM
0201
50_EXTRACTOR_DIPLEX_1

L49_RF
5.6NH-3%-0.23A-1.3OHM
01005

J10_RF
MM5829-2700
F-ST-SM
50_UAT2_ANT_FD

C101_RF
0.2PF
+/-0.1PF
25V
C0G-CERM
201
NOSTUFF

R13_RF
0
5%
1/20W
MF
201
250_UAT2_ANT_MATCH

LAT

J4_RF
MM5829-2700
F-ST-SM
50_LAT_COAX

PAGE TITLE: ANTENNA FEEDS
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ANTENNA FEEDS (2 OF 2)

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PAGE TITLE: ANTENNA FEEDS

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FRONT END LOGIC TABLE

BAND	ANT_SEL_0	ANT_SEL_1	ANT_SEL_2	ANT_SEL_3	ANT_SEL_4	PRX PATH	DRX PATH
GSM LB TX	LOW	HIGH	LOW	LOW	LOW	LAT	TERMINATED
GSM LB TX	LOW	HIGH	LOW	LOW	HIGH	UAT	TERMINATED
GSM HB TX	HIGH	HIGH	LOW	HIGH	LOW	LAT	TERMINATED
GSM HB TX	HIGH	HIGH	LOW	HIGH	HIGH	UAT	TERMINATED
B1	HIGH	HIGH	HIGH	HIGH	LOW	LAT	UAT
B1	HIGH	HIGH	HIGH	HIGH	HIGH	UAT	LAT
B2/B25, 1900RX	HIGH	LOW	LOW	HIGH	LOW	LAT	UAT
B2/B25, 1900RX	HIGH	LOW	LOW	HIGH	HIGH	UAT	LAT
B3	HIGH	HIGH	LOW	LOW	LOW	LAT	UAT
B3	HIGH	HIGH	LOW	LOW	HIGH	UAT	LAT
B5/B6/B18, 850RX	HIGH	LOW	LOW	LOW	LOW	LAT	UAT
B5/B6/B18, 850RX	HIGH	LOW	LOW	LOW	HIGH	UAT	LAT
B20	HIGH	LOW	HIGH	HIGH	LOW	LAT	UAT
B20	HIGH	LOW	HIGH	HIGH	HIGH	UAT	LAT
B34/B39 TX	LOW	LOW	HIGH	HIGH	LOW	LAT	TERMINATED
B34/B39 TX	LOW	LOW	HIGH	HIGH	HIGH	UAT	TERMINATED
B34 RX	LOW	LOW	LOW	HIGH	LOW	LAT	UAT
B34 RX	LOW	LOW	LOW	HIGH	HIGH	UAT	LAT
B39 RX	LOW	LOW	HIGH	LOW	LOW	LAT	UAT
B39 RX	LOW	LOW	HIGH	LOW	HIGH	UAT	LAT
B38/B40 TX	LOW	HIGH	HIGH	LOW	LOW	LAT	TERMINATED
B38/B40 TX	LOW	HIGH	HIGH	LOW	HIGH	UAT	TERMINATED
B38 RX	HIGH	LOW	HIGH	LOW	LOW	LAT	UAT
B38 RX	HIGH	LOW	HIGH	LOW	HIGH	UAT	LAT
B40 RX	HIGH	HIGH	HIGH	LOW	LOW	LAT	UAT
B40 RX	HIGH	HIGH	HIGH	LOW	HIGH	UAT	LAT
B7	LOW	HIGH	HIGH	HIGH	LOW	LAT	UAT
B7	LOW	HIGH	HIGH	HIGH	HIGH	UAT	LAT
B8, GSM900 RX	LOW	HIGH	LOW	HIGH	LOW	LAT	UAT
B8, GSM900 RX	LOW	HIGH	LOW	HIGH	HIGH	UAT	LAT
GSM1800 RX	LOW	LOW	LOW	LOW	LOW	LAT	TERMINATED
GSM1800 RX	LOW	LOW	LOW	LOW	HIGH	UAT	TERMINATED

LAT = LOWER ANTENNA
UAT = UPPER ANTENNA

PAGE TITLE: FRONT END LOGIC TABLE

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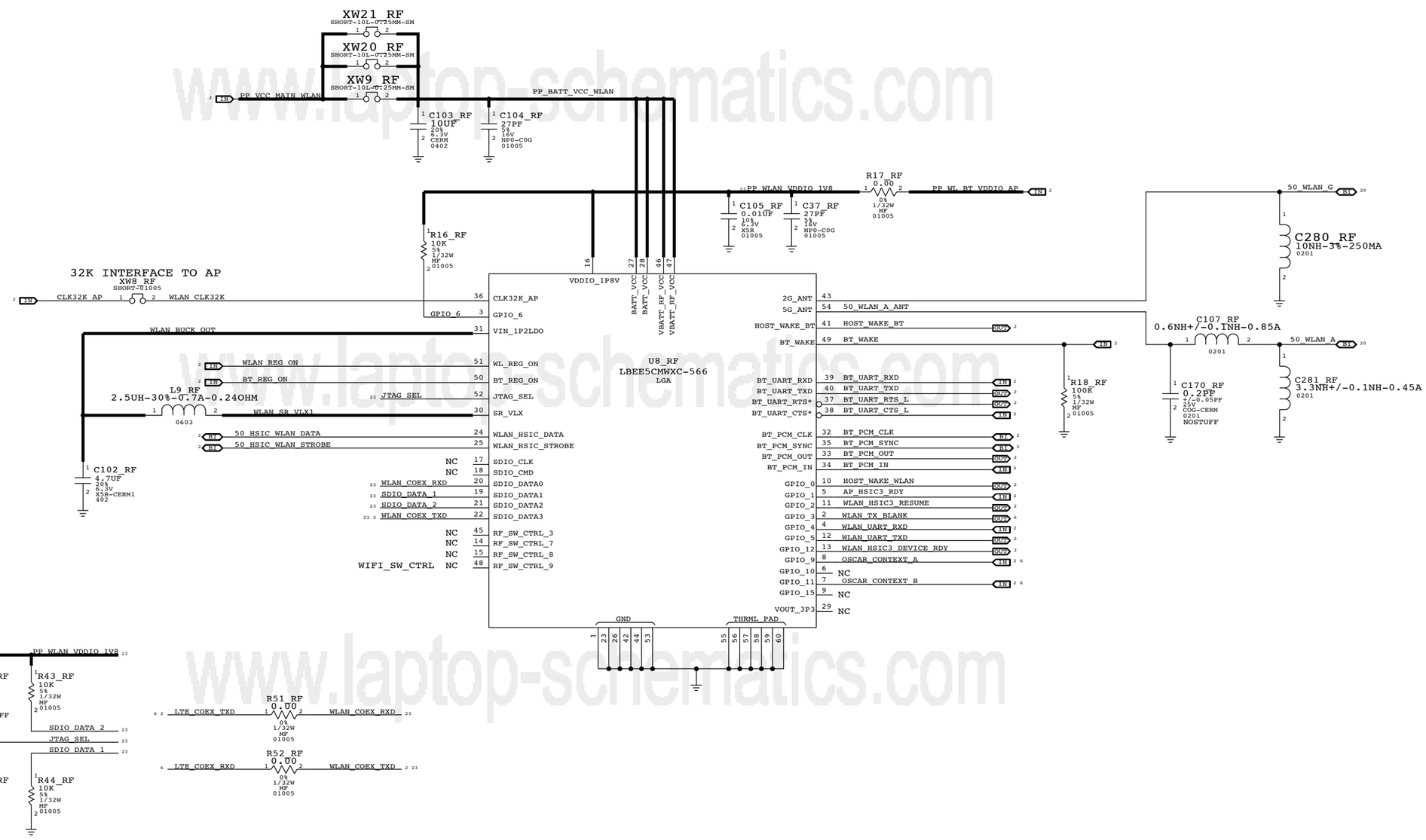
WLAN/BT



PULL-UP ON GPIO6, SDIO_DATA_2 & PULL-DOWN ON SDIO_DATA_1 REQUIRED FOR HSIC BOOTSTRAPPING

PAGE TITLE: WIFI/BT

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Title: Basenet Report
Design: radio_mlb
Date: Nov 27 0:19:39 2012

Base nets and synonyms for radio_mlb_lib.RADIO_MLB(@radio_mlb_lib.radio_mlb(sch_1))

Base Signal	Synonyms	Location([Zone][dir])
3P4T_SEL_0	3P4T_SEL_0 - @radio_mlb_lib.RADIO_MLB	6C2 11B1 11D4
3P4T_SEL_1	3P4T_SEL_1 - @radio_mlb_lib.RADIO_MLB	6C2 11B1 11D4
19P2M_CLK_EN	19P2M_CLK_EN - @radio_mlb_lib.RADIO_MLB	4B2 5A5
19P2M_MDM	19P2M_MDM - @radio_mlb_lib.RADIO_MLB	4B2 5A5
19P2M_WTR	19P2M_WTR - @radio_mlb_lib.RADIO_MLB	4B2 7C5
19P2M_WTR_FILT_IN	19P2M_WTR_FILT_IN - @radio_mlb_lib.RADIO_MLB	7C5
19P2M_WTR_IN	19P2M_WTR_IN - @radio_mlb_lib.RADIO_MLB	7C4
19P2M_XTAL_IN	19P2M_XTAL_IN - @radio_mlb_lib.RADIO_MLB	4B4
19P2M_XTAL_OUT	19P2M_XTAL_OUT - @radio_mlb_lib.RADIO_MLB	4B4
50_B1_ANT	50_B1_ANT - @radio_mlb_lib.RADIO_MLB	11A1 17B7
50_B1_B3_TX_SAW_IN	50_B1_B3_TX_SAW_IN - @radio_mlb_lib.RADIO_MLB	10C4
50_B1_PA_IN	50_B1_PA_IN - @radio_mlb_lib.RADIO_MLB	11C7
50_B1_PA_OUT	50_B1_PA_OUT - @radio_mlb_lib.RADIO_MLB	11B6
50_B1_PA_OUT_MATCH	50_B1_PA_OUT_MATCH - @radio_mlb_lib.RADIO_MLB	11B4
50_B1_RX_MOD_ANT	50_B1_RX_MOD_ANT - @radio_mlb_lib.RADIO_MLB	11A3
50_B1_TX_SAW_MATCH	50_B1_TX_SAW_MATCH - @radio_mlb_lib.RADIO_MLB	10D2
50_B1_TX_SAW_OUT	50_B1_TX_SAW_OUT - @radio_mlb_lib.RADIO_MLB	10D1 11C8
50_B2_ANT	50_B2_ANT - @radio_mlb_lib.RADIO_MLB	12C2 17B7
50_B2_B3_CPL_IN	50_B2_B3_CPL_IN - @radio_mlb_lib.RADIO_MLB	12C3 13C2
50_B2_DPLX_ANT	50_B2_DPLX_ANT - @radio_mlb_lib.RADIO_MLB	12C4
50_B2_DPLX_ANT_MATCH	50_B2_DPLX_ANT_MATCH - @radio_mlb_lib.RADIO_MLB	12C3
50_B2_DUPLX_RX	50_B2_DUPLX_RX - @radio_mlb_lib.RADIO_MLB	9C8 12C5
50_B2_RX_BALUN	50_B2_RX_BALUN - @radio_mlb_lib.RADIO_MLB	9C7
50_B2_TX_PAD_IN	50_B2_TX_PAD_IN - @radio_mlb_lib.RADIO_MLB	12C6
50_B2_TX_SAW_IN	50_B2_TX_SAW_IN - @radio_mlb_lib.RADIO_MLB	10D7
50_B2_TX_SAW_OUT	50_B2_TX_SAW_OUT - @radio_mlb_lib.RADIO_MLB	10D5 12C7
50_B3_ANT	50_B3_ANT - @radio_mlb_lib.RADIO_MLB	12C2 17B7
50_B3_DPLX_ANT	50_B3_DPLX_ANT - @radio_mlb_lib.RADIO_MLB	12C4
50_B3_DPLX_ANT_MATCH	50_B3_DPLX_ANT_MATCH - @radio_mlb_lib.RADIO_MLB	12C3
50_B3_DUPLX_RX	50_B3_DUPLX_RX - @radio_mlb_lib.RADIO_MLB	9B8 12C5
50_B3_RX_BALUN	50_B3_RX_BALUN - @radio_mlb_lib.RADIO_MLB	9B7
50_B3_TX_PAD_IN	50_B3_TX_PAD_IN - @radio_mlb_lib.RADIO_MLB	12C6
50_B3_TX_SAW_MATCH	50_B3_TX_SAW_MATCH - @radio_mlb_lib.RADIO_MLB	10C2
50_B3_TX_SAW_OUT	50_B3_TX_SAW_OUT - @radio_mlb_lib.RADIO_MLB	10C1 12C7
50_B5_ANT	50_B5_ANT - @radio_mlb_lib.RADIO_MLB	14C2 17B7
50_B5_B8_CPL_IN	50_B5_B8_CPL_IN - @radio_mlb_lib.RADIO_MLB	11C4 14D3
50_B5_B18_TX_SAW_IN	50_B5_B18_TX_SAW_IN - @radio_mlb_lib.RADIO_MLB	10D7
50_B5_DPLX_ANT	50_B5_DPLX_ANT - @radio_mlb_lib.RADIO_MLB	14C3
50_B5_TX_PAD_IN	50_B5_TX_PAD_IN - @radio_mlb_lib.RADIO_MLB	14C6
50_B5_TX_SAW_OUT	50_B5_TX_SAW_OUT - @radio_mlb_lib.RADIO_MLB	10D5 14C7
50_B7_ANT	50_B7_ANT - @radio_mlb_lib.RADIO_MLB	13B1 17B7
50_B7_B38_B40_PRX_BALUN_IN	50_B7_B38_B40_PRX_BALUN_IN - @radio_mlb_lib.RADIO_MLB	9C6 11D1
50_B7_B38_B40_SPDT	50_B7_B38_B40_SPDT - @radio_mlb_lib.RADIO_MLB	20C3
50_B7_DPLX_ANT	50_B7_DPLX_ANT - @radio_mlb_lib.RADIO_MLB	13B3
50_B7_DUPLX_RX	50_B7_DUPLX_RX - @radio_mlb_lib.RADIO_MLB	11D1 13B4
50_B7_RX_SP3T_IN	50_B7_RX_SP3T_IN - @radio_mlb_lib.RADIO_MLB	11D2
50_B7_TX_FILT_IN	50_B7_TX_FILT_IN - @radio_mlb_lib.RADIO_MLB	10B4 13C8
50_B7_TX_FILT_MATCH	50_B7_TX_FILT_MATCH - @radio_mlb_lib.RADIO_MLB	13C7
50_B7_TX_FILT_OUT	50_B7_TX_FILT_OUT - @radio_mlb_lib.RADIO_MLB	13C6
50_B7_TX_PAD_IN	50_B7_TX_PAD_IN - @radio_mlb_lib.RADIO_MLB	13C5
50_B7_TX_SPDT_OUT	50_B7_TX_SPDT_OUT - @radio_mlb_lib.RADIO_MLB	10B5
50_B8_ANT	50_B8_ANT - @radio_mlb_lib.RADIO_MLB	14C2 17B7
50_B8_DPLX_ANT	50_B8_DPLX_ANT - @radio_mlb_lib.RADIO_MLB	14C3
50_B8_TX_PAD_IN	50_B8_TX_PAD_IN - @radio_mlb_lib.RADIO_MLB	14C6
50_B8_TX_SAW_IN	50_B8_TX_SAW_IN - @radio_mlb_lib.RADIO_MLB	10C7
50_B8_TX_SAW_OUT	50_B8_TX_SAW_OUT - @radio_mlb_lib.RADIO_MLB	10C5 14C7
50_B20_ANT	50_B20_ANT - @radio_mlb_lib.RADIO_MLB	13C1 17B7
50_B20_DPLX_ANT	50_B20_DPLX_ANT - @radio_mlb_lib.RADIO_MLB	13C3
50_B20_TX_PAD_IN	50_B20_TX_PAD_IN - @radio_mlb_lib.RADIO_MLB	13C5
50_B20_TX_SAW_IN	50_B20_TX_SAW_IN - @radio_mlb_lib.RADIO_MLB	10C5 13C8
50_B20_TX_SAW_MATCH	50_B20_TX_SAW_MATCH - @radio_mlb_lib.RADIO_MLB	13C8
50_B20_TX_SAW_OUT	50_B20_TX_SAW_OUT - @radio_mlb_lib.RADIO_MLB	13C6
50_B34_B39_PA_FILT_IN	50_B34_B39_PA_FILT_IN - @radio_mlb_lib.RADIO_MLB	11C4
50_B34_B39_PA_FILT_OUT	50_B34_B39_PA_FILT_OUT - @radio_mlb_lib.RADIO_MLB	11C3
50_B34_B39_PA_OUT	50_B34_B39_PA_OUT - @radio_mlb_lib.RADIO_MLB	11C4
50_B34_B39_RX_ASM	50_B34_B39_RX_ASM - @radio_mlb_lib.RADIO_MLB	11B1 17B7
50_B34_B39_TX_ASM	50_B34_B39_TX_ASM - @radio_mlb_lib.RADIO_MLB	11C1 17B7
50_B34_B39_TX_FILT_IN	50_B34_B39_TX_FILT_IN - @radio_mlb_lib.RADIO_MLB	10D4
50_B34_PA_IN	50_B34_PA_IN - @radio_mlb_lib.RADIO_MLB	11C7
50_B34_TX_SAW_OUT	50_B34_TX_SAW_OUT - @radio_mlb_lib.RADIO_MLB	10D1 11C8
50_B38_B40_DRX_AUX2_OUT	50_B38_B40_DRX_AUX2_OUT - @radio_mlb_lib.RADIO_MLB	18A7
50_B38_B40_DRX_FILT_IN	50_B38_B40_DRX_FILT_IN - @radio_mlb_lib.RADIO_MLB	18A6
50_B38_B40_PA_IN	50_B38_B40_PA_IN - @radio_mlb_lib.RADIO_MLB	11B7
50_B38_B40_SPDT	50_B38_B40_SPDT - @radio_mlb_lib.RADIO_MLB	9B2 17C2
50_B38_B40_TX_FILT_ANT	50_B38_B40_TX_FILT_ANT - @radio_mlb_lib.RADIO_MLB	9B3
50_B38_B40_TX_MATCH	50_B38_B40_TX_MATCH - @radio_mlb_lib.RADIO_MLB	11B7
50_B38_B40_TX_SPDT_MATCH	50_B38_B40_TX_SPDT_MATCH - @radio_mlb_lib.RADIO_MLB	10B4 11B8
50_B38_B40_TX_SPDT_OUT	50_B38_B40_TX_SPDT_OUT - @radio_mlb_lib.RADIO_MLB	10B5
50_B38_DRX_FILT_OUT	50_B38_DRX_FILT_OUT - @radio_mlb_lib.RADIO_MLB	18A5
50_B38_DRX_MOD_IN	50_B38_DRX_MOD_IN - @radio_mlb_lib.RADIO_MLB	18B4
50_B38_FILTER	50_B38_FILTER - @radio_mlb_lib.RADIO_MLB	9B5 11D1
50_B38_FILTER_MATCH	50_B38_FILTER_MATCH - @radio_mlb_lib.RADIO_MLB	9B4
50_B38_PA_MATCH	50_B38_PA_MATCH - @radio_mlb_lib.RADIO_MLB	11D4
50_B38_PA_OUT	50_B38_PA_OUT - @radio_mlb_lib.RADIO_MLB	11D4
50_B39_PA_IN	50_B39_PA_IN - @radio_mlb_lib.RADIO_MLB	11C7
50_B39_TX_SAW_OUT	50_B39_TX_SAW_OUT - @radio_mlb_lib.RADIO_MLB	10D1 11C8
50_B40_DRX_FILT_OUT	50_B40_DRX_FILT_OUT - @radio_mlb_lib.RADIO_MLB	18A5
50_B40_DRX_MOD_IN	50_B40_DRX_MOD_IN - @radio_mlb_lib.RADIO_MLB	18A4
50_B40_FILTER	50_B40_FILTER - @radio_mlb_lib.RADIO_MLB	9A5 11D1
50_B40_FILTER_MATCH	50_B40_FILTER_MATCH - @radio_mlb_lib.RADIO_MLB	9A4
50_B40_PA_MATCH	50_B40_PA_MATCH - @radio_mlb_lib.RADIO_MLB	11C4
50_B40_PA_OUT	50_B40_PA_OUT - @radio_mlb_lib.RADIO_MLB	11C4
50_DCS_RX_ASM	50_DCS_RX_ASM - @radio_mlb_lib.RADIO_MLB	11B1 17B7
50_DIVERSITY_SWITCH_MATCH	50_DIVERSITY_SWITCH_MATCH - @radio_mlb_lib.RADIO_MLB	18C4
50_DRX_ANT	50_DRX_ANT - @radio_mlb_lib.RADIO_MLB	17B4 18D6
50_DRX_ASM_MCH	50_DRX_ASM_MCH - @radio_mlb_lib.RADIO_MLB	18D6
50_DRX_MOD_TERM	50_DRX_MOD_TERM - @radio_mlb_lib.RADIO_MLB	18C3
50_EXTRACTOR_CELL	50_EXTRACTOR_CELL - @radio_mlb_lib.RADIO_MLB	20C3
50_EXTRACTOR_DIPLEX_1	50_EXTRACTOR_DIPLEX_1 - @radio_mlb_lib.RADIO_MLB	20B5
50_EXTRACTOR_WIFI	50_EXTRACTOR_WIFI - @radio_mlb_lib.RADIO_MLB	20C4
50_FULL_B40_FILTER	50_FULL_B40_FILTER - @radio_mlb_lib.RADIO_MLB	9A5 11D1
50_FULL_B40_FILTER_MATCH	50_FULL_B40_FILTER_MATCH - @radio_mlb_lib.RADIO_MLB	9A4
50_FULL_B40_SPDT	50_FULL_B40_SPDT - @radio_mlb_lib.RADIO_MLB	9A2 17C2
50_FULL_B40_SPDT_MATCH	50_FULL_B40_SPDT_MATCH - @radio_mlb_lib.RADIO_MLB	9A3
50_GPS_ANT	50_GPS_ANT - @radio_mlb_lib.RADIO_MLB	19B6
50_GPS_ANT_FEED	50_GPS_ANT_FEED - @radio_mlb_lib.RADIO_MLB	19B5
50_GPS_DRX_MOD_IN	50_GPS_DRX_MOD_IN - @radio_mlb_lib.RADIO_MLB	18C4
50_GPS_LNA_MATCH	50_GPS_LNA_MATCH - @radio_mlb_lib.RADIO_MLB	19B6
50_GPS_LNA_OUT	50_GPS_LNA_OUT - @radio_mlb_lib.RADIO_MLB	18B6 19B3
50_HSIC_BB_DATA	50_HSIC_BB_DATA - @radio_mlb_lib.RADIO_MLB	2B1 2B6 2C8 5B3
50_HSIC_BB_STROBE	50_HSIC_BB_STROBE - @radio_mlb_lib.RADIO_MLB	2B1 2B6 2C8 5B3
50_HSIC_CAL	50_HSIC_CAL - @radio_mlb_lib.RADIO_MLB	5B3
50_HSIC_WLAN_DATA	50_HSIC_WLAN_DATA - @radio_mlb_lib.RADIO_MLB	2B6 2C8 23B6
50_HSIC_WLAN_STROBE	50_HSIC_WLAN_STROBE - @radio_mlb_lib.RADIO_MLB	2B6 2C8 23B6
50_LAT_COAX	50_LAT_COAX - @radio_mlb_lib.RADIO_MLB	20A6
50_LAT_MATCH	50_LAT_MATCH - @radio_mlb_lib.RADIO_MLB	20A5
50_LAT_TEST	50_LAT_TEST - @radio_mlb_lib.RADIO_MLB	17B3 20A3
50_MBPA_CPL_IN	50_MBPA_CPL_IN - @radio_mlb_lib.RADIO_MLB	11C4 12C3
50_NTCH_FILT_OUT	50_NTCH_FILT_OUT - @radio_mlb_lib.RADIO_MLB	20D7
50_PA_ISO	50_PA_ISO - @radio_mlb_lib.RADIO_MLB	13C3
50_PDET_IN	50_PDET_IN - @radio_mlb_lib.RADIO_MLB	7C3
50_PDET_PAD_IN	50_PDET_PAD_IN - @radio_mlb_lib.RADIO_MLB	7C1 14C3
50_PDET_PAD_OUT	50_PDET_PAD_OUT - @radio_mlb_lib.RADIO_MLB	7C2
50_RX_MOD_B34_B39_IN	50_RX_MOD_B34_B39_IN - @radio_mlb_lib.RADIO_MLB	11B2
50_RX_MOD_DCS_IN	50_RX_MOD_DCS_IN - @radio_mlb_lib.RADIO_MLB	11B2
50_TXRX_B38_B40_ASM	50_TXRX_B38_B40_ASM - @radio_mlb_lib.RADIO_MLB	17B5
50_TX_G_HB_ASM	50_TX_G_HB_ASM - @radio_mlb_lib.RADIO_MLB	15B2 17B4
50_TX_G_HB_MCH	50_TX_G_HB_MCH - @radio_mlb_lib.RADIO_MLB	15C7
50_TX_G_HB_PAIN	50_TX_G_HB_PAIN - @radio_mlb_lib.RADIO_MLB	15C6
50_TX_G_HB_PAOUT	50_TX_G_HB_PAOUT - @radio_mlb_lib.RADIO_MLB	15B4
50_TX_G_LB_ASM	50_TX_G_LB_ASM - @radio_mlb_lib.RADIO_MLB	15B2 17B4
50_TX_G_LB_MCH	50_TX_G_LB_MCH - @radio_mlb_lib.RADIO_MLB	15B7
50_TX_G_LB_PAIN	50_TX_G_LB_PAIN - @radio_mlb_lib.RADIO_MLB	15B6
50_TX_G_LB_PAOUT	50_TX_G_LB_PAOUT - @radio_mlb_lib.RADIO_MLB	15B4
50_UAT1_LPF	50_UAT1_LPF - @radio_mlb_lib.RADIO_MLB	20D3
50_UAT2_ANT_FD	50_UAT2_ANT_FD - @radio_mlb_lib.RADIO_MLB	20B7
50_UAT2_ANT_MATCH	50_UAT2_ANT_MATCH - @radio_mlb_lib.RADIO_MLB	20B7
50_UAT2_DIPLEX	50_UAT2_DIPLEX - @radio_mlb_lib.RADIO_MLB	20C6
50_UAT_CELL	50_UAT_CELL - @radio_mlb_lib.RADIO_MLB	20D4
50_UAT_COAX_DOWN	50_UAT_COAX_DOWN - @radio_mlb_lib.RADIO_MLB	20C2
50_UAT_COAX_UP	50_UAT_COAX_UP - @radio_mlb_lib.RADIO_MLB	17B4 20C1
50_UPPER_ANT_FEED	50_UPPER_ANT_FEED - @radio_mlb_lib.RADIO_MLB	20D8
50_UPPER_MCH_1	50_UPPER_MCH_1 - @radio_mlb_lib.RADIO_MLB	20D6
50_WLAN_A	50_WLAN_A - @radio_mlb_lib.RADIO_MLB	20C6 23C1
50_WLAN_A_ANT	50_WLAN_A_ANT - @radio_mlb_lib.RADIO_MLB	23C4
50_WLAN_G	50_WLAN_G - @radio_mlb_lib.RADIO_MLB	20C4 23C1
50_WLAN_G_ANT	50_WLAN_G_ANT - @radio_mlb_lib.RADIO_MLB	23C4
50_XCVR_2G_HB_TX	50_XCVR_2G_HB_TX - @radio_mlb_lib.RADIO_MLB	7D2 15C8
50_XCVR_2G_LB_TX	50_XCVR_2G_LB_TX - @radio_mlb_lib.RADIO_MLB	7D2 15B8
50_XCVR_B1_B3_TX	50_XCVR_B1_B3_TX - @radio_mlb_lib.RADIO_MLB	7D2 10C5
50_XCVR_B2_TX	50_XCVR_B2_TX - @radio_mlb_lib.RADIO_MLB	7D2 10D8
50_XCVR_B5_B18_TX	50_XCVR_B5_B18_TX - @radio_mlb_lib.RADIO_MLB	7D2 10D8
50_XCVR_B7_B38_B40_TX	50_XCVR_B7_B38_B40_TX - @radio_mlb_lib.RADIO_MLB	7C2 10B7
50_XCVR_B7_B38_B40_TX_MATCH	50_XCVR_B7_B38_B40_TX_MATCH - @radio_mlb_lib.RADIO_MLB	10B6
50_XCVR_B8_TX	50_XCVR_B8_TX - @radio_mlb_lib.RADIO_MLB	7D2 10C8
50_XCVR_B20_TX	50_XCVR_B20_TX - @radio_mlb_lib.RADIO_MLB	7D2 10C8
50_XCVR_B34_B39_TX	50_XCVR_B34_B39_TX - @radio_mlb_lib.RADIO_MLB	7D2 10D5
90_BB_USB_D_N	90_BB_USB_D_N - @radio_mlb_lib.RADIO_MLB	2C3 2C8 5A5
90_BB_USB_D_P	90_BB_USB_D_P - @radio_mlb_lib.RADIO_MLB	2C3 2C8 5A5
100_B5_DUPLX_RX_N	100_B5_DUPLX_RX_N - @radio_mlb_lib.RADIO_MLB	9C4 14C5
100_B5_DUPLX_RX_P	100_B5_DUPLX_RX_P - @radio_mlb_lib.RADIO_MLB	9C4 14C5
100_B7_B38_B40_PRX_BALUN_OUT_N	100_B7_B38_B40_PRX_BALUN_OUT_N - @radio_mlb_lib.RADIO_MLB	9C4
100_B7_B38_B40_PRX_BALUN_OUT_P	100_B7_B38_B40_PRX_BALUN_OUT_P - @radio_mlb_lib.RADIO_MLB	9B4
100_B7_B38_B40_PRX_MATCH_N	100_B7_B38_B40_PRX_MATCH_N - @radio_mlb_lib.RADIO_MLB	9C3
100_B7_B38_B40_PRX_MATCH_P	100_B7_B38_B40_PRX_MATCH_P - @radio_mlb_lib.RADIO_MLB	9B3
100_B8_DUPLX_RX_N	100_B8_DUPLX_RX_N - @radio_mlb_lib.RADIO_MLB	9D4 14C5
100_B8_DUPLX_RX_P	100_B8_DUPLX_RX_P - @radio_mlb_lib.RADIO_MLB	9D4 14C5
100_B20_DUPLX_RX_N	100_B20_DUPLX_RX_N - @radio_mlb_lib.RADIO_MLB	9B8 13B4
100_B20_DUPLX_RX_P	100_B20_DUPLX_RX_P - @radio_mlb_lib.RADIO_MLB	9A8 13B4
100_RX_MODULE_OUT_N	100_RX_MODULE_OUT_N - @radio_mlb_lib.RADIO_MLB	9C8 11B5
100_RX_MODULE_OUT_P	100_RX_MODULE_OUT_P - @radio_mlb_lib.RADIO_MLB	9D8 11B5
100_XCVR_B1_B2_B3_B34_B39_DRX_N	100_XCVR_B1_B2_B3_B34_B39_DRX_N - @radio_mlb_lib.RADIO_MLB	7C8 18C2
100_XCVR_B1_B2_B3_B34_B39_DRX_P	100_XCVR_B1_B2_B3_B34_B39_DRX_P - @radio_mlb_lib.RADIO_MLB	7C8 18C2
100_XCVR_B1_B34_B39_DCS_PRX_N	100_XCVR_B1_B34_B39_DCS_PRX_N - @radio_mlb_lib.RADIO_MLB	7C8 9C6
100_XCVR_B1_B34_B39_DCS_PRX_P	100_XCVR_B1_B34_B39_DCS_PRX_P - @radio_mlb_lib.RADIO_MLB	7C8 9D6
100_XCVR_B2_PRX_N	100_XCVR_B2_PRX_N - @radio_mlb_lib.RADIO_MLB	7C8 9C6
100_XCVR_B2_PRX_P	100_XCVR_B2_PRX_P - @radio_mlb_lib.RADIO_MLB	7D8 9C6
100_XCVR_B3_PRX_N	100_XCVR_B3_PRX_N - @radio_mlb_lib.RADIO_MLB	7C8 9B6
100_XCVR_B3_PRX_P	100_XCVR_B3_PRX_P - @radio_mlb_lib.RADIO_MLB	7C8 9B6
100_XCVR_B5_B18_DRX_N	100_XCVR_B5_B18_DRX_N - @radio_mlb_lib.RADIO_MLB	7C8 18C2
100_XCVR_B5_B18_DRX_P	100_XCVR_B5_B18_DRX_P - @radio_mlb_lib.RADIO_MLB	7C8 18C2
100_XCVR_B5_B18_PRX_N	100_XCVR_B5_B18_PRX_N - @radio_mlb_lib.RADIO_MLB	7D8 9C3
100_XCVR_B5_B18_PRX_P	100_XCVR_B5_B18_PRX_P - @radio_mlb_lib.RADIO_MLB	7D8 9C3
100_XCVR_B7_B38_B40_DRX_N	100_XCVR_B7_B38_B40_DRX_N - @radio_mlb_lib.RADIO_MLB	7C8 18C2
100_XCVR_B7_B38_B40_DRX_P	100_XCVR_B7_B38_B40_DRX_P - @radio_mlb_lib.RADIO_MLB	7C8 18C2
100_XCVR_B7_B38_B40_PRX_N	100_XCVR_B7_B38_B40_PRX_N - @radio_mlb_lib.RADIO_MLB	7C8 9C2
100_XCVR_B7_B38_B40_PRX_P	100_XCVR_B7_B38_B40_PRX_P - @radio_mlb_lib.RADIO_MLB	7C8 9B2
100_XCVR_B8_B20_DRX_N	100_XCVR_B8_B20_DRX_N - @radio_mlb_lib.RADIO_MLB	7C8 18C2
100_XCVR_B8_B20_DRX_P	100_XCVR_B8_B20_DRX_P - @radio_mlb_lib.RADIO_MLB	7C8 18C2
100_XCVR_B8_PRX_N	100_XCVR_B8_PRX_N - @radio_mlb_lib.RADIO_MLB	7D8 9D3
100_XCVR_B8_PRX_P	100_XCVR_B8_PRX_P - @radio_mlb_lib.RADIO_MLB	7D8 9D3
100_XCVR_B20_PRX_N	100_XCVR_B20_PRX_N - @radio_mlb_lib.RADIO_MLB	7D8 9B6
100_XCVR_B20_PRX_P	100_XCVR_B20_PRX_P - @radio_mlb_lib.RADIO_MLB	7D8 9A6
100_XCVR_GPS_RX_MATCH_N	100_XCVR_GPS_RX_MATCH_N - @radio_mlb_lib.RADIO_MLB	18C4
100_XCVR_GPS_RX_MATCH_P	100_XCVR_GPS_RX_MATCH_P - @radio_mlb_lib.RADIO_MLB	18C4
100_XCVR_GPS_RX_N	100_XCVR_GPS_RX_N - @radio_mlb_lib.RADIO_MLB	7B8 18C6
100_XCVR_GPS_RX_P	100_XCVR_GPS_RX_P - @radio_mlb_lib.RADIO_MLB	7B8 18B6
ADC_LDO6_RUIM_1V8	ADC_LDO6_RUIM_1V8 - @radio_mlb_lib.RADIO_MLB	2A7 2B8
ADC_LVS1	ADC_LVS1 - @radio_mlb_lib.RADIO_MLB	2A7 2A8
ADC_SMPS1_MSMC_1V05	ADC_SMPS1_MSMC_1V05 - @radio_mlb_lib.RADIO_MLB	2A7 2B8
ADC_SMPS3_MSME_1V8	ADC_SMPS3_MSME_1V8 - @radio_mlb_lib.RADIO_MLB	2A7 2B8
ANT_SEL_0	ANT_SEL_0 - @radio_mlb_lib.RADIO_MLB	6C2 11D4 17B3 18C6
ANT_SEL_1	ANT_SEL_1 - @radio_mlb_lib.RADIO_MLB	2C3 6C2 11D4 17B3 18C6
ANT_SEL_2	ANT_SEL_2 - @radio_mlb_lib.RADIO_MLB	2C1 6C2 17B3 18C6
ANT_SEL_3	ANT_SEL_3 - @radio_mlb_lib.RADIO_MLB	6C2 17B3 18C6
ANT_SEL_4	ANT_SEL_4 - @radio_mlb_lib.RADIO_MLB	6C2 17B3
AP_HSIC1_RDY	AP_HSIC1_RDY - @radio_mlb_lib.RADIO_MLB	2C1 2C8 6B2
AP_HSIC3_RDY	AP_HSIC3_RDY - @radio_mlb_lib.RADIO_MLB	2C6 2C8 23B3
AP_WAKE_MODEM	AP_WAKE_MODEM - @radio_mlb_lib.RADIO_MLB	2D8 6B4
B40_FILT_SELECT	B40_FILT_SELECT - @radio_mlb_lib.RADIO_MLB	6C2 17C3
BB_ERROR_FLAG	BB_ERROR_FLAG - @radio_mlb_lib.RADIO_MLB	2D6 6B2
BB_HSIC1_REMOTE_WAKE	BB_HSIC1_REMOTE_WAKE - @radio_mlb_lib.RADIO_MLB	2C8 6B2
BB_I2S_CLK	BB_I2S_CLK - @radio_mlb_lib.RADIO_MLB	2B6 2C8 6B4
BB_I2S_RXD	BB_I2S_RXD - @radio_mlb_lib.RADIO_MLB	2B6 2C8 6B4
BB_I2S_TXD	BB_I2S_TXD - @radio_mlb_lib.RADIO_MLB	2A6 2C8 6B4
BB_I2S_WS	BB_I2S_WS - @radio_mlb_lib.RADIO_MLB	2B6 2C8 6B4
BB_IPC_GPIO	BB_IPC_GPIO - @radio_mlb_lib.RADIO_MLB	2A8 6B2
BB_JTAG_RTCLK	BB_JTAG_RTCLK - @radio_mlb_lib.RADIO_MLB	2C3 5B3
BB_JTAG_TCK	BB_JTAG_TCK - @radio_mlb_lib.RADIO_MLB	2B8 2C3 5B5
BB_JTAG_TDI	BB_JTAG_TDI - @radio_mlb_lib.RADIO_MLB	2B8 2C3 5B5
BB_JTAG_TDO	BB_JTAG_TDO - @radio_mlb_lib.RADIO_MLB	2B8 2C3 5B3
BB_JTAG_TMS	BB_JTAG_TMS - @radio_mlb_lib.RADIO_MLB	2B8 2C3 5B5
BB_JTAG_TRST_L	BB_JTAG_TRST_L - @radio_mlb_lib.RADIO_MLB	2B8 2C3 5B5
BB_PDM	BB_PDM - @radio_mlb_lib.RADIO_MLB	6B2 16C7
BB_PDM_FILT	BB_PDM_FILT - @radio_mlb_lib.RADIO_MLB	16C6
BB_RST_L	BB_RST_L - @radio_mlb_lib.RADIO_MLB	2C1 2D8 4C8
BB_SPI_TO_PAC_CLK	BB_SPI_TO_PAC_CLK - @radio_mlb_lib.RADIO_MLB	2B8 6C4 20C7
BB_SPI_TO_PAC_CLK_FILT	BB_SPI_TO_PAC_CLK_FILT - @radio_mlb_lib.RADIO_MLB	20C6
BB_SPI_TO_PAC_CS	BB_SPI_TO_PAC_CS - @radio_mlb_lib.RADIO_MLB	2B8 6C4 20D7
BB_SPI_TO_PAC_CS_FILT	BB_SPI_TO_PAC_CS_FILT - @radio_mlb_lib.RADIO_MLB	20D6
BB_SPI_TO_PAC_DATA_MOSI	BB_SPI_TO_PAC_DATA_MOSI - @radio_mlb_lib.RADIO_MLB	2B8 6C4 20C7
BB_SPI_TO_PAC_DATA_MOSI_FILT	BB_SPI_TO_PAC_DATA_MOSI_FILT - @radio_mlb_lib.RADIO_MLB	20C6
BB_UART_CTS_L	BB_UART_CTS_L - @radio_mlb_lib.RADIO_MLB	2C3 2C8 6C4
BB_UART_RTS_L	BB_UART_RTS_L - @radio_mlb_lib.RADIO_MLB	2C3 2C8 6C4
BB_UART_RXD	BB_UART_RXD - @radio_mlb_lib.RADIO_MLB	2C3 2C8 6C4
BB_UART_TXD	BB_UART_TXD - @radio_mlb_lib.RADIO_MLB	2C3 2C8 6C4
BB_USB_VBUS	BB_USB_VBUS - @radio_mlb_lib.RADIO_MLB	2C3 2C8 5A5
BOARD_ID	BOARD_ID - @radio_mlb_lib.RADIO_MLB	4D4
BS_SP2T_CTL	BS_SP2T_CTL - @radio_mlb_lib.RADIO_MLB	6B2 20B1
BT_PCM_CLK	BT_PCM_CLK - @radio_mlb_lib.RADIO_MLB	2B8 23B3
BT_PCM_IN	BT_PCM_IN - @radio_mlb_lib.RADIO_MLB	2B8 23B3
BT_PCM_OUT	BT_PCM_OUT - @radio_mlb_lib.RADIO_MLB	2B8 23B3
BT_PCM_SYNC	BT_PCM_SYNC - @radio_mlb_lib.RADIO_MLB	2B8 23B3
BT_REG_ON	BT_REG_ON - @radio_mlb_lib.RADIO_MLB	2B8 2C1 23C6
BT_UART_CTS_L	BT_UART_CTS_L - @radio_mlb_lib.RADIO_MLB	2B8 23B3
BT_UART_RTS_L	BT_UART_RTS_L - @radio_mlb_lib.RADIO_MLB	2B8 23C3

BT_UART_RXD	BT_UART_RXD - @radio_mlb_lib.RADIO_MLB	2B6 2B8 23C3
BT_UART_TXD	BT_UART_TXD - @radio_mlb_lib.RADIO_MLB	2B6 2B8 23C3
BT_WAKE	BT_WAKE - @radio_mlb_lib.RADIO_MLB	2B8 2D1 23C2
CLK32K_AP	CLK32K_AP - @radio_mlb_lib.RADIO_MLB	2C8 2D6 23C7
DCDC_ADJ	DCDC_ADJ - @radio_mlb_lib.RADIO_MLB	16C5
DCDC_EN	DCDC_EN - @radio_mlb_lib.RADIO_MLB	6C2 16C5
DCDC_MODE	DCDC_MODE - @radio_mlb_lib.RADIO_MLB	6B2 16C5
DCDC_OUT	DCDC_OUT - @radio_mlb_lib.RADIO_MLB	16C4
DEBUG_RST_L	DEBUG_RST_L - @radio_mlb_lib.RADIO_MLB	2D3 5B5
DRX_BB_I_N	DRX_BB_I_N - @radio_mlb_lib.RADIO_MLB	6C8 7C5
DRX_BB_I_P	DRX_BB_I_P - @radio_mlb_lib.RADIO_MLB	6C8 7C5
DRX_BB_Q_N	DRX_BB_Q_N - @radio_mlb_lib.RADIO_MLB	6C8 7C5
DRX_BB_Q_P	DRX_BB_Q_P - @radio_mlb_lib.RADIO_MLB	6C8 7C5
EBI1_CAL	EBI1_CAL - @radio_mlb_lib.RADIO_MLB	5D2
GPIO_6	GPIO_6 - @radio_mlb_lib.RADIO_MLB	23C5
GPIO_51	GPIO_51 - @radio_mlb_lib.RADIO_MLB	2C3 6C2
GPIO_DEBUG_LED	GPIO_DEBUG_LED - @radio_mlb_lib.RADIO_MLB	2C3 6B4
GPS_BB_I_N	GPS_BB_I_N - @radio_mlb_lib.RADIO_MLB	6C8 7B5
GPS_BB_I_P	GPS_BB_I_P - @radio_mlb_lib.RADIO_MLB	6C8 7B5
GPS_BB_Q_N	GPS_BB_Q_N - @radio_mlb_lib.RADIO_MLB	6C8 7B5
GPS_BB_Q_P	GPS_BB_Q_P - @radio_mlb_lib.RADIO_MLB	6C8 7B5
GSM_PA_HB_EN	GSM_PA_HB_EN - @radio_mlb_lib.RADIO_MLB	6B4 15B5
GSM_PA_LB_EN	GSM_PA_LB_EN - @radio_mlb_lib.RADIO_MLB	6B4 15B5
HOST_WAKE_BB	HOST_WAKE_BB - @radio_mlb_lib.RADIO_MLB	2C1 2D8 6B2
HOST_WAKE_BT	HOST_WAKE_BT - @radio_mlb_lib.RADIO_MLB	2C8 23C3
HOST_WAKE_WLAN	HOST_WAKE_WLAN - @radio_mlb_lib.RADIO_MLB	2C8 23B3
JTAG_SEL	JTAG_SEL - @radio_mlb_lib.RADIO_MLB	23A7 23C6
LAT_SW1_CTL	LAT_SW1_CTL - @radio_mlb_lib.RADIO_MLB	2B8 2C1 6C2
LAT_SW2_CTL	LAT_SW2_CTL - @radio_mlb_lib.RADIO_MLB	2B8 6C2
LAT_SW3_CTL	LAT_SW3_CTL - @radio_mlb_lib.RADIO_MLB	2B8 6C2
LTE_COEX_RXD	LTE_COEX_RXD - @radio_mlb_lib.RADIO_MLB	6B2 23A6
LTE_COEX_TXD	LTE_COEX_TXD - @radio_mlb_lib.RADIO_MLB	2C6 6B2 23A6
OSCAR_CONTEXT_A	OSCAR_CONTEXT_A - @radio_mlb_lib.RADIO_MLB	2A8 6B4 23B3
OSCAR_CONTEXT_B	OSCAR_CONTEXT_B - @radio_mlb_lib.RADIO_MLB	2A8 6B2 23B3
PAC_TO_BB_SPI_DATA_MISO	PAC_TO_BB_SPI_DATA_MISO - @radio_mlb_lib.RADIO_MLB	2B8 6C4 20D7
PAC_TO_BB_SPI_DATA_MISO_FILT	PAC_TO_BB_SPI_DATA_MISO_FILT - @radio_mlb_lib.RADIO_MLB	20D6
PA_BS	PA_BS - @radio_mlb_lib.RADIO_MLB	6B4 11D8 12D4 13C3 14D4
PA_ID	PA_ID - @radio_mlb_lib.RADIO_MLB	4D3
PA_MB_CTL0	PA_MB_CTL0 - @radio_mlb_lib.RADIO_MLB	6B4 10B6 11D8
PA_MB_CTL1	PA_MB_CTL1 - @radio_mlb_lib.RADIO_MLB	6B4 11D8
PA_ON_B2_B3	PA_ON_B2_B3 - @radio_mlb_lib.RADIO_MLB	6B4 12D4
PA_ON_B5_B8	PA_ON_B5_B8 - @radio_mlb_lib.RADIO_MLB	6B4 14D4
PA_ON_B7_B20	PA_ON_B7_B20 - @radio_mlb_lib.RADIO_MLB	6B4 13C3
PA_R1	PA_R1 - @radio_mlb_lib.RADIO_MLB	6C2 11D8 12D4 13C3 14D4 15B5
PBL_RUN_BB_HSIC1_RDY	PBL_RUN_BB_HSIC1_RDY - @radio_mlb_lib.RADIO_MLB	2C1 2D8 6B2
PMIC_RESOUT_L	PMIC_RESOUT_L - @radio_mlb_lib.RADIO_MLB	2C1 4C6 5B5
PMIC_SSBI	PMIC_SSBI - @radio_mlb_lib.RADIO_MLB	2D6 4C8 5A5
PM_MDM_IRQ_L	PM_MDM_IRQ_L - @radio_mlb_lib.RADIO_MLB	4C6 6B2
PM_USR_IRQ_L	PM_USR_IRQ_L - @radio_mlb_lib.RADIO_MLB	4C6 6A2
PP_BATT_VCC_2G_PA	PP_BATT_VCC_2G_PA - @radio_mlb_lib.RADIO_MLB	15C4
PP_BATT_VCC_CONN	PP_BATT_VCC_CONN - @radio_mlb_lib.RADIO_MLB	2D1 2D8 3C8 11D7 12D5 13C5 14D6 15C5 16C6
PP_BATT_VCC_WLAN	PP_BATT_VCC_WLAN - @radio_mlb_lib.RADIO_MLB	23D5
PP_LDO1	PP_LDO1 - @radio_mlb_lib.RADIO_MLB	3B2
PP_LDO2_XO_HS_1V8	PP_LDO2_XO_HS_1V8 - @radio_mlb_lib.RADIO_MLB	3B1 5B5
PP_LDO3_AMUX_1V8	PP_LDO3_AMUX_1V8 - @radio_mlb_lib.RADIO_MLB	3B1 4B5 4D4 5B6
PP_LDO4_VDDA_3V3	PP_LDO4_VDDA_3V3 - @radio_mlb_lib.RADIO_MLB	3B1 5B6
PP_LDO5_GPS_LNA_2V5	PP_LDO5_GPS_LNA_2V5 - @radio_mlb_lib.RADIO_MLB	3B1 19C4
PP_LDO6_RUIM_1V8	PP_LDO6_RUIM_1V8 - @radio_mlb_lib.RADIO_MLB	2A4 2A6 2A8 2D1 3B1 5A6
PP_LDO7_DAC_1V8	PP_LDO7_DAC_1V8 - @radio_mlb_lib.RADIO_MLB	3B1 5A6
PP_LDO8_VDDPX_1V2	PP_LDO8_VDDPX_1V2 - @radio_mlb_lib.RADIO_MLB	3B1 5A6
PP_LDO9_PLL_1V05	PP_LDO9_PLL_1V05 - @radio_mlb_lib.RADIO_MLB	3B1 5B6 5B8 5D8
PP_LDO10_ADSP_1V05	PP_LDO10_ADSP_1V05 - @radio_mlb_lib.RADIO_MLB	3B1 5C6 5D7
PP_LDO11_MDSP_FW_1V05	PP_LDO11_MDSP_FW_1V05 - @radio_mlb_lib.RADIO_MLB	3B1 5C6 5D6
PP_LDO12_MDSP_SW_1V05	PP_LDO12_MDSP_SW_1V05 - @radio_mlb_lib.RADIO_MLB	3B1 5B6 5D7
PP_LDO13_VDDPX_2V95	PP_LDO13_VDDPX_2V95 - @radio_mlb_lib.RADIO_MLB	3B1 5A8
PP_LDO14_2V65	PP_LDO14_2V65 - @radio_mlb_lib.RADIO_MLB	2B8 3B1 10B6 11B4 11D4 17C6 18D4 20D1 20D3
PP_LDO14_2V65_ASM	PP_LDO14_2V65_ASM - @radio_mlb_lib.RADIO_MLB	17C5 17D3
PP_LDO14_3P4T	PP_LDO14_3P4T - @radio_mlb_lib.RADIO_MLB	11D3
PP_LDO14_PAC_2V65	PP_LDO14_PAC_2V65 - @radio_mlb_lib.RADIO_MLB	20D5
PP_LDO14_RX_MOD	PP_LDO14_RX_MOD - @radio_mlb_lib.RADIO_MLB	11B3
PP_LVS1	PP_LVS1 - @radio_mlb_lib.RADIO_MLB	2A8 3D1 5B6
PP_PA	PP_PA - @radio_mlb_lib.RADIO_MLB	11D7 12D5 13C5 14D6 15C5 16C2
PP_RF1_1V3_DRX_FE	PP_RF1_1V3_DRX_FE - @radio_mlb_lib.RADIO_MLB	8B4 8B5
	PP_RF1_1V3_DRX_LBLO - @radio_mlb_lib.RADIO_MLB	8A5 8B4
	PP_RF1_1V3_DRX_MBLO - @radio_mlb_lib.RADIO_MLB	8A5 8B4
	PP_RF1_1V3_GPS_DIG - @radio_mlb_lib.RADIO_MLB	8A1 8D4
	PP_RF1_1V3_GPS_LNA - @radio_mlb_lib.RADIO_MLB	8A1 8D4
	PP_RF1_1V3_GPS_PLL - @radio_mlb_lib.RADIO_MLB	8A1 8D4
	PP_RF1_1V3_GPS_VCO - @radio_mlb_lib.RADIO_MLB	8A1 8D4
	PP_RF1_1V3_JAM_DET - @radio_mlb_lib.RADIO_MLB	8A6 8B4
	PP_RF1_1V3_PRX_FELO1 - @radio_mlb_lib.RADIO_MLB	8B4 8B5
	PP_RF1_1V3_PRX_FELO2 - @radio_mlb_lib.RADIO_MLB	8B4 8B6
	PP_RF1_1V3_PRX_PLL - @radio_mlb_lib.RADIO_MLB	8A4 8D6
	PP_RF1_1V3_PRX_VCO - @radio_mlb_lib.RADIO_MLB	8B4 8D6
	PP_RF1_1V3_SHDR_PLL - @radio_mlb_lib.RADIO_MLB	8A4 8D6
	PP_RF1_1V3_SHDR_VCO - @radio_mlb_lib.RADIO_MLB	8A4 8C6
	PP_RF1_1V3_TX_DA - @radio_mlb_lib.RADIO_MLB	8B1 8C6
	PP_RF1_1V3_TX_LO - @radio_mlb_lib.RADIO_MLB	8B1 8B6
	PP_RF1_1V3_TX_SYNTH - @radio_mlb_lib.RADIO_MLB	8B1 8C6
	PP_RF1_1V3_TX_UPCONVERTER - @radio_mlb_lib.RADIO_MLB	8B1 8B6
	PP_SMPS2_RF1_1V3_FILT - @radio_mlb_lib.RADIO_MLB	8D5 8D8
	PP_RF1_1V3_TX_UPCONVERTER - @radio_mlb_lib.RADIO_MLB	8B1 8B6
	PP_RF1_1V3_TX_SYNTH - @radio_mlb_lib.RADIO_MLB	8B1 8C6
	PP_RF1_1V3_TX_LO - @radio_mlb_lib.RADIO_MLB	8B1 8B6
	PP_RF1_1V3_TX_DA - @radio_mlb_lib.RADIO_MLB	8B1 8C6
	PP_RF1_1V3_SHDR_VCO - @radio_mlb_lib.RADIO_MLB	8A4 8C6
	PP_RF1_1V3_SHDR_PLL - @radio_mlb_lib.RADIO_MLB	8A4 8D6
	PP_RF1_1V3_PRX_VCO - @radio_mlb_lib.RADIO_MLB	8B4 8D6
	PP_RF1_1V3_PRX_PLL - @radio_mlb_lib.RADIO_MLB	8A4 8D6
	PP_RF1_1V3_PRX_FELO1 - @radio_mlb_lib.RADIO_MLB	8B4 8B5
	PP_RF1_1V3_JAM_DET - @radio_mlb_lib.RADIO_MLB	8A6 8B4
	PP_RF1_1V3_GPS_VCO - @radio_mlb_lib.RADIO_MLB	8A1 8D4
	PP_RF1_1V3_GPS_PLL - @radio_mlb_lib.RADIO_MLB	8A1 8D4
	PP_RF1_1V3_GPS_LNA - @radio_mlb_lib.RADIO_MLB	8A1 8D4
	PP_RF1_1V3_GPS_DIG - @radio_mlb_lib.RADIO_MLB	8A1 8D4
	PP_RF1_1V3_DRX_LBLO - @radio_mlb_lib.RADIO_MLB	8A5 8B4
PP_RF1_1V8_DIG	PP_RF1_1V8_DIG - @radio_mlb_lib.RADIO_MLB	8A1 8C4
	PP_SMPS3_MSME_1V8 - @radio_mlb_lib.RADIO_MLB	2A8 2D1 3B6 3C1 5A6 5A6 5A6 5A8 5C6 5D7 5D8 6B8
		6C4 8C5
PP_RF2_2V05_DRX_BB	PP_RF2_2V05_DRX_BB - @radio_mlb_lib.RADIO_MLB	8B4 8D1
	PP_RF2_2V05_PRX_BB - @radio_mlb_lib.RADIO_MLB	8B4 8D1
	PP_RF2_2V05_PRX_VCO - @radio_mlb_lib.RADIO_MLB	8B4 8C1
	PP_RF2_2V05_SHDR_VCO - @radio_mlb_lib.RADIO_MLB	8A4 8C1
	PP_RF2_2V05_TX_BB - @radio_mlb_lib.RADIO_MLB	8B1 8D1
	PP_RF2_2V05_TX_DA - @radio_mlb_lib.RADIO_MLB	8B1 8D1
	PP_RF2_2V05_TX_PLL - @radio_mlb_lib.RADIO_MLB	8B1 8C1
	PP_RF2_2V05_TX_VCO - @radio_mlb_lib.RADIO_MLB	8B1 8C1
	PP_RF2_2V05_XO_FILT - @radio_mlb_lib.RADIO_MLB	8B1 8C1
	PP_SMPS4_RF2_2V05_FILT - @radio_mlb_lib.RADIO_MLB	8D3
	PP_RF2_2V05_XO_FILT - @radio_mlb_lib.RADIO_MLB	8B1 8C1
	PP_RF2_2V05_TX_VCO - @radio_mlb_lib.RADIO_MLB	8B1 8C1
	PP_RF2_2V05_TX_PLL - @radio_mlb_lib.RADIO_MLB	8B1 8C1
	PP_RF2_2V05_TX_DA - @radio_mlb_lib.RADIO_MLB	8B1 8D1
	PP_RF2_2V05_TX_BB - @radio_mlb_lib.RADIO_MLB	8B1 8D1
	PP_RF2_2V05_SHDR_VCO - @radio_mlb_lib.RADIO_MLB	8A4 8C1
	PP_RF2_2V05_PRX_VCO - @radio_mlb_lib.RADIO_MLB	8B4 8C1
	PP_RF2_2V05_PRX_BB - @radio_mlb_lib.RADIO_MLB	8B4 8D1
PP_SMPS1_MSMC_1V05	PP_SMPS1_MSMC_1V05 - @radio_mlb_lib.RADIO_MLB	2A8 3D1 5C8 5C8 5D8
PP_SMPS2_RF1_1V3	PP_SMPS2_RF1_1V3 - @radio_mlb_lib.RADIO_MLB	3D1 5A5 8D8
PP_SMPS4_RF2_2V05	PP_SMPS4_RF2_2V05 - @radio_mlb_lib.RADIO_MLB	3B6 3C1 8D3
PP_SMPS5_DSP_1V05	PP_SMPS5_DSP_1V05 - @radio_mlb_lib.RADIO_MLB	3B6 3C1
PP_SPI_NOR_1V8	PP_SPI_NOR_1V8 - @radio_mlb_lib.RADIO_MLB	6B7
PP_SYNC	PP_SYNC - @radio_mlb_lib.RADIO_MLB	2C8 6B2
PP_VCC_MAIN_WLAN	PP_VCC_MAIN_WLAN - @radio_mlb_lib.RADIO_MLB	2D8 23D6
PP_VREG	PP_VREG - @radio_mlb_lib.RADIO_MLB	3D2
PP_VSW_S1	PP_VSW_S1 - @radio_mlb_lib.RADIO_MLB	3C4
PP_VSW_S2	PP_VSW_S2 - @radio_mlb_lib.RADIO_MLB	3C4
PP_VSW_S3	PP_VSW_S3 - @radio_mlb_lib.RADIO_MLB	3C4
PP_VSW_S4	PP_VSW_S4 - @radio_mlb_lib.RADIO_MLB	3C4
PP_VSW_S5	PP_VSW_S5 - @radio_mlb_lib.RADIO_MLB	3B4
PP_WLAN_VDDIO_1V8	PP_WLAN_VDDIO_1V8 - @radio_mlb_lib.RADIO_MLB	23B7 23C4
PP_WL_BT_VDDIO_AP	PP_WL_BT_VDDIO_AP - @radio_mlb_lib.RADIO_MLB	2C8 23C3
PRX_BB_I_N	PRX_BB_I_N - @radio_mlb_lib.RADIO_MLB	6C8 7D5
PRX_BB_I_P	PRX_BB_I_P - @radio_mlb_lib.RADIO_MLB	6C8 7D5
PRX_BB_Q_N	PRX_BB_Q_N - @radio_mlb_lib.RADIO_MLB	6C8 7D5
PRX_BB_Q_P	PRX_BB_Q_P - @radio_mlb_lib.RADIO_MLB	6C8 7D5
PS_HOLD	PS_HOLD - @radio_mlb_lib.RADIO_MLB	4C8 6B2
PS_HOLD_PMIC	PS_HOLD_PMIC - @radio_mlb_lib.RADIO_MLB	2C3 4C7
RADIO_ON_L	RADIO_ON_L - @radio_mlb_lib.RADIO_MLB	2D3 2D8 4C8
REF_BYP	REF_BYP - @radio_mlb_lib.RADIO_MLB	3C5
REF_GND	REF_GND - @radio_mlb_lib.RADIO_MLB	3C5
RESET_DET_L	RESET_DET_L - @radio_mlb_lib.RADIO_MLB	2C1 2D8 6B2
RESET_PMU_L	RESET_PMU_L - @radio_mlb_lib.RADIO_MLB	2D3 2D8 4C8
RF_RESET_L	RF_RESET_L - @radio_mlb_lib.RADIO_MLB	2C3 2D8
RREFEXT	RREFEXT - @radio_mlb_lib.RADIO_MLB	5A5
S1_GND	S1_GND - @radio_mlb_lib.RADIO_MLB	3B6 3D2 4B6
S2_GND	S2_GND - @radio_mlb_lib.RADIO_MLB	3B6 3C2 4B6
S3_GND	S3_GND - @radio_mlb_lib.RADIO_MLB	3B6 3C2 4B6
S4_GND	S4_GND - @radio_mlb_lib.RADIO_MLB	3B6 3C2 4B6
S5_GND	S5_GND - @radio_mlb_lib.RADIO_MLB	3B2 3B5 4B6
SDIO_DATA_1	SDIO_DATA_1 - @radio_mlb_lib.RADIO_MLB	23A7 23B6
SDIO_DATA_2	SDIO_DATA_2 - @radio_mlb_lib.RADIO_MLB	23A7 23B6
SIMCRD_CLK_CONN	SIMCRD_CLK_CONN - @radio_mlb_lib.RADIO_MLB	2A2 2A6 2C1 2D5 6C4
SIMCRD_IO_CONN	SIMCRD_IO_CONN - @radio_mlb_lib.RADIO_MLB	2A4 2A4 2C1 6C4
SIMCRD_RST_CONN	SIMCRD_RST_CONN - @radio_mlb_lib.RADIO_MLB	2A4 2A6 2C1 2D5 6C4
SIM_TRAY_DETECT	SIM_TRAY_DETECT - @radio_mlb_lib.RADIO_MLB	2A2 2A5 2C1 6C4
SLEEP_CLK_32K	SLEEP_CLK_32K - @radio_mlb_lib.RADIO_MLB	2D6 4B2 5B5
SPI_CLK	SPI_CLK - @radio_mlb_lib.RADIO_MLB	2D5 6A8 6C4
SPI_CS_L	SPI_CS_L - @radio_mlb_lib.RADIO_MLB	2C5 6A6 6C4
SPI_DATA_MISO	SPI_DATA_MISO - @radio_mlb_lib.RADIO_MLB	2C5 6A6 6C4
SPI_DATA_MOSI	SPI_DATA_MOSI - @radio_mlb_lib.RADIO_MLB	2D5 6A8 6C4
TX_BB_I_N	TX_BB_I_N - @radio_mlb_lib.RADIO_MLB	6C6 7D4
TX_BB_I_P	TX_BB_I_P - @radio_mlb_lib.RADIO_MLB	6C6 7D4
TX_BB_Q_N	TX_BB_Q_N - @radio_mlb_lib.RADIO_MLB	6C6 7D4
TX_BB_Q_P	TX_BB_Q_P - @radio_mlb_lib.RADIO_MLB	6C6 7D4
TX_GTR_THRESH	TX_GTR_THRESH - @radio_mlb_lib.RADIO_MLB	2D8 6C2
VDDPX_BIAS	VDDPX_BIAS - @radio_mlb_lib.RADIO_MLB	4D3 5B6
VREF_DAC_BIAS	VREF_DAC_BIAS - @radio_mlb_lib.RADIO_MLB	4C3 6C6
WLAN_BUCK_OUT	WLAN_BUCK_OUT - @radio_mlb_lib.RADIO_MLB	23C7
WLAN_CLK32K	WLAN_CLK32K - @radio_mlb_lib.RADIO_MLB	23C6
WLAN_COEX_RXD	WLAN_COEX_RXD - @radio_mlb_lib.RADIO_MLB	23A5 23B6
WLAN_COEX_TXD	WLAN_COEX_TXD - @radio_mlb_lib.RADIO_MLB	2C6 23A5 23B6
WLAN_HSIC3_DEVICE_RDY	WLAN_HSIC3_DEVICE_RDY - @radio_mlb_lib.RADIO_MLB	2C6 2C8 23B3
WLAN_HSIC3_RESUME	WLAN_HSIC3_RESUME - @radio_mlb_lib.RADIO_MLB	2C6 2D8 23B3
WLAN_REG_ON	WLAN_REG_ON - @radio_mlb_lib.RADIO_MLB	2C1 2C8 23C6
WLAN_SR_VLX1	WLAN_SR_VLX1 - @radio_mlb_lib.RADIO_MLB	23B6
WLAN_TX_BLANK	WLAN_TX_BLANK - @radio_mlb_lib.RADIO_MLB	6B2 23B3
WLAN_UART_RXD	WLAN_UART_RXD - @radio_mlb_lib.RADIO_MLB	2C8 23B3
WLAN_UART_TXD	WLAN_UART_TXD - @radio_mlb_lib.RADIO_MLB	2C8 23B3
WTR_BB_TX_DAC_IREF	WTR_BB_TX_DAC_IREF - @radio_mlb_lib.RADIO_MLB	6C6 7D4
WTR_GP_DATA0	WTR_GP_DATA0 - @radio_mlb_lib.RADIO_MLB	6B2 7D4
WTR_GP_DATA1	WTR_GP_DATA1 - @radio_mlb_lib.RADIO_MLB	6B2 7D4
WTR_GP_DATA2	WTR_GP_DATA2 - @radio_mlb_lib.RADIO_MLB	6B2 7C4
WTR_RBIAS	WTR_RBIAS - @radio_mlb_lib.RADIO_MLB	7C4
WTR_RF_ON	WTR_RF_ON - @radio_mlb_lib.RADIO_MLB	2C6 6B4 7C4
WTR_RX_ON	WTR_RX_ON - @radio_mlb_lib.RADIO_MLB	2C6 6B4 7C4
WTR_SSBI_PRX_DRX	WTR_SSBI_PRX_DRX - @radio_mlb_lib.RADIO_MLB	2C6 6B2 7C4
WTR_SSBI_TX_GPS	WTR_SSBI_TX_GPS - @radio_mlb_lib.RADIO_MLB	2C6 6B2 7C4
XO_GND	XO_GND - @radio_mlb_lib.RADIO_MLB	4A4
XO_THERM_Y1	XO_THERM_Y1 -	4B4

@radio_mlb_lib.RADIO_MLB

Title: Cref Part Report
Design: radio_mlb
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C1	SUPPR_TRANSIENT_2P1_01005	radio_mlb[2A4]
C2	CAP_0201-1	radio_mlb[3B4]
C3	CAP_0201-1	radio_mlb[3B4]
C4	CAP_0201-1	radio_mlb[3B4]
C5	CAP_0201-1	radio_mlb[3A3]
C6	CAP_0201-1	radio_mlb[3B3]
C7	CAP_0201-1	radio_mlb[3A3]
C8	CAP_0402-1	radio_mlb[3B3]
C9	CAP_0402-1	radio_mlb[3A3]
C10	CAP_0402-1	radio_mlb[3B3]
C11	CAP_0402-1	radio_mlb[3A2]
C12	CAP_0201-1	radio_mlb[3D2]
C13	CAP_0402-1	radio_mlb[3B2]
C14	CAP_0201-1	radio_mlb[5D8]
C15	CAP_0201-1	radio_mlb[5D8]
C16	CAP_0201-1	radio_mlb[5D8]
C17	CAP_0201-1	radio_mlb[5D8]
C18	CAP_0201-1	radio_mlb[5D7]
C19	CAP_0201-1	radio_mlb[5D7]
C20	CAP_0201-1	radio_mlb[5D7]
C21	CAP_0201-1	radio_mlb[5D7]
C22	CAP_0201-1	radio_mlb[5D7]
C23	CAP_0201-1	radio_mlb[5D7]
C24	CAP_0201-1	radio_mlb[5D7]
C25	CAP_0201-1	radio_mlb[5D7]
C26	CAP_0201-1	radio_mlb[5D7]
C27	CAP_0201-1	radio_mlb[5D6]
C28	CAP_0201-1	radio_mlb[5D6]
C29	CAP_0201-1	radio_mlb[5D6]
C30	CAP_0201-1	radio_mlb[5D6]
C31	CAP_01005	radio_mlb[5B6]
C32	CAP_0201-1	radio_mlb[5D6]
C33	CAP_0201-1	radio_mlb[5A6]
C34	CAP_0201-1	radio_mlb[5D6]
C35	CAP_0201-1	radio_mlb[5D5]
C36	CAP_0201-1	radio_mlb[5D5]
C37	CAP_01005	radio_mlb[23C4]
C38	CAP_01005	radio_mlb[20C6]
C39	CAP_01005	radio_mlb[17B5]
C40	CAP_01005	radio_mlb[17C5]
C41	CAP_0402	radio_mlb[16C3]
C42	CAP_0402-1	radio_mlb[3C8]
C43	CAP_0402-1	radio_mlb[3C7]
C44	CAP_0402-1	radio_mlb[3C7]
C45	CAP_01005	radio_mlb[3C7]
C46	CAP_0402	radio_mlb[3B6]
C47	CAP_0402	radio_mlb[3B6]
C48	CAP_0402	radio_mlb[3B6]
C49	CAP_0402	radio_mlb[3B6]
C50	CAP_01005	radio_mlb[3C5]
C51	CAP_0402	radio_mlb[3B5]
C52	CAP_0201-1	radio_mlb[3A4]
C53	CAP_0201-1	radio_mlb[3A4]
C54	CAP_0201-1	radio_mlb[3A4]
C55	CAP_0603	radio_mlb[3D2]
C56	CAP_0603	radio_mlb[3C2]
C57	CAP_0603-3	radio_mlb[3C2]
C58	CAP_0603-3	radio_mlb[3C2]
C59	CAP_0603	radio_mlb[3B2]
C60	CAP_01005	radio_mlb[3C2]
C61	CAP_01005	radio_mlb[6B7]
C62	CAP_01005	radio_mlb[6C6]
C63	CAP_01005	radio_mlb[17B5]
C64	CAP_01005	radio_mlb[17B4]
C65	CAP_01005	radio_mlb[17B4]
C66	CAP_01005	radio_mlb[17B4]
C67	CAP_01005	radio_mlb[9B4]
C68	CAP_0201-1	radio_mlb[5C8]
C69	CAP_0201-1	radio_mlb[5A6]
C70	CAP_0201-1	radio_mlb[5A6]
C71	CAP_0201-1	radio_mlb[5B6]
C72	CAP_0402-1	radio_mlb[8D7]
C73	CAP_01005	radio_mlb[8D6]
C74	CAP_01005	radio_mlb[8D6]
C75	CAP_01005	radio_mlb[8C6]
C76	CAP_01005	radio_mlb[8C6]
C77	CAP_01005	radio_mlb[8C6]
C78	CAP_01005	radio_mlb[8C6]
C79	CAP_01005	radio_mlb[8B6]
C80	CAP_01005	radio_mlb[8B6]
C81	CAP_01005	radio_mlb[8B6]
C82	CAP_01005	radio_mlb[8A6]
C83	CAP_01005	radio_mlb[8A6]
C84	CAP_01005	radio_mlb[15B6]
C85	CAP_01005	radio_mlb[8D5]
C86	CAP_01005	radio_mlb[8D5]
C87	CAP_0201-1	radio_mlb[8C5]
C88	CAP_0402-1	radio_mlb[8D3]
C89	CAP_01005	radio_mlb[8C1]
C90	CAP_01005	radio_mlb[8C1]
C91	CAP_01005	radio_mlb[8C1]
C92	CAP_01005	radio_mlb[8B1]
C93	IND_01005	radio_mlb[9A5]
C94	CAP_201	radio_mlb[20A5]
C95	CAP_201	radio_mlb[20A5]
C96	CAP_01005	radio_mlb[20C6]
C97	CAP_01005	radio_mlb[20C6]
C98	CAP_01005	radio_mlb[20C6]
C99	CAP_01005	radio_mlb[20D4]
C100	CAP_01005	radio_mlb[16C6]
C101	CAP_201	radio_mlb[20B7]
C102	CAP_402	radio_mlb[23B7]
C103	CAP_0402-2	radio_mlb[23D5]
C104	CAP_01005	radio_mlb[23D5]
C105	CAP_01005	radio_mlb[23C4]
C106	CAP_0201	radio_mlb[23C2]
C107	CAP_0201	radio_mlb[23C2]
C108	CAP_01005	radio_mlb[11D3]
C109	CAP_01005	radio_mlb[10B5]
C111	IND_0201	radio_mlb[9A2]
C112	CAP_01005	radio_mlb[11D3]
C114	IND_0201	radio_mlb[9B5]
C115	IND_0201	radio_mlb[9A5]
C116	CAP_01005	radio_mlb[14C7]
C117	CAP_01005	radio_mlb[14C7]
C118	CAP_01005	radio_mlb[14D5]
C119	CAP_0201-1	radio_mlb[14D5]
C120	IND_0201	radio_mlb[14C3]
C121	RES_201	radio_mlb[14C3]
C122	CAP_01005	radio_mlb[17C5]
C123	IND_01005	radio_mlb[11D2]
C124	CAP_01005	radio_mlb[9C4]
C125	RES_01005	radio_mlb[10D7]
C126	RES_01005	radio_mlb[10C7]
C127	CAP_01005	radio_mlb[4B4]
C128	CAP_01005	radio_mlb[7C5]
C129	RES_01005	radio_mlb[10C7]
C130	RES_01005	radio_mlb[10C4]
C131	CAP_01005	radio_mlb[13C8]
C132	RES_01005	radio_mlb[10B4]
C133	CAP_01005	radio_mlb[11B2]
C134	CAP_01005	radio_mlb[11B2]
C136	CAP_01005	radio_mlb[18C6]
C137	CAP_01005	radio_mlb[18C6]
C138	CAP_01005	radio_mlb[18C5]
C139	CAP_01005	radio_mlb[18D3]
C141	CAP_01005	radio_mlb[11D7]
C142	CAP_01005	radio_mlb[11D6]
C143	CAP_01005	radio_mlb[11D6]
C144	CAP_01005	radio_mlb[16C6]
C145	CAP_01005	radio_mlb[16C6]
C146	IND_P_01005	radio_mlb[12C7]
C147	CAP_01005	radio_mlb[12C6]
C148	CAP_01005	radio_mlb[12D5]
C149	CAP_0201-1	radio_mlb[12D5]
C150	CAP_201	radio_mlb[12C3]
C151	IND_0201	radio_mlb[12B3]
C152	CAP_01005	radio_mlb[11D6]
C153	CAP_01005	radio_mlb[11D6]
C154	CAP_01005	radio_mlb[11D6]
C155	IND_01005	radio_mlb[18C6]
C156	IND_01005	radio_mlb[18B6]
C157	CAP_01005	radio_mlb[20D2]
C158	CAP_01005	radio_mlb[20B2]
C160	CAP_01005	radio_mlb[10B7]
C161	CAP_01005	radio_mlb[9C7]
C162	CAP_01005	radio_mlb[9B7]
C163	CAP_01005	radio_mlb[9C7]
C164	CAP_01005	radio_mlb[9C7]
C165	CAP_01005	radio_mlb[9B7]
C166	CAP_01005	radio_mlb[9B7]
C167	CAP_01005	radio_mlb[15C7]
C168	CAP_01005	radio_mlb[16C3]
C170	CAP_0201	radio_mlb[23C2]
C171	CAP_01005	radio_mlb[15B7]
C172	RES_01005	radio_mlb[15C6]
C173	IND_01005	radio_mlb[10B7]
C174	RES_01005	radio_mlb[10B4]
C175	CAP_01005	radio_mlb[11D3]
C176	CAP_01005	radio_mlb[11D3]
C182	CAP_01005	radio_mlb[7C4]
C183	CAP_01005	radio_mlb[15B5]
C184	CAP_01005	radio_mlb[15C5]
C185	CAP_402	radio_mlb[15C5]
C186	RES_01005	radio_mlb[15B5]
C187	CAP_0201-1	radio_mlb[15C4]
C188	CAP_01005	radio_mlb[15C4]
C197	CAP_01005	radio_mlb[18B5]
C198	CAP_01005	radio_mlb[18D4]
C210	CAP_01005	radio_mlb[18C6]
C211	CAP_01005	radio_mlb[10B6]
C212	CAP_01005	radio_mlb[10B6]
C213	CAP_01005	radio_mlb[10D7]
C214	IND_01005	radio_mlb[10D7]
C215	IND_01005	radio_mlb[10C7]
C216	IND_01005	radio_mlb[13C8]
C217	IND_01005	radio_mlb[10C7]
C218	RES_01005	radio_mlb[13C8]
C219	CAP_01005	radio_mlb[13B8]
C220	IND_01005	radio_mlb[10D7]
C226	RES_01005	radio_mlb[10D4]
C227	CAP_01005	radio_mlb[13C6]
C228	CAP_01005	radio_mlb[13B5]
C229	CAP_01005	radio_mlb[13C4]
C230	CAP_0201-1	radio_mlb[13C4]
C233	RES_201	radio_mlb[13C2]
C234	IND_0201	radio_mlb[13B2]
C237	IND_01005	radio_mlb[11B7]
C238	CAP_01005	radio_mlb[11C7]
C239	CAP_01005	radio_mlb[11C7]
C240	CAP_01005	radio_mlb[11C7]
C241	CAP_01005	radio_mlb[11D6]
C242	CAP_0201-1	radio_mlb[11D6]
C244	CAP_01005	radio_mlb[8D1]
C245	IND_0201	radio_mlb[11B5]
C247	CAP_01005	radio_mlb[20D5]
C248	RES_201	radio_mlb[11C4]
C249	RES_01005	radio_mlb[11C4]
C251	CAP_01005	radio_mlb[7C2]
C252	CAP_01005	radio_mlb[11C3]
C253	CAP_01005	radio_mlb[11B3]
C255	CAP_01005	radio_mlb[11B2]
C256	IND_01005	radio_mlb[11B2]
C258	RES_201	radio_mlb[11D4]
C261	CAP_201	radio_mlb[11C4]
C263	IND_01005	radio_mlb[11C2]
C264	CAP_201	radio_mlb[11B6]
C268	CAP_01005	radio_mlb[17C3]
C271	CAP_01005	radio_mlb[20D2]
C272	CAP_01005	radio_mlb[11D3]
C273	CAP_01005	radio_mlb[11B3]
C274	CAP_01005	radio_mlb[8C6]
C280	CAP_0201	radio_mlb[23C2]
C281	CAP_0201	radio_mlb[23C2]
C282	CAP_0201	radio_mlb[19B6]
C700	CAP_01005	radio_mlb[2A5]
C1201	CAP_0402	radio_mlb[16C5]
C1214	CAP_01005	radio_mlb[16C5]
C1726	CAP_01005	radio_mlb[20D7]
FL2	FIL_SAW_TX_B1B3B34B39_LGA	radio_mlb[10D3]
FL3	FILTER_SAW_SATGR832M_BM0F57_LGA	radio_mlb[10D6]
FL4	FILTER_2P_01005-1	radio_mlb[6B7]
FL11	FILTER_SAWFD847MGA0F57_LGA	radio_mlb[13C7]
FL12	FIL_LOWPASS_INOUT_4P_LGA	radio_mlb[11C3]
FL1701	FILTER_3P5_LFE18832M_HC1D449	radio_mlb[20D7]
J1	CON_M54ST_D4MT_SM_M-ST-SM	radio_mlb[2D2]
J2	CON_F1ST_COAX_S3MT_SM_F-ST-SM	radio_mlb[2B2]
J3	CON_F1ST_COAX_S3MT_SM_F-ST-SM	radio_mlb[2B2]
J4	CON_F1ST_COAX_S3MT_SM_F-ST-SM	radio_mlb[20A6]
J5	CON_F1ST_COAX_S3MT_SM_F-ST-SM	radio_mlb[20C1]
J6	CON_F1ST_COAX_S3MT_SM_F-ST-SM	radio_mlb[20C1]
J9	CON_F2ST_COAX_3MT_SM_F-RT-SM	radio_mlb[20A4]
J10	CON_F1ST_COAX_S3MT_SM_F-ST-SM	radio_mlb[20B8]
J11	CON_F6ST_6MT_SIMCARD_SM3_F-ST-SM	radio_mlb[2A6]
L1	IND_0806	radio_mlb[3D3]
L2	IND_0806	radio_mlb[3C3]
L3	IND_0806	radio_mlb[3C3]
L4	IND_0806	radio_mlb[3D3]
L5	IND_TFA252010-SM	radio_mlb[3C3]
L6	IND_01005	radio_mlb[20D7]
L7	IND_0201	radio_mlb[9C3]
L8	IND_03015	radio_mlb[20D4]
L9	IND_0603	radio_mlb[23B6]
L10	RES_201	radio_mlb[9B4]
L11	RES_201	radio_mlb[9A4]
L12	CAP_01005-1	radio_mlb[11D1]
L13	IND_0201	radio_mlb[17B3]
L14	IND_01005	radio_mlb[14C6]
L15	IND_01005	radio_mlb[14C6]
L16	IND_0201	radio_mlb[14C3]
L17	IND_0201	radio_mlb[14C3]
L18	RES_201	radio_mlb[9B2]
L19	IND_01005	radio_mlb[10A4]
L20	RES_01005	radio_mlb[11B8]
L21	IND_DFE201610C-SM	radio_mlb[16C4]
L22	IND_01005	radio_mlb[12C7]
L23	IND_01005	radio_mlb[12C7]
L24	IND_0201	radio_mlb[12C3]
L25	IND_0201	radio_mlb[9B3]
L26	FILTER_4P11_LLP	radio_mlb[9C5]
L27	IND_0201DS	radio_mlb[9C7]
L28	IND_0201	radio_mlb[13B2]
L29	RES_01005	radio_mlb[11C7]
L30	RES_01005	radio_mlb[11C7]
L31	IND_0201DS	radio_mlb[9C7]
L32	IND_0201DS	radio_mlb[9B7]
L34	IND_0201DS	radio_mlb[9B7]
L35	IND_01005	radio_mlb[15B7]
L36	IND_01005	radio_mlb[15C7]
L37	RES_201	radio_mlb[15B3]
L38	IND_0201	radio_mlb[15B3]
L39	IND_0201	radio_mlb[15B3]
L40	IND_01005	radio_mlb[18B5]
L41	IND_0201	radio_mlb[17C4]
L42	IND_01005	radio_mlb[18B5]
L43	IND_01005	radio_mlb[18C5]
L44	RES_01005	radio_mlb[11C7]
L45	CAP_01005	radio_mlb[11B7]
L46	RES_01005	radio_mlb[18B4]
L47	RES_01005	radio_mlb[18A4]
L48	IND_0201	radio_mlb[20C4]
L49	IND_01005	radio_mlb[20B5]
L50	IND_P_0201	radio_mlb[20C5]
L51	IND_0201	radio_mlb[20C3]
L52	CAP_01005	radio_mlb[18A6]
L53	IND_01005	radio_mlb[13C5]
L54	IND_01005	radio_mlb[13C5]
L55	IND_01005	radio_mlb[9B7]
L56	IND_01005	radio_mlb[18A7]
L57	IND_0201	radio_mlb[13C2]
L58	IND_0201	radio_mlb[9D7]
L59	IND_01005	radio_mlb[10D4]
L60	IND_01005	radio_mlb[10C4]
L61	IND_01005	radio_mlb[10C2]
L63	IND_01005	radio_mlb[18B4]
L64	IND_0201	radio_mlb[9C7]
L65	IND_0201	radio_mlb[18A6]
L66	IND_01005	radio_mlb[20D7]
L67	IND_01005	radio_mlb[20C7]
L68	IND_01005	radio_mlb[20C7]
L69	IND_01005	radio_mlb[20D4]
L70	RES_01005	radio_mlb[11B2]
L71	RES_01005	radio_mlb[11B2]
L72	RES_201	radio_mlb[11A2]
L73	RES_01005	radio_mlb[11C2]
L74	IND_01005	radio_mlb[9D4]
L75	IND_01005	radio_mlb[9C4]
L76	IND_0201	radio_mlb[12C3]
L77	IND_01005	radio_mlb[18A4]
L78	IND_0201	radio_mlb[9B3]
L79	IND_0201	radio_mlb[9D7]
L80	IND_0201	radio_mlb[9A2]
L81	IND_01005	radio_mlb[10C2]
L82	IND_01005	radio_mlb[12C6]
L83	RES_01005	radio_mlb[9A4]
L90	IND_01005	radio_mlb[9D4]
L91	IND_01005	radio_mlb[9D4]
L92	IND_01005	radio_mlb[9C4]
L93	IND_01005	radio_mlb[9C4]
L94	IND_0201	radio_mlb[13C2]
L95	IND_01005	radio_mlb[9B7]
L96	IND_01005	radio_mlb[9A7]
L97	IND_0201	radio_mlb[11A2]
L98	IND_01005	radio_mlb[10C2]
L99	IND_0201	radio_mlb[9A3]
L100	IND_0201	radio_mlb[11D4]
L900	IND_0201	radio_mlb[9C5]
L1732	IND_03015	radio_mlb[20D6]
PP1	PROBEPOINT_SM	radio_mlb[2D7]
PP2	PROBEPOINT_SM	radio_mlb[2D7]
PP3	PROBEPOINT_SM	radio_mlb[2D7]
PP4	PROBEPOINT_SM	radio_mlb[2B7]
PP5	PROBEPOINT_SM	radio_mlb[2B7]
PP6	PROBEPOINT_SM	radio_mlb[2B7]
PP7	PROBEPOINT_SM	radio_mlb[2A7]
PP8	PROBEPOINT_SM	radio_mlb[2D6]
PP9	PROBEPOINT_SM	radio_mlb[2D6]
PP10	PROBEPOINT_SM	radio_mlb[2D6]
PP11	PROBEPOINT_SM	radio_mlb[2D7]
PP12	PROBEPOINT_SM	radio_mlb[2D6]
PP13	PROBEPOINT_SM	radio_mlb[2C6]
PP14	PROBEPOINT_SM	radio_mlb[2C7]
PP15	PROBEPOINT_SM	radio_mlb[2C7]
PP16	PROBEPOINT_SM	radio_mlb[2C6]
PP18	PROBEPOINT_SM	radio_mlb[2C7]
PP19	PROBEPOINT_SM	radio_mlb[2C7]
PP20	PROBEPOINT_SM	radio_mlb[2C7]
PP21	PROBEPOINT_SM	radio_mlb[2C7]
PP22	PROBEPOINT_SM	radio_mlb[2C7]
PP40	PROBEPOINT_SM	radio_mlb[2C7]
PP41	PROBEPOINT_SM	radio_mlb[2C7]
PP42	PROBEPOINT_SM	radio_mlb[2B7]
PP43	PROBEPOINT_SM	radio_mlb[2B7]
PP44	PROBEPOINT_SM	radio_mlb[2B7]
PP45	PROBEPOINT_SM	radio_mlb[2B7]
PP46	PROBEPOINT_SM	radio_mlb[2B7]
PP47	PROBEPOINT_SM	radio_mlb[2B7]
R1	RES_01005	radio_mlb[18D6]
R2	RES_01005	radio_mlb[18D5]
R3	RES_01005	radio_mlb[2A5]
R4	RES_01005	radio_mlb[6C4]
R6	RES_01005	radio_mlb[5B6]
R7	RES_01005	radio_mlb[5A5]
R8	RES_01005	radio_mlb[10D2]
R9	RES_01005	radio_mlb[5B2]
R10	RES_01005	radio_mlb[5D1]
R11	IND_0201	radio_mlb[20A5]
R13	RES_201	radio_mlb[20B7]
R14	RES_01005	radio_mlb[23B7]
R15	RES_01005	radio_mlb[23A7]
R16	RES_01005	radio_mlb[23C5]
R17	RES_01005	radio_mlb[23C3]
R18	RES_01005	radio_mlb[23C3]
R19	RES_201	radio_mlb[8D3]
R20	RES_01005	radio_mlb[4C8]
R21	RES_01005	radio_mlb[4C8]
R22	RES_01005	radio_mlb[4B5]
R23	RES_01005	radio_mlb[4D4]
R24	RES_01005	radio_mlb[4D4]
R25	RES_01005	radio_mlb[4D3]
R26	RES_01005	radio_mlb[4D3]
R27	RES_01005	radio_mlb[7C4]
R28	RES_01005	radio_mlb[7C2]
R29	RES_01005	radio_mlb[7C2]
R30	RES_01005	radio_mlb[7C2]
R32	RES_01005	radio_mlb[15C5]
R33	RES_01005	radio_mlb[16C6]
R34	RES_01005	radio_mlb[16C6]
R35	RES_01005	radio_mlb[13C3]
R36	RES_0201	radio_mlb[12C3]
R37	RES_201	radio_mlb[15B3]
R38	RES_0201	radio_mlb[12C3]
R39	RES_01005	radio_mlb[18C2]
R43	RES_01005	radio_mlb[23B7]
R44	RES_01005	radio_mlb[23A7]
R50	RES_01005	radio_mlb[7C4]
R51	RES_01005	radio_mlb[23A6]
R52	RES_01005	radio_mlb[23A6]
R53	RES_201	radio_mlb[8D8]
R60	RES_01005	radio_mlb[17C6]
R64	RES_01005	radio_mlb[11D4]
R65	RES_01005	radio_mlb[11B4]
R72	IND_0201	radio_mlb[19B6]
R75	CAP_0201	radio_mlb[19B5]
SP1	SMT_PAD_SM-NSP	radio_mlb[20D8]
SP2	SMT_PAD_SM-NSP	radio_mlb[19B7]
SP3	SPRING_CLIP_1P_CLIP-SM	radio_mlb[19B6]
SW1	SWI_SPDT_CXA4403GC_XFLGA	radio_mlb[17C3]
TP1	TP_TP-P6	radio_mlb[20D4]
U1	MODEM_MDM9615M_1_BGA	radio_mlb[5D2 5C7 5D4 5B4]
U1	MODEM_MDM9615M_1_BGA	radio_mlb[6C3 6D7]
U2	PM8018_WLNSP105_BGA	radio_mlb[3C5]
U2	PM8018_WLNSP105_BGA	radio_mlb[4B7 4C7 4D3 4B4]
U3	WTR1605_SM	radio_mlb[7D4 7B7 7D7 7C7]
U3	WTR1605_SM	radio_mlb[8B3]
U4	SWI_CXA4402GC_XFLGA	radio_mlb[11D2]
U5	SUPPR_TPD4E101_SON4	radio_mlb[2A3]
U6	FLASH_MX25U1635E_WLCSP	radio_mlb[6A7]
U7	RF1112_WLCSP	radio_mlb[20D5]
U8	MOD_WIFI_BT_IMPERIAL_LGA60_LGA	radio_mlb[23C5]
U9	FIL_DIPLEXER_885041_LGA	radio_mlb[20C4]
U10	SKY77355_LGA	radio_mlb[15C4]
U11	DCDC_LM3258_BGA	radio_mlb[16C5]
U12	FIL_DIPLEXER_HILOBAND_SM	radio_mlb[20C6]
U13	SWI_SPDT_CXA4011GC_XFLGA	radio_mlb[20C2]
U14	TSINGTAO_LGA	radio_mlb[18C4]
U15	AMP_DUPLEXER_BAND7_LGA30_LGA	radio_mlb[13C4]
U16	FILTER_SAW_2UNB_LGA	radio_mlb[9A3]
U17	SWI_RF1495_LGA	radio_mlb[17B6]
U18	FILTER_4P12_LLP	radio_mlb[20D3]
U20	AMP_SKY65716_LGA	radio_mlb[19C4]
U22	FIL_BAW_885035_LGA	radio_mlb[18B6]
U23	AMP_TQM6M6224_LGA	radio_mlb[12C5]
U24	SWI_SPDT_BGS12SL6_TS_LP6-2	radio_mlb[10B6]
U25	AMP_PENTA_BAND_LGA26_LGA	radio_mlb[11C6]
U26	FIL_DIPLEXER_B38_B40_9P1_LGA	radio_mlb[9B3]
U27	MOD_LMSWFKJM_LGA	radio_mlb[11B3]
U58	AMP_DUPLEXER_BAND58_LGA30_LGA	radio_mlb[14D5]
XW1	SHORT10LP25_WITH_ALT_S_SHORT-10L-0.25MM-SM	radio_mlb[4B6]
XW2	SHORT10LP25_WITH_ALT_S_SHORT-10L-0.25MM-SM	radio_mlb[4B6]
XW3	SHORT10LP25_WITH_ALT_S_SHORT-10L-0.25MM-SM	radio_mlb[4B6]
XW4	SHORT10LP25_WITH_ALT_S_SHORT-10L-0.25MM-SM	radio_mlb[4B6]
XW8	SHORT_SHORT-01005	radio_mlb[23C7]
XW9	SHORT_LAYER_9_SHORT-L9-SM	radio_mlb[23D6]
XW10	SHORT10LP1_WITH_ALTS	radio_mlb[4A4]

	_SHORT-10L-0.1MM-SM	
XW12	SHORT10LP1_WITH_ALTS	radio_mlb[2A7]
	_SHORT-10L-0.1MM-SM	
XW13	SHORT10LP1_WITH_ALTS	radio_mlb[2A7]
	_SHORT-10L-0.1MM-SM	
XW14	SHORT10LP1_WITH_ALTS	radio_mlb[2A7]
	_SHORT-10L-0.1MM-SM	
XW15	SHORT10LP1_WITH_ALTS	radio_mlb[2A7]
	_SHORT-10L-0.1MM-SM	
XW16	SHORT10LP25_WITH_ALT	radio_mlb[4A6]
	S_SHORT-10L-0.25MM-S	
	M	
XW17	SHORT10LP1_WITH_ALTS	radio_mlb[3C5]
	_SHORT-10L-0.1MM-SM	
XW20	SHORT_LAYER_9_SHORT-	radio_mlb[23D6]
	L9-SM	
Y1	CRYSTAL_4PIN2_2.0X1.	radio_mlb[4B4]
	60MM	