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.

J208: MLB-B

LAST_MODIFICATION=Tue Oct 4 09:04:48 2016
J207_MLB_B_ELBA SYNC VER 1.0.0
DEV_MYST SYNC VER 0.42.0
RADIO_MLB SYNC VER 0.29.0
WIFI_MLB SYNC VER 0.29.0

REV	ECN	DESCRIPTION OF REVISION	CK APPD / DATE
6	0007253455	ENGINEERING RELEASED	2016-10-05

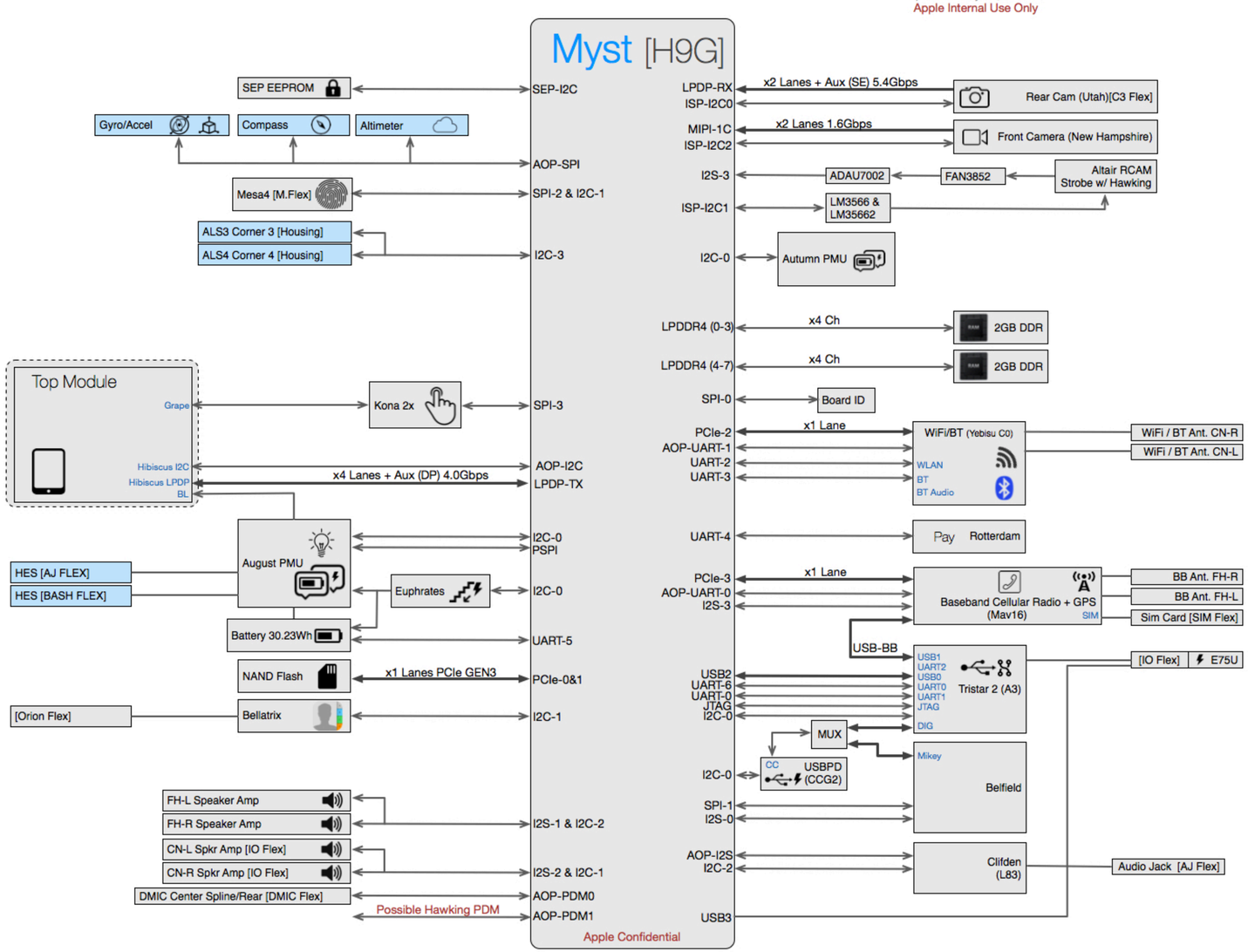
SCH AND BOARD P/N

PART#	QTY	DESCRIPTION	REFERENCE DESIGNATOR(S)	CRITICAL	BOM OPTION
051-01016	1	SCHEM,MLB-B,NY,J208	SCH1	CRITICAL	
820-00433	1	PCBF,MLB-B,NY,J208	PCB1	CRITICAL	

SYNC_MASTER=
SYNC_DATE=
DRAWING TITLE
TABLE OF CONTENTS
SCHEM,MLB-B,(NY),J208

J208 P2 System Block Diagram

Updated: July 11, 2016
Apple Internal Use Only



SYNC_MASTER=
SYNC_DATE=
PAGE TITLE
BLOCK DIAGRAM

CKPLUS WAIVE TABLE

CKPLUS RULE EXCEPTIONS	REQUIRED
SCHEMATIC DEFINED CONSTRAINTS (YES/NO)	NO

MECHANICAL PARTS

PART#	QTY	DESCRIPTION	REFERENCE DESIGNATOR(S)	CRITICAL	BOM OPTION
806-09232	1	CAN,TOUCH,MLB	TOUCH_FENCE	CRITICAL	
806-08286	1	CAN,RADIO,MLB_B	RADIO_FENCE	CRITICAL	MLB_B
806-08942	1	FENCE,AP,MLB	AP_FENCE	CRITICAL	

BARCODE LABEL/EEEE CODES

PART#	QTY	DESCRIPTION	REFERENCE DESIGNATOR(S)	CRITICAL	BOM OPTION
825-7691	1	EEEE FOR 639-01321 (MLB A BETTER)	EEEE_HFRC	CRITICAL	EEEE_MLB_A_BETTER
825-7691	1	EEEE FOR 639-03350 (MLB A EXTREME)	EEEE_HN82	CRITICAL	EEEE_MLB_A_EXTREME
825-7691	1	EEEE FOR 639-01325 (MLB A ULTIMATE)	EEEE_GPMM	CRITICAL	EEEE_MLB_A_ULTIMATE
825-7691	1	EEEE FOR 639-01327 (MLB A SUPREME)	EEEE_GPMN	CRITICAL	EEEE_MLB_A_SUPREME
825-7691	1	EEEE FOR 639-01322 (MLB B BETTER)	EEEE_HFR9	CRITICAL	EEEE_MLB_B_BETTER
825-7691	1	EEEE FOR 639-03349 (MLB B EXTREME)	EEEE_HN81	CRITICAL	EEEE_MLB_B_EXTREME
825-7691	1	EEEE FOR 639-01326 (MLB B ULTIMATE)	EEEE_GPMQ	CRITICAL	EEEE_MLB_B_ULTIMATE
825-7691	1	EEEE FOR 639-01328 (MLB B SUPREME)	EEEE_GPMV	CRITICAL	EEEE_MLB_B_SUPREME

SOC

PART#	QTY	DESCRIPTION	REFERENCE DESIGNATOR(S)	CRITICAL	BOM OPTION
343S00172	1	IC,MYST	U0600	CRITICAL	

PART NUMBER	ALTERNATE FOR PART NUMBER	BOM OPTION	REF DES	COMMENTS:
343S00173	343S00172		U0600	DIFF ASSEMBLY HOUSE

SDRAM

PART#	QTY	DESCRIPTION	REFERENCE DESIGNATOR(S)	CRITICAL	BOM OPTION
333S00103	2	IC,DRAM,SAMSUNG,FBGA480	U1600,U1700	CRITICAL	

PART NUMBER	ALTERNATE FOR PART NUMBER	BOM OPTION	REF DES	COMMENTS:
333S00104	333S00103		U1600,U1700	HYNIX DRAM
333S00105	333S00103		U1600,U1700	MICRON DRAM

PMU

PART#	QTY	DESCRIPTION	REFERENCE DESIGNATOR(S)	CRITICAL	BOM OPTION
343S00118	1	IC,PMU,AUGUST,D2400AA,OTP-BE	U8100	CRITICAL	
343S00120	1	IC,PMU,AUTUMN,WLCSP121,OTP-BD	U7700	CRITICAL	

EUPHRATES

PART#	QTY	DESCRIPTION	REFERENCE DESIGNATOR(S)	CRITICAL	BOM OPTION
343S00121	1	IC,EUPHRATES,D2355A1,OTP-CD	U8500	CRITICAL	

NAND

BETTER FLASH CONFIGURATIONS

PART#	QTY	DESCRIPTION	REFERENCE DESIGNATOR(S)	CRITICAL	BOM OPTION
335S00155	1	TOSHIBA,32GB,MLC,ULGA70,BETTER	U1800	CRITICAL	BETTER_PROD

PART NUMBER	ALTERNATE FOR PART NUMBER	BOM OPTION	REF DES	COMMENTS:
335S00160	335S00155	BETTER_PROD	U1800	HYNIX NAND

ULTIMATE FLASH CONFIGURATIONS

PART#	QTY	DESCRIPTION	REFERENCE DESIGNATOR(S)	CRITICAL	BOM OPTION
335S00174	1	TOSHIBA,128GB,TLC,ULGA70,ULTIMATE	U1800	CRITICAL	ULTIMATE_PROD

PART NUMBER	ALTERNATE FOR PART NUMBER	BOM OPTION	REF DES	COMMENTS:
335S00165	335S00174	ULTIMATE_PROD	U1800	SANDISK NAND

SUPREME FLASH CONFIGURATIONS

PART#	QTY	DESCRIPTION	REFERENCE DESIGNATOR(S)	CRITICAL	BOM OPTION
335S00188	1	TOSHIBA,256GB,TLC,ULGA70,SUPREME	U1800	CRITICAL	SUPREME_PROD

PART NUMBER	ALTERNATE FOR PART NUMBER	BOM OPTION	REF DES	COMMENTS:
335S00166	335S00188	SUPREME_PROD	U1800	SANDISK NAND

EXTREME FLASH CONFIGURATIONS

PART#	QTY	DESCRIPTION	REFERENCE DESIGNATOR(S)	CRITICAL	BOM OPTION
335S00265	1	NAND,512GB,3DV2,ULGA70,XTREME	U1800	CRITICAL	EXTREME_PROD

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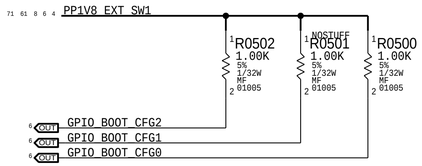
PAGE TITLE

BOM TABLES

BOOT CONFIG ID

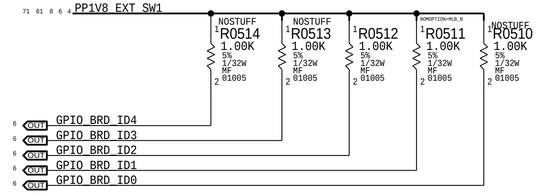


BOOT_CFG[3:0]	MODE
000	RESERVED
001	RESERVED
010	NVME0 X2
011	NVME0 X2 TEST
100	NVME0 X1
CURRENT SETTING ---> 101	NVME0 X1 TEST

S/W READ FLOW

1. SET GPIO AS INPUT
2. DISABLE PU AND ENABLE PD
3. READ

BOARD ID



BRD_ID[4-0]	
00100	J207 AP
00101	J207 DEV
00110	J208 AP
CURRENT SETTING ---> 00111	J208 DEV

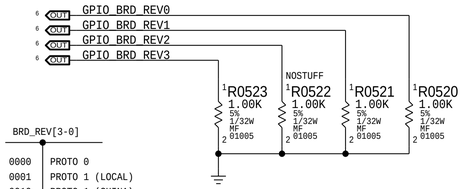
S/W READ FLOW

1. SET GPIO AS INPUT
2. DISABLE PU AND ENABLE PD
3. READ

RDAR//PROBLEM/24427656

BOARD REVISION

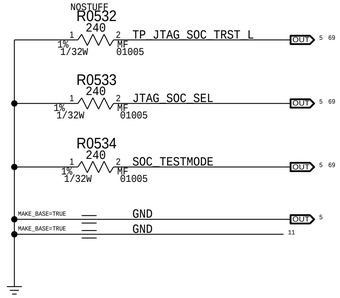
NOTE: STUFFING RESISTOR MEANS 0



BRD_REV[3-0]	
0000	PROTO 0
0001	PROTO 1 (LOCAL)
0010	PROTO 1 (CHINA)
0011	PROTO 2
CURRENT SETTING ---> 0100	EVT
0101	UNUSED
0110	UNUSED
0111	UNUSED
1000	UNUSED

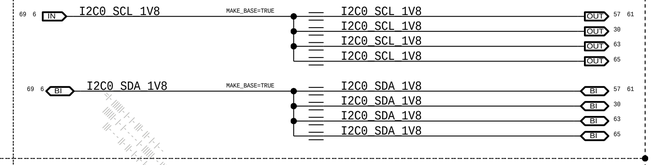
S/W READ FLOW

1. SET GPIO AS INPUT
2. ENABLE PU AND DISABLE PD
3. READ



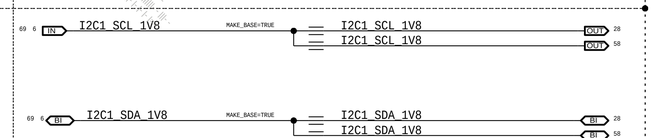
I2C0

DEVICE	8-BIT	7-BIT
AUGUST	0X78	0X3C
AUTUMN	0X80	0X40
TRISTAR	0X34	0X1A
EUPHRATES	0XEA	0X75
USB PD	0X24	0X12



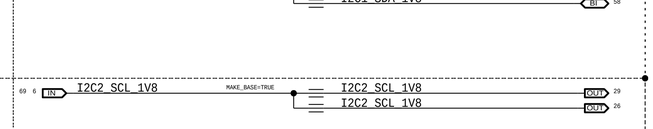
I2C1

DEVICE	8-BIT	7-BIT
SKR AMP CN R	0X64	0X32
SKR AMP CN L	0X62	0X31
BELLATRIX	0X26	0X13



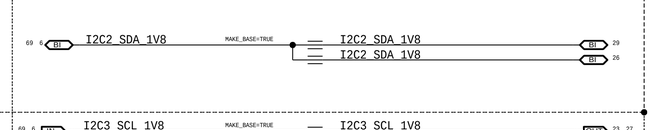
I2C2

DEVICE	8-BIT	7-BIT
SKR AMP FH R	0X64	0X32
SKR AMP FH L	0X62	0X31
CLIFDEN	0X90	0X48



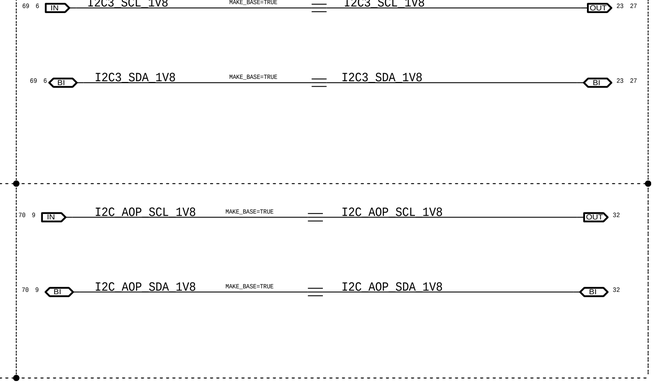
I2C3

DEVICE	8-BIT	7-BIT
ALS (FH-L)	0X52	0X29
ALS (FH-R)	0X72	0X39



AOP I2C

DEVICE	8-BIT	7-BIT
TCON(HIBISCUS)	0X18-0X27	
TCON MICRO	0XAC	0X56
TCON TEMP	0X48-0X4F	



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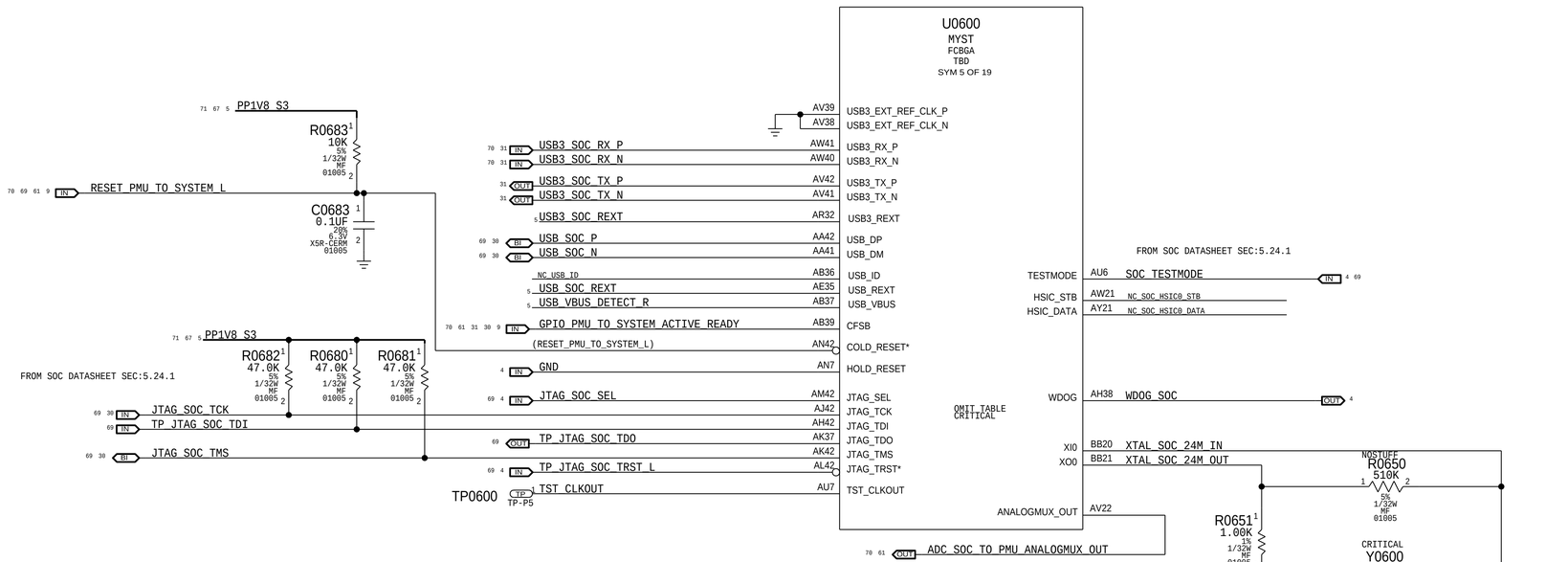
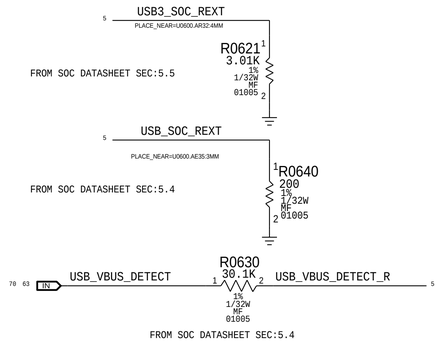
SOC: MISC & ALIASES

USB/JTAG/XTAL



USB SUPPORT



PART NUMBER	ALTERNATE FOR PART NUMBER	BOM OPTION	REF DES	COMMENTS:
197S0590	197S0591		Y0600	EPSON,24MHZ.XTAL
197S0588	197S0591		Y0600	TXC,24MHZ,XTAL

SYNC_MASTER= SYNC_DATE=

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SOC: MAIN

I2S/SPI/I2C

U0600
MYST
FCBGA
TBD
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OMIT TABLE CRITICAL

I2S0_BCLK
I2S0_DIN
I2S0_DOUT
I2S0_LRCK
I2S0_MCK
I2S1_BCLK
I2S1_DIN
I2S1_DOUT
I2S1_LRCK
I2S1_MCK
I2S2_BCLK
I2S2_DIN
I2S2_DOUT
I2S2_LRCK
I2S2_MCK
I2S3_BCLK
I2S3_DIN
I2S3_DOUT
I2S3_LRCK
I2S3_MCK
SPI0_MISO (BRD ID<2>)
SPI0_MOSI (BRD ID<1>)
SPI0_SCLK (BRD ID<0>)
SPI0_SSIN
SPI1_MISO
SPI1_MOSI
SPI1_SCLK
SPI1_SSIN
SPI2_MISO
SPI2_MOSI
SPI2_SCLK
SPI2_SSIN
SPI3_MISO
SPI3_MOSI
SPI3_SCLK
SPI3_SSIN
I2C
I2S
SPI
SEP

I2S0_SOC_TO_BELFIELD_BCLK — AY32
I2S0_BELFIELD_TO_SOC_DOUT — BA33
I2S0_SOC_TO_BELFIELD_DOUT — AW32
I2S0_SOC_TO_BELFIELD_LRCK — AW33
I2S0_SOC_TO_BELFIELD_MCLK_R — BB32
I2S0_SOC_TO_BELFIELD_MCLK — R0705 33 1/32W 5% MF 01005 (PLACE_NEAR=U0600.BB32:10MM)

I2S1 : FOREHEAD (J207)
I2S1_SPKRAMP_FH_BCLK — AP4
I2S1_SPKRAMP_FH_TO_SOC_DOUT — AP5
I2S1_SOC_TO_SPKRAMP_FH_DOUT — AP2
I2S1_SOC_TO_SPKRAMP_FH_LRCK — AJ6
I2S1_SOC_TO_SPKRAMP_FH_MCLK_R — AN3
I2S1_SOC_TO_SPKRAMP_FH_MCLK — R0701 33 5% 1/32W MF 01005 (PLACE_NEAR=U0600.AN3:10MM)

I2S2 : CHIN (J120 / J207)
I2S2_SPKRAMP_CN_BCLK — AY33
I2S2_SPKRAMP_CN_TO_SOC_DOUT — AU32
I2S2_SOC_TO_SPKRAMP_CN_DOUT — AY34
I2S2_SOC_TO_SPKRAMP_CN_LRCK — AV32
I2S2_SOC_TO_SPKRAMP_CN_MCLK_R — BA32
I2S2_SOC_TO_SPKRAMP_CN_MCLK — R0703 33 5% 1/32W MF 01005 (PLACE_NEAR=U0600.BA32:10MM)

I2S3_SOC_TO_HAWKING_BCLK — AP3
I2S3_HAWKING_TO_SOC_DOUT — AR4
NC_I2S3_DOUT — AK7
I2S3_SOC_TO_HAWKING_LRCK — AR5
GPIO_CODEC_TO_SOC_IRQ_L — AK1

GPIO_BRD_ID2 — AP7
GPIO_BRD_ID1 — BA3
GPIO_BRD_ID0 — AV7
GPIO_BRD_ID3 — AY5

SPI_BELFIELD_MISO — AT37
SPI_BELFIELD_MOSI — AV34
SPI_BELFIELD_SCLK — BA35
SPI_BELFIELD_CS_L — AV33

SPI_MESA_MISO — AR36
SPI_MESA_MOSI — AT39
SPI_MESA_SCLK — R0706 33 1/32W 5% MF 01005 (PLACE_NEAR=U0600.AU34:6MM)
SPI_MESA_SCLK_R — AU34
GPIO_MESA_TO_SOC_IRQ — AU33

SPI_SOC_TO_GRAPE_MISO — AE41
SPI_SOC_TO_GRAPE_MOSI_R — AE40
SPI_SOC_TO_GRAPE_MOSI — R0708 33 5% 1/32W MF 01005 (PLACE_NEAR=U0600.AE40:5MM)
SPI_SOC_TO_GRAPE_SCLK_R — AF42
SPI_SOC_TO_GRAPE_SCLK — R0707 43.2 1% 1/32W MF 01005 (PLACE_NEAR=U0600.AF42:5MM)
SPI_SOC_TO_GRAPE_CS_L — AE36

SEP_I2C_SCL — AR1 — SEP_I2C_SCL_1V8 (6)
SEP_I2C_SDA — AV5 — SEP_I2C_SDA_1V8 (6)
SEP_SPI0_MISO — AV6 — NC_SEP_SPI0_MISO
SEP_SPI0_MOSI — AU2 — NC_SEP_SPI0_MOSI
SEP_SPI0_SCLK — AU3 — NC_SEP_SPI0_SCLK

SOCHOT — AE42 — SOCHOT1_SOC_TO_PMU_L (OUT 6 61 69)
DROOP — AE38 — VCCMAIN_DROOP_PMU_TO_SOC_L (IN 6 61 69)

CPU_TRIGGER0 — AD36 — GPIO_PMU_TO_CPU_TRIGGER_0 (IN 61 69)
CPU_TRIGGER1 — AB38 — GPIO_PMU_TO_CPU_TRIGGER_1 (IN 61 69)
GPU_TRIGGER0 — AC40 — GPIO_PMU_TO_GPU_TRIGGER_0 (IN 61 69)
GPU_TRIGGER1 — AC39 — GPIO_PMU_TO_GPU_TRIGGER_1 (IN 61 69)

I2C0_SCL — AC42 — I2C0_SCL_1V8 (OUT 4 6 69)
I2C0_SDA — AD42 — I2C0_SDA_1V8 (BI 4 6 69)
I2C1_SCL — BB36 — I2C1_SCL_1V8 (OUT 4 6 69)
I2C1_SDA — BB33 — I2C1_SDA_1V8 (BI 4 6 69)
I2C2_SCL — AT1 — I2C2_SCL_1V8 (OUT 4 6 69)
I2C2_SDA — AP1 — I2C2_SDA_1V8 (BI 4 6 69)
I2C3_SCL — BB35 — I2C3_SCL_1V8 (OUT 4 6 69)
I2C3_SDA — BB37 — I2C3_SDA_1V8 (BI 4 6 69)

GPIO/UART/CLK

U0600
MYST
FCBGA
TBD
SYM 18 OF 19
OMIT TABLE CRITICAL

GPIO_0 — NC_GPIO_ALS_C2_TO_SOC_IRQ_L — AW4
GPIO_1 — GPIO_SOC_TO_BB_RADIO_ON_L (69 68 OUT) — AG4
GPIO_2 — GPIO_SOC_TO_NAND_FW_STRAP (17 OUT) — AF3
GPIO_3 — GPIO_BB_TO_SOC_RESET_DET_L (69 68 IN) — AJ5
GPIO_4 — GPIO_BB_IPC (68 BI) — AJ4
GPIO_5 — GPIO_SOC_TO_GRAPE_RESET_L (70 20 19 OUT) — AV3
GPIO_6 — GPIO_GRAPE_TO_SOC_IRQ_L (70 19 IN) — AW6
GPIO_7 — GPIO_ALS_C3_TO_SOC_IRQ_L (69 23 IN) — AW3
GPIO_8 — GPIO_BB_TO_SOC_GPS_SYNC (68 IN) — AH2
GPIO_9 — GPIO_SOC_TO_BB_RESET_L (69 68 OUT) — AG7
GPIO_10 — GPIO_SOC_TO_USB3_XBAR_DIS_PULSE_L (31 OUT) — AJ2
GPIO_11 — GPIO_SOC_TO_USB3_XBAR_EN_PULSE_L (31 OUT) — AJ3
GPIO_12 — SWD_USBPD_SWDIO (65 BI) — AP6
GPIO_13 — GPIO_BELFIELD_TO_SOC_IRQ_L (69 26 IN) — AR3
GPIO_14 — GPIO_SOC_TO_ROTTERDAM_DWLD_REQ (68 OUT) — AU4
GPIO_15 — GPIO_SOC_TO_BB_COREDUMP (68 OUT) — AL7
GPIO_16 — GPIO_USBPD_TO_SOC_IRQ_L (65 IN) — AY4
GPIO_17 — GPIO_SOC_TO_LED_DRIVER_EN (69 25 OUT) — AR2
GPIO_18 — GPIO_BOOT_CFG0 (4 IN) — AW1
GPIO_19 — GPIO_SOC_TO_ROTTERDAM_DEV_WAKE (68 OUT) — AT4
GPIO_20 — GPIO_SOC_TO_ROTTERDAM_EN (68 OUT) — AU5
GPIO_21 — GPIO_ALS_C4_TO_SOC_IRQ_L (69 27 IN) — BB7
GPIO_22 — GPIO_TS_TO_SOC_TO_PMU_IRQ (69 61 38 IN) — AC36
GPIO_23 — GPIO_SOC_TO_AUTUMN_REARCAM_ADJ (57 OUT) — AW7
GPIO_24 — GPIO_SOC_TO_USBPD_RESET_L (65 OUT) — AY6
GPIO_25 (BOOT CFG<1>) — GPIO_BOOT_CFG1 (4 IN) — AR7
GPIO_26 (FORCE_DFU) — GPIO_FORCE_DFU (69 67 IN) — AT6
GPIO_27 (DFU_STATUS) — TP_GPIO_DFU_STATUS (70 OUT) — AL6
GPIO_28 (BOOT CFG<2>) — GPIO_BOOT_CFG2 (4 IN) — AT7
GPIO_29 (BRD ID<4>) — GPIO_BRD_ID4 (4 IN) — AY2
GPIO_30 — GPIO_SOC_TO_BT_TO_GRAPE_TS_SYNC (70 68 20 19 OUT) — AY3
GPIO_31 — GPIO_EUPHRATES_TO_SOC_TO_PMU_IRQ_L (70 63 61 IN) — AF39
GPIO_32 — GPIO_ORION_TO_SOC_TO_PMU_IRQ (69 61 58 IN) — AD41
GPIO_33 — GPIO_SOC_TO_1V8_TOUCH_EXT_SW_ON (69 64 OUT) — AR6
GPIO_34 — GPIO_BRD_REV3 (4 IN) — BB5
GPIO_35 — GPIO_BRD_REV2 (4 IN) — BB4
GPIO_36 — GPIO_BRD_REV1 (4 IN) — AV2
GPIO_37 — GPIO_BRD_REV0 (4 IN) — BB6
GPIO_38 — NC — AM6

UART0_RXD — UART_DEBUG_TO_SOC_TX (IN 30 69) — BB38
UART0_TXD — UART_SOC_TO_DEBUG_TX (OUT 30 69) — BB39
UART1_CTS* — NC_UART_GPS_TO_SOC_RTS_L (NO_TEST=1) — AE7
UART1_RTS* — NC_UART_SOC_TO_GPS_RTS_L (NO_TEST=1) — AE2
UART1_RXD — NC_UART_GPS_TO_SOC_TX (NO_TEST=1) — AE5
UART1_TXD — NC_UART_SOC_TO_GPS_TX (NO_TEST=1) — AE6
UART2_CTS* — UART_WLAN_TO_SOC_RTS_L (IN 68 70) — AV35
UART2_RTS* — UART_SOC_TO_WLAN_RTS_L (OUT 68 70) — AT36
UART2_RXD — UART_WLAN_TO_SOC_TX (IN 68 70) — AY38
UART2_TXD — UART_SOC_TO_WLAN_TX (OUT 68 70) — BA38
UART3_CTS* — UART_BT_TO_SOC_RTS_L (IN 68 70) — AY37
UART3_RTS* — UART_SOC_TO_BT_RTS_L (OUT 68) — AY36
UART3_RXD — UART_BT_TO_SOC_TX (IN 68 70) — AR37
UART3_TXD — UART_SOC_TO_BT_TX (OUT 68) — AW36
UART4_CTS* — UART_ROTTERDAM_TO_SOC_RTS_L (IN 68) — AF2
UART4_RTS* — UART_SOC_TO_ROTTERDAM_RTS_L (OUT 68) — AF7
UART4_RXD — UART_ROTTERDAM_TO_SOC_TX (IN 68) — AE3
UART4_TXD — UART_SOC_TO_ROTTERDAM_TX (OUT 68) — AE4
UART5_RTXD — UART_BATT_HDQ (BI 61 66 69) — AU35
UART6_RXD — UART_ACC_TO_SOC_TX (IN 30 69) — AD39
UART6_TXD — UART_SOC_TO_ACC_TX (OUT 30 69) — AD40
UART7_RXD — GPIO_SOC_TO_SPKRAMP_RESET_L (OUT 28 29) — BA5
UART7_TXD — NC_GPIO_ALS_C1_TO_SOC_IRQ_L — BA4

NOTE: CLK32K_OUT CAN GENERATE UPTO 24MHZ
PLEASE USE 155S0610 FOR DESENSE DOE

CLK_GRAPE_24MHZ — R0731 33 1/32W 5% MF 01005 (PLACE_NEAR=U0600.BB34:5MM) — CLK_SOC_TO_GRAPE_24MHZ (OUT 19)
CLK32K_OUT — BB34
CLK_NAND_24MHZ — R0730 33 1/32W 5% MF 01005 (PLACE_NEAR=U0600.AE1:5MM) — CLK_SOC_TO_NAND_24MHZ (OUT 17)
NAND_SYS_CLK — AE1

TMR32_PWM0 — GPIO_SOC_TO_WLAN_DEVICE_WAKE (OUT 68 70) — BA39
TMR32_PWM1 — SWD_USBPD_SWCLK (OUT 65) — BA36
TMR32_PWM2 — GPIO_WLAN_TO_SOC_ATSP_R (IN 68) — AY39

SEP EEPROM

APN:335S0946

PP1V8_EXT_SW1 (71)
C0700 1.0UF 20% 6.3V X5R 0201-1
U0701 M34128-FCS6_P/T (CRITICAL)
VCC — A1
SCL — B1 — SEP_I2C_SCL_1V8 (6)
WLCSP
SDA — A2 — SEP_I2C_SDA_1V8 (6)
VSS — B2

PP1V8_ALWAYS (71 69 60)
PP1V8_EXT_SW1 (71 61 8 6 4)
R0790 47.0K 5% 1/32W MF 01005
R0791 47.0K 5% 1/32W MF 01005
VCCMAIN_DROOP_PMU_TO_SOC_L (69 61 6)
SOCHOT1_SOC_TO_PMU_L (69 61 6)

I2C PULL UPS

PP1V8_EXT_SW1 (71 61 8 6 4)
R0750 1.00K 5% 1/32W MF 01005
R0751 1.00K 5% 1/32W MF 01005
R0752 2.2K 5% 1/32W MF 01005
R0753 2.2K 5% 1/32W MF 01005
R0754 2.2K 5% 1/32W MF 01005
R0755 2.2K 5% 1/32W MF 01005
R0758 1.00K 5% 1/32W MF 01005
R0759 1.00K 5% 1/32W MF 01005
R0756 2.2K 5% 1/32W MF 01005
R0757 2.2K 5% 1/32W MF 01005

I2C0_SCL_1V8 (69 6 4)
I2C0_SDA_1V8 (69 6 4)
I2C1_SCL_1V8 (69 6 4)
I2C1_SDA_1V8 (69 6 4)
I2C2_SCL_1V8 (69 6 4)
I2C2_SDA_1V8 (69 6 4)
I2C3_SCL_1V8 (69 6 4)
I2C3_SDA_1V8 (69 6 4)
SEP_I2C_SCL_1V8 (6)
SEP_I2C_SDA_1V8 (6)

PART NUMBER	ALTERNATE FOR PART NUMBER	BOM OPTION	REF DES	COMMENTS:
335S00066	335S0946		U0701	ON SEMI EEPROM ALT

SYNC_MASTER=DEV_MYST
SYNC_DATE=03/30/2016
PAGE TITLE
SOC: I/OS

LPDP RX/TX

U0600
MYST
FCBGA
TBD
SYM 6 OF 19
OMIT_TABLE
CRITICAL

CAMERA

AW11	LPDPRX_BYP_CLK_P	
AV11	LPDPRX_BYP_CLK_N	
AV8	LPDPRX_AUX_D0_P	70 23 BI LPDP_SOC_TO_UT_AUX
AV9	LPDPRX_AUX_D1_P	NC_LPDPRX_AUX1
AW9	LPDPRX_AUX_D2_P	NC_LPDPRX_AUX2
AU12	LPDPRX_AUX_D3_P	NC_LPDPRX_AUX3
AV12	LPDPRX_AUX_D4_P	NC_LPDPRX_AUX4
BA8	LPDPRX_RX_D0_P	70 23 IN LPDP_UT_TO_SOC_DATA_P<0>
AY8	LPDPRX_RX_D0_N	70 23 IN LPDP_UT_TO_SOC_DATA_N<0>
BB9	LPDPRX_RX_D1_P	70 23 IN LPDP_UT_TO_SOC_DATA_P<1>
BA9	LPDPRX_RX_D1_N	70 23 IN LPDP_UT_TO_SOC_DATA_N<1>
BA10	LPDPRX_RX_D2_P	70 GND
AY10	LPDPRX_RX_D2_N	70 GND
BB11	LPDPRX_RX_D3_P	70 GND
BA11	LPDPRX_RX_D3_N	70 GND
BA12	LPDPRX_RX_D4_P	70 GND
AY12	LPDPRX_RX_D4_N	70 GND
AU10	LPDPRX_RCAL_P	7 PPVDD_S1_FIXED_SOC
AV10	LPDPRX_RCAL_N	7 LPDPRX_RCAL_NEG
AR15	LPDPRX_EXT_C	NC_LPDPRX_EXT_C

DISPLAY

Y41	LPDP_SOC_TO_TCON_DATA_P<0>	LPDP_TX0P / LPDP_TX0N, OUT 33
Y40	LPDP_SOC_TO_TCON_DATA_N<0>	
Y38	LPDP_SOC_TO_TCON_DATA_P<1>	LPDP_TX1P / LPDP_TX1N, OUT 33
Y37	LPDP_SOC_TO_TCON_DATA_N<1>	
W42	LPDP_SOC_TO_TCON_DATA_P<2>	LPDP_TX2P / LPDP_TX2N, OUT 33
W41	LPDP_SOC_TO_TCON_DATA_N<2>	
W39	LPDP_SOC_TO_TCON_DATA_P<3>	LPDP_TX3P / LPDP_TX3N, OUT 33
W38	LPDP_SOC_TO_TCON_DATA_N<3>	
V41	NC_LPDP_TX4_P	LPDP_TX4P / LPDP_TX4N
V40	NC_LPDP_TX4_N	
V38	NC_LPDP_TX5_P	LPDP_TX5P / LPDP_TX5N
V37	NC_LPDP_TX5_N	
U42	LPDP_SOC_TO_TCON_AUX_P	LPDP_AUX_P / LPDP_AUX_N, BI 33
U41	LPDP_SOC_TO_TCON_AUX_N	
AA34	LPDP_CAL_DRV_OUT	LPDP_CAL_DRV_OUT / LPDP_CAL_VSS_EXT
AA33	LPDP_CAL_VSS_EXT	
AG40	LPDP_TCON_TO_SOC_HPD	EDP_HPD, IN 33 69
AC37	NC_DP_WAKEUP	DP_WAKEUP

R0890 100 1% 1/32W MF 01005 — C0890 20PF 5% 16V NP0-C0G-CERM 01005 — PLACE_NEAR=U0600.AA34:4MM

C0892 MUST BE NOSTUFF PER SEG

MIPI/ISP

U0600
MYST
FCBGA
TBD
SYM 3 OF 19
OMIT_TABLE
CRITICAL

ISP / SENSOR

AH6	ISP_I2C0_SCL	23 7 OUT ISP_UT_CAM_SCL
AH7	ISP_I2C0_SDA	23 7 BI ISP_UT_CAM_SDA
AL1	ISP_I2C1_SCL	69 25 7 OUT ISP_STB_SCL
AL2	ISP_I2C1_SDA	69 25 7 BI ISP_STB_SDA
AH1	ISP_I2C2_SCL	24 7 OUT ISP_FRONT_CAM_SCL
AL3	ISP_I2C2_SDA	24 7 BI ISP_FRONT_CAM_SDA
AL4	ISP_I2C3_SCL	NC_ISP_I2C3_SCL
AL5	ISP_I2C3_SDA	NC_ISP_I2C3_SDA
BA29	MIPI0C_DPCLK	70 GND
BB29	MIPI0C_DNCLK	70 GND
AY28	MIPI0C_DPDATA0	70 GND
BA28	MIPI0C_DNDATA0	70 GND
AY30	MIPI0C_DPDATA1	70 GND
BA30	MIPI0C_DNDATA1	70 GND
AY26	MIPI1C_DPCLK	70 GND
BA26	MIPI1C_DNCLK	70 GND
BA27	MIPI1C_DPDATA0	70 GND
BB27	MIPI1C_DNDATA0	70 GND
BA25	MIPI1C_DPDATA1	70 GND
BB25	MIPI1C_DNDATA1	70 GND

AK3	NC_SENSOR_INT	SENSOR_INT
AK4	NC_SENSOR4_RST	SENSOR4_RST
AH5	NC_SENSOR3_RST	SENSOR3_RST
AJ1	NC_SENSOR2_CLK	SENSOR2_CLK
AG6	NC_SENSOR2_RST	SENSOR2_RST
AM1	CLK_SOC_TO_REAR_CAM_12MHZ_R	SENSOR0_CLK — R0812 33 1/32W 5% MF 01005 — CLK_SOC_TO_REAR_CAM_12MHZ OUT 23 — C0812 15PF 5% 16V NP0-C0G-CERM 01005
AM3	GPIO_SOC_TO_REAR_CAM_SHTDWN_L	SENSOR0_RST, OUT 23
AM4	NC_SENSOR0_ISTRB	SENSOR0_ISTRB
AN4	GPIO_SOC_TO_BB_MESA_ON	SENSOR0_XSHUTDOWN, OUT 69
AN1	CLK_SOC_TO_FRONT_CAM_12MHZ_R	SENSOR1_CLK — R0811 33 1/32W 5% MF 01005 — CLK_SOC_TO_FRONT_CAM_12MHZ OUT 24 — C0811 15PF 5% 16V NP0-C0G-CERM 01005
AM2	GPIO_SOC_TO_FRONT_CAM_SHTDWN_L	SENSOR1_RST, OUT 24
AH4	GPIO_BTN_VOL_UP_L	(USE INTERNAL PU) IN 23
AJ7	GPIO_BTN_VOL_DOWN_L	SENSOR1_ISTRB / SENSOR1_XSHUTDOWN, (USE INTERNAL PU) IN 23
BA23	MIPI_NH_CAM_TO_SOC_CLK_P	MIPI2C_DPCLK, IN 24 70
BB23	MIPI_NH_CAM_TO_SOC_CLK_N	MIPI2C_DNCLK, IN 24 70
AY22	MIPI_NH_CAM_TO_SOC_DATA_P<0>	MIPI2C_DPDATA0, IN 24 70
BA22	MIPI_NH_CAM_TO_SOC_DATA_N<0>	MIPI2C_DNDATA0, IN 24 70
AY24	MIPI_NH_CAM_TO_SOC_DATA_P<1>	MIPI2C_DPDATA1, IN 24 70
BA24	MIPI_NH_CAM_TO_SOC_DATA_N<1>	MIPI2C_DNDATA1, IN 24 70
AT25	GND	MIPI0C_REXT, 70
AT24	GND	MIPI1C_REXT, 70
AT22	MIPI2C_REXT	MIPI2C_REXT — PLACE_NEAR=U0600.AT22:6MM — R0800 200 1% 1/32W MF 01005 — SYNOPSYS MIPI DPHY DATABOOK

LPDP RX CAL

71 13 PPVDD_S1_FIXED_SOC
7 PPVDD_S1_FIXED_SOC — PLACE_NEAR=U0600.AU10:4MM
R0891 300 1% 1/32W MF 01005-1
7 LPDPRX_RCAL_NEG — PLACE_NEAR=U0600.AV10:4MM
C0891 100PF 5% 16V NP0-C0G 01005

ISP I2C PULL UPS

71 24 PP1V8_SW1_CAM
R0805 1.00K 5% 1/32W MF 01005 — 24 7 ISP_FRONT_CAM_SCL
R0803 1.00K 5% 1/32W MF 01005 — 24 7 ISP_FRONT_CAM_SDA

71 23 7 PP1V8_SW1_CAM
R0804 1.00K 5% 1/32W MF 01005 — 23 7 ISP_UT_CAM_SCL
R0802 1.00K 5% 1/32W MF 01005 — 23 7 ISP_UT_CAM_SDA

71 23 7 PP1V8_SW1_CAM
R0850 1.00K 5% 1/32W MF 01005 — 69 25 7 ISP_STB_SCL
R0851 1.00K 5% 1/32W MF 01005 — 69 25 7 ISP_STB_SDA

SYNC_MASTER=DEV_MYST
SYNC_DATE=03/30/2016
PAGE TITLE
SOC: LPDP & MIPI

PCIE

PER PCISIG SPEC, AC COUPLING CAPS SHOULD BE BETWEEN
176 NF AND 265 NF FOR GEN1/2/3

NAND

70 17 IN PCIE_NAND_TO_SOC_TX_P<0> — AV14 PCIE_RX0_P
70 17 IN PCIE_NAND_TO_SOC_TX_N<0> — AW14 PCIE_RX0_N

CRITICAL
C0930 1 2 0.22UF 10% 01005 CER-X5R 6.3V GND_VOID=TRUE GND_VOID=TRUE

70 17 OUT PCIE_SOC_TO_NAND_TX_P<0> — PCIE_SOC_TO_NAND_TX_C_P<0> — BA14 PCIE_TX0_P
70 17 OUT PCIE_SOC_TO_NAND_TX_N<0> — PCIE_SOC_TO_NAND_TX_C_N<0> — BB14 PCIE_TX0_N

CRITICAL
C0931 1 2 0.22UF 10% 01005 CER-X5R 6.3V GND_VOID=TRUE GND_VOID=TRUE

70 17 OUT PCIE_SOC_TO_NAND_REFCLK_P — AU24 PCIE_REF_CLK0_P
70 17 OUT PCIE_SOC_TO_NAND_REFCLK_N — AV24 PCIE_REF_CLK0_N

17 8 IN PCIE_NAND_TO_SOC_CLKREQ_L — AG3 PCIE_CLKREQ0*
17 8 OUT PCIE_SOC_TO_NAND_RESET_L — AF6 PCIE_PERST0*

U0600

MYST
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OMIT_TABLE
CRITICAL

NC_PCIE_RX1_P — AU15 PCIE_RX1_P
NC_PCIE_RX1_N — AV15 PCIE_RX1_N

NC_PCIE_TX1_P — AY15 PCIE_TX1_P
NC_PCIE_TX1_N — BA15 PCIE_TX1_N

NC_PCIE_REF_CLK1_P — AV25 PCIE_REF_CLK1_P
NC_PCIE_REF_CLK1_N — AW25 PCIE_REF_CLK1_N

NC_PCIE_CLKREQ1 — AH3 PCIE_CLKREQ1*
NC_PCIE_PERST1 — AF4 PCIE_PERST1*

WLAN/BT

70 68 IN PCIE_WLAN_TO_SOC_TX_P — AV16 PCIE_RX2_P
70 68 IN PCIE_WLAN_TO_SOC_TX_N — AW16 PCIE_RX2_N

CRITICAL
C0940 1 2 0.1UF 10% 01005 CER-X5R 6.3V GND_VOID=TRUE GND_VOID=TRUE

68 OUT PCIE_SOC_TO_WLAN_TX_P — PCIE_SOC_TO_WLAN_TX_C_P — BA16 PCIE_TX2_P
68 OUT PCIE_SOC_TO_WLAN_TX_N — PCIE_SOC_TO_WLAN_TX_C_N — BB16 PCIE_TX2_N

CRITICAL
C0941 1 2 0.1UF 10% 01005 CER-X5R 6.3V GND_VOID=TRUE GND_VOID=TRUE

70 68 OUT PCIE_SOC_TO_WLAN_REFCLK_P — AU26 PCIE_REF_CLK2_P
70 68 OUT PCIE_SOC_TO_WLAN_REFCLK_N — AV26 PCIE_REF_CLK2_N

70 68 8 IN PCIE_WLAN_TO_SOC_CLKREQ_L — AU1 PCIE_CLKREQ2*
70 68 8 OUT PCIE_SOC_TO_WLAN_RESET_L — AV1 PCIE_PERST2*

AT17 PCIE_EXT_REF_CLK_P
AT18 PCIE_EXT_REF_CLK_N

PCIE_RX3_P — AU17
PCIE_RX3_N — AV17

PCIE_TX3_P — AY17
PCIE_TX3_N — BA17

PCIE_REF_CLK3_P — AV27
PCIE_REF_CLK3_N — AW27

PCIE_CLKREQ3* — AG1
PCIE_PERST3* — AF1

PCIE_RX4_P — AV18 NC_PCIE_RX4_P
PCIE_RX4_N — AW18 NC_PCIE_RX4_N

PCIE_TX4_P — BA18 NC_PCIE_TX4_P
PCIE_TX4_N — BB18 NC_PCIE_TX4_N

PCIE_REF_CLK4_P — AU28 NC_PCIE_REF_CLK4_P
PCIE_REF_CLK4_N — AV28 NC_PCIE_REF_CLK4_N

PCIE_CLKREQ4* — AV4 NC_PCIE_CLKREQ4
PCIE_PERST4* — AM5 NC_PCIE_PERST4

PCIE_RX5_P — AU19 NC_PCIE_RX5_P
PCIE_RX5_N — AV19 NC_PCIE_RX5_N

PCIE_TX5_P — AY19 NC_PCIE_TX5_P
PCIE_TX5_N — BA19 NC_PCIE_TX5_N

PCIE_REF_CLK5_P — AV29 NC_PCIE_REF_CLK5_P
PCIE_REF_CLK5_N — AW29 NC_PCIE_REF_CLK5_N

PCIE_CLKREQ5* — AM7 GPIO_SOC_TO_BELFIELD_RESET_L OUT 26
PCIE_PERST5* — AT3 GPIO_SOC_TO_CODEC_RESET_L OUT 26

S3E_RESET* — AF5 GPIO_SOC_TO_NAND_RESET_L OUT 17
PCIE_REXT — AR18 PCIE_SOC_REXT
PLACE_NEAR=U0600.AR18:4MM

R0921 1 200 1% 1/32W MF 01005 2

SYNOPSYS PCIE 3.0 PHY DATABOOK

BASEBAND

PCIE_BB_TO_SOC_TX_P — IN 68 70
PCIE_BB_TO_SOC_TX_N — IN 68 70

PCIE_SOC_TO_BB_TX_C_P — OUT 68
PCIE_SOC_TO_BB_TX_C_N — OUT 68

PCIE_SOC_TO_BB_REFCLK_P — OUT 68
PCIE_SOC_TO_BB_REFCLK_N — OUT 68

PCIE_BB_TO_SOC_CLKREQ_L — IN 68 70
PCIE_SOC_TO_BB_RESET_L — OUT 68 70

AC COUPLING CAPS ARE IN RADIO PAGES

71 61 6 4 PP1V8_EXT_SW1

R0930 47.0K 5% 1/32W MF 01005
R0940 47.0K 5% 1/32W MF 01005

17 8 PCIE_NAND_TO_SOC_CLKREQ_L
70 68 8 PCIE_WLAN_TO_SOC_CLKREQ_L

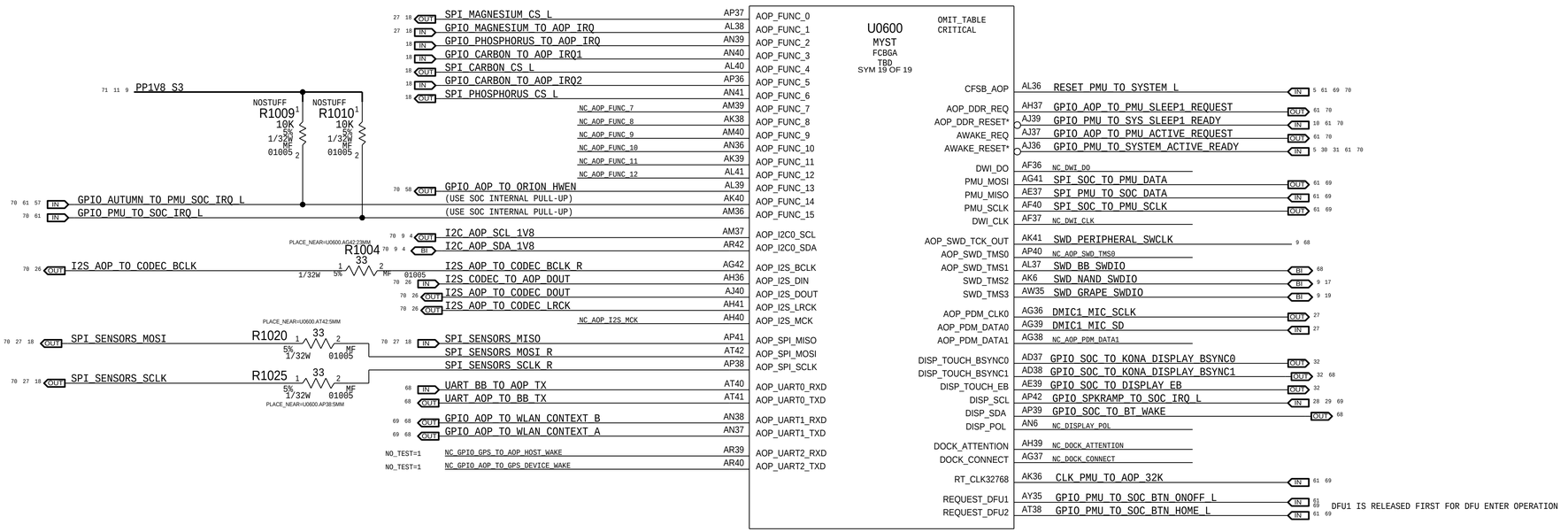
BB HAS A 100K PU ON THEIR SIDE

17 8 PCIE_SOC_TO_NAND_RESET_L
70 68 8 PCIE_SOC_TO_WLAN_RESET_L

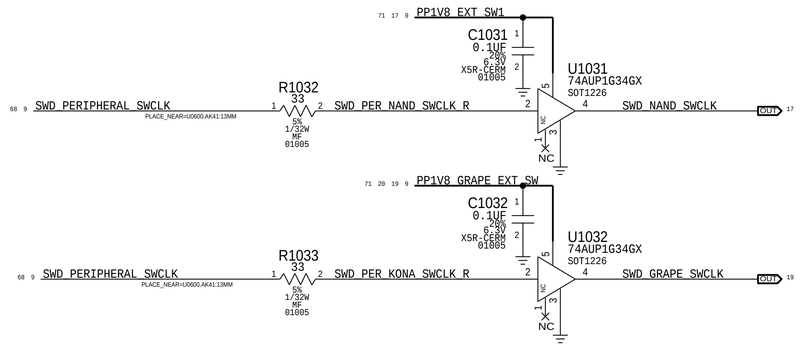
R0941 100K 5% 1/32W MF 01005
R0931 100K 5% 1/32W MF 01005

SYNC_MASTER=DEV_MYST
SYNC_DATE=03/30/2016
PAGE TITLE
SOC: PCIE

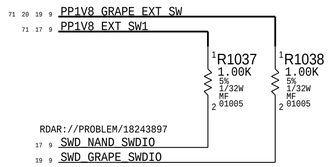
AOP/MISC



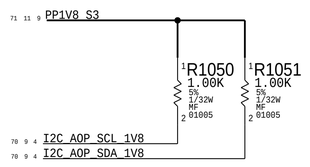
THESE GATES HAVE BACKPOWER PROTECTION



SWDIO PULL-UPS:



AOP I2C PULL-UPS:



SYNC_MASTER=DEV_MYST SYNC_DATE=03/30/2016

PAGE TITLE

SOC: AOP

DDR PWR

VDDIO11_DDRQ/1/2 1.1V @ 1700MA

PP1V1_S1_EXT_SW

U0600 MYST FCBGA TBD SYM 10 OF 19 (OMIT_TABLE CRITICAL)

AA10	VDDIO11_DDR0	VDDIO11_DDR1	F21
AA6	VDDIO11_DDR0	VDDIO11_DDR1	F23
AB4	VDDIO11_DDR0	VDDIO11_DDR1	F29
AB9	VDDIO11_DDR0	VDDIO11_DDR1	F31
AC10	VDDIO11_DDR0	VDDIO11_DDR1	F39
AD9	VDDIO11_DDR0	VDDIO11_DDR1	G35
AE10	VDDIO11_DDR0	VDDIO11_DDR1	J18
AF9	VDDIO11_DDR0	VDDIO11_DDR1	J20
C3	VDDIO11_DDR0	VDDIO11_DDR1	J22
D11	VDDIO11_DDR0	VDDIO11_DDR1	J24
D13	VDDIO11_DDR0	VDDIO11_DDR1	J26
D15	VDDIO11_DDR0	VDDIO11_DDR1	J28
D7	VDDIO11_DDR0	VDDIO11_DDR1	J30
F12	VDDIO11_DDR0	VDDIO11_DDR1	J32
F14	VDDIO11_DDR0	VDDIO11_DDR1	J34
F4	VDDIO11_DDR0	VDDIO11_DDR1	K19
G8	VDDIO11_DDR0	VDDIO11_DDR1	K21
J10	VDDIO11_DDR0	VDDIO11_DDR1	K23
J12	VDDIO11_DDR0	VDDIO11_DDR1	K25
J14	VDDIO11_DDR0	VDDIO11_DDR1	K27
J16	VDDIO11_DDR0	VDDIO11_DDR1	K29
K11	VDDIO11_DDR0	VDDIO11_DDR1	K31
K13	VDDIO11_DDR0	VDDIO11_DDR1	K33
K15	VDDIO11_DDR0	VDDIO11_DDR1	K39
K17	VDDIO11_DDR0	VDDIO11_DDR1	L34
K4	VDDIO11_DDR0	VDDIO11_DDR1	L37
K9	VDDIO11_DDR0	VDDIO11_DDR1	M33
L10	VDDIO11_DDR0	VDDIO11_DDR1	M39
L6	VDDIO11_DDR0	VDDIO11_DDR1	N34
M4	VDDIO11_DDR0	VDDIO11_DDR1	N37
M9	VDDIO11_DDR0	VDDIO11_DDR1	P33
N10	VDDIO11_DDR0	VDDIO11_DDR1	P39
N6	VDDIO11_DDR0	VDDIO11_DDR1	R34
P4	VDDIO11_DDR0	VDDIO11_DDR1	T33
P9	VDDIO11_DDR0	VDDIO11_DDR1	U34
R10	VDDIO11_DDR0	VDDIO11_DDR1	V33
T9	VDDIO11_DDR0	VDDIO11_DDR1	W34
U10	VDDIO11_DDR0	VDDIO11_DDR1	Y33
V4	VDDIO11_DDR0		
V9	VDDIO11_DDR0		
W10	VDDIO11_DDR0		
W6	VDDIO11_DDR0		
Y4	VDDIO11_DDR0		
Y9	VDDIO11_DDR0		
C40	VDDIO11_DDR1		
D20	VDDIO11_DDR1		
D22	VDDIO11_DDR1		
D24	VDDIO11_DDR1		
D28	VDDIO11_DDR1		
D30	VDDIO11_DDR1		
D32	VDDIO11_DDR1		
D36	VDDIO11_DDR1		

VDDIO11_PLL_DDR0	V6		
VDDIO11_PLL_DDR1	K6		
VDDIO11_PLL_DDR2	G9		
VDDIO11_PLL_DDR3	H15		
VDDIO11_PLL_DDR4	H24		
VDDIO11_PLL_DDR5	H32		
VDDIO11_PLL_DDR6	G34		
VDDIO11_PLL_DDR7	K37		
VDDIO11_RET_DDR0	V8		
VDDIO11_RET_DDR1	K8		
VDDIO11_RET_DDR2	F8		
VDDIO11_RET_DDR3	F15		
VDDIO11_RET_DDR4	F24		
VDDIO11_RET_DDR5	F32		
VDDIO11_RET_DDR6	F35		
VDDIO11_RET_DDR7	K35		

C1200 15UF 20% 4V CERM 0402 (CRITICAL)
C1201 4.3UF 20% 4V CERM 0402 (CRITICAL)
C1202 4.3UF 20% 4V CERM 0402 (CRITICAL)
C1209 12PF 5% 25V NP0-C0G 0201
C1203 1UF 20% 4V CERM 0402 (CRITICAL)
C1204 1UF 20% 4V CERM 0402 (CRITICAL)
C1205 1UF 20% 4V CERM 0402 (CRITICAL)
C1206 1UF 20% 4V CERM 0402 (CRITICAL)
C1208 100PF 5% 25V C0G 0201
C1214 0.47UF 20% 6.3V CERM 0402 (CRITICAL)
C1210 0.47UF 20% 6.3V CERM 0402 (CRITICAL)
C1211 0.47UF 20% 6.3V CERM 0402 (CRITICAL)
C1212 0.47UF 20% 6.3V CERM 0402 (CRITICAL)
C1213 0.47UF 20% 6.3V CERM 0402 (CRITICAL)

VDDIO11_PLL_DDR0-7 1.1V @ 17MA

PP1V1_DDR_PLL_SOC_FILT

C1230 2.2UF 20% 6.3V X5R-CERM 0201
C1231 0.22UF 10% 6.3V CER-X5R 01005
C1232 100PF 5% 6.3V CERM 01005

R1230 120-OHM-25%-250MA-0.5DCR 01005

PP1V1_S3

C1220 10UF 20% 6.3V CERM-X5R 0402-9
C1221 2.2UF 20% 6.3V X5R-CERM 0201
C1222 2.2UF 20% 6.3V X5R-CERM 0201
C1223 2.2UF 20% 6.3V X5R-CERM 0201
C1229 18PF 5% 16V CERM 01005
C1228 150PF 10% 10V X7R 01005-1

VDD12_PLL_CPU: 1.2V @ 7MA
VDD12_PLL_SOC: 1.2V @ 4MA
VDD12_PLL_GPU: 1.2V @ 7MA
VDD12_PLL_LPDP: 1.2V @ 9MA
VDD12_PCIE_REFBUF: 1.2V @ 48MA
VDD12_LPDP_TX: 1.2V @ 45MA
VDD12_LPDP_RX: 1.2V @ 55MA
VDD12_USB3: 1.2V @ 25MA

VDD18_ADP: 1.8V @ TBDMA
VDD18_USB: 1.8V @ 17MA
VDD18_TSADC: 1.8V @ 10.4MA
VDDIO18_GRP: 1.8V @ TBDMA
VDD18_MIPI: 1.8V @ 2MA
VDD18_XTAL: 1.8V @ 2MA
VDD18_LPOSC: 1.8V @ 1MA
VDD18_FMON: 1.8V @ 1MA
VDD18_PCIE: 1.8V @ 81.7MA
VDD33_USB: 3.3V @ 5MA

PART NUMBER	ALTERNATE FOR PART NUMBER	BOM OPTION	REF DES	COMMENTS:
138S00032	138S0831		C1221 & MORE	RDAR://PROBLEM/19974064
138S00049	138S0831		C1221 & MORE	RDAR://PROBLEM/19974064
138S00006	138S0835		C1201 & MORE	RDAR://PROBLEM/26931418

1.2V/1.8V

PP0V775_S3_SOC_AOP (VDD_LOW: 0.8V @ 68MA (AOP))

C12A0 4.3UF 20% 4V CERM 0402
C12A1 2.2UF 20% 6.3V X5R-CERM 0201
C12A2 0.22UF 20% 6.3V X5R 01005-1
C12A3 12PF 5% 25V NP0-C0G 0201
C12A4 100PF 5% 25V C0G 0201

PP1V2_SOC

C12B6 4.3UF 20% 4V CERM 0402 (CRITICAL)
C12B5 4.3UF 20% 4V CERM 0402 (CRITICAL)
C12B4 4.3UF 20% 4V CERM 0402 (CRITICAL)
C12B0 2.2UF 20% 6.3V X5R-CERM 0201
C12B1 0.22UF 20% 6.3V X5R 01005-1
C12B2 0.22UF 20% 6.3V X5R 01005-1
C12B3 15PF 5% 16V NP0-C0G-CERM 01005

PP1V2_SOC

C12C0 4.3UF 20% 4V CERM 0402 (CRITICAL)
C12C3 0.01UF 10% 6.3V X5R 01005
C12C4 15PF 5% 16V NP0-C0G-CERM 01005

PP1V2_SOC

C12D0 1.0UF 20% 6.3V X5R 0201-1
C12D1 0.22UF 20% 6.3V X5R 01005-1
C12D2 0.01UF 10% 6.3V X5R 01005
C12D3 15PF 5% 16V NP0-C0G-CERM 01005

GND

PP1V2_SOC

PP1V8_S3

C1279 0.1UF 10% 6.3V X5R-CERM 01005

PP1V8_EXT_SW1

C12E0 0.22UF 20% 6.3V X5R 01005-1

PP1V8_EXT_SW1

PP1V8_EXT_SW1

C1270 0.22UF 20% 6.3V X5R 01005-1
C1271 0.22UF 20% 6.3V X5R 01005-1
C1272 0.1UF 20% 6.3V X5R-CERM 01005

PP1V8_EXT_SW1

C12F0 0.1UF 20% 6.3V X5R-CERM 01005

FL1210 1KOHM-25%-0.2A 0201

PP1V8_EXT_SW1

PP1V8_XTAL_FILT

C12G0 0.1UF 20% 6.3V X5R-CERM 01005
C12G1 2.2UF 20% 6.3V X5R-CERM 0201

PP3V3

C12H0 0.1UF 20% 6.3V 2 X5R-CERM 01005

U0600 MYST FCBGA TBD SYM 11 OF 19 (OMIT_TABLE CRITICAL)

AL32	VDD_LOW		
AN31	VDD_LOW		
AN32	VDD_LOW		
AP15		VDD12_LPDP_RX	
AP17		VDD12_LPDP_RX	
AB33		VDD12_LPDP_TX	
AD33		VDD12_LPDP_TX	
AM22		VDD12_PCIE_REFBUF	
AN23		VDD12_PCIE_REFBUF	
AC22		VDD12_PLL_CPU	
AJ17		VDD12_PLL_GPU	
AE33		VDD12_PLL_LPDP	
AJ16		VDD12_PLL_SOC	
AK16		VDD12_PLL_SOC	
AP22		VDD12_UH1_HSIC0	
AR30		VDD12_USB3_CMN	
AP31		VDD12_USB3_XCVR	
AK32	VDD18_LPOSC		
AR23	VDD18_MIPI		
AR24	VDD18_MIPI		
AM19	VDD18_PCIE		
AM21	VDD18_PCIE		
AG21	VDD18_TSADC_CPU0		
AJ31	VDD18_TSADC_CPU1		
AA31	VDD18_TSADC_CPU2		
AJ21	VDD18_TSADC_CPU3		
M22	VDD18_TSADC_GPU0		
AJ33	VDD18_TSADC_SOC0		
AR10	VDD18_TSADC_SOC1		
L13	VDD18_TSADC_SOC2		
AF34	VDD18_USB		
AR22	VDD18_XTAL		
AF33	VDD33_USB		

VDDIO18_AOP	AK33		
VDDIO18_AOP	AL34		
VDDIO18_AOP	AM33		
VDDIO18_AOP	AN34		
VDDIO18_AOP	AP33		
VDDIO18_GRP1	AG10		
VDDIO18_GRP1	AH9		
VDDIO18_GRP1	AJ10		
VDDIO18_GRP1	AK9		
VDDIO18_GRP1	AL10		
VDDIO18_GRP1	AM9		
VDDIO18_GRP1	AN10		
VDDIO18_GRP1	AN12		
VDDIO18_GRP1	AP11		
VDDIO18_GRP1	AP13		
VDDIO18_GRP1	AP9		
VDDIO18_GRP2	AP27		
VDDIO18_GRP2	AP29		
VDDIO18_GRP2	AR26		
VDDIO18_GRP2	AR28		
VDDIO18_GRP3	AG34		
VDDIO18_GRP3	AH33		
VDDIO18_GRP3	AJ34		

PP1V8_S3

C1255 0.22UF 20% 6.3V X5R 01005-1
C1256 8.2PF 0.5PF 50V C0G-CERM 201

C1240 4.3UF 20% 4V CERM 0402 (CRITICAL)
C1241 2.2UF 20% 6.3V X5R-CERM 0201
C1242 2.2UF 20% 6.3V X5R-CERM 0201
C1243 0.22UF 20% 6.3V X5R 01005-1

PP1V8_EXT_SW1

C1244 0.22UF 20% 6.3V X5R 01005-1
C1249 12PF 5% 25V NP0-C0G 0201
C1248 150PF 10% 10V X7R 01005-1

VDD18_EFUSE1	AN28	
VDD18_EFUSE2	AF32	CKPLUS_WAIVE=PWRTERM2GND
VDD18_FMON	AN26	PP1V8_EXT_SW1

PP1V2_SOC

C12I0 4.3UF 20% 4V CERM 0402 (CRITICAL)
C12I3 0.01UF 10% 6.3V X5R 01005
C12I4 15PF 5% 16V NP0-C0G-CERM 01005

PP1V8_EXT_SW1

C12J0 4.3UF 20% 4V CERM 0402 (CRITICAL)
C12J1 1UF 20% 4V CERM 0402 (CRITICAL)
C12J2 1UF 20% 4V CERM 0402 (CRITICAL)
C12J3 0.01UF 10% 6.3V X5R 01005
C12J4 15PF 5% 16V NP0-C0G-CERM 01005

SYNC_MASTER=DEV_MYST SYNC_DATE=03/30/2016

PAGE TITLE

SOC: POWER (IO)

PART NUMBER	ALTERNATE FOR PART NUMBER	BOM OPTION	REF DES	COMMENTS:
138S00056	138S1100		C1300, ETC	QUALIFIED IN J127

CPU/GPU

VDD_GPU: 1.06V @ 13800MA
0.8V @ 12400MA
0.7V @ 8780MA
0.575V @ 4400MA

71 59 PPVDD_GPU

OMIT_TABLE
CRITICAL

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N14	VDD_GPU
N16	VDD_GPU
N18	VDD_GPU
N20	VDD_GPU
N22	VDD_GPU
N24	VDD_GPU
N26	VDD_GPU
N28	VDD_GPU
N30	VDD_GPU
P13	VDD_GPU
P15	VDD_GPU
P17	VDD_GPU
P19	VDD_GPU
P21	VDD_GPU
P23	VDD_GPU
P25	VDD_GPU
P27	VDD_GPU
P29	VDD_GPU
R14	VDD_GPU
R16	VDD_GPU
R18	VDD_GPU
R20	VDD_GPU
R22	VDD_GPU
R24	VDD_GPU
R26	VDD_GPU
R28	VDD_GPU
R30	VDD_GPU
U14	VDD_GPU
U16	VDD_GPU
U18	VDD_GPU
U20	VDD_GPU
U22	VDD_GPU
U24	VDD_GPU
U26	VDD_GPU
U28	VDD_GPU
U30	VDD_GPU
V13	VDD_GPU
V15	VDD_GPU
V17	VDD_GPU
V19	VDD_GPU
V21	VDD_GPU
V27	VDD_GPU
V29	VDD_GPU
W14	VDD_GPU
W16	VDD_GPU
W18	VDD_GPU
W20	VDD_GPU
W22	VDD_GPU
W28	VDD_GPU
W30	VDD_GPU
W26	VDD_GPU_SENSE

AA29	VDD_CPU
AB26	VDD_CPU
AB28	VDD_CPU
AB30	VDD_CPU
AC25	VDD_CPU
AC29	VDD_CPU
AD22	VDD_CPU
AD24	VDD_CPU
AD26	VDD_CPU
AD28	VDD_CPU
AD30	VDD_CPU
AE23	VDD_CPU
AE25	VDD_CPU
AE29	VDD_CPU
AF22	VDD_CPU
AF24	VDD_CPU
AF26	VDD_CPU
AF28	VDD_CPU
AF30	VDD_CPU
AG23	VDD_CPU
AG25	VDD_CPU
AG29	VDD_CPU
AH22	VDD_CPU
AH24	VDD_CPU
AH26	VDD_CPU
AH28	VDD_CPU
AH30	VDD_CPU
AJ23	VDD_CPU
AJ25	VDD_CPU
AJ29	VDD_CPU
AK21	VDD_CPU
AK22	VDD_CPU
AK24	VDD_CPU
AK26	VDD_CPU
AK28	VDD_CPU
Y26	VDD_CPU
Y28	VDD_CPU
Y30	VDD_CPU
AK30	VDD_CPU
AL31	VDD_CPU_SENSE

VDD_CPU: 1.06V @ 13800MA
0.80V @ 8960MA
0.575V @3700MA

PPVDD_CPU 59 71

69 61 ADC_SOC_TO_PMU_VDD_GPU

ADC_SOC_TO_PMU_VDD_CPU 61 69

C1360 C1361 C1362 9.1UF 20% 4V CERM 0402
C1369 12PF 5% 25V NP0-C0G 0201
C1368 100PF 5% 25V C0G 0201
C1370 C1371 C1372 C1373 C1374 C1375 4.3UF 20% 4V CERM 0402
C1380 C1381 C1382 C1383 C1384 4.3UF 20% 4V CERM 0402
C1385 C1386 C1387 4.3UF 20% 4V CERM 0402
C1300 C1301 C1302 9.1UF 20% 4V CERM 0402
C1308 100PF 5% 25V C0G 0201
C1309 12PF 5% 25V NP0-C0G 0201
C1310 C1311 C1312 C1313 C1314 C1315 C1328 C1329 4.3UF 20% 4V CERM 0402
C1320 C1321 C1322 C1323 C1324 C1325 C1326 C1327 4.3UF 20% 4V CERM 0402

SYNC_MASTER=DEV_MYST SYNC_DATE=03/30/2016

PAGE TITLE

SOC: POWER (CPU, GPU)

CPU/GPU SRAM

VDD_GPU_SRAM: 1.06V @1400MA

PPVDD_GPU_SRAM

C1470 4.3UF 20% 4V CERM 0402
C1471 4.3UF 20% 4V CERM 0402
C1451 4.3UF 20% 4V CERM 0402
C1453 4.3UF 20% 4V CERM 0402

C1478 100PF 5% 25V C0G 0201
C1479 12PF 5% 25V NP0-C0G 0201

OMIT_TABLE
CRITICAL

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M13	VDD_GPU_SRAM	VDD_CPU_SRAM	AA27
M15	VDD_GPU_SRAM	VDD_CPU_SRAM	AC23
M17	VDD_GPU_SRAM	VDD_CPU_SRAM	AC27
M19	VDD_GPU_SRAM	VDD_CPU_SRAM	AC30
M21	VDD_GPU_SRAM	VDD_CPU_SRAM	AE24
M23	VDD_GPU_SRAM	VDD_CPU_SRAM	AE27
M25	VDD_GPU_SRAM	VDD_CPU_SRAM	AE30
M27	VDD_GPU_SRAM	VDD_CPU_SRAM	AG24
M29	VDD_GPU_SRAM	VDD_CPU_SRAM	AG27
T13	VDD_GPU_SRAM	VDD_CPU_SRAM	AG30
T15	VDD_GPU_SRAM	VDD_CPU_SRAM	AH21
T17	VDD_GPU_SRAM	VDD_CPU_SRAM	AJ24
T19	VDD_GPU_SRAM	VDD_CPU_SRAM	AJ27
T21	VDD_GPU_SRAM	VDD_CPU_SRAM	AK25
T23	VDD_GPU_SRAM	VDD_CPU_SRAM	AK27
T25	VDD_GPU_SRAM	VDD_CPU_SRAM	AK29
T27	VDD_GPU_SRAM		
T29	VDD_GPU_SRAM		
W27	VDD_GPU_SRAM		
W29	VDD_GPU_SRAM		
Y13	VDD_GPU_SRAM		
Y15	VDD_GPU_SRAM		
Y17	VDD_GPU_SRAM		
Y19	VDD_GPU_SRAM		
Y21	VDD_GPU_SRAM		

VDD_CPU_SRAM: 1.6V @ 3000MA

C1450 4.3UF 20% 4V CERM 0402
C1410 4.3UF 20% 4V CERM 0402
C1452 4.3UF 20% 4V CERM 0402
C1407 4.3UF 20% 4V CERM 0402
C1459 12PF 5% 25V NP0-C0G 0201
C1458 100PF 5% 25V C0G 0201

PPVDD_CPU_SRAM

C1472 4.3UF 20% 4V CERM 0402
C1473 4.3UF 20% 4V CERM 0402
C1463 4.3UF 20% 4V CERM 0402

VDD_FIXED_CPU: 0.8V @ 6MA
VDD_FIXED_PCIE:0.8V @ 290.1MA
VDD_FIXED_PCIE_REFBUF: 0.8V @ 4MA
VDD_FIXED_USB: 0.8V @ 6.6MA
VDD_FIXED_USB3: 0.8V @ 89.4MA
VDD_FIXED_USB3: 0.8V @ 89.4MA
VDD_FIXED_PLL_SOC: 0.8V @ 10MA
VDD_FIXED_PLL_GPU: 0.8V @ 6MA
VDD_FIXED_PLL_DDR: 0.8V @ 4MA
VDD_FIXED_MIPI: 0.8V @ 10MA
VDD_FIXED_PLL_LPDP: 0.8V @ 2MA
VDD_FIXED_LPDP_TX: 0.8V @ 13.2MA
VDD_FIXED_LPDP_RX: 0.8V @ 5.2MA

SOC/FIXED

OMIT_TABLE
CRITICAL

U0600
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TBD
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AA12	VDD_FIXED	VDD_FIXED_PLL_DDR0	U6
AA14	VDD_FIXED	VDD_FIXED_PLL_DDR1	J6
AA16	VDD_FIXED	VDD_FIXED_PLL_DDR2	F9
AA18	VDD_FIXED	VDD_FIXED_PLL_DDR3	F16
AA20	VDD_FIXED	VDD_FIXED_PLL_DDR4	F25
AA22	VDD_FIXED	VDD_FIXED_PLL_DDR5	F33
AA24	VDD_FIXED	VDD_FIXED_PLL_DDR6	F34
AB11	VDD_FIXED	VDD_FIXED_PLL_DDR7	J37
AB13	VDD_FIXED		
AB15	VDD_FIXED		
AB17	VDD_FIXED		
AB19	VDD_FIXED		
AB21	VDD_FIXED	VDD_FIXED_PLL_GPU	AJ18
AB23	VDD_FIXED	VDD_FIXED_PLL_LPDP	AE32
AB25	VDD_FIXED	VDD_FIXED_PLL_SOC	AK17
AC12	VDD_FIXED	VDD_FIXED_PLL_SOC	AK18
AC14	VDD_FIXED	VDD_FIXED_CPU	AD21
AC16	VDD_FIXED	VDD_FIXED_LPDP_RX	AN14
AC18	VDD_FIXED	VDD_FIXED_LPDP_RX	AN16
AC20	VDD_FIXED	VDD_FIXED_LPDP_TX	AA32
AC31	VDD_FIXED	VDD_FIXED_LPDP_TX	AC32
AD11	VDD_FIXED	VDD_FIXED_MIPI	AP24
AD13	VDD_FIXED	VDD_FIXED_PCIE_ANA	AN18
AD15	VDD_FIXED	VDD_FIXED_PCIE_ANA	AN20
AD17	VDD_FIXED	VDD_FIXED_PCIE_ANA	AP19
AD19	VDD_FIXED	VDD_FIXED_PCIE_ANA	AP21
AE12	VDD_FIXED	VDD_FIXED_PCIE_REFBUF	AM23
AE14	VDD_FIXED	VDD_FIXED_PCIE_REFBUF	AN22
AE16	VDD_FIXED		
AE18	VDD_FIXED	VDD_FIXED_USB	AF35
AE20	VDD_FIXED	VDD_FIXED_USB3	AP30
AE31	VDD_FIXED		
AF11	VDD_FIXED	VDD_FIXED	L24
AF13	VDD_FIXED	VDD_FIXED	L26
AF15	VDD_FIXED	VDD_FIXED	L28
AF17	VDD_FIXED	VDD_FIXED	L30
AF19	VDD_FIXED	VDD_FIXED	L32
AF21	VDD_FIXED	VDD_FIXED	M11
AG12	VDD_FIXED	VDD_FIXED	M31
AG14	VDD_FIXED	VDD_FIXED	N12
AG16	VDD_FIXED	VDD_FIXED	N32
AG18	VDD_FIXED	VDD_FIXED	P11
AG20	VDD_FIXED	VDD_FIXED	P31
AG31	VDD_FIXED	VDD_FIXED	R12
AG32	VDD_FIXED	VDD_FIXED	R32
AH11	VDD_FIXED	VDD_FIXED	T11
AH13	VDD_FIXED	VDD_FIXED	T31
AH15	VDD_FIXED	VDD_FIXED	U12
AH17	VDD_FIXED	VDD_FIXED	U32
AH19	VDD_FIXED	VDD_FIXED	V11
AJ12	VDD_FIXED	VDD_FIXED	V23
AJ14	VDD_FIXED	VDD_FIXED	V25
AJ20	VDD_FIXED	VDD_FIXED	V31
AJ32	VDD_FIXED	VDD_FIXED	W12
AK11	VDD_FIXED	VDD_FIXED	W24
AK13	VDD_FIXED	VDD_FIXED	W32
AK15	VDD_FIXED	VDD_FIXED	Y11
AK19	VDD_FIXED	VDD_FIXED	Y23
AL12	VDD_FIXED	VDD_FIXED	Y31
AL14	VDD_FIXED		
AL16	VDD_FIXED	VDD_FIXED_SENSE	Y25
AL18	VDD_FIXED		
AL20	VDD_FIXED		
AL23	VDD_FIXED		
AL25	VDD_FIXED		
AL27	VDD_FIXED		
AL29	VDD_FIXED		
AM11	VDD_FIXED		
AM13	VDD_FIXED		
AM15	VDD_FIXED		
AM17	VDD_FIXED		
AM24	VDD_FIXED		
AM26	VDD_FIXED		
AM28	VDD_FIXED		
AM30	VDD_FIXED		
L12	VDD_FIXED		
L14	VDD_FIXED		
L16	VDD_FIXED		
L18	VDD_FIXED		
L20	VDD_FIXED		
L22	VDD_FIXED		

PPVDD_S1_FIXED_SOC

C1492 2.2UF 20% 6.3V X5R-CERM 0201
C1493 2.2UF 20% 6.3V X5R-CERM 0201
C1496 4.3UF 20% 4V CERM 0402
C14B0 0.22UF 20% 6.3V X5R 0100S-1
C14B1 15PF 5% 16V NP0-C0G-CERM 01005
C14C0 4.3UF 20% 4V CERM 0402
C14C1 4.3UF 20% 4V CERM 0402
C14C2 4.3UF 20% 4V CERM 0402
C14C3 4.3UF 20% 4V CERM 0402
C14C4 0.01UF 10% 16V X7R 01005
C14C5 15PF 5% 16V NP0-C0G-CERM 01005

ADC_SOC_TO_PMU_VDD_SOC

C1477 10UF 20% 6.3V CERM-X5R 0402-9
C1476 10UF 20% 6.3V CERM-X5R 0402-9

VDD_FIXED: 0.8V @ 4840MA

C1400 4.3UF 20% 4V CERM 0402
C1402 4.3UF 20% 4V CERM 0402
C1405 4.3UF 20% 4V CERM 0402
C1411 4.3UF 20% 4V CERM 0402

C1401 4.3UF 20% 4V CERM 0402
C1474 4.3UF 20% 4V CERM 0402
C1475 4.3UF 20% 4V CERM 0402
C1403 4.3UF 20% 4V CERM 0402
C1404 0.47UF 20% 6.3V CERM 0402

C1408 2.2UF 20% 6.3V X5R-CERM 0201
C1413 2.2UF 20% 6.3V X5R-CERM 0201
C1412 2.2UF 20% 6.3V X5R-CERM 0201
C1406 12PF 5% 25V NP0-C0G 0201

C1480 4.3UF 20% 4V CERM 0402
C1481 4.3UF 20% 4V CERM 0402
C1482 4.3UF 20% 4V CERM 0402
C1484 4.3UF 20% 4V CERM 0402

C1485 4.3UF 20% 4V CERM 0402
C1486 4.3UF 20% 4V CERM 0402
C1488 4.3UF 20% 4V CERM 0402

C148E 100PF 5% 25V C0G 0201

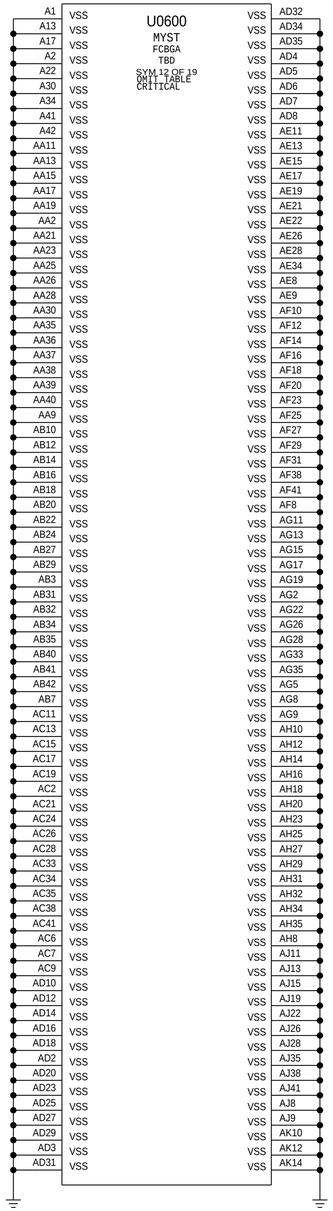
PPVDD_S1_FIXED_SOC

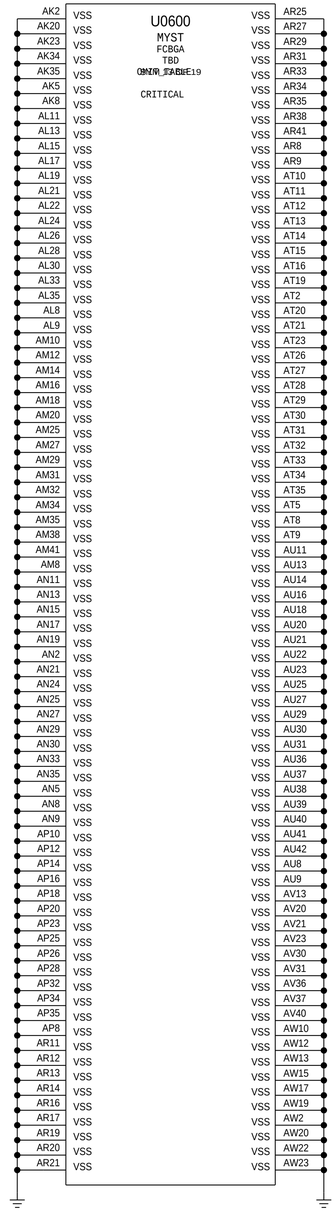
C14A9 0.1UF 20% 6.3V X5R-CERM 01005
C1495 1.0UF 20% 6.3V X5R 0201-1
C1409 4.3UF 20% 4V CERM 0402
C1490 2.2UF 20% 6.3V X5R-CERM 0201
C1499 2.2UF 20% 6.3V X5R-CERM 0201
C1498 2.2UF 20% 6.3V X5R-CERM 0201
C1497 4.3UF 20% 4V CERM 0402

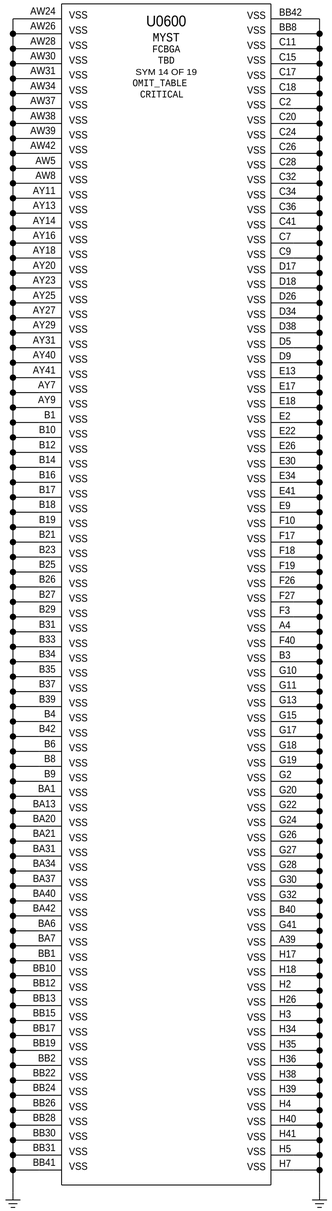
SYNC_MASTER=DEV_MYST
SYNC_DATE=03/30/2016
PAGE TITLE

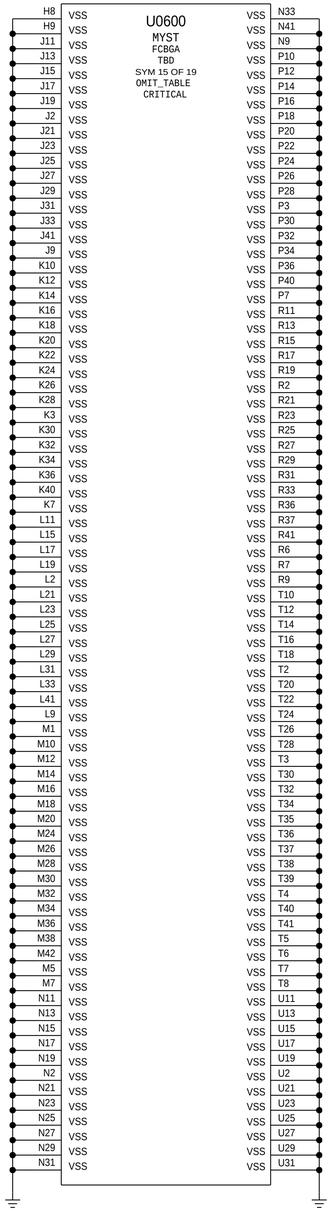
SOC: POWER (SRAM, SOC)

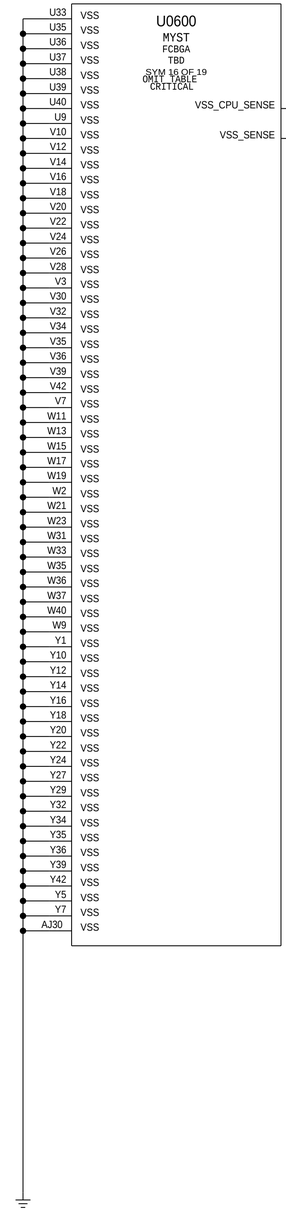
SOC GND:











AK31 — TP_VSS_CPU_SENSE — 69

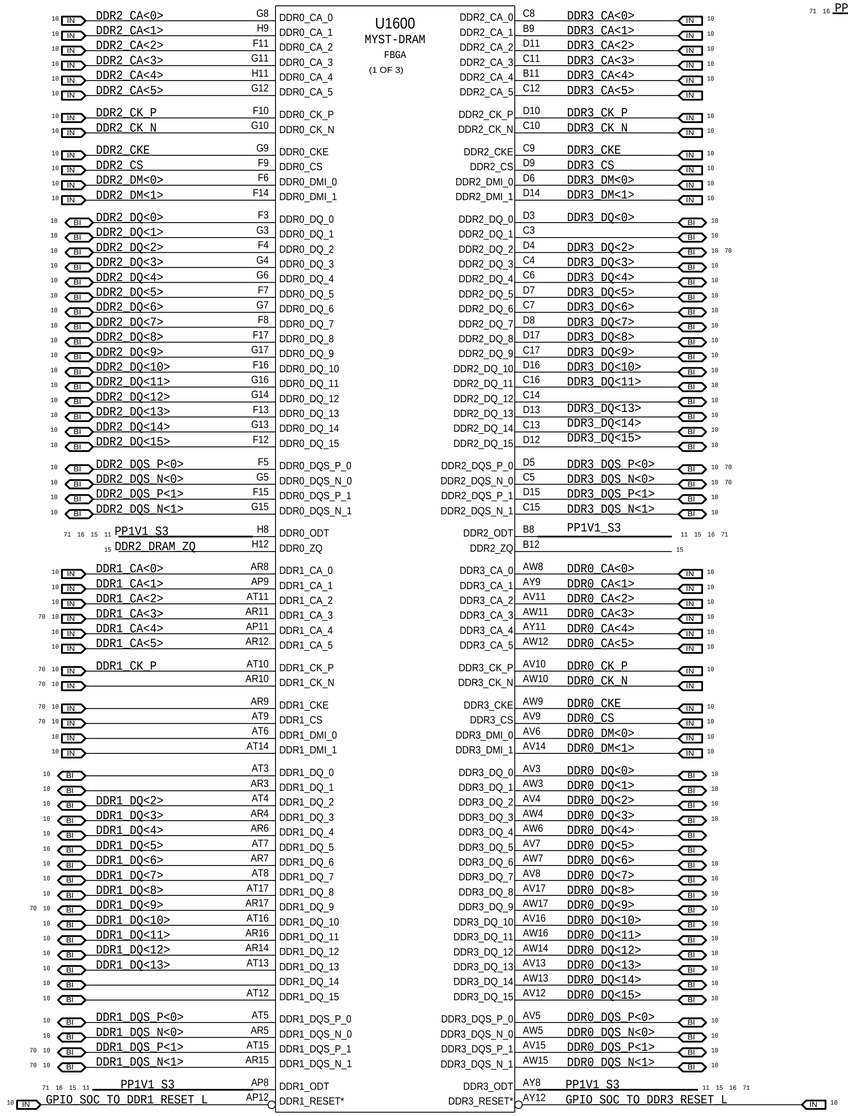
W25 — TP_VSS_SENSE — 69

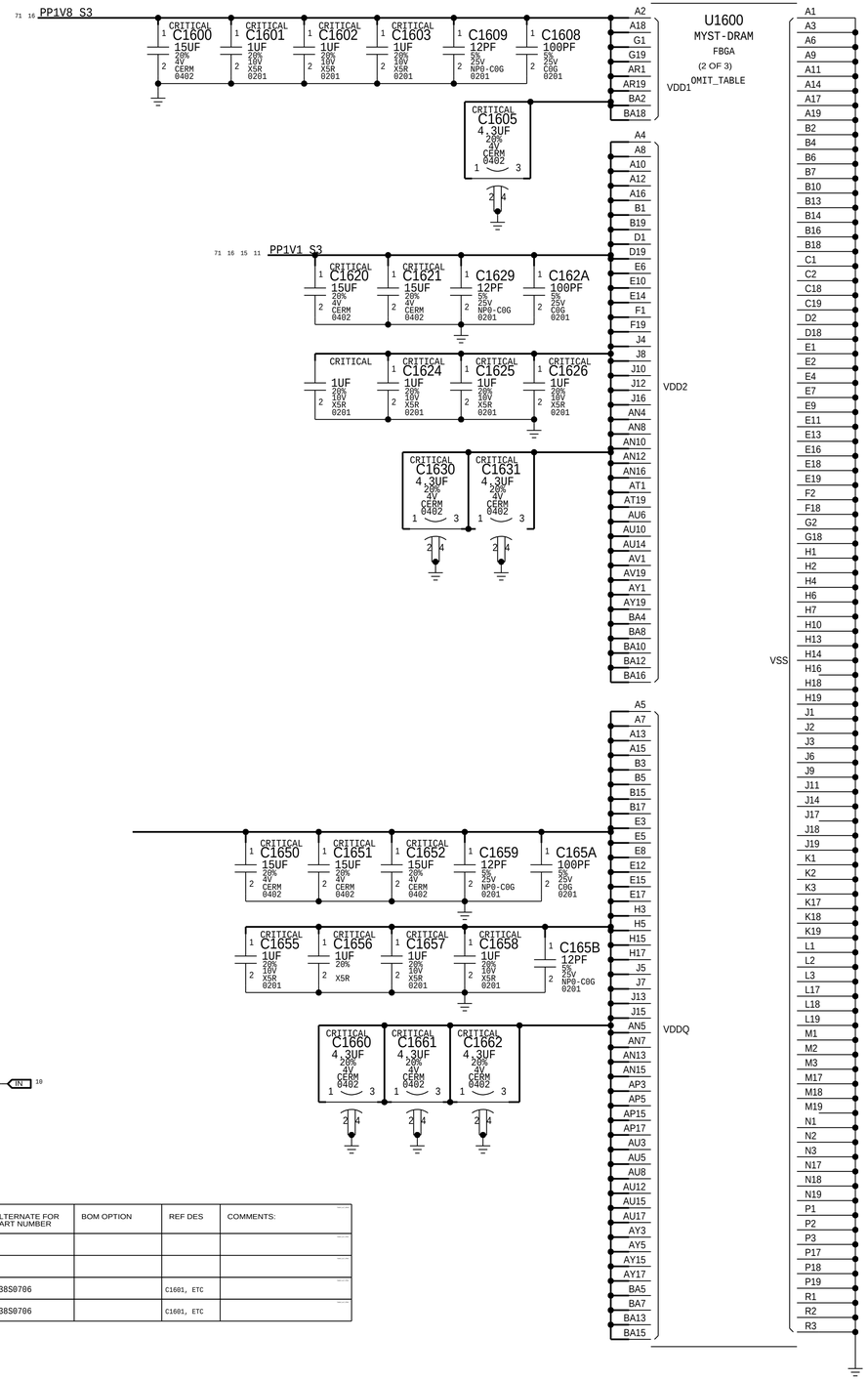
SYNC_MASTER=DEV_MYST SYNC_DATE=03/30/2016

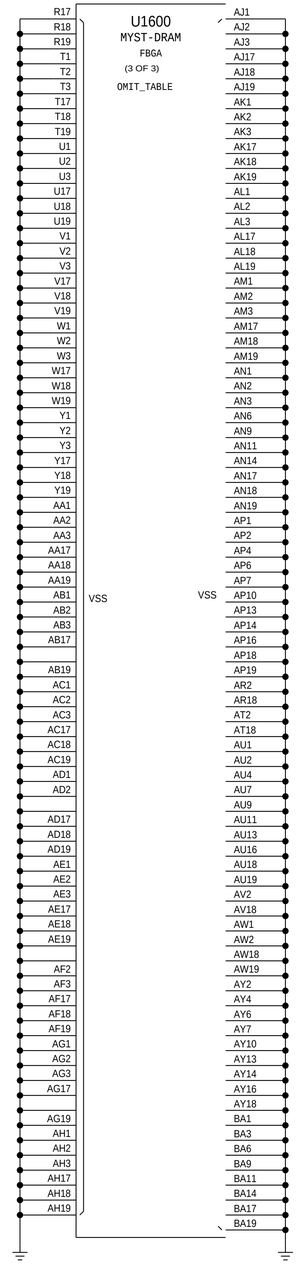
PAGE TITLE

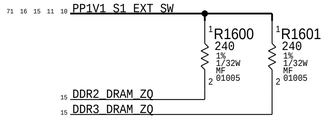
SOC: GND

DRAM1









PART NUMBER	ALTERNATE FOR PART NUMBER	BOM OPTION	REF DES	COMMENTS:
138S0739	138S0706		C1601, ETC	
138S0945	138S0706		C1601, ETC	

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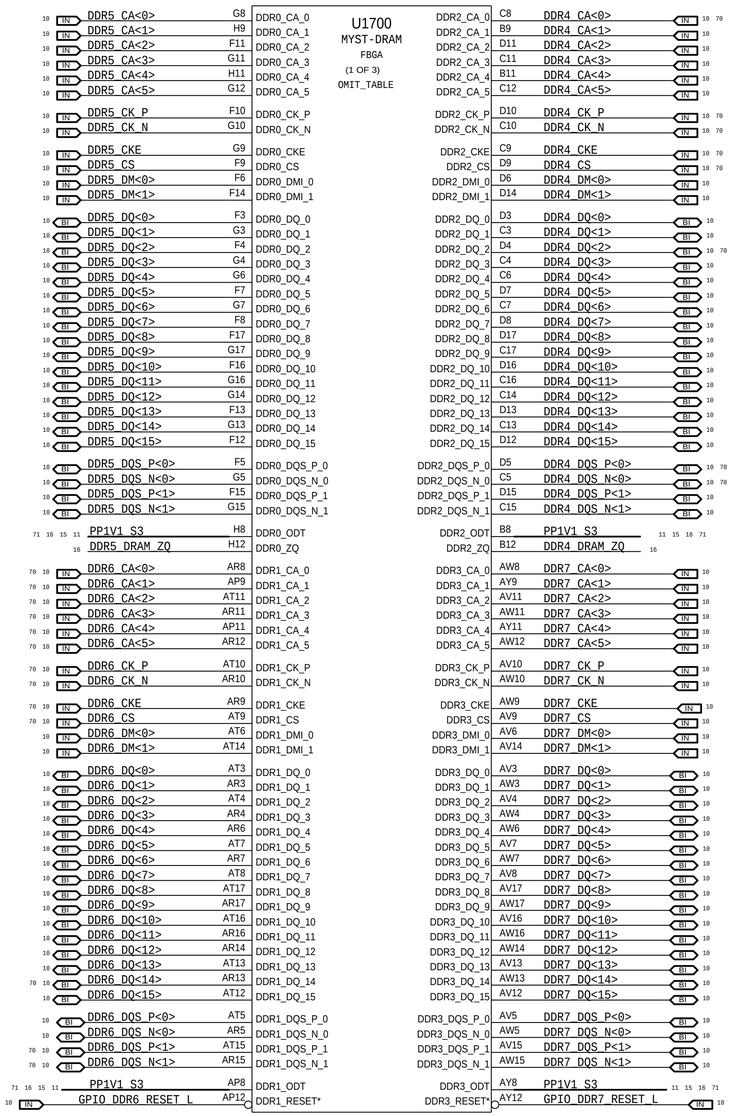
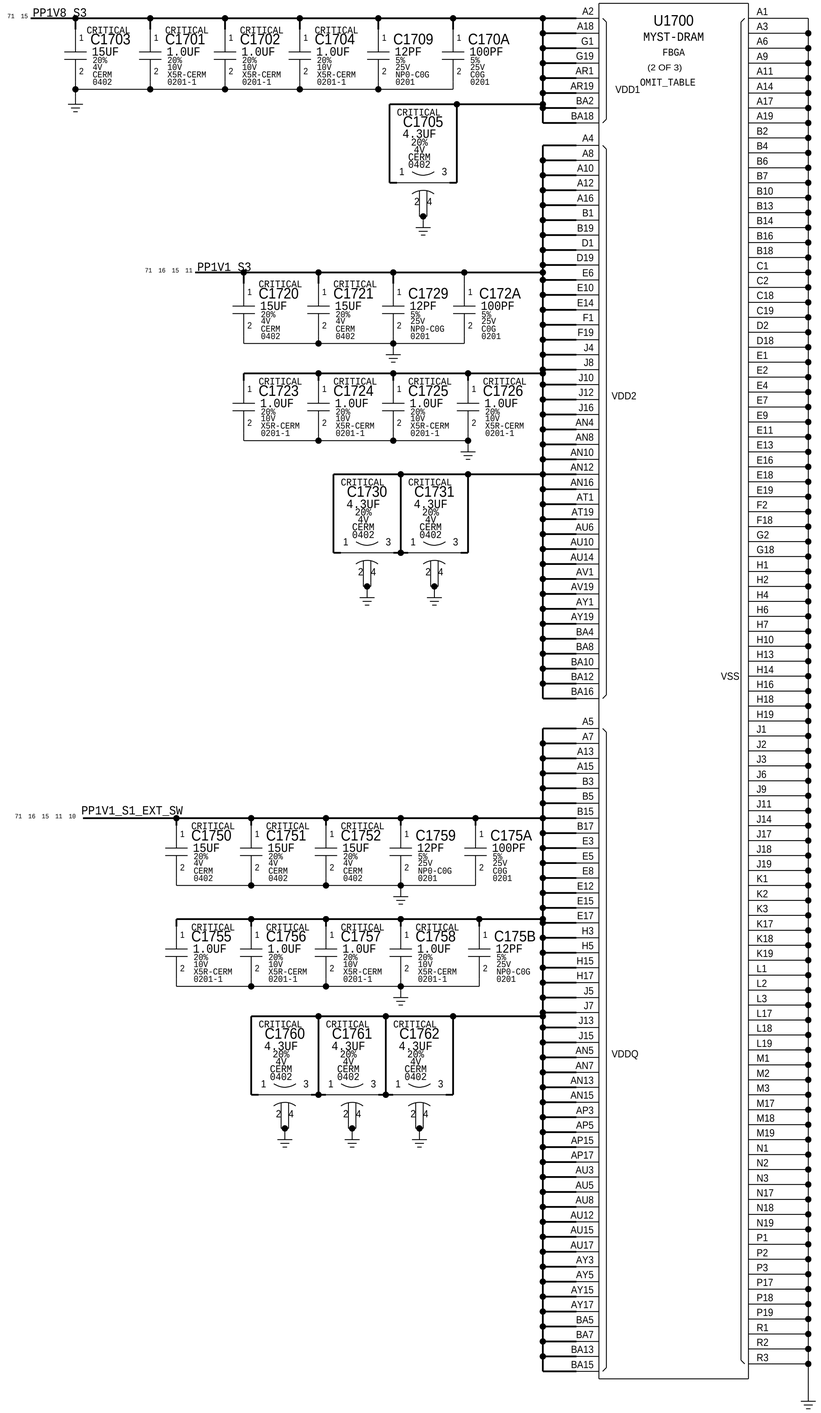
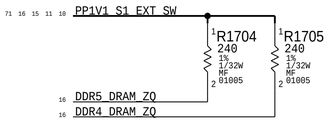
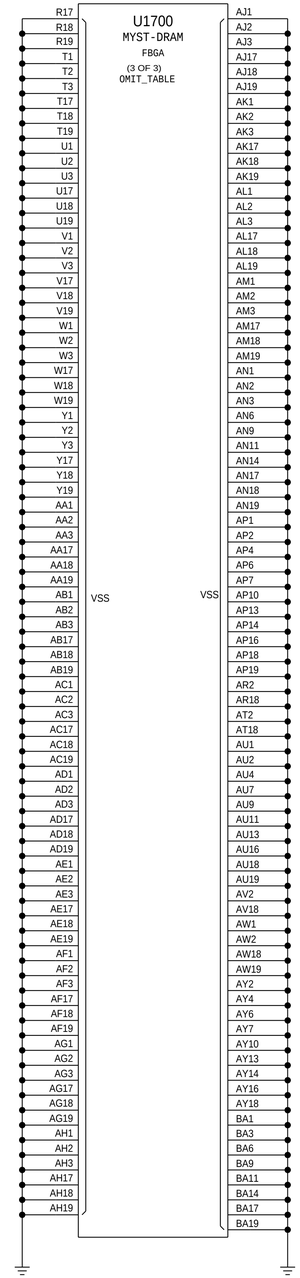
SYNC_DATE=03/30/2016
PAGE TITLE
DRAM: CHANNELS 0-3

DRAM2









SYNC_MASTER=DEV_MYST
SYNC_DATE=03/30/2016

PAGE TITLE

DRAM: CHANNELS 4-7

NAND

PART NUMBER	ALTERNATE FOR PART NUMBER	BOM OPTION	REF DES	COMMENTS:
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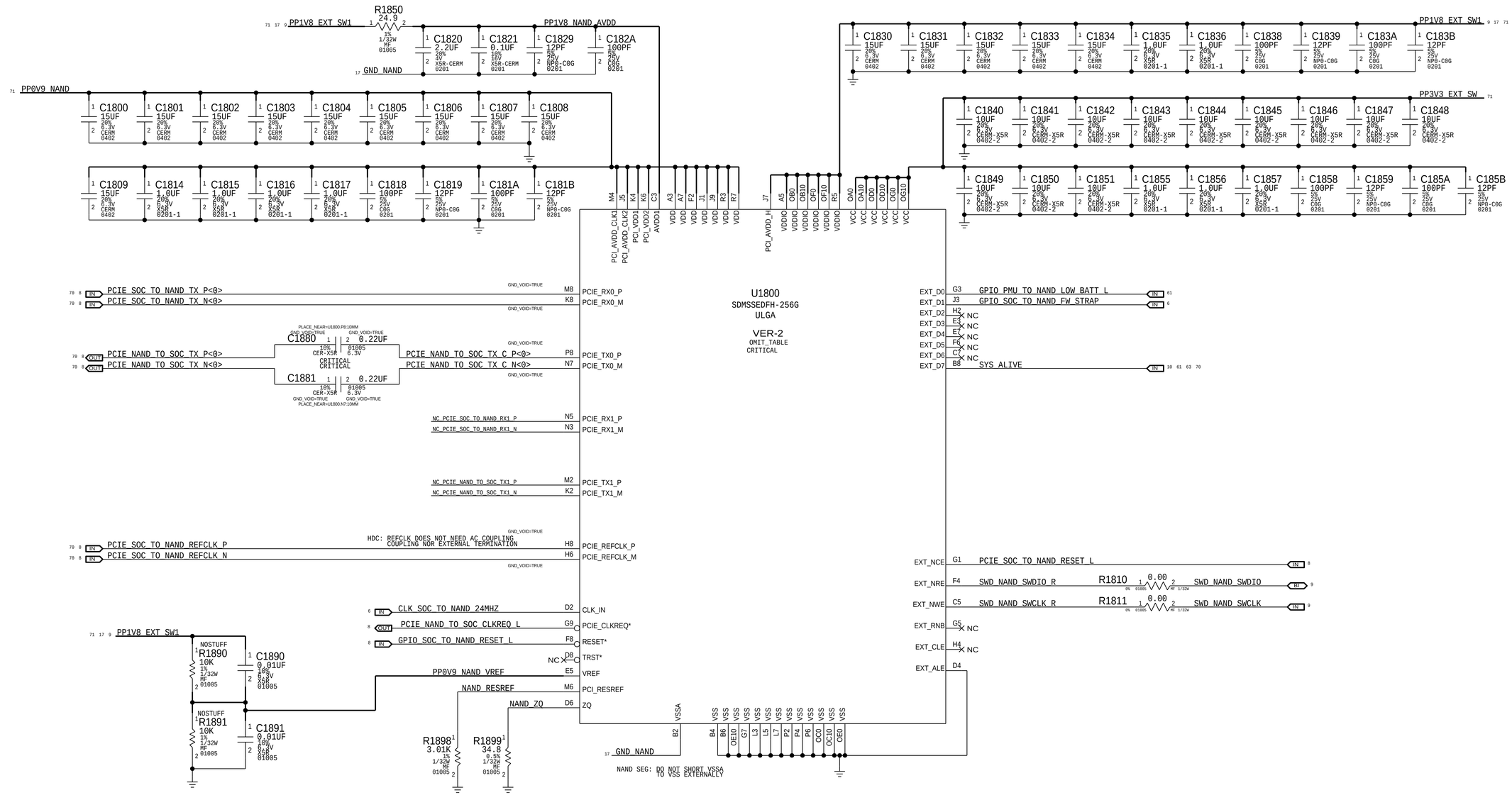
138S00003	138S0888		C1800	RDAR://PROBLEM/20618160



SYNC_DATE=

PAGE TITLE

NAND: NAND

KONA MASTER

U2200 BCM15900B0K BGA SYM 1 OF 2 — CRITICAL

E11	AUXADC_REF		
G12	AUXBUF_AIO_INPUT_3V		
F13	AUXBUF_AIO_OUTPUT	NC	
D10	GPIO_ADC_00	28 IN	KONA_S_TO_KONA_M_INT_L
D12	GPIO_ADC_01	NC	
D11	GPIO_ADC_02	NC	
F12	GPIO_ADC_03	70	TP_KONA_GPIO_ADC_03
E10	GPIO_ADC_04	38 IN	UART_DEBUG_TO_GRAPE_TX
F10	GPIO_ADC_05	38 OUT	UART_GRAPE_TO_DEBUG_TX
G10	GPIO_ADC_06	70 68 20 6 IN	GPIO_SOC_TO_BT_TO_GRAPE_TS_SYNC
G9	GPIO_ADC_07	70 68 OUT	GPIO_TOUCH_TO_BT_SYNC
F8	GPIO_08	20 OUT	SPI_KONA_M_TO_KONA_S_SCLK
H11	GPIO_09	20 OUT	SPI_KONA_M_TO_KONA_S_MOSI
J9	GPIO_10	20 IN	SPI_KONA_M_TO_KONA_S_MISO
H9	GPIO_11	20 OUT	SPI_KONA_M_TO_KONA_S_CS_L
F7	GPIO_12	NC	
J10	GPIO_13	NC	
A6	GPIO_14	70 20 IN	KONA_S_TO_KONA_M_RESET_DET_L
C6	GPIO_15		KONA_M_GPIO_15
D9	GPIO_16	70 32 20 IN	GPIO_SOC_TO_GRAPE_BSYNC0
E8	GPIO_17	70 32 20 IN	GPIO_SOC_TO_GRAPE_BSYNC1
C9	GPIO_18	32 20 IN	GPIO_SOC_TO_GRAPE_EB
C5	GPIO_19	NC	
A7	H_INT*	70 6 OUT	GPIO_GRAPE_TO_SOC_IRQ_L
A8	H_SCLK	70 6 IN	SPI_SOC_TO_GRAPE_SCLK
A9	H_SDI	70 6 IN	SPI_SOC_TO_GRAPE_MOSI
B8	H_SDO	70 6 IN	SPI_SOC_TO_GRAPE_MISO_R
B6	H_CS*	70 19 6 IN	SPI_SOC_TO_GRAPE_CS_L
B5	H_ALT_CS*	NC	
A5	I2C_SCL	NC	
A4	I2C_SDA	NC	
A12	KMSI_MISO	70 20 IN	KMSI_MISO
B13	KMSI_MOSI	70 20 OUT	KMSI_MOSI
B12	KMSI_STRB_IN	70 20 IN	KMSI_STRB_IN
A13	KMSI_STRB_OUT	70 20 OUT	KMSI_STRB_OUT
C14	PSE_SYNC	70 20	PSE_SYNC
B14	BOOST_ATEST	70	KONA_BOOST_ATEST
A15	BOOST_FBIN	19	KONA_BOOST_FBIN
B15	BOOST_ISENSE	19	KONA_BOOST_ISENSE
D13	BOOST_NGATE	19	KONA_BOOST_NGATE
C15	BOOST_VBAT	69 19	KONA_BOOST_VBAT
D14	BOOST_VBAT_EN	69 19	KONA_BOOST_EN
E9	JTAG_RTCK	NC	
J7	JTAG_TCK	9 IN	SWD_GRAPE_SWCLK
E7	JTAG_TMS	9 IN	SWD_GRAPE_SWDIO
G7	JTAG_TDI	NC	
H8	JTAG_TDO	NC	
G6	JTAG_TRST*	NC	
C7	JTAG_SRST*	NC	
H7	RESET*	70 20 6 IN	GPIO_SOC_TO_GRAPE_RESET_L
K9	TEST_MODE		KONA_M_TEST_MODE
K7	BOOT_CFG_0	19	KONA_BOOT0_M
J8	BOOT_CFG_1	19	KONA_BOOT1_M
R5	AFE_IO_BGBIAS	20	KONA_BGBIAS
J15	XTALN	NC	
K15	XTALP		CLK_KONA_M_24MHZ
J13	XTAL_O_CLK_EXT	NC	
B4	IFO_CLK_EXT	NC	

J5	GRAPE_RX<25>	IN 21
H3	GRAPE_RX<24>	IN 21
J2	GRAPE_RX<23>	IN 21
J3	GRAPE_RX<22>	IN 21
J4	GRAPE_RX<21>	IN 21
K5	GRAPE_RX<20>	IN 21
K4	GRAPE_RX<19>	IN 21
K3	GRAPE_RX<18>	IN 21
M5	GRAPE_RX<17>	IN 21
L5	GRAPE_RX<16>	IN 21
M1	GRAPE_RX<15>	IN 21
K1	GRAPE_RX<14>	IN 21
L6	GRAPE_RX<13>	IN 21
N1	GRAPE_RX<12>	IN 21
P6	GRAPE_RX<11>	IN 21
N6	GRAPE_RX<10>	IN 21
R7	GRAPE_RX<9>	IN 21
N7	GRAPE_RX<8>	IN 21
R8	GRAPE_RX<7>	IN 21
M6	GRAPE_RX<6>	IN 21
P7	GRAPE_RX<5>	IN 21
M7	GRAPE_RX<4>	IN 21
N9	GRAPE_RX<3>	IN 21
P9	GRAPE_RX<2>	IN 21
M9	GRAPE_RX<1>	IN 21
R9	GRAPE_RX<0>	IN 21
N10	NC	
M10	NC	
R10	NC	
P10	NC	
D2	NC	
D1	NC	
C2	NC	
C1	NC	
B1	NC	
P3	NC	
N2	NC	
P2	NC	
P1	NC	
P4	NC	
G3	GRAPE_TX<20>	OUT 21
D4	GRAPE_TX<21>	OUT 21
D3	GRAPE_TX<22>	OUT 21
G4	GRAPE_TX<23>	OUT 21
E4	GRAPE_TX<24>	OUT 21
E3	GRAPE_TX<25>	OUT 21
F1	GRAPE_TX<26>	OUT 21
F4	GRAPE_TX<27>	OUT 21
F3	GRAPE_TX<28>	OUT 21
H5	GRAPE_TX<29>	OUT 21
F2	GRAPE_TX<30>	OUT 21
G2	GRAPE_TX<31>	OUT 21
G1	GRAPE_TX<32>	OUT 21
H1	GRAPE_TX<33>	OUT 21
P11	GRAPE_TX<34>	OUT 21
N15	GRAPE_TX<35>	OUT 21
N12	GRAPE_TX<36>	OUT 21
P13	GRAPE_TX<37>	OUT 21
P12	GRAPE_TX<38>	OUT 21
R12	GRAPE_TX<39>	OUT 21
N13	NC	
M12	NC	
R13	NC	
L13	NC	
P14	NC	
M14	NC	
M13	NC	
N14	NC	
M15	NC	
R14	NC	
N5	NC	
N4	NC	
C11	NC	

PAD_I_TOUCH0 … PAD_I_TOUCH69 — PAD_I_SELFCAPEXT — PAD_O_GUARDBUFFER — CORE_PMU_O_AON_TEST_PMU

R2205 0.00 5% 1/32W MF 01005 — 70 19 6 IN SPI_SOC_TO_GRAPE_CS_L — TODO: CHECK BSYNC CONNECTIVITY

R2215 33 5% 1/32W MF 01005 — PLACE_NEAR=U2200.B8:5MM — 70 6 OUT SPI_SOC_TO_GRAPE_MISO

R2214 1.00M 5% 1/32W MF 01005 — 70 20 19 PP3V3_GRAPE_FILT

R2224 10K 5% 1/32W MF 01005 — 71 20 19 9 PP1V8_GRAPE_EXT_SW

R2211 10K 5% 1/32W MF 01005 — KONA_M_TEST_MODE

C2216 20PF 5% 16V NP0-C0G-CERM 01005 — CLK_SOC_TO_GRAPE_24MHZ

XW2202 SHORT-8L-0.091MM-SM — 20 OUT CLK_KONA_S_24MHZ

XW2201 SHORT-8L-0.091MM-SM — CLK_KONA_M_24MHZ

C2217 10PF 5% 16V CERM 01005

MARKED AS CRITICAL DUE TO PART ISSUES IN THE PAST W/0201

CRITICAL R2222 3.3 5% 1/16W MF-LF 402 — VOLTAGE=VIN — 19 PP15V0_TOUCH — 69 20 PP15V0_TOUCH_FILT

C2221 0.47UF 20% 25V CER-X5R 0201 — C2222 0.47UF 20% 25V CER-X5R 0201 — C2223 0.47UF 20% 25V CER-X5R 0201 — C2232 0.47UF 20% 25V CER-X5R 0201

C2233 0.47UF 20% 25V CER-X5R 0201 — C2234 0.47UF 20% 25V CER-X5R 0201 — C2235 0.47UF 20% 25V CER-X5R 0201 — C2236 100PF 5% 25V C0G 0201 — C2237 12PF 5% 25V NP0-C0G 0201

L2204 FERR-220-OHM 0402 — 71 PP3V3_GRAPE

VOLTAGE=3.3V — 70 20 18 PP3V3_GRAPE_FILT

C2238 100PF 5% 25V C0G 0201 — C2239 12PF 5% 25V NP0-C0G 0201 — C2224 0.1UF 10% 10V X5R-CERM 0201 — C2225 0.1UF 10% 10V X5R-CERM 0201 — C2231 0.22UF 20% 10V CERM-X5R 0201

69 PP2V8_KONA_M_VDDANA

C2278 100PF 5% 25V C0G 0201 — C2279 12PF 5% 25V NP0-C0G 0201 — C2201 0.1UF 10% 10V X5R-CERM 0201 — C2202 0.1UF 10% 10V X5R-CERM 0201

C2203 0.1UF 10% 10V X5R-CERM 0201 — C2204 0.1UF 10% 10V X5R-CERM 0201 — C2205 0.1UF 10% 10V X5R-CERM 0201 — C2206 2.2UF 10% 10V X5R-CERM 0402

KONA_M_VDDADC_CAP — C2229 1UF 10% 10V X5R-CERM 0402

L2203 FERR-220-OHM 0402 — 73 20 PP1V8_GRAPE_XTAL_FILT

C2227 0.1UF 10% 25V X5R 0201 — C2228 0.047UF 10% 25V X5R 0201

71 20 19 9 PP1V8_GRAPE_EXT_SW

C2248 100PF 5% 25V C0G 0201 — C2249 12PF 5% 25V NP0-C0G 0201 — C2207 2.2UF 10% 6.3V X5R-CERM 0402 — C2208 0.1UF 10% 6.3V CERM-X5R 0201 — C2209 0.1UF 10% 6.3V CERM-X5R 0201 — C2210 0.1UF 10% 6.3V CERM-X5R 0201

R2281 100 1% 1/20W MF 201 — VOLTAGE=1.8V — 70 20 PP1V8_GRAPE_AON_RC

C2281 2.2UF 10% X5R-CERM 0402

KONA_M_VDDCORE_CAP — C2218 1UF 10% 10V X5R-CERM 0402 — C2219 0.1UF 10% 6.3V CERM-X5R 0201

U2200 BCM15900B0K BGA SYM 2 OF 2 — CRITICAL

B3	AFE_I_VDDHV15_EXT	F14	AUXBUF_AVSS
C4	AFE_I_VDDHV15_EXT	C10	AUXADC_AVSS
L7	AFE_I_VDDHV15_EXT	D6	VSS
E5	AFE_I_VDDHV15_EXT	D8	VSS
M11	AFE_I_VDDHV15_EXT	F6	VSS
H2	AFE_I_VDDHV15_EXT	F9	VSS
K6	AFE_I_VDDHV15_EXT	G8	VSS
L1	AFE_I_VDDHV15_EXT	H10	VSS
L9	AFE_I_VDDHV15_EXT	K8	VSS
M3	AFE_I_VDDHV15_EXT	A14	VSS
E2	AFE_I_VDDHV15_EXT	E14	VSS
N3	AFE_I_VDDHV15_EXT	A1	VSS
L12	AFE_I_VDDHV15_EXT	A3	VSS
G5	AFE_I_VDDHV15_EXT	B7	VSS
R15	AFE_I_VDDHV15_EXT	H12	VSS
E13	BOOST_VDDA	H13	VSS
C12	OTP_TMON_I_VDDA_3P3_EXT	K11	VSS
R1	AFE_PMU_I_VDDA_3P3_EXT	K12	VSS
G13	AUXBUF_PMU_I_VDDA_3P3_EXT	K13	VSS
G14	AUXBUF_PMU_I_VDDHV_AUX_EXT	D15	VSS
G15	AUXBUF_PMU_O_VDD_AUX_CAP	E15	VSS
NC		F15	VSS
C3	AFE_I_VDDANA_3P3_AFE_PMU	G11	VSS
D5	AFE_I_VDDANA_3P3_AFE_PMU	J11	VSS
H6	AFE_I_VDDANA_3P3_AFE_PMU	J12	VSS
L4	AFE_I_VDDANA_3P3_AFE_PMU	K10	VSS
L3	AFE_I_VDDANA_3P3_AFE_PMU	H15	XTAL_AVSS
L8	AFE_I_VDDANA_3P3_AFE_PMU	K14	XTAL_AVSS
M2	AFE_I_VDDANA_3P3_AFE_PMU	B10	CORE_PMU_I_AVSS
R11	AFE_I_VDDANA_3P3_AFE_PMU	H14	AUXBUF_PMU_I_AVSS
M8	AFE_I_VDDANA_3P3_AFE_PMU	B2	PAD_I_AVSS
N8	AFE_I_VDDANA_3P3_AFE_PMU	E1	PAD_I_AVSS
J6	AFE_I_VDDANA_3P3_AFE_PMU	J1	PAD_I_AVSS
L11	AFE_I_VDDANA_3P3_AFE_PMU	N11	PAD_I_AVSS
L14	AFE_I_VDDANA_3P3_AFE_PMU	L2	PAD_I_AVSS
R6	AFE_I_VDDANA_3P3_AFE_PMU	P15	PAD_I_AVSS
R2	AFE_PMU_O_VDDANA_3P3_PMU	K2	PAD_I_AVSS
R4	AFE_PMU_O_AVDD1P2_CAP	L10	PAD_I_AVSS
J14	XTAL_PLL_AVDD1P8_I_VDDLDO_1P8_EXT	L15	PAD_I_AVSS
F11	AUXADC_AVDDC_I_VDDIO_1P8_3P3_EXT	M4	PAD_I_AVSS
E12	AUXADC_AVDD_I_VDDIO_1P8_3P3_EXT	F5	PAD_I_AVSS
R3	AFE_PMU_I_VDDLDO_1P8_EXT	P5	PAD_I_AVSS
B9	AON_PAD_I_VDDIO_1P8_3P3_EXT	P8	PAD_I_AVSS
D7	AON_PAD_I_VDDIO_1P8_3P3_EXT	H4	PAD_I_AVSS
E6	AON_PAD_I_VDDIO_1P8_3P3_EXT		
A2	I2C_PAD_I_VDDIO_1P8_3P3_EXT		
C13	CORE_PAD_I_VDDIO_1P8_3P3_EXT		
C8	CORE_PAD_I_VDDIO_1P8_3P3_EXT		
B11	CORE_PMU_I_AON_VDDIO_1P8_3P3_EXT		
A10	CORE_PMU_I_VDDLDO_1P8_EXT		
A11	CORE_PMU_O_VDDCORE_1P2_CAP		

BOOT OPTION

71 20 19 9 PP1V8_GRAPE_EXT_SW

R2201 10K 5% 1/32W MF 01005 — NOSTUFF — 19 KONA_BOOT0_M

R2202 10K 5% 1/32W MF 01005

R2203 10K 5% 1/32W MF 01005

R2204 10K 5% 1/32W MF 01005 — NOSTUFF — KONA_BOOT1_M 19

15V BOOST

CRITICAL Q2201 SIA445EDJ SC70-6L

71 PPVCC_MAIN

R2207 10K 5% 1/32W MF 01005 — C2211 1UF 20% 16V CER-X5R 0201 — NO_XNET_CONNECTION=1

C2226 0.1UF 10% 25V X5R 0201 — C2220 10UF 20% 10V X5R-CERM 0402-7

KONA_BOOST_MAIN_GATED

R2208 0.15 1% 1/8W MF 0402 — KONA_BOOST_MAIN_R

XW2204 SHORT-8L-0.091MM-SM — NO_XNET_CONNECTION=1

XW2203 SHORT-8L-0.091MM-SM — NO_XNET_CONNECTION=1

CRITICAL L2201 22UH-20%-0.61A-0.60HM VLF504010-SM — KONA_BOOST_LX — DIDT=TRUE SWITCH_NODE=TRUE

CRITICAL Q2202 CSD17381F4 0402

CRITICAL D2201 SOD523 ZLLS350

PP15V0_TOUCH 19

C2212 10UF 20% 25V X5R-CERM 0603 — C2213 10UF 20% 25V X5R-CERM 0603 — C2214 10UF 20% 25V X5R-CERM 0603 — C2215 10UF 20% 25V X5R-CERM 0603 — C2268 100PF 5% 25V C0G 0201 — XW2205 SHORT-8L-0.091MM-SM — NO_XNET_CONNECTION=1

19 KONA_BOOST_FBIN

R2206 1.00K 5% 1/32W MF 01005 — 69 19 KONA_BOOST_EN — KONA_BOOST_EN_R

69 19 KONA_BOOST_VBAT

19 KONA_BOOST_ISENSE

19 KONA_BOOST_NGATE

PART NUMBER	ALTERNATE FOR PART NUMBER	BOM OPTION	REF DES	COMMENTS:
138S0641	138S0700		C2206,ETC	RDAR://PROBLEM/20618071
376S00191	376S00061		Q2202	

SYNC_MASTER=MLB_B_ELBA — SYNC_DATE=03/30/2016

PAGE TITLE

TOUCH: KONA MASTER

KONA: SLAVE

U2301 BCM15900B0K BGA — SYM 1 OF 2 (CRITICAL)

E11	AUXADC_REF	
G12	AUXBUF_AIO_INPUT_3V	
F13	AUXBUF_AIO_OUTPUT	
D10	GPIO_ADC_00	
D12	GPIO_ADC_01	
D11	GPIO_ADC_02	
F12	GPIO_ADC_03	70 TP_KONA_S_UART_RX
E10	GPIO_ADC_04	70 TP_KONA_S_UART_TX
F10	GPIO_ADC_05	
G10	GPIO_ADC_06	70 68 19 6 IN GPIO_SOC_TO_BT_TO_GRAPE_TS_SYNC
G9	GPIO_ADC_07	R2308 0.00 0% 1/32W MF 01005 — GPIO_SOC_TO_SYS_TS_SYNC_R
F8	GPIO_08	70 TP_KONA_IPC_EVENT_0
H11	GPIO_09	70 TP_KONA_IPC_EVENT_1
J9	GPIO_10	70 TP_KONA_IPC_EVENT_2
H9	GPIO_11	70 TP_KONA_IPC_EVENT_3
F7	GPIO_12	70 TP_KONA_IPC_EVENT_4
J10	GPIO_13	70 TP_KONA_IPC_EVENT_5
A6	GPIO_14	70 19 OUT KONA_S_TO_KONA_M_RESET_DET_L
C6	GPIO_15	
D9	GPIO_16	70 32 19 IN GPIO_SOC_TO_GRAPE_BSYNC0 — NOSTUFF 0.00 1/32W 0% MF 01005 — R2306 — KONA_M_BSYNC0
E8	GPIO_17	70 32 19 IN GPIO_SOC_TO_GRAPE_BSYNC1 — NOSTUFF 0.00 1/32W 0% MF 01005 — R2307 — KONA_M_BSYNC1
C9	GPIO_18	32 19 IN GPIO_SOC_TO_GRAPE_EB — NOSTUFF 0.00 1/32W 0% MF 01005 — R2309 — GPIO_SOC_TO_GRAPE_EB_R
C5	GPIO_19	
A7	H_INT*	19 OUT KONA_S_TO_KONA_M_INT_L
A8	H_SCLK	19 IN SPI_KONA_M_TO_KONA_S_SCLK
A9	H_SDI	19 IN SPI_KONA_M_TO_KONA_S_MOSI
B8	H_SDO	19 OUT SPI_KONA_M_TO_KONA_S_MISO
B6	H_CS*	19 IN SPI_KONA_M_TO_KONA_S_CS_L
B5	H_ALT_CS*	
A5	I2C_SCL	
A4	I2C_SDA	
A12	KMSI_MISO	70 19 IN KMSI_MISO
B13	KMSI_MOSI	70 19 OUT KMSI_MOSI
B12	KMSI_STRB_IN	70 19 IN KMSI_STRB_IN
A13	KMSI_STRB_OUT	70 19 OUT KMSI_STRB_OUT
C14	PSE_SYNC	70 19 BI PSE_SYNC
B14	BOOST_ATEST	
A15	BOOST_FBIN	
B15	BOOST_ISENSE	
D13	BOOST_NGATE	
C15	BOOST_VBAT	
D14	BOOST_VBAT_EN	
E9	JTAG_RTCK	
J7	JTAG_TCK	
E7	JTAG_TMS	
G7	JTAG_TDI	
H8	JTAG_TDO	
G6	JTAG_TRST*	
C7	JTAG_SRST*	
H7	RESET*	70 19 6 IN GPIO_SOC_TO_GRAPE_RESET_L
K9	TEST_MODE	KONA_S_TEST_MODE
K7	BOOT_CFG_0	R2305 10K 5% 1/32W MF 01005 — 20 KONA_BOOT0_S
J8	BOOT_CFG_1	20 KONA_BOOT1_S
R5	AFE_IO_BGBIAS	19 KONA_BGBIAS
J15	XTALN	
K15	XTALP	19 IN CLK_KONA_S_24MHZ
J13	XTAL_O_CLK_EXT	
B4	IFO_CLK_EXT	C2301 10PF 5% 16V CERM 01005

J5	GRAPE_RX<51>	21
H3	GRAPE_RX<50>	21
J2	GRAPE_RX<49>	21
J3	GRAPE_RX<48>	21
J4	GRAPE_RX<47>	21
K5	GRAPE_RX<46>	21
K4	GRAPE_RX<45>	21
K3	GRAPE_RX<44>	21
M5	GRAPE_RX<43>	21
L5	GRAPE_RX<42>	21
M1	GRAPE_RX<41>	21
K1	GRAPE_RX<40>	21
L6	GRAPE_RX<39>	21
N1	GRAPE_RX<38>	21
P6	GRAPE_RX<37>	21
N6	GRAPE_RX<36>	21
R7	GRAPE_RX<35>	21
N7	GRAPE_RX<34>	21
R8	GRAPE_RX<33>	21
M6	GRAPE_RX<32>	21
P7	GRAPE_RX<31>	21
M7	GRAPE_RX<30>	21
N9	GRAPE_RX<29>	21
P9	GRAPE_RX<28>	21
M9	GRAPE_RX<27>	21
R9	GRAPE_RX<26>	21
N10	NC	
M10	NC	
R10	NC	
P10	NC	
D2	NC	
D1	NC	
C2	NC	
C1	NC	
B1	NC	
P3	NC	
N2	NC	
P1	NC	
P2	NC	
P4	NC	
G3	GRAPE_TX<0>	OUT 21
D4	GRAPE_TX<1>	OUT 21
D3	GRAPE_TX<2>	OUT 21
G4	GRAPE_TX<3>	OUT 21
E4	GRAPE_TX<4>	OUT 21
E3	GRAPE_TX<5>	OUT 21
F1	GRAPE_TX<6>	OUT 21
F4	GRAPE_TX<7>	OUT 21
F3	GRAPE_TX<8>	OUT 21
H5	GRAPE_TX<9>	OUT 21
F2	GRAPE_TX<10>	OUT 21
G2	GRAPE_TX<11>	OUT 21
G1	GRAPE_TX<12>	OUT 21
H1	GRAPE_TX<13>	OUT 21
P11	GRAPE_TX<14>	OUT 21
N15	GRAPE_TX<15>	OUT 21
N12	GRAPE_TX<16>	OUT 21
P13	GRAPE_TX<17>	OUT 21
P12	GRAPE_TX<18>	OUT 21
R12	GRAPE_TX<19>	OUT 21
N13	NC	
M12	NC	
R13	NC	
L13	NC	
P14	NC	
M14	NC	
M13	NC	
N14	NC	
M15	NC	
R14	NC	
N5	NC	PAD_I_SELFCAPEXT
N4	NC	PAD_O_GUARDBUFFER
C11	NC	CORE_PMU_O_AON_TEST_PMU

U2301 BCM15900B0K BGA — SYM 2 OF 2 (CRITICAL)

B3	AFE_I_VDDHV15_EXT	69 19 PP15V0_TOUCH_FILT — C2311 0.47UF 20% 25V CER-X5R 0201 — C2312 0.47UF 20% 25V CER-X5R 0201 — C2313 0.47UF 20% 25V CER-X5R 0201 — C2317 0.47UF 20% 25V CER-X5R 0201
C4	AFE_I_VDDHV15_EXT	
L7	AFE_I_VDDHV15_EXT	
E5	AFE_I_VDDHV15_EXT	
M11	AFE_I_VDDHV15_EXT	
H2	AFE_I_VDDHV15_EXT	
K6	AFE_I_VDDHV15_EXT	
L1	AFE_I_VDDHV15_EXT	C2333 0.47UF 20% 25V CER-X5R 0201 — C2334 0.47UF 20% 25V CER-X5R 0201 — C2335 0.47UF 20% 25V CER-X5R 0201
L9	AFE_I_VDDHV15_EXT	
M3	AFE_I_VDDHV15_EXT	
E2	AFE_I_VDDHV15_EXT	
N3	AFE_I_VDDHV15_EXT	
L12	AFE_I_VDDHV15_EXT	
G5	AFE_I_VDDHV15_EXT	
R15	AFE_I_VDDHV15_EXT	
E13	BOOST_VDDA	70 19 PP3V3_GRAPE_FILT — C2315 0.1UF 10% 10V X5R-CERM 0201 — C2316 0.1UF 10% 10V X5R-CERM 0201 — C2320 0.22UF 20% 10V CERM-X5R 0201
C12	OTP_TMON_I_VDDA_3P3_EXT	
R1	AFE_PMU_I_VDDA_3P3_EXT	
G13	AUXBUF_PMU_I_VDDA_3P3_EXT	
G14	AUXBUF_PMU_I_VDDHV_AUX_EXT	
G15	AUXBUF_PMU_O_VDD_AUX_CAP	NC
C3	AFE_I_VDDANA_3P3_AFE_PMU	69 PP2V8_KONA_S_VDDANA — C2378 100PF 5% 25V C0G 0201 — C2379 12PF 5% 25V NP0-C0G 0201 — C2302 0.1UF 10% 10V X5R-CERM 0201 — C2303 0.1UF 10% 10V X5R-CERM 0201
D5	AFE_I_VDDANA_3P3_AFE_PMU	
H6	AFE_I_VDDANA_3P3_AFE_PMU	
L4	AFE_I_VDDANA_3P3_AFE_PMU	
L3	AFE_I_VDDANA_3P3_AFE_PMU	
L8	AFE_I_VDDANA_3P3_AFE_PMU	
M2	AFE_I_VDDANA_3P3_AFE_PMU	C2304 0.1UF 10% 10V X5R-CERM 0201 — C2305 0.1UF 10% 10V X5R-CERM 0201 — C2306 0.1UF 10% 10V X5R-CERM 0201 — C2307 2.2UF 10% 10V X5R-CERM 0402
R11	AFE_I_VDDANA_3P3_AFE_PMU	
M8	AFE_I_VDDANA_3P3_AFE_PMU	
N8	AFE_I_VDDANA_3P3_AFE_PMU	
J6	AFE_I_VDDANA_3P3_AFE_PMU	
L11	AFE_I_VDDANA_3P3_AFE_PMU	
L14	AFE_I_VDDANA_3P3_AFE_PMU	
R6	AFE_I_VDDANA_3P3_AFE_PMU	
R2	AFE_PMU_O_VDDANA_3P3_PMU	
R4	AFE_PMU_O_AVDD1P2_CAP	KONA_S_VDDADC_CAP — C2318 1UF 10% 10V X5R-CERM 0402
J14	XTAL_PLL_AVDD1P8_I_VDDLDO_1P8_EXT	70 19 PP1V8_GRAPE_XTAL_FILT — C2321 0.1UF 10% 25V X5R 0201 — C2322 0.047UF 10% 25V X5R 0201
F11	AUXADC_AVDDC_I_VDDIO_1P8_3P3_EXT	71 20 19 9 PP1V8_GRAPE_EXT_SW — C2308 0.1UF 10% 6.3V CERM-X5R 0201 — C2309 0.1UF 10% 6.3V CERM-X5R 0201 — C2310 0.1UF 10% 6.3V CERM-X5R 0201
E12	AUXADC_AVDD_I_VDDIO_1P8_3P3_EXT	
R3	AFE_PMU_I_VDDLDO_1P8_EXT	
B9	AON_PAD_I_VDDIO_1P8_3P3_EXT	
D7	AON_PAD_I_VDDIO_1P8_3P3_EXT	
E6	AON_PAD_I_VDDIO_1P8_3P3_EXT	
A2	I2C_PAD_I_VDDIO_1P8_3P3_EXT	
C13	CORE_PAD_I_VDDIO_1P8_3P3_EXT	
C8	CORE_PAD_I_VDDIO_1P8_3P3_EXT	
B11	CORE_PMU_I_AON_VDDIO_1P8_3P3_EXT	70 19 PP1V8_GRAPE_AON_RC
A10	CORE_PMU_I_VDDLDO_1P8_EXT	
A11	CORE_PMU_O_VDDCORE_1P2_CAP	70 KONA_S_VDDCORE_CAP — C2325 1UF 10% 10V X5R-CERM 0402 — C2314 0.1UF 10% 6.3V CERM-X5R 0201

F14	AUXBUF_AVSS	
C10	AUXADC_AVSS	
D6	VSS	
D8	VSS	
F6	VSS	
F9	VSS	
G8	VSS	
H10	VSS	
K8	VSS	
A14	VSS	
E14	VSS	
A1	VSS	
A3	VSS	
B7	VSS	
H12	VSS	
H13	VSS	
K11	VSS	
K12	VSS	
K13	VSS	
D15	VSS	
E15	VSS	
F15	VSS	
G11	VSS	
J11	VSS	
J12	VSS	
K10	VSS	
H15	XTAL_AVSS	
K14	XTAL_AVSS	
B10	CORE_PMU_I_AVSS	
H14	AUXBUF_PMU_I_AVSS	
B2	PAD_I_AVSS	
E1	PAD_I_AVSS	
J1	PAD_I_AVSS	
N11	PAD_I_AVSS	
L2	PAD_I_AVSS	
P15	PAD_I_AVSS	
K2	PAD_I_AVSS	
L10	PAD_I_AVSS	
L15	PAD_I_AVSS	
M4	PAD_I_AVSS	
F5	PAD_I_AVSS	
P5	PAD_I_AVSS	
P8	PAD_I_AVSS	
H4	PAD_I_AVSS	

BOOT OPTION

71 20 19 9 PP1V8_GRAPE_EXT_SW

R2301 10K 5% 1/32W MF 01005 — 20 KONA_BOOT0_S

R2303 10K 5% 1/32W MF 01005 — KONA_BOOT1_S 20

NOSTUFF R2302 10K 5% 1/32W MF 01005

NOSTUFF R2304 10K 5% 1/32W MF 01005

SYNC_MASTER=MLB_B_ELBA SYNC_DATE=03/30/2016

PAGE TITLE

TOUCH: KONA SLAVE

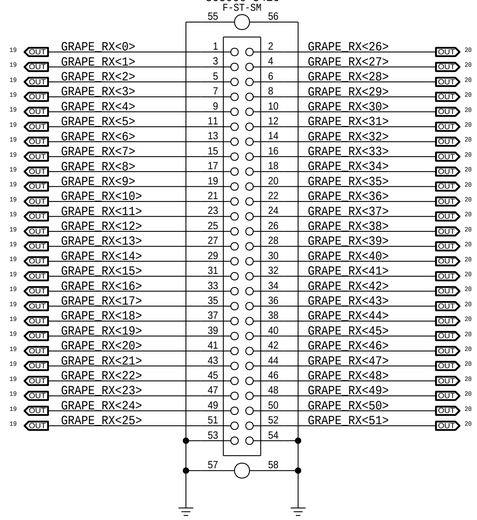
TOUCH FLEX CONNECTOR (SENSE)

MATCHES J207_GRAPE_FLEX 051-01606_3.0.0

MLB: 516S00063
FLEX: 516S00064

MOUNTING PINS CAN BE USED FOR ELECTRICAL CONNECTIONS

CRITICAL
J2400
505066-5420
F-ST-SM



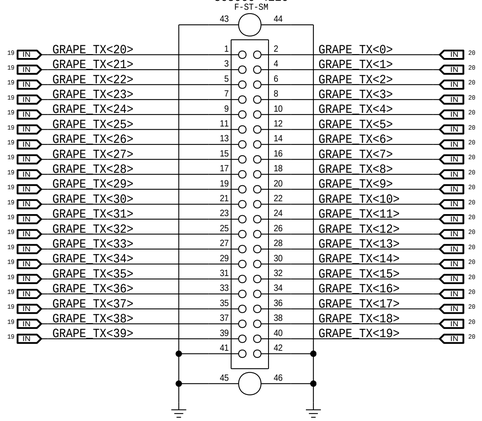
TOUCH FLEX CONNECTOR (DRIVE)

MATCHES J207_GRAPE_FLEX 051-01606_3.0.0

MLB: 516S00224
FLEX: 516S00225

MOUNTING PINS CAN BE USED FOR ELECTRICAL CONNECTIONS

CRITICAL
J2401
505066-4220
F-ST-SM

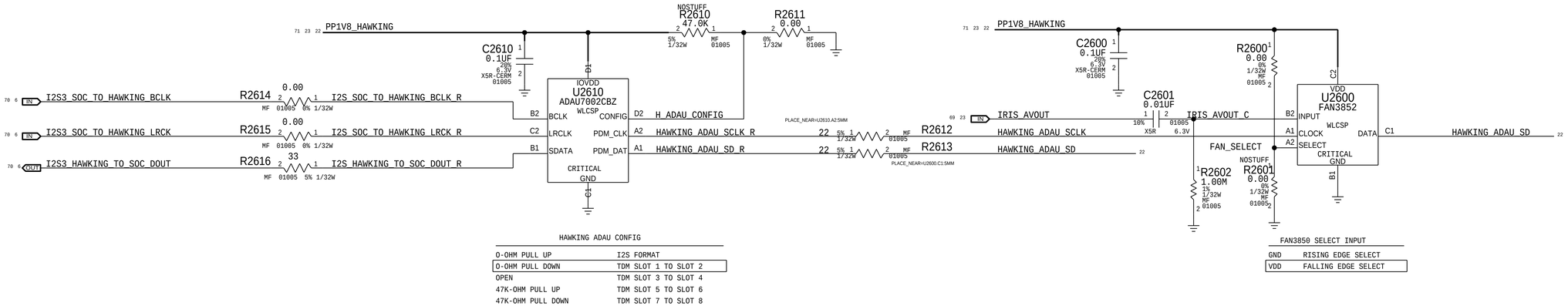


SYNC_MASTER=MLB_B_ELBA
SYNC_DATE=03/30/2016

PAGE TITLE

TOUCH: GRAPE CONN

HAWKING



HAWKING ADAU CONFIG

0-OHM PULL UP	I2S FORMAT
0-OHM PULL DOWN	TDM SLOT 1 TO SLOT 2
OPEN	TDM SLOT 3 TO SLOT 4
47K-OHM PULL UP	TDM SLOT 5 TO SLOT 6
47K-OHM PULL DOWN	TDM SLOT 7 TO SLOT 8

FAN3850 SELECT INPUT

GND	RISING EDGE SELECT
VDD	FALLING EDGE SELECT

SYNC_MASTER=MLB_B_ELBA SYNC_DATE=03/30/2016

PAGE TITLE

HAWKING

CORNER3 XFER FLEX B2B

MATCHES J207_C3_TRANSFER_B2B_FLEX_051-01950_0.5.0

MLB: 516S00259
FLEX: 516S00260

PART NUMBER	ALTERNATE FOR PART NUMBER	BOM OPTION	REF DES	COMMENTS:
155S00017	155S0755		FL2771, ETC	QUALIFIED IN J127

J2700
AA37D-S058VA2
F-ST-SM

63 — 64 SPKRAMP_FH_R_OUT_P (29)
59 PWR 60 SPKRAMP_FH_R_OUT_N (29)
1 SIGNAL 2 75_RFFE7_SDATA (BI 41 46 51 53)
3 4 75_RFFE7_SCLK (IN 41 46 51 53)
5 6 PP1V8_S2_C3_SWITCH_CONN (23)
7 8 PP3V0_S2_C3_SWITCH_CONN (23)
9 10
11 12
13 14 LPDP_UT_TO_SOC_DATA_C_N<0> (23)
15 16 LPDP_UT_TO_SOC_DATA_C_P<0> (23)
17 18
19 20 LPDP_UT_TO_SOC_DATA_C_N<1> (23)
21 22 LPDP_UT_TO_SOC_DATA_C_P<1> (23)
23 24
25 26 PP2V85_AVDD_CAM_REAR_CONN (23 69)
27 28
29 30 PP2V9_PVDD_CAM_REAR_CONN (23 69)
31 32
33 34
35 36 ISP_CAM_UT_CLK_CONN (23 69)
37 38 PP1V8_CAM_REAR_CONN (23 69)
39 40
41 42 ISP_CAM_UT_SCL_CONN (23 69)
43 44 ISP_CAM_UT_SDA_CONN (23 69)
45 46
47 48 BOARD_TEMP_C3_P (57 69)
49 50 BOARD_TEMP_C3_N (57)
51 52
53 54
55 56
57 58
61 PWR 62 PP3V0_UT_SVDD_CONN (23 69)
65 66

PPSTROBE1_COOL_LED_CONN (25)
PPSTROBE1_WARM_LED_CONN (25)
PPSTROBE2_WARM_LED_CONN (25)
PPSTROBE2_COOL_LED_CONN (25)
LED_DRIVER_NTC_CONN (25)
GPIO_BTN_ONOFF_L_CONN (23)
I2C_ALS_SCL_C3_CONN (23)
GPIO_ALS_C3_TO_SOC_IRQ_L (OUT 6)
I2C_ALS_SDA_C3_CONN (23)
PP3V0_C3_ALS_CONN (23)
GPIO_BTN_VOL_UP_L_CONN (23)
GPIO_BTN_VOL_DOWN_L_CONN (23)
GPIO_CPANEL_HALL_TO_PMU_IRQ_L (OUT 61)
PP1V8_S3_BASH_HALL (23)
IRIS_AVOUT (OUT 22)
PP1V8_HAWKING (71 22)
GPIO_REAR_CAM_TO_STROBE_EN (25)
ISP_CAM_UT_SHUTDOWN_L_CONN (23)
LPDP_UT_BI_SOX_AUX_D0 (23)
PP1V19_CAM_REAR_CONN (23)

C2701 180PF 2% 50V NP0-C0G 0201
C2702 180PF 2% 50V NP0-C0G 0201

FL2710
120-OHM-25%-250MA-0.5DCR
01005
7 IN GPIO_SOC_TO_REAR_CAM_SHTDWN_L — ISP_CAM_UT_SHUTDOWN_L_CONN (23 69)
R2810 100K 5% 1/32W MF 01005

FL2720
70-OHM-300MA
01005-1
7 IN ISP_UT_CAM_SCL — ISP_CAM_UT_SCL_CONN (23 69)

FL2721
70-OHM-300MA
01005-1
7 BI ISP_UT_CAM_SDA — ISP_CAM_UT_SDA_CONN (23 69)

FL2722
150OHM-25%-200MA-0.7DCR
01005
7 IN CLK_SOC_TO_REAR_CAM_12MHZ — ISP_CAM_UT_CLK_CONN (23 69)
C2720 56PF 5% 16V NP0-C0G 01005

FL2751
FERR-22-OHM-1A-0.055OHM
0201
71 PP3V0_UT_SVDD — PP3V0_UT_SVDD_CONN (VOLTAGE=3.00V) (23 69)
C2750 220PF 5% 10V C0G-CERM 01005
C2751 1.0UF 20% 6.3V X5R 0201-1

FL2791
FERR-22-OHM-1A-0.055OHM
0201
71 PP1V19_REAR_CAM — PP1V19_CAM_REAR_CONN (VOLTAGE=1.215V) (23 69)
C2795 220PF 5% 10V C0G-CERM 01005
C2796 1.0UF 20% 6.3V X5R 0201-1

FL27B1
FERR-22-OHM-1A-0.055OHM
0201
71 PP2V9_PVDD_CAM_REAR — PP2V9_PVDD_CAM_REAR_CONN (VOLTAGE=2.85V) (23 69)
C27B0 220PF 5% 10V C0G-CERM 01005
C27B1 1.0UF 20% 6.3V X5R 0201-1

FL2761
FERR-22-OHM-1A-0.055OHM
0201
71 PP2V85_REAR_CAM — PP2V85_AVDD_CAM_REAR_CONN (VOLTAGE=2.85V) (23 69)
C2760 220PF 5% 10V C0G-CERM 01005
C2761 1.0UF 20% 6.3V X5R 0201-1

FL2781
FERR-22-OHM-1A-0.055OHM
0201
71 7 PP1V8_SW1_CAM — PP1V8_CAM_REAR_CONN (VOLTAGE=1.8V) (23 69)
C2785 220PF 5% 10V C0G-CERM 01005
C2786 1.0UF 20% 6.3V X5R 0201-1

C27A4
0.1UF 20% 6.3V X5R-CERM 01005
70 7 BI LPDP_SOC_TO_UT_AUX — LPDP_UT_BI_SOX_AUX_D0 (23)
C2787 220PF 5% 10V C0G-CERM 01005 NOSTUFF

LPDP AC COUPLING CAPS

C27A0 0.1UF 20% 6.3V X5R-CERM 01005 (GND_VOID=TRUE)
70 7 OUT LPDP_UT_TO_SOC_DATA_N<0> — LPDP_UT_TO_SOC_DATA_C_N<0> (23)
C27A1 0.1UF 20% 6.3V X5R-CERM 01005 (GND_VOID=TRUE)
70 7 OUT LPDP_UT_TO_SOC_DATA_P<0> — LPDP_UT_TO_SOC_DATA_C_P<0> (23)
C27A2 0.1UF 20% 6.3V X5R-CERM 01005 (GND_VOID=TRUE)
70 7 OUT LPDP_UT_TO_SOC_DATA_N<1> — LPDP_UT_TO_SOC_DATA_C_N<1> (23)
C27A3 0.1UF 20% 6.3V X5R-CERM 01005 (GND_VOID=TRUE)
70 7 OUT LPDP_UT_TO_SOC_DATA_P<1> — LPDP_UT_TO_SOC_DATA_C_P<1> (23)

BUTTON FILTERS/ESD

FL2771
240-OHM-25%-0.20A-1.0DCR
01005
7 OUT GPIO_BTN_VOL_DOWN_L — GPIO_BTN_VOL_DOWN_R_L
R2771 100 5% 1/32W MF 01005 — GPIO_BTN_VOL_DOWN_L_CONN (23 69)
DZ2771 201-2 12.8V-100PF

FL2772
240-OHM-25%-0.20A-1.0DCR
01005
7 OUT GPIO_BTN_VOL_UP_L — GPIO_BTN_VOL_UP_R_L
R2772 100 5% 1/32W MF 01005 — GPIO_BTN_VOL_UP_L_CONN (68 53 52 50 48 47 46 38 27 23 69)
DZ2772 201-2 12.8V-100PF

L2773
240-OHM-25%-0.20A-1.0DCR
01005
61 OUT GPIO_BTN_ONOFF_L — GPIO_BTN_ONOFF_R_L
R2773 100 5% 1/32W MF 01005 — GPIO_BTN_ONOFF_L_CONN (23 69)
DZ2773 201-1 12.8V-100PF

ALS FILTERS

FL2740
70-OHM-300MA
01005-1
27 4 BI I2C3_SDA_1V8 — I2C_ALS_SDA_C3_CONN (23)
CKPLUS_WAIVE=I2C_PULLUP

FL2741
70-OHM-300MA
01005-1
27 4 IN I2C3_SCL_1V8 — I2C_ALS_SCL_C3_CONN (23)
CKPLUS_WAIVE=I2C_PULLUP

FL2742
80-OHM-25%-0.5A-0.13DCR
0201
71 PP3V0_ALS — PP3V0_C3_ALS_CONN (VOLTAGE=3.0V) (23)
C2742 1.0UF 20% 6.3V X5R 0201-1
C2743 220PF 5% 10V C0G-CERM 01005

HALL PWR FILTER

FL2748
80-OHM-25%-0.5A-0.13DCR
0201
71 27 PP1V8_S3 — PP1V8_S3_BASH_HALL (VOLTAGE=1.8V) (23)
C274A 1.0UF 20% 6.3V X5R 0201-1
C274B 220PF 5% 10V C0G-CERM 01005

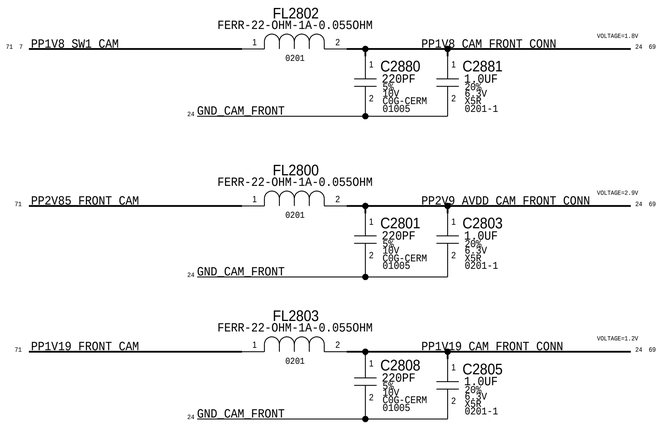
FL2782
80-OHM-25%-0.5A-0.13DCR
0201
PP_1V8_LDO15 — PP1V8_S2_C3_SWITCH_CONN (VOLTAGE=1.8V) (23)
C2792 1.0UF 20% 6.3V X5R 0201-1
C2793 220PF 5% 10V C0G-CERM 01005

FL2783
80-OHM-25%-0.5A-0.13DCR
0201
71 27 PP3V0_S3_TRISTAR — PP3V0_S2_C3_SWITCH_CONN (VOLTAGE=3.0V) (23)
C2794 1.0UF 20% 6.3V X5R 0201-1
C2797 220PF 5% 10V C0G-CERM 01005

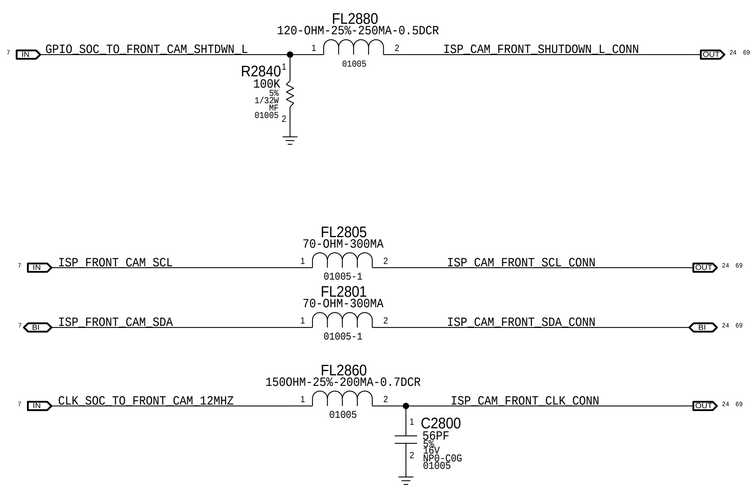
SYNC_MASTER=MLB_B_ELBA
SYNC_DATE=02/24/2016
PAGE TITLE
FLEX CONNS: CORNER 3

FRONT CAMERA (NH)

POWER FILTERS



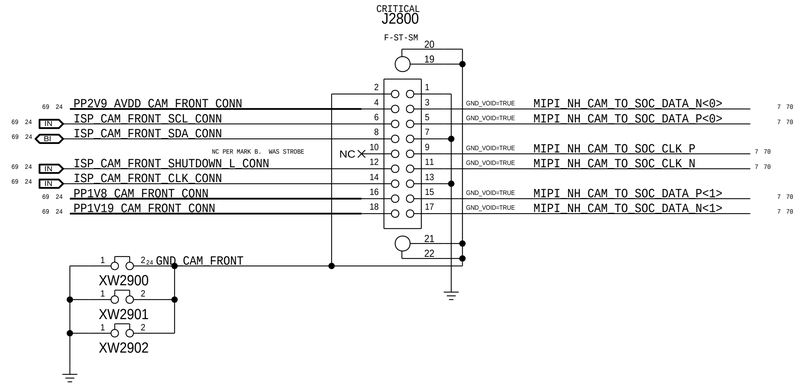
IO FILTERS



FRONT CAMERA CONNECTOR

MATCHES J120_FRONT_CAM_FLEX_051-01272_2.0.0

FLEX SIDE: 516S00194
MLB SIDE: 516S00193



PART NUMBER	ALTERNATE FOR PART NUMBER	BOM OPTION	REF DES	COMMENTS:
155S00200	155S0610		FL2860,ECT	RDAR://PROBLEM/12850271

SYNC_MASTER=MLB_B_ELBA SYNC_DATE=03/30/2016

PAGE TITLE

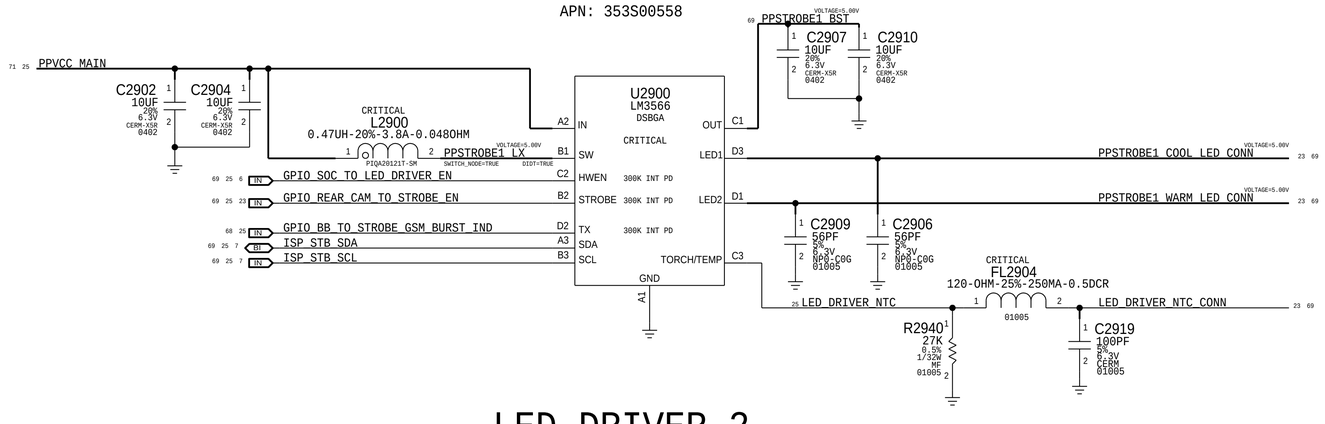
CAMERA: FRONT

PART NUMBER	ALTERNATE FOR PART NUMBER	BOM OPTION	REF DES	COMMENTS:
138S0875	138S0678		C2902, ETC	RDAR://PROBLEM/26929420

STROBE CIRCUITRY

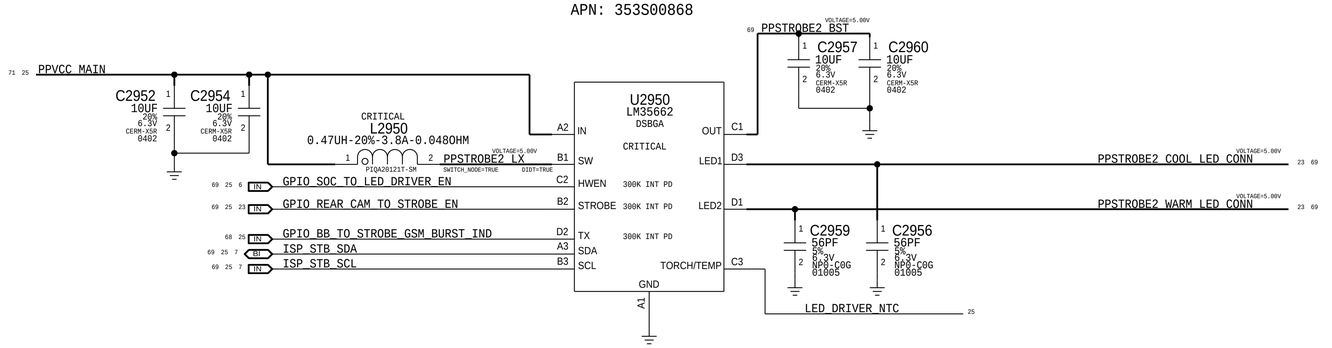
LED DRIVER 1

APN: 353S00558



LED DRIVER 2

APN: 353S00868



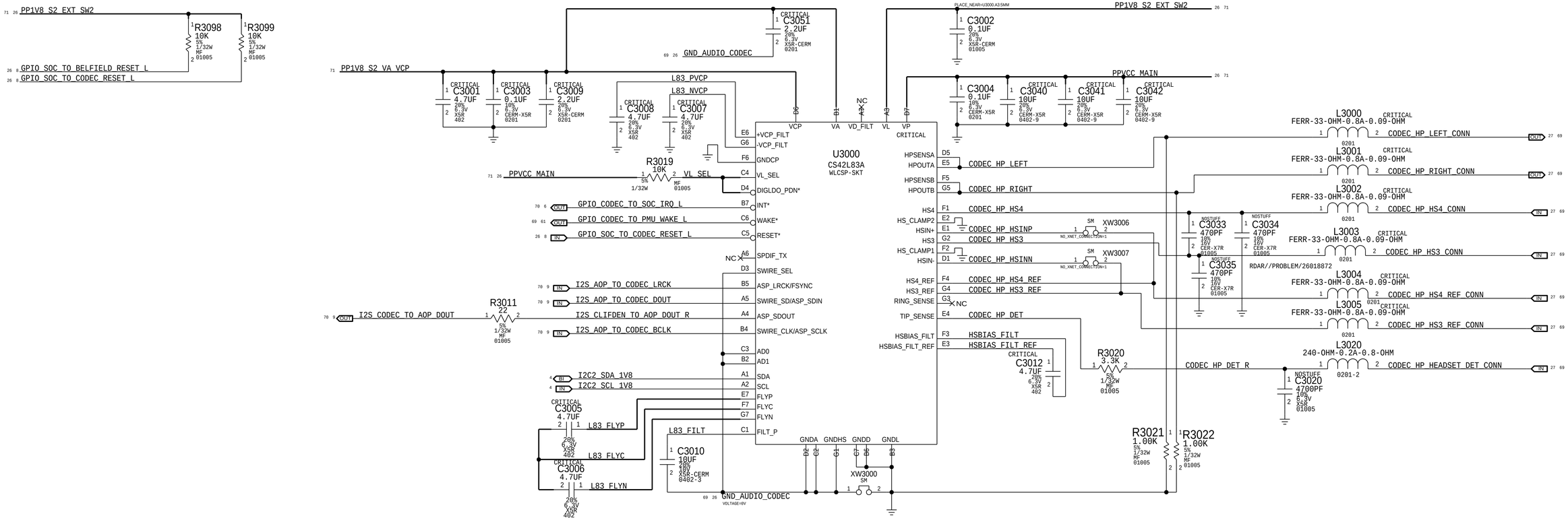
SYNC_MASTER=MLB_B_ELBA SYNC_DATE=03/30/2016

PAGE TITLE

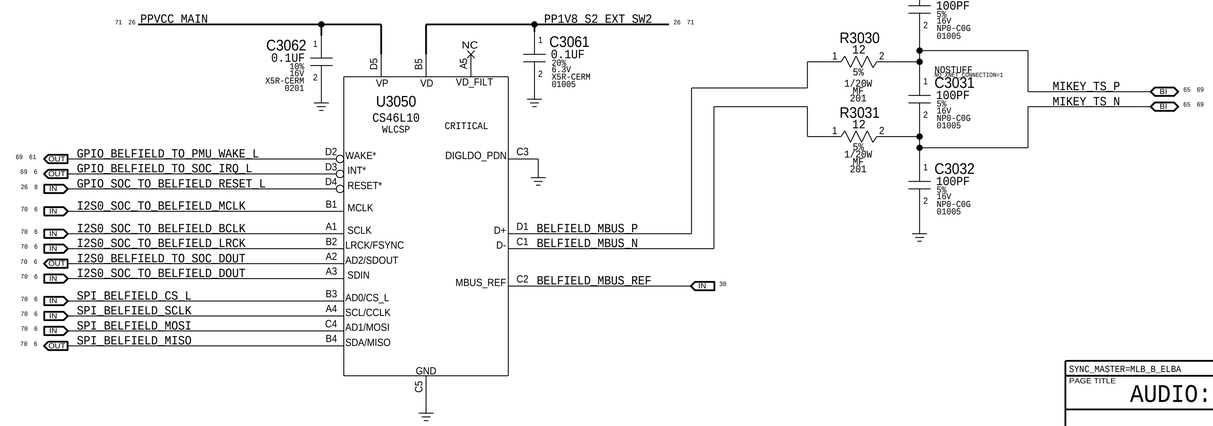
CAMERA: STROBE

PART NUMBER	ALTERNATE FOR PART NUMBER	BOM OPTION	REF DES	COMMENTS:
155S0661	155S0511		L3000,ECT	RDAR://PROBLEM/12639854
138S0847	138S0786		C3010	

CLIFDEN



BELFIELD



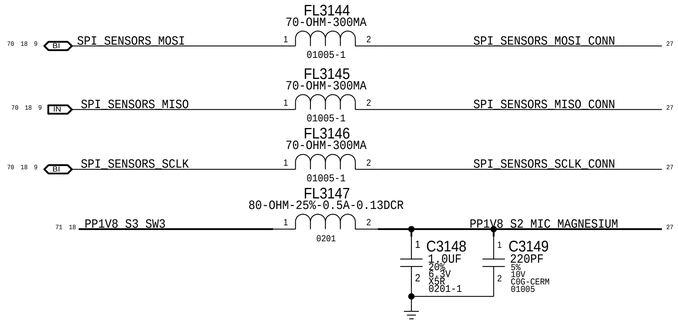
SYNC_MASTER=MLB_B_ELBA SYNC_DATE=03/30/2016

PAGE TITLE

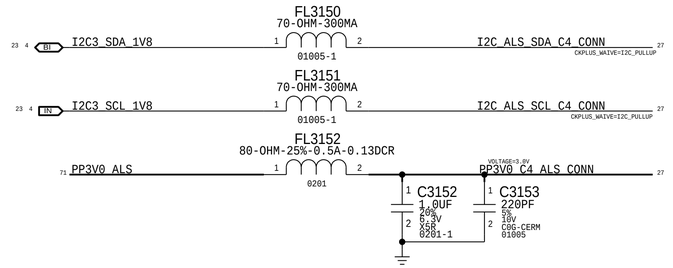
AUDIO: CLIFDEN, BELFIELD

CORNER 4 + DMIC FLEX FILTERS

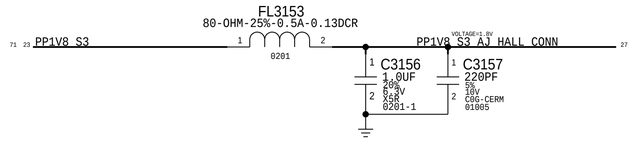
MAGNESIUM SPI FILTERS



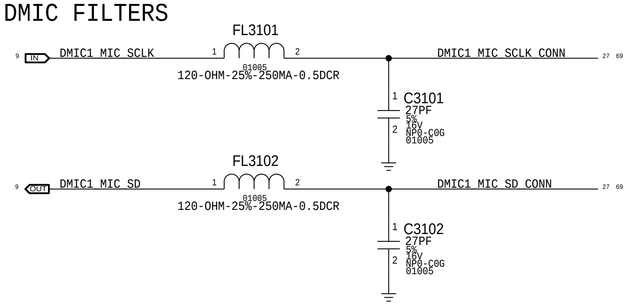
ALS FILTERS

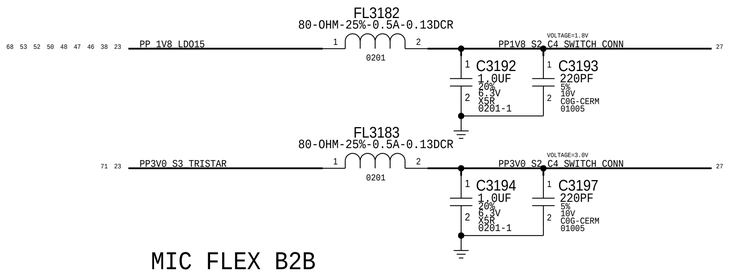


HALL FILTER



DMIC FILTERS



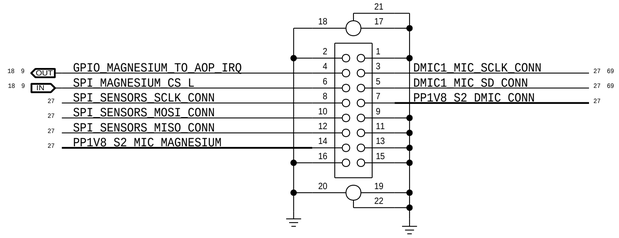


MIC FLEX B2B

MATCHES J207_MIC_FLEX_051-01915_0.5.0

MLB APN: 516S1278
FLEX APN: 516S1280

CRITICAL
J3100
24-5857-016-201-829
F-ST-SM



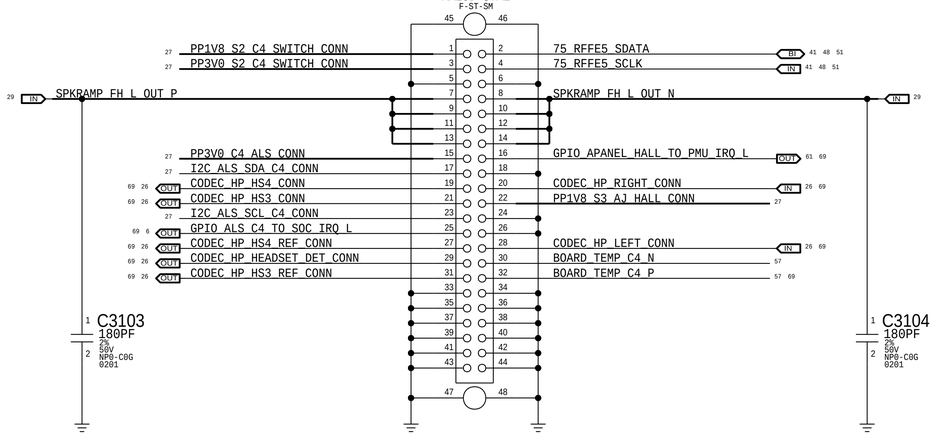
ROUTING	BUS	SELECT	LOCATION	DATA ASSERTS ON	DATA LATCHED ON
MIC1	DMIC1	HIGH	CENTER SPLINE	CLK RISING EDGE	CLK FALLING EDGE
MIC2	DMIC1	LOW	REAR	CLK FALLING EDGE	CLK RISING EDGE

CORNER 4 B2B

MATCHES J207_C4_TRANSFER_FLEX_051-01724_2.16.0

MLB APN: 516S00222
FLEX APN: 526S00223

J3150
AA29D-SVA1
F-ST-SM

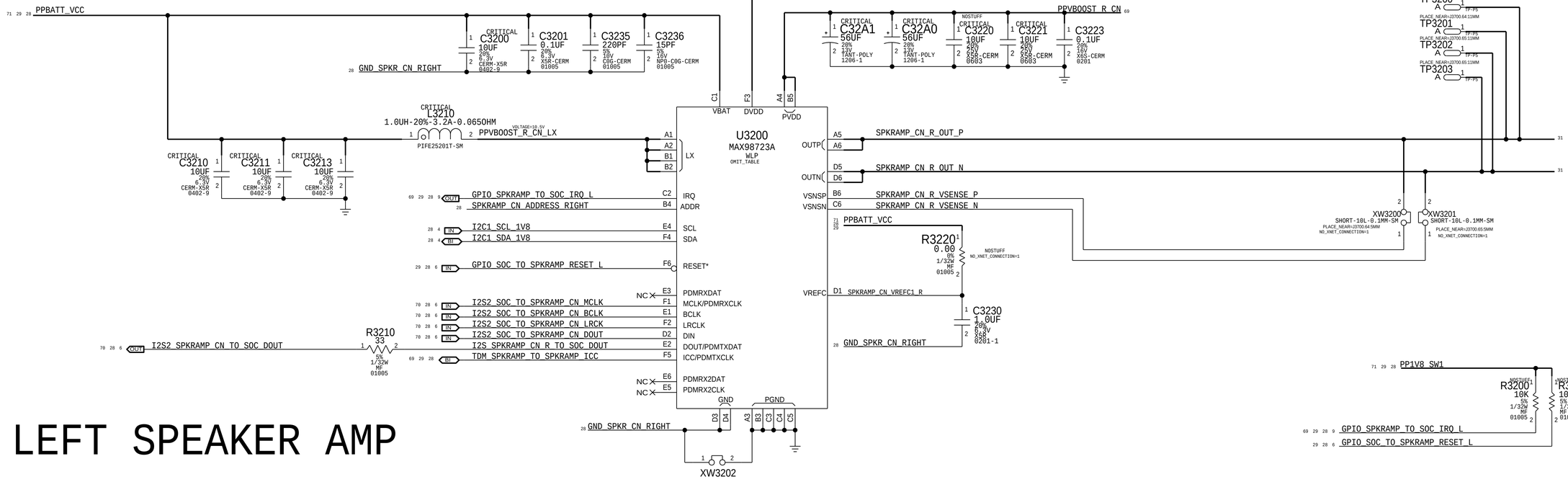


SYNC_MASTER=MLB_B_ELBA
SYNC_DATE=03/30/2016

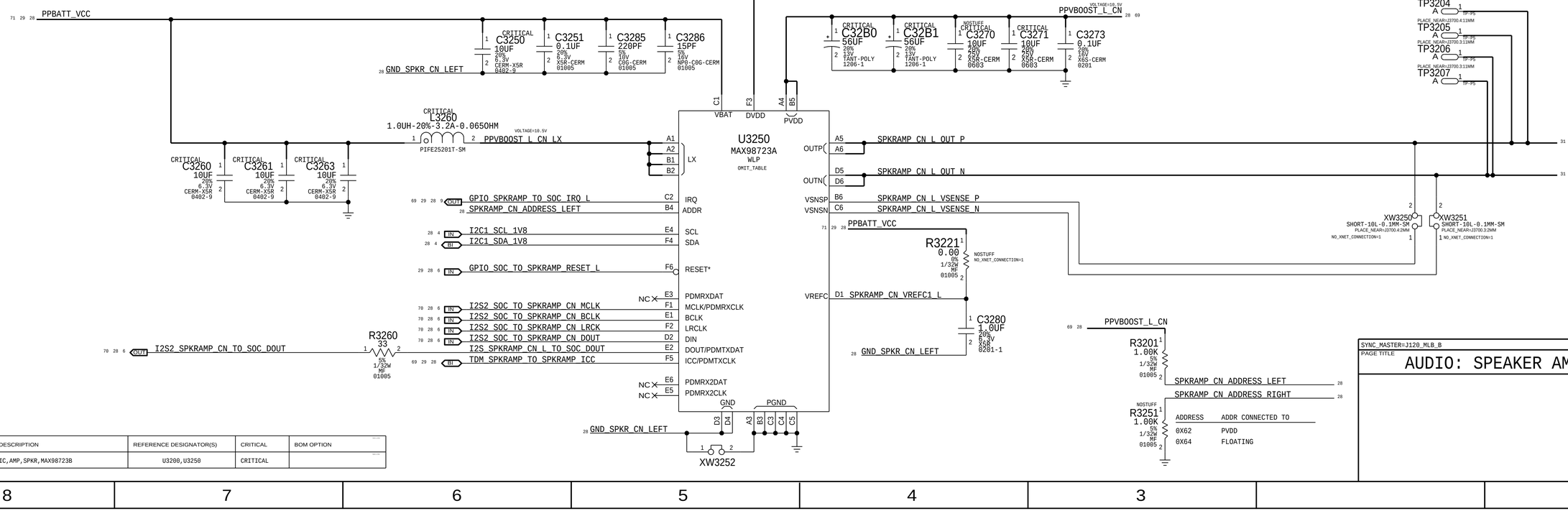
PAGE TITLE

FLEX CONNS: C4 & DMIC

CN RIGHT SPEAKER AMP



CN LEFT SPEAKER AMP



ADDRESS	ADDR CONNECTED TO
0X62	PVDD
0X64	FLOATING

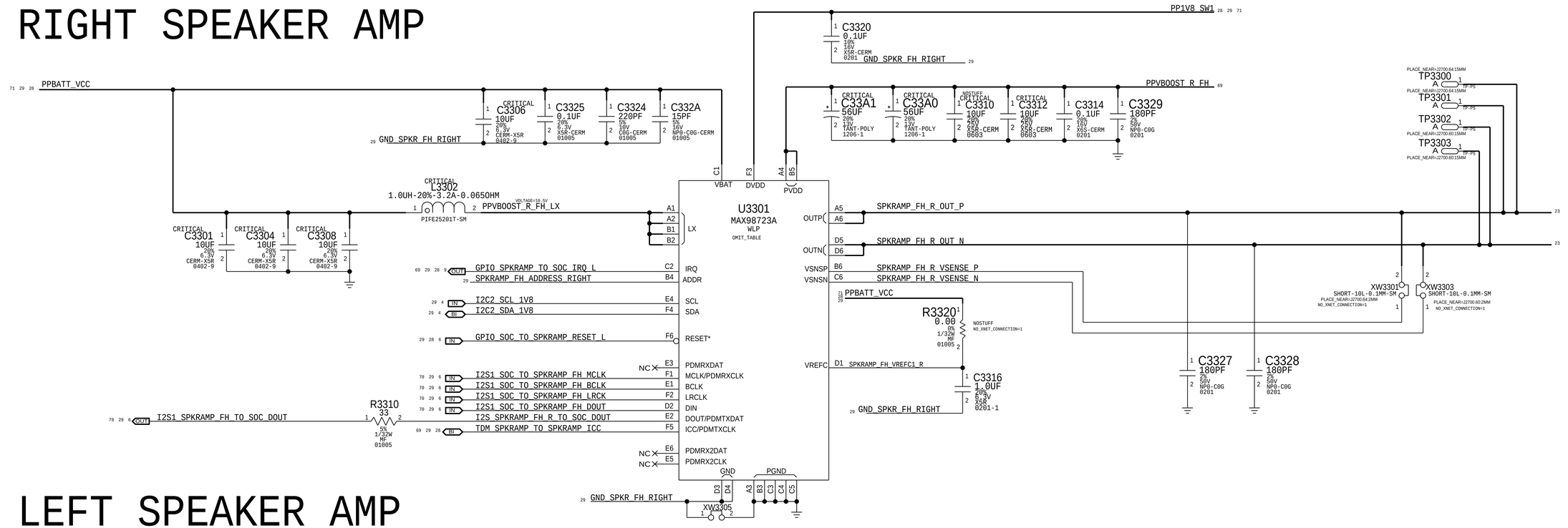
PART#	QTY	DESCRIPTION	REFERENCE DESIGNATOR(S)	CRITICAL	BOM OPTION
353S01072	1	IC,AMP,SPKR,MAX98723B	U3200,U3250	CRITICAL	

SYNC_MASTER=J120_MLB_B SYNC_DATE=04/03/2016

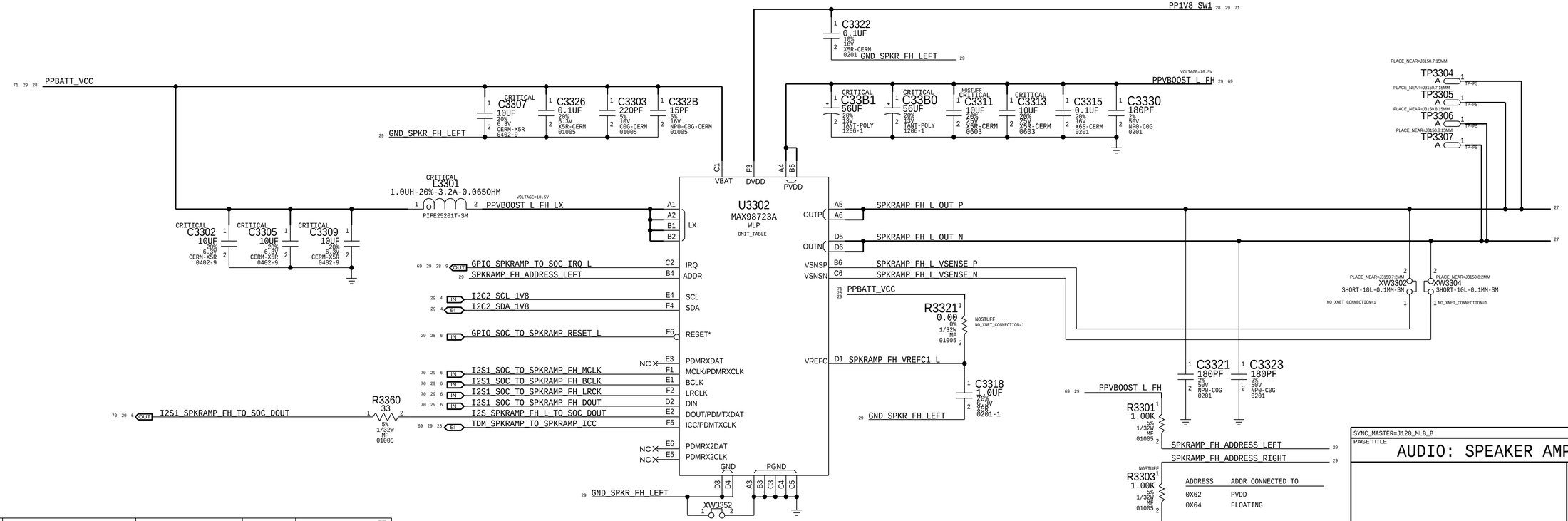
PAGE TITLE

AUDIO: SPEAKER AMPS (CN)

FH RIGHT SPEAKER AMP



FH LEFT SPEAKER AMP



ADDRESS	ADDR CONNECTED TO
0X62	PVDD
0X64	FLOATING

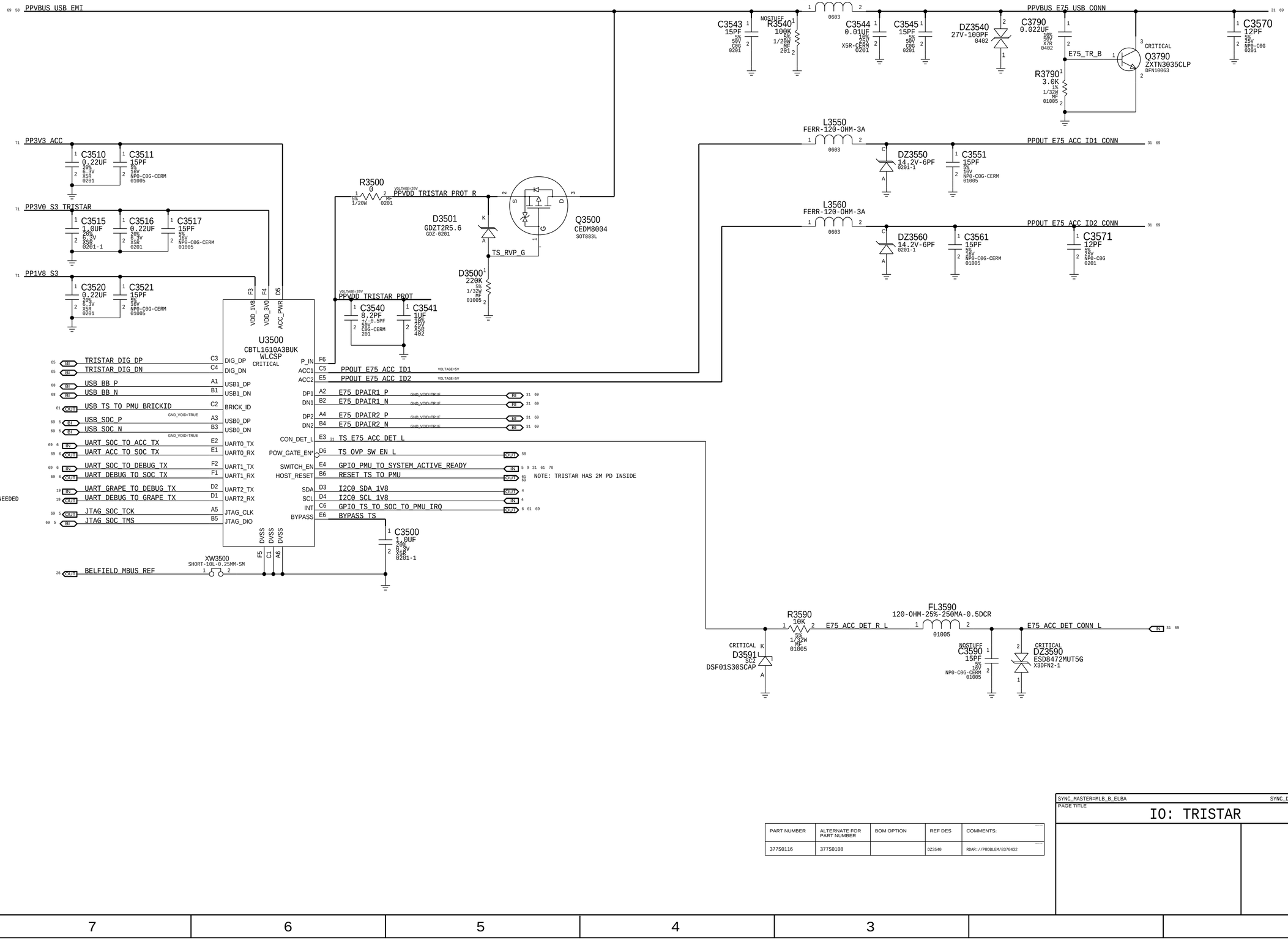
PART#	QTY	DESCRIPTION	REFERENCE DESIGNATOR(S)	CRITICAL	BOM OPTION
353S01072	1	IC,AMP,SPKR,MAX98723B	U3301,U3302	CRITICAL	

SYNC_MASTER=J120_MLB_B SYNC_DATE=04/03/2016

PAGE TITLE

AUDIO: SPEAKER AMPS (FH)

TRISTAR



PART NUMBER	ALTERNATE FOR PART NUMBER	BOM OPTION	REF DES	COMMENTS:
377S0116	377S0108		DZ3540	RDAR://PROBLEM/8370432

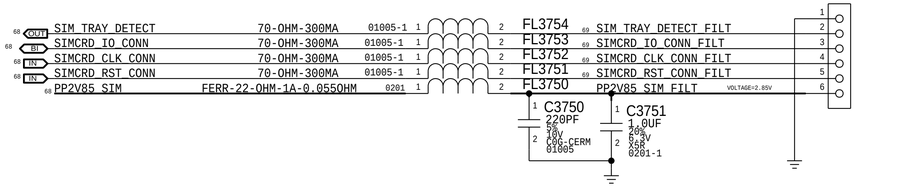
SYNC_MASTER=MLB_B_ELBA SYNC_DATE=03/30/2016

PAGE TITLE

IO: TRISTAR

ZIF CONNECTOR TO SIM

MATCHES J207_SIM_FLEX_051-01733_1.0.0
MLB 518S0692
CRITICAL
J3750
FF18-6A-R11AD-B-3H
F-RT-SM

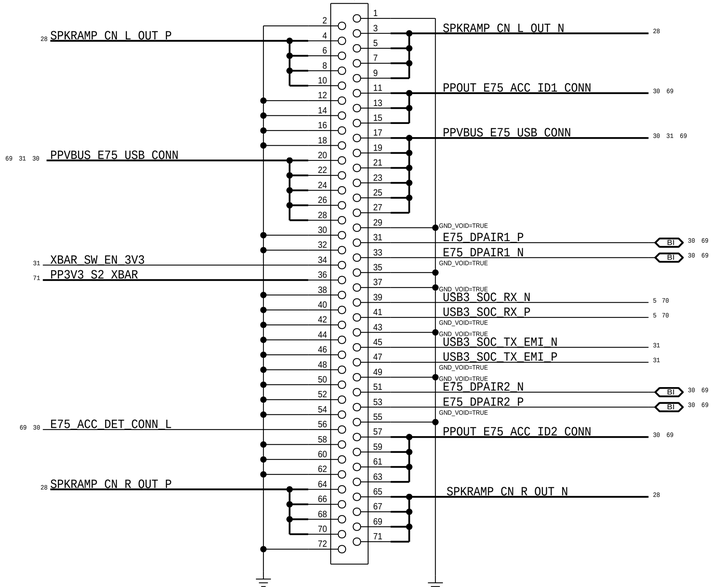


USB3 TX DC BLOCKING CAPS

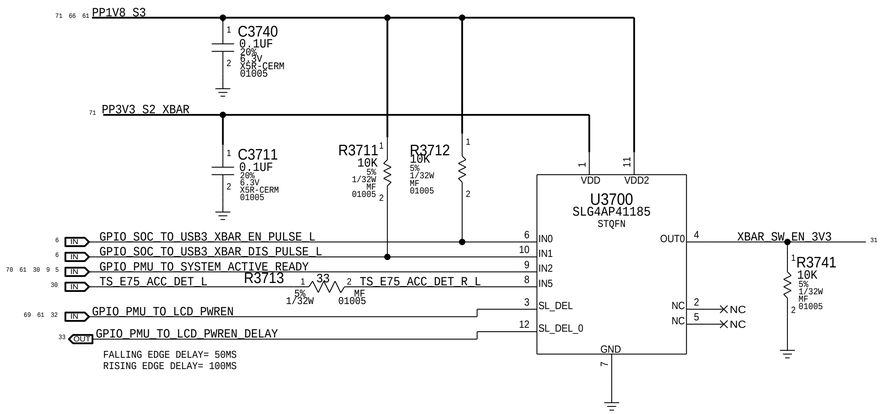
HOTBAR CONNECTOR TO I/0 FLEX

MATCHES J207_IO_FLEX_051-01873_1.0.0
MLB APN: 998-01935
FLEX APN: 998-01936

J3700
PCB-0.60MM
HB-SM



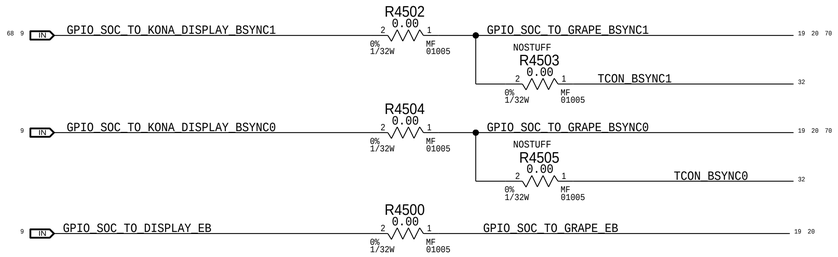
XBAR SWITCH GLUE LOGIC & LCD PWR DELAY



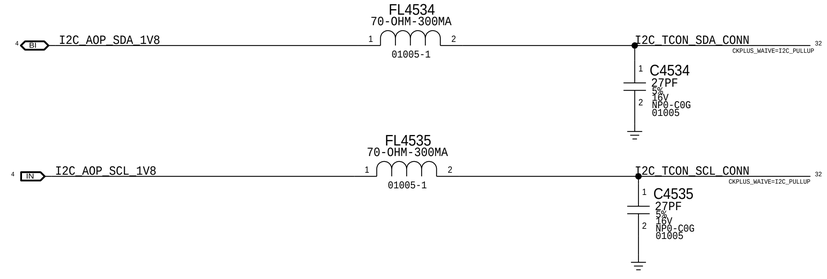
SYNC_MASTER=	SYNC_DATE=
PAGE TITLE	IO: HOTBAR, SIM, XBAR

EDP FLEX FILTERS AND CONNECTORS

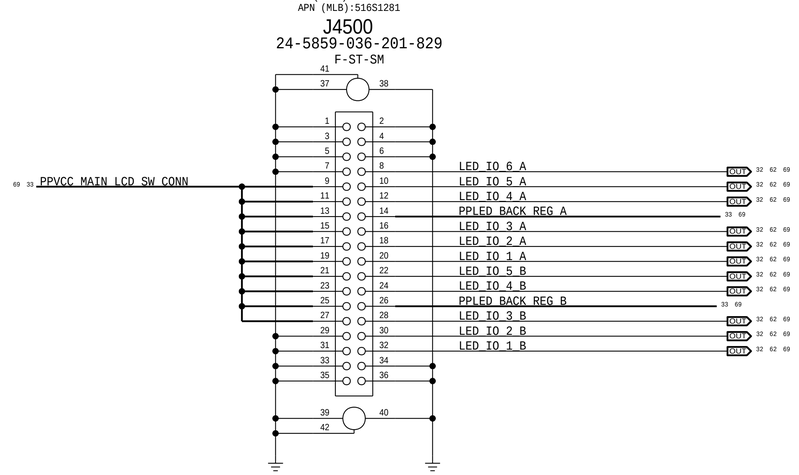
PART NUMBER	ALTERNATE FOR PART NUMBER	BOM OPTION	REF DES	COMMENTS:
131S00011	131S0641		C4502,ETC	RADAR://PROBLEM/15682101



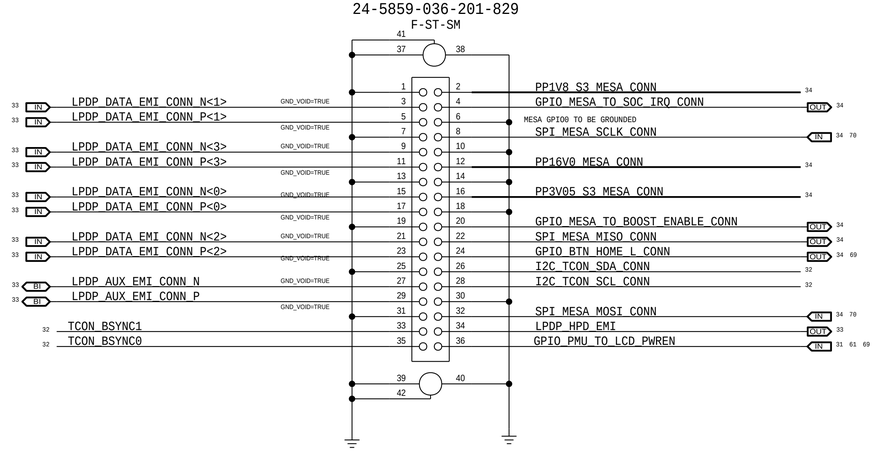
TCON I2C FILTERS



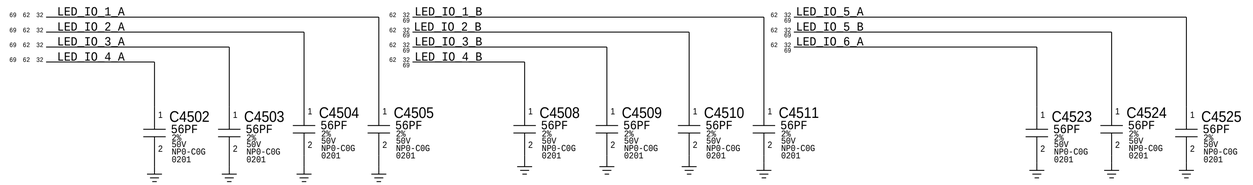
MATCHES J207_EDP_FLEX_051-01615_2.0.0
APN (FLEX):516S1282
APN (MLB):516S1281



MATCHES J207_EDP_FLEX_051-01615_2.0.0
APN (FLEX): 516S1282
APN (MLB): 516S1281



LED DRIVER FILTERS



SYNC_MASTER=MLB_B_ELBA
SYNC_DATE=03/30/2016

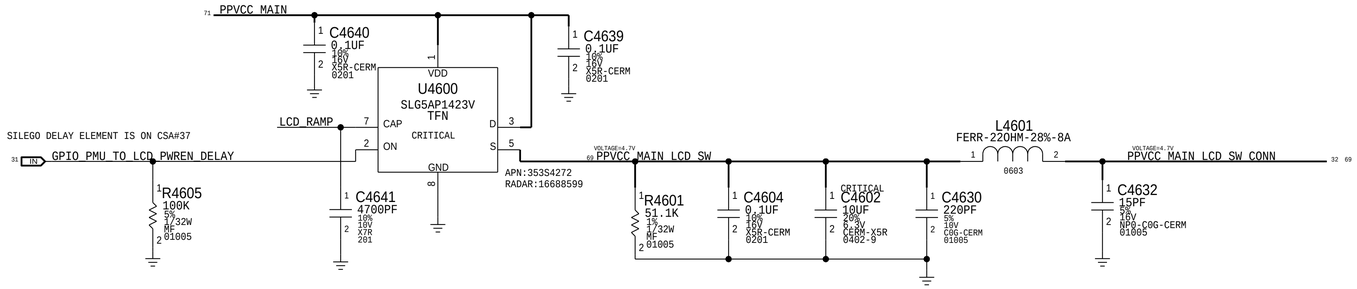
PAGE TITLE

DISPLAY CONN

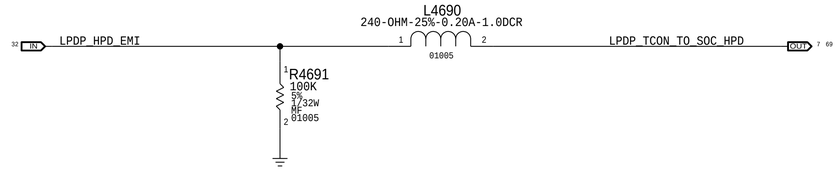
EDP CONNECTOR SUPPORT

PART NUMBER	ALTERNATE FOR PART NUMBER	BOM OPTION	REF DES	COMMENTS:
155S0914	155S0897		L4602,ETC	RADAR://PROBLEM/21527418

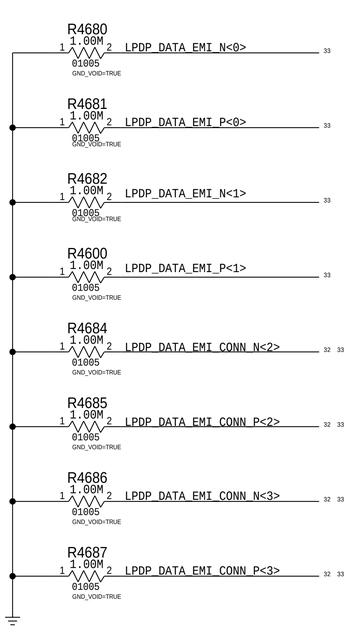
DISPLAY PWR SWITCH

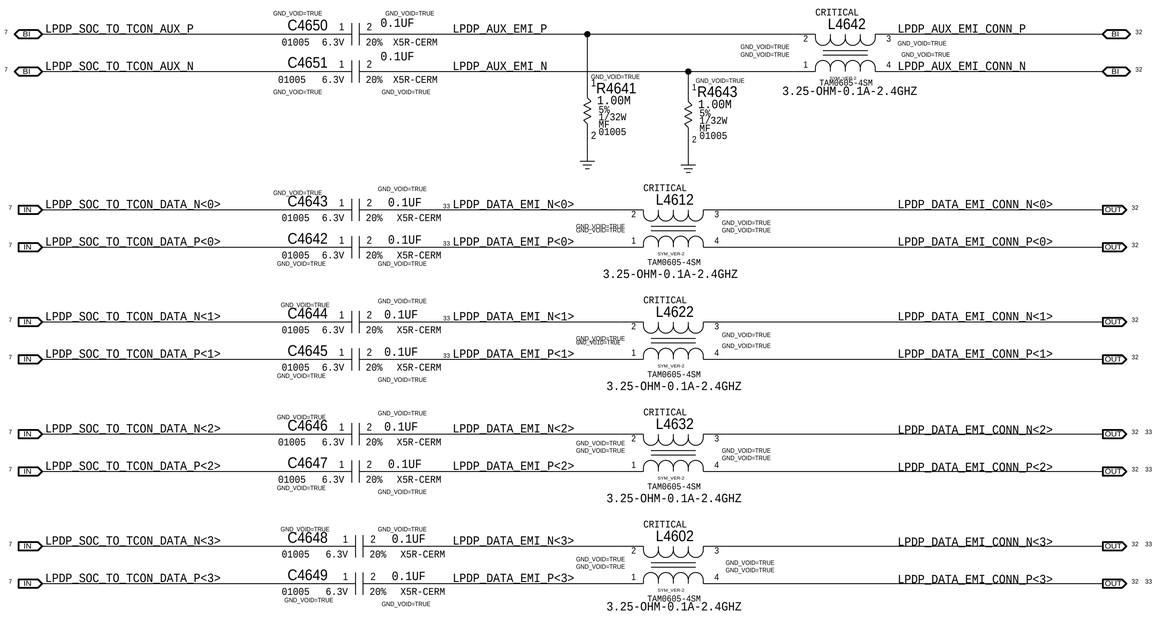


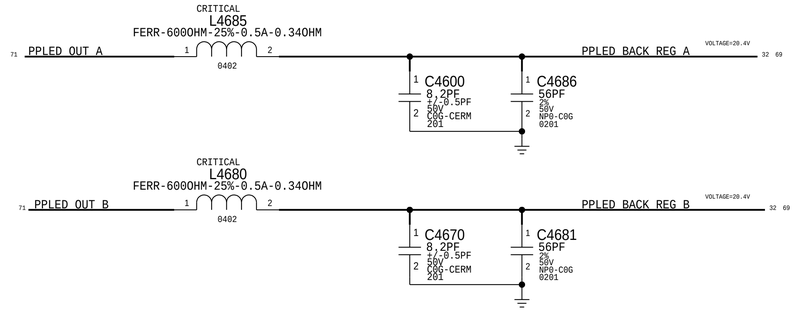
HIBISCUS HPD VOLTAGE IS 1.8V COMPATIBLE, VOLTAGE DIVIDER REMOVED
VOLTAGE DIVIDER REFERENCE IN PREVIOUS PLATFORMS; RDAR://PROBLEM/15390794



LPDP-AC COUPLING & CMC







SYNC_MASTER=MLB_B_ELBA SYNC_DATE=03/30/2016

PAGE TITLE

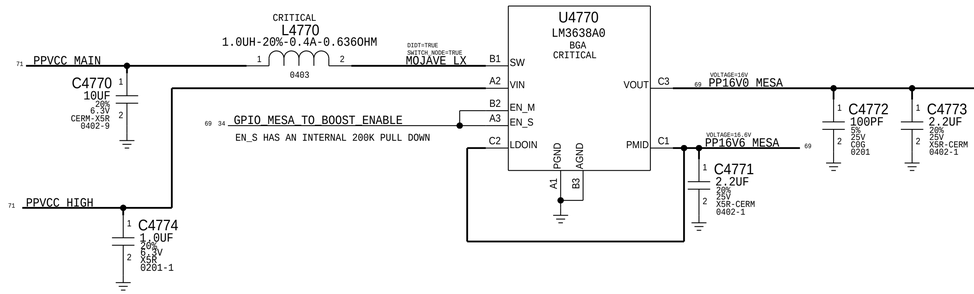
DISPLAY: EDP SUPPORT

MESA & HOME BUTTON

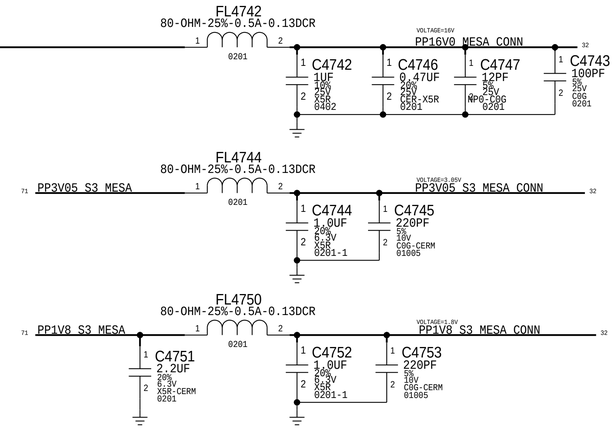
PART NUMBER	ALTERNATE FOR PART NUMBER	BOM OPTION	REF DES	COMMENTS:
132S00088	132S0639		C4746, ETC	RDAR://PROBLEM/26928883

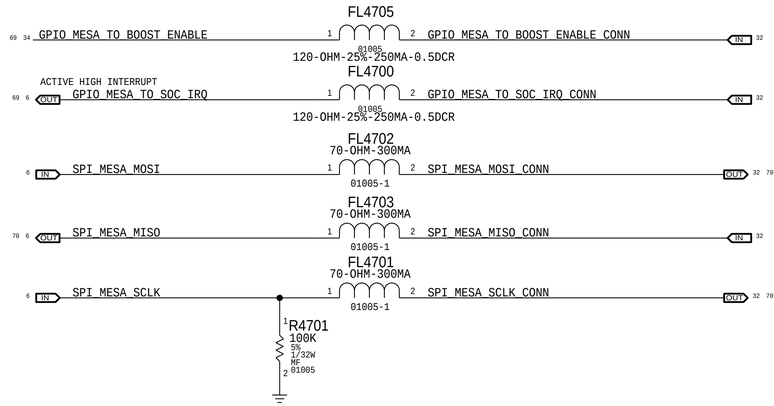
MOJAVE

USING A0 (APN 353S00671)

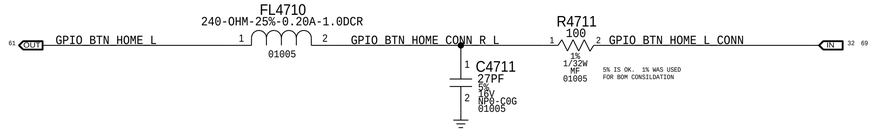


FILTERS





HOME BUTTON FILTERS

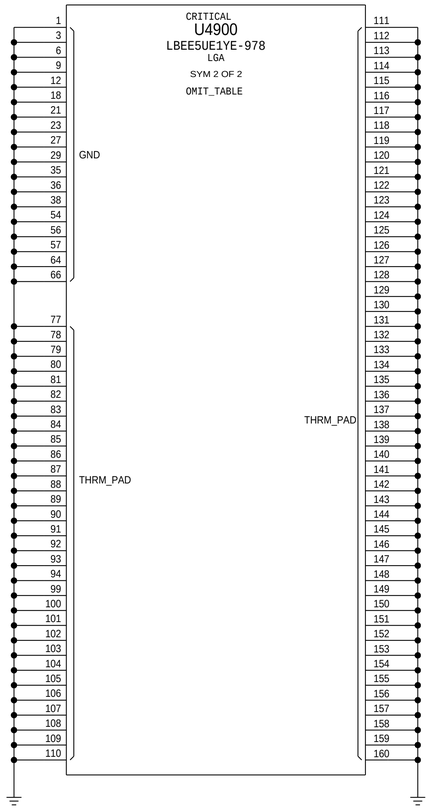


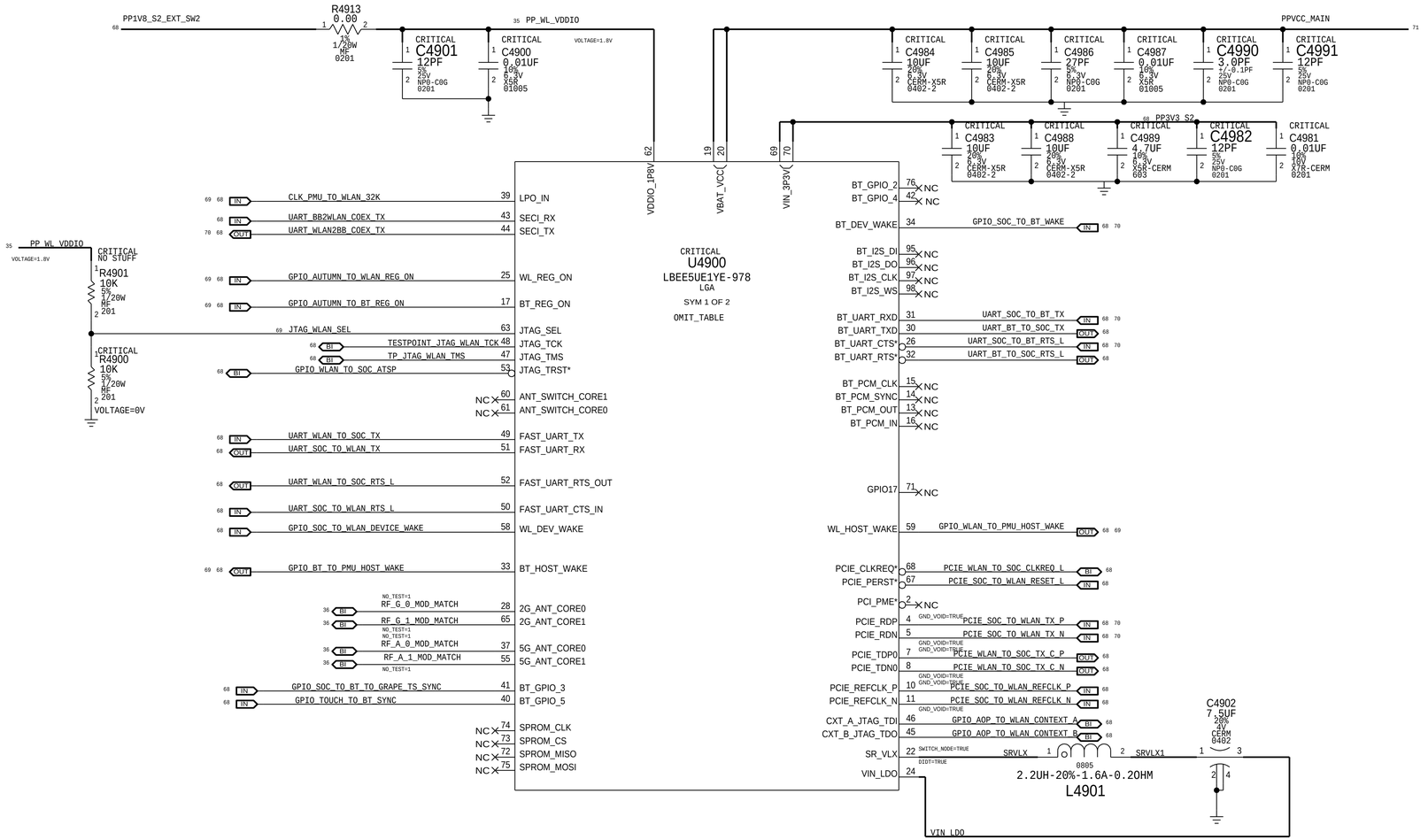
SYNC_MASTER=MLB_B_ELBA SYNC_DATE=03/30/2016

PAGE TITLE

SENSOR: MESA

WIFI/BT: J207/208: YEBISU MODULE, POWER, I/O





MODULE: USI ALTERNATES FOR MUR

PART NUMBER	ALTERNATE FOR PART NUMBER	BOM OPTION	REF DES	COMMENTS:
339S00246	339S00248		U4900	USI ALT FOR MUR
339S00247	339S00249		U4900	CIDRE USI ALT FOR MUR

MODULE: BOM OPTION FOR CIDRE IN MLB_A, NOT IN MLB_B

PART#	QTY	DESCRIPTION	REFERENCE DESIGNATOR(S)	CRITICAL	BOM OPTION
339S00248	1	YEBISU MURATA ES2	U4900	CRITICAL	MLB_B
339S00249	1	YEBISU CIDRE MURATA ES2	U4900	CRITICAL	MLB_A

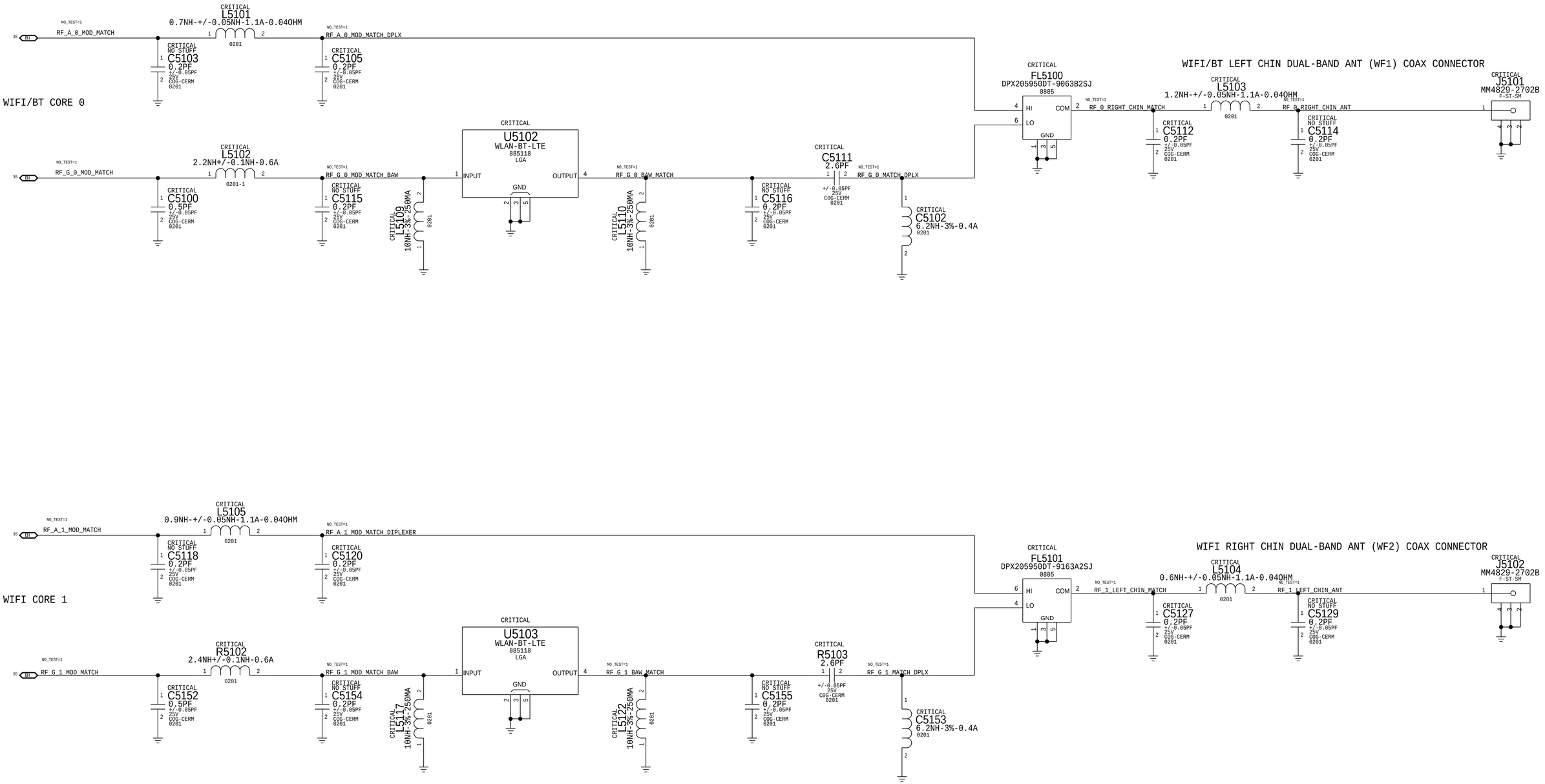
LAST UPDATED: 09/29/2016

SYNC_MASTER=WIFI_MLB_B SYNC_DATE=10/03/2016

PAGE TITLE

WIFI/BT: MODULE

WIFI/BT: J208 (WIFI/BT + CELL) RF FRONT END



LAST UPDATED: 09/29/2016

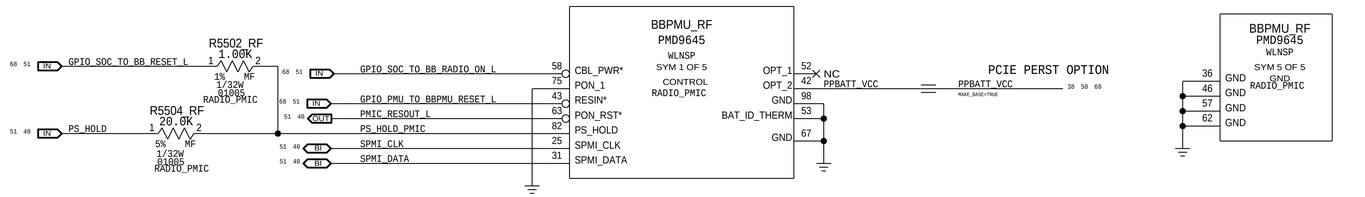
SYNC_MASTER=WIFI_MLB_B	SYNC_DATE=10/03/2016
PAGE TITLE	WIFI/BT: J208 FRONT END

PMU: CONTROL AND CLOCKS

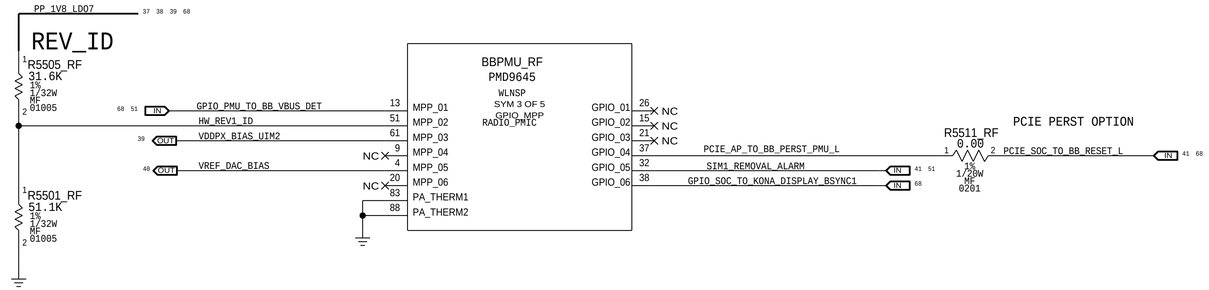
R5505 = 51.1(1.8/HW_REV_ID - 1)

HW_REV_ID	R5505	R5501	REVISION
0.60V	102K	51.1K	POC
0.70V	80K	51.1K	PRE-PROTO 0
0.80V	64K	51.1K	PROTO 0
0.90V	51.1K	51.1K	PROTO 1
1.00V	40K	51.1K	PROTO 2
1.10V	32K	51.1K	EVT
1.20V	25.5K	51.1K	DVT
1.30V	19.6K	51.1K	PVT

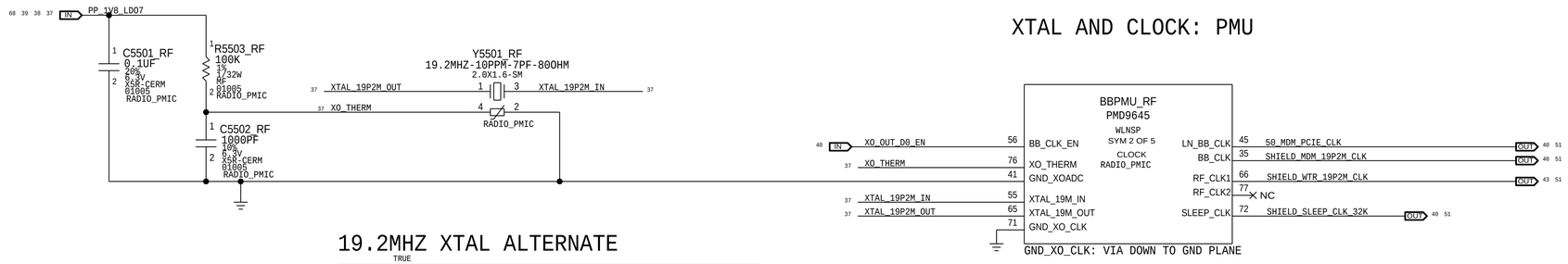
RESET AND CONTROL: PMU



MPPS AND GPIOS: PMU



XTAL AND CLOCK: PMU



19.2MHZ XTAL ALTERNATE

TRUE

PART NUMBER TRUE	ALTERNATE FOR PART NUMBER	BOM OPTION	REF DES	COMMENTS:
197S0565 TRUE	197S0593	ALTERNATE	Y5501_RF	XTAL, 19.2MHZ
197S0598	197S0593	ALTERNATE	Y5501_RF	XTAL, 19.2MHZ

SYNC_MASTER=RADIO_MLB SYNC_DATE=10/03/2016

PAGE TITLE

[RADIO] PMU: CONTROL AND CLOCKS

PMU: SWITCHERS AND LDOS

SWITCHERS BULK CAPS

C5620_RF 15UF 20% 6.3V CERM 0402 RADIO_PMIC
C5621_RF 15UF 20% 6.3V CERM 0402 RADIO_PMIC
C5622_RF 15UF 20% 6.3V CERM 0402 RADIO_PMIC
C5623_RF 15UF 20% 6.3V CERM 0402 RADIO_PMIC
C5624_RF 15UF 20% 6.3V CERM 0402 RADIO_PMIC
C5625_RF 15UF 20% 6.3V CERM 0402 RADIO_PMIC

PPBATT_VCC, MAKE_BASE=TRUE, GND

DESENSE CAPS

C5635_RF 220PF 5% 10V C0G-CERM 01005
C5636_RF 27PF 5% 10V C0G-CERM 01005

PLACE C5635 AND C5636 NEAR THE PMU

BBPMU_RF PMD9645

WLNSP SYM 4 OF 5 POWER RADIO_PMIC

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

C5629_RF 0.47UF 10% 6.3V CERM-X5R 0201
C5601_RF 0.1UF 10% 6.3V CER-X5R 01005 RADIO_PMIC
R5601_RF 0.00 0% 1/32W MF 01005

VREG_S1	10	PP_VSW_S1
VSW_S1	11, 22, 27	
VREG_S2	91	PP_VSW_S2
VSW_S2	97	
VREG_S3	69	PP_VSW_S3
VSW_S3	59, 64	
VREG_S4	12	PP_VSW_S4
VSW_S4	2	
VREG_S5	87	PP_VSW_S5
VSW_S5	99	
VREG_L1	80	300MA/125MA, MDM LOW VOLTAGE ANALOG
VREG_L2	81	600MA/400MA, MDM EBI1, DDR CORE
VREG_L3	39	800MA, XCVR POWER
VREG_L4_16	48	300MA/80MA, MDM LOW VOLTAGE PCIE, USBHS
VREG_L5	19	150MA/50MA, MDM HIGH VOLTAGE ANALOG
VREG_L6	3	600MA/550MA, MDM 1.8V I/O, DDR, SHARED 1.8V VOLTAGE RAIL
VREG_L7	18	50MA/15MA, MDM PLL,XTAL
VREG_L8	29	150MA/50MA, MDM MED VOLTAGE PCIE, USBHS
VREG_L9	100	1200MA/1000MA, MDM MEM, MED VOLTAGE ANALOG
VREG_L10	84	50MA/15MA, MDM HIGH VOLTAGE USBHS
VREG_L11	95	150MA/60MA, UIM1
VREG_L12	85	50MA/25MA, FRONT END SUPPLY
VREG_L13	96	150MA/60MA, UIM2
VREG_L14	101	50MA/10MA, GPS LNA
VREG_L15	30	300MA/300MA, RFFE VIO
VREG_XO	34	VREG_XO
GND_XO	40	VREG_XO_GND
VREG_RF	60	VREG_RF_CLK
GND_RF_CLK	50	VREG_RF_CLK_GND

L5601_RF 1UH-20%-0.054OHM-3.4A 2520 RADIO_PMIC
L5602_RF 2.2UH-20%-0.14OHM-1.6A 0806 RADIO_PMIC
L5603_RF 1.0UH-20%-2.7A-0.056OHM 0806 RADIO_PMIC
L5604_RF 2.2UH-20%-0.14OHM-1.6A 0806 RADIO_PMIC
L5605_RF 1.0UH-20%-2.7A-0.056OHM 0806 RADIO_PMIC

C5614_RF 43UF 20% 6.3V X5R 0603 GND
C5615_RF 20UF 20% 6.3V CERM-X5R 0402 GND
C5616_RF 20UF 20% 6.3V CERM-X5R 0402 GND
C5617_RF 20UF 20% 6.3V CERM-X5R 0402 GND
C5618_RF 20UF 20% 6.3V CERM-X5R 0402 GND
C5631_RF 20UF 20% 6.3V CERM-X5R 0402
C5632_RF 20UF 20% 6.3V CERM-X5R 0402
C5633_RF 20UF 20% 6.3V CERM-X5R 0402
C5634_RF 20UF 20% 6.3V CERM-X5R 0402

MDM MODEM	3500MA/3000MA	PP_0V9_SMPS1
LOW VOLTAGE LDOS	1500MA/700MA	PP_1V225_SMPS2
MDM MEMORY, MDM USB	2500MA/2300MA	PP_1V0_SMPS3
HIGH VOLTAGE LDOS	1500MA/1000MA	PP_1V85_SMPS4
LDO9->WTR	2000MA/1000MA	PP_1V0_SMPS5

TCXO SHUTDOWN: ON

PP_1V5_LDO1	TCXO SHUTDOWN: ON
PP_1V2_LDO2	TCXO SHUTDOWN: ON
PP_0V9_LDO3	TCXO SHUTDOWN: OFF
PP_0V95_LDO4	TCXO SHUTDOWN: ON
PP_1V7_LDO5	TCXO SHUTDOWN: ON
PP_1V8_LDO6	TCXO SHUTDOWN: ON
PP_1V8_LDO7	TCXO SHUTDOWN: OFF
PP_1V8_LDO8	TCXO SHUTDOWN: ON
PP_1V0_LDO9	TCXO SHUTDOWN: OFF
PP_3V075_LDO10	TCXO SHUTDOWN: ON
PP2V85_SIM	TCXO SHUTDOWN: ON
PP_2V7_LDO12	TCXO SHUTDOWN: OFF
VDD_SIM2	TCXO SHUTDOWN: ON
PP_1V8_LDO14	TCXO SHUTDOWN: OFF
PP_1V8_LDO15	TCXO SHUTDOWN: OFF

C5626_RF 1UF 20% 10V X5R 0201 RADIO_PMIC
C5604_RF 15UF 20% 6.3V CERM 0402 RADIO_PMIC
C5627_RF 10UF 20% 6.3V CERM-X5R 0402 RADIO_PMIC
C5609_RF 1UF 20% 10V X5R 0201 RADIO_PMIC
C5608_RF 4.7UF 20% 6.3V X5R-CERM1 402 RADIO_PMIC
C5630_RF 20UF 20% 6.3V CERM-X5R 0402
C5610_RF 1UF 20% 10V X5R 0201 RADIO_PMIC
C5611_RF 1UF 20% 10V X5R 0201 RADIO_PMIC
C5628_RF 1UF 20% 10V X5R 0201 RADIO_PMIC
C5613_RF 1UF 20% 10V X5R 0201 RADIO_PMIC
C5612_RF 1UF 20% 10V X5R 0201 RADIO_PMIC

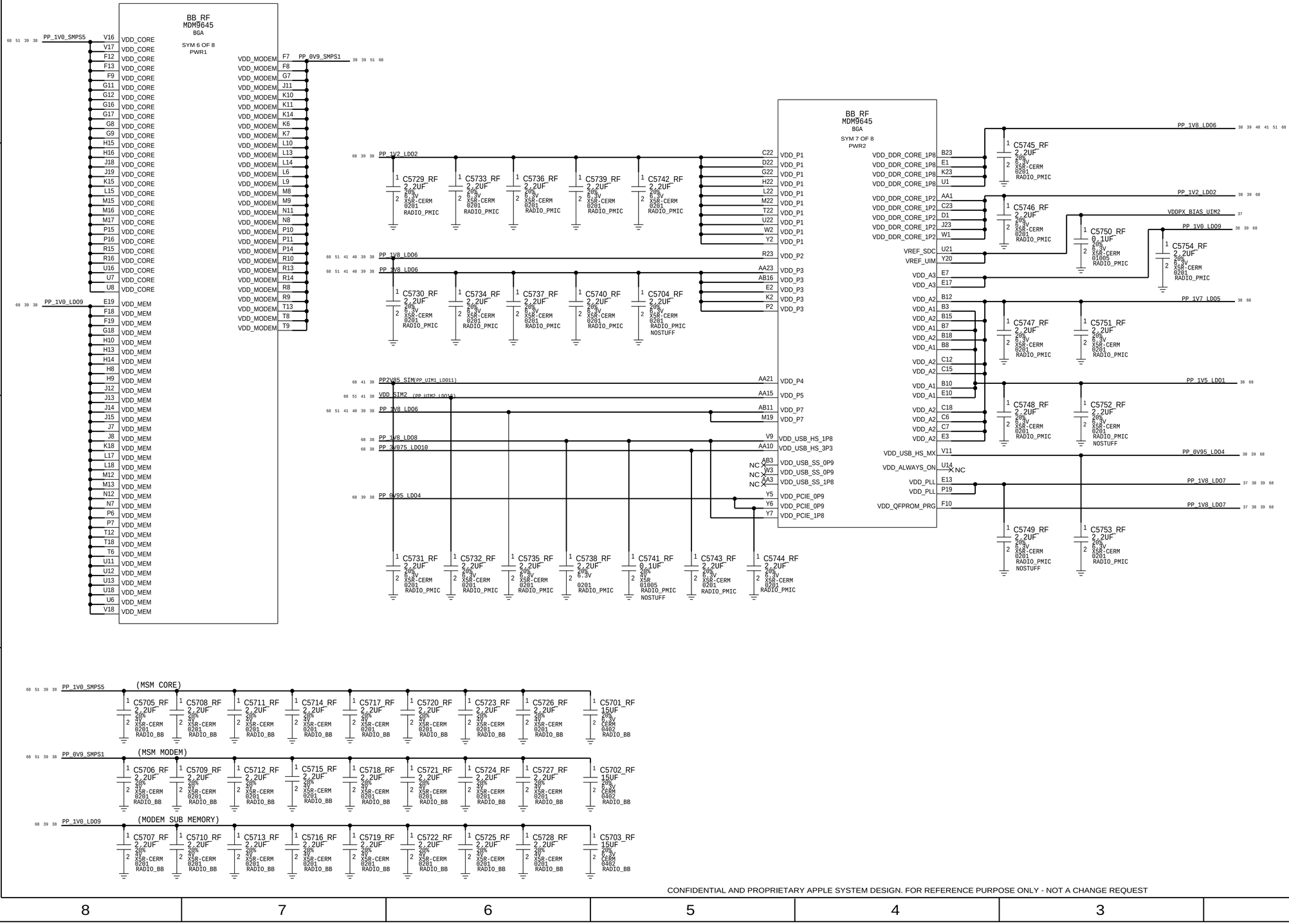
C5602_RF 1UF 20% 10V X5R 0201 RADIO_PMIC
C5603_RF 1UF 20% 10V X5R 0201 RADIO_PMIC
VREG_XO_GND, VREG_RF_CLK_GND
NOSTUFF
XW5614_RF SHORT-10L-0.1MM-SM
XW5615_RF SHORT-10L-0.1MM-SM
XO_GND
RF_CLK_GND

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

NO_XNET_CONNECTION=1
XW5600_RF SM PP_0V9_SMPS1 → ADC_BB_TO_PMU_SW1_VOUT
XW5601_RF SM PP_1V8_SMPS3 → ADC_BB_TO_PMU_SW3_VOUT
XW5602_RF SM PP_1V85_SMPS4 → ADC_BB_TO_PMU_PP_1V85

SYNC_MASTER=RADIO_MLB
SYNC_DATE=10/03/2016
PAGE TITLE
[RADIO] PMU: SWITCHERS & LDOS

BASEBAND: POWER

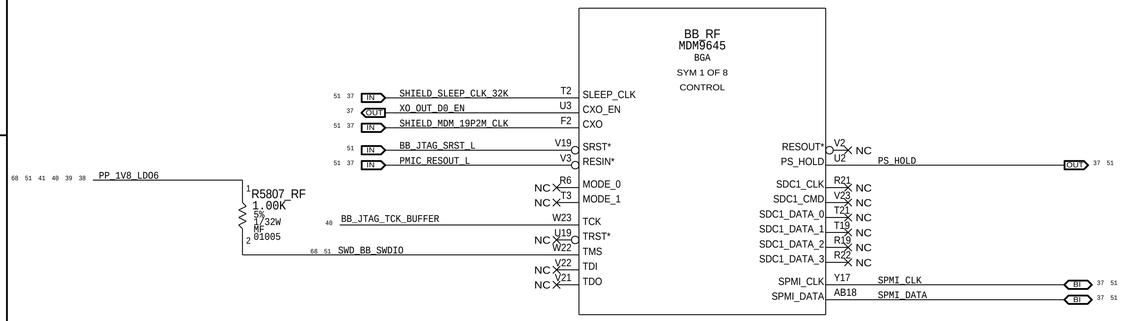


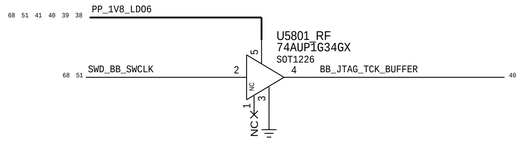
SYNC_MASTER=RADIO_MLB SYNC_DATE=10/03/2016

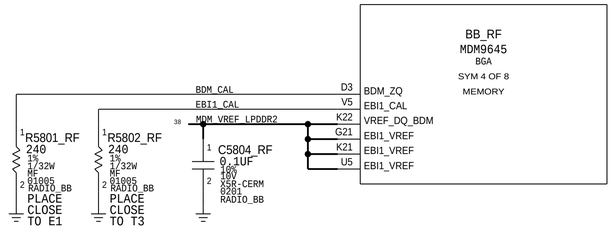
PAGE TITLE

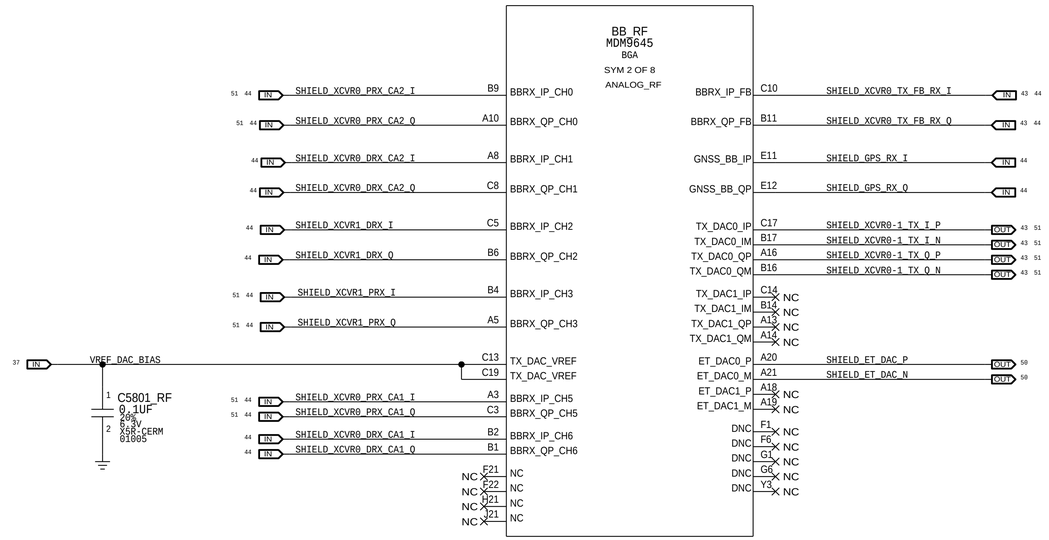
[RADIO] BASEBAND: POWER

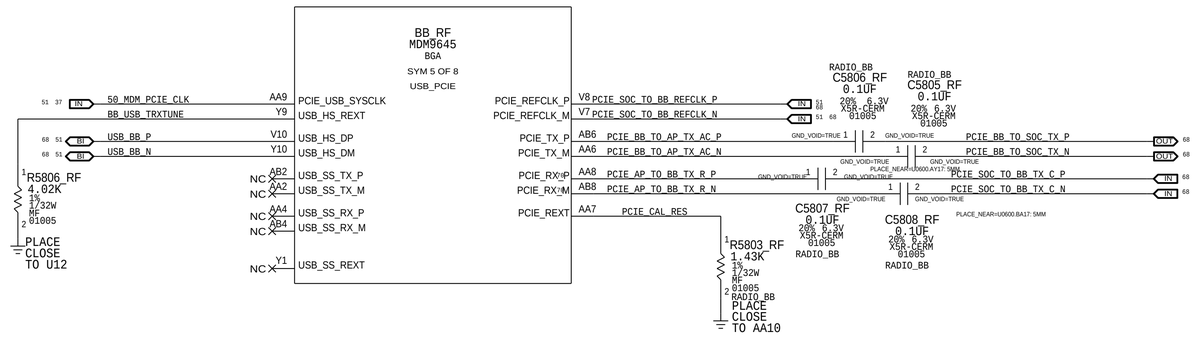
BASEBAND: CONTROL AND INTERFACES









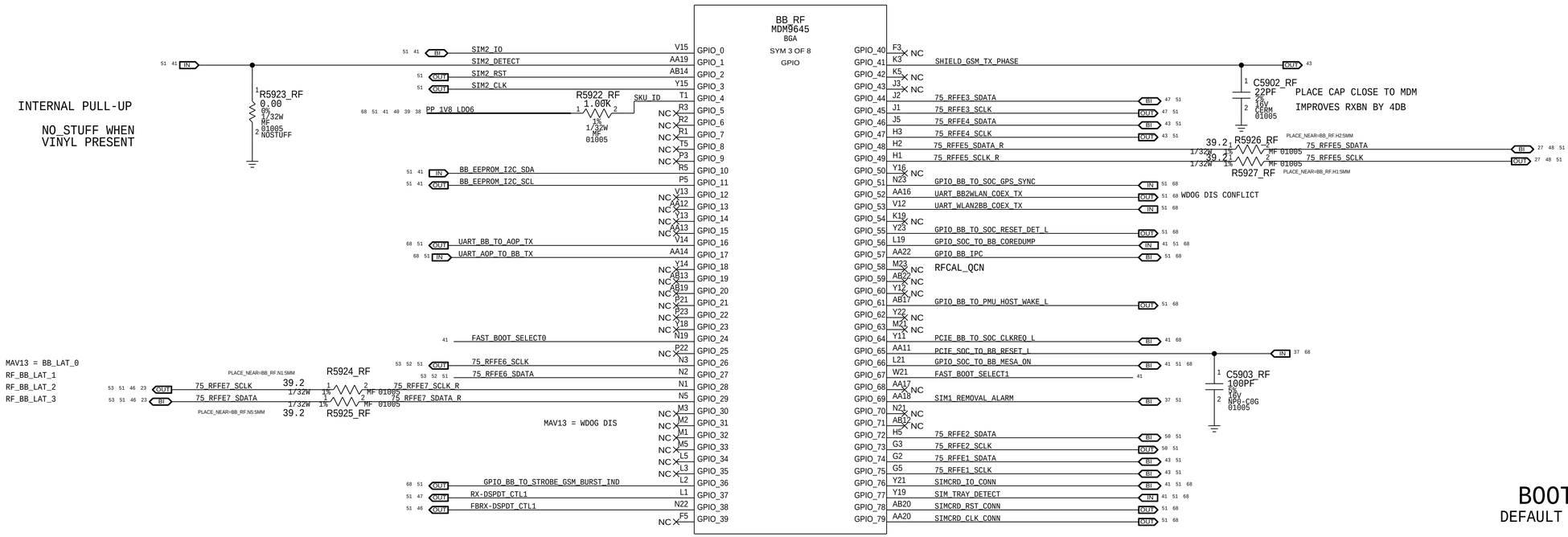


SYNC_MASTER=RADIO_MLB SYNC_DATE=10/03/2016

PAGE TITLE

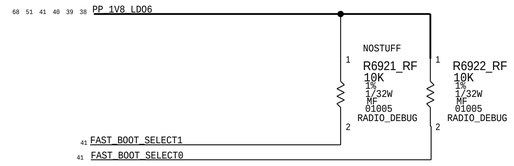
[RADIO] BASEBAND: CONTROLS

BASEBAND: GPIOS

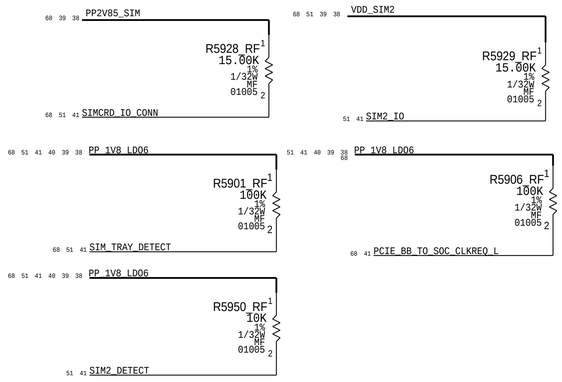


BOOT CONFIG

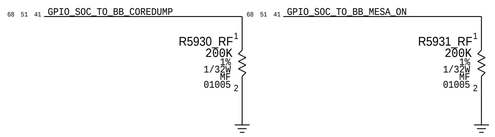
DEFAULT FAST_BOOT[2:0]
USB = 0X2



PULL-UPS TO BB RAIL



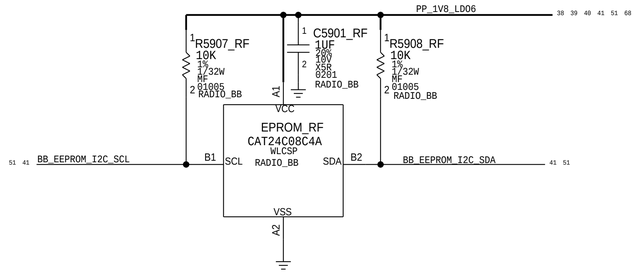
PULL-DOWNS



RFFE USAGE TABLE

RFFE1 WTR3925
RFFE2 QFE3100
RFFE3 DIV MODULES, SEC GPO TRANSLATOR
RFFE4 WTR4905
RFFE5 TUNERS + ELNAS, PRI GPO TRANSLATOR
RFFE6 2G PA,MLB PA,MB/HB TDD PA,MB/HB FDD PA
RFFE7 LB PA, COUPLERS

BB EEPROM



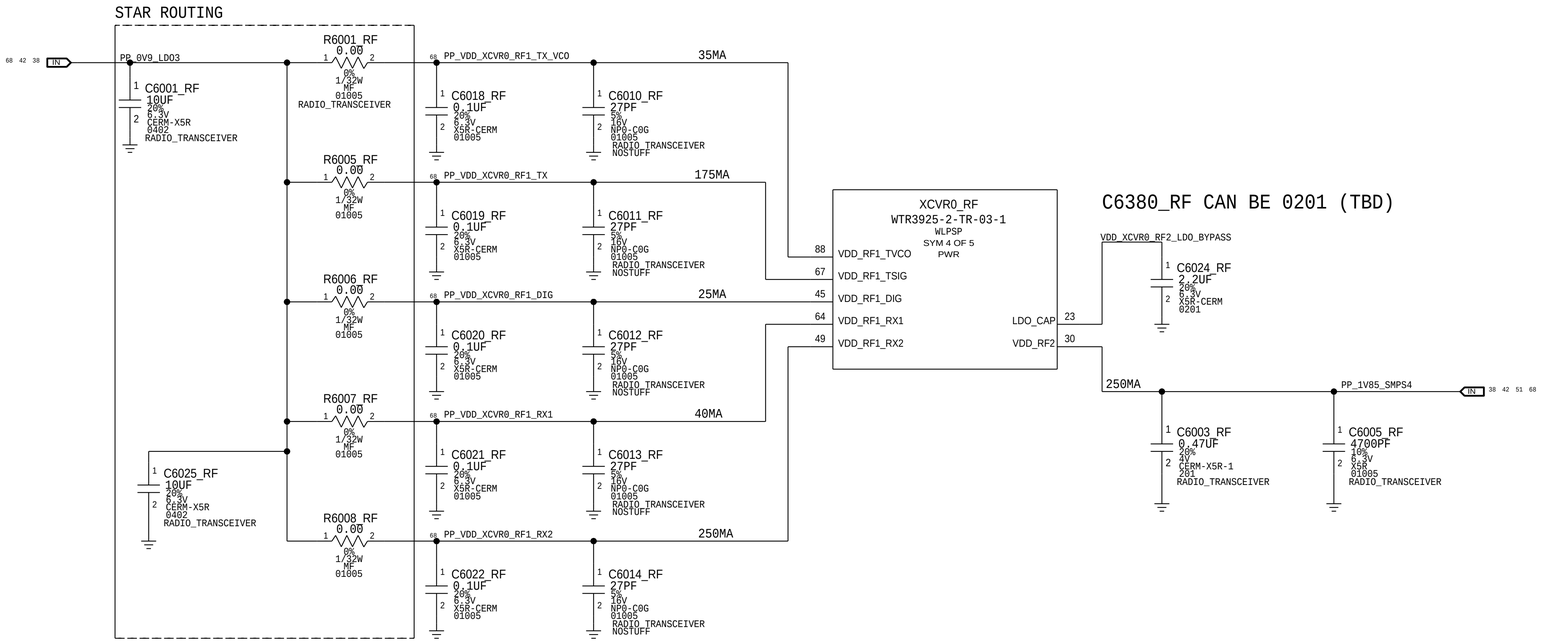
EPROM ALTERNATE

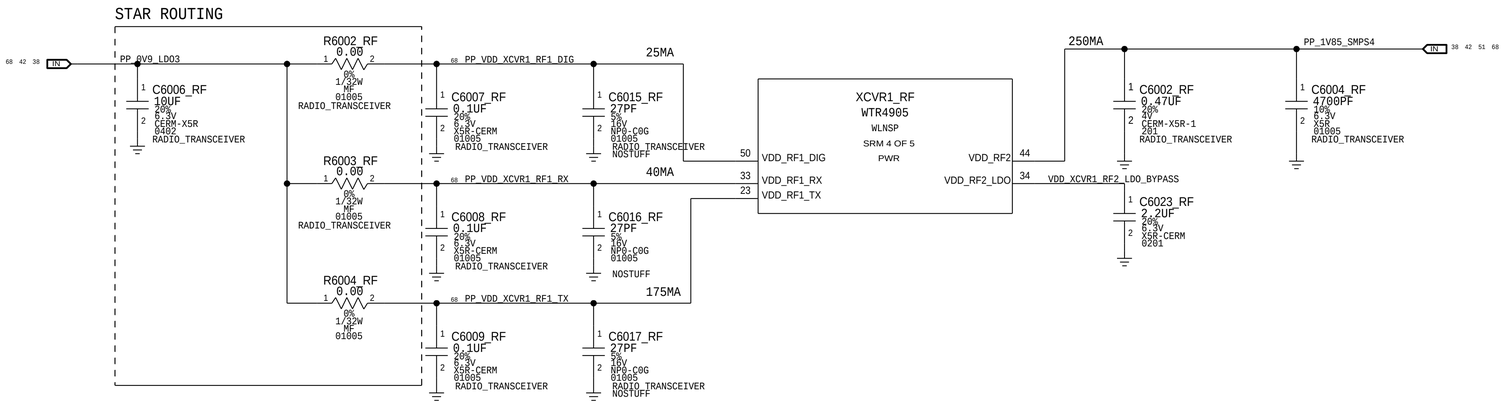
TRUE

PART NUMBER TRUE	ALTERNATE FOR PART NUMBER	BOM OPTION	REF DES	COMMENTS:
335S0894	335S00013	ALTERNATE	EPROM_RF	EPROM

SYNC_MASTER=RADIO_MLB
SYNC_DATE=10/03/2016
PAGE TITLE
[RADIO] BASEBAND GPIOS

TRANSCEIVER: POWER



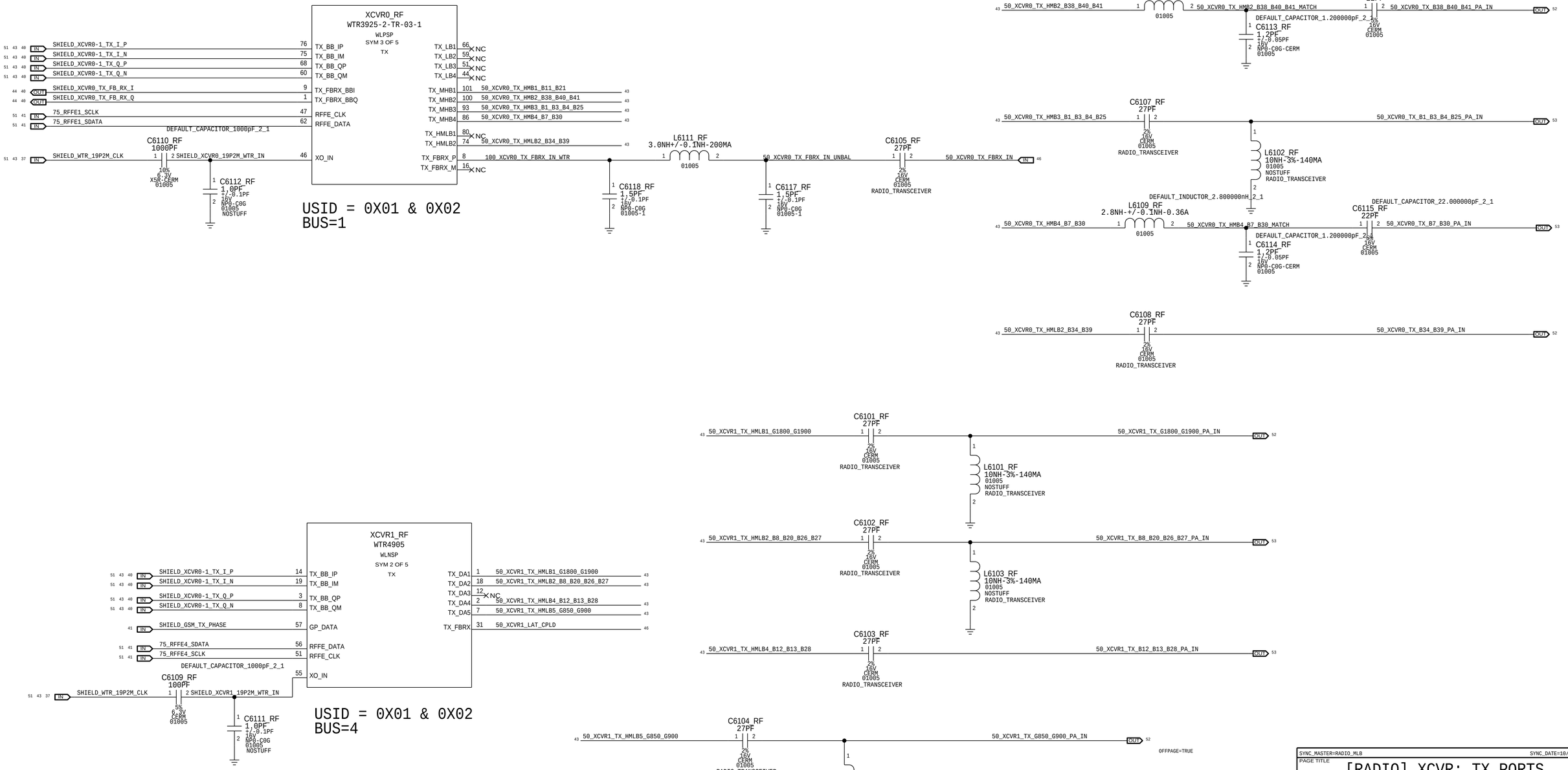


SYNC_MASTER=RADIO_MLB SYNC_DATE=10/03/2016

PAGE TITLE

[RADIO] XCVR: POWER

TRANSCEIVER: TX PORTS

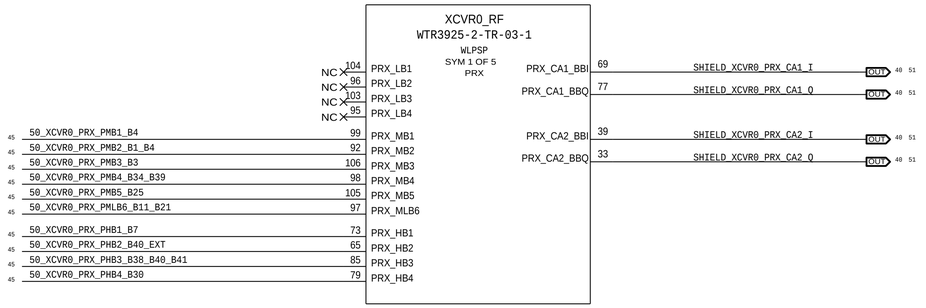


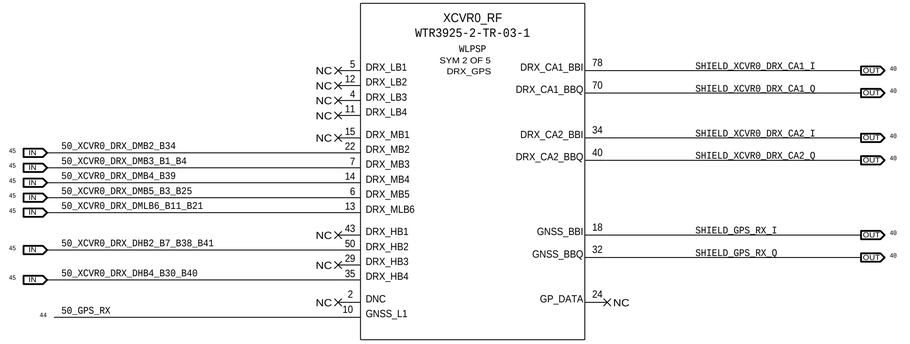
SYNC_MASTER=RADIO_MLB SYNC_DATE=10/03/2016

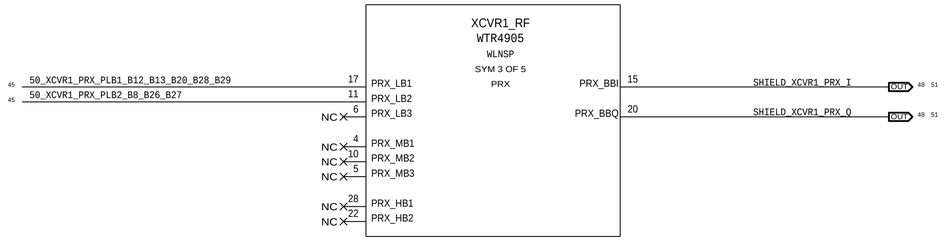
PAGE TITLE

[RADIO] XCVR: TX PORTS

TRANSCEIVER: PRX, DRX, & GPS PORTS

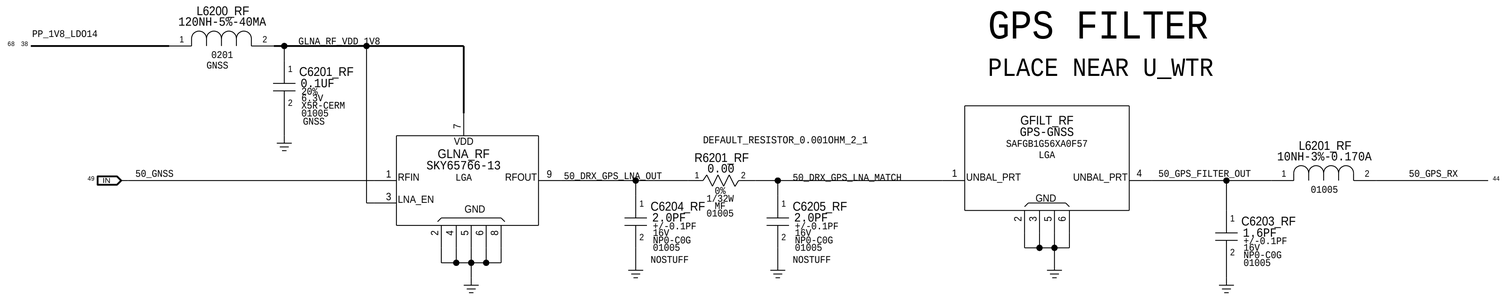






GPS FILTER

PLACE NEAR U_WTR



SYNC_MASTER=RADIO_MLB SYNC_DATE=10/03/2016

PAGE TITLE

[RADIO] XCVR: RX PORTS

PRIMARY & DIVERSITY RECEIVE MATCHING

DC BLOCKING CAP VALUES CANNOT BE MORE THAN 33PF

L6304_RF
5.6NH-3%-0.35A
0201
C6305_RF
1.8PF
+/-0.05PF 25V C0G-CERM 0201
RADIO_TRANSCEIVER
C6314_RF
27PF
2% 16V CERM 01005
RADIO_TRANSCEIVER
50_XCVR0_B25_PA_PRX
50_XCVR0_PRX_PMB5_B25_MATCH
50_XCVR0_PRX_PMB5_B25

L6305_RF
6.8NH-3%-0.4A-0.30HM
0201
C6306_RF
3.2PF
+/-0.05PF 25V C0G-CERM 0201
RADIO_TRANSCEIVER
C6315_RF
27PF
2% 16V CERM 01005
RADIO_TRANSCEIVER
50_XCVR0_B11_B21_PA_PRX
50_XCVR0_PRX_PMLB6_B11_B21_MATCH
50_XCVR0_PRX_PMLB6_B11_B21

L6306_RF
5.6NH+/-3%-0.4A
0201
C6307_RF
2.2PF
+/-0.1PF 25V C0G-CERM 0201
RADIO_TRANSCEIVER
C6316_RF
27PF
2% 16V CERM 01005
RADIO_TRANSCEIVER
50_XCVR0_B3_PRX-DSPDT_OUT
50_XCVR0_PRX_PMB3_B3_MATCH
50_XCVR0_PRX_PMB3_B3

L6307_RF
4.3NH-3%-0.35A
0201
C6308_RF
1.8PF
+/-0.1PF 25V C0G 201
RADIO_TRANSCEIVER
C6342_RF
27PF
2% 16V CERM 01005
RADIO_TRANSCEIVER
50_XCVR0_B4_PA_PRX
50_XCVR0_PRX_PMB1_B4_MATCH
50_XCVR0_PRX_PMB1_B4

L6308_RF
4.3NH-3%-0.35A
0201
C6309_RF
2.0PF
+/-0.05PF 25V C0G-CERM 0201
RADIO_TRANSCEIVER
C6343_RF
27PF
2% 16V CERM 01005
RADIO_TRANSCEIVER
50_XCVR0_B1_B4_PA_PRX
50_XCVR0_PRX_PMB2_B1_B4_MATCH
50_XCVR0_PRX_PMB2_B1_B4

L6309_RF
5.6NH-3%-0.35A
0201
C6301_RF
2.0PF
+/-0.1PF 25V C0G-CERM 0201
RADIO_TRANSCEIVER
C6317_RF
27PF
2% 16V CERM 01005
RADIO_TRANSCEIVER
50_XCVR0_B34_B39_PA_PRX
50_XCVR0_PRX_PMB4_B34_B39_MATCH
50_XCVR0_PRX_PMB4_B34_B39

L6310_RF
3.6NH+/-0.1NH-400MA
0201
C6302_RF
1.4PF
+/-0.1PF 25V NP0-C0G 0201
RADIO_TRANSCEIVER
C6318_RF
27PF
2% 16V CERM 01005
RADIO_TRANSCEIVER
50_XCVR0_B7_PA_PRX
50_XCVR0_PRX_PHB1_B7_MATCH
50_XCVR0_PRX_PHB1_B7

C6310_RF
0
5% 1/20W MF 201
C6319_RF
27PF
2% 16V CERM 01005
RADIO_TRANSCEIVER
50_XCVR0_B38_B40_B41_PA_PRX
50_XCVR0_PRX_PHB3_B38_B40_B41_MATCH
50_XCVR0_PRX_PHB3_B38_B40_B41

L6301_RF
2.1NH-+/-0.1NH-0.6A-0.12OHM
0201

L6311_RF
4.1NH-+/-0.1NH%-0.35A-0.400HM
0201
C6311_RF
2.0PF
+/-0.1PF 25V C0G-CERM 0201
RADIO_TRANSCEIVER
C6320_RF
27PF
2% 16V CERM 01005
RADIO_TRANSCEIVER
50_XCVR0_B30_PA_PRX
50_XCVR_PRX_PHB4_B30_MATCH
50_XCVR0_PRX_PHB4_B30

L6322_RF
6.2NH-3%-0.4A
0201
RADIO_TRANSCEIVER
C6348_RF
3.0PF
+/-0.05PF 25V C0G-CERM 0201
RADIO_TRANSCEIVER
C6345_RF
27PF
2% 16V CERM 01005
RADIO_TRANSCEIVER
50_XCVR0_B11_B21_PA_DRX
50_XCVR0_DRX_DMLB6_B11_B21_MATCH
50_XCVR0_DRX_DMLB6_B11_B21

L6312_RF
20NH-3%-0.25A-0.80HM
0201
C6328_RF
27PF
2% 16V CERM 01005
RADIO_TRANSCEIVER
NOSTUFF
C6351_RF
27PF
2% 16V CERM 01005
50_XCVR1_B12_B13_B20_B28_B29_PA_PRX
50_XCVR0_PRX_PLB1_B12_B13_B20_B28_B29_MATCH
50_XCVR1_PRX_PLB1_B12_B13_B20_B28_B29

L6313_RF
13NH-3%-0.3A
0201
C6329_RF
27PF
2% 16V CERM 01005
RADIO_TRANSCEIVER
NOSTUFF
C6352_RF
27PF
2% 16V CERM 01005
50_XCVR1_B8_B26_B27_PA_PRX
50_XCVR0_PRX_PLB2_B8_B26_B27_MATCH
50_XCVR1_PRX_PLB2_B8_B26_B27

DC BLOCKING CAP VALUES CANNOT BE MORE THAN 33PF

L6328_RF
3.5NH+/-0.1NH-0.5A
0201
RADIO_TRANSCEIVER
C6334_RF
27PF
2% 16V CERM 01005
RADIO_TRANSCEIVER
C6350_RF
2.2PF
+/-0.1PF 25V C0G-CERM 0201
RADIO_TRANSCEIVER
50_XCVR0_B7_B41_B38_MBHB-DRX-ASM_OUT
50_XCVR0_DRX_DHB2_B7_B38_B41_MATCH
50_XCVR0_DRX_DHB2_B7_B38_B41

C6335_RF
27PF
2% 16V CERM 01005
RADIO_TRANSCEIVER
50_XCVR0_B30_B40_MBHB-DRX-ASM_OUT
50_XCVR0_DRX_DHB4_B30_B40

L6329_RF
7.5NH+/-0.3%-0.4A
0201
C6336_RF
27PF
2% 16V CERM 01005
RADIO_TRANSCEIVER
L6330_RF
6.2NH-3%-0.4A
0201
RADIO_TRANSCEIVER
50_XCVR1_B12_B13_B20_B28_B29_LB-DRX-ASM_OUT
50_XCVR1_B12_B13_B20_B28_B29_LB-DRX-ASM_MATCH
50_XCVR1_DRX_DLB1_B12_B13_B20_B28_B29

L6331_RF
5.6NH+/-3%-0.4A
0201
C6337_RF
27PF
2% 16V CERM 01005
RADIO_TRANSCEIVER
L6332_RF
4.7NH+/-0.3%-0.4A
0201
50_XCVR1_B8_B26_B27_LB-DRX-ASM_OUT
50_XCVR1_B8_B26_B27_LB-DRX-ASM_MATCH
50_XCVR1_DRX_DLB2_B8_B26_B27

C6323_RF
27PF
2% 16V CERM 01005
RADIO_TRANSCEIVER
50_XCVR0_B34_MBHB-DRX-ASM_OUT
50_XCVR0_DRX_DMB2_B34

C6324_RF
27PF
2% 16V CERM 01005
RADIO_TRANSCEIVER
50_XCVR0_B1_B4_MBHB-DRX-ASM_OUT
50_XCVR0_DRX_DMB3_B1_B4

L6324_RF
2.3NH+/-0.1NH-0.6A-0.12OHM
0201
C6338_RF
27PF
2% 16V CERM 01005
RADIO_TRANSCEIVER
50_XCVR1_B3_DRX-DSPDT_OUT
50_XCVR1_DRX_DMB2_B3_MATCH
50_XCVR1_DRX_DMB2_B3

C6325_RF
27PF
2% 16V CERM 01005
RADIO_TRANSCEIVER
50_XCVR0_B39_MBHB-DRX-ASM_OUT
50_XCVR0_DRX_DMB4_B39

L6325_RF
3.2NH+/-0.1NH-0.5A
0201

L6323_RF
5.6NH+/-3%-0.4A
0201
RADIO_TRANSCEIVER
C6344_RF
27PF
2% 16V CERM 01005
RADIO_TRANSCEIVER
C6349_RF
2.0PF
+/-0.1PF 25V C0G-CERM 0201
RADIO_TRANSCEIVER
50_XCVR0_B3_B25_DRX-DSPDT_OUT
50_XCVR0_DRX_DMB5_B3_B25_MATCH
50_XCVR0_DRX_DMB5_B3_B25

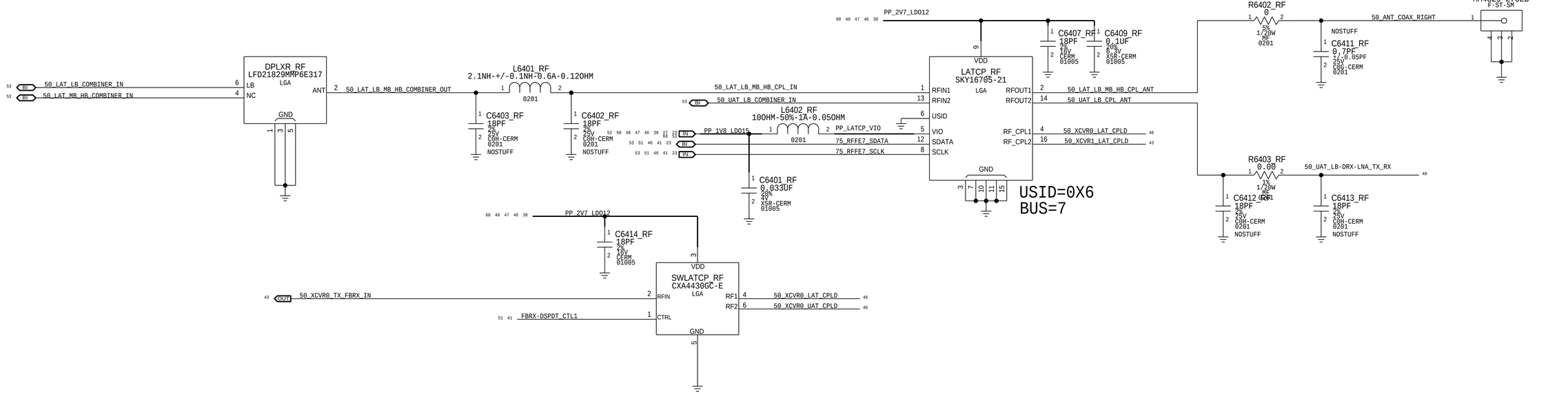
L6321_RF
4.3NH+/-3%-0.5A
0201
C6346_RF
27PF
2% 16V CERM 01005
RADIO_TRANSCEIVER
50_XCVR0_B40_PA_PRX_EXT_FIL
50_XCVR0_PRX_PHB2_B40_EXT_MATCH
50_XCVR0_PRX_PHB2_B40_EXT

SHUNT COMPONENT WITH BAND 40 FILTER

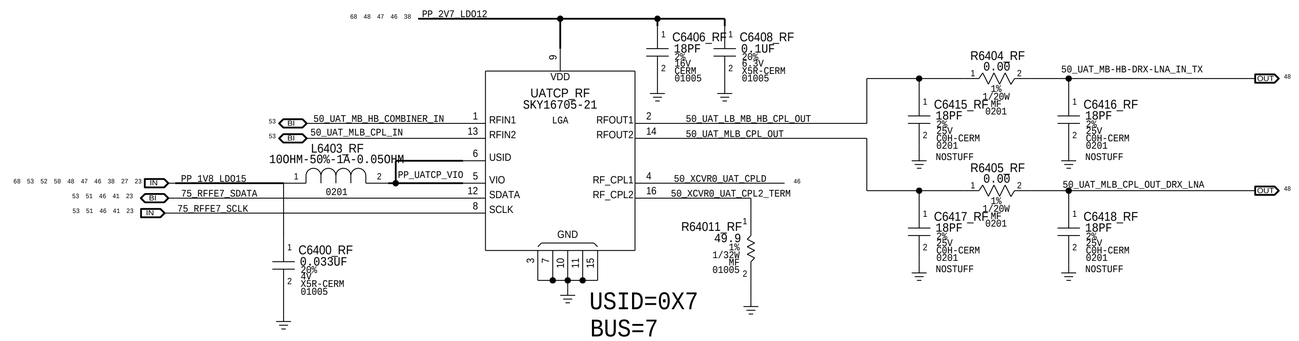
SYNC_MASTER=RADIO_MLB
SYNC_DATE=10/03/2016
PAGE TITLE
[RADIO] RX MATCHING

COUPLER & RIGHT ANTENNA COAX

WF3 (RIGHT) COAX RCPT



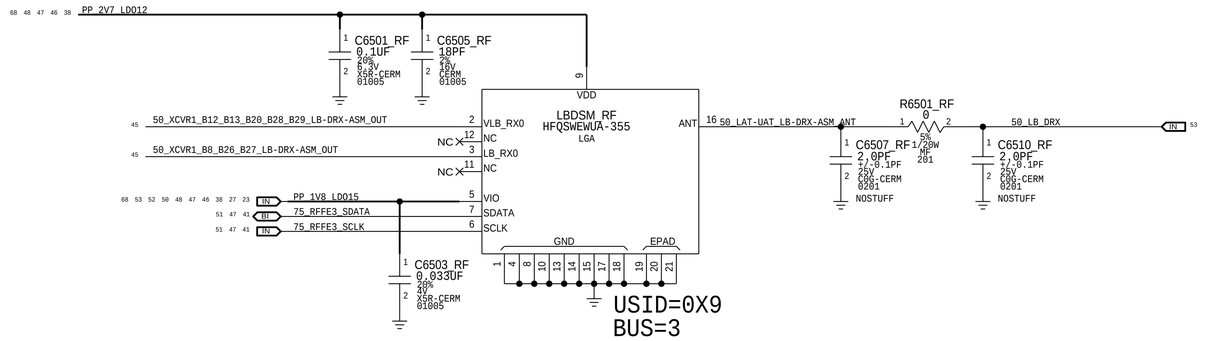
UPPER ANTENNA COUPLER



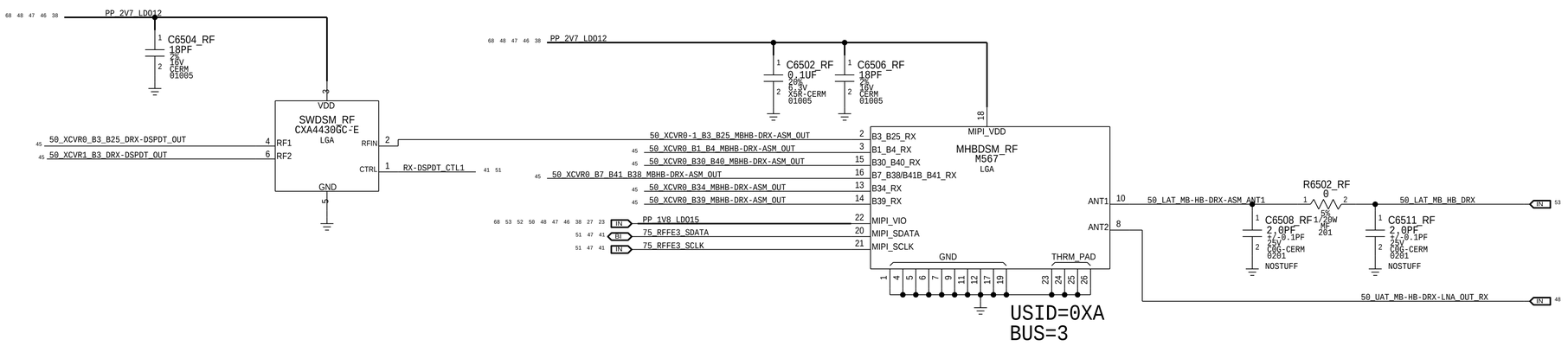
SYNC_MASTER=RADIO_MLB	SYNC_DATE=10/03/2016
PAGE TITLE	
[RADIO] COUPLER & RIGHT COAX	

DIVERSITY RECEIVE

LB DRX ASM



MB HB DRX ASM



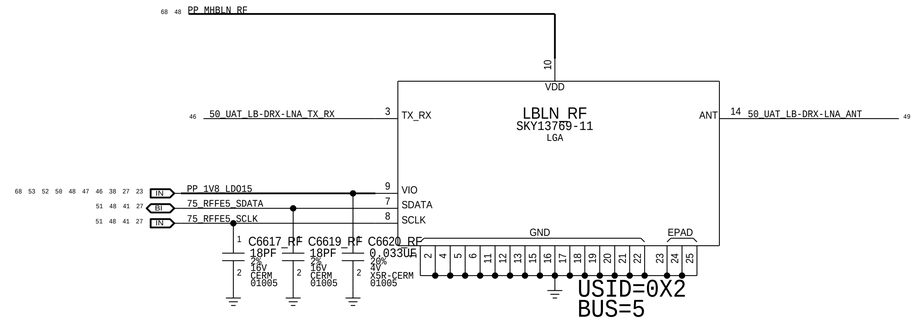
SYNC_MASTER=RADIO_MLB SYNC_DATE=10/03/2016

PAGE TITLE

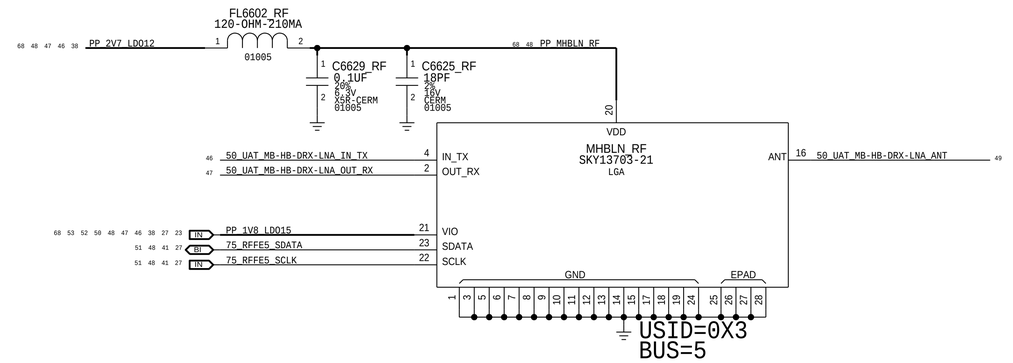
[RADIO] DRX ASMS

DIVERSITY RECEIVE LNAS

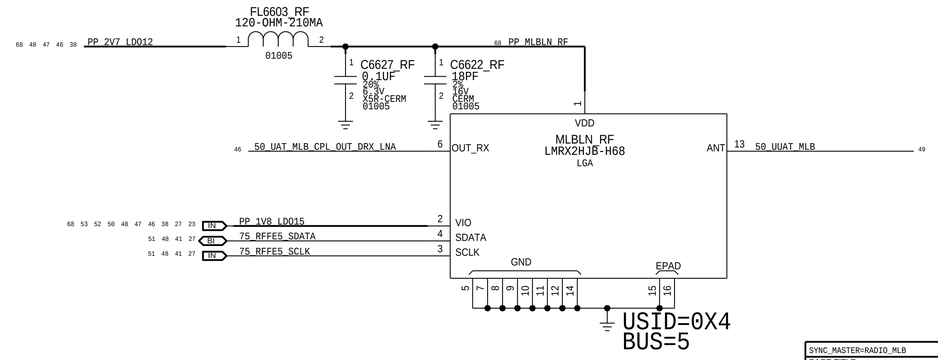
LB DRX LNA



MB/HB DRX LNA



MLB DRX LNA



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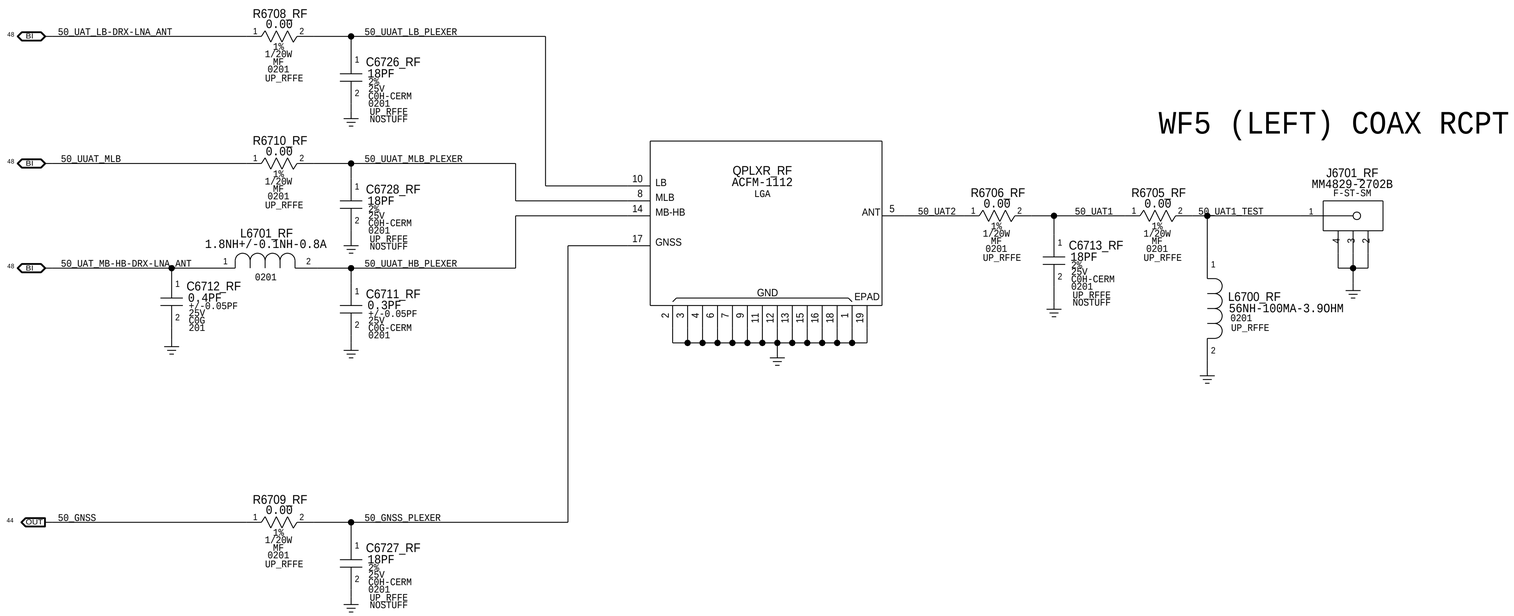
PAGE TITLE

[RADIO] DRX LNAS

ANTENNA CO-AX + QUADPLEXER

QUADPLEXER



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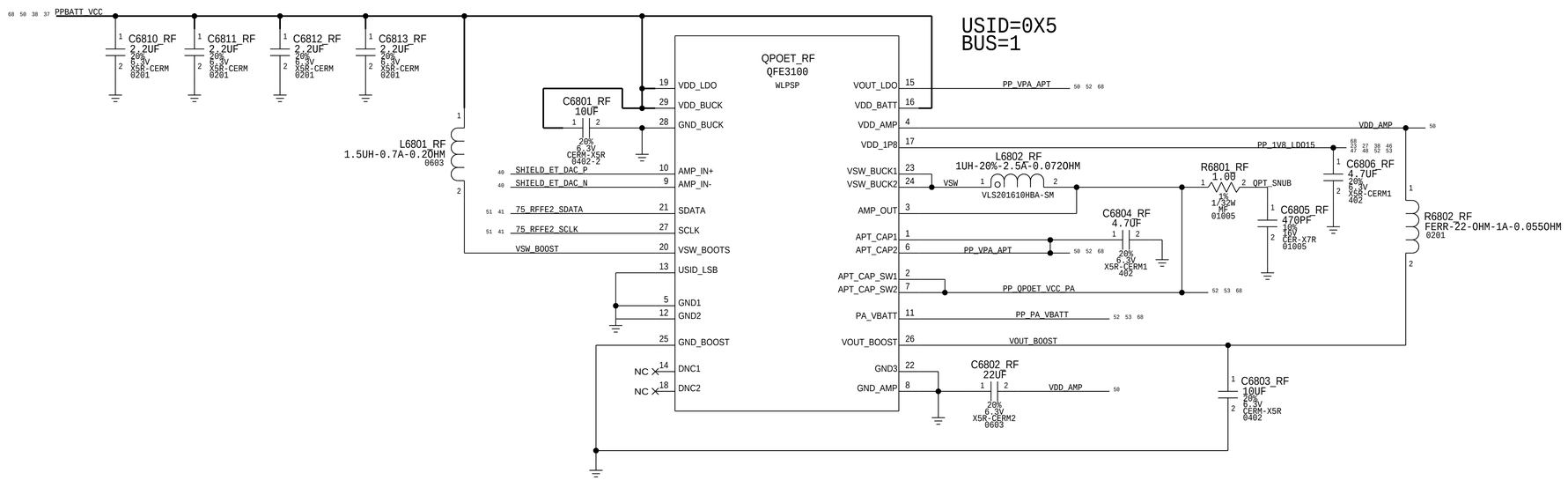
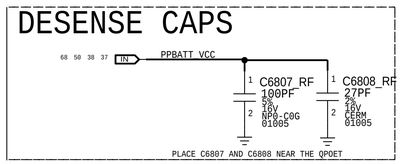
PAGE TITLE: [RADIO] PPXLR & UAT CO-AX

PMU: ET MODULATOR



DESENSE CAPS



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PAGE TITLE

[RADIO] PMU: ET MODULATOR

MLB TEST POINTS

CONTROL

PP6900_RF — P4MM — GPIO_PMU_TO_BBPMU_RESET_L — 37 51 68
PP6951_RF — P4MM — GPIO_BB_TO_PMU_HOST_WAKE_L — 41 68
PP6948_RF — P4MM — PMIC_RESOUT_L — 37 40
PP6929_RF — P4MM — GPIO_BB_TO_SOC_RESET_DET_L — 41 68
PP6931_RF — P4MM — GPIO_SOC_TO_BB_RESET_L — 37 68
PP6987_RF — P4MM — GPIO_BB_TO_SOC_GPS_SYNC — 41 68
PP6944_RF — P4MM — GPIO_BB_IPC — 41 68
PP6945_RF — P4MM — GPIO_SOC_TO_BB_COREDUMP — 41 68
PP6946_RF — P4MM — GPIO_SOC_TO_BB_MESA_ON — 41 68
PP6947_RF — P4MM — GPIO_BB_TO_STROBE_GSM_BURST_IND — 68
PP6904_RF — P4MM — RX-DSPDT_CTL1 — 41 47
PP6906_RF — P4MM — FBRX-DSPDT_CTL1 — 41 46

RFFE

PP6960_RF — P4MM — 75_RFFE1_SCLK — 41 43
PP6961_RF — P4MM — 75_RFFE1_SDATA — 41 43
PP6962_RF — P4MM — 75_RFFE2_SCLK — 41 50
PP6963_RF — P4MM — 75_RFFE2_SDATA — 41 50
PP6964_RF — P4MM — 75_RFFE3_SCLK — 41 47
PP6965_RF — P4MM — 75_RFFE3_SDATA — 41 47
PP6966_RF — P4MM — 75_RFFE4_SCLK — 41 43
PP6967_RF — P4MM — 75_RFFE4_SDATA — 41 43
PP6968_RF — P4MM — 75_RFFE5_SCLK — 27 41 48
PP6969_RF — P4MM — 75_RFFE5_SDATA — 27 41 48
PP6970_RF — P4MM — 75_RFFE6_SCLK — 41 52 53
PP6971_RF — P4MM — 75_RFFE6_SDATA — 41 52 53
PP6972_RF — P4MM — 75_RFFE7_SCLK — 23 41 46 53
PP6973_RF — P4MM — 75_RFFE7_SDATA — 23 41 46 53

LDOS

PP6910_RF — P4MM — PP_0V9_SMPS1 — 38 39 68
PP6911_RF — P4MM — PP_1V225_SMPS2 — 38 68
PP6912_RF — P4MM — PP_1V0_SMPS3 — 38 68
PP6913_RF — P4MM — PP_1V85_SMPS4 — 38 42 68
PP6914_RF — P4MM — PP_1V0_SMPS5 — 38 39 68

VINYL

68 51 41 39 38 VDD_SIM2
C6901_RF 2.2UF 20% 6.3V X5R-CERM 0201
VINYL_RF ST33G1M2 WLCSP
51 41 IN SIM2_CLK — D1 CLK
51 41 IN SIM2_RST — D2 RST
NC — B3 SWP
NC — B2 NC
A1 VCC
A3 GND
GPIO0 A2 NC
GPIO1 B1 NC
GPIO2 D3 NC
GPIO3 C1 NC
IO0 C3 SIM2_IO_R
R6901_RF 0.00 1/32W MF 01005
SIM2_IO — BI 41 51

PCIE

PP6949_RF — P4MM — PCIE_SOC_TO_BB_REFCLK_P — 40 68
PP6950_RF — P4MM — PCIE_SOC_TO_BB_REFCLK_N — 40 68

IQ

PP6917_RF — P4MM — SHIELD_XCVR0-1_TX_I_N — 40 43
PP6918_RF — P4MM — SHIELD_XCVR0-1_TX_I_P — 40 43
PP6919_RF — P4MM — SHIELD_XCVR0-1_TX_Q_N — 40 43
PP6920_RF — P4MM — SHIELD_XCVR0-1_TX_Q_P — 40 43
PP6926_RF — P4MM — SHIELD_XCVR0_PRX_CA2_I — 40 44
PP6921_RF — P4MM — SHIELD_XCVR0_PRX_CA1_I — 40 44
PP6922_RF — P4MM — SHIELD_XCVR0_PRX_CA1_Q — 40 44
PP6923_RF — P4MM — SHIELD_XCVR1_PRX_I — 40 44
PP6924_RF — P4MM — SHIELD_XCVR1_PRX_Q — 40 44
PP6927_RF — P4MM — SHIELD_XCVR0_PRX_CA2_Q — 40 44

DEBUG CONNECTOR

NOSTUFF
J_EUREKA_DEBUG 505066-1410 F-ST-SM

68 37 GPIO_PMU_TO_BB_VBUS_DET — 15
16
68 40 USB_BB_P — 1 — 2 BB_JTAG_SRST_L — 40
68 40 USB_BB_N — 3 — 4 PP_1V8_LDO6 — 38 39 40 41 68
40 37 PS_HOLD — 5 — 6 GPIO_PMU_TO_BBPMU_RESET_L — 37 51 68
68 40 SWD_BB_SWDIO — 7 — 8 GPIO_SOC_TO_BB_RADIO_ON_L — 37 68
68 40 SWD_BB_SWCLK — 9 — 10 SIM2_IO_R — 51
51 41 SIM2_CLK — 11 — 12 SIM2_IO — 41 51
51 41 SIM2_RST — 13 — 14 VDD_SIM2 — 38 39 41 51 68
17
18

EEPROM

PP6901_RF — P4MM — BB_EEPROM_I2C_SCL — 41
PP6902_RF — P4MM — BB_EEPROM_I2C_SDA — 41

SPMI

PP6980_RF — P4MM — SPMI_CLK — 37 40
PP6981_RF — P4MM — SPMI_DATA — 37 40

WCI

PP6903_RF — P4MM — UART_BB2WLAN_COEX_TX — 41 68
PP6930_RF — P4MM — UART_WLAN2BB_COEX_TX — 41 68

CLKS

PP6976_RF — P4MM — 50_MDM_PCIE_CLK — 37 40
PP6977_RF — P4MM — SHIELD_MDM_19P2M_CLK — 37 40
PP6978_RF — P4MM — SHIELD_WTR_19P2M_CLK — 37 43
PP6979_RF — P4MM — SHIELD_SLEEP_CLK_32K — 37 40

AOP

PP6974_RF — P4MM — UART_AOP_TO_BB_TX — 41 68
PP6975_RF — P4MM — UART_BB_TO_AOP_TX — 41 68

SIM1

PP6982_RF — P4MM — SIMCRD_IO_CONN — 41 68
PP6983_RF — P4MM — SIM_TRAY_DETECT — 41 68
PP6984_RF — P4MM — SIMCRD_RST_CONN — 41 68
PP6985_RF — P4MM — SIMCRD_CLK_CONN — 41 68
PP6986_RF — P4MM — SIM1_REMOVAL_ALARM — 37 41

SIM2

PP6941_RF — P4MM — SIM2_DETECT — 41
PP6942_RF — P4MM — SIM2_RST — 41 51
PP6943_RF — P4MM — SIM2_CLK — 41 51

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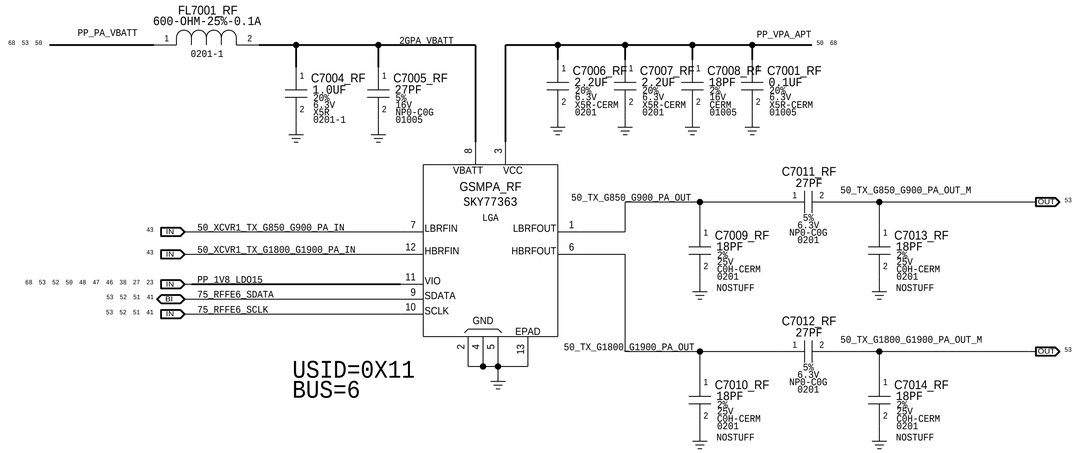
SYNC_DATE=10/03/2016
PAGE TITLE
[RADIO] TEST POINTS & DEBUG

TDD TRANSMIT

2G PA



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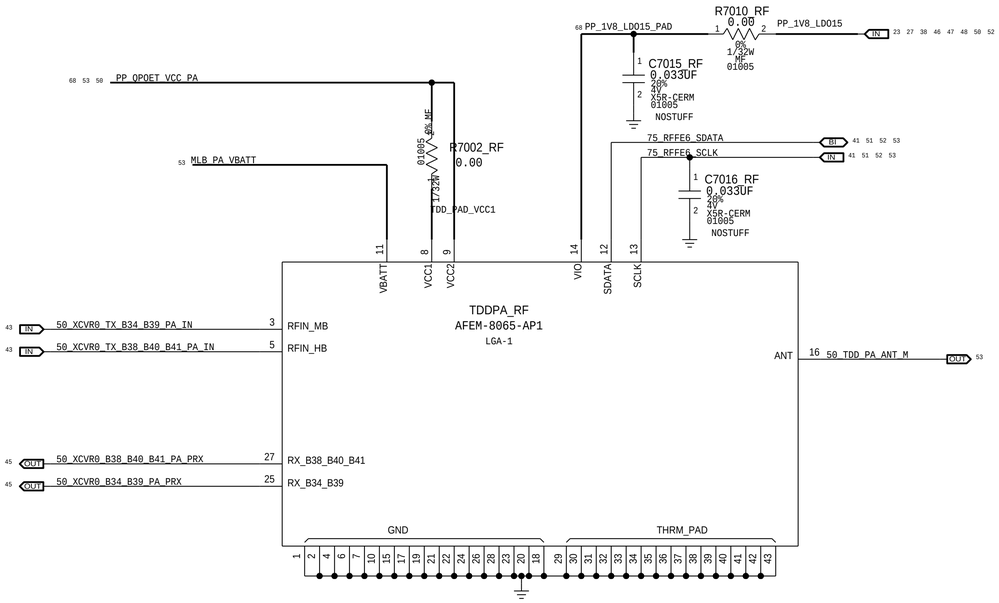
BUS=6

MB HB TDD PA



USID=0X15
BUS=6

SYNC_MASTER=RADIO_MLB SYNC_DATE=10/03/2016

PAGE TITLE

[RADIO] TDD TRANSMIT

FDD TRANSMIT

LB PA

LBPA_RF
SKY78100-20
LGA1

PP_QPOET_VCC_PA
PP_PA_VBATT
LB_PA_VBATT
LB_PAD_VCC1
C7103_RF 1.0UF 20% 6.3V X5R 0201-1
C7104_RF 18PF 2% 16V CERM 01005
R7107_RF 0.00 0% 1/32W MF 01005
R7108_RF 0.00 0% 1/32W MF 01005
C7105_RF 150PF 5% 25V C0G 01005
R7115_RF 0.00 0% 1/32W MF 01005 NOSTUFF
C7126_RF 18PF NOSTUFF 2% 16V CERM 01005
LB_PAD_VCC1_FILTER
PP_1V8_LDO15_PA
75_RFFE7_SDATA_PA
75_RFFE7_SCLK_PA
C7101_RF 0.033UF 20% 4V X5R-CERM 01005
R7111_RF 0.00 0% 1/32W MF 01005
R7112_RF 0.00 0% 1/32W MF 01005
R7114_RF 0.00 0% 1/32W MF 01005
PP_1V8_LDO15
75_RFFE7_SDATA
75_RFFE7_SCLK

50_XCVR1_TX_B8_B20_B26_B27_PA_IN	2	RFIN0
50_XCVR1_TX_B12_B13_B28_PA_IN	3	RFIN1
50_TX_G850_G900_PA_OUT_M	18	2G_TX
50_LB_DRX	12	LB_DIV
50_XCVR1_B8_B26_B27_PA_PRX	26	LB_RX0
	NC 25	LB_RX1
50_XCVR1_B12_B13_B20_B28_B29_PA_PRX	24	VLB_RX0
	NC 23	VLB_RX1
	7	VBATT
	41	VCC1
	40	VCC2
	10	VIO
	8	SDATA
	9	SCLK
	1,4,5,6,11,13,15,17,19,20,21,22,27,28,29,30,31,32,33,34,35,36,37,38,39,42,43,44,45,46,47,48,49,50,51,52,53,54,55,56,57	GND, THRM_PAD

ANT1 16
ANT2 14

50_LAT_LB_PA_ANT
L7111_RF 20NH-3%-0.25A-0.80HM 0201
C7128_RF 12PF 2% 25V C0G-CERM 0201
50_LAT_LB_COMBINER_IN
C7120_RF 18PF 2% 25V C0H-CERM 0201 NOSTUFF
824-915

50_UAT_LB_PA_ANT
R7102_RF 0.00 1% 1/20W MF 0201
C7112_RF 18PF 2% 25V C0H-CERM 0201 NOSTUFF
C7121_RF 18PF 2% 25V C0H-CERM 0201 NOSTUFF
50_UAT_LB_COMBINER_IN
824-915

USID=0XD
BUS=7

MLB PA

MLBPA_RF
HRPDAF025
LGA

PP_QPOET_VCC_PA
PP_PA_VBATT
MLB_PA_VBATT
VCC1_MLBPA
C7127_RF 18PF NOSTUFF 2% 16V CERM 01005
MLBPA_VCC1_FILTER
R7113_RF 0.00 0% 1/32W MF 01005
C7113_RF 1.0UF 20% 6.3V X5R 0201-1
C7114_RF 18PF 2% 16V CERM 01005
R7118_RF 0.00 0% 1/32W MF 01005
C7117_RF 18PF 2% 16V CERM 01005 NOSTUFF
R7116_RF 0.00 0% 1/32W MF 01005 NOSTUFF
PP_1V8_LDO15
75_RFFE6_SDATA
75_RFFE6_SCLK

50_XCVR0_TX_B11_B21_PA_IN	2	RFIN_MLB
50_XCVR0_B11_B21_PA_PRX	20	PRX
50_XCVR0_B11_B21_PA_DRX	18	DRX
	25	VBATT
	28	VCC1
	27	VCC2
	22	VIO
	24	SDATA
	23	SCLK
	1,3,4,5,6,7,8,9,10,11,13,15,16,17,19,21,26,29,30,31,32,33,34,35,36,37,38,39,40,41,42,43	GND, THRM_PAD

ANT1 14
ANT2 12

50_LAT_MLB_PA_ANT
R7105_RF 0.00 1% 1/20W MF 0201
50_LAT_MLB_ASM_IN
1428-1463
C7122_RF 18PF 2% 25V C0H-CERM 0201 NOSTUFF

50_UAT_MLB_PA_ANT
R7106_RF 0.0Ω 1% 1/20W MF 0201
50_UAT_MLB_CPL_IN
1428-1463
C7123_RF 18PF 2% 25V C0H-CERM 0201 NOSTUFF

USID=0XB
BUS=6

MB/HB PA

MBHBPA_RF
AFEM-8055-AP1
LGA

PP_QPOET_VCC_PA
PP_PA_VBATT
MBHB_FDD_PA_VBATT
MBHB_FDD_PAD_VCC1
C7106_RF 1.0UF 20% 6.3V X5R 0201-1
C7108_RF 18PF 2% 16V CERM 01005
R7109_RF 0.00 0% 1/32W MF 01005
R7110_RF 0.00 0% 1/32W MF 01005
C7110_RF 18PF 2% 16V CERM 01005 NOSTUFF
PP_1V8_LDO15
75_RFFE6_SDATA
75_RFFE6_SCLK

50_TX_G1800_G1900_PA_OUT_M	34	RFIN_GSM
50_XCVR0_TX_B1_B3_B4_B25_PA_IN	31	RFIN_MB
50_XCVR0_TX_B7_B30_PA_IN	32	RFIN_HB
50_TDD_PA_ANT_M	7	TRX2
50_LAT_MLB_ASM_IN	8	TRX3
50_LAT_MB_HB_DRX	10	MB_HB_DRX
50_XCVR0_B40B_PA_PRX	11	DCS_PCS_RX
50_XCVR0_B1_B4_PA_PRX	1	RX_B1
50_XCVR0-1_B3_PA_PRX	3	RX_B3
50_XCVR0_B7_PA_PRX	5	RX_B7
50_XCVR0_B4_PA_PRX	17	RX_B4
50_XCVR0_B25_PA_PRX	19	RX_B25
50_XCVR0_B30_PA_PRX	21	RX_B30
	29	VBATT
	37	VCC1
	38	VCC2
	26	VIO
	28	SDATA
	27	SCLK
	2,4,12,15,16,18,20,22,23,24,25,30,33,35,36,39,40,41,42,6,9,43,44,45,46,47,48,49,50,51,52,53,54,55,56,57	GND, EPAD

ANT1 14
ANT2 13

50_LAT_MB_HB_PA_ANT
C7129_RF 10PF 2% 25V C0H-CERM 0201
50_LAT_MB_HB_COMBINER_IN
L7118_RF 12NH-3%-0.3A-0.50HM 0201 NOSTUFF
L7121_RF 12NH-3%-0.3A-0.50HM 0201
1710-2690

50_UAT_MB_HB_PA_ANT
R7104_RF 0.00 1% 1/20W MF 0201
50_UAT_MB_HB_COMBINER_IN
C7119_RF 18PF 2% 25V C0H-CERM 0201 NOSTUFF
C7125_RF 18PF 2% 25V C0H-CERM 0201 NOSTUFF
1710-2690

50_XCVR0_B3_PRX-DSPDT_OUT
R7117_RF 0.00 0% 1/32W MF 01005

USID=0XE
BUS=6

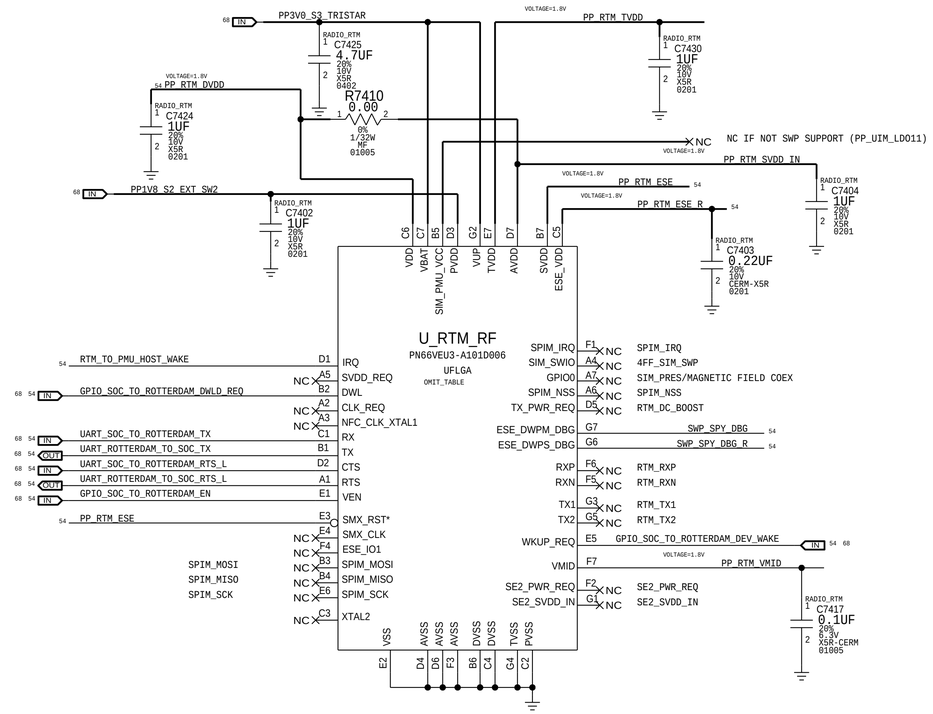
RXFIL_RF

BAW-B40F-RX
QM21140
LGA

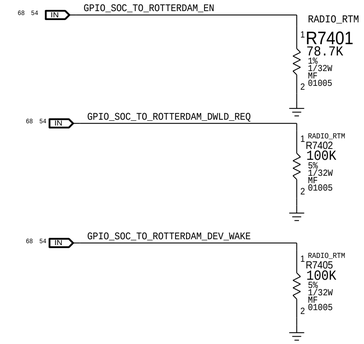
50_XCVR0_B40B_PA_PRX
B40RXOUT
B40ANT
50_XCVR0_B40_PA_PRX_EXT_FIL
GND
L7122_RF 5.1NH-3%-0.35A-0.350OHM 01005
C7111_RF 1.0PF 0.1PF 16V NP0-C0G 01005

SYNC_MASTER=RADIO_MLB
SYNC_DATE=10/03/2016
PAGE TITLE
[RADIO] FDD TRANSMIT

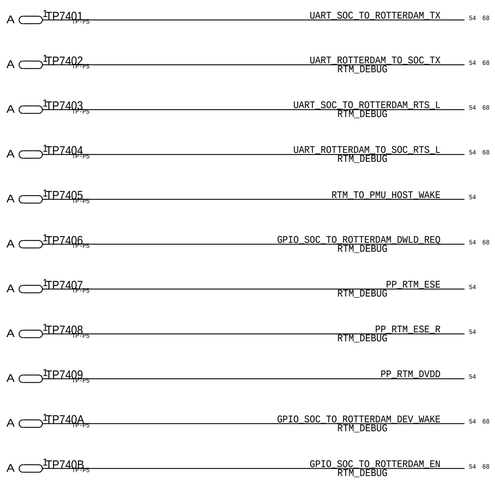
RTM/SECURE ELEMENT



SUPPORT PULLS

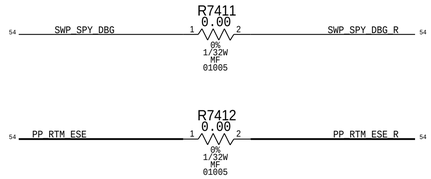


TEST POINTS



PART#	QTY	DESCRIPTION	REFERENCE DESIGNATOR(S)	CRITICAL	BOM OPTION
338S00157	1	ROTTERDAM,PN67VEU3	U_RTM_RF	CRITICAL	

IMPORTANT
DEBUG FEATURES

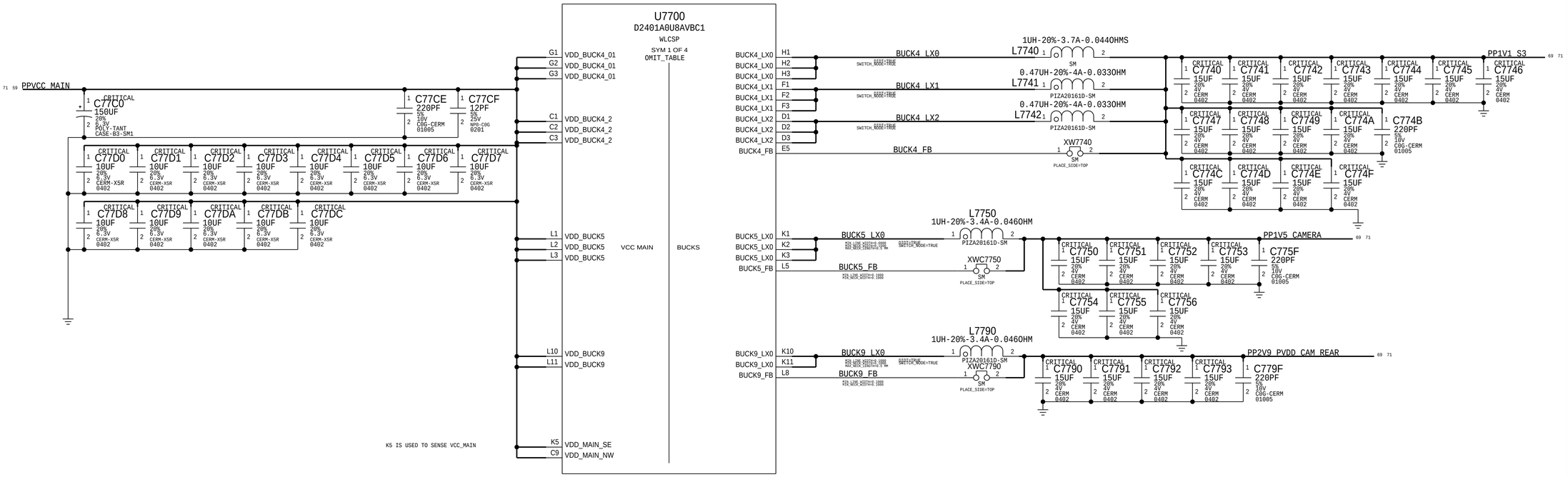


SYNC_MASTER=MLB_B_ELBA SYNC_DATE=11/20/2015

PAGE TITLE

STOCKHOLM

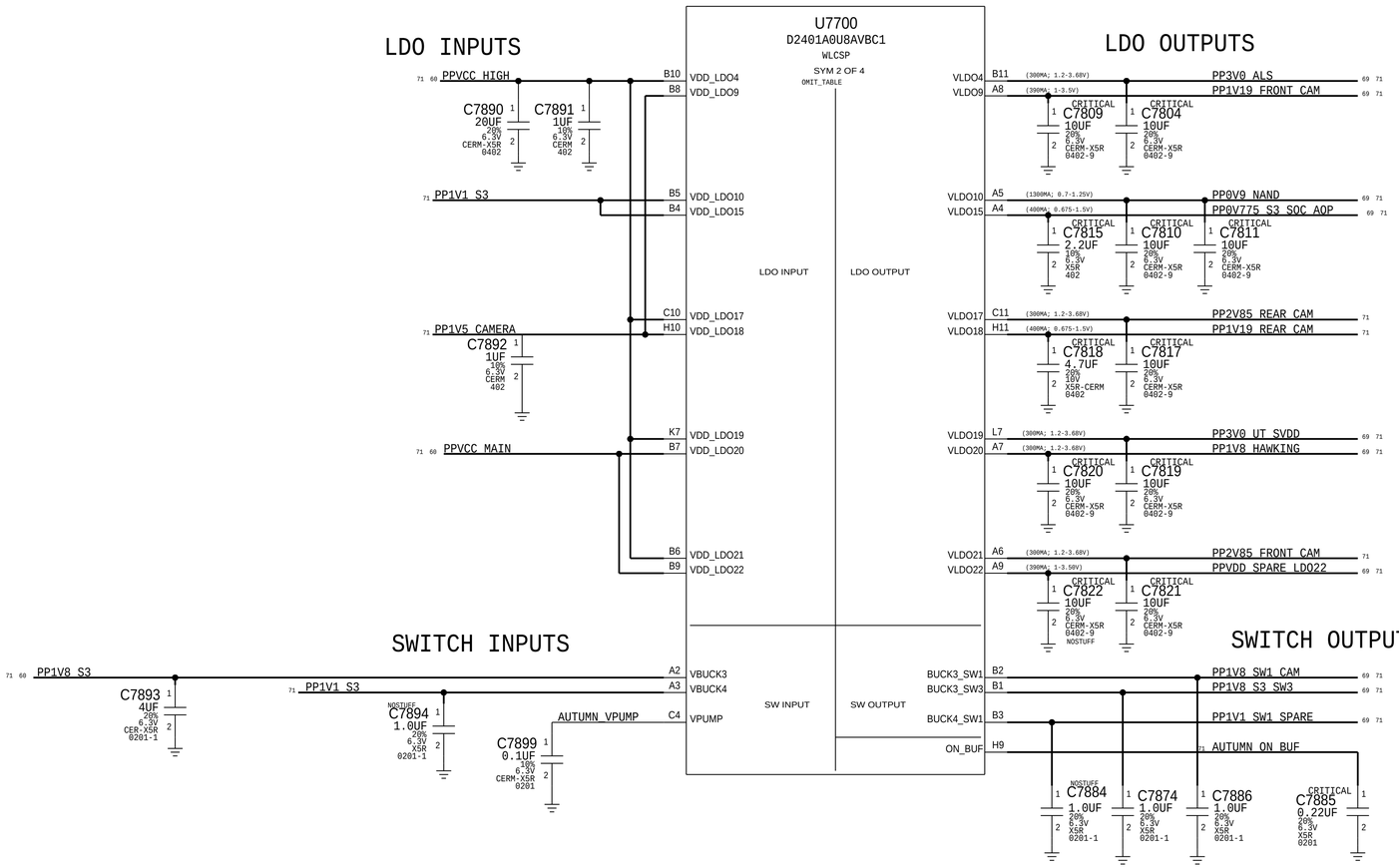
AUTUMN BUCKS



SYNC_MASTER=DEV_MYST	SYNC_DATE=03/30/2016
PAGE TITLE	
POWER: AUTUMN (1/3)	

AUTUMN LDOS

PART NUMBER	ALTERNATE FOR PART NUMBER	BOM OPTION	REF DES	COMMENTS:
138S00071	138S00116		C7893	

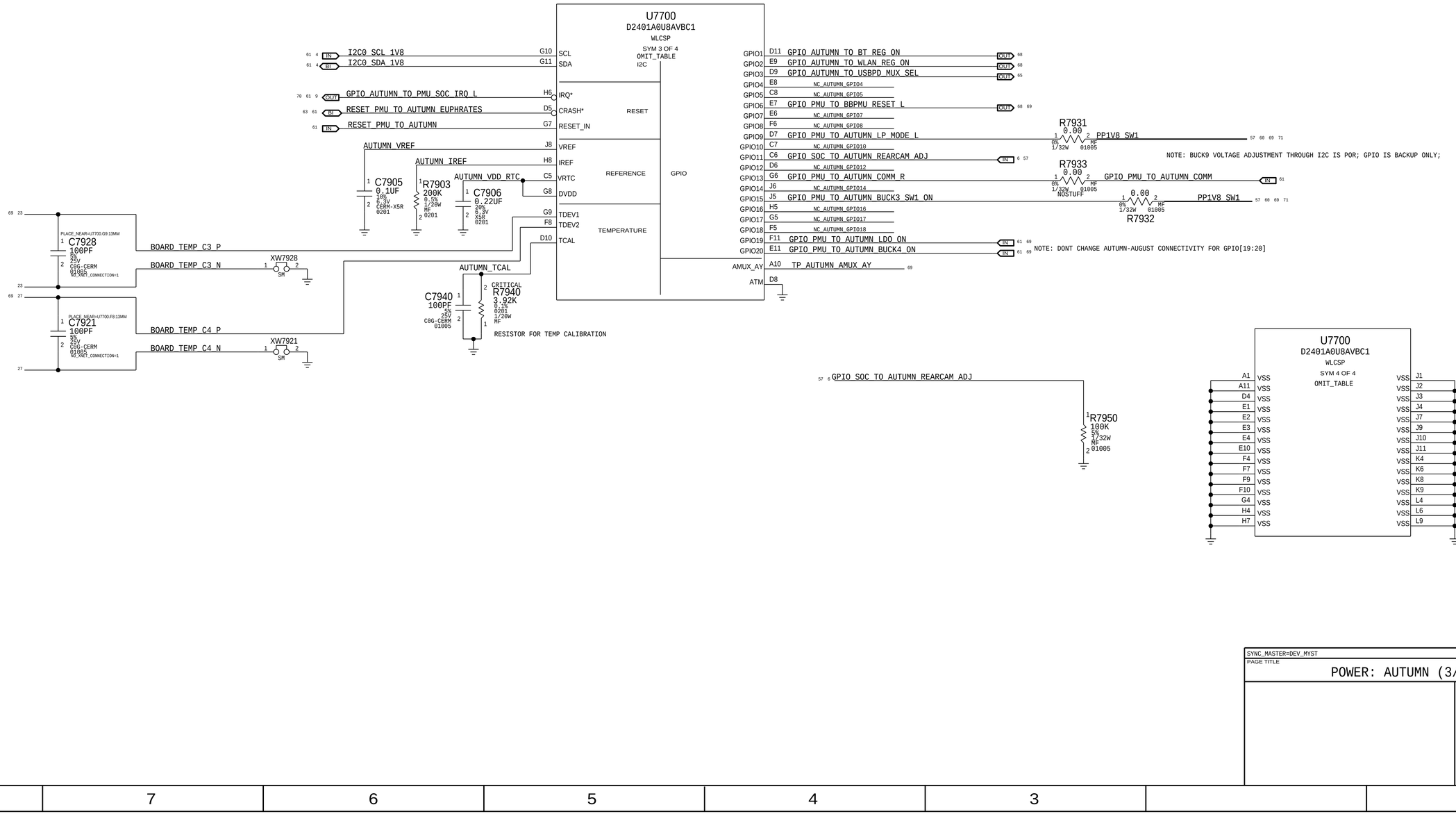


SYNC_MASTER=DEV_MYST SYNC_DATE=03/30/2016

PAGE TITLE

POWER: AUTUMN (2/3)

AUTUMN GPIO



SYNC_MASTER=DEV_MYST	SYNC_DATE=03/30/2016
PAGE TITLE	
POWER: AUTUMN (3/3)	

BELLATRIX

PART NUMBER	ALTERNATE FOR PART NUMBER	BOM OPTION	REF DES	COMMENTS:
376S00190	376S00119		Q8000, Q8001	

XW8000
SM
NO_XNET_CONNECTION=1
65 PPVDD_USBPD_DET (VOLTAGE=20V)

CRITICAL
Q8001
CSD58900L
LGA
71 63 58 PPVBUS_PROT
A1 B1 D1 E1 S1 S1 S1 S1
S2 S2 S2 S2 A2 B2 D2 E2
58 PPVBUS_USB_RVP
EXT_PWRIN_EN1 C1 G1
EXT_PWRIN_EN2 G2 C2

CRITICAL
POWERDI3333
DMP3017SFG
Q8061
3 2 1 S S G D D D
PPVBUS_USB_EMI 30 69

CRITICAL
DZ8061
BZT52C10LP
LLP
K A
E75_RVP_G

R8061
220K
1%
1/20W
MF
201
FOR CONTAMINATION RESISTANCE MEASUREMENT

R8060
499
1%
1/10W
MF-LF
603

CRITICAL
Q8000
CSD58900L
LGA
A1 B1 D1 E1 S1 S1 S1 S1
S2 S2 S2 S2 A2 B2 D2 E2
49 PPVBUS_ORION_RVP
ACC_PWRIN_EN1 C1 G1
ACC_PWRIN_EN2 G2 C2

CRITICAL
LGA
CSD68832L
Q8051
3 2 1 S S G D D D
VOLTAGE=14.5V
PPVBUS_ORION 66
ORION RVP

CRITICAL
DZ8051
BZT52C10LP
LLP
K A
NOTE: 10V ZENER
ORION_RVP_G

R8051
220K
2%
1/20W
MF
201

71 63 58 PPVBUS_PROT
C8023
0.1UF
10%
25V
X5R
0201

VOLTAGE=20V
PPVBUS_USB_RVP_R
R8020
0.00
0%
1/32W
MF
01005
FROM E75_RVP_FET
PPVBUS_USB_RVP 58

C8020
1.0UF
10%
35V
CERM-X5R
0402

E1 D2 D1 E2 F2 C1
SYS_VBUS_PWR EXT_PWRIN_EN1 EXT_PWRIN_EN2 ACC_PWRIN_EN1 ACC_PWRIN_EN2 EXT_VBUS_PWR

71 PPVCC_MAIN
71 PP1V8_S3
C8072
1UF
20%
6.3V
X5R
0201
C8070
1UF
20%
10V
X5R
0201

CRITICAL
U8000
CD3258A
WCSP

D3 D4 D5 D6 E3 E4 E5 E6 VP
A4 VDD_1V8
A2 VDD_INT_1V8 (1UF TYPICAL)
PP1V8_INT_ORION
C8071
1.0UF
20%
6.3V
X5R
0201-1

70 9 IN GPIO_AOP_TO_ORION_HWEN
R8070
100K
2%
1/32W
MF
01005
NOSTUFF
C4 HWEN (TO BE SET TO HIGH BY DEF)
2M INT PD

69 61 6 OUT GPIO_ORION_TO_SOC_TO_PMU_IRQ A5 INT
4 BI I2C1_SCL_1V8 C5 SCL
4 BI I2C1_SDA_1V8 B6 SDA

70 63 OUT OVP_SW_EN_L C6 VBUS_VALID*
30 IN TS_OVP_SW_EN_L
R8071
0.00
0%
1/32W
MF
01005
TS_OVP_SW_EN_R_L C3 EXT_VBUS_VALID* 100K INT PD
NC_ORION_CONN_STATUS B3 CONN_STATUS* (OUTPUT)
NC_ORION_GPIO1 B5 GPIO1 (I/O - HI-Z @ POR)
NC_ORION_GPIO2 B4 GPIO2

A1 A6 F1 GND GND GND

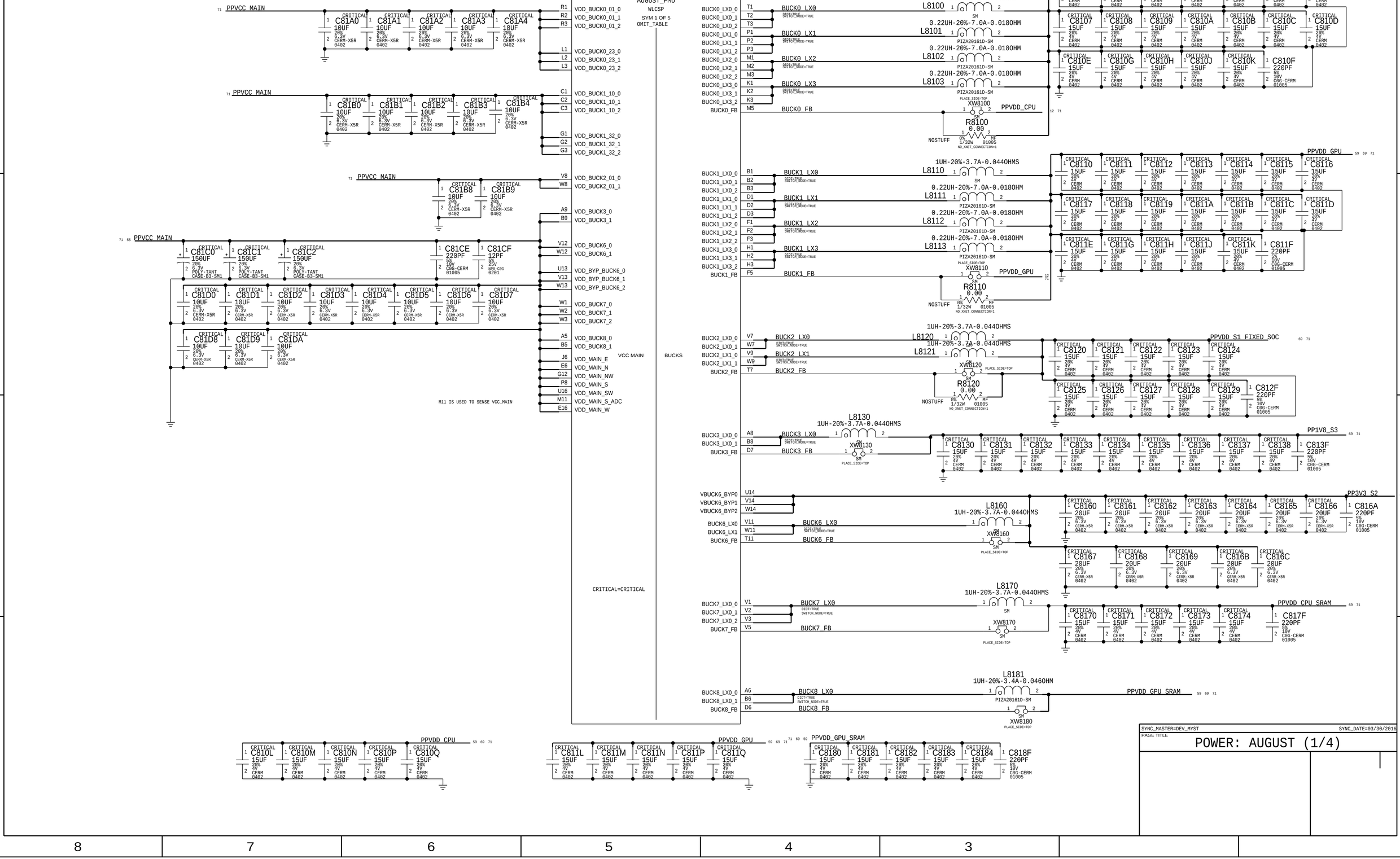
DATA A3 ORION_COMM_FILT BI 66

F3 F4 F5 F6 ACC_PWR
C2 GND/DFT
B2 ADC_CH1
B1 ADC_CH2

SYNC_MASTER=MLB_B_ELBA
SYNC_DATE=03/30/2016
PAGE TITLE
ORION

AUGUST BUCKS

PART NUMBER	ALTERNATE FOR PART NUMBER	BOM OPTION	REF DES	COMMENTS:
128S00069	128S00032		C81C0,ECT	
128S00062	128S00032		C81C0,ECT	

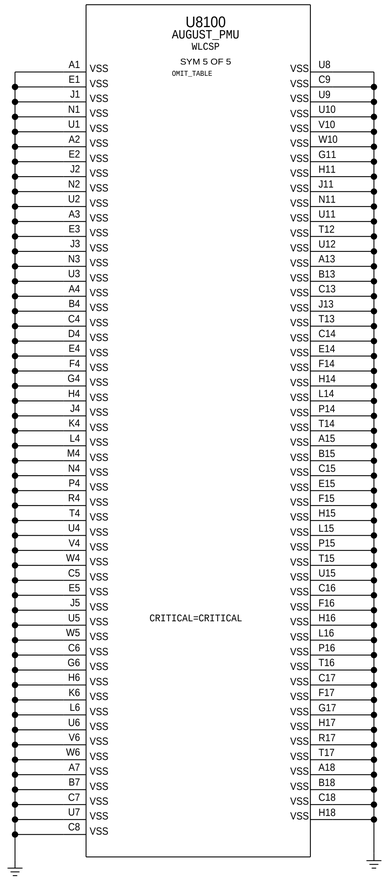


SYNC_MASTER=DEV_MYST SYNC_DATE=03/30/2016

PAGE TITLE

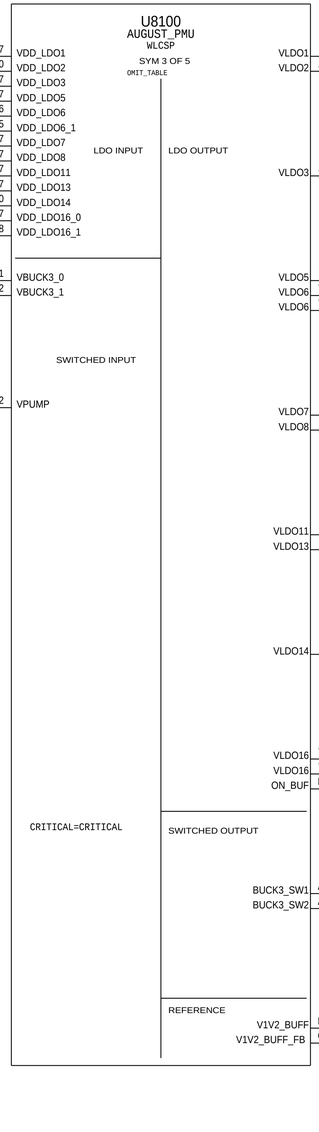
POWER: AUGUST (1/4)

AUGUST LDOS



LDO INPUTS

71 56 PPVCC_HIGH
71 PP1V8_S3
C8291 1UF 10% 6.3V CERM 402
C8292 1UF 10% 6.3V CERM 402
71 56 PPVCC_MAIN
71 56 PP1V8_S3
C8293 1.0UF 20% 6.3V X5R 0201-1
C8295 1.0UF 20% 6.3V X5R 0201-1
PMU_VPUMP
C8299 0.1UF 10% 6.3V CERM-X5R 0201



LDO OUTPUTS

VLDO1 U18 (300MA; 1.2-3.68V) PP3V0_S3_TRISTAR 69 71
VLDO2 A10 (100MA; 1.2-1.869V) PP1V8_S2_VA_VCP 69 71
CRITICAL C8204 20UF 20% 6.3V CERM-X5R 0402
CRITICAL C8200 10UF 20% 6.3V CERM-X5R 0402-9
VLDO3 J18 (300MA; 1.2-3.68V) PP3V3_S2_XBAR 69 71
CRITICAL C8208 10UF 20% 6.3V CERM-X5R 0402-9
VLDO5 P18 (300MA; 1.2-3.68V) PPVDD_SPARE_LDO5 69 71
VLDO6 W15 (150MA; 2.5-3.6V) PP3V3_ACC 69 71
VLDO6 W16
CRITICAL C8220 10UF 20% 6.3V CERM-X5R 0402
CRITICAL C8217 10UF 20% 6.3V CERM-X5R 0402 NOSTUFF
VLDO7 L18 (300MA; 1.2-3.68V) PP3V3 69 71
VLDO8 M18 (300MA; 1.2-3.68V) PP3V05_S3_MESA 69 71
CRITICAL C8228 10UF 20% 6.3V CERM-X5R 0402-9
CRITICAL C8224 10UF 20% 6.3V CERM-X5R 0402-9
VLDO11 N18 (300MA; 1.2-3.68V) PP3V0_SPARE_LDO11 69 71
VLDO13 K18 (300MA; 1.2-3.68V) PP3V3_GRAPE 69 71
CRITICAL C8244 10UF 20% 6.3V CERM-X5R 0402-9
CRITICAL C8240 10UF 20% 6.3V CERM-X5R 0402-9 NOSTUFF
VLDO14 D10 (300MA; 0.675-1.5V) PP1V2_SOC 69 71
CRITICAL C8248 4.7UF 20% 6.3V X5R 402
VLDO16 W17
VLDO16 W18 (300MA; 1.0-3.5V) PP1V8_S3_MESA 69 71
ON_BUF F13 (30MA; 1.8V) PP1V8_ALWAYS 6 69 71
CRITICAL C8260 0.22UF 20% 6.3V X5R 0201
CRITICAL C8256 4.7UF 20% 6.3V X5R 402
BUCK3_SW1 A12 PP1V8_SW1 57 69 71
BUCK3_SW2 A11 PP1V8_SW2_SPARE 69 71
NOSTUFF C8274 1.0UF 20% 6.3V X5R 0201-1
C8270 1UF 10% 6.3V CERM 402
V1V2_BUFF H13 PP1V2_BUF 71
V1V2_BUFF_FB G13
CRITICAL C8275 0.22UF 20% 6.3V X5R 0201

SYNC_MASTER=DEV_MYST	SYNC_DATE=03/30/2016
PAGE TITLE	POWER: AUGUST (2/4)

AUGUST GPIO/MISC

PART NUMBER	ALTERNATE FOR PART NUMBER	BOM OPTION	REF DES	COMMENTS:
118S0764	118S0717		R8340	RDAR://PROBLEM/8380367
107S0150	107S0208		R8321-R8328	RDAR://PROBLEM/8380367
197S0399	197S0392		Y8300	RDAR://PROBLEM/9936684

U8100 AUGUST_PMU WLCSP

SYM_2 OF 5
OMIT_TABLE

BUTTON1	R11	GPIO_BTN_HOME_L	IN
BUTTON2	P9	GPIO_BTN_ONOFF_L	IN
BUTTON3	P10	NC_PMU_BTN3	
BUTTON4	P11	NC_PMU_BTN4	
BUTTONO1	M10	GPIO_PMU_TO_SOC_BTN_HOME_L	OUT
BUTTONO2	M9	GPIO_PMU_TO_SOC_BTN_ONOFF_L	OUT
BUTTONO3	N8	NC_PMU_BTN03	
BRICK_ID	R12	USB_TS_TO_PMU_BRICKID_R	
ADC_IN7	P12	ADC_IN7	
PRE_UVLO	D11	VCCMAIN_DROOP_PMU_TO_SOC_L_R	
SYS_ALIVE	E13	(SYS_ALIVE)	
CRASH*	R8	R8315 0.00 AUGUST_CRASH	
BUCK0_IPEAK*	E8	(GPIO_PMU_TO_CPU_UV_PEAKI_L)	
BUCK0_SNSN	K5	ADC_SOC_TO_PMU_VDD_CPU	IN
BUCK0_SNSP	L5	PPVDD_BUCK0_SENSE	IN
BUCK0_UV_WARN*	E10	(GPIO_PMU_TO_CPU_UV_WARN_L)	
BUCK1_IPEAK*	F6	(GPIO_PMU_TO_GPU_UV_PEAKI_L)	
BUCK1_SNSN	H5	ADC_SOC_TO_PMU_VDD_GPU	IN
BUCK1_SNSP	G5	PPVDD_BUCK1_SENSE	IN
BUCK1_UV_WARN*	E9	(GPIO_PMU_TO_GPU_UV_WARN_L)	
RESET_IN1	T10	GPIO_SOC_TO_PMU_WDOG	IN
RESET_IN2	T9	RESET_TS_TO_PMU	IN
RESET_IN3	T8	SOCHOT1_SOC_TO_PMU_L	IN
RESET*	R9	RESET_PMU_TO_SYSTEM_L	OUT
RESET_OUT	R10	RESET_PMU_TO_AUTUMN_R	(PU IN SOC)
IRQ_IN*	M8	GPIO_AUTUMN_TO_PMU_SOC_IRQ_L	IN
IRQ*	N7	GPIO_PMU_TO_SOC_IRQ_L	OUT (PU IN SOC)
SHDWN	D5	PMU_SHUTDOWN	IN
SLEEP1_REQ	E11	GPIO_AOP_TO_PMU_SLEEP1_REQUEST_R	
SLEEP1_RDY	E12	GPIO_PMU_TO_SYS_SLEEP1_READY	OUT
ACTIVE_REQ	E7	GPIO_AOP_TO_PMU_ACTIVE_REQUEST_R	
ACTIVE_RDY	D8	GPIO_PMU_TO_SYSTEM_ACTIVE_READY	OUT
SCL	F10	I2C0_SCL_1V8	IN
SDA	F11	I2C0_SDA_1V8	BI
MOSI	F9	SPI_SOC_TO_PMU_DATA	IN
MISO	F8	SPI_PMU_TO_SOC_DATA	OUT
SCLK	F7	SPI_SOC_TO_PMU_SCLK	IN
TDEV1	R13	PA_NTC_P	
TDEV2	P13		
TDEV3	N13		
TDEV4	N12		
TDEV5	M13		
TDEV6	M12		
TDEV7	K13		
TDEV8	L12		
TCAL	K12	PMU_TCAL	

DIG INPUT · ANA INPUT · RESET · I2C & SPI · TEMPERATURE

VREF	H12	PMU_VREF	
IREF	J12	PMU_IREF	
VRTC_E	M6	PMU_VDD_RTC	
VRTC*	D12		
DVDD	K11		
FORCE_SYNC	D9	PMU_SYNC	
OUT_32K	N10	CLK_PMU_TO_WLAN_32K	OUT 68
SLEEP_32K	N9	CLK_PMU_TO_AOP_32K	OUT 9 69
GPIO1	G10	GPIO_CPANEL_HALL_TO_PMU_IRQ_L	IN 23 69
GPIO2	G9	GPIO_WLAN_TO_PMU_HOST_WAKE	IN 68
GPIO3	G8	GPIO_ORION_TO_SOC_TO_PMU_IRQ	IN 6 58 69
GPIO4	G7	GPIO_BELFIELD_TO_PMU_WAKE_L (USE INTERNAL PU)	IN 26 69
GPIO5	H10	GPIO_PMU_TO_BB_VBUS_DET	OUT 68 69
GPIO6	H9	UART_BATT_HDQ	IN 6 66 69
GPIO7	H8	GPIO_BT_TO_PMU_HOST_WAKE	IN 68
GPIO8	H7	GPIO_PMU_TO_SOC_FORCE_DFU	OUT 67
GPIO9	J10	GPIO_BB_TO_PMU_HOST_WAKE_L	IN 68 69
GPIO10	J9	GPIO_CODEC_TO_PMU_WAKE_L	IN 26 69
GPIO11	J8	GPIO_APANEL_HALL_TO_PMU_IRQ_L	IN 27 69
GPIO12	J7	GPIO_TS_TO_SOC_TO_PMU_IRQ	IN 6 30 69
GPIO13	K10	GPIO_PMU_TO_AUTUMN_COMM	OUT 57
GPIO14	K9	GPIO_EUPHRATES_TO_PMU_WAKE	IN 63 70
GPIO15	K8	GPIO_EUPHRATES_TO_SOC_TO_PMU_IRQ_L	IN 6 63 70
GPIO16	K7	GPIO_PMU_TO_NAND_LOW_BATT_L	OUT 17
GPIO17	L7	GPIO_PMU_TO_1V1_EXT_SW_ON	OUT 64 70
GPIO18	L8	GPIO_PMU_TO_LCD_PWREN	OUT 31 32 69
GPIO19	L9	GPIO_PMU_TO_AUTUMN_LDO_ON	OUT 57 69
GPIO20	L10	GPIO_PMU_TO_AUTUMN_BUCK4_ON	OUT 57 69
GPIO21	C11	GPIO_PMU_TO_1V8_EXT_SW2_ON	OUT 64
GPIO22	F12	GPIO_PMU_TO_3V3_EXT_SW_ON	OUT 64
GPIO23	M7	GPIO_PMU_TO_EUPHRATES_LINCH_EN	OUT 63 70
AMUX_A0	T6	ADC_SOC_TO_PMU_ANALOGMUX_OUT	IN 5 70
AMUX_A1	R6	ADC_SOC_TO_PMU_VDD_CPU	IN 12 61 69
AMUX_A2	R5	ADC_SOC_TO_PMU_VDD_GPU	IN 12 61 69
AMUX_A3	T5	ADC_SOC_TO_PMU_VDD_SOC	IN 13 69
AMUX_AY	P6	TP_AMUX_AY	OUT 69
AMUX_B0	R7	ADC_BB_TO_PMU_SW1_VOUT	IN 68
AMUX_B1	P7	ADC_BB_TO_PMU_SW3_VOUT	IN 68
AMUX_B2	N6	ADC_BB_TO_PMU_PP_1V85	IN 68
AMUX_B3	N5	NC	
AMUX_BY	P5	TP_AMUX_BY	OUT 69
XTAL1	R18	PMU_EXTAL	
XTAL2	T18	PMU_XTAL	
ATM	L11		
IM_MEAS	L13		

GPIO · ANALOG MUX · CRYSTAL · MISC

CRITICAL=CRITICAL

RESISTOR FOR TEMP CALIBRATION

DFU GPIO OTP SETTING : HI-Z OR INPUT

NOTE: DONT CHANGE AUTUMN-AUGUST CONNECTIVITY FOR GPIO[19:20]

NOTE: MAY NEED TO CHANGE XTAL CKT BASED ON CHARACTERIZATION

PLACE CAPS AND XWS NEAR PMU

BUTTON PULLUPS

PP1V8_ALWAYS (71 63 61)
PP1V8_S3 (71 66 61 31)
R8395 100K 5% 1/32W MF 01005
R8396 100K 5% 1/32W MF 01005
GPIO_BTN_HOME_L (61 34)
GPIO_BTN_ONOFF_L (61 23)

R8399	0 5% 1/20W MF 0201	USB_TS_TO_PMU_BRICKID (30 IN)
C8301	0.01UF 10% 6.3V X5R 01005	
C8302	0.01UF 10% 6.3V X5R 01005	
R8372	NOSTUFF 100K 5% 1/32W MF 01005	
R8300	10K 5% 1/32W MF 01005	
R8301	10K 5% 1/32W MF 01005	
R8373	NOSTUFF 10K 5% 1/32W MF 01005	
R8370	10K 5% 1/32W MF 01005	
R8371	0.00 0% 1/32W MF 01005	VCCMAIN_DROOP_PMU_TO_SOC_L (69 6 OUT)
		SYS_ALIVE (70 63 17 10 OUT)
		RESET_PMU_TO_AUTUMN_EUPHRATES (63 57 BI)
		GPIO_PMU_TO_CPU_TRIGGER_1 (69 6 OUT)
		GPIO_PMU_TO_CPU_TRIGGER_0 (69 6 OUT)
		PP1V8_EXT_SW1 (71 61 8 6 4)
R8302	0.00 0% 1/32W MF 01005 NOSTUFF	
R8309	10K 5% 1/32W MF 01005	
R8310	10K 5% 1/32W MF 01005	
		GPIO_PMU_TO_GPU_TRIGGER_1 (69 6 OUT)
R8304	0.00 0% 1/32W MF 01005 NOSTUFF	
		GPIO_PMU_TO_GPU_TRIGGER_0 (69 6 OUT)
R8316	0.00 0% 1/32W MF 01005	RESET_PMU_TO_AUTUMN (57 OUT)
R8317	10K 5% 1/32W MF 01005 NOSTUFF	
R8306	0 5% 1/20W MF 0201	GPIO_AOP_TO_PMU_SLEEP1_REQUEST (70 9 IN)
R8307	0 5% 1/20W MF 0201	GPIO_AOP_TO_PMU_ACTIVE_REQUEST (70 9 IN)
R8331	10K 5% 1/32W MF 01005	PP1V8_S3 (31 61 66 71)
R8303	200K 0.5% 1/20W MF 0201	
C8305	0.1UF 10% 6.3V CERM-X5R 0201	
C8306	0.22UF 20% 6.3V X5R 0201	
R8305	0.00 0% 1/32W MF 01005	
C8316	CRITICAL 18PF 5% 25V C0G-CERM 0201	
C8315	CRITICAL 18PF 5% 25V C0G-CERM 0201	
Y8300	CRITICAL 32.768K-20PPM-12.5PF 2012-1	
C8340	100PF 5% 25V C0G-CERM 01005	
R8340	CRITICAL 3.92K 0.1% 0201 1/20W MF	

PLACE_NEAR=U2200.A1:5MM
R8328 CRITICAL 10KOHM-1%-0.31MA 0201 (TEMP2 - NEAR GRAPE)
C8328 100PF 5% 25V C0G-CERM 01005 NO_XNET_CONNECTION=1
BOARD_TEMP2_P (69) · BOARD_TEMP2_N · XW8328 SM

PLACE_NEAR=U4900.5O:5MM
R8321 CRITICAL 10KOHM-1%-0.31MA 0201 (TEMP3 - NEAR WIFI)
C8321 100PF 5% 25V C0G-CERM 01005 PLACE_NEAR=U8100.T11:13MM
BOARD_TEMP3_P (69) · BOARD_TEMP3_N · XW8321 SM

PLACE_NEAR=JZ800.2O:5MM
R8322 CRITICAL 10KOHM-1%-0.31MA 0201 (TEMP3 - NEAR FH)
C8322 100PF 5% 25V C0G-CERM 01005 PLACE_NEAR=U8100.T11:13MM
BOARD_TEMP4_P (69) · BOARD_TEMP4_N · XW8322 SM

PLACE_NEAR=U1800.R5:5MM
R8323 CRITICAL 10KOHM-1%-0.31MA 0201 (TEMP5 - NEAR NAND)
C8323 100PF 5% 25V C0G-CERM 01005 PLACE_NEAR=U8100.L5:13MM
BOARD_TEMP5_P (69) · BOARD_TEMP5_N · XW8323 SM

PLACE_NEAR=U8500.M1:5MM
R8324 CRITICAL 10KOHM-1%-0.31MA 0201 (TEMP6 - NEAR EUPHRATES)
C8324 100PF 5% 25V C0G-CERM 01005 PLACE_NEAR=U8100.T6:11MM
BOARD_TEMP6_P (69) · BOARD_TEMP6_N · XW8324 SM

PLACE_NEAR=U8100.W18:5MM
R8325 CRITICAL 10KOHM-1%-0.31MA 0201 (TEMP7 - NEAR PMU)
C8325 100PF 5% 25V C0G-CERM 01005 PLACE_NEAR=U8100.N4:10MM
BOARD_TEMP7_P (69) · BOARD_TEMP7_N · XW8325 SM

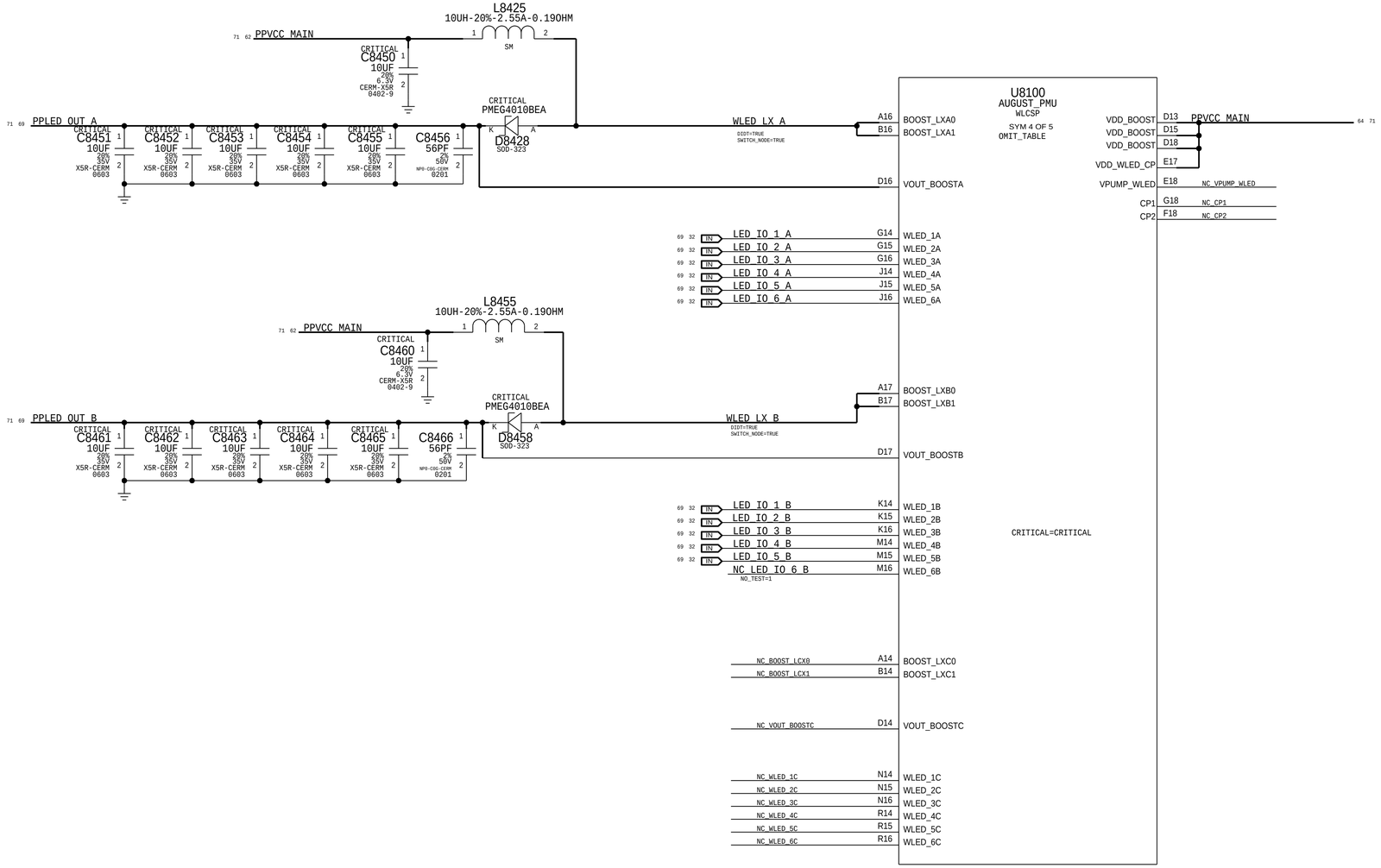
PLACE_NEAR=U0600.BB42:5MM
R8326 CRITICAL 10KOHM-1%-0.31MA 0201 (TEMP8 - NEAR SOC)
C8326 100PF 5% 25V C0G-CERM 01005 PLACE_NEAR=U8100.P5:11MM
BOARD_TEMP8_P (69) · BOARD_TEMP8_N · XW8326 SM

PMU_TCAL (69) · C8340 100PF 5% 25V C0G-CERM 01005 · R8340 CRITICAL 3.92K 0.1% 0201 1/20W MF

SYNC_MASTER=DEV_MYST	SYNC_DATE=03/30/2016
PAGE TITLE	POWER: AUGUST (3/4)

AUGUST BACKLIGHT

PART NUMBER	ALTERNATE FOR PART NUMBER	BOM OPTION	REF DES	COMMENTS:
371S0730	371S0490		D8428,ETC	RDAR://PROBLEM/26932011



SYNC_MASTER=DEV_MYST SYNC_DATE=03/30/2016

PAGE TITLE

POWER: AUGUST (4/4)

EUPHRATES

PART NUMBER	ALTERNATE FOR PART NUMBER	BOM OPTION	REF DES	COMMENTS:
376S00071	376S00073		Q8580,ECT	RDAR://PROBLEM/20277540
128S00059	128S00034		C8580,ECT	ALT FOR 47UF POLY TANT CAPS

U8500 D2355A0 WLCSP CRITICAL OMIT_TABLE

PPVBUS_PROT → J11 VBUS, K11 VBUS, L11 VBUS, M11 VBUS
C8500 10UF 20% 35V X5R-CERM 0603 CRITICAL
C8501 10UF 20% 35V X5R-CERM 0603 CRITICAL
C8502 10UF 20% 35V X5R-CERM 0603 CRITICAL

PPVDD_EUPHRATES_GPIO → H11 VDD_GPIO
PPVDD_EUPHRATES_CORE → G11 VDDCORE
PPVDD_REF_CHG → E4 VDD_REF_CHARGE_PH1, M4 VDD_REF_CHARGE_PH0, M7 VDD_REF_CHARGE
C8510 0.1UF 10% 16V X5R-CERM 0201
C8511 0.1UF 10% 16V X5R-CERM 0201
C8512 0.1UF 10% 16V X5R-CERM 0201
C8513 2.2UF 20% 25V X5R-CERM 0402-1 CRITICAL
C8516 0.1UF 10% 16V X5R-CERM 0201

C8514 0.1UF 10% 6.3V CERM-X5R 0201
NC_EUPHRATES_ADC_IN_POS → B11 ADC_IN_P
NC_EUPHRATES_ADC_IN_NEG → C11 ADC_IN_N
EUPHRATES_ADC_REF → E11 ADC_REF

70 58 IN OVP_SW_EN_L → R8520 4.7K 1/32W 5% MF 01005 → OVP_SW_EN_L_R → K9 VBUS_OVP_OFF(GPIO1)
61 57 BI RESET_PMU_TO_AUTUMN_EUPHRATES → M6 CRASH_L(GPIO2)
NC_EUPHRATES_BOOST_PRE_UVLO → H9 BOOST_PRE_UVLO(GPIO3)
70 61 IN GPIO_PMU_TO_EUPHRATES_LINCH_EN → R8521 0.00 1/32W 0% MF 01005 → GPIO_PMU_TO_EUPHRATES_LINCH_EN_R → D11 LINCH_EN(GPIO4)
70 63 61 OUT GPIO_EUPHRATES_TO_PMU_WAKE → D9 WAKEUP(GPIO5)
70 5 OUT USB_VBUS_DET → L6 USB_VBUS_DET(GPIO6)
70 63 61 17 10 IN SYS_ALIVE → R8522 0.00 1/32W 0% MF 01005 NO_XNET_CONNECTION=1 NOSTUFF
NC_GPIO_EUPHRATES_TO_PMU_VSYS_HI_SW → G9 VSYS_HI_SWITCH(GPIO7)
GPIO_PMU_TO_EUPHRATES_BOOST_EN → J9 BOOST_EN(GPIO8)
71 67 PP1V8_SW1 → R8523 0.00 1/32W 0% MF 01005
70 63 61 17 10 SYS_ALIVE → R8524 0.00 1/32W 0% MF 01005 NO_XNET_CONNECTION=1 NOSTUFF
70 63 61 6 OUT GPIO_EUPHRATES_TO_SOC_TO_PMU_IRQ_L → E10 IRQ*
B5 H_TEST_MODE
4 IN I2C0_SCL_1V8 → L5 SCL
4 BI I2C0_SDA_1V8 → M5 SDA
69 66 IN BATT_NTC → D10 TBAT
EUPHRATES_IREF → M9 IREF
EUPHRATES_VREF → M8 VREF
R8515 200K 0.5% 1/20W MF 0201
C8515 0.1UF 10% 6.3V CERM-X5R 0201

71 61 PP1V8_ALWAYS → R8525 10K 5% 1/32W MF 01005 → 70 63 61 GPIO_EUPHRATES_TO_PMU_WAKE
R8526 10K 5% 1/32W MF 01005 → 70 63 61 6 GPIO_EUPHRATES_TO_SOC_TO_PMU_IRQ_L

G10 VSSA_1, L7 VSSA_2, E6 VSSA_3
J1 VSS_PH0, J2 VSS_PH0, J3 VSS_PH0, J4 VSS_PH0
H1 VSS_PH1, H2 VSS_PH1, H3 VSS_PH1, H4 VSS_PH1
H10 VSSD_FRAME
E7 VSS_BOOST
A11, C1, C2, C3, D5, D8, E1, E5, E8, E9, F10, F11, F5, F6, F7, F8, F9, G6, G7, G8, H5, H6, H7, H8, J5, J6, J7, J8, K6, K7, K8, L8, L9, M1 VSS_ESD

NOTE: FOR NO BATTERY SITUATION
71 69 63 PPBATT_VCC
C8591 10UF 20% 6.3V CERM-X5R 0402-9 CRITICAL
C8592 10UF 20% 6.3V CERM-X5R 0402-9 CRITICAL
69 PPBATT_POS_RC
R8591 0.5 1% 1/10W MF 402

VCENTER_3 J10, K10, L10, M10
VCENTER_0 L4, L1, L2, L3
VCENTER_1 F1, F2, F3, F4
PPVCENTER 69
C8550 10UF 20% 35V X5R-CERM 0603 CRITICAL
C8551 10UF 20% 35V X5R-CERM 0603 CRITICAL
C8552 10UF 20% 35V X5R-CERM 0603 CRITICAL
C8555 0.1UF 10% 50V X5R-CERM 0402 CRITICAL
C8556 0.1UF 10% 50V X5R-CERM 0402 CRITICAL
C8557 0.1UF 10% 50V X5R-CERM 0402 CRITICAL

VBOOT_DRV0 M2, VBOOT_N0 M3 → EUPTES_VBOOT0
C8560 0.1UF 10% 50V X5R-CERM 0402 CRITICAL
LX_BOOT_PH0 K5 → EUPHRATES_VBOOT_PH0

VBOOT_DRV1 E2, VBOOT_N1 E3 → EUPHRATES_VBOOT1
C8561 0.1UF 10% 50V X5R-CERM 0402 CRITICAL
LX_BOOT_PH1 G5 → EUPHRATES_VBOOT_PH1

LX_PH0 K1, K2, K3, K4
LX_PH1 G1, G2, G3, G4 63
EUPHRATES_LX0
D8500 SOD-123W PMEG4030ER CRITICAL
L8570 1.5UH-20%-5.5A-0.03220HM PIHA051D-SM CRITICAL
EUPHRATES_LX1
D8501 SOD-123W PMEG4030ER CRITICAL
L8571 1.5UH-20%-5.5A-0.03220HM PIHA051D-SM CRITICAL
PPVCC_MAIN 63 69 71
C8570 10UF 20% 10V X5R-CERM 0402-7 CRITICAL
C8571 10UF 20% 10V X5R-CERM 0402-7 CRITICAL
C8572 10UF 20% 10V X5R-CERM 0402-7 CRITICAL
C8573 10UF 20% 10V X5R-CERM 0402-7 CRITICAL
C8574 10UF 20% 10V X5R-CERM 0402-7 CRITICAL

VSYS_LO_1 A9, B9, C9
VSYS_LO_2 A8, B8, C8
VSYS_LO_S D7

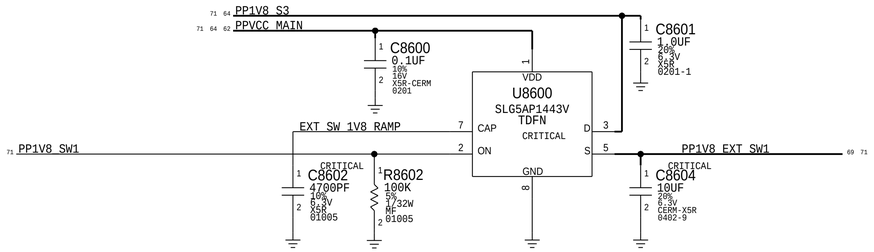
LX_BOOST D1, D2, D3, D4 → EUPHRATES_LX1 63
BOOST_HS_SUPPLY C5 → EUPHRATES_HS_SPLY
C8562 1.0UF 20% 10V X5R-CERM 0201-1 CRITICAL
BOOST_HS_SOURCE C4 → EUPHRATES_HS_SRC
VSYS_HI_S A5 → PPVCC_HIGH 69 71
C8580 47UF 20% 11V TANT-POLY CASE-A3-LLP CRITICAL
C8588 47UF 20% 11V TANT-POLY CASE-A3-LLP CRITICAL
C8589 47UF 20% 11V TANT-POLY CASE-A3-LLP CRITICAL
C8581 10UF 20% 6.3V CERM-X5R 0402 CRITICAL
C8582 10UF 20% 6.3V CERM-X5R 0402 CRITICAL
C8583 10UF 20% 6.3V CERM-X5R 0402 CRITICAL
C8584 1.0UF 20% 6.3V X5R 0201-1 CRITICAL

VSYS_HI B1, B2, B3, B4
EUPHRATES_HIGH_DIO → R8581 470K 5% 1/32W MF 01005 NOSTUFF
Q8581 FDMC6683-P MLP3.3X3.3 CRITICAL
VSYS_HI_EXT_DIO C6
VSYS_LO_BYPASS A1, A2, A3, A4 → PPVCC_MAIN 63 69 71
CHICKEN BIT IF EUPHRATES DOES NOT WORK (NOT IT WILL WORK... R1047? =)
VSYS_LO_EXT_DIO D6 → EUPHRATES_LOW_DIO
R8580 470K 5% 1/32W MF 01005 NOSTUFF
Q8580 FDMC6686P POWER33 CRITICAL

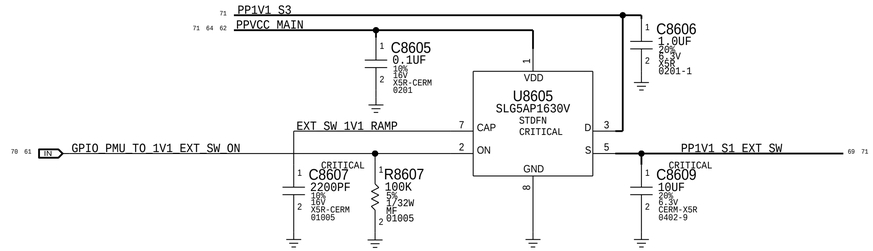
IBAT_1 A10, B10, C10
IBAT_2 A7, B7, C7
CHICKEN BIT IF EUPHRATES DOES NOT WORK (NOT IT WILL WORK... R1047? =)
IBAT_S A6
VBAT B6 → PPBATT_VCC 63 69 71
R8593 499 1% 1/20W MF 201
C8590 10UF 20% 10V X5R-CERM 0402-7 CRITICAL PLACE_NEAR=U8500,A7:3MM
BATT_SNS_R → R8592 0.00 0% 1/32W MF 01005 → BATT_SNS IN 66 69

SYNC_MASTER=DEV_MYST SYNC_DATE=03/30/2016
PAGE TITLE
POWER: CHARGER

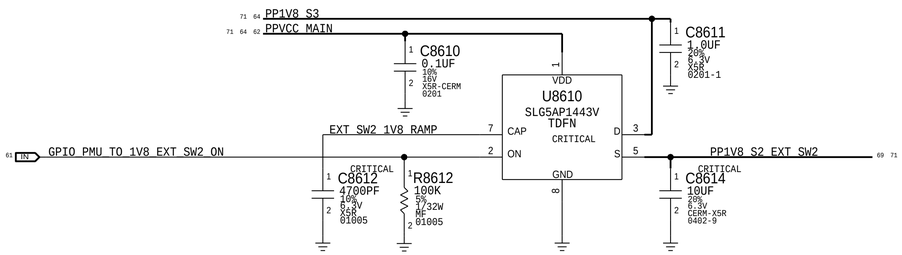
1.8V EXTERNAL SWITCH 1



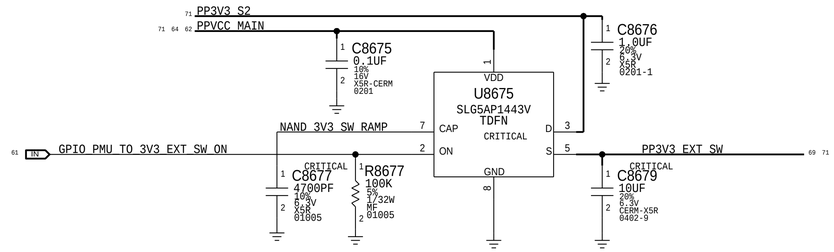
DDR 1.1V SWITCH



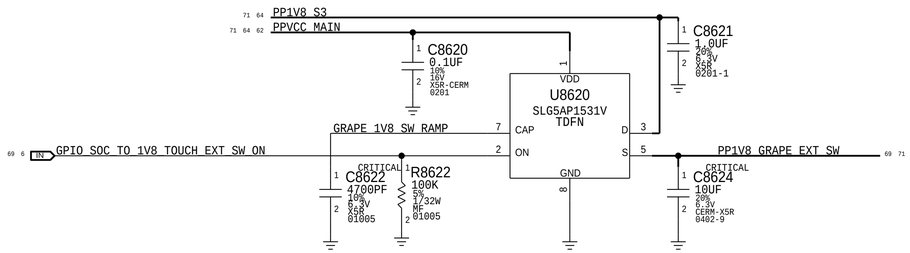
1.8V EXTERNAL SWITCH 2



NAND 3.3V SWITCH



GRAPE 1.8V SWITCH

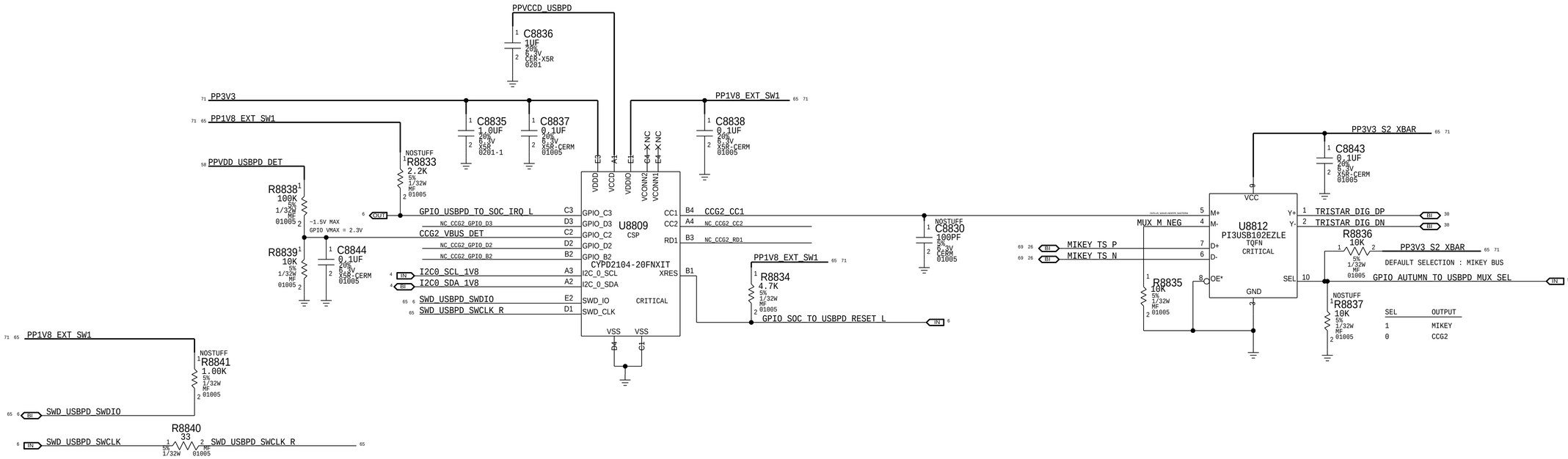


SYNC_MASTER=DEV_MYST SYNC_DATE=03/30/2016

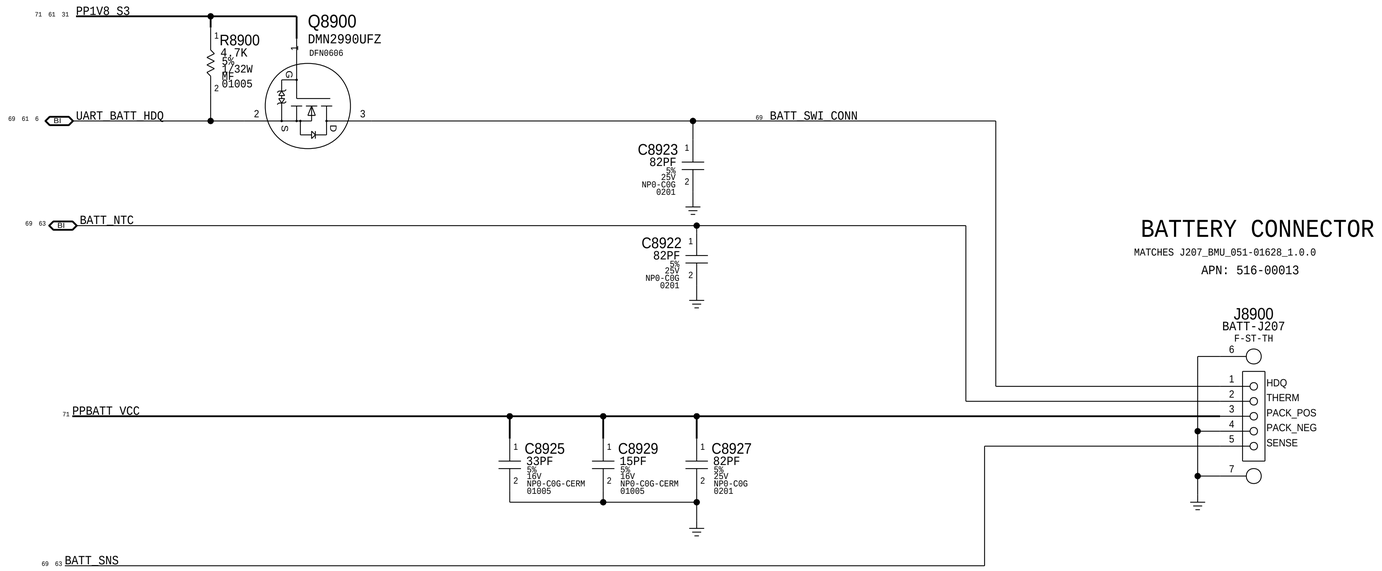
PAGE TITLE

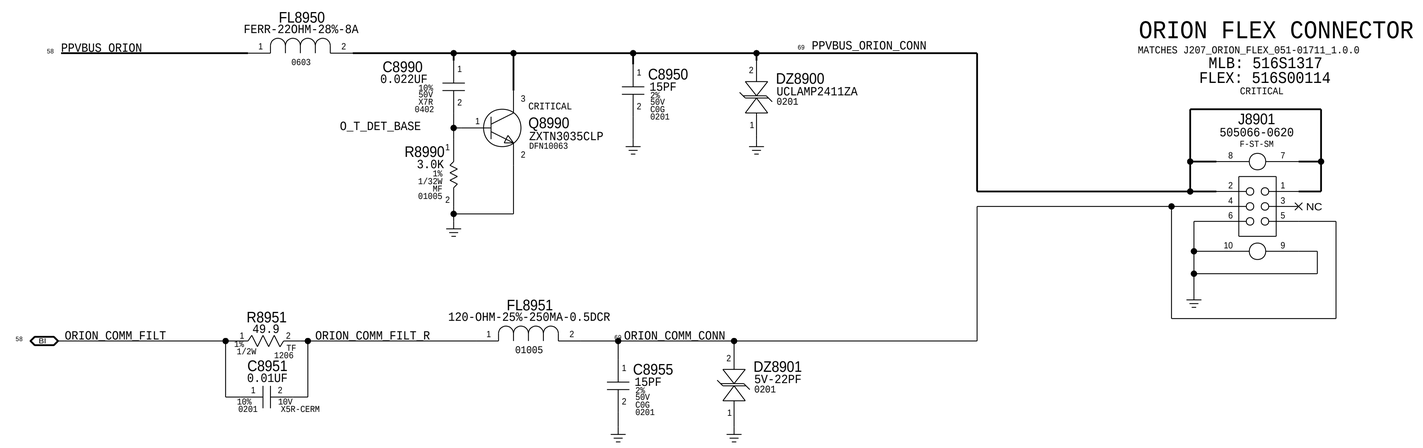
POWER: EXTERNAL SWITCHES & LDOS

USBPD



SYNC_MASTER=MLB_B_ELBA	SYNC_DATE=03/30/2016
PAGE TITLE	
POWER: USB PD	





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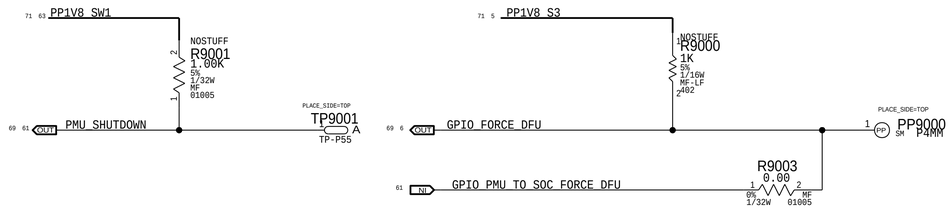
PAGE TITLE

POWER: BATTERY & ORION CONN

DEBUG RESET ACCESS



SYNC_MASTER=MLB_B_ELBA SYNC_DATE=03/30/2016

PAGE TITLE

SOC: DEBUG

CELLULAR AND WLAN/BT ALIASES

BASEBAND

SOC GPIOS

69 6	IN	GPIO_SOC_TO_BB_RADIO_ON_L	MAKE_BASE=TRUE	GPIO_SOC_TO_BB_RADIO_ON_L	OUT	37 51
69 6	IN	GPIO_SOC_TO_BB_RESET_L	MAKE_BASE=TRUE	GPIO_SOC_TO_BB_RESET_L	OUT	37 51
69 6	OUT	GPIO_BB_TO_SOC_RESET_DET_L	MAKE_BASE=TRUE	GPIO_BB_TO_SOC_RESET_DET_L	IN	41 51
6	IN	GPIO_SOC_TO_BB_COREDUMP	MAKE_BASE=TRUE	GPIO_SOC_TO_BB_COREDUMP	OUT	41 51
7	IN	GPIO_SOC_TO_BB_MESA_ON	MAKE_BASE=TRUE	GPIO_SOC_TO_BB_MESA_ON	OUT	41 51
68	IN	SWD_BB_SWCLK	MAKE_BASE=TRUE	SWD_BB_SWCLK	OUT	40 51
68 9	BI	SWD_BB_SWDIO	MAKE_BASE=TRUE	SWD_BB_SWDIO	BI	40 51
69 57	IN	GPIO_PMU_TO_BBPMU_RESET_L	MAKE_BASE=TRUE	GPIO_PMU_TO_BBPMU_RESET_L	OUT	37 51
69 61	IN	GPIO_PMU_TO_BB_VBUS_DET	MAKE_BASE=TRUE	GPIO_PMU_TO_BB_VBUS_DET	OUT	37 51
69 61	OUT	GPIO_BB_TO_PMU_HOST_WAKE_L	MAKE_BASE=TRUE	GPIO_BB_TO_PMU_HOST_WAKE_L	IN	41 51
9	IN	UART_AOP_TO_BB_TX	MAKE_BASE=TRUE	UART_AOP_TO_BB_TX	OUT	41 51
9	OUT	UART_BB_TO_AOP_TX	MAKE_BASE=TRUE	UART_BB_TO_AOP_TX	IN	41 51
6	OUT	GPIO_BB_TO_SOC_GPS_SYNC	MAKE_BASE=TRUE	GPIO_BB_TO_SOC_GPS_SYNC	IN	41 51
6	BI	GPIO_BB_IPC	MAKE_BASE=TRUE	GPIO_BB_IPC	BI	41 51

POWER

71	PPVCC_HIGH	PPVCC_HIGH	38
71	PPBATT_VCC	PPBATT_VCC	37 38 50

PCIE

8	IN	PCIE_SOC_TO_BB_REFCLK_P	MAKE_BASE=TRUE	PCIE_SOC_TO_BB_REFCLK_P	OUT	40 51
8	IN	PCIE_SOC_TO_BB_REFCLK_N	MAKE_BASE=TRUE	PCIE_SOC_TO_BB_REFCLK_N	OUT	40 51
70 8	OUT	PCIE_BB_TO_SOC_CLKREQ_L	MAKE_BASE=TRUE	PCIE_BB_TO_SOC_CLKREQ_L	IN	41
70 68 8	IN	PCIE_SOC_TO_BB_RESET_L	MAKE_BASE=TRUE	PCIE_SOC_TO_BB_RESET_L	OUT	37 41
8	OUT	PCIE_SOC_TO_BB_TX_C_P	MAKE_BASE=TRUE	PCIE_SOC_TO_BB_TX_C_P	IN	69
8	OUT	PCIE_SOC_TO_BB_TX_C_N	MAKE_BASE=TRUE	PCIE_SOC_TO_BB_TX_C_N	IN	69
70 8	OUT	PCIE_BB_TO_SOC_TX_P	MAKE_BASE=TRUE	PCIE_BB_TO_SOC_TX_P	IN	69
70 8	OUT	PCIE_BB_TO_SOC_TX_N	MAKE_BASE=TRUE	PCIE_BB_TO_SOC_TX_N	IN	69

USB

30	BI	USB_BB_P	MAKE_BASE=TRUE	USB_BB_P	BI	40 51
30	BI	USB_BB_N	MAKE_BASE=TRUE	USB_BB_N	BI	40 51

PMU ADC

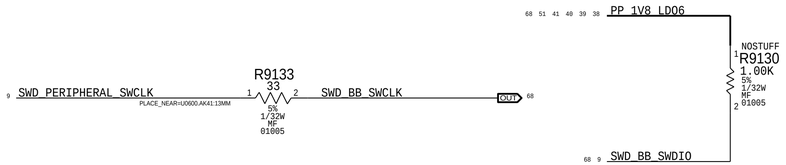
65	OUT	ADC_BB_TO_PMU_PP_1V85	MAKE_BASE=TRUE	ADC_BB_TO_PMU_PP_1V85	IN	38
65	OUT	ADC_BB_TO_PMU_SW1_VOUT	MAKE_BASE=TRUE	ADC_BB_TO_PMU_SW1_VOUT	IN	38
65	OUT	ADC_BB_TO_PMU_SW3_VOUT	MAKE_BASE=TRUE	ADC_BB_TO_PMU_SW3_VOUT	IN	38

25	OUT	GPIO_BB_TO_STROBE_GSM_BURST_IND	MAKE_BASE=TRUE	GPIO_BB_TO_STROBE_GSM_BURST_IND	IN	41 51

SIM CARD

31		SIM_TRAY_DETECT	MAKE_BASE=TRUE	SIM_TRAY_DETECT		41 51
31		SIMCRD_CLK_CONN	MAKE_BASE=TRUE	SIMCRD_CLK_CONN		41 51
31		PP2V85_SIM	MAKE_BASE=TRUE	PP2V85_SIM		38 39 41 68
31		SIMCRD_IO_CONN	MAKE_BASE=TRUE	SIMCRD_IO_CONN		41 51
31		SIMCRD_RST_CONN	MAKE_BASE=TRUE	SIMCRD_RST_CONN		41 51

BASEBAND SWD



WLAN

POWER

71	PP3V3_S2	PP3V3_S2	35
71	PP1V8_S2_EXT_SW2	PP1V8_S2_EXT_SW2	35

GPIOS

57	IN	GPIO_AUTUMN_TO_WLAN_REG_ON	MAKE_BASE=TRUE	GPIO_AUTUMN_TO_WLAN_REG_ON	OUT	35 69
61	OUT	GPIO_WLAN_TO_PMU_HOST_WAKE	MAKE_BASE=TRUE	GPIO_WLAN_TO_PMU_HOST_WAKE	IN	35 69
70 6	IN	GPIO_SOC_TO_WLAN_DEVICE_WAKE	MAKE_BASE=TRUE	GPIO_SOC_TO_WLAN_DEVICE_WAKE	OUT	35
61	IN	CLK_PMU_TO_WLAN_32K	MAKE_BASE=TRUE	CLK_PMU_TO_WLAN_32K	OUT	35 69
35	OUT	UART_BB2WLAN_COEX_TX	MAKE_BASE=TRUE	UART_BB2WLAN_COEX_TX	IN	41 51
70 35	IN	UART_WLAN2BB_COEX_TX	MAKE_BASE=TRUE	UART_WLAN2BB_COEX_TX	OUT	41 51
69 9	IN	GPIO_AOP_TO_WLAN_CONTEXT_A	MAKE_BASE=TRUE	GPIO_AOP_TO_WLAN_CONTEXT_A	OUT	35
69 9	IN	GPIO_AOP_TO_WLAN_CONTEXT_B	MAKE_BASE=TRUE	GPIO_AOP_TO_WLAN_CONTEXT_B	OUT	35

UART

70 6	IN	UART_SOC_TO_WLAN_TX	MAKE_BASE=TRUE	UART_SOC_TO_WLAN_TX	OUT	35
70 6	IN	UART_SOC_TO_WLAN_RTS_L	MAKE_BASE=TRUE	UART_SOC_TO_WLAN_RTS_L	OUT	35
70 6	OUT	UART_WLAN_TO_SOC_TX	MAKE_BASE=TRUE	UART_WLAN_TO_SOC_TX	IN	35
70 6	OUT	UART_WLAN_TO_SOC_RTS_L	MAKE_BASE=TRUE	UART_WLAN_TO_SOC_RTS_L	IN	35
CHIPSUS_WAIVE=SINGLE_NODENET FUNC_TEST=TRUE		TESTPOINT_JTAG_WLAN_TCK		TESTPOINT_JTAG_WLAN_TCK		35
		TP_JTAG_WLAN_TMS		TP_JTAG_WLAN_TMS		35
69 68		GPIO_WLAN_TO_SOC_ATSP	MAKE_BASE=TRUE	GPIO_WLAN_TO_SOC_ATSP		35

6	OUT	GPIO_WLAN_TO_SOC_ATSP_R	R9110 0.00 0% 1/32W MF 01005		GPIO_WLAN_TO_SOC_ATSP	68 69

PCIE

70 8	IN	PCIE_SOC_TO_WLAN_REFCLK_P	MAKE_BASE=TRUE	PCIE_SOC_TO_WLAN_REFCLK_P	OUT	35
70 8	IN	PCIE_SOC_TO_WLAN_REFCLK_N	MAKE_BASE=TRUE	PCIE_SOC_TO_WLAN_REFCLK_N	OUT	35
8	IN	PCIE_SOC_TO_WLAN_TX_P	MAKE_BASE=TRUE	PCIE_SOC_TO_WLAN_TX_P	OUT	35 70
8	IN	PCIE_SOC_TO_WLAN_TX_N	MAKE_BASE=TRUE	PCIE_SOC_TO_WLAN_TX_N	OUT	35 70
68		PCIE_WLAN_TO_SOC_TX_C_P	MAKE_BASE=TRUE	PCIE_WLAN_TO_SOC_TX_C_P	IN	35
68		PCIE_WLAN_TO_SOC_TX_C_N	MAKE_BASE=TRUE	PCIE_WLAN_TO_SOC_TX_C_N	IN	35
70 8	OUT	PCIE_WLAN_TO_SOC_CLKREQ_L	MAKE_BASE=TRUE	PCIE_WLAN_TO_SOC_CLKREQ_L	IN	35
70 8	IN	PCIE_SOC_TO_WLAN_RESET_L	MAKE_BASE=TRUE	PCIE_SOC_TO_WLAN_RESET_L	OUT	35

BLUETOOTH

SOC GPIOS

61	OUT	GPIO_BT_TO_PMU_HOST_WAKE	MAKE_BASE=TRUE	GPIO_BT_TO_PMU_HOST_WAKE	IN	35 69
57	IN	GPIO_AUTUMN_TO_BT_REG_ON	MAKE_BASE=TRUE	GPIO_AUTUMN_TO_BT_REG_ON	OUT	35 69
9	IN	GPIO_SOC_TO_BT_WAKE	MAKE_BASE=TRUE	GPIO_SOC_TO_BT_WAKE	OUT	35 70

UART

6	IN	UART_SOC_TO_BT_TX	MAKE_BASE=TRUE	UART_SOC_TO_BT_TX	OUT	35 70
6	IN	UART_SOC_TO_BT_RTS_L	MAKE_BASE=TRUE	UART_SOC_TO_BT_RTS_L	OUT	35 70
70 6	OUT	UART_BT_TO_SOC_TX	MAKE_BASE=TRUE	UART_BT_TO_SOC_TX	IN	35
70 6	OUT	UART_BT_TO_SOC_RTS_L	MAKE_BASE=TRUE	UART_BT_TO_SOC_RTS_L	IN	35

70 20 19 6	IN	GPIO_SOC_TO_BT_TO_GRAPE_TS_SYNC	MAKE_BASE=TRUE	GPIO_SOC_TO_BT_TO_GRAPE_TS_SYNC	OUT	35
70 19	IN	GPIO_TOUCH_TO_BT_SYNC	MAKE_BASE=TRUE	GPIO_TOUCH_TO_BT_SYNC	OUT	35

ROTTERDAM

POWER

71	PP3V0_S3_TRISTAR	PP3V0_S3_TRISTAR	54
71	PP1V8_S2_EXT_SW2	PP1V8_S2_EXT_SW2	54

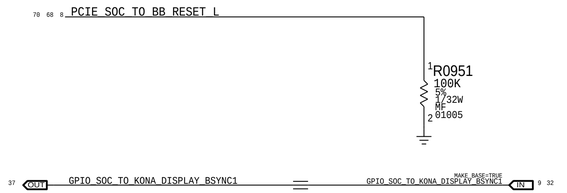
SOC GPIOS

6	IN	GPIO_SOC_TO_ROTTERDAM_DEV_WAKE	MAKE_BASE=TRUE	GPIO_SOC_TO_ROTTERDAM_DEV_WAKE	OUT	54
6	IN	GPIO_SOC_TO_ROTTERDAM_DWLD_REQ	MAKE_BASE=TRUE	GPIO_SOC_TO_ROTTERDAM_DWLD_REQ	OUT	54
6	IN	GPIO_SOC_TO_ROTTERDAM_EN	MAKE_BASE=TRUE	GPIO_SOC_TO_ROTTERDAM_EN	OUT	54

UART

6	IN	UART_SOC_TO_ROTTERDAM_TX	MAKE_BASE=TRUE	UART_SOC_TO_ROTTERDAM_TX	OUT	54
6	OUT	UART_ROTTERDAM_TO_SOC_TX	MAKE_BASE=TRUE	UART_ROTTERDAM_TO_SOC_TX	IN	54
6	IN	UART_SOC_TO_ROTTERDAM_RTS_L	MAKE_BASE=TRUE	UART_SOC_TO_ROTTERDAM_RTS_L	OUT	54
6	OUT	UART_ROTTERDAM_TO_SOC_RTS_L	MAKE_BASE=TRUE	UART_ROTTERDAM_TO_SOC_RTS_L	IN	54

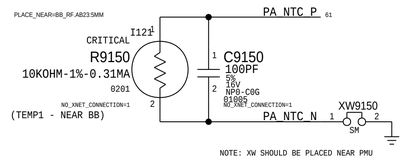
70 8	PCIE_WLAN_TO_SOC_TX_P	C9160 20% X5R GND_VOID=TRUE	1 | 2	0.1UF 01005 6.3V GND_VOID=TRUE	PCIE_WLAN_TO_SOC_TX_C_P	68
70 8	PCIE_WLAN_TO_SOC_TX_N	C9161 20% X5R GND_VOID=TRUE	1 | 2	0.1UF 01005 6.3V GND_VOID=TRUE	PCIE_WLAN_TO_SOC_TX_C_N	68



VOLTAGE PROPERTIES

160	PP_VSW_S5	38
161	PP_VSW_S4	38
162	PP_VSW_S3	38
163	PP_VSW_S2	38
164	PP_VSW_S1	38
165	PP_VPA_APT	50 52
166	PP_1V5_LDO1	38 39
167	PP_1V2_LDO2	38 39
168	PP_0V9_LDO3	38 42
169	PP_0V95_LDO4	38 39
170	PP_1V7_LDO5	38 39
171	PP_1V8_LDO6	38 39 40 41 51 68
172	PP_1V8_LDO7	37 38 39
173	PP_1V8_LDO8	38 39
174	PP_1V0_LDO9	38 39
175	PP_3V075_LDO10	38 39
176	PP2V85_SIM	38 39 41 68
177	PP_2V7_LDO12	38 46 47 48
178	VDD_SIM2	38 39 41 51
179	PP_1V8_LDO14	38 44
180	PP_1V8_LDO15	23 27 38 46 47 48 49 52 53
181	PP_VDD_XCVR1_RF1_TX	42
182	PP_VDD_XCVR1_RF1_RX	42
183	PP_VDD_XCVR1_RF1_DIG	42
184	PP_VDD_XCVR0_RF1_TX_VCO	42
185	PP_VDD_XCVR0_RF1_TX	42
186	PP_VDD_XCVR0_RF1_RX2	42
187	PP_VDD_XCVR0_RF1_RX1	42
188	PP_VDD_XCVR0_RF1_DIG	42
189	PP_QPOET_VCC_PA	50 52 53
190	PP_PA_VBATT	50 52 53
191	PP_MHBLN_RF	48
192	PP_MLBLN_RF	48
193	PP_1V8_LDO15_PAD	52
194	PP_1V8_LDO15_PA	53
1115	PP_1V225_SMPS2	38 51
1116	PP_1V0_SMPS5	38 39 51
1256	PP_0V9_SMPS1	38 39 51
1258	PP_1V0_SMPS3	38 51
1297	PP_1V85_SMPS4	38 42 51
1299	PP_UATCP_VIO	46
1300	PP_LATCP_VIO	46

BASEBAND NTC



NOTE: XW SHOULD BE PLACED NEAR PMU

SYNC_DATE=

PAGE TITLE

ALIASES: BB/WLAN/BT

SMT TEST FIXTURE TP

POWER - BUCKS

TP9301	A	1	PPVDD_CPU	
TP9302	A	1	PPVDD_GPU	
TP9303	A	1	PPVDD_S1_FIXED_SOC	
TP9304	A	1	PP1V8_S3	
TP9305	A	1	PP1V8_SW1	
TP9306	A	1	PP1V8_EXT_SW1	
TP9307	A	1	PP1V8_SW1_CAM	
TP9308	A	1	PP1V8_S2_EXT_SW2	
TP9309	A	1	PP1V8_SW2_SPARE	
TP9310	A	1	PP1V8_S3_SW3	
TP9311	A	1	PP1V1_S3	
TP9312	A	1	PP1V1_SW1_SPARE	
TP9314	A	1	PP1V1_S1_EXT_SW	
TP9316	A	1	PP3V3_S2	
TP9318	A	1	PP3V3_EXT_SW	
TP9319	A	1	PPVDD_CPU_SRAM	
TP9320	A	1	PPVDD_GPU_SRAM	
TP9321	A	1	PP1V8_GRAPE_EXT_SW	
TP9384	A	1	PP2V9_PVDD_CAM_REAR	
TP9385	A	1	PP1V5_CAMERA	

POWER - LDOS

TP9322	A	1	PP3V0_S3_TRISTAR	
TP9323	A	1	PP1V8_S2_VA_VCP	
TP9324	A	1	PP3V3_S2_XBAR	
TP9325	A	1	PP3V0_ALS	
TP9326	A	1	PPVDD_SPARE_LDO5	
TP9327	A	1	PP3V3_ACC	
TP9328	A	1	PP3V3	
TP9329	A	1	PP3V0V5_S3_MESA	
TP9330	A	1	PP1V19_FRONT_CAM	
TP9331	A	1	PP0V9_NAND	
TP9332	A	1	PP3V0_SPARE_LDO11	
TP9333	A	1	PP3V0_UT_SVDD	
TP9334	A	1	PP1V2_SOC	
TP9335	A	1	PP0V775_S3_SOC_AOP	
TP9336	A	1	PP1V8_S3_MESA	
TP9386	A	1	PP3V3_GRAPE	
TP9387	A	1	PP1V8_HAWKING	
TP9388	A	1	PPVDD_SPARE_LDO22	

POWER - OTHER

TP9340	A	1	PPVCENTER	
TP9341	A	1	PPVBUS_PROT	
TP9342	A	1	PPVCC_HIGH	
TP9343	A	1	PP1V8_ALWAYS	6 60 71
TP9344	A	1	PPBATT_VCC	63 69 71
TP9345	A	1	PPLED_OUT_A	
TP9346	A	1	PPLED_OUT_B	
TP9347	A	1	PPVCC_MAIN	
TP9348	A	1	PPBATT_POS_RC	
TP9349	A	1	PPVBUS_USB_EMI	30 58 69
TP934A	A	1	PP16V0_MESA	34

POWER - CAMERA (NH)

TP9350	A	1	PP1V19_CAM_FRONT_CONN	24
TP9351	A	1	PP1V8_CAM_FRONT_CONN	24
TP9352	A	1	PP2V9_AVDD_CAM_FRONT_CONN	24

POWER - CAMERA (UT)

TP9353	A	1	PP1V19_CAM_REAR_CONN	23
TP9354	A	1	PP1V8_CAM_REAR_CONN	23
TP9355	A	1	PP2V85_AVDD_CAM_REAR_CONN	23
TP9356	A	1	PP3V0_UT_SVDD_CONN	23
TP9357	A	1	PP2V9_PVDD_CAM_REAR_CONN	23

POWER - DISPLAY

TP9360	A	1	PPVCC_MAIN_LCD_SW_CONN	32 33
TP9361	A	1	PPVCC_MAIN_LCD_SW	33

POWER - BACKLIGHT

TP9362	A	1	PPLED_BACK_REG_A	32 33
TP9363	A	1	LED_IO_1_A	32 62
TP9364	A	1	LED_IO_2_A	32 62
TP9365	A	1	LED_IO_3_A	32 62
TP9366	A	1	LED_IO_4_A	32 62
TP9367	A	1	LED_IO_5_A	32 62
TP9374	A	1	LED_IO_6_A	32 62
TP9368	A	1	PPLED_BACK_REG_B	32 33
TP9369	A	1	LED_IO_1_B	32 62
TP9370	A	1	LED_IO_2_B	32 62
TP9371	A	1	LED_IO_3_B	32 62
TP9372	A	1	LED_IO_4_B	32 62
TP9373	A	1	LED_IO_5_B	32 62

BATTERY

TP9380	A	1	BATT_SWI_CONN	66
TP9381	A	1	BATT_NTC	63 66
TP9382	A	1	BATT_SNS	63 66
TP9383	A	1	UART_BATT_HDQ	6 61 66

TRISTAR

TP938A	A	1	GPIO_TS_TO_SOC_TO_PMU_IRQ	6 30 61
TP938B	A	1	RESET_TS_TO_PMU	30 61

PMU

TP93A0	A	1	GPIO_WLAN_TO_PMU_HOST_WAKE	35 68
TP93A1	A	1	GPIO_BT_TO_PMU_HOST_WAKE	35 68
TP93A2	A	1	GPIO_BB_TO_PMU_HOST_WAKE_L	61 68
TP93A3	A	1	PMU_TCAL	61
TP93A4	A	1	BOARD_TEMP2_P	61
TP93A5	A	1	BOARD_TEMP3_P	61
TP93A6	A	1	BOARD_TEMP4_P	61
TP93A7	A	1	BOARD_TEMP5_P	61
TP93A8	A	1	BOARD_TEMP6_P	61
TP93A9	A	1	BOARD_TEMP7_P	61
TP93B0	A	1	BOARD_TEMP8_P	61
TP93B1	A	1	TP_AUTUMN_AMUX_AY	57
TP93B3	A	1	TP_AMUX_AY	61
TP93B4	A	1	TP_AMUX_BY	61
TP93B5	A	1	SPI_SOC_TO_PMU_DATA	9 61
TP93B6	A	1	SPI_PMU_TO_SOC_DATA	9 61
TP93B7	A	1	SPI_SOC_TO_PMU_SCLK	9 61
TP93B8	A	1	GPIO_PMU_TO_CPU_TRIGGER_0	6 61
TP93B9	A	1	GPIO_PMU_TO_CPU_TRIGGER_1	6 61
TP93BA	A	1	VCCMAIN_DROOP_PMU_TO_SOC_L	6 61
TP93BB	A	1	SOCHOT1_SOC_TO_PMU_L	6 61
TP93BC	A	1	PMU_SHUTDOWN	61 67
TP93BD	A	1	GPIO_PMU_TO_GPU_TRIGGER_0	6 61
TP93BE	A	1	GPIO_PMU_TO_GPU_TRIGGER_1	6 61
TP93BF	A	1	BOARD_TEMP_C3_P	23 57
TP93BG	A	1	BOARD_TEMP_C4_P	27 57
TP93BH	A	1	GPIO_PMU_TO_SOC_BTN_HOME_L	9 61
TP93BI	A	1	GPIO_PMU_TO_SOC_BTN_ONOFF_L	9 61
TP93BJ	A	1	GPIO_PMU_TO_AUTUMN_LDO_ON	57 61
TP93BK	A	1	GPIO_PMU_TO_AUTUMN_BUCK4_ON	57 61
TP93BL	A	1		

SOC - JTAG/RESET

TP93C1	A	1	JTAG_SOC_SEL	4 5
TP93C2	A	1	JTAG_SOC_TCK	5 30
TP93C3	A	1	JTAG_SOC_TMS	5 30
TP93C4	A	1	TP_JTAG_SOC_TDI	5
TP93C5	A	1	TP_JTAG_SOC_TRST_L	4 5
TP93C6	A	1	TP_JTAG_SOC_TDO	5
TP93C7	A	1	SOC_TESTMODE	4 5
TP93C8	A	1	RESET_PMU_TO_SYSTEM_L	5 9 61 70
TP93C9	A	1	GPIO_FORCE_DFU	6 67

SOC - UART

TP93D0	A	1	UART_SOC_TO_DEBUG_TX	6 30
TP93D1	A	1	UART_DEBUG_TO_SOC_TX	6 30

SOC - USB

TP93D2	A	1	USB_SOC_N	5 30
TP93D3	A	1	USB_SOC_P	5 30

E75

TP93D4	A	1	E75_ACC_DET_CONN_L	30 31
TP93D5	A	1	PPVBUS_E75_USB_CONN	30 31 69
TP93D6	A	1	PPOUT_E75_ACC_ID1_CONN	30 31
TP93D7	A	1	PPOUT_E75_ACC_ID2_CONN	30 31
TP93D8	A	1	E75_DPAIR1_N	30 31
TP93D9	A	1	E75_DPAIR1_P	30 31
TP93E0	A	1	E75_DPAIR2_N	30 31
TP93E1	A	1	E75_DPAIR2_P	30 31
TP93EB	A	1	PPVBUS_USB_EMI	30 58 69

ORION

TP93E2	A	1	PPVBUS_ORION_RVP	58
TP93E3	A	1	PPVBUS_ORION_CONN	66 69
TP93E9	A	1	ORION_COMM_CONN	66
TP93EA	A	1	GPIO_ORION_TO_SOC_TO_PMU_IRQ	6 58 61

AUDIO - HEADPHONE

TP93E5	A	1	CODEC_HP_HEADSET_DET_CONN	26 27
TP93E6	A	1	CODEC_HP_HS3_CONN	26 27
TP93E7	A	1	CODEC_HP_HS3_REF_CONN	26 27
TP93E8	A	1	CODEC_HP_HS4_CONN	26 27
TP93E9	A	1	CODEC_HP_HS4_REF_CONN	26 27
TP93F0	A	1	CODEC_HP_LEFT_CONN	26 27
TP93F1	A	1	CODEC_HP_RIGHT_CONN	26 27

AUDIO - SPEAKER AMPS

TP93F2	A	1	PPVBOOST_R_CN	28
TP93F3	A	1	PPVBOOST_L_CN	28
TP93F4	A	1	PPVBOOST_R_FH	29
TP93F5	A	1	PPVBOOST_L_FH	29
TP93FA	A	1	GPIO_SPKRAMP_TO_SOC_IRQ_L	9 28 29
TP93FB	A	1	TDM_SPKRAMP_TO_SPKRAMP_ICC	28 29

AUDIO - CODEC

TP93F6	A	1	GPIO_CODEC_TO_PMU_WAKE_L	26 61
TP93F7	A	1	GND_AUDIO_CODEC	26
TP93F8	A	1	MIKEY_TS_P	26 65
TP93F9	A	1	MIKEY_TS_N	26 65

POWER - SENSORS

TP93G0	A	1	PP1V8_CARBON_FILT	18
TP93G2	A	1	PP1V8_PHOS_FILT	18
TP93G3	A	1	PP1V8_MAGNESIUM_FILT	18

BUTTONS

TP93G4	A	1	GPIO_BTN_HOME_L_CONN	32 34
TP93G5	A	1	GPIO_BTN_ONOFF_L_CONN	23
TP93G6	A	1	GPIO_BTN_VOL_UP_L_CONN	23
TP93G7	A	1	GPIO_BTN_VOL_DOWN_L_CONN	23

I2C

TP93G8	A	1	I2C0_SCL_1V8	4 6
TP93G9	A	1	I2C0_SDA_1V8	4 6
TP93GA	A	1	I2C1_SCL_1V8	4 6
TP93GB	A	1	I2C1_SDA_1V8	4 6
TP93GC	A	1	I2C2_SCL_1V8	4 6
TP93GD	A	1	I2C2_SDA_1V8	4 6
TP93GE	A	1	I2C3_SCL_1V8	4 6
TP93GF	A	1	I2C3_SDA_1V8	4 6

BASEBAND

TP93H0	A	1	GPIO_PMU_TO_BBPMU_RESET_L	57 68
TP93H1	A	1	GPIO_SOC_TO_BB_RADIO_ON_L	6 68
TP93H2	A	1	GPIO_BB_TO_SOC_RESET_DET_L	6 68
TP93H3	A	1	GPIO_SOC_TO_BB_RESET_L	6 68
TP93H4	A	1	GPIO_PMU_TO_BB_VBUS_DET	61 68

BASEBAND - SIM CARD

TP93H6	A	1	SIM_TRAY_DETECT_FILT	31
TP93H7	A	1	SIMCRD_CLK_CONN_FILT	31
TP93H8	A	1	SIMCRD_IO_CONN_FILT	31
TP93H9	A	1	SIMCRD_RST_CONN_FILT	31

WIFI/BT

TP93I0	A	1	GPIO_AUTUMN_TO_BT_REG_ON	35 68
TP93I1	A	1	GPIO_AUTUMN_TO_WLAN_REG_ON	35 68
TP93I2	A	1	CLK_PMU_TO_WLAN_32K	35 68
TP93I9	A	1	TP_JTAG_WLAN_TMS	68
TP93IA	A	1	GPIO_WLAN_TO_SOC_ATSP	68
TP93IB	A	1	JTAG_WLAN_SEL	35
TP93IC	A	1	TESTPOINT_JTAG_WLAN_TCK	68
TP93ID	A	1	GPIO_AOP_TO_WLAN_CONTEXT_A	9 68
TP93IE	A	1	GPIO_AOP_TO_WLAN_CONTEXT_B	9 68
TP93IF	A	1		

CAMERA - NH

TP93I3	A	1	ISP_CAM_FRONT_CLK_CONN	24
TP93I4	A	1	ISP_CAM_FRONT_SCL_CONN	24
TP93I5	A	1	ISP_CAM_FRONT_SDA_CONN	24
TP93I6	A	1	ISP_CAM_FRONT_SHUTDOWN_L_CONN	24

CAMERA - UT

TP93I7	A	1	ISP_CAM_UT_CLK_CONN	23
TP93I8	A	1	ISP_CAM_UT_SCL_CONN	23
TP93I9	A	1	ISP_CAM_UT_SDA_CONN	23
TP93J0	A	1	ISP_CAM_UT_SHUTDOWN_L_CONN	23

MESA

TP93J1	A	1	GPIO_MESA_TO_SOC_IRQ	6 34
TP93JC	A	1	PP16V6_MESA	34
TP93JD	A	1	GPIO_MESA_TO_BOOST_ENABLE	34

HALL EFFECT

TP93J5	A	1	GPIO_APANEL_HALL_TO_PMU_IRQ_L	27 61
TP93J6	A	1	GPIO_CPANEL_HALL_TO_PMU_IRQ_L	23 61

ALS

TP93J7	A	1	GPIO_ALS_C3_TO_SOC_IRQ_L	6 23
TP93J8	A	1	GPIO_ALS_C4_TO_SOC_IRQ_L	6 27

DISPLAY

TP93J9	A	1	LPDP_TCON_TO_SOC_HPD	7 33
TP93K0	A	1	GPIO_PMU_TO_LCD_PWREN	31 32 61

AOP

TP93K1	A	1	CLK_PMU_TO_AOP_32K	9 61

AUDIO - DIGITAL MICS

TP93K2	A	1	DMIC1_MIC_SCLK_CONN	27
TP93K3	A	1	DMIC1_MIC_SD_CONN	27

AUDIO- BELFIELD

TP93R0	A	1	GPIO_BELFIELD_TO_PMU_WAKE_L	26 61
TP93R1	A	1	GPIO_BELFIELD_TO_SOC_IRQ_L	6 26

CAMERA-STROBE/HAWKING

TP93K6	A	1	PPSTROBE1_COOL_LED_CONN	23 25
TP93K7	A	1	PPSTROBE1_WARM_LED_CONN	23 25
TP93K8	A	1	PPSTROBE2_COOL_LED_CONN	23 25
TP93M0	A	1	PPSTROBE2_WARM_LED_CONN	23 25
TP93M1	A	1	LED_DRIVER_NTC_CONN	23 25
TP93M2	A	1	GPIO_REAR_CAM_TO_STROBE_EN	23 25
TP93M3	A	1	PPSTROBE1_BST	25
TP93M4	A	1	PPSTROBE2_BST	25
TP93M5	A	1	IRIS_AVOUT	22 23
TP93M6	A	1	ISP_STB_SCL	7 25
TP93M7	A	1	ISP_STB_SDA	7 25
TP93M8	A	1	GPIO_SOC_TO_LED_DRIVER_EN	6 25

TOUCH

TP93N1	A	1	PP15V0_TOUCH_FILT	19 20
TP93N2	A	1	PP2V8_KONA_M_VDDANA	19
TP93N3	A	1	PP2V8_KONA_S_VDDANA	20
TP93N4	A	1	KONA_BOOST_VBAT	19
TP93N5	A	1	KONA_BOOST_EN	19
TP93N6	A	1	GPIO_SOC_TO_1V8_TOUCH_EXT_SW_ON	6 64

SOC - ACC UART

TP93N8	A	1	UART_SOC_TO_ACC_TX	6 30
TP93N9	A	1	UART_ACC_TO_SOC_TX	6 30

SOC - GND

TP93NA	A	1	TP_VSS_SENSE	14
TP93NB	A	1	TP_VSS_CPU_SENSE	14

SOC - POWER

TP93NC	A	1	ADC_SOC_TO_PMU_VDD_CPU	12 61
TP93ND	A	1	ADC_SOC_TO_PMU_VDD_GPU	12 61
TP93NE	A	1	ADC_SOC_TO_PMU_VDD_SOC	13 61

PLACE VSS SENSE TEST POINTS NEAR BY

ORION

TP939F	A	1		
TP939C	A	1	PPVBUS_ORION_CONN	66 69

TP939F: TP-1P0-TOP
TP939C: TP-1P0-TOP

TP939G	A	1		
TP939E	A	1		

TP939G: TP-1P0-TOP
TP939E: TP-1P0-TOP

TP9390	A	1	PLACE_NEAR=J3700.19:20MM	
TP9391	A	1	PLACE_NEAR=J3700.19:20MM	
TP9392	A	1	PLACE_NEAR=J3700.19:20MM	PPVBUS_E75_USB_CONN 30 31 69
TP9393	A	1	PLACE_NEAR=J3700.9:30MM	
TP9394	A	1	PLACE_NEAR=J3700.9:30MM	
TP9395	A	1	PLACE_NEAR=J3700.9:30MM	

TP9390: TP-1P0-TOP
TP9391: TP-1P0-TOP
TP9392: TP-1P0-TOP
TP9393: TP-1P0-TOP
TP9394: TP-1P0-TOP
TP9395: TP-1P0-TOP

TP9396	A	1	PLACE_NEAR=J8900.4:15MM	
TP9397	A	1	PLACE_NEAR=J8900.4:15MM	
TP9398	A	1	PLACE_NEAR=J8900.4:15MM	

TP9396: TP-1P0-TOP
TP9397: TP-1P0-TOP
TP9398: TP-1P0-TOP

TP9399	A	1	PLACE_NEAR=J8900.3:15MM	
TP939A	A	1	PLACE_NEAR=J8900.3:15MM	
TP939B	A	1	PLACE_NEAR=J8900.3:15MM	PPBATT_VCC 63 69 71

TP9399: TP-1P0-TOP
TP939A: TP-1P0-TOP
TP939B: TP-1P0-TOP

CAN MOUNTING HOLES

DRILL SIZE: 1.1MM X 0.4MM
PLATING SIZE: 1.4MM X 0.7MM
APN: 998-2691

SL9300 TH-NSP — SL-1.1X0.4-1.4X0.7
SL9301 TH-NSP — SL-1.1X0.4-1.4X0.7
SL9303 TH-NSP — SL-1.1X0.4-1.4X0.7
SL9304 TH-NSP — SL-1.1X0.4-1.4X0.7
SL9305 TH-NSP — SL-1.1X0.4-1.4X0.7
SL9310 TH-NSP — SL-1.1X0.4-1.4X0.7
SL9311 TH-NSP — SL-1.1X0.4-1.4X0.7

STANDOFFS

APN:860-00677 (TH), 860-00676/00522 (SMT)

STD9312 3.3X1.8R-1.4ID-1.1H-SM
STD9313 3.3X1.8R-1.4ID-1.1H-SM
STD9314 3.3X1.8R-1.4ID-1.1H-SM
STD9315 3.3X1.8R-1.4ID-1.1H-SM
STD9320 STDOFF-3.8X2.5R-1.1H-TH
STD9321 STDOFF-3.8X2.5R-1.1H-TH
STD9316 3.3X1.8R-1.4ID-1.1H-SM
STD9317 3.3X1.8R-1.4ID-1.185H-SM
STD9318 3.3X1.8R-1.4ID-1.185H-SM
STD9319 3.3X1.8R-1.4ID-1.1H-SM
STD9322 3.3X1.8R-1.4ID-1.1H-SM
STD9323 3.3X1.8R-1.4ID-1.1H-SM

FIDUCIALS

FID9300 FID 0P5SM1P0SQ-NSP
FID9301 FID 0P5SM1P0SQ-NSP
FID9302 FID 0P5SM1P0SQ-NSP
FID9303 FID 0P5SM1P0SQ-NSP
FID9304 FID 0P5SM1P0SQ-NSP
FID9305 FID 0P5SM1P0SQ-NSP

SYNC_MASTER=MLB_B_ELBA
SYNC_DATE=03/30/2016
PAGE TITLE
TEST: TPS/HOLES/FIDUCUALS

EE CHARACTERIZATION PP/TP

SOC

PUT BACK PLACE_SIDE=TOP FOR CHINA BUILD

PP9501 P3MM SM	PP	1	RESET_PMU_TO_SYSTEM_L	5 9 61 69
PP9502 P3MM SM	PP	1	TP_GPIO_DFU_STATUS	6
PP9504 P3MM SM	PP	1	ADC_SOC_TO_PMU_ANALOGMUX_OUT	5 61
PP950A P3MM SM	PP	1	GPIO_AOP_TO_PMU_SLEEP1_REQUEST	9 61
PP950B P3MM SM	PP	1	GPIO_PMU_TO_SYS_SLEEP1_READY	9 10 61
PP950C P3MM SM	PP	1	GPIO_AOP_TO_PMU_ACTIVE_REQUEST	9 61
PP950D P3MM SM	PP	1	GPIO_PMU_TO_SYSTEM_ACTIVE_READY	5 9 30 31 61
PP950E P3MM SM	PP	1	I2C_AOP_SCL_1V8	4 9
PP950F P3MM SM	PP	1	I2C_AOP_SDA_1V8	4 9

CODEC I2S

PP9510 P4MM SM	PP	1	I2S_AOP_TO_CODEC_BCLK	9 26
PP9511 P4MM SM	PP	1	I2S_AOP_TO_CODEC_LRCK	9 26
PP9512 P4MM SM	PP	1	I2S_AOP_TO_CODEC_DOUT	9 26
PP9513 P4MM SM	PP	1	I2S_CODEC_TO_AOP_DOUT	9 26

BELFIELD I2S

PP9514 P4MM SM	PP	1	I2S0_SOC_TO_BELFIELD_BCLK	6 26
PP9515 P4MM SM	PP	1	I2S0_SOC_TO_BELFIELD_LRCK	6 26
PP9516 P4MM SM	PP	1	I2S0_SOC_TO_BELFIELD_DOUT	6 26
PP9517 P4MM SM	PP	1	I2S0_BELFIELD_TO_SOC_DOUT	6 26
PP9518 P4MM SM	PP	1	I2S0_SOC_TO_BELFIELD_MCLK	6 26

FH SPEAKER I2S

PP9520 P4MM SM	PP	1	I2S1_SOC_TO_SPKRAMP_FH_MCLK	6 29
PP9521 P4MM SM	PP	1	I2S1_SOC_TO_SPKRAMP_FH_BCLK	6 29
PP9522 P4MM SM	PP	1	I2S1_SOC_TO_SPKRAMP_FH_LRCK	6 29
PP9523 P4MM SM	PP	1	I2S1_SOC_TO_SPKRAMP_FH_DOUT	6 29
PP9524 P4MM SM	PP	1	I2S1_SPKRAMP_FH_TO_SOC_DOUT	6 29

CN SPEAKER I2S

PP9525 P4MM SM	PP	1	I2S2_SOC_TO_SPKRAMP_CN_MCLK	6 28
PP9526 P4MM SM	PP	1	I2S2_SOC_TO_SPKRAMP_CN_BCLK	6 28
PP9527 P4MM SM	PP	1	I2S2_SOC_TO_SPKRAMP_CN_LRCK	6 28
PP9528 P4MM SM	PP	1	I2S2_SOC_TO_SPKRAMP_CN_DOUT	6 28
PP9529 P4MM SM	PP	1	I2S2_SPKRAMP_CN_TO_SOC_DOUT	6 28

HAWKING

PP952A P4MM SM	PP	1	I2S3_SOC_TO_HAWKING_BCLK	6 22
PP952B P4MM SM	PP	1	I2S3_SOC_TO_HAWKING_LRCK	6 22
PP952C P4MM SM	PP	1	I2S3_HAWKING_TO_SOC_DOUT	6 22

EUPHRATES

PP9539 P4MM SM	PP	1	SYS_ALIVE	10 17 61 63

AUDIO

PP953A P4MM SM	PP	1	GPIO_CODEC_TO_SOC_IRQ_L	6 26

ORION

PP953B P4MM SM	PP	1	GPIO_AOP_TO_ORION_HWEN	9 58

UNUSED MIPI LANES

7	GND	MAKE_BASE=TRUE
7	GND	MAKE_BASE=TRUE
7	GND	MAKE_BASE=TRUE
7	GND	MAKE_BASE=TRUE
7	GND	MAKE_BASE=TRUE
7	GND	MAKE_BASE=TRUE
7	GND	MAKE_BASE=TRUE
7	GND	MAKE_BASE=TRUE
7	GND	MAKE_BASE=TRUE
7	GND	MAKE_BASE=TRUE
7	GND	MAKE_BASE=TRUE
7	GND	MAKE_BASE=TRUE
7	GND	MAKE_BASE=TRUE
7	GND	MAKE_BASE=TRUE

BELFIELD SPI LINES

PP9540 P3MM SM	PP	1	SPI_BELFIELD_CS_L	6 26
PP9541 P3MM SM	PP	1	SPI_BELFIELD_SCLK	6 26
PP9542 P3MM SM	PP	1	SPI_BELFIELD_MOSI	6 26
PP9543 P3MM SM	PP	1	SPI_BELFIELD_MISO	6 26

SENSOR SPI LINES

PP9544 P3MM SM	PP	1	SPI_SENSORS_SCLK	PLACE_NEAR=U2150.2.10MM	9 18 27 70
PP9545 P3MM SM	PP	1	SPI_SENSORS_MISO	PLACE_NEAR=U0600.AD40.10MM	9 18 27
PP9546 P3MM SM	PP	1	SPI_SENSORS_MOSI	PLACE_NEAR=U2150.3.10MM	9 18 27 70
PP9547 P3MM SM	PP	1	SPI_SENSORS_SCLK	PLACE_NEAR=U2120.4.10MM	9 18 27 70
PP9548 P3MM SM	PP	1	SPI_SENSORS_SCLK	PLACE_NEAR=U2140.A3.10MM	9 18 27 70
PP9549 P3MM SM	PP	1	SPI_SENSORS_MOSI	PLACE_NEAR=U2120.3.10MM	9 18 27 70
PP954A P3MM SM	PP	1	SPI_SENSORS_MOSI	PLACE_NEAR=U2140.A4.10MM	9 18 27 70

MESA SPI LINES

PP954B P3MM SM	PP	1	SPI_MESA_MISO	6 34
PP954C P3MM SM	PP	1	SPI_MESA_MOSI_CONN	32 34
PP954D P3MM SM	PP	1	SPI_MESA_SCLK_CONN	32 34

CAMERA - FRONT

PP9560 P2MM SM	PP	1	MIPI_NH_CAM_TO_SOC_CLK_P NO_XNET_CONNECTION=1	7 24
PP9561 P2MM SM	PP	1	MIPI_NH_CAM_TO_SOC_CLK_N NO_XNET_CONNECTION=1	7 24
PP9562 P2MM SM	PP	1	MIPI_NH_CAM_TO_SOC_DATA_P<0> NO_XNET_CONNECTION=1	7 24
PP9563 P2MM SM	PP	1	MIPI_NH_CAM_TO_SOC_DATA_N<0> NO_XNET_CONNECTION=1	7 24
PP9564 P2MM SM	PP	1	MIPI_NH_CAM_TO_SOC_DATA_P<1> NO_XNET_CONNECTION=1	7 24
PP9565 P2MM SM	PP	1	MIPI_NH_CAM_TO_SOC_DATA_N<1> NO_XNET_CONNECTION=1	7 24

GRAPE

PP9580 P3MM SM	PP	1	SPI_SOC_TO_GRAPE_SCLK	6 19
PP9581 P3MM SM	PP	1	SPI_SOC_TO_GRAPE_MISO	6 19
PP9582 P3MM SM	PP	1	SPI_SOC_TO_GRAPE_MOSI	6 19
PP9583 P3MM SM	PP	1	SPI_SOC_TO_GRAPE_CS_L	6 19
PP9584 P3MM SM	PP	1	GPIO_SOC_TO_GRAPE_RESET_L	6 19 20
PP9585 P3MM SM	PP	1	GPIO_GRAPE_TO_SOC_IRQ_L	6 19
PP9586 P3MM SM	PP	1	KONA_S_TO_KONA_M_RESET_DET_L	19 20
PP9587 P3MM SM	PP	1	PSE_SYNC	19 20
PP9588 P3MM SM	PP	1	KMSI_MISO	19 20
PP9589 P3MM SM	PP	1	KMSI_MOSI	19 20
PP958A P3MM SM	PP	1	KMSI_STRB_IN	19 20
PP958B P3MM SM	PP	1	KMSI_STRB_OUT	19 20
PP958C P3MM SM	PP	1	KONA_BOOST_ATEST	19
PP958D P3MM SM	PP	1	TP_KONA_S_UART_TX	20
PP958E P3MM SM	PP	1	TP_KONA_S_UART_RX	20
PP958F P3MM SM	PP	1	TP_KONA_IPC_EVENT_0	20
PP958G P3MM SM	PP	1	TP_KONA_IPC_EVENT_1	20
PP958H P3MM SM	PP	1	TP_KONA_IPC_EVENT_2	20
PP958I P3MM SM	PP	1	TP_KONA_IPC_EVENT_3	20
PP958J P3MM SM	PP	1	TP_KONA_IPC_EVENT_4	20
PP958K P3MM SM	PP	1	TP_KONA_IPC_EVENT_5	20
PP958L P3MM SM	PP	1	TP_KONA_GPIO_ADC_03	19
PP958M P3MM SM	PP	1	CLK_KONA_M_24MHZ	19
PP958N P3MM SM	PP	1	GPIO_SOC_TO_GRAPE_BSYNC0	19 20 32
PP958P P3MM SM	PP	1	GPIO_SOC_TO_GRAPE_BSYNC1	19 20 32

GRAPE POWER

PP958R P3MM SM	PP	1	P3V3_GRAPE_FILT	19 20
PP958S P3MM SM	PP	1	PP1V8_GRAPE_XTAL_FILT	19 20
PP958T P3MM SM	PP	1	KONA_M_VDDCORE_CAP	19
PP958U P3MM SM	PP	1	KONA_S_VDDCORE_CAP	20
PP958V P3MM SM	PP	1	PP1V8_GRAPE_AON_RC	19 20

UNUSED LPDP RX LANES

7	GND	MAKE_BASE=TRUE
7	GND	MAKE_BASE=TRUE
7	GND	MAKE_BASE=TRUE
7	GND	MAKE_BASE=TRUE
7	GND	MAKE_BASE=TRUE
7	GND	MAKE_BASE=TRUE

DDR

PP9590 P2MM SM	PP	1	DDR6_CS	PLACE_NEAR=U1700.AT9:1MM	10 16
PP9591 P2MM SM	PP	1	DDR6_CKE	PLACE_NEAR=U1700.AR9:1MM	10 16
PP9592 P2MM SM	PP	1	DDR6_CA<0>	PLACE_NEAR=U1700.AR8:1MM	10 16
PP9593 P2MM SM	PP	1	DDR6_CA<1>	PLACE_NEAR=U1700.AP9:1MM	10 16
PP9594 P2MM SM	PP	1	DDR6_CA<2>	PLACE_NEAR=U1700.AT11:1MM	10 16
PP9595 P2MM SM	PP	1	DDR6_CA<3>	PLACE_NEAR=U1700.AR11:1MM	10 16
PP9596 P2MM SM	PP	1	DDR6_CA<4>	PLACE_NEAR=U1700.AP11:1MM	10 16
PP9597 P2MM SM	PP	1	DDR6_CA<5>	PLACE_NEAR=U1700.AR12:1MM	10 16
PP9598 P2MM SM	PP	1	DDR6_DQ<14>	PLACE_NEAR=U1700.AR13:1MM	10 16 70
PP9599 P2MM SM	PP	1	DDR6_DQS_P<1>	PLACE_NEAR=U1700.AT15:1MM	10 16 70
PP959A P2MM SM	PP	1	DDR6_DQS_N<1>	PLACE_NEAR=U1700.AR15:1MM	10 16 70
PP959B P2MM SM	PP	1	DDR6_CK_P	PLACE_NEAR=U1700.AT10:1MM	10 16
PP959C P2MM SM	PP	1	DDR6_CK_N	PLACE_NEAR=U1700.AR10:1MM	10 16
PP959D P2MM SM	PP	1	DDR6_DQ<14>	PLACE_NEAR=U0600.F43:1MM	10 16 70
PP959E P2MM SM	PP	1	DDR6_DQS_P<1>	PLACE_NEAR=U0600.H45:1MM	10 16 70
PP959F P2MM SM	PP	1	DDR6_DQS_N<1>	PLACE_NEAR=U0600.H46:1MM	10 16 70

LPDDR4 TPS

PP95A0 P2MM SM	PP	1	DDR1_CS	PLACE_NEAR=U1600.AT9:1MM	10 15
PP95A1 P2MM SM	PP	1	DDR1_CKE	PLACE_NEAR=U1600.AR9:1MM	10 15
PP95A2 P2MM SM	PP	1	DDR1_CA<3>	PLACE_NEAR=U1600.AR11:1MM	10 15
PP95A3 P2MM SM	PP	1	DDR1_DQ<9>	PLACE_NEAR=U1600.AR17:1MM	10 15 70
PP95A4 P2MM SM	PP	1	DDR1_DQS_P<1>	PLACE_NEAR=U1600.AT15:1MM	10 15 70
PP95A5 P2MM SM	PP	1	DDR1_DQS_N<1>	PLACE_NEAR=U1600.AR15:1MM	10 15 70
PP95A6 P2MM SM	PP	1	DDR1_CK_P	PLACE_NEAR=U1600.AT10:1MM	10 15
PP95A7 P2MM SM	PP	1	DDR1_CK_N	PLACE_NEAR=U1600.AR10:1MM	10 15
PP95A8 P2MM SM	PP	1	DDR1_DQ<9>	PLACE_NEAR=U0600.AB4:1MM	10 15 70
PP95A9 P2MM SM	PP	1	DDR1_DQS_P<1>	PLACE_NEAR=U0600.AB2:1MM	10 15 70
PP95AA P2MM SM	PP	1	DDR1_DQS_N<1>	PLACE_NEAR=U0600.AB1:1MM	10 15 70

WIFI

PP95B3 P4MM SM	PP	1	UART_BT_TO_SOC_TX	6 68
PP95B4 P4MM SM	PP	1	UART_SOC_TO_BT_TX	35 68
PP95B5 P4MM SM	PP	1	UART_SOC_TO_WLAN_TX	6 68
PP95B6 P4MM SM	PP	1	UART_WLAN_TO_SOC_TX	6 68
PP95B7 P4MM SM	PP	1	UART_WLAN2BB_COEX_TX	35 68
PP95BD P4MM SM	PP	1	GPIO_SOC_TO_WLAN_DEVICE_WAKE	6 68
PP95BE P4MM SM	PP	1	GPIO_SOC_TO_BT_WAKE	35 68
PP95BF P4MM SM	PP	1	UART_SOC_TO_WLAN_RTS_L	6 68
PP95BG P4MM SM	PP	1	UART_WLAN_TO_SOC_RTS_L	6 68
PP95BH P4MM SM	PP	1	UART_SOC_TO_BT_RTS_L	35 68
PP95BI P4MM SM	PP	1	UART_BT_TO_SOC_RTS_L	6 68
PP95BL P4MM SM	PP	1	GPIO_SOC_TO_BT_TO_GRAPE_TS_SYNC	6 19 20 68
PP95BM P4MM SM	PP	1	GPIO_TOUCH_TO_BT_SYNC	19 68

PMU/EUPHRATES

PP95G0 P2MM SM	PP	1	GPIO_AUTUMN_TO_PMU_SOC_IRQ_L	9 57 61
PP95G1 P2MM SM	PP	1	GPIO_PMU_TO_SOC_IRQ_L	9 61
PP95G2 P2MM SM	PP	1	GPIO_EUPHRATES_TO_PMU_WAKE	61 63
PP95G3 P2MM SM	PP	1	GPIO_EUPHRATES_TO_SOC_TO_PMU_IRQ_L	6 61 63
PP95G4 P2MM SM	PP	1	OVP_SW_EN_L	58 63
PP95G5 P2MM SM	PP	1	GPIO_PMU_TO_EUPHRATES_LINCH_EN	61 63
PP95G6 P2MM SM	PP	1	GPIO_PMU_TO_1V1_EXT_SW_ON	61 64
PP95G7 P2MM SM	PP	1	USB_VBUS_DETECT	5 63

PP95C0 P2MM SM	PP	1	DDR4_CS	PLACE_NEAR=U1700.D9:1MM	10 16
PP95C1 P2MM SM	PP	1	DDR4_CKE	PLACE_NEAR=U1700.C9:1MM	10 16
PP95C2 P2MM SM	PP	1	DDR4_CA<0>	PLACE_NEAR=U1700.C8:1MM	10 16
PP95C3 P2MM SM	PP	1	DDR4_DQ<2>	PLACE_NEAR=U1700.D4:1MM	10 16 70
PP95C4 P2MM SM	PP	1	DDR4_DQS_P<0>	PLACE_NEAR=U1700.D5:1MM	10 16 70
PP95C5 P2MM SM	PP	1	DDR4_DQS_N<0>	PLACE_NEAR=U1700.C5:1MM	10 16 70
PP95C6 P2MM SM	PP	1	DDR4_CK_P	PLACE_NEAR=U1700.D10:1MM	10 16
PP95C7 P2MM SM	PP	1	DDR4_CK_N	PLACE_NEAR=U1700.C10:1MM	10 16
PP95C8 P2MM SM	PP	1	DDR4_DQ<2>	PLACE_NEAR=U0600.F24:1MM	10 16 70
PP95C9 P2MM SM	PP	1	DDR4_DQS_P<0>	PLACE_NEAR=U0600.B24:1MM	10 16 70
PP95CA P2MM SM	PP	1	DDR4_DQS_N<0>	PLACE_NEAR=U0600.A24:1MM	10 16 70
PP95CB P2MM SM	PP	1	DDR3_DQ<2>	PLACE_NEAR=U0600.F14:1MM	10 15
PP95CC P2MM SM	PP	1	DDR3_DQS_P<0>	PLACE_NEAR=U0600.B14:1MM	10 15
PP95CD P2MM SM	PP	1	DDR3_DQS_N<0>	PLACE_NEAR=U0600.A14:1MM	10 15

NAND PCIE TPS

PP95D0 P2MM SN	PP	1	PLACE_NEAR=U0600.AW5:3MM	PCIE_NAND_TO_SOC_TX_P<0>	8 17
PP95D1 P2MM SN	PP	1	PLACE_NEAR=U0600.AV5:3MM	PCIE_NAND_TO_SOC_TX_N<0>	8 17
PP95D2 P2MM SN	PP	1	PLACE_NEAR=U1800.M8:3MM	PCIE_SOC_TO_NAND_TX_P<0>	8 17
PP95D3 P2MM SN	PP	1	PLACE_NEAR=U1800.K8:3MM	PCIE_SOC_TO_NAND_TX_N<0>	8 17
PP95D4 P2MM SN	PP	1	PLACE_NEAR=U1800.H8:3MM	PCIE_SOC_TO_NAND_REFCLK_P	8 17
PP95D5 P2MM SN	PP	1	PLACE_NEAR=U1800.H6:3MM	PCIE_SOC_TO_NAND_REFCLK_N	8 17

WLAN PCIE TPS

PP95E0 P2MM SM	PP	1	PLACE_NEAR=U0600.AW7:3MM	PCIE_WLAN_TO_SOC_TX_P	8 68
PP95E1 P2MM SM	PP	1	PLACE_NEAR=U0600.AV7:3MM	PCIE_WLAN_TO_SOC_TX_N	8 68
PP95E2 P2MM SM	PP	1	PLACE_NEAR=U0600.BA29:4MM	PCIE_WLAN_TO_SOC_CLKREQ_L	8 68
PP95E3 P2MM SM	PP	1	PLACE_NEAR=U4900.4:3MM	PCIE_SOC_TO_WLAN_TX_P	35 68
PP95E4 P2MM SM	PP	1	PLACE_NEAR=U4900.5:3MM	PCIE_SOC_TO_WLAN_TX_N	35 68
PP95E5 P2MM SM	PP	1	PLACE_NEAR=U4900.10:3MM	PCIE_SOC_TO_WLAN_REFCLK_P	8 68
PP95E6 P2MM SM	PP	1	PLACE_NEAR=U4900.11:3MM	PCIE_SOC_TO_WLAN_REFCLK_N	8 68
PP95E7 P2MM SM	PP	1	PLACE_NEAR=U4900.67:3MM	PCIE_SOC_TO_WLAN_RESET_L	8 68

BB PCIE TPS

PP95E8 P2MM SM	PP	1	PLACE_NEAR=U0600.AU17:3MM	PCIE_BB_TO_SOC_TX_P	8 68
PP95E9 P2MM SM	PP	1	PLACE_NEAR=U0600.AV17:3MM	PCIE_BB_TO_SOC_TX_N	8 68
PP95EA P2MM SM	PP	1	PLACE_NEAR=U0600.AG1:4MM	PCIE_BB_TO_SOC_CLKREQ_L	8 68
PP95EB P2MM SM	PP	1	PLACE_NEAR=BB_RF.AA8:3MM	PCIE_AP_TO_BB_TX_R_P	40
PP95EC P2MM SM	PP	1	PLACE_NEAR=BB_RF.AB8:3MM	PCIE_AP_TO_BB_TX_R_N	40
PP95ED P2MM SM	PP	1	PLACE_NEAR=BB_RF.AA11:3MM	PCIE_SOC_TO_BB_RESET_L	8 68

LPDPRX TPS

PP95E0 P2MM SN	PP	1	PLACE_NEAR=U0600.BA8:3MM	LPDP_UT_TO_SOC_DATA_P<0>	7 23
PP95E1 P2MM SN	PP	1	PLACE_NEAR=U0600.AY8:3MM	LPDP_UT_TO_SOC_DATA_N<0>	7 23
PP95E2 P2MM SN	PP	1	PLACE_NEAR=U0600.BB9:4MM	LPDP_UT_TO_SOC_DATA_P<1>	7 23
PP95E3 P2MM SN	PP	1	PLACE_NEAR=U0600.BA9:3MM	LPDP_UT_TO_SOC_DATA_N<1>	7 23
PP95E4 P2MM SN	PP	1	PLACE_NEAR=U0600.AV8:3MM	LPDP_SOC_TO_UT_AUX	7 23

USB3

PP95BN P2MM SM	PP	1	PLACE_NEAR=U0600.AW40:3MM	USB3_SOC_RX_N	5 31
PP95BP P2MM SM	PP	1	PLACE_NEAR=U0600.AW41:3MM	USB3_SOC_RX_P	5 31

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TEST: EE TP/PP

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AUGUST_BUCK0 (ACTIVE)

69 59 PPVDD_CPU (MAKE_BASE=TRUE) — PPVDD_CPU 12 59

XWC190 (SHORT-10L-0.1MM-SM): 1 — 2 PPVDD_BUCK0_SENSE 61

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69 59 PPVDD_GPU (MAKE_BASE=TRUE) — PPVDD_GPU 12 59

XWC191 (SHORT-10L-0.1MM-SM): 1 — 2 PPVDD_BUCK1_SENSE 61

AUGUST_BUCK2 (SLEEP1)

69 59 PPVDD_S1_FIXED_SOC (MAKE_BASE=TRUE) — PPVDD_S1_FIXED_SOC 7 13; PPVDD_S1_FIXED_SOC 13; PPVDD_S1_FIXED_SOC 13; PPVDD_S1_FIXED_SOC 13; PPVDD_S1_FIXED_SOC 13; PPVDD_S1_FIXED_SOC 13; PPVDD_S1_FIXED_SOC 13; PPVDD_S1_FIXED_SOC 13; PPVDD_S1_FIXED_SOC 13; PPVDD_S1_FIXED_SOC 13; PPVDD_S1_FIXED_SOC 13; PPVDD_S1_FIXED_SOC 13

AUGUST_BUCK3 (SLEEP3)

69 59 PP1V8_S3 (MAKE_BASE=TRUE) — PP1V8_S3 15 16; PP1V8_S3 30; PP1V8_S3 23 27; PP1V8_S3 31 61 66; PP1V8_S3 64; PP1V8_S3 56 60; PP1V8_S3 60; PP1V8_S3 58; PP1V8_S3 9 11; PP1V8_S3 5 67

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AUGUST_BUCK3_SW1 (ACTIVE)

69 60 57 PP1V8_SW1 (MAKE_BASE=TRUE) — PP1V8_SW1 28 29; PP1V8_SW1 64; PP1V8_SW1 63 67

AUGUST BUCK3_SW2 (SPARE)

69 60 PP1V8_SW2_SPARE — 1138

AUTUMN_BUCK3_SW1 (ACTIVE)

69 56 PP1V8_SW1_CAM (MAKE_BASE=TRUE) — PP1V8_SW1_CAM 7 24; PP1V8_SW1_CAM 7 23

AUTUMN BUCK3_SW3 (SLEEP2)

69 56 PP1V8_S3_SW3 (MAKE_BASE=TRUE) — PP1V8_S3_SW3 18; PP1V8_S3_SW3 18; PP1V8_S3_SW3 18 27

BUCK3_EXT_SW1 (ACTIVE)

69 64 PP1V8_EXT_SW1 (MAKE_BASE=TRUE) — PP1V8_EXT_SW1 11; PP1V8_EXT_SW1 11; PP1V8_EXT_SW1 11; PP1V8_EXT_SW1 11; PP1V8_EXT_SW1 9 17; PP1V8_EXT_SW1 6; PP1V8_EXT_SW1 4 6 8 61; PP1V8_EXT_SW1 11; PP1V8_EXT_SW1 11; PP1V8_EXT_SW1 65

BUCK3_S2_EXT_SW2 (SLEEP2)

69 64 PP1V8_S2_EXT_SW2 (MAKE_BASE=TRUE) — PP1V8_S2_EXT_SW2 68; PP1V8_S2_EXT_SW2 68; PP1V8_S2_EXT_SW2 26; PP1V8_S2_EXT_SW2 27

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69 64 PP1V8_GRAPE_EXT_SW (MAKE_BASE=TRUE) — PP1V8_GRAPE_EXT_SW 9 19 20

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69 55 PP1V1_S3 (MAKE_BASE=TRUE) — PP1V1_S3 64; PP1V1_S3 56; PP1V1_S3 56; PP1V1_S3 11 15 16

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69 56 PP1V1_SW1_SPARE (MAKE_BASE=TRUE) — 1138

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69 64 PP1V1_S1_EXT_SW (MAKE_BASE=TRUE) — PP1V1_S1_EXT_SW 10 11 15 16; PP1V1_S1_EXT_SW 11

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69 55 PP1V5_CAMERA (MAKE_BASE=TRUE) — PP1V5_CAMERA 56

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69 59 PP3V3_S2 (MAKE_BASE=TRUE) — PP3V3_S2 68; PP3V3_S2 64

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69 64 PP3V3_EXT_SW (MAKE_BASE=TRUE) — PP3V3_EXT_SW 17

AUGUST_BUCK7 (ACTIVE)

69 59 PPVDD_CPU_SRAM (MAKE_BASE=TRUE) — PPVDD_CPU_SRAM 13

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69 59 PPVDD_GPU_SRAM (MAKE_BASE=TRUE) — PPVDD_GPU_SRAM 13

AUTUMN_BUCK9 (SW CONTROL)

69 55 PP2V9_PVDD_CAM_REAR (MAKE_BASE=TRUE) — PP2V9_PVDD_CAM_REAR 23

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69 60 PP3V0_S3_TRISTAR (MAKE_BASE=TRUE) — PP3V0_S3_TRISTAR 30; PP3V0_S3_TRISTAR 23 27; PP3V0_S3_TRISTAR 68

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69 60 PP1V8_S2_VA_VCP (MAKE_BASE=TRUE) — PP1V8_S2_VA_VCP 26

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69 60 PP3V3_S2_XBAR (MAKE_BASE=TRUE) — PP3V3_S2_XBAR 31; PP3V3_S2_XBAR 31; PP3V3_S2_XBAR 65

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69 56 PP3V0_ALS (MAKE_BASE=TRUE) — PP3V0_ALS 23; PP3V0_ALS 27

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69 60 PPVDD_SPARE_LDO5 (MAKE_BASE=TRUE)

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69 60 PP3V3_ACC (MAKE_BASE=TRUE) — PP3V3_ACC 30

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69 60 PP3V3 (MAKE_BASE=TRUE) — PP3V3 11; PP3V3 65

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69 60 PP3V05_S3_MESA (MAKE_BASE=TRUE) — PP3V05_S3_MESA 34

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69 56 PP1V19_FRONT_CAM (MAKE_BASE=TRUE) — PP1V19_FRONT_CAM 24

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69 56 PP0V9_NAND (MAKE_BASE=TRUE) — PP0V9_NAND 17

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69 60 PP3V0_SPARE_LDO11 (MAKE_BASE=TRUE) — 1138

AUGUST_LDO13 (SW CONTROL)

69 60 PP3V3_GRAPE (MAKE_BASE=TRUE) — PP3V3_GRAPE 19

AUGUST_LDO14 (ACTIVE)

69 60 PP1V2_SOC (MAKE_BASE=TRUE) — PP1V2_SOC 11; PP1V2_SOC 11; PP1V2_SOC 11; PP1V2_SOC 11

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69 56 PP0V775_S3_SOC_AOP (MAKE_BASE=TRUE) — PP0V775_S3_SOC_AOP 11

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69 60 PP1V8_S3_MESA (MAKE_BASE=TRUE) — PP1V8_S3_MESA 34

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56 PP2V85_REAR_CAM (MAKE_BASE=TRUE) — PP2V85_REAR_CAM 23

AUTUMN_LDO18 (SW CONTROL)

56 PP1V19_REAR_CAM (MAKE_BASE=TRUE) — PP1V19_REAR_CAM 23

AUTUMN_LDO19 (SW CONTROL)

69 56 PP3V0_UT_SVDD (MAKE_BASE=TRUE) — PP3V0_UT_SVDD 23

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AUTUMN_LDO20 (SW CONTROL)

69 56 PP1V8_HAWKING (MAKE_BASE=TRUE) — PP1V8_HAWKING 22 23

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56 PP2V85_FRONT_CAM (MAKE_BASE=TRUE) — PP2V85_FRONT_CAM 24

AUTUMN_LDO22 (SPARE)

69 56 PPVDD_SPARE_LDO22 (MAKE_BASE=TRUE) — 1138

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56 AUTUMN_ON_BUF (MAKE_BASE=TRUE) — 1138

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60 PP1V2_BUF (MAKE_BASE=TRUE) — 1138

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69 63 PPVCC_MAIN (MAKE_BASE=TRUE) — PPVCC_MAIN 59; PPVCC_MAIN 59; PPVCC_MAIN 59; PPVCC_MAIN 55 59; PPVCC_MAIN 56 60; PPVCC_MAIN 26; PPVCC_MAIN 33; PPVCC_MAIN 62; PPVCC_MAIN 34; PPVCC_MAIN 35; PPVCC_MAIN 58; PPVCC_MAIN 25; PPVCC_MAIN 62 64; PPVCC_MAIN 19

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69 63 PPVCC_HIGH (MAKE_BASE=TRUE) — PPVCC_HIGH 56 60; PPVCC_HIGH 68; PPVCC_HIGH 34

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69 63 PPBATT_VCC (MAKE_BASE=TRUE) — PPBATT_VCC 66; PPBATT_VCC 68; PPBATT_VCC 28 29

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69 PPVBUS_PROT (MAKE_BASE=TRUE) — PPVBUS_PROT 58 63

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69 60 6 PP1V8_ALWAYS (MAKE_BASE=TRUE) — PP1V8_ALWAYS 61 63

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69 62 PPLED_OUT_A (MAKE_BASE=TRUE) — PPLED_OUT_A 33

69 62 PPLED_OUT_B (MAKE_BASE=TRUE) — PPLED_OUT_B 33

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