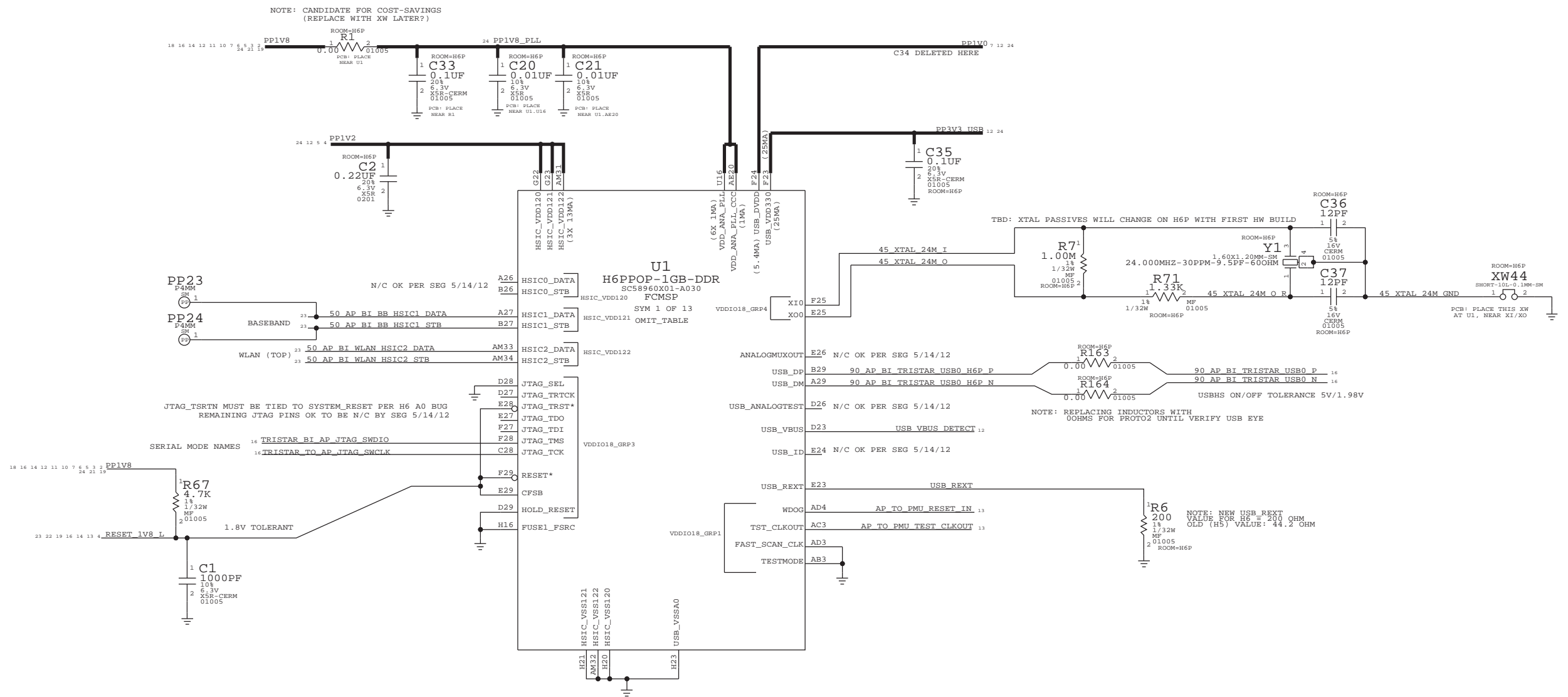


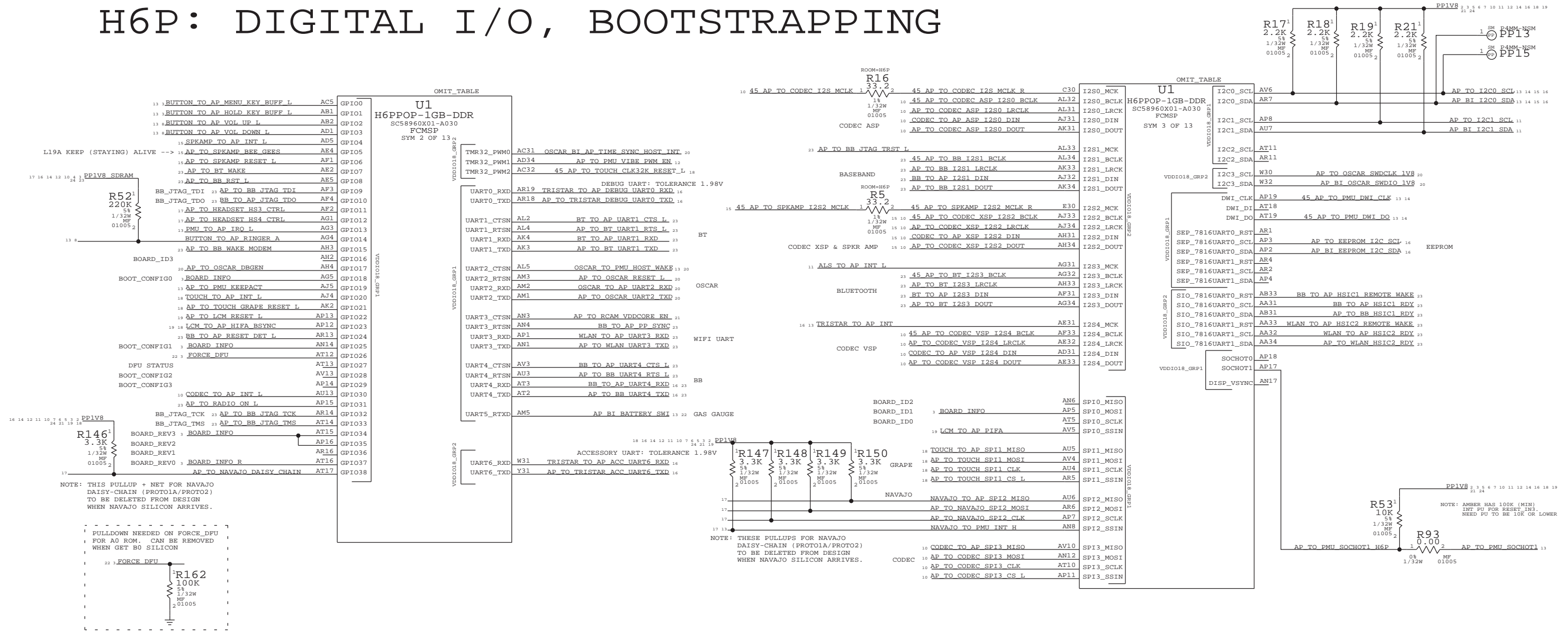
H6P: JTAG, USB, PLL, HSIC, XTAL

MISC COMPONENTS ALTERNATES

PART NUMBER	ALTERNATE FOR PART NUMBER	BOM OPTION	REF DES	COMMENTS:
107S0146	107S0208			ALT FOR THERMISTOR
138S0702	138S0657			?
138S0697	138S0695			?
138S0746	138S0705			?
138S0739	138S0706			?
155S0773	155S0453			?
155S0667	155S0583			?
335S0895	335S0874			?
138S0703	138S0648			?



H6P: DIGITAL I/O, BOOTSTRAPPING



BOOTSTRAPPING (BOARD_REV, BOARD_ID, BOOT_CFG)

```
BOARD_REV[3:0]={GPIO34, GPIO35, GPIO36, GPIO37}
```

```
FLOAT=LOW, PULLUP=HIGH
```

```
1111  PROTO2/2A, TRISAR/L19
1110  PROTO2A, TRISTAR2/L20
1101  EVT1 MAIN BUILD
1100  EVT1 MESA BUILD
```

```
BOARD_ID[3:0]={GPIO16, SPIO0_MISO, SPIO0_MOSI, SPIO0_SCLK}
```

```
FLOAT=LOW, PULLUP=HIGH
```

```
0000  X145 MLB
0001  X145 DEV
0010  X152 MLB
0011  X152 DEV
```

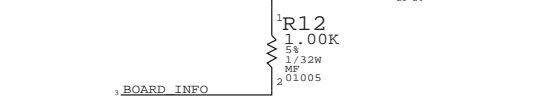
```
BOOT_CONFIG[3:0]={GPIO29_CONFIG3, GPIO28_CONFIG2, GPIO25_CONFIG1, GPIO18_CONFIG0}
```

```
FLOAT=LOW, PULLUP=HIGH
```

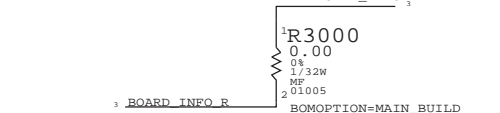
```
0000  SPI0
0001  SPI0 TEST MODE
0010  NAND
0011  NAND TEST MODE
```

```
COMMON PULL UP FOR BOARD_REV, BOARD_ID AND BOOT_CONFIG PINS
```

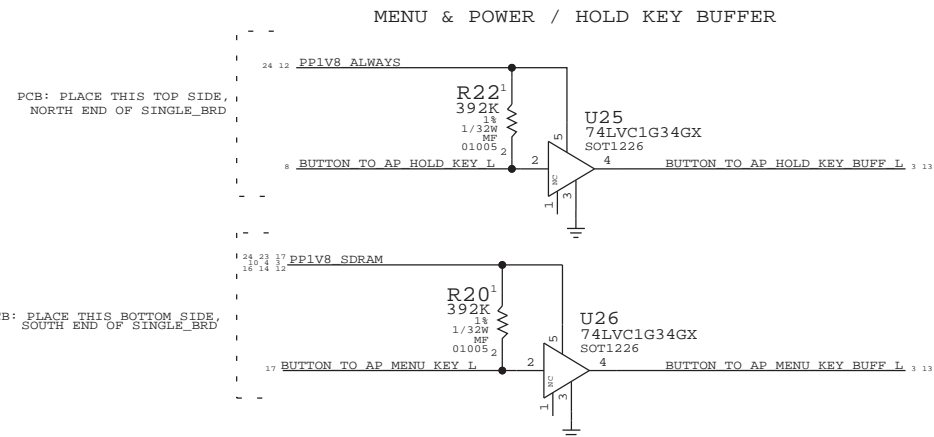
```
PP1V8 3, 4, 7, 10, 11, 12, 14, 16, 18, 19
```



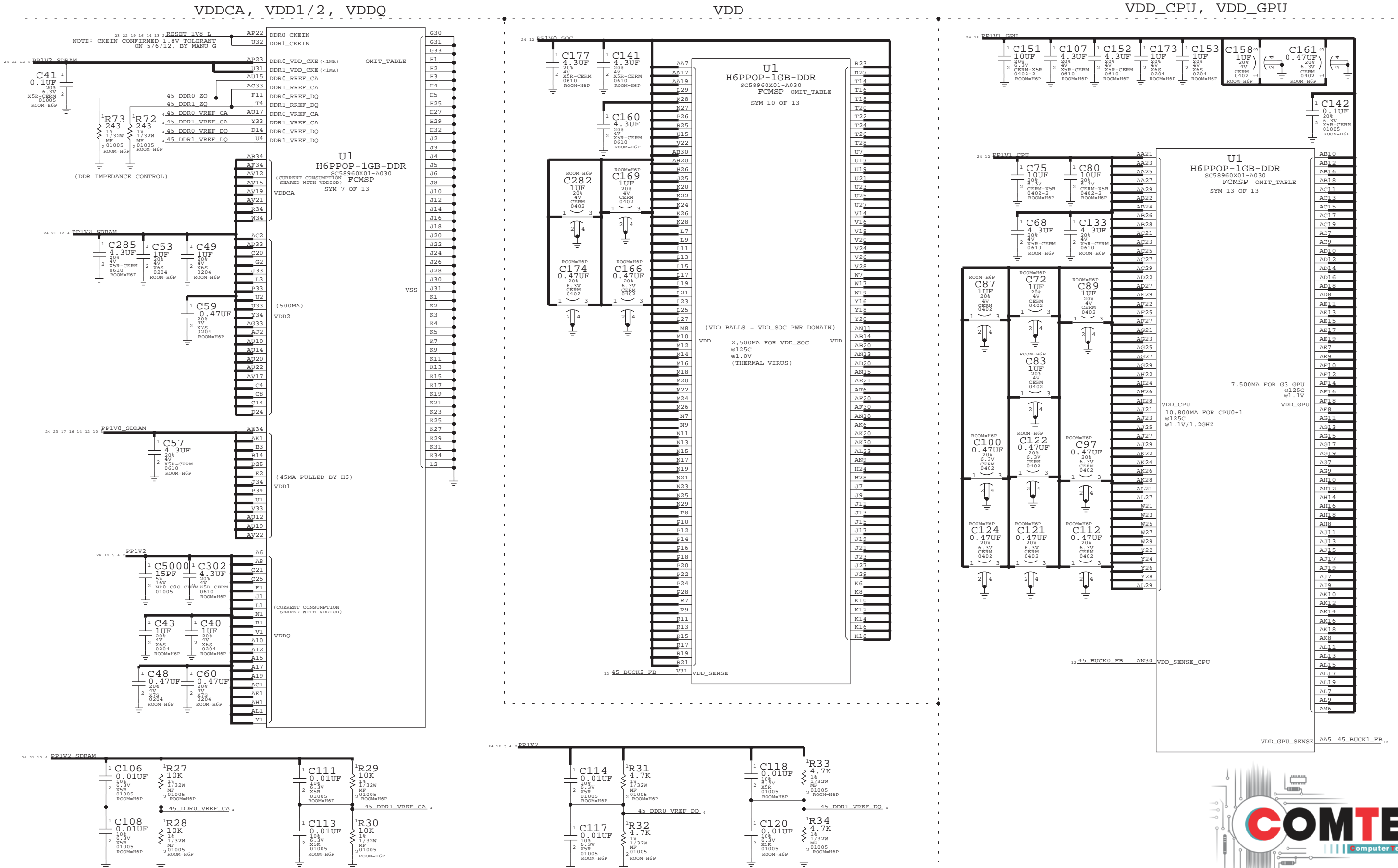
```
R12 MUST WIN OVER 6X INTERNAL PULL-DOWNS THAT ARE -100K
```



```
BOMOPTION=MAIN_BUILD
```



H6P: GND, VDDCA, VDD1/2, VDD, VDD_CPU, VDD_GPU



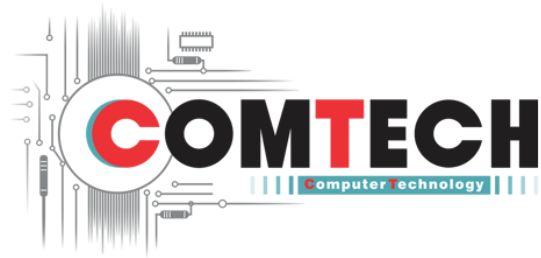
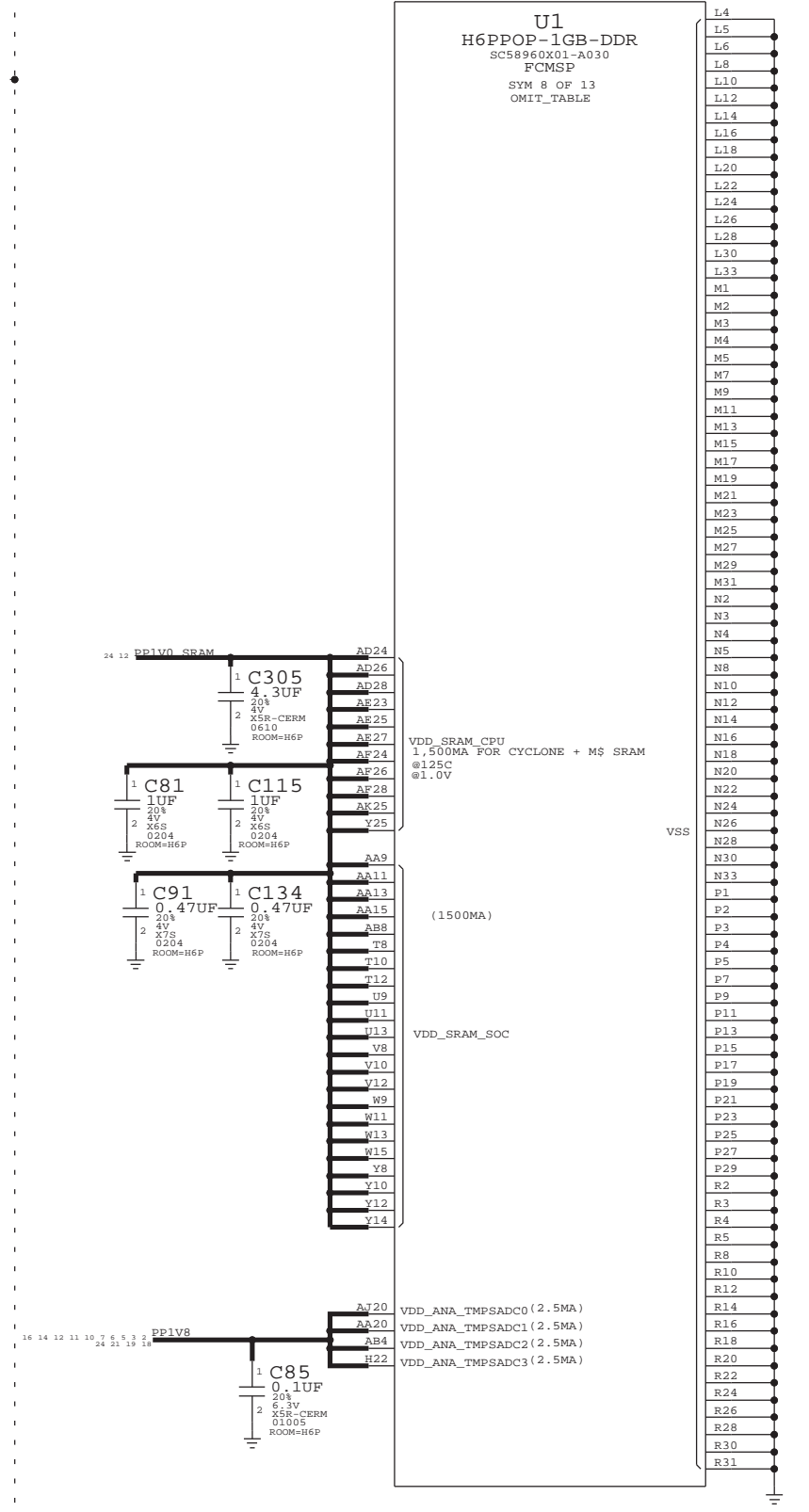
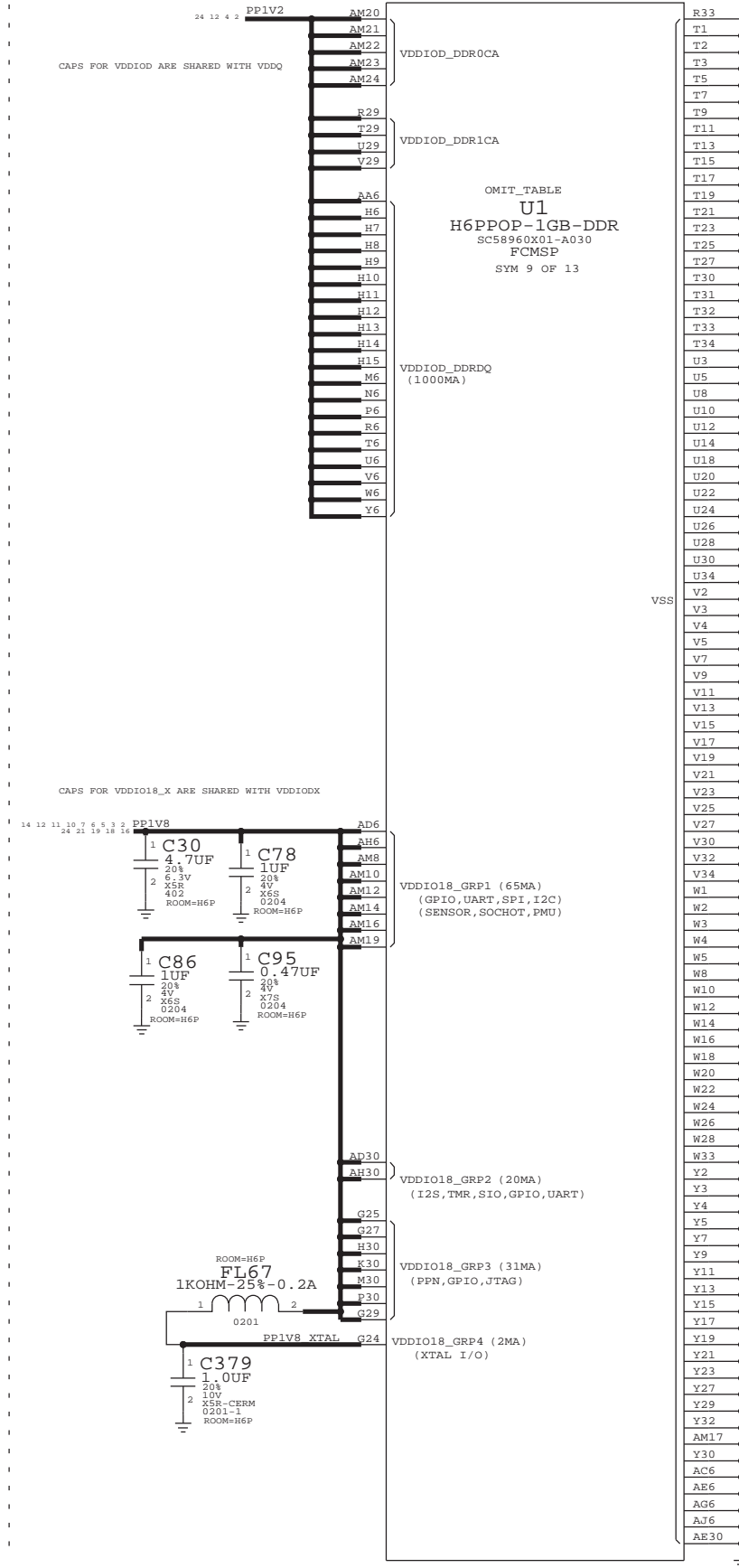
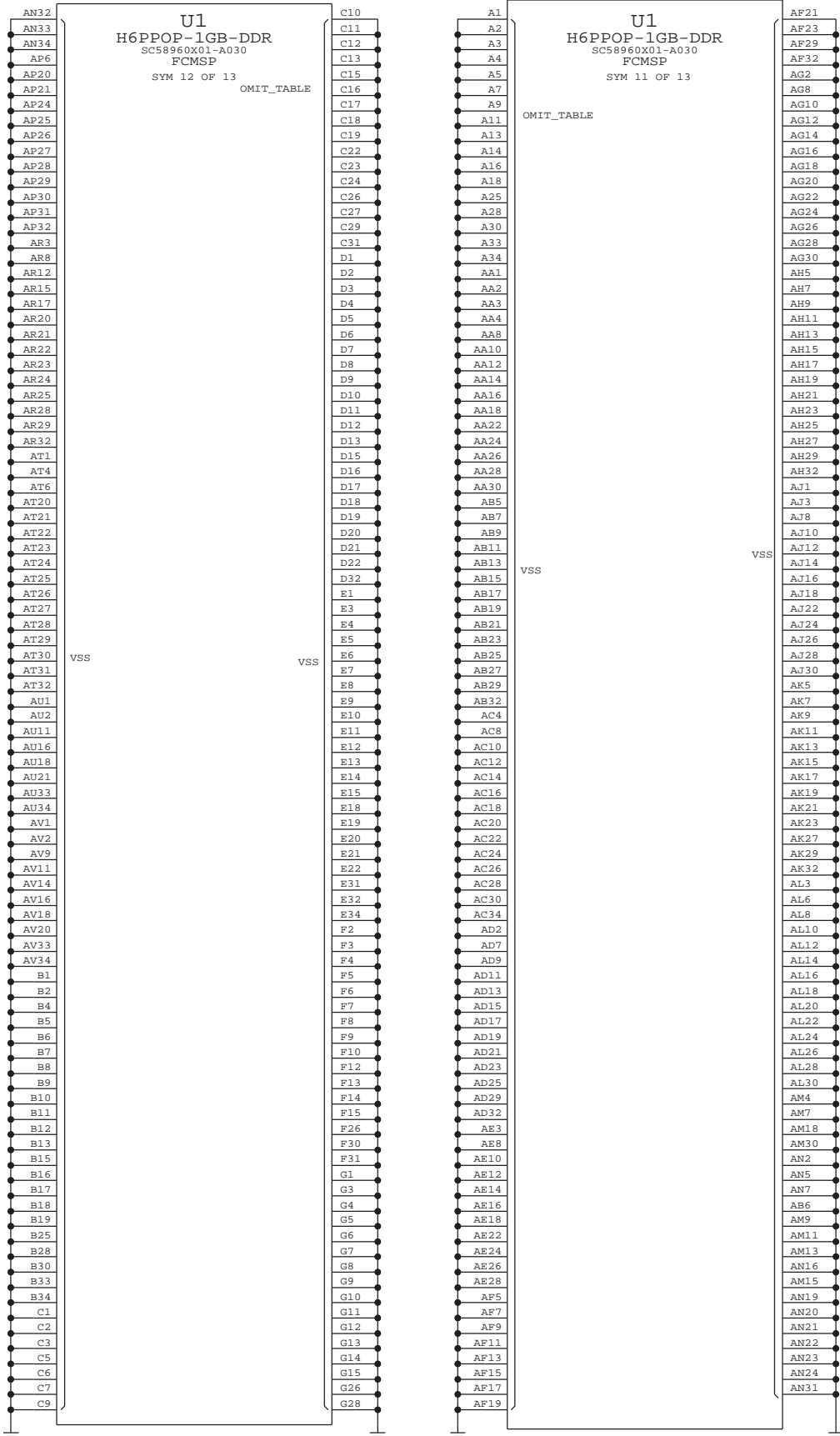
H6P

(GND, VDDIO18, VDDIOD, VDD_SRAM, VDD_SOC)

JUST A FEW GNDS

VDDIOD, VDDIO18

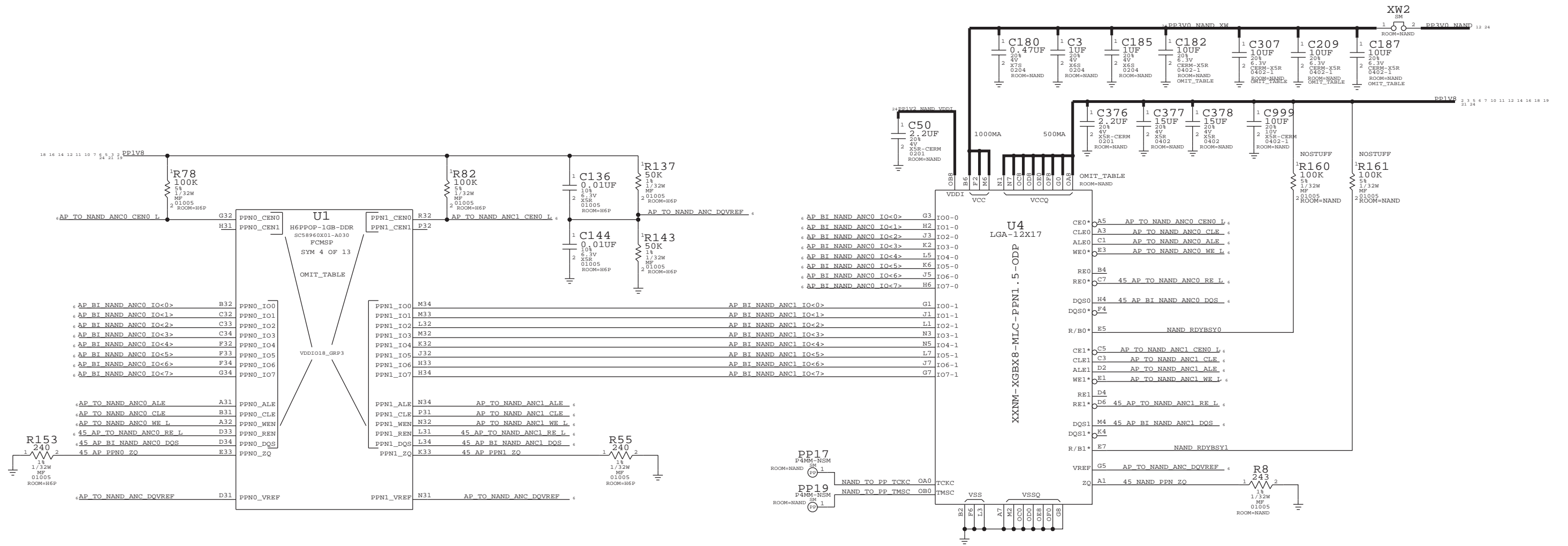
VDD_SRAM, VDD_SOC



H6P NAND + 12X17 NAND PKG

SUPPORT FOR PPN1.5 (1.8V IO) ONLY

PCB: THIS XW ON OUTER LAYER, ACCESSIBLE FOR REWORK



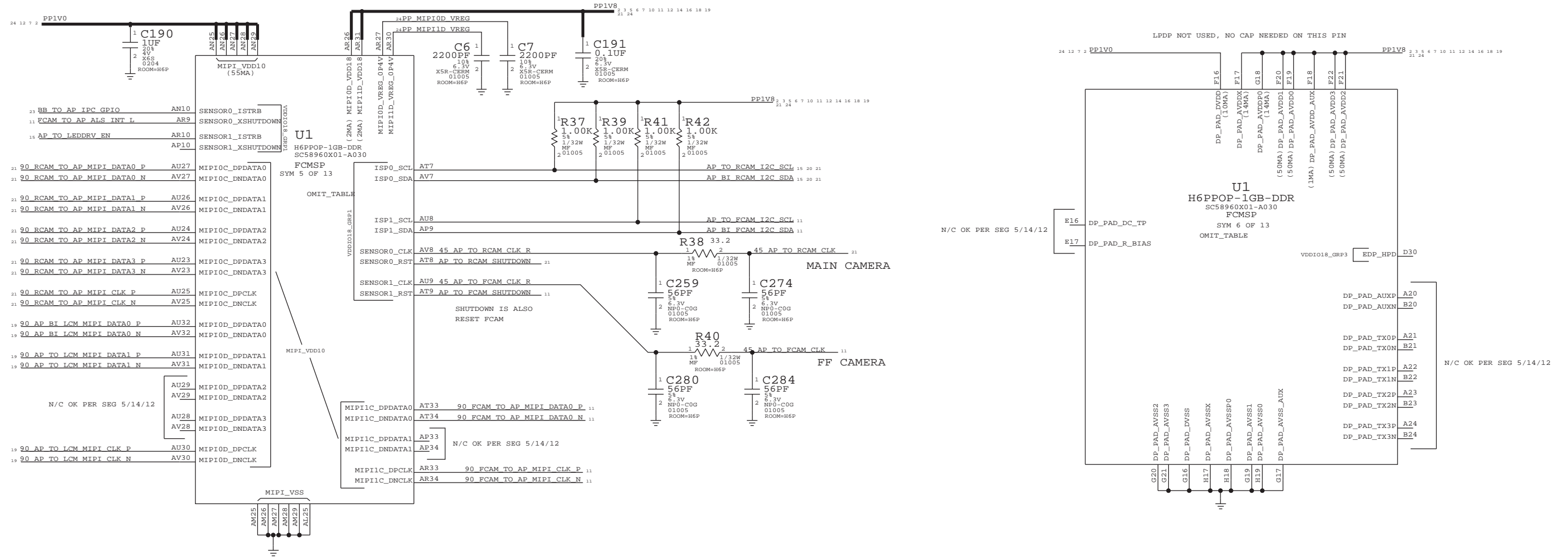
NOTE: IO<6> PREFERRED BY MATT BYOM (IS A STATUS READY BIT)

- PP2 P4MM-NSM ROOM=H6P 1 AP BI NAND ANCO IO<6>
- PP3 P4MM-NSM ROOM=H6P 1 45 AP TO NAND ANCO RE L
- PP10 P4MM-NSM ROOM=H6P 1 45 AP BI NAND ANCO DQS

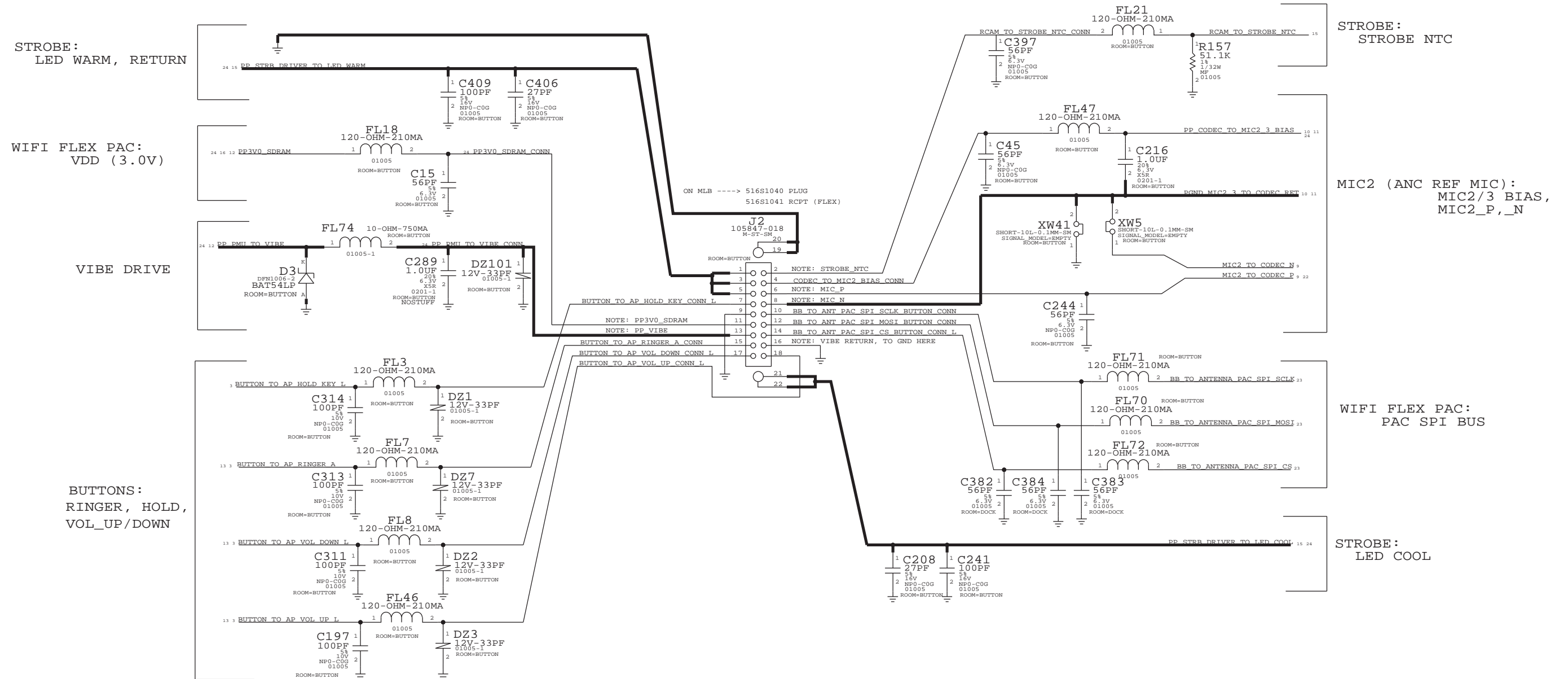
NOTE: NAND PADS SHOULD BE SHIELDED FROM TRACES WITH A GROUND PLANE



H6P HIGH SPEED DIG (CAM, LCD, DP)



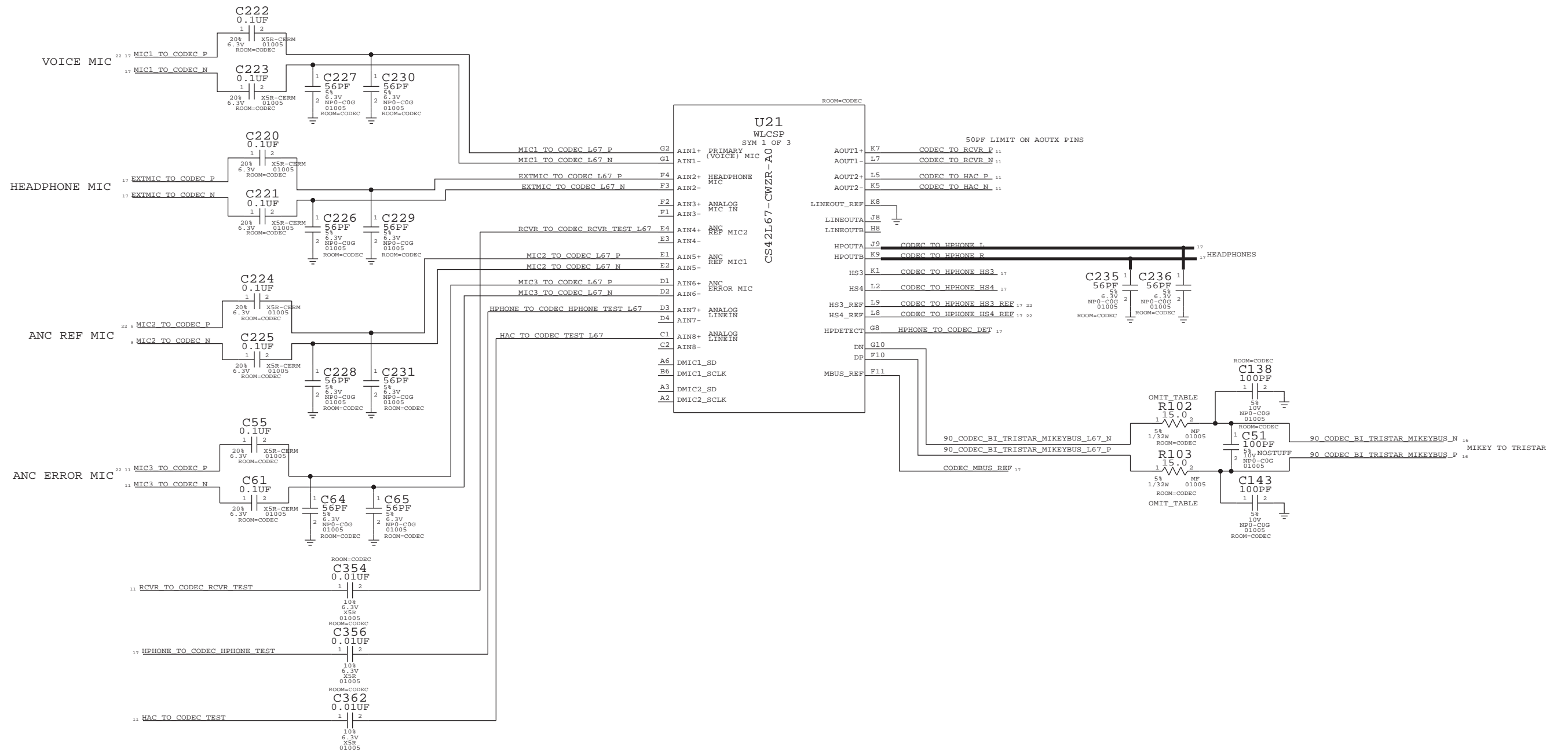
BUTTON FLEX (VIBE DRIVER, BUTTONS, ANC REF MIC, STROBE, STROBE_NTC)



L67 AUDIO CODEC

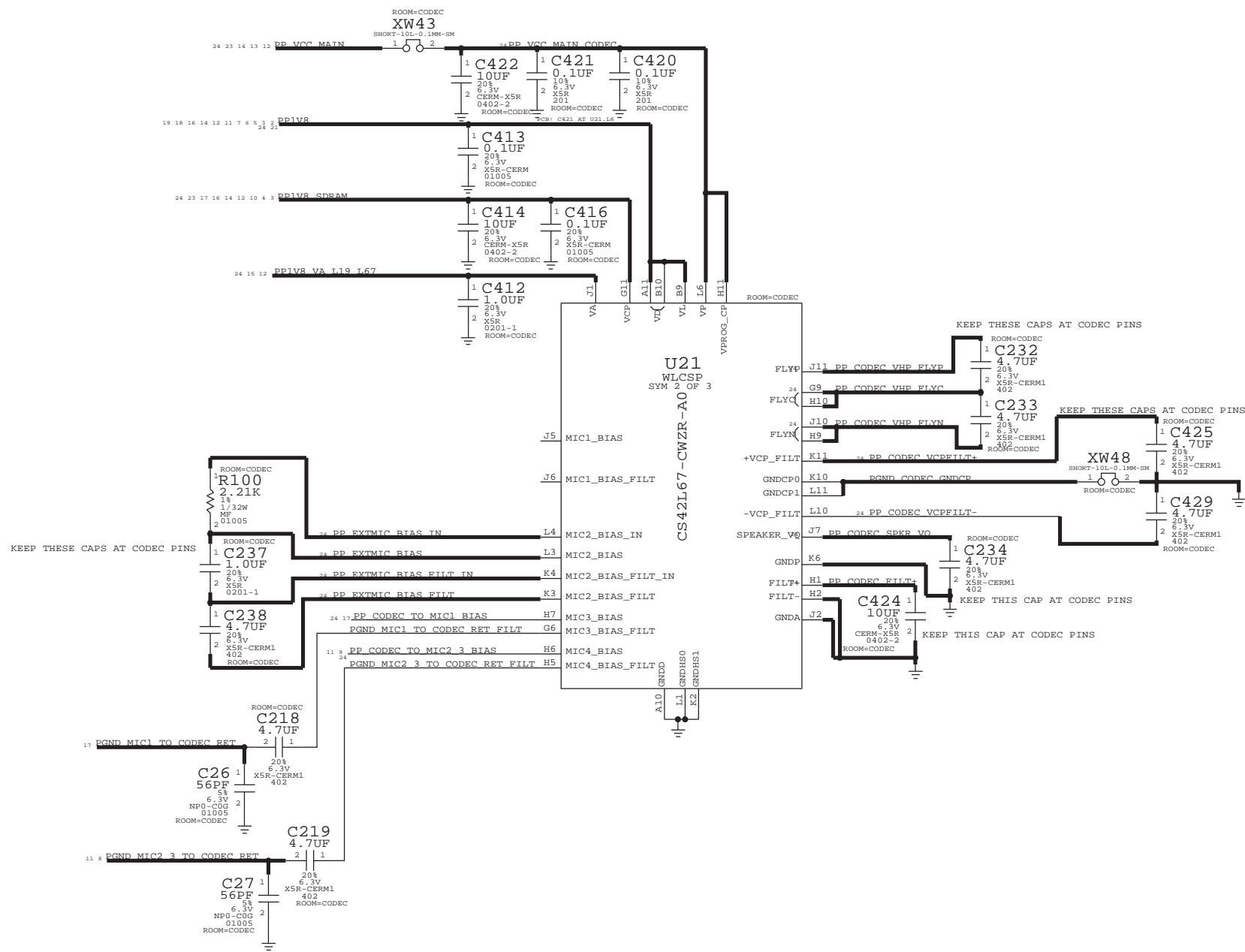
AUDIO I/O

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

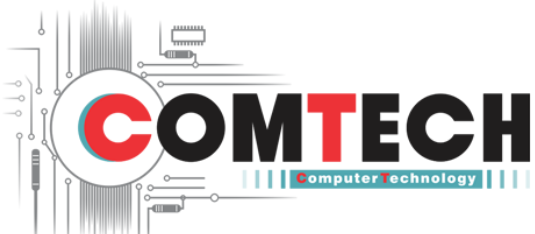
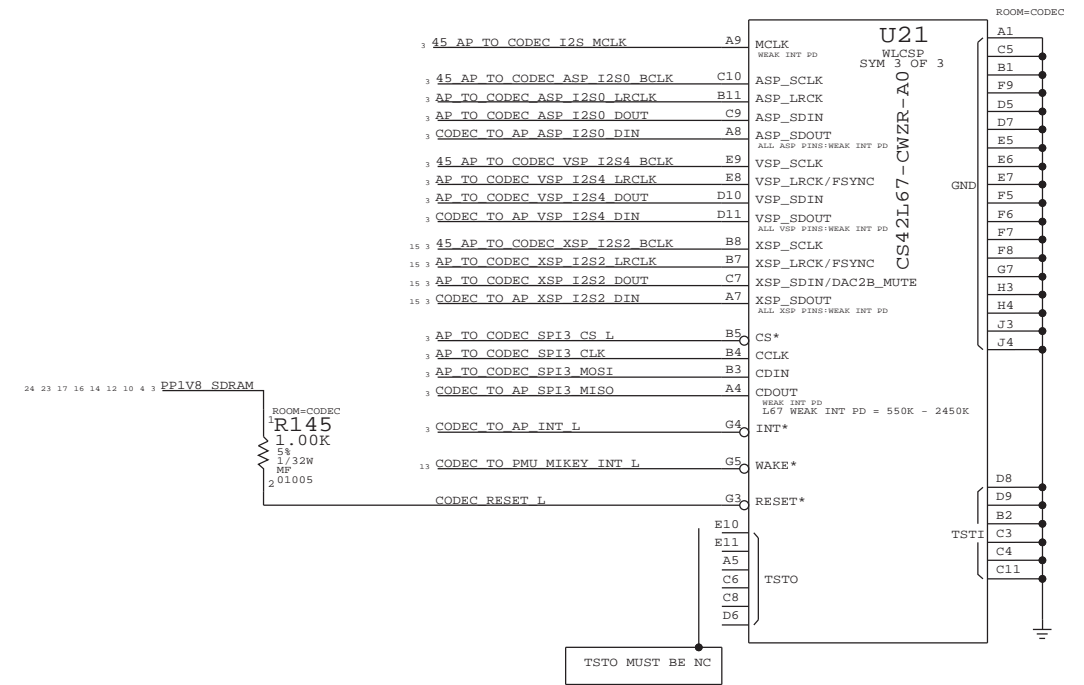


L67 AUDIO CODEC

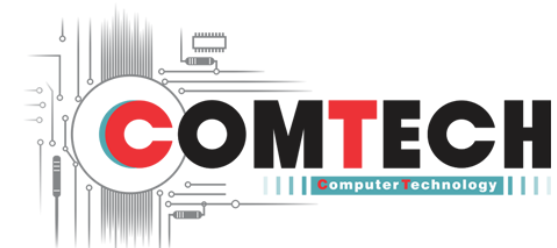
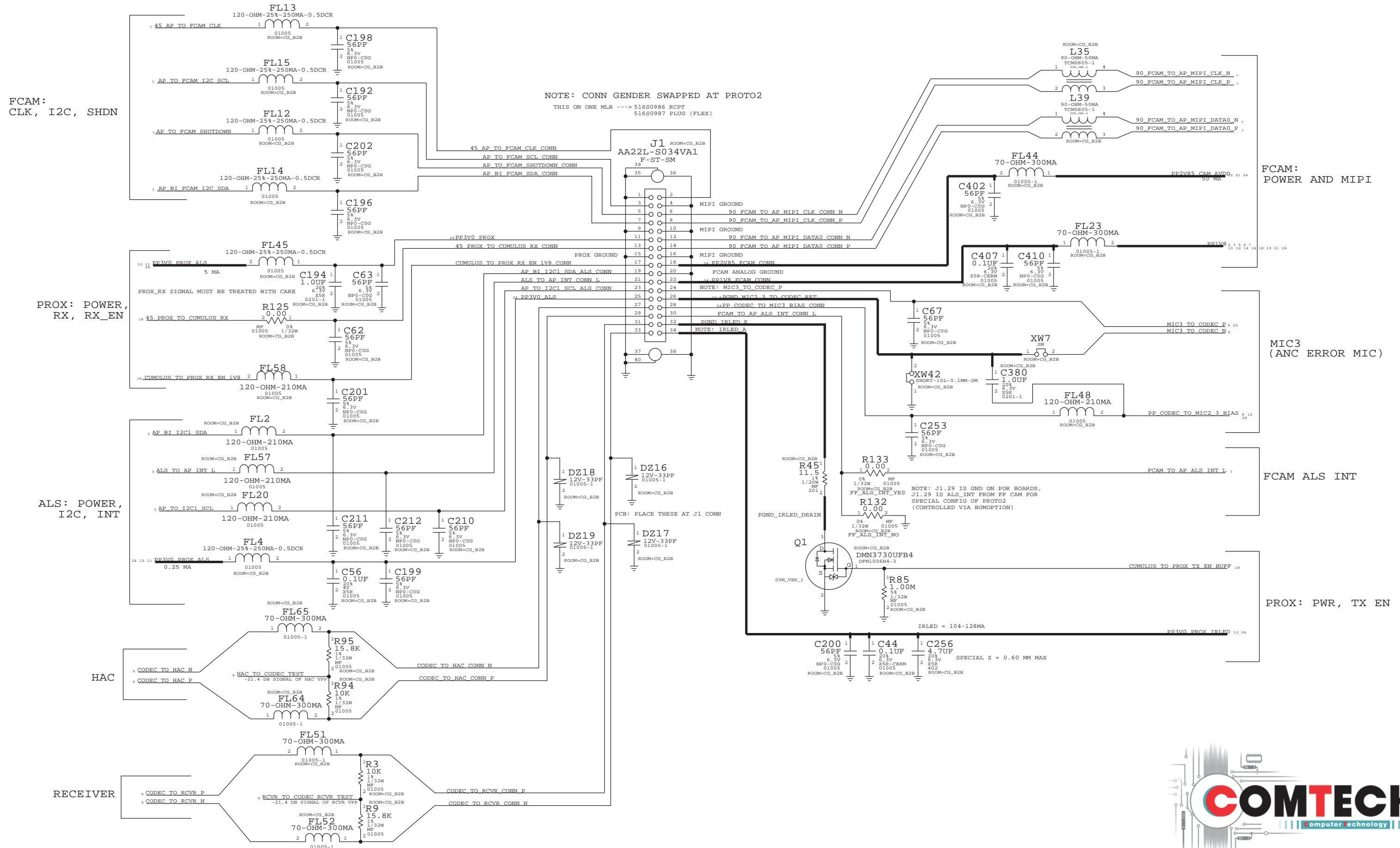
POWER, MICBIAS



DIGITAL SYSTEM I/O



FRONT CAM FLEX B2B (FCAM, PROX, ALS, RECEIVER, ANC ERROR MIC)

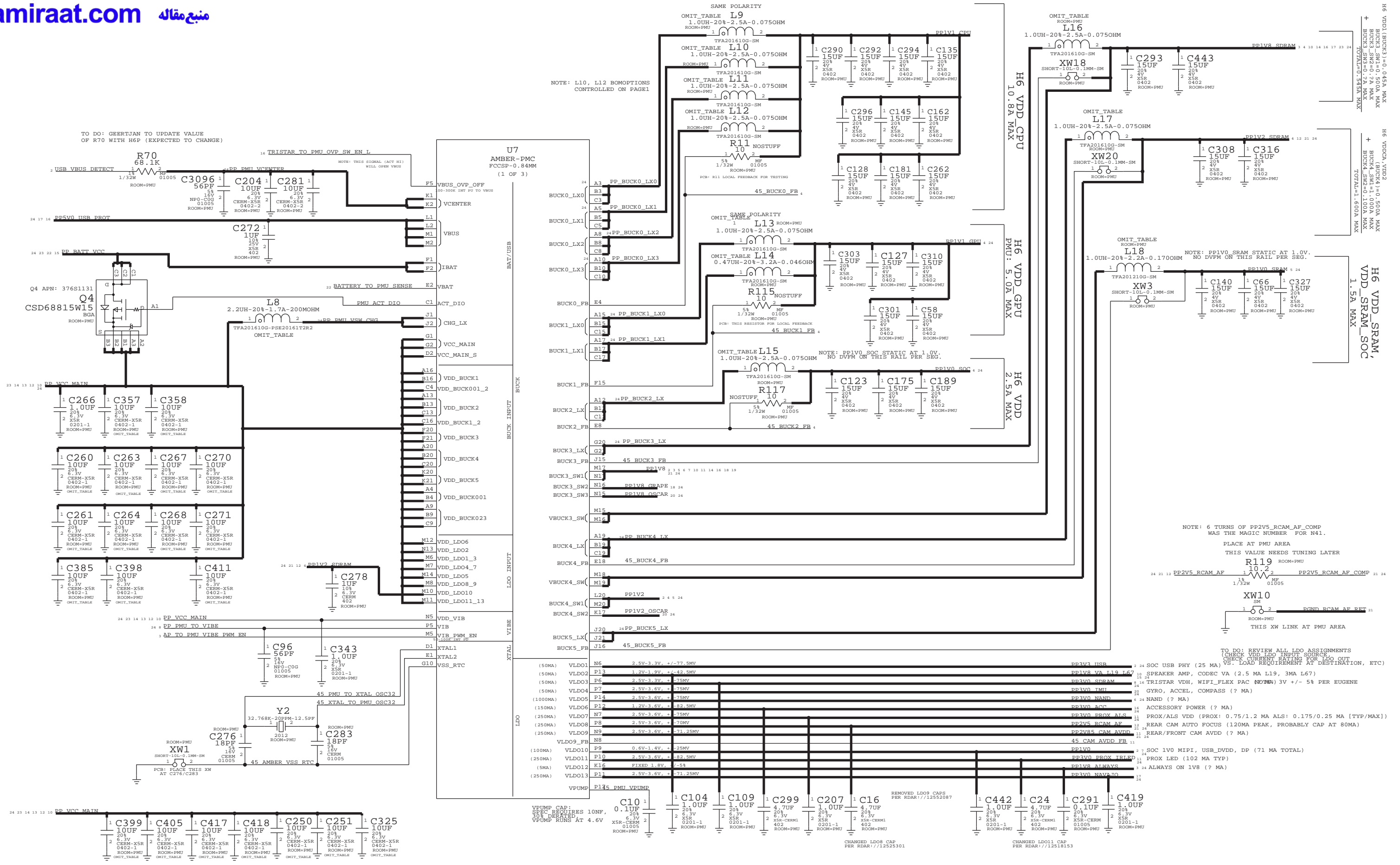




AMBER PMU

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

tamiraat.com منبع مقاله



TO DO: GEERTJAN TO UPDATE VALUE OF R70 WITH H6P (EXPECTED TO CHANGE)

NOTE: L10, L12 BOMPTIONS CONTROLLED ON PAGE1

NOTE: 6 TURNS OF PP2V5_RCAM_AF_COMP WAS THE MAGIC NUMBER FOR N41.

PLACE AT PMU AREA THIS VALUE NEEDS TUNING LATER

TO DO: REVIEW ALL LDO ASSIGNMENTS (CHECK VDD LDO INPUT SOURCE VS. LOAD REQUIREMENT AT DESTINATION, ETC)

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

REMOVED LDO9 CAPS PER RDAR://12552087

CHANGED LDO8 CAP PER RDAR://12553101

CHANGED LDO11 CAP PER RDAR://12518153

H6 VDD1(BUCK3)=0.045A MAX
BUCK3_SW1=0.500A MAX
BUCK3_SW2=0.7A MAX
BUCK3_SW3=0.7A MAX
TOTAL=1.95A MAX

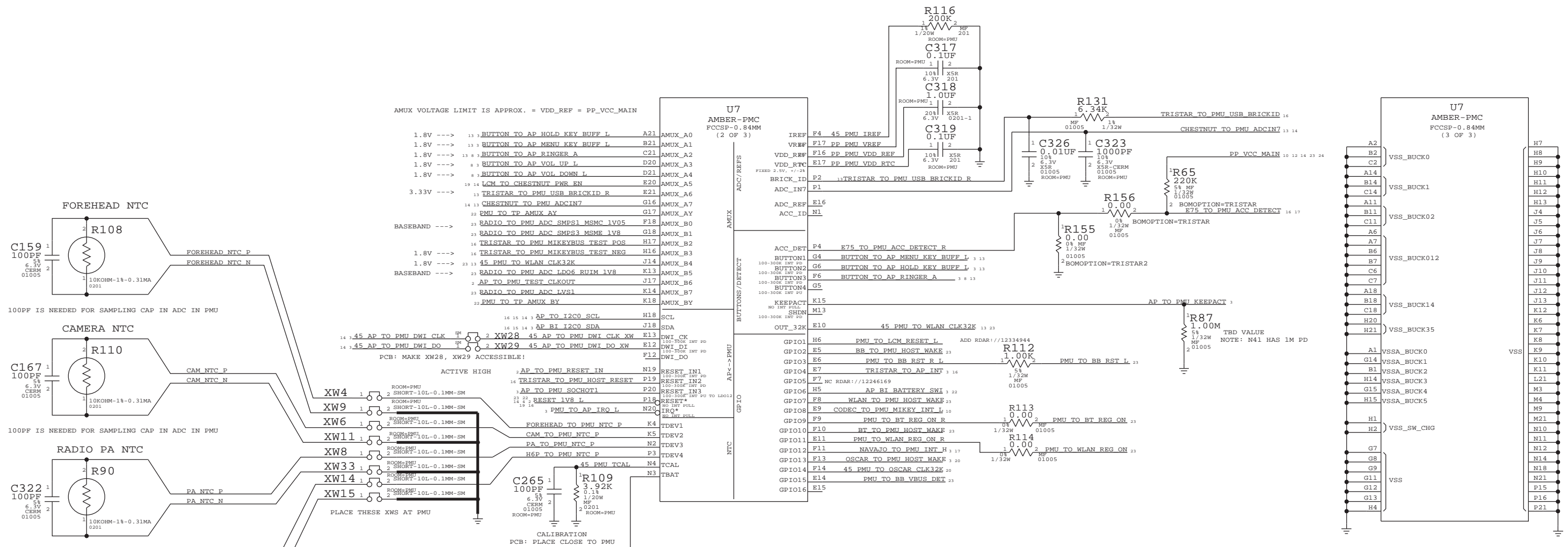
H6 VDDX_VDD2 (BUCK4)=0.500A MAX
BUCK4_SW1=1.000A MAX
BUCK4_SW2=1.000A MAX
TOTAL=1.600A MAX

H6 VDD_SRAM, VDD_SRAM_SOC 1.5A MAX

PP3V3 USB 24 SOC USB PHY (25 MA)
PP1V8 VA I19 I67 10 SPEAKER AMP, CODEC VA (2.5 MA I19, 3MA I67)
PP3V0 SDRAM 16 TRISTAR VDH, WIFI_FLEX PAC (200MA) 3V +/- 5% PER EUGENE
PP3V0 IMI 22 GYRO, ACCEL, COMPASS (? MA)
PP3V0 NAND 24 NAND (? MA)
PP3V0 ACC 16 ACCESSORY POWER (? MA)
PP3V0 PROX ALS 22 PROX/ALS VDD (PROX: 0.75/1.2 MA ALS: 0.175/0.25 MA [TYP/MAX])
PP2V5 RCAM_AF 22 REAR CAM AUTO FOCUS (120MA PEAK, PROBABLY CAP AT 80MA)
PP2V85 CAM AVDD 11 REAR/FRONT CAM AVDD (? MA)
45 CAM AVDD_FB 11
PP1V0 22 SOC IVO MIPT, USB_DVDD, DP (71 MA TOTAL)
PP3V0 PROX IRLED 22 PROX LED (102 MA TYP)
PP1V8 ALWAYS 24 ALWAYS ON I18 (? MA)
PP3V0 NAVATO 22

AMBER PMU

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



100PF IS NEEDED FOR SAMPLING CAP IN ADC IN PMU

100PF IS NEEDED FOR SAMPLING CAP IN ADC IN PMU

100PF IS NEEDED FOR SAMPLING CAP IN ADC IN PMU

100PF IS NEEDED FOR SAMPLING CAP IN ADC IN PMU

AMUX VOLTAGE LIMIT IS APPROX. = VDD_REF = PP_VCC_MAIN

1.8V --->	13	BUTTON TO AP HOLD KEY BUFF L	A21	AMUX_A0
1.8V --->	13	BUTTON TO AP MENU KEY BUFF L	B21	AMUX_A1
1.8V --->	13	BUTTON TO AP RINGER A	C21	AMUX_A2
1.8V --->	8	BUTTON TO AP VOL UP L	D20	AMUX_A3
1.8V --->	8	BUTTON TO AP VOL DOWN L	D21	AMUX_A4
1.8V --->	19	LCM TO CHESTNUT PMR_EN	E20	AMUX_A5
3.33V --->	13	TRISTAR TO PMU USB BRICKID R	E21	AMUX_A6
	14	CHESTNUT TO PMU ADCIN7	G16	AMUX_A7
	22	PMU TO TP AMUX AY	G17	AMUX_AY
BASEBAND --->	23	RADIO TO PMU ADC SMPS1 MSMC 1V05	F18	AMUX_B0
	23	RADIO TO PMU ADC SMPS3 MSME 1V8	G18	AMUX_B1
	16	TRISTAR TO PMU MIKEYBUS TEST POS	H17	AMUX_B2
1.8V --->	14	45 PMU TO WLAN CLK32K	J14	AMUX_B4
1.8V --->	23	RADIO TO PMU ADC LDO6 RUIM 1V8	K13	AMUX_B5
BASEBAND --->	23	AP TO PMU TEST_CLKOUT	J17	AMUX_B6
	23	RADIO TO PMU ADC LVS1	K14	AMUX_B7
	22	PMU TO TP AMUX BY	K18	AMUX_BY

PCB: MAKE XW28, XW29 ACCESSIBLE!

XW4	1	2	SHORT-10L-0.1MM-SM	AP TO PMU RESET IN	N19	RESET_IN1
XW6	1	2	SHORT-10L-0.1MM-SM	TRISTAR TO PMU HOST RESET	P19	RESET_IN2
XW11	1	2	SHORT-10L-0.1MM-SM	AP TO PMU SOCHOT1	P20	RESET_IN3
XW8	1	2	SHORT-10L-0.1MM-SM	RESET 1V8 L	P18	RESET*
XW14	1	2	SHORT-10L-0.1MM-SM	PMU TO AP IRO L	N20	IRO*
XW15	1	2	SHORT-10L-0.1MM-SM	FOREHEAD TO PMU NTC P	K4	TDEV1
				CAM TO PMU NTC P	K5	TDEV2
				PA TO PMU NTC P	N2	TDEV3
				H6P TO PMU NTC P	P3	TDEV4
				45 PMU TCAL	N4	TCAL
				TCAL	N3	TBAT

PCB: PLACE THESE XWS AT PMU

```

AMBER_OTP_AF (PROTO2)
+-----+
| GPIO1 BUCK3_SW1 INPUT WITH PULLDOWN |
| GPIO2 BUCK3 INPUT WITH PULLDOWN    |
| GPIO3 BUCK3 OUTPUT LOW              |
| GPIO4 BUCK3 INPUT WITH PULLDOWN    |
| GPIO5 BUCK3 OUTPUT LOW              |
| GPIO6 BUCK3 INPUT WITH PULL UP/DOWN |
| DISABLED (EXTERNAL PULLUP)         |
| GPIO7 BUCK3 INPUT WITH PULLDOWN    |
| GPIO8 BUCK3 INPUT WITH PULLUP      |
| GPIO9 BUCK3 OUTPUT LOW              |
| GPIO10 BUCK3 INPUT WITH PULLDOWN   |
| GPIO11 BUCK3 OUTPUT LOW+H12        |
| GPIO12 BUCK3 INPUT WITH PULLUP     |
| GPIO13 BUCK3 INPUT WITH PULLDOWN  |
| GPIO14 BUCK3 OUTPUT LOW            |
| GPIO15 VDD_MAIN OUTPUT LOW         |
| GPIO16 BUCK3_SW1 INPUT WITH PULLDOWN |
+-----+
| BUTTON2 WAKE FROM HIB AND STBY.    |
+-----+
| RESET_IN1 ENABLED                  |
| RESET_IN3 ENABLED, ACTIVE LOW, PU/PD |
| DISABLED                            |
| NOTE: HIB STATE IS NOT ENABLED FOR ANY |
| GPIOs (OR TEMP_IRQ FOR GPIO9), NO |
| INPUTS ARE SELECTED AS WAKEUP EVENTS |
| ALL PULLED UP INPUTS ARE SELECTED AS |
| FALLING EDGE INPUTS                |
| ALL PULLED DOWN INPUTS ARE SELECTED |
| AS RISING EDGE INPUTS              |
| BUCKS DEFAULT ON IN ACTIVE.        |
| BUCK2 DEFAULT 1.0V.                |
| LDO9 DEFAULT 2.80V.                |
+-----+
    
```

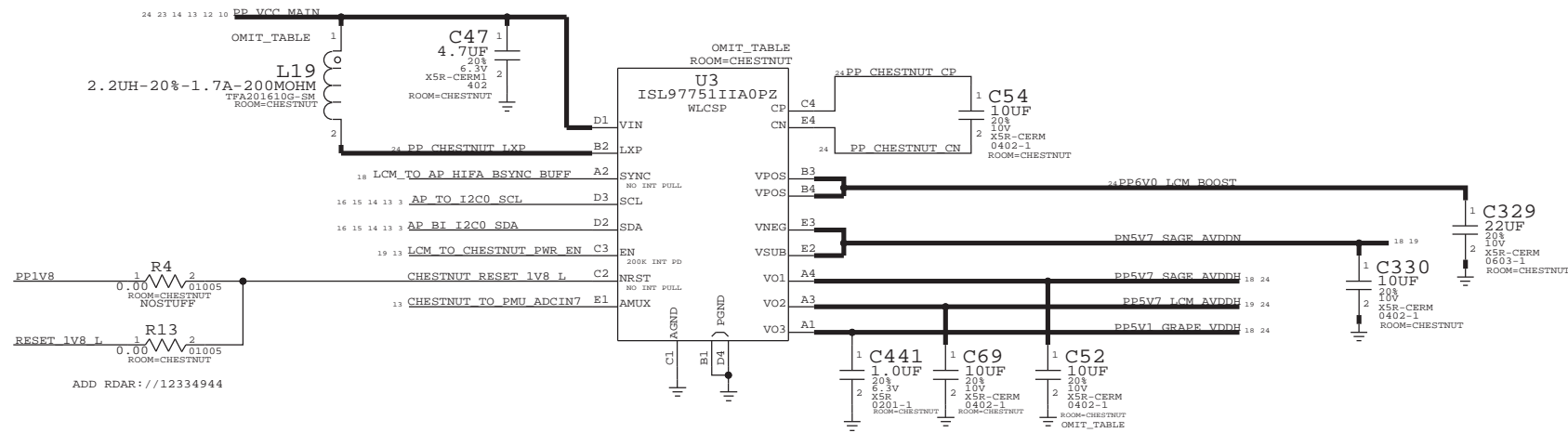


CHESTNUT, BACKLIGHT DRIVER, MESA BOOST

CHESTNUT BOM OPTIONS

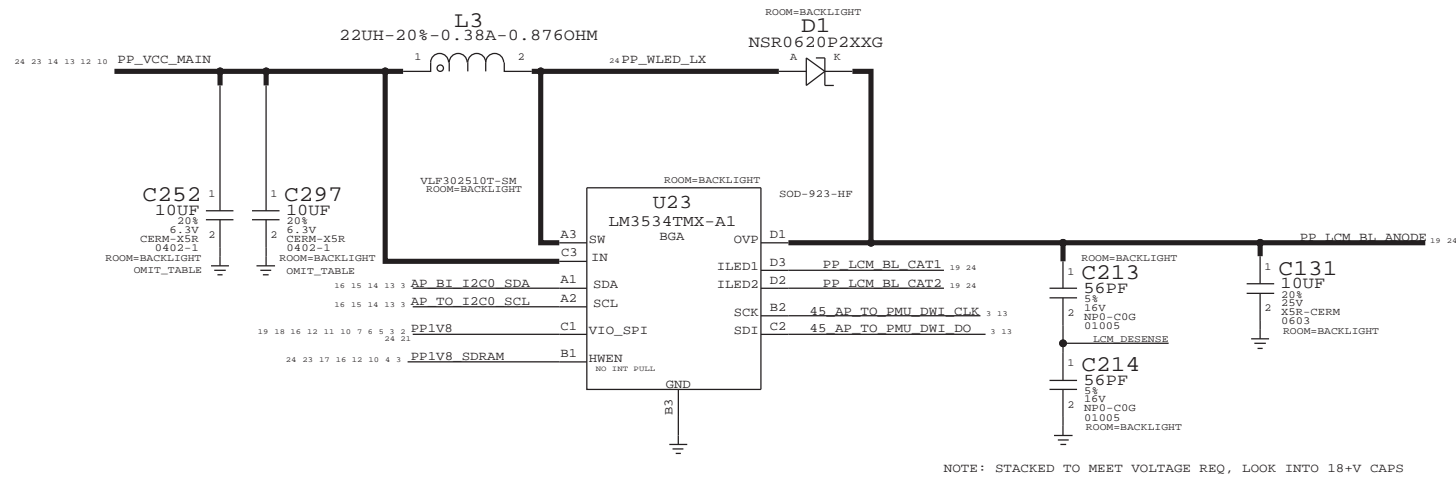
PART#	QTY	DESCRIPTION	REFERENCE DESIGNATOR(S)	CRITICAL	BOM OPTION
338S1172	1	TI CHESTNUT	U3	Y	CHESTNUT_TI
152S1842	1	TI CHESTNUT IND - 1.5UH TAIYO	L19	Y	CHESTNUT_TI_TAIYO
152S1802	1	TI CHESTNUT IND - 1.5UH CVNTEC	L19	Y	CHESTNUT_TI_CVNTEC
338S1168	1	INTERSIL CHESTNUT	U3	Y	CHESTNUT_INTERSIL
152S1805	1	INTERSIL CHESTNUT IND - 2.2UH TFA-A	L19	Y	CHESTNUT_INTERSIL_TFA-A

D403 DISPLAY PMU (INTERSIL CHESTNUT, 338S1148)
(TI CHESTNUT, 338S1149)

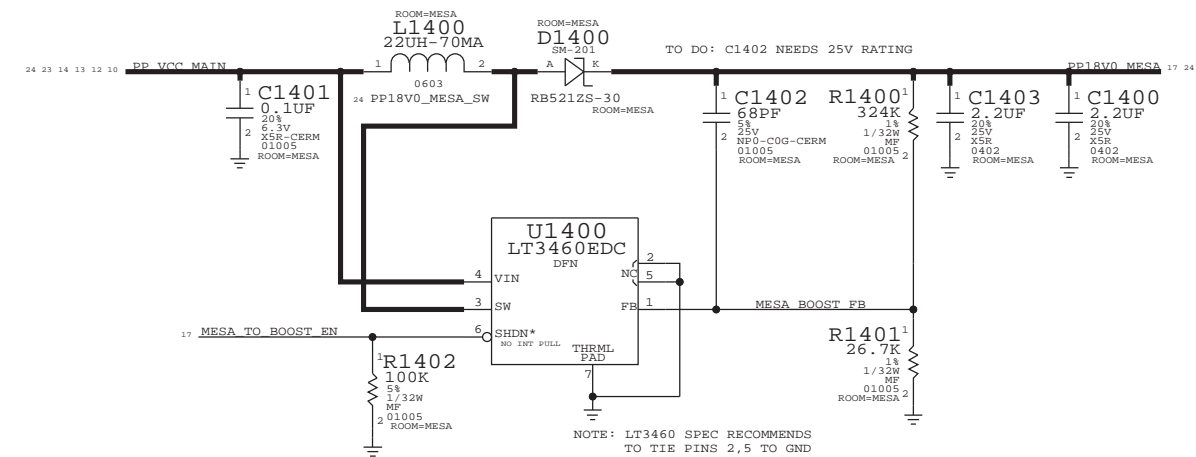


SAGE NEG BOOST TIMING INFO:
2 MS NOMIAL START UP DELAY FOR LCM POWER SEQUENCING
0 MS DELAY AT SHUTDOWN
ACTIVE DISCHARGE 2MS TO RAIL DOWN

D403 BACKLIGHT DRIVER

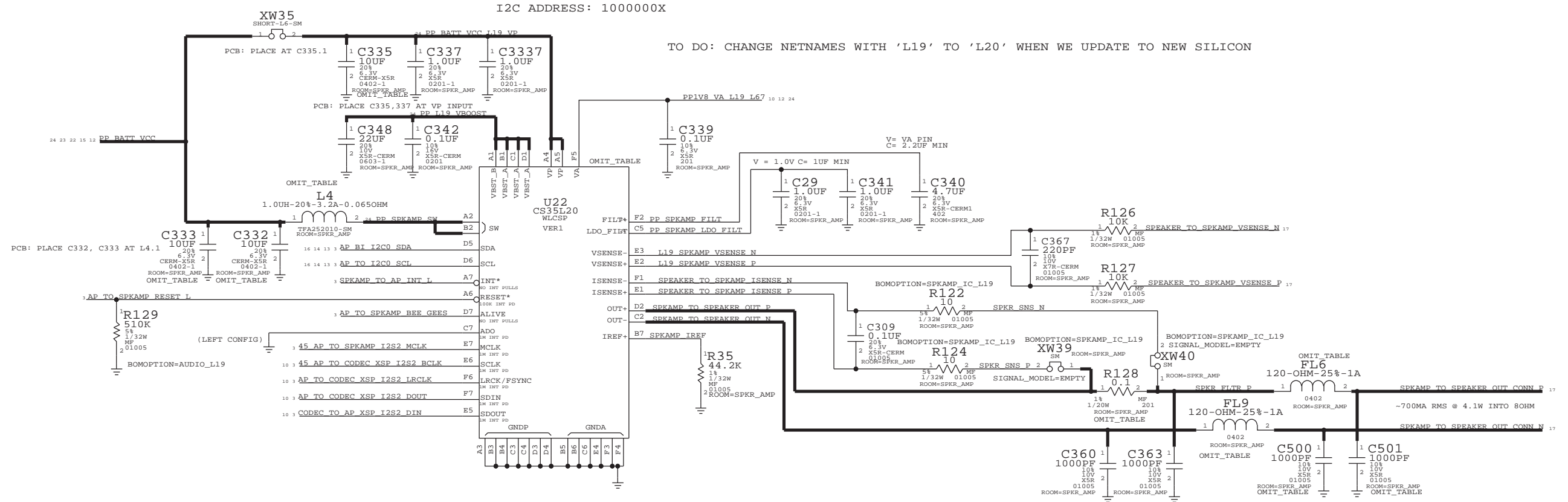


MESA BOOST



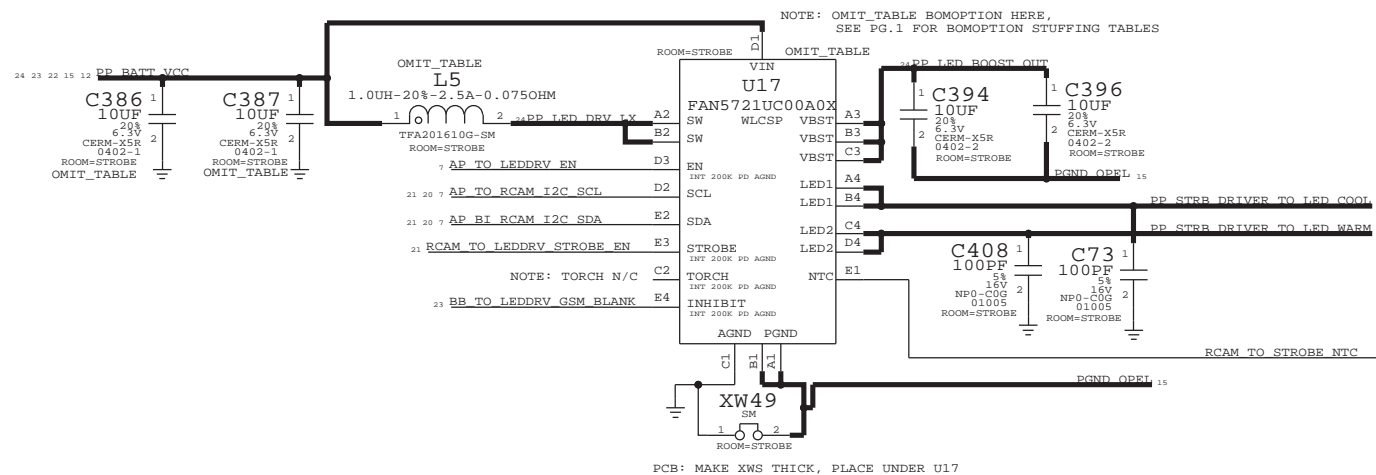
SPEAKER AMP, LED DRIVER

SPEAKER AMP (TO BE REPLACED WITH L20)

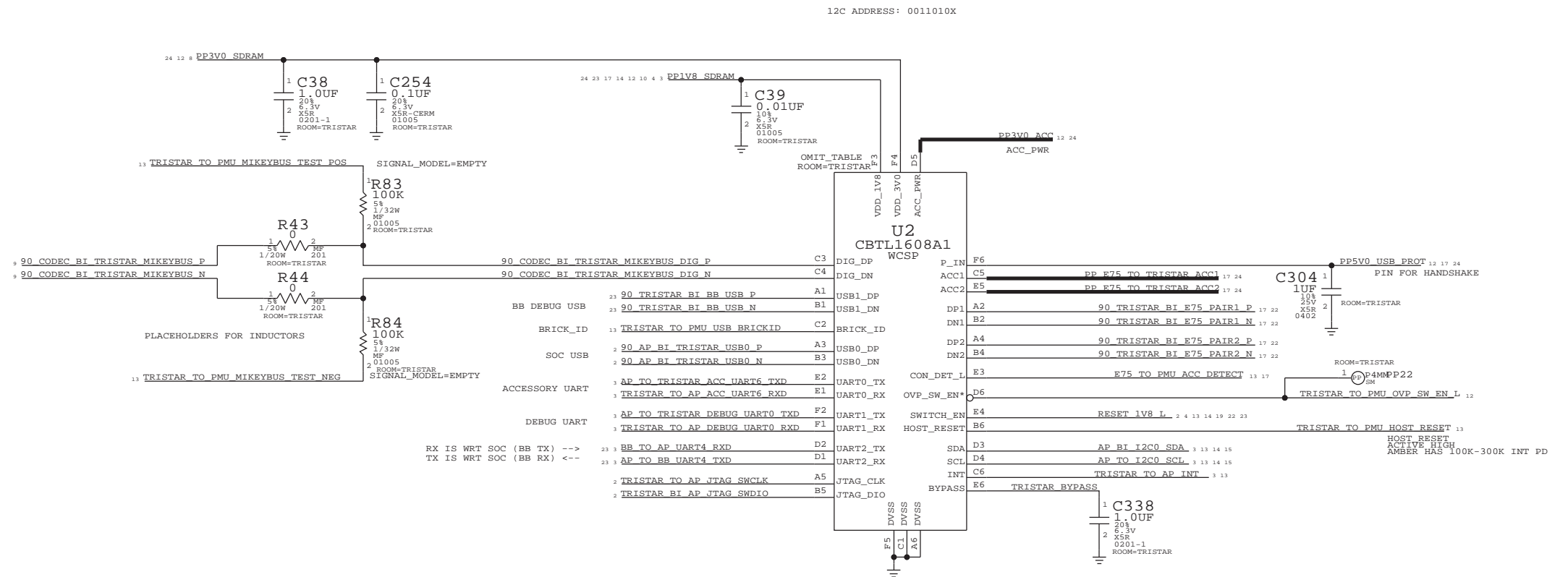


STROBE DRIVER (OPEL)

TI: APN 353S3899
FAIRCHILD: APN 353S3839

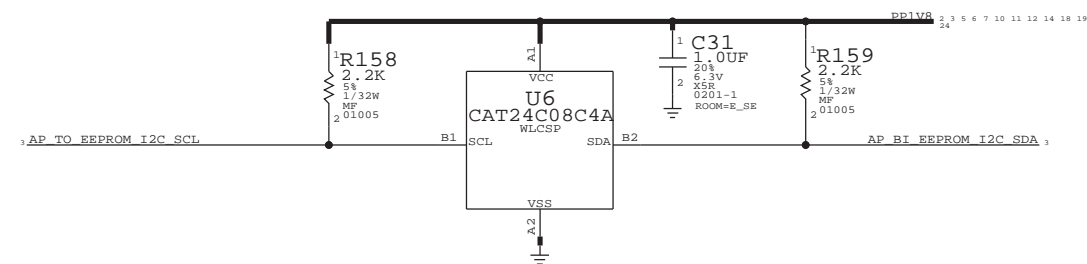


TRISTAR



EEPROM

ONSEMI EEPROM
APN: 335S0894



DOCKFLEX B2B

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

NAVAJO:
VDD(1.8V)
VBOOST(18V)
BOOST_EN

HPHONE:
HS3/HS4,
HPDET,
HS3/HS4 REF,
(+EXTMIC)
HS3/HS4 CTRL

MENU BUTTON

MIC1
(PRIMARY MIC)

ANTENNA:
PAC 2.65V

SPEAKER:
SPEAKER LEADS
VSENSE,

USB VBUS

NAVAJO:
VDD (3.0V)
SPI

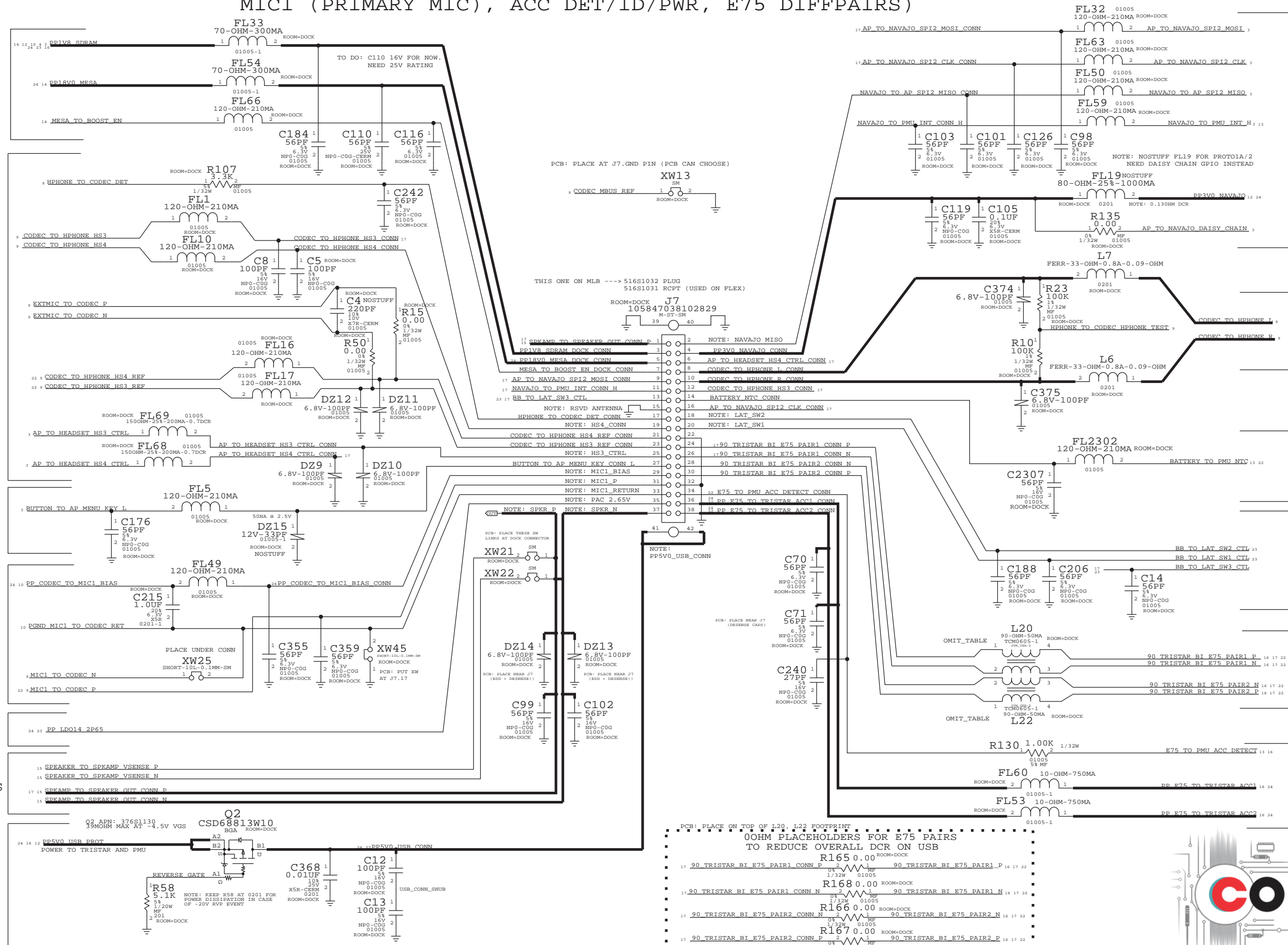
HPHONE AUDIO

BATTERY NTC

ANTENNA:
LAT SW CTRL

E75 DIFFPAIRS

ACCESSORY:
DETECT,
ID, PWR



PCB: PLACE ON TOP OF L20, L22 FOOTPRINT
00HM PLACEHOLDERS FOR E75 PAIRS
TO REDUCE OVERALL DCR ON USB

R165 0.00
R168 0.00
R166 0.00
R167 0.00

90 TRISTAR BI E75 PAIR1 CONN P
90 TRISTAR BI E75 PAIR1 N
90 TRISTAR BI E75 PAIR2 CONN N
90 TRISTAR BI E75 PAIR2 P

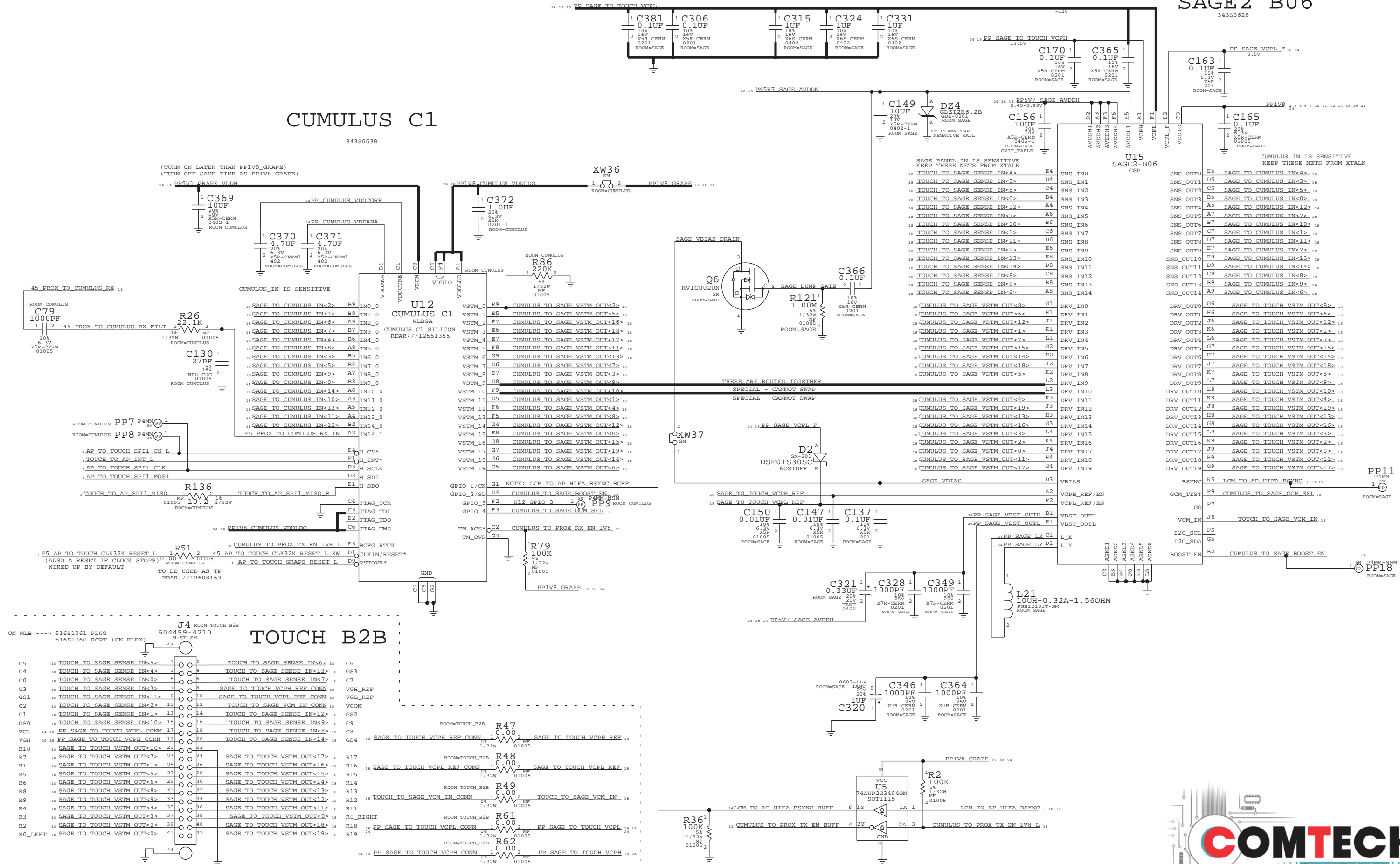


D403 (B2B, DRIVER ICS)

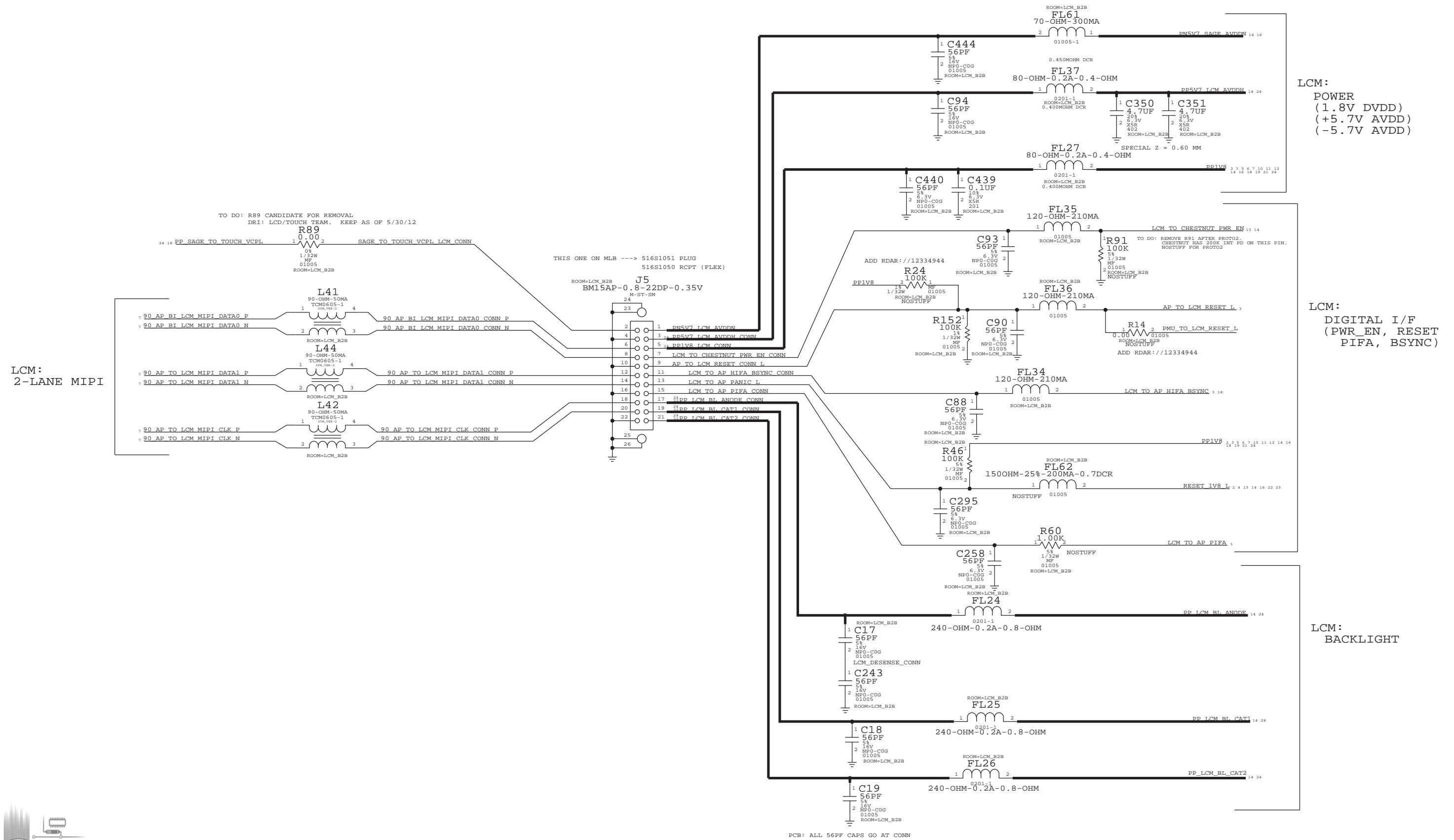
SAGE2 B06
34380628

CUMULUS C1

34380638



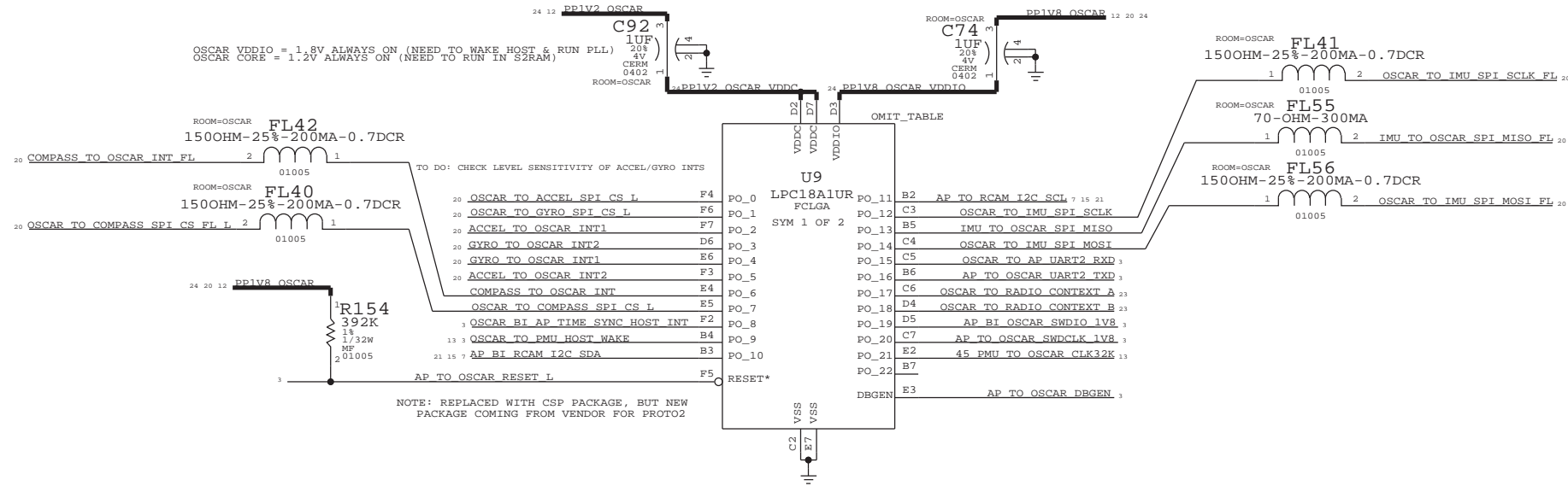
LCM B2B



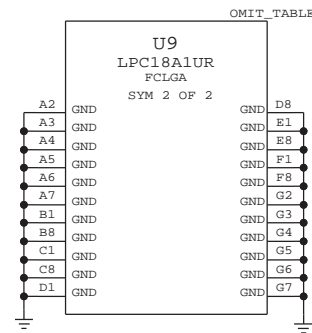
OSCAR + SENSORS

OSCAR MODULE (CONFORMAL COATED)

APN 337S4417



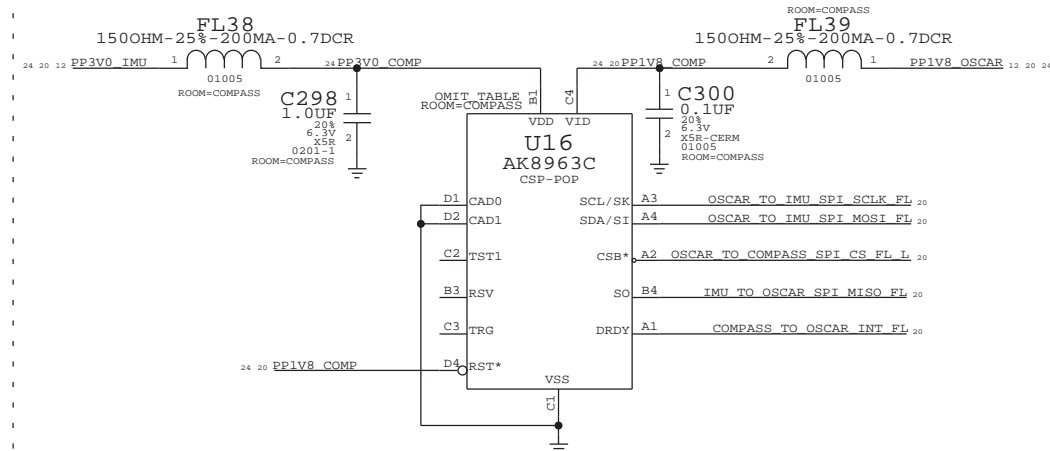
OSCAR MODULE GND BALLS
(THIS SYMBOL DOES NOT EXIST ON OSCAR CSP)



THIS PART OUTSIDE OF SHIELD

COMPASS

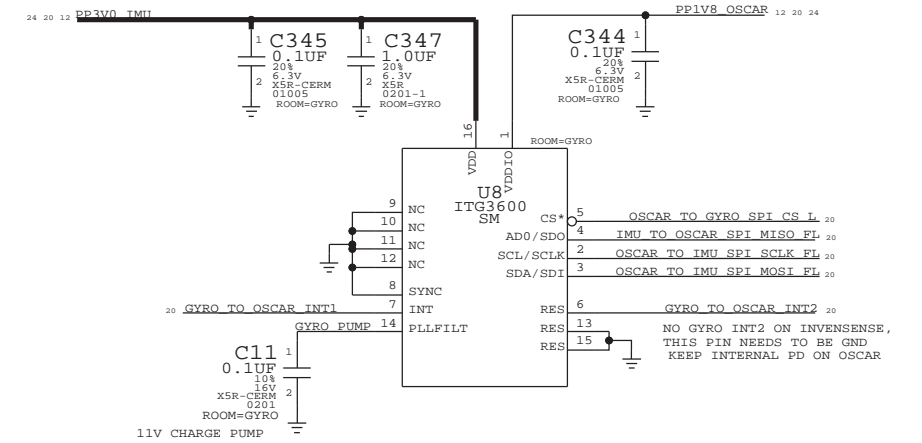
COMPASS CSP: 338S1014
COMPASS INTERPOSER (FOOTPRINT ONLY): 998-5120
COMPASS INTERPOSER MODULE: 639-4269



THESE PARTS INSIDE OF SHIELD

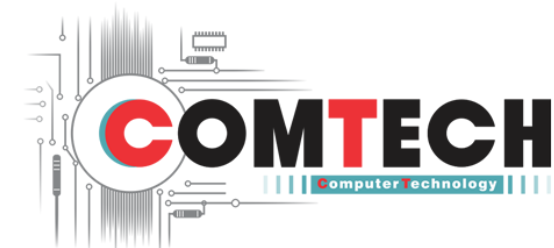
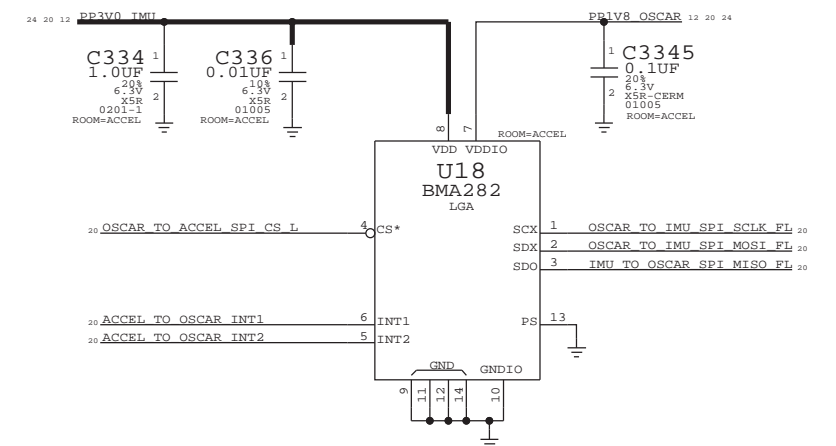
GYRO

X152: INVENSENSE ITG-3600, APN 338S1135



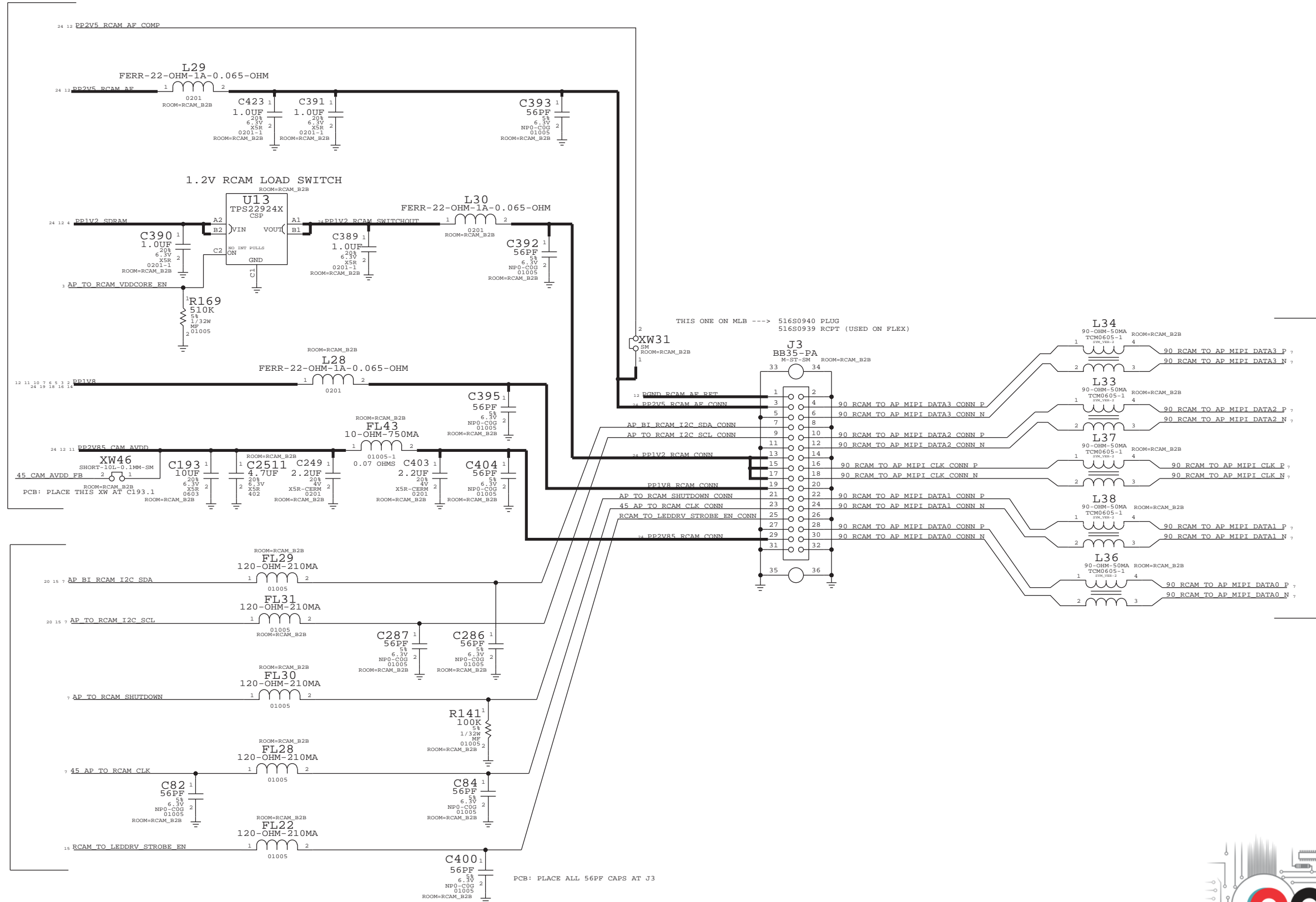
ACCELEROMETER

X152: BOSCH BMA282, APN 338S1163



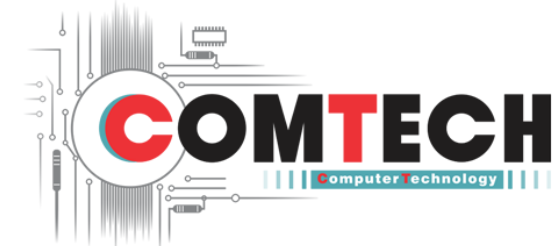
RCAM B2B (REAR CAMERA CONNECTOR)

RCAM:
POWER:
(1.8V DVDD)
(2.8V AVDD)
(1.2V VCC)
(2.5V AF)



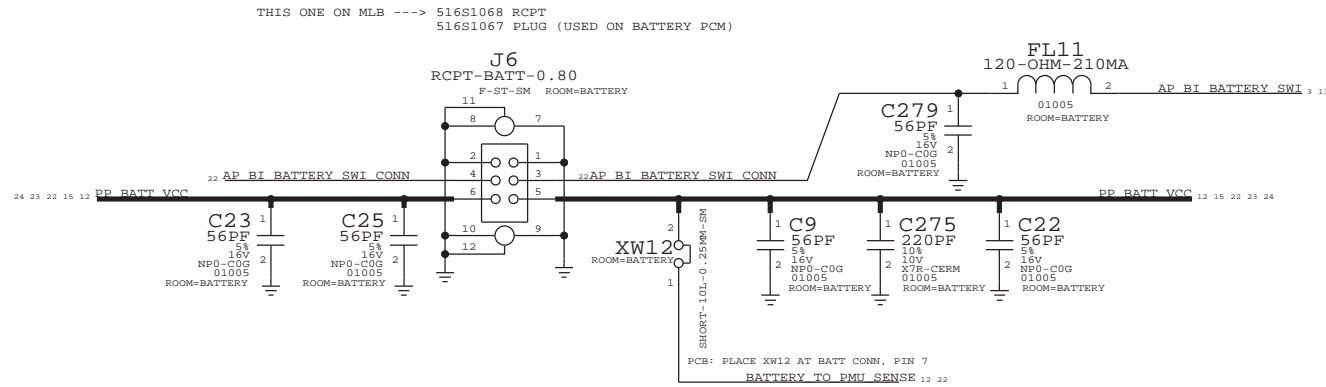
RCAM:
DIGITAL I/F
(I2C, CTRL, CLK)

RCAM:
4-LANE MIPI



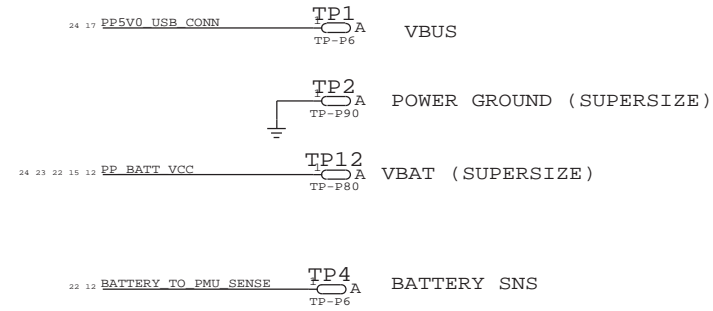
BATT CONN, TPS, STANDOFFS / SHIELDS / FIDUCIALS

BATTERY CONN

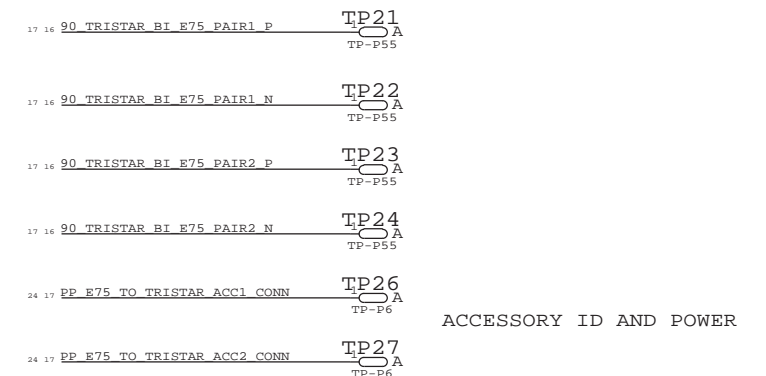


TESTPOINTS

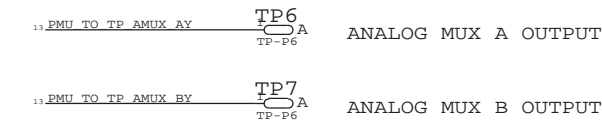
POWER TP



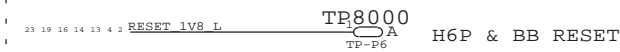
E75 - USB/UART/ID/POWER



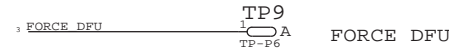
SUPER TP



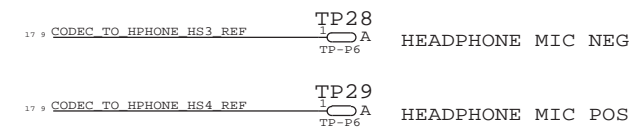
RESET



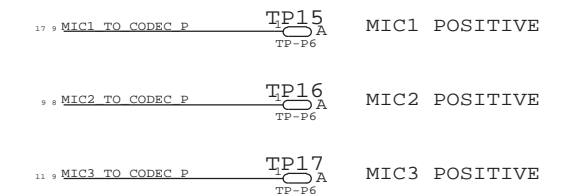
DFU



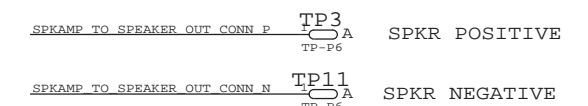
HEADPHONE MIC



MIC AUDIO

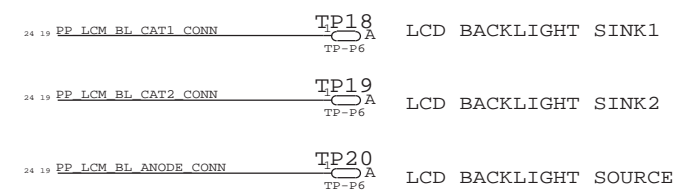


DRIVE MIC WRT NEAREST GROUND TEST POINT

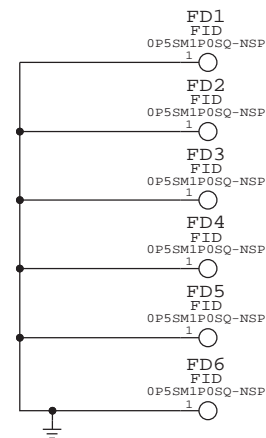


ADDED PER RDAR://12460740

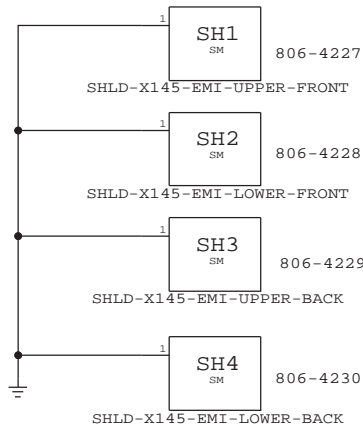
LCM BACKLIGHT



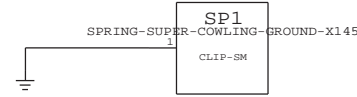
FIDUCIALS



SHIELDS

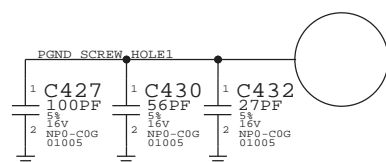


COWLING

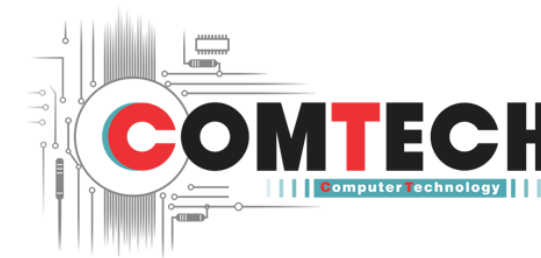
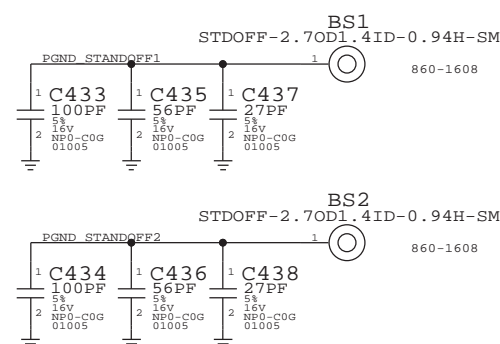


AC COUPLED SCREW HOLES + STANDOFFS (ON NORTH END OF SINGLE_BRD, TO MITIGATE COMPASS RETURN CURRENTS)

SCREW HOLES



STANDOFFS



RADIO_MLB HIERARCHICAL SYMBOL

AP/RADIO INTERFACE

RF I627	Symbol	Property	Target	Property	Symbol	Property
45 24 22 15 12	PP_BATT_VCC	MAKE_BASE=TRUE	PP_BATT_VCC_CONN			
66 24 14 13 12 10	PP_VCC_MAIN	MAKE_BASE=TRUE	PP_VCC_MAIN_WLAN			
66 24 17 16 14 12 10 4 3	PP1V8_SDRAM	MAKE_BASE=TRUE	PP_ML_BT_VDDIO_AP			
46 24 17	PP_LDO14_2P65	MAKE_BASE=TRUE	PP_LDO14_2V65			
45 3	AP TO RADIO_ON_L	MAKE_BASE=TRUE	RADIO_ON_L	BB_JTAG_TCK	MAKE_BASE=TRUE	AP TO BB JTAG TCK
45 3	BB TO AP RESET_DET_L	MAKE_BASE=TRUE	RESET_DET_L	BB_JTAG_TDI	MAKE_BASE=TRUE	AP TO BB JTAG TDI
45 13	PMU TO BB_RST_L	MAKE_BASE=TRUE	RESET_PMU_L	BB_JTAG_TMS	MAKE_BASE=TRUE	AP TO BB JTAG TMS
45 3	AP TO BB_RST_L	MAKE_BASE=TRUE	BB_RST_L	BB_JTAG_TRST_L	MAKE_BASE=TRUE	AP TO BB JTAG TRST
45 22 19 16 14 13 4 2	RESET_1V8_L	MAKE_BASE=TRUE	RF_RESET_L	BB_JTAG_TDO	MAKE_BASE=TRUE	BB TO AP JTAG TDO
45 13	45 PMU TO WLAN_CLK32K	MAKE_BASE=TRUE	CLK32K_AP			
49 15	BB TO LEDDRV_GSM_BLANK	MAKE_BASE=TRUE	TX_GTR_THRESH			
49 16	90 TRISTAR_BI_BB_USB_N	MAKE_BASE=TRUE	90_BB_USB_D_N			
49 16	90 TRISTAR_BI_BB_USB_P	MAKE_BASE=TRUE	90_BB_USB_D_P			
45 13	PMU TO BB_VBUS_DET	MAKE_BASE=TRUE	BB_USB_VBUS			
45 3	AP TO BB_UART4_RTS_L	MAKE_BASE=TRUE	BB_UART_CTS_L			
45 3	BB TO AP_UART4_CTS_L	MAKE_BASE=TRUE	BB_UART_RTS_L			
45 3	AP TO BB_UART4_TXD	MAKE_BASE=TRUE	BB_UART_RXD			
45 16 3	BB TO AP_UART4_RXD	MAKE_BASE=TRUE	BB_UART_TXD			
45 13	BB TO PMU_HOST_WAKE	MAKE_BASE=TRUE	HOST_WAKE_BB			
49 3	BB TO AP_PP_SYNC	MAKE_BASE=TRUE	PP_SYNC			
45 3	45 AP TO BB_I2S1_BCLK	MAKE_BASE=TRUE	BB_I2S_CLK_RADIO_MLB			
45 3	AP TO BB_I2S1_DOUT	MAKE_BASE=TRUE	BB_I2S_RXD			
45 3	BB TO AP_I2S1_DIN	MAKE_BASE=TRUE	BB_I2S_TXD			
45 3	AP TO BB_I2S1_LRCLK	MAKE_BASE=TRUE	BB_I2S_MS			
45 13	RADIO TO PMU_ADC_SMPS1_MSMC_1V05	MAKE_BASE=TRUE	ADC_SMPS1_MSMC_1V05			
45 13	RADIO TO PMU_ADC_SMPS3_MSME_1V8	MAKE_BASE=TRUE	ADC_SMPS3_MSME_1V8			
45 13	RADIO TO PMU_ADC_LDO6_RUIM_1V8	MAKE_BASE=TRUE	ADC_LDO6_RUIM_1V8			
45 13	RADIO TO PMU_ADC_LVS1	MAKE_BASE=TRUE	ADC_LVS1			
45 13	PMU TO WLAN_REG_ON	MAKE_BASE=TRUE	WLAN_REG_ON			
66 3	AP TO WLAN_UART3_TXD	MAKE_BASE=TRUE	WLAN_UART_RXD			
66 3	WLAN TO AP_UART3_RXD	MAKE_BASE=TRUE	WLAN_UART_TXD			
66 13	WLAN TO PMU_HOST_WAKE	MAKE_BASE=TRUE	HOST_WAKE_WLAN			
45 13	PMU TO BT_REG_ON	MAKE_BASE=TRUE	BT_REG_ON			
66 3	AP TO BT_UART1_RTS_L	MAKE_BASE=TRUE	BT_UART_CTS_L			
66 3	BT TO AP_UART1_CTS_L	MAKE_BASE=TRUE	BT_UART_RTS_L			
66 3	AP TO BT_UART1_TXD	MAKE_BASE=TRUE	BT_UART_RXD			
45 3	BT TO AP_UART1_RXD	MAKE_BASE=TRUE	BT_UART_TXD			
45 3	AP TO BT_WAKE	MAKE_BASE=TRUE	BT_WAKE			
66 13	BT TO PMU_HOST_WAKE	MAKE_BASE=TRUE	HOST_WAKE_BT			
66 3	45 AP TO BT_I2S3_BCLK	MAKE_BASE=TRUE	BT_PCM_CLK			
66 3	AP TO BT_I2S3_DOUT	MAKE_BASE=TRUE	BT_PCM_IN			
66 3	BT TO AP_I2S3_DIN	MAKE_BASE=TRUE	BT_PCM_OUT			
66 3	AP TO BT_I2S3_LRCLK	MAKE_BASE=TRUE	BT_PCM_SYNC			
45 2	50 AP BI_BB_HSIC1_DATA	MAKE_BASE=TRUE	50_HSIC_BB_DATA			
45 2	50 AP BI_BB_HSIC1_STB	MAKE_BASE=TRUE	50_HSIC_BB_STROBE			
45 3	AP TO BB_HSIC1_RDY	MAKE_BASE=TRUE	AP_HSIC1_RDY			
45 3	BB TO AP_HSIC1_RDY	MAKE_BASE=TRUE	PBL_RUN_BB_HSIC1_RDY			
49 3	BB TO AP_HSIC1_REMOTE_WAKE	MAKE_BASE=TRUE	BB_HSIC1_REMOTE_WAKE			
49 3	AP TO BB_WAKE_MODEM	MAKE_BASE=TRUE	AP_WAKE_MODEM			
45 2	50 AP BI_WLAN_HSIC2_DATA	MAKE_BASE=TRUE	50_HSIC_WLAN_DATA			
45 2	50 AP BI_WLAN_HSIC2_STB	MAKE_BASE=TRUE	50_HSIC_WLAN_STROBE			
45 3	AP TO WLAN_HSIC2_RDY	MAKE_BASE=TRUE	AP_HSIC3_RDY			
45 3	WLAN TO AP_HSIC2_RDY	MAKE_BASE=TRUE	WLAN_HSIC3_DEVICE_RDY			
45 3	WLAN TO AP_HSIC2_REMOTE_WAKE	MAKE_BASE=TRUE	WLAN_HSIC3_RESUME			
45 17	BB TO LAT_SW1_CTL	MAKE_BASE=TRUE	LAT_SW1_CTL			
45 17	BB TO LAT_SW2_CTL	MAKE_BASE=TRUE	LAT_SW2_CTL			
45 17	BB TO LAT_SW3_CTL	MAKE_BASE=TRUE	LAT_SW3_CTL			
49 8	BB TO ANTENNA_PAC_SPI_CS	MAKE_BASE=TRUE	BB_SPI_TO_PAC_CS			
49 8	BB TO ANTENNA_PAC_SPI_SCLK	MAKE_BASE=TRUE	BB_SPI_TO_PAC_CLK			
49 8	BB TO ANTENNA_PAC_SPI_MOSI	MAKE_BASE=TRUE	BB_SPI_TO_PAC_DATA_MOSI			
49 8	ANTENNA_PAC TO BB_SPI_MISO	MAKE_BASE=TRUE	PAC_TO_BB_SPI_DATA_MISO			
49 3	BB TO AP_IPC_GPIO	MAKE_BASE=TRUE	BB_IPC_GPIO			
49 20	OSCAR TO RADIO_CONTEXT_A	MAKE_BASE=TRUE	OSCAR_CONTEXT_A			
49 20	OSCAR TO RADIO_CONTEXT_B	MAKE_BASE=TRUE	OSCAR_CONTEXT_B			

BOARD_ID BOM OPTIONS

PART#	QTY	DESCRIPTION	REFERENCE DESIGNATOR(S)	CRITICAL	BOM OPTION
11880621	1	1.00M 1% 01005	R25_RF	Y	N51_CFG_A
11880732	1	50K 1% 01005	R26_RF	Y	N51_CFG_A
11780159	1	470K 5% 01005	R25_RF	Y	N51_CFG_B
11880626	1	100K 1% 01005	R26_RF	Y	N51_CFG_B
11880626	1	100K 1% 01005	R25_RF	Y	N53_CFG_A
11880726	1	162K 1% 01005	R26_RF	Y	N53_CFG_A
11880626	1	100K 1% 01005	R25_RF	Y	N53_CFG_B
11880623	1	267K 1% 01005	R26_RF	Y	N53_CFG_B
11880659	1	255K 1% 01005	R25_RF	Y	N48_CFG_A
11880626	1	100K 1% 01005	R26_RF	Y	N48_CFG_A
11880689	1	147K 1% 01005	R26_RF	Y	N48_CFG_B
11880626	1	100K 1% 01005	R26_RF	Y	N48_CFG_B
11880626	1	100K 1% 01005	R25_RF	Y	N49_CFG_A
11880650	1	499K 1% 01005	R26_RF	Y	N49_CFG_A
11880732	1	50K 1% 01005	R25_RF	Y	N49_CFG_B
11880621	1	1.00M 1% 01005	R26_RF	Y	N49_CFG_B

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

BOARD_ID BOM OPTIONS

PART#	QTY	DESCRIPTION	REFERENCE DESIGNATOR(S)	CRITICAL	BOM OPTION
118S0621	1	1.00M 1% 01005	R25_RF	Y	N51_CFG_A
118S0732	1	50K 1% 01005	R26_RF	Y	N51_CFG_A
117S0159	1	470K 5% 01005	R25_RF	Y	N51_CFG_B
118S0626	1	100K 1% 01005	R26_RF	Y	N51_CFG_B
118S0626	1	100K 1% 01005	R25_RF	Y	N53_CFG_A
118S0726	1	162K 1% 01005	R26_RF	Y	N53_CFG_A
118S0626	1	100K 1% 01005	R25_RF	Y	N53_CFG_B
118S0623	1	267K 1% 01005	R26_RF	Y	N53_CFG_B
118S0659	1	255K 1% 01005	R25_RF	Y	N48_CFG_A
118S0626	1	100K 1% 01005	R26_RF	Y	N48_CFG_A
118S0689	1	147K 1% 01005	R26_RF	Y	N48_CFG_B
118S0626	1	100K 1% 01005	R26_RF	Y	N48_CFG_B
118S0626	1	100K 1% 01005	R25_RF	Y	N49_CFG_A
118S0650	1	499K 1% 01005	R26_RF	Y	N49_CFG_A
118S0732	1	50K 1% 01005	R25_RF	Y	N49_CFG_B
118S0621	1	1.00M 1% 01005	R26_RF	Y	N49_CFG_B

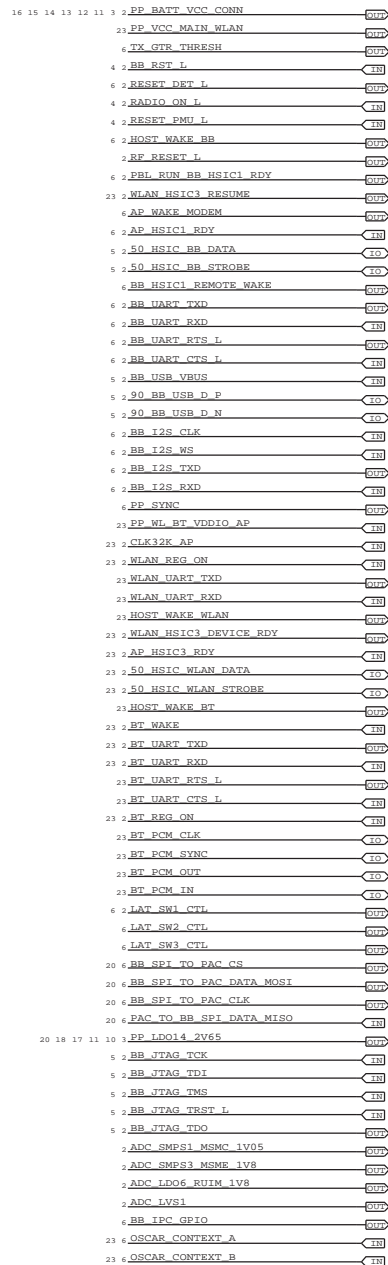
SCH : 951-2770
 BOM : 639-3973
 BOARD : 820-3382

PART#	QTY	DESCRIPTION	REFERENCE DESIGNATOR(S)	CRITICAL	BOM OPTION
951-2445	1	X152_RADIO_MLB	SCH	Y	
825-2029	1	EEE FOR 939-0308	EEEE_????	Y	NA

AP INTERFACE & DEBUG CONNECTORS

AP CONNECTIONS

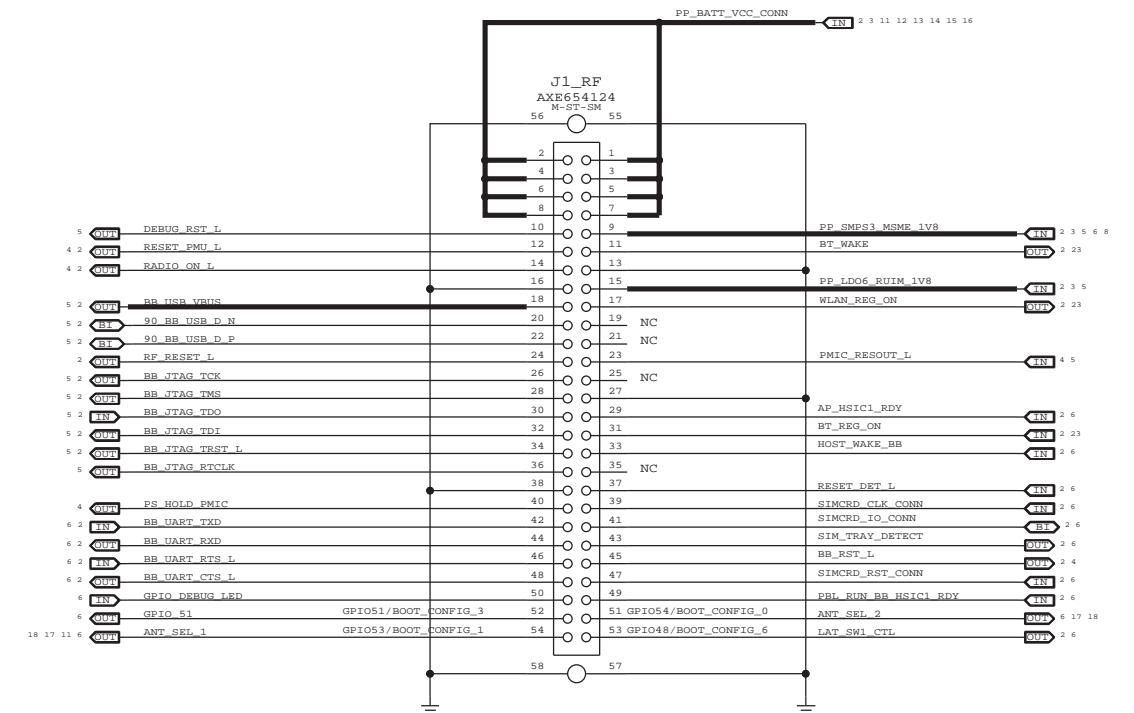
IN = FROM AP
OUT = TO AP



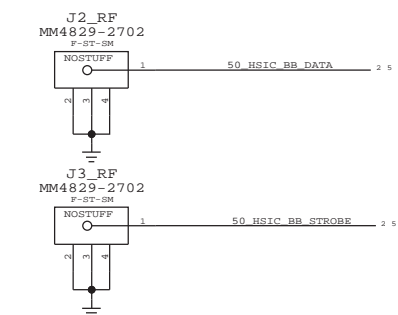
PROBE POINTS



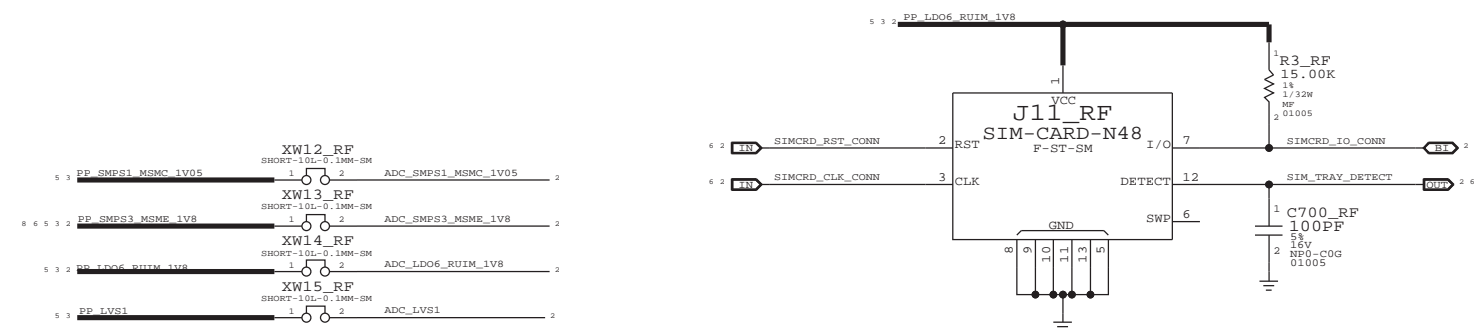
DEBUG CONNECTOR



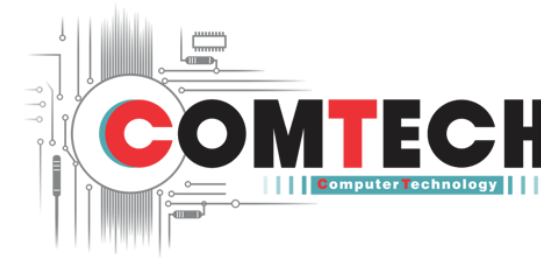
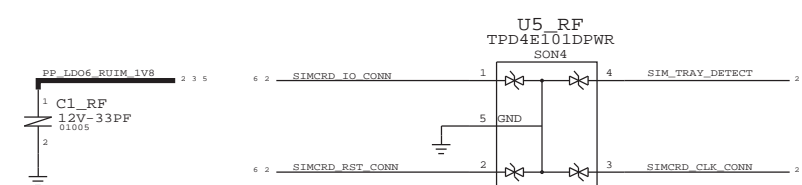
BOOT OPTIONS	BOOT_CONFIG SW REGISTER VALUE	GPIO/BOOT_CONFIG CONFIGURATION								
		6	5	4	3	2	1	0		
BOOT_DEFAULT_OPTION	0x00	X	0	0	0	0	0	0	0	X
BOOT_NAND_OPTION	0x01	X	1	0	0	0	0	0	1	X
BOOT_HSIC_OPTION	0x02	X	1	0	0	0	0	1	0	X
BOOT_USB_OPTION	0x03	X	1	0	0	0	0	1	1	X
ENABLE SAHARA PROTOCOL	0x08	X	1	0	0	1	0	X	X	X



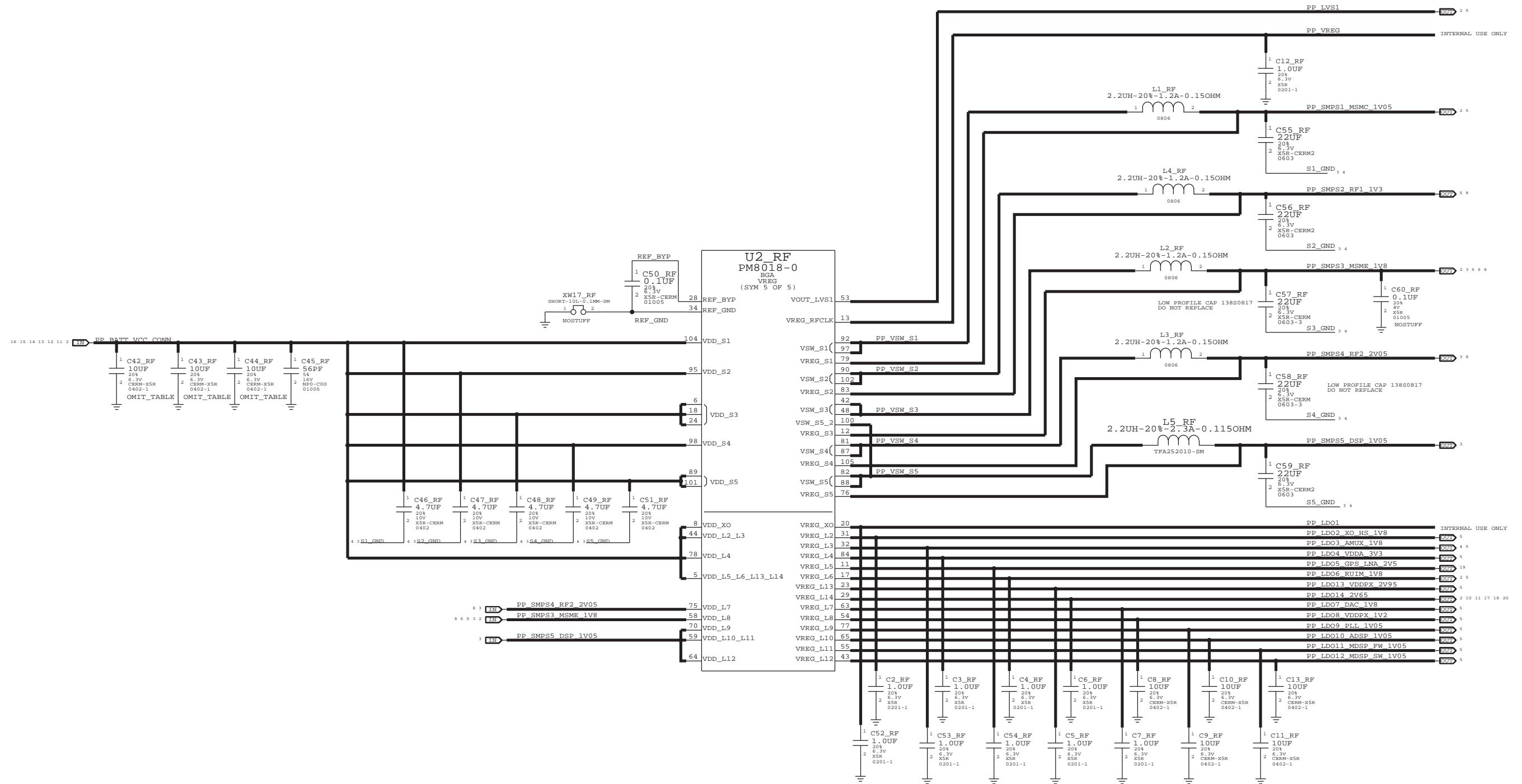
SIM CARD CONNECTOR



SIM CARD ESD PROTECTION



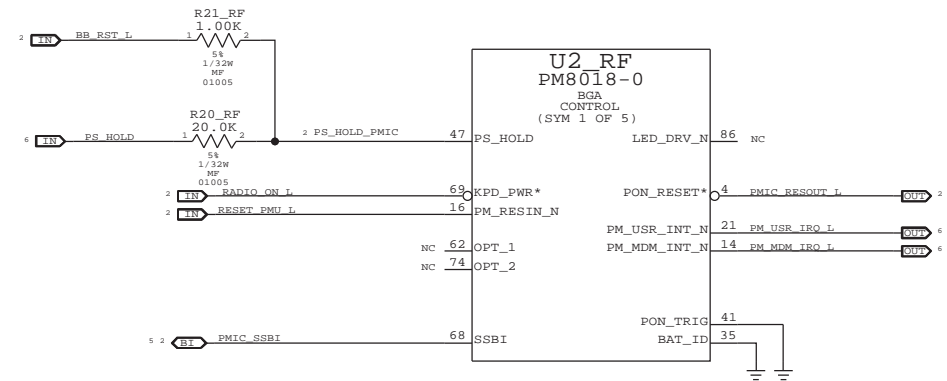
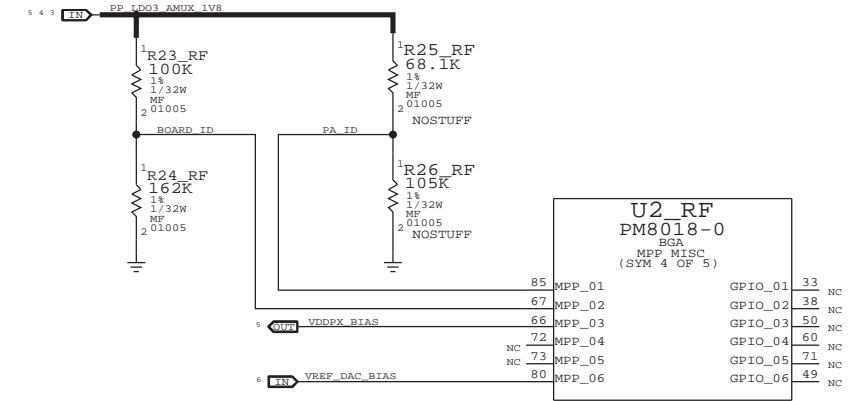
PMU (1 OF 2)



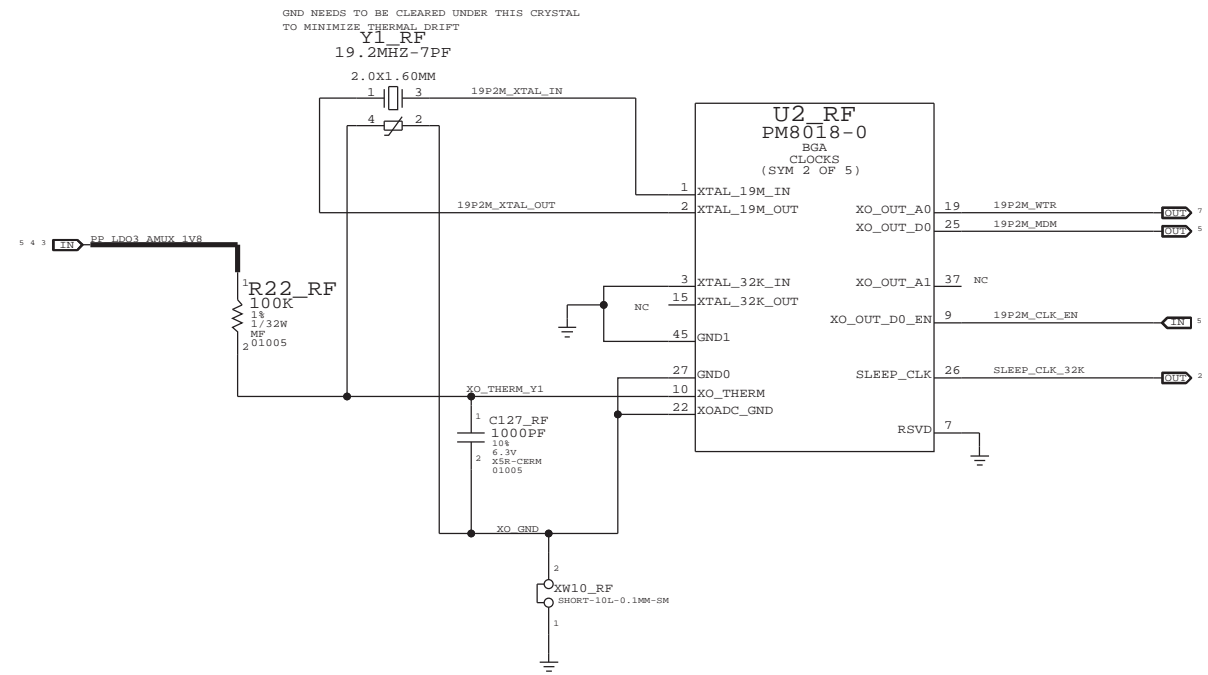
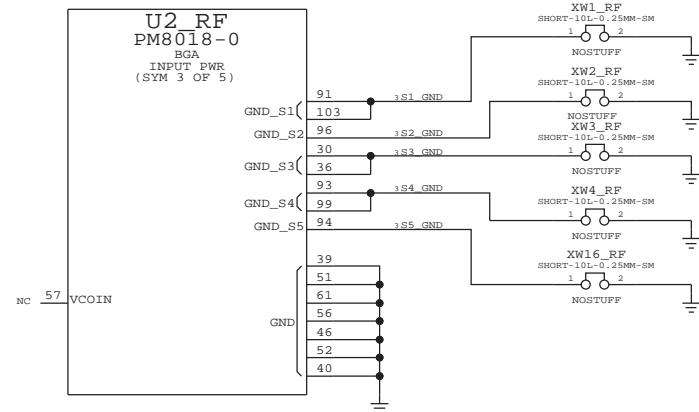
PMU (2 OF 2)

PA_ID	CONFIG
1.1V	CONFIG A
1.3V	CONFIG B
1.5V	CONFIG C
1.7V	CONFIG D

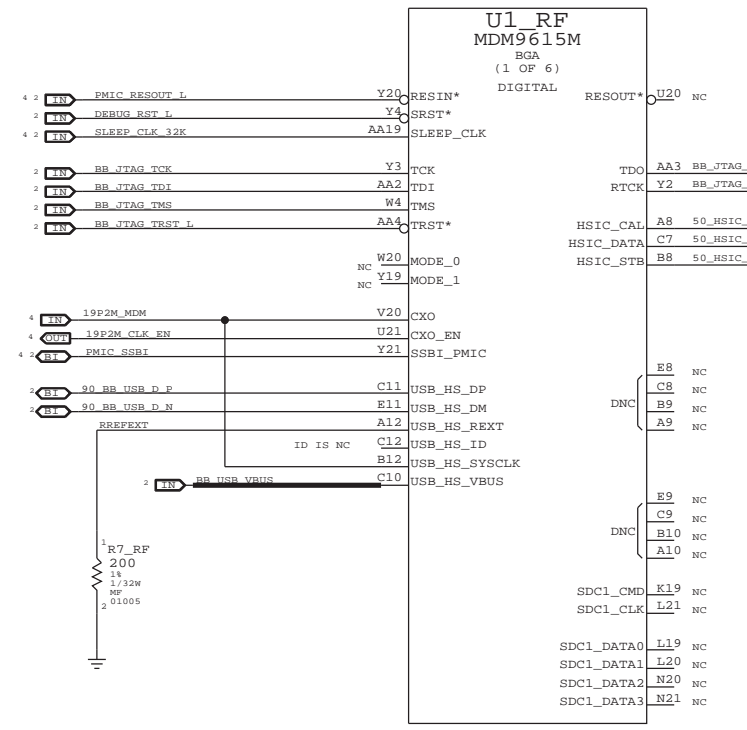
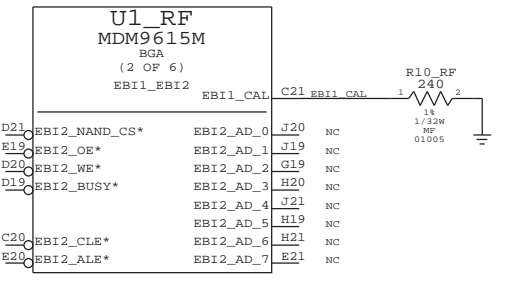
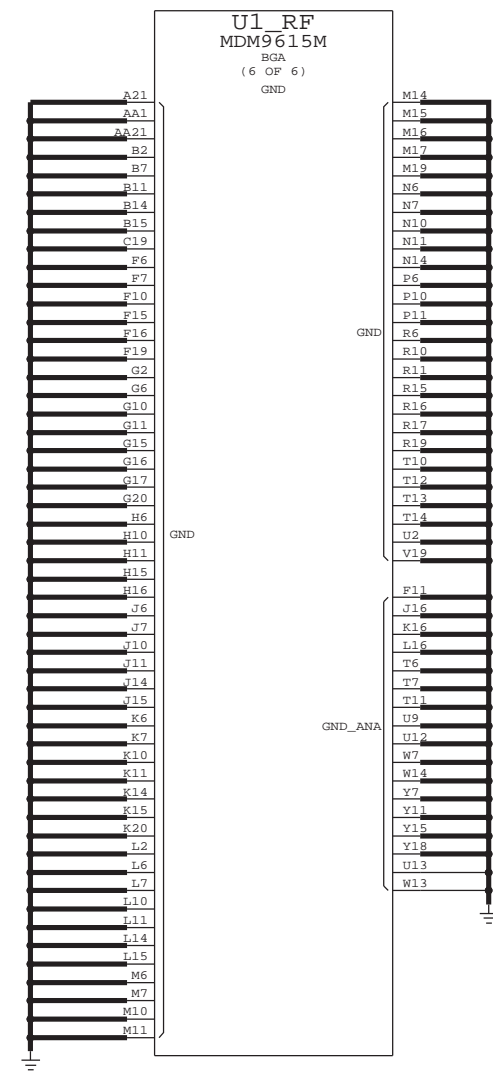
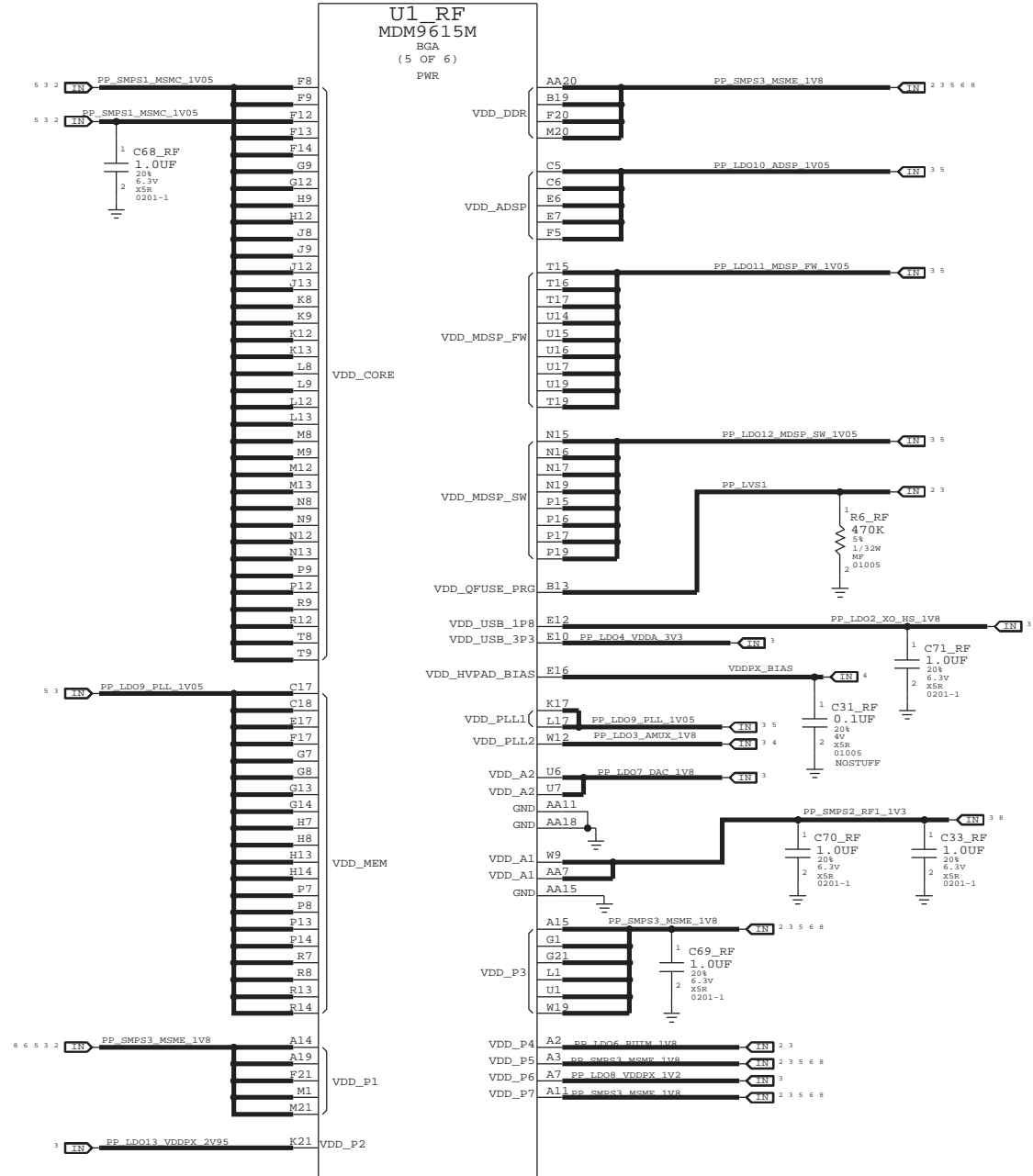
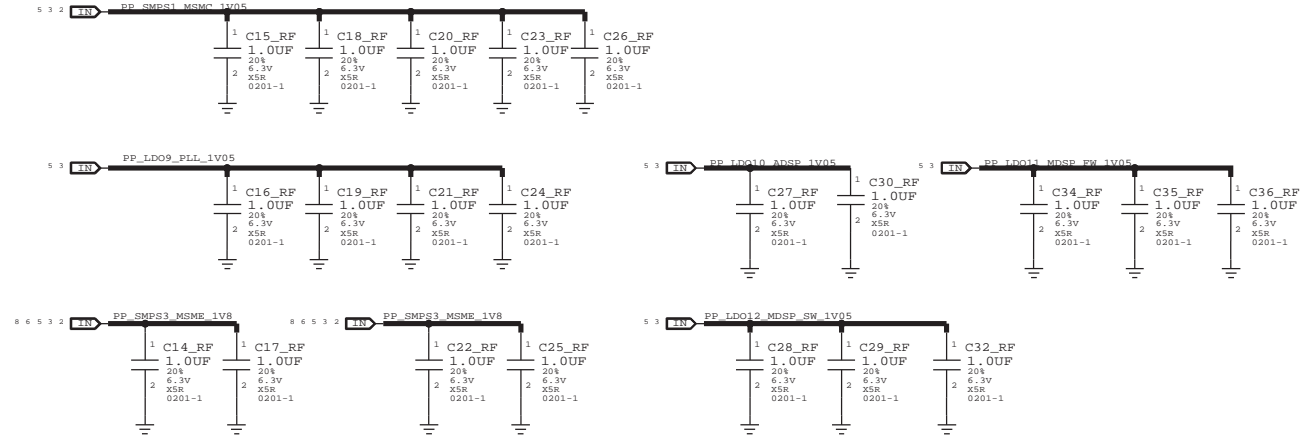
BOARD_ID	REVISION
0.7V	PROTO1
0.9V	PROTO2
1.1V	EVT1
1.3V	EVT2
1.5V	DVT
1.7V	PVT



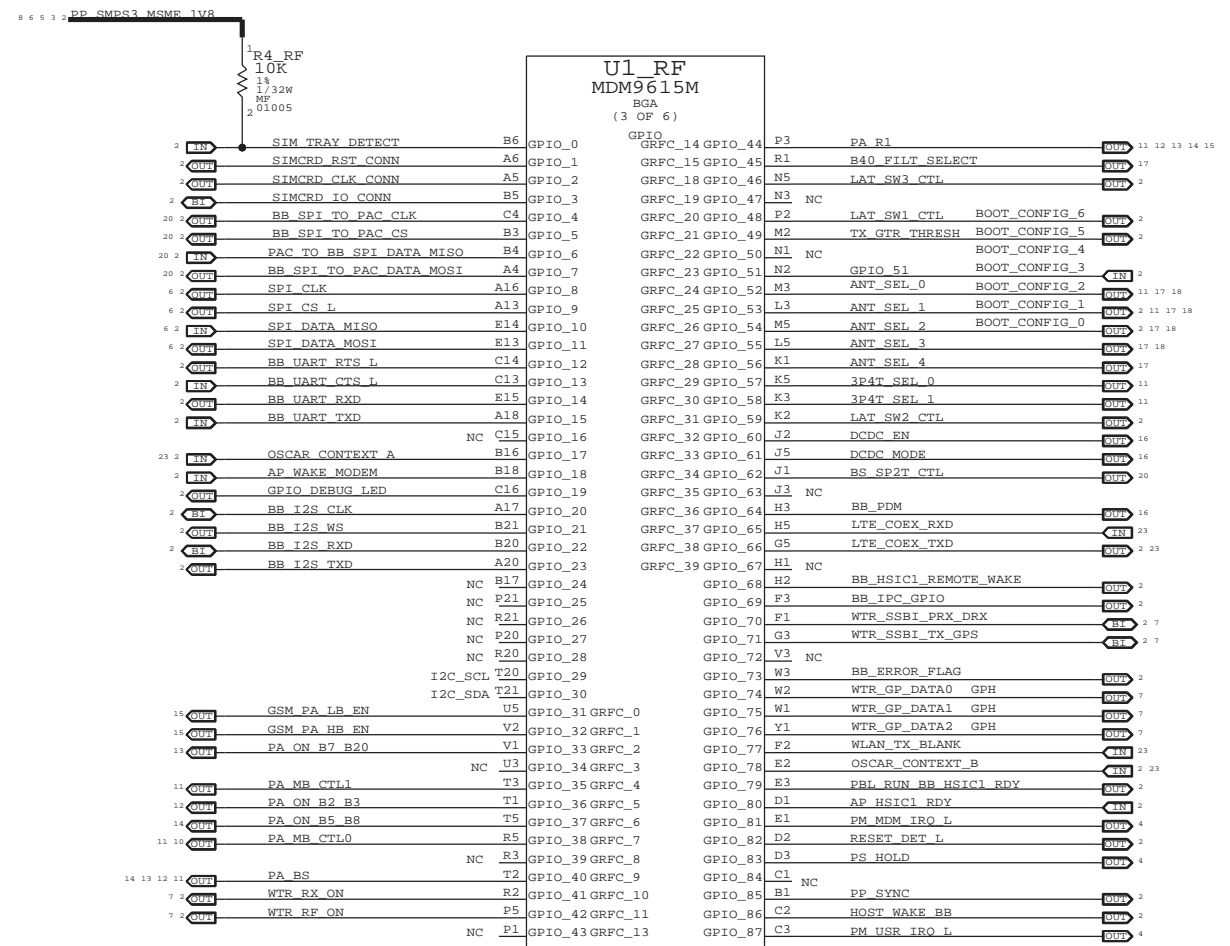
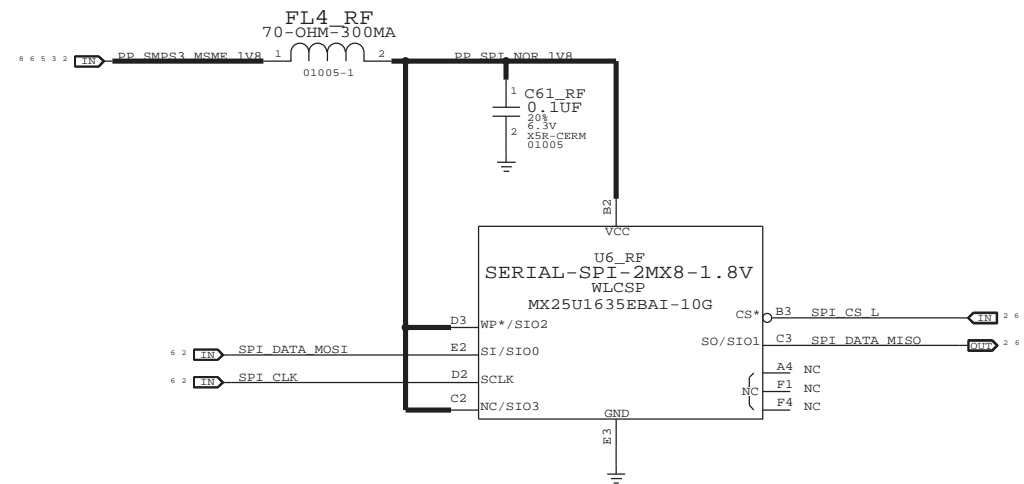
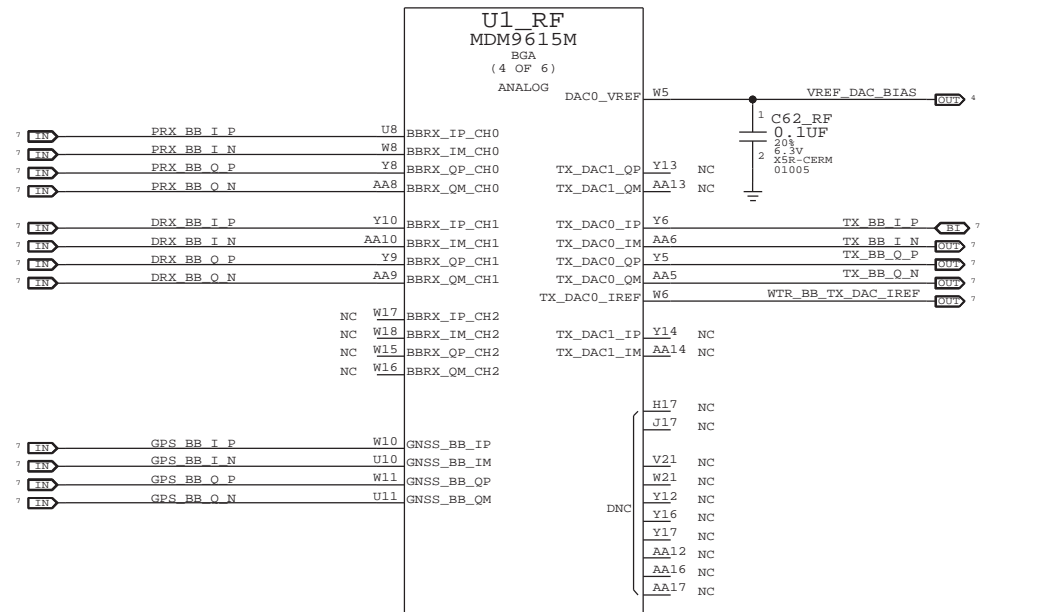
AP SECTION NEEDS ITS OWN THERMISTOR PLACED NEAR THE PA'S.



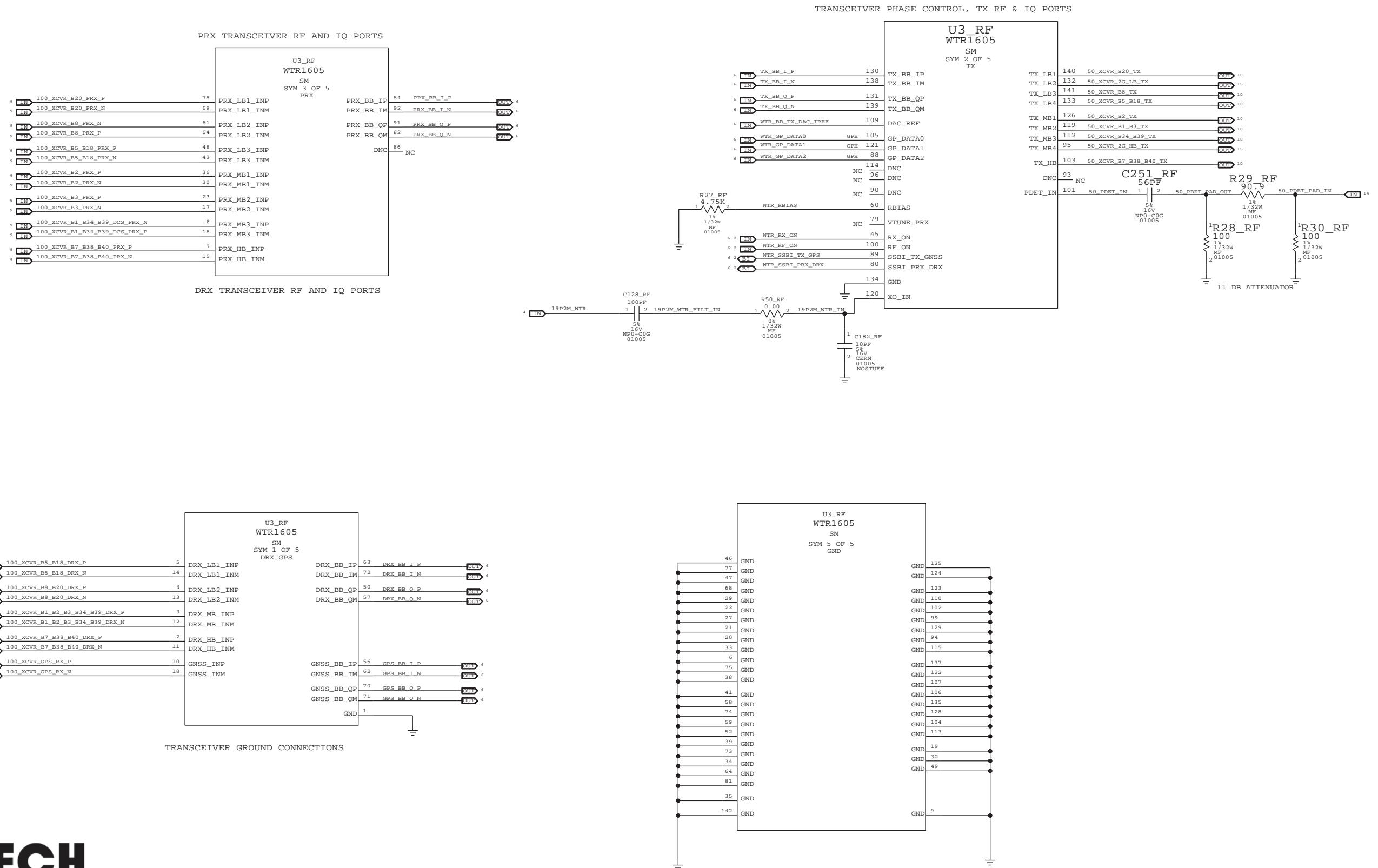
BASEBAND (1 OF 2)



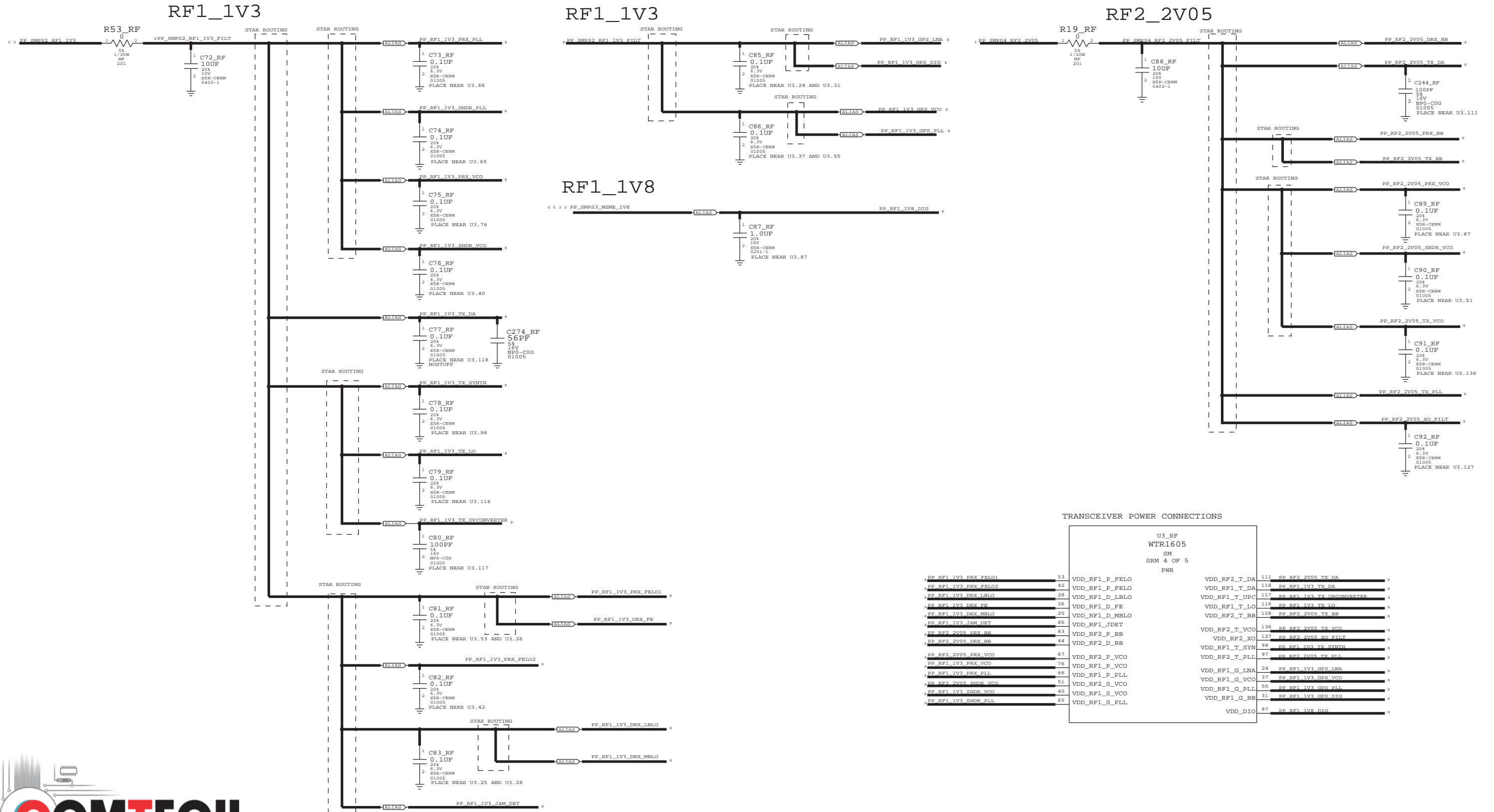
BASEBAND (2 OF 2)



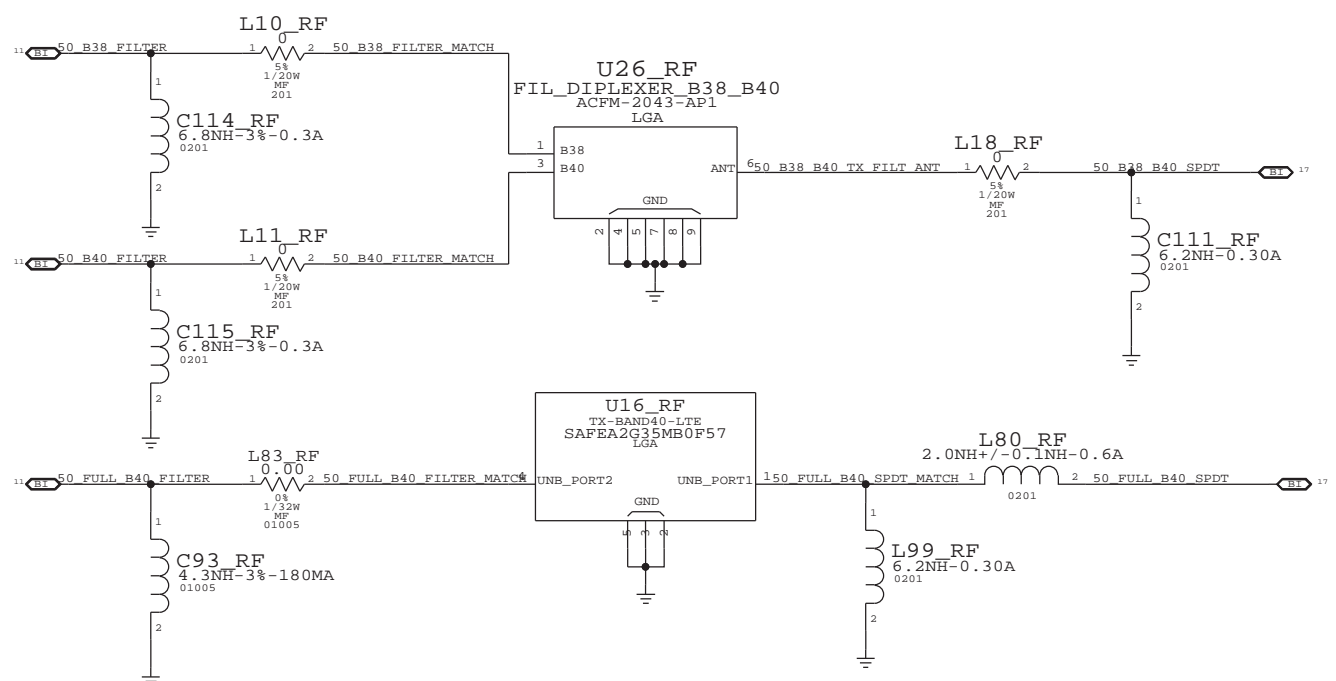
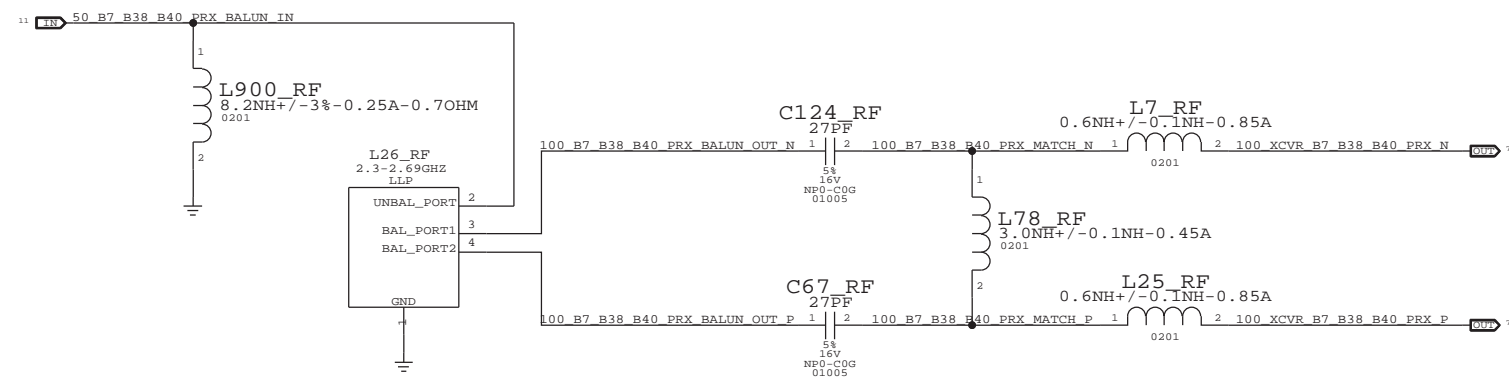
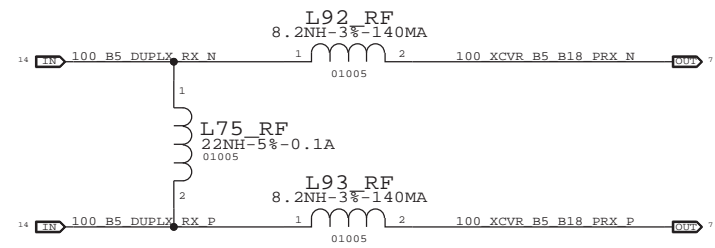
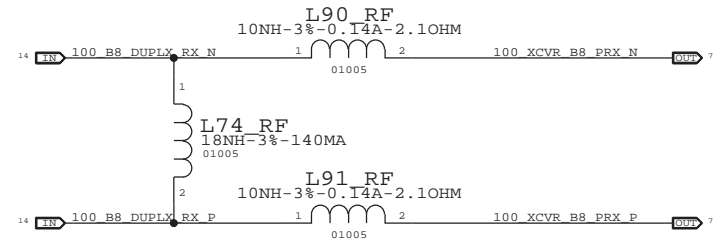
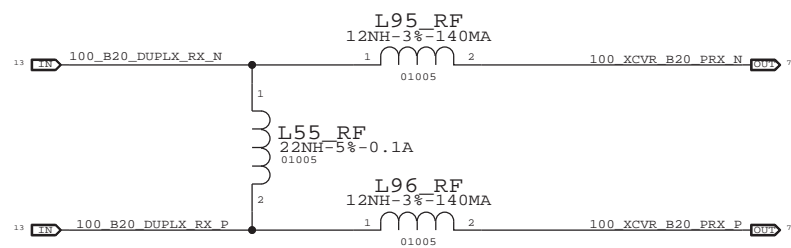
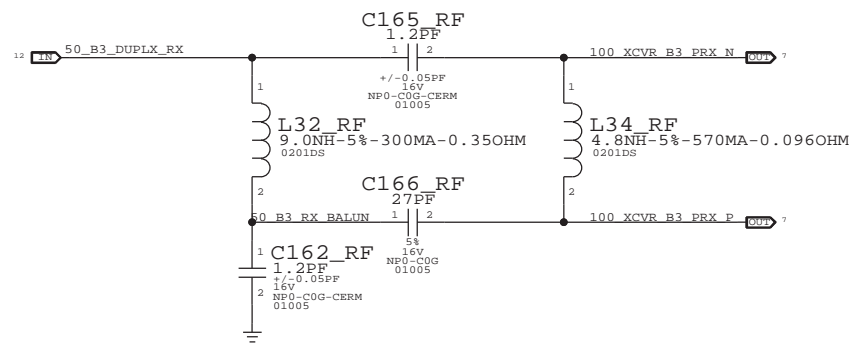
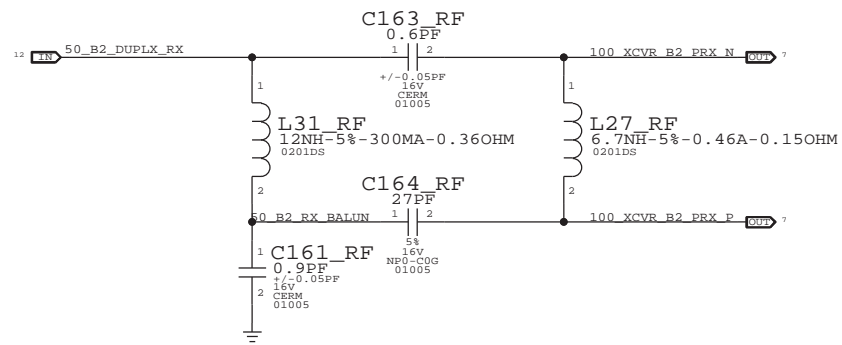
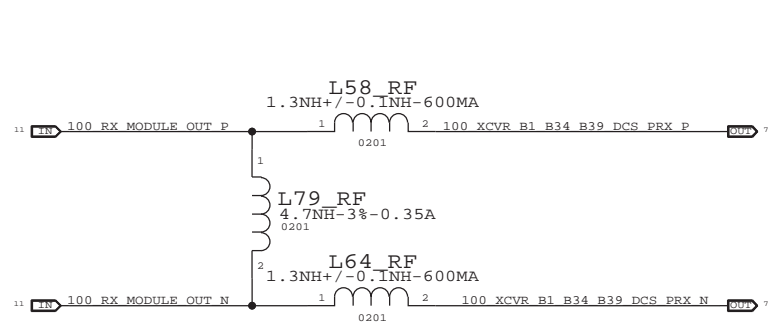
RF TRANSCEIVER (1 OF 2)



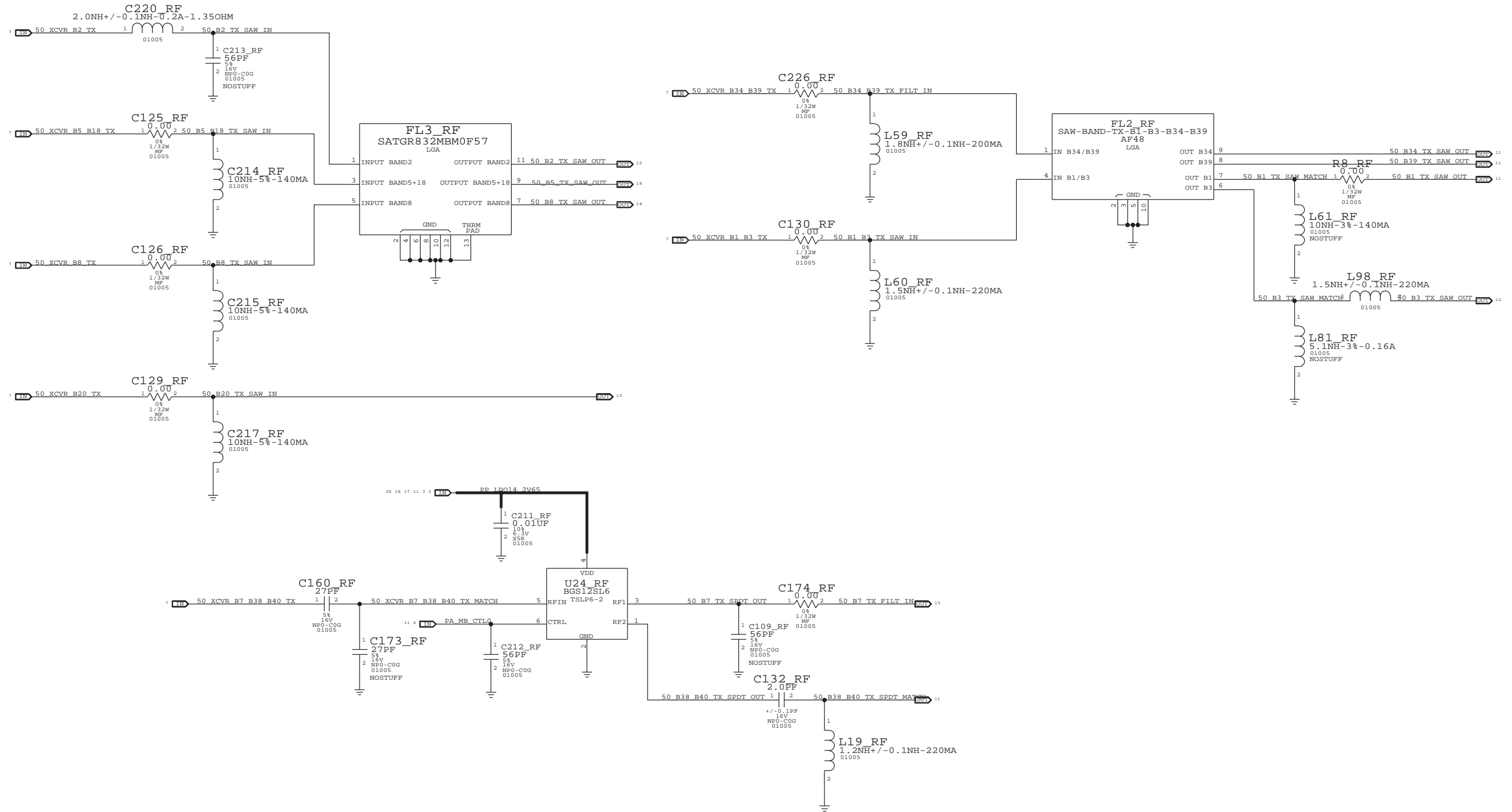
RF TRANSCEIVER (2 OF 2)



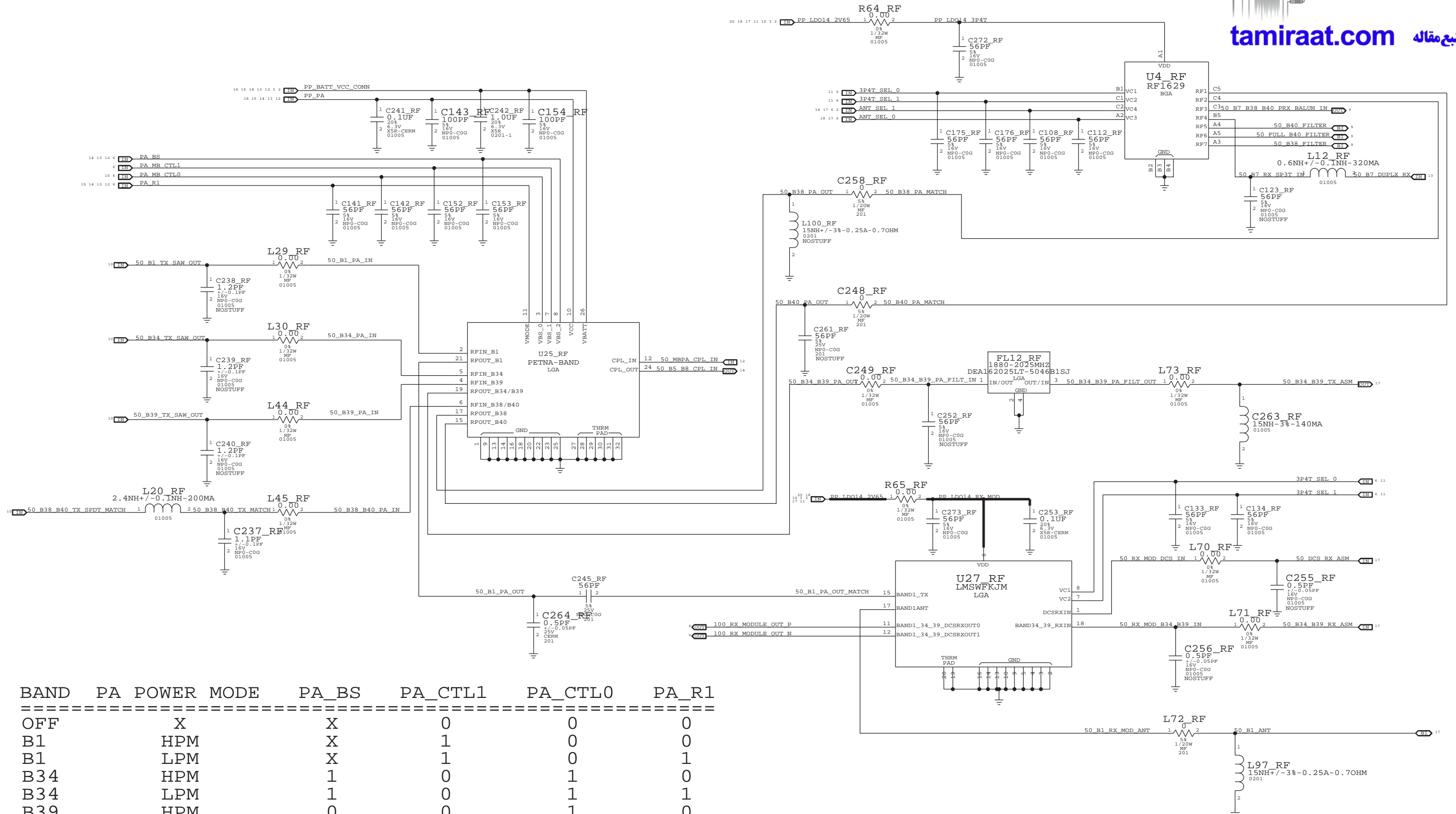
RX MATCHING



TX INTERSTAGE FILTERS

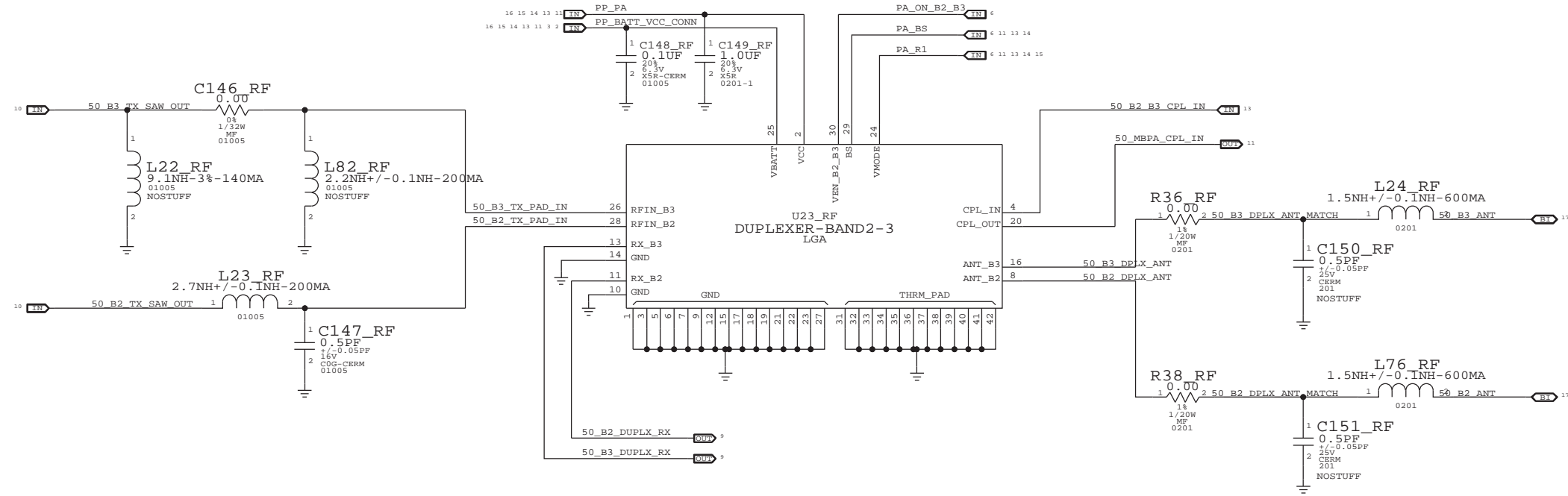


BAND 1/34/39/38/40 TX



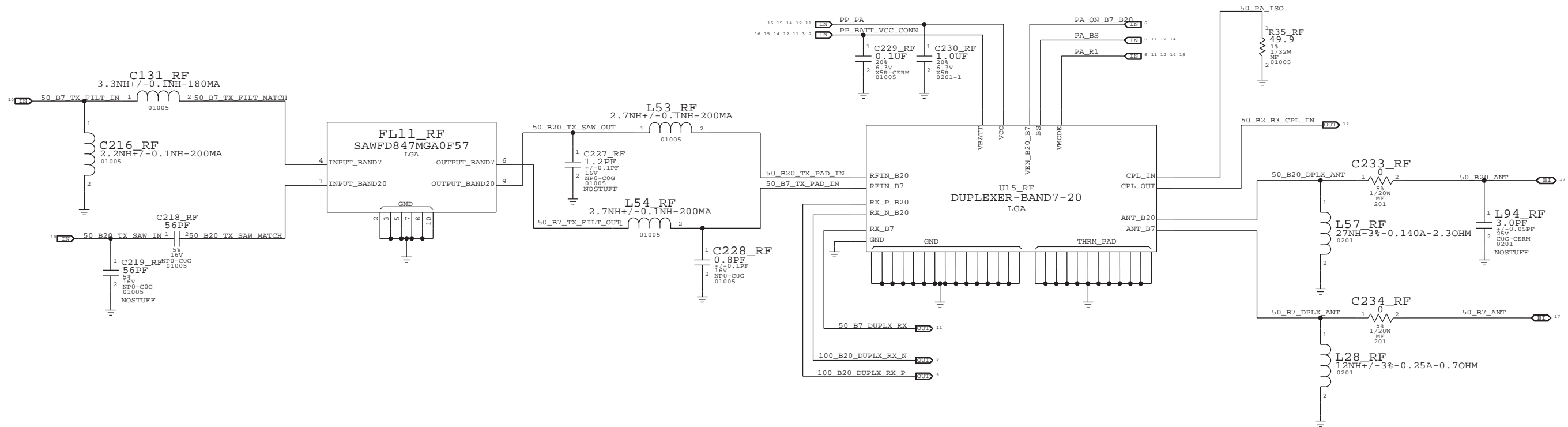
BAND	PA POWER MODE	PA_BS	PA_CTL1	PA_CTL0	PA_R1
OFF	X	X	0	0	0
B1	HPM	X	1	0	0
B1	LPM	X	1	0	1
B34	HPM	1	0	1	0
B34	LPM	1	0	1	1
B39	HPM	0	0	1	0
B39	LPM	0	0	1	1
B38	HPM	1	1	1	0
B38	LPM	1	1	1	1
B40	HPM	0	1	1	0
B40	LPM	0	1	1	1

BAND 2/3 PAD



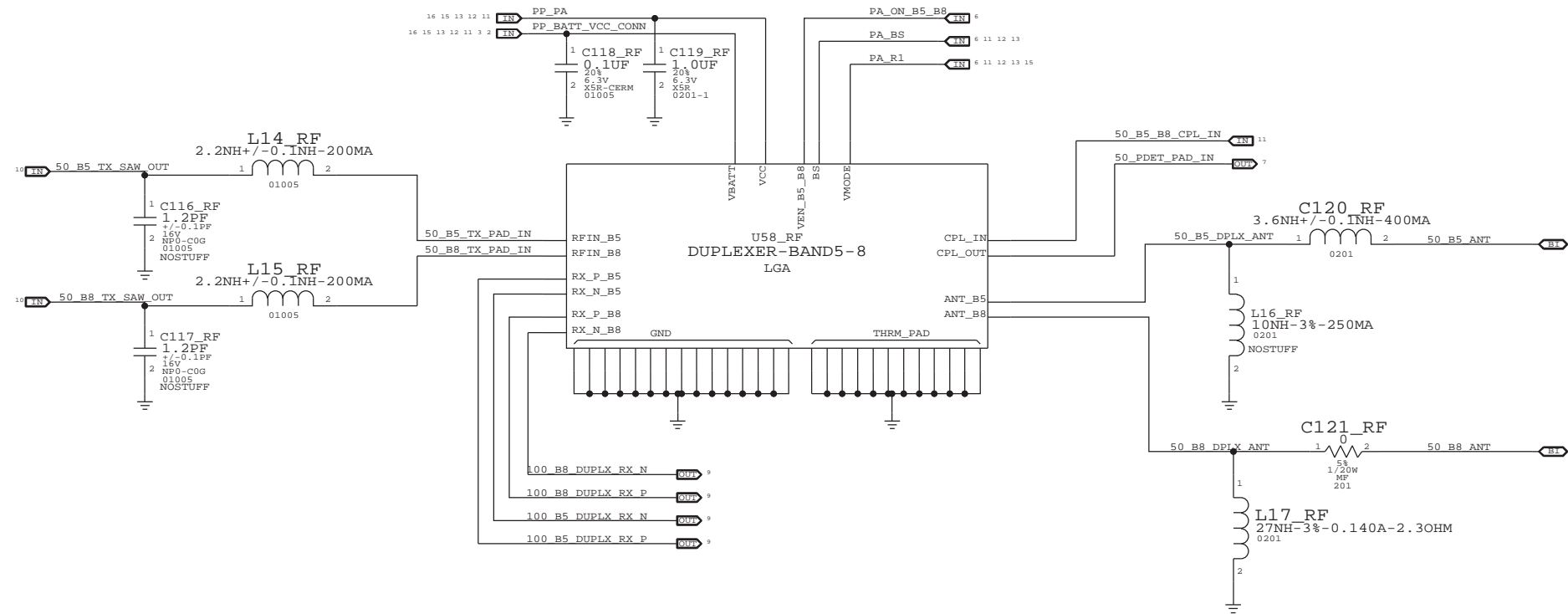
BAND	PA POWER MODE	PA_BS	PA_ON_B2_B3	PA_R1
OFF	X	X	0	X
B3	HPM	0	1	0
B3	LPM	0	1	1
B2	HPM	1	1	0
B2	LPM	1	1	1

BAND 20/7 PAD

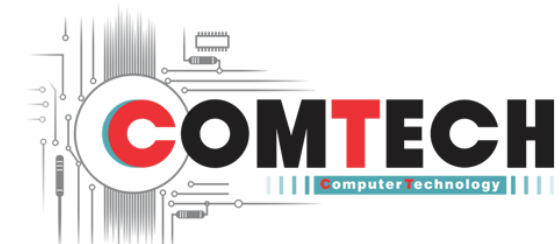


BAND	PA	POWER	MODE	PA_BS	PA_ON_B20_B7	PA_R1
OFF		X		X	0	X
B20		HPM		0	1	0
B20		LPM		0	1	1
B7		HPM		1	1	0
B7		LPM		1	1	1

BAND 5/8 PAD



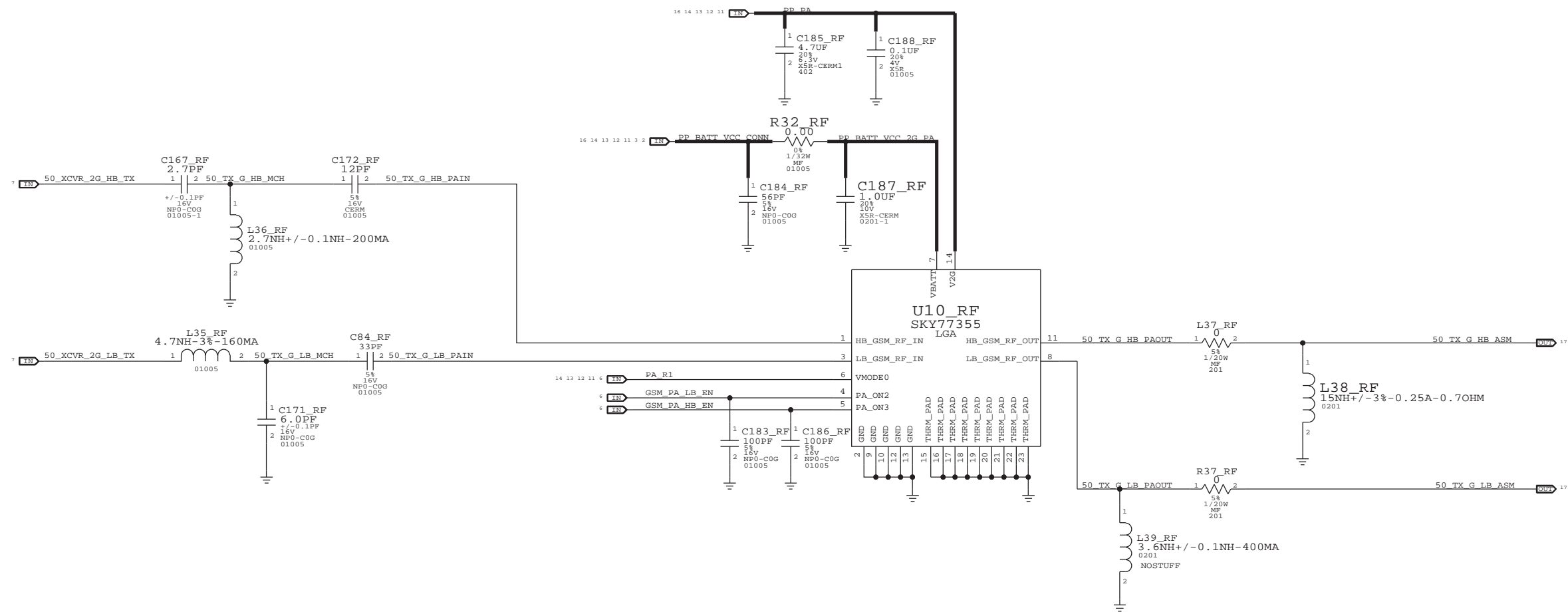
BAND	PA POWER MODE	PA_BS	PA_ON_B5_B8	PA_R1
OFF	X	X	0	X
B5	HPM	0	1	0
B5	LPM	0	1	1
B8	HPM	1	1	0
B8	LPM	1	1	1



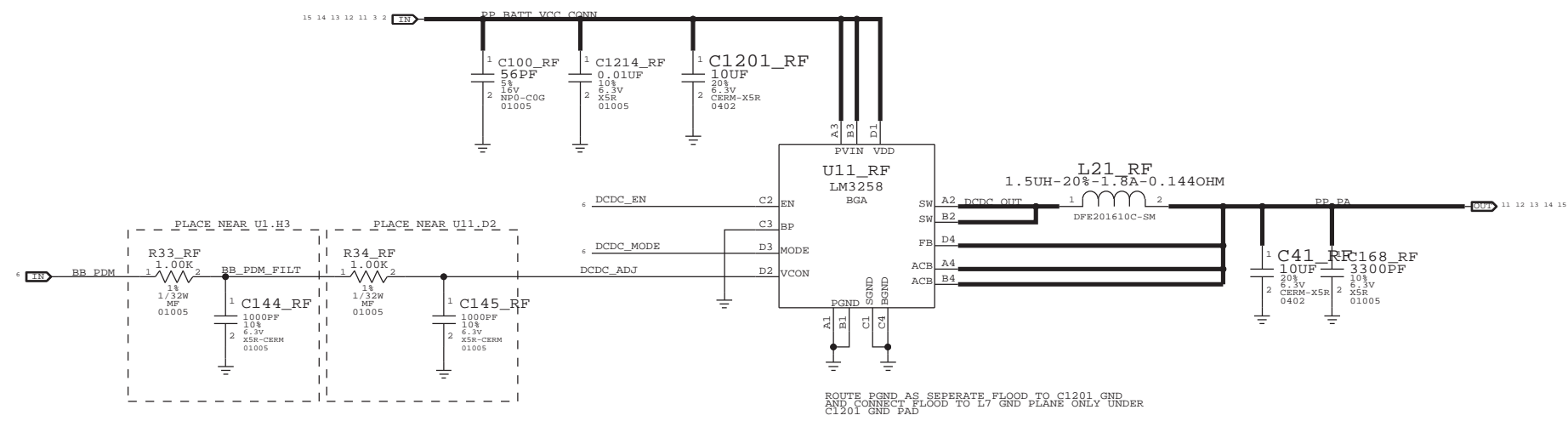
2G PA

2G PA GAIN MODES

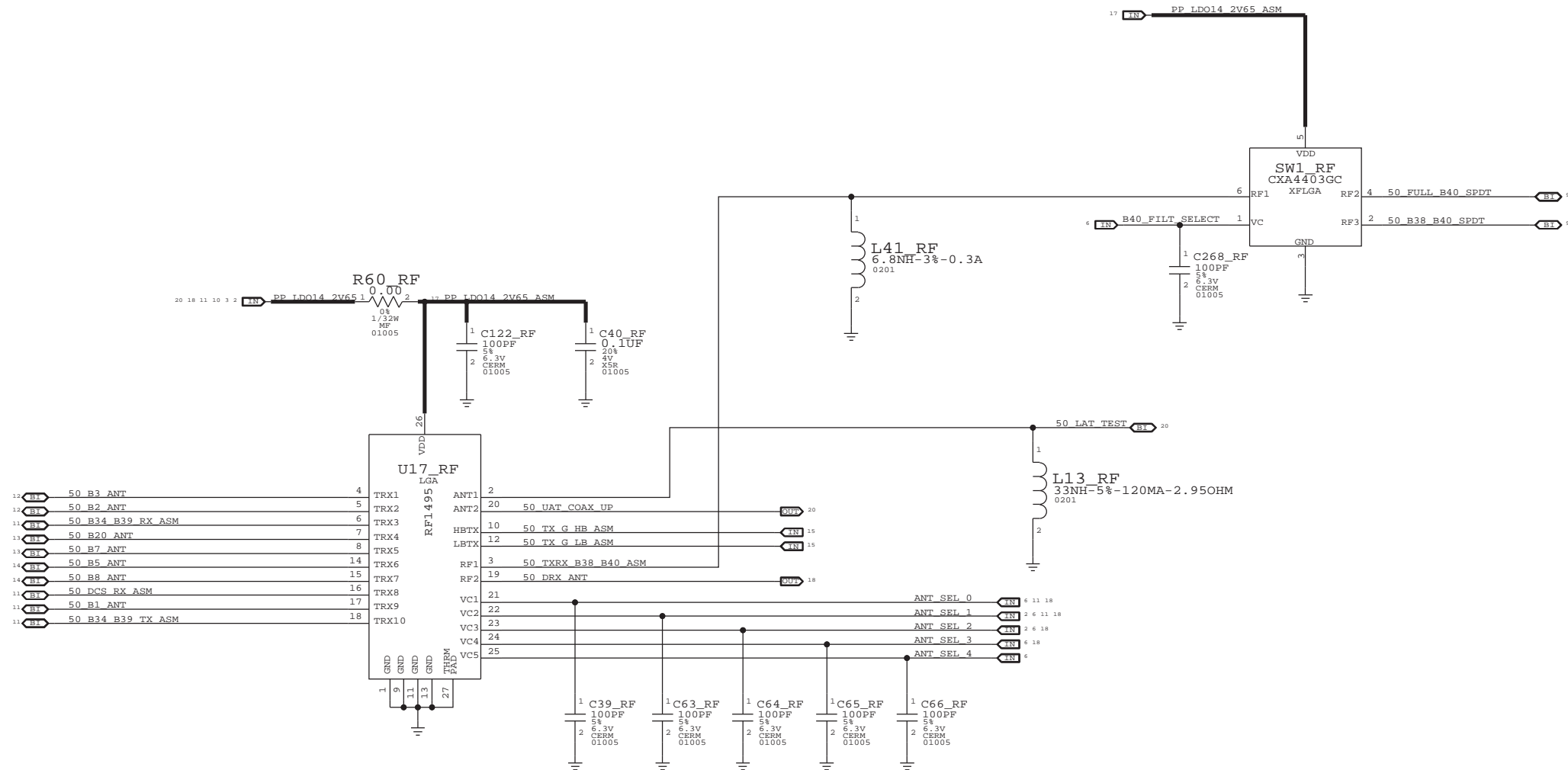
BAND	MODE	GAIN MODE	PA_R1	PCL RANGE
LOW BAND	GSM	ULTRA LOW	HIGH	16 TO 19
LOW BAND	GSM	LOW	HIGH	14 TO 15
LOW BAND	GSM	MEDIUM	LOW	7 TO 13
LOW BAND	GSM	HIGH	LOW	5 TO 6
HIGH BAND	GSM	ULTRA LOW	HIGH	10 TO 15
HIGH BAND	GSM	LOW	HIGH	7 TO 9
HIGH BAND	GSM	HIGH	LOW	0 TO 6
LOW BAND	EDGE	LOW	HIGH	15 TO 19
LOW BAND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



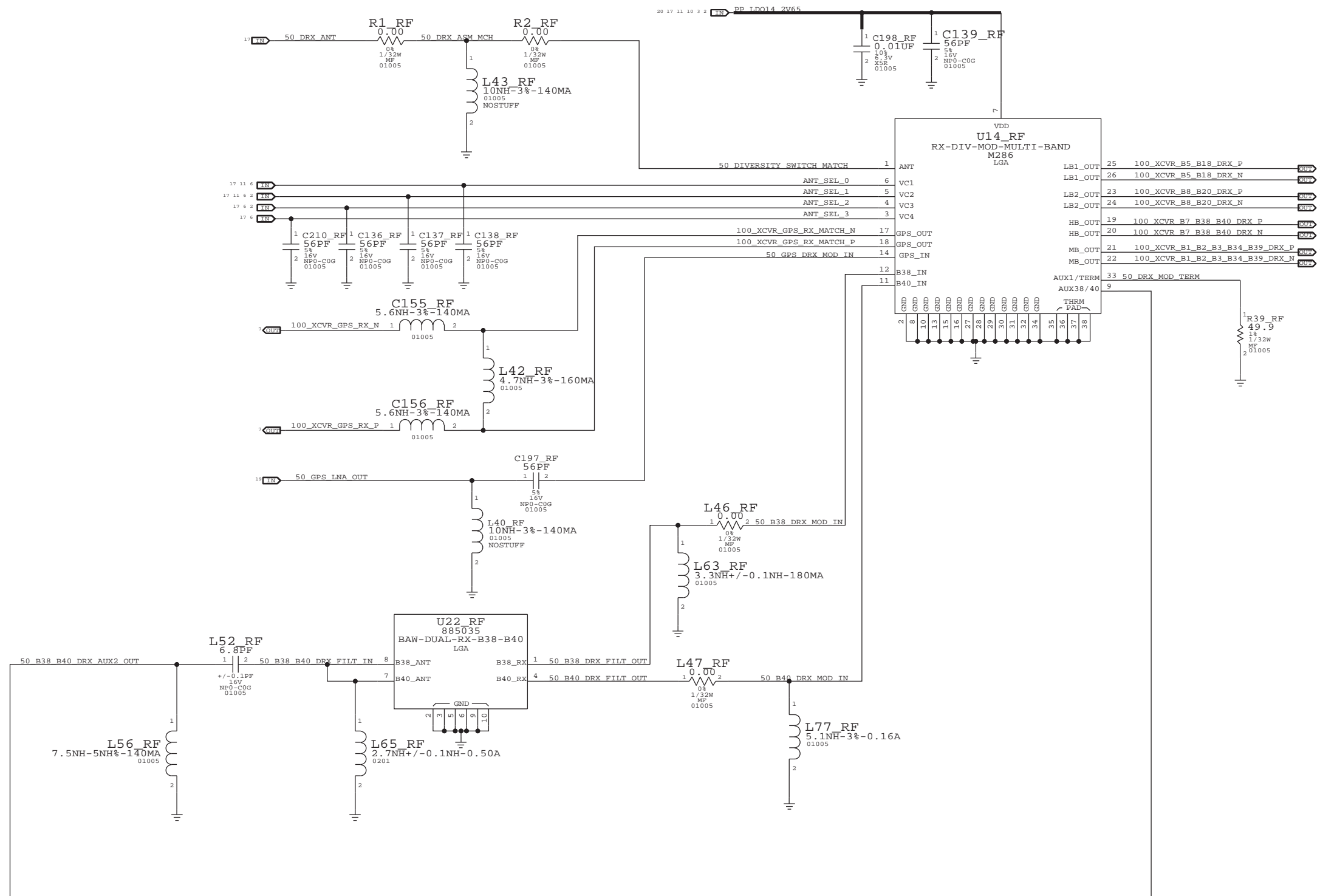
PA DC/DC CONVERTER



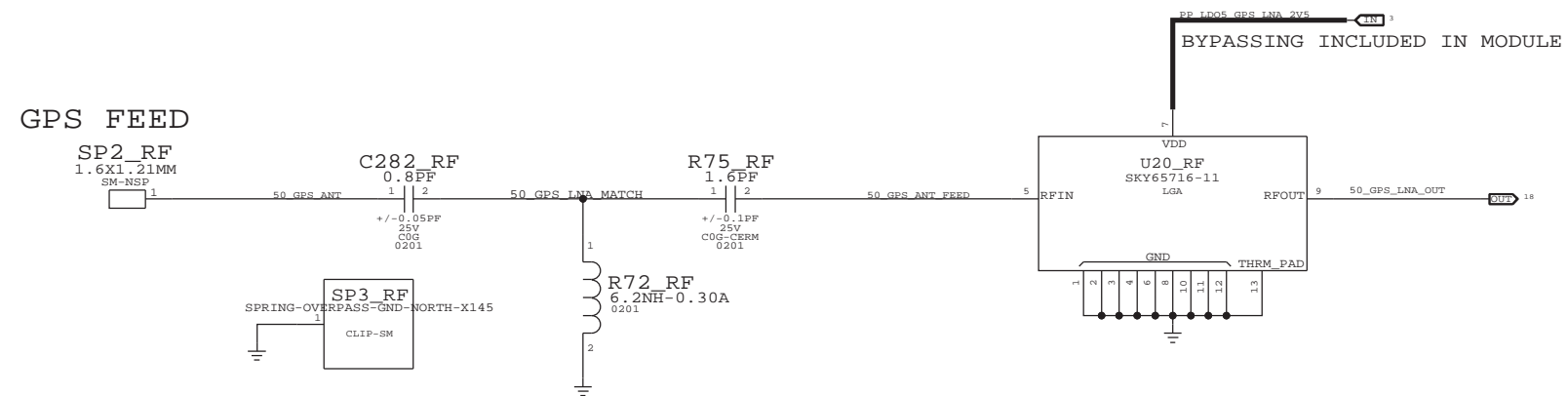
PRIMARY ASM



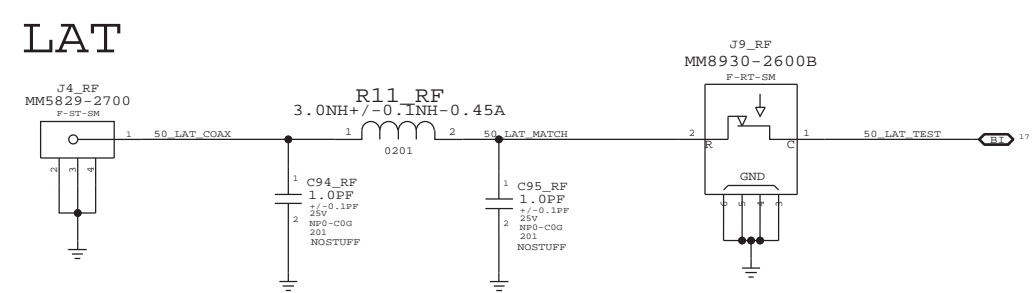
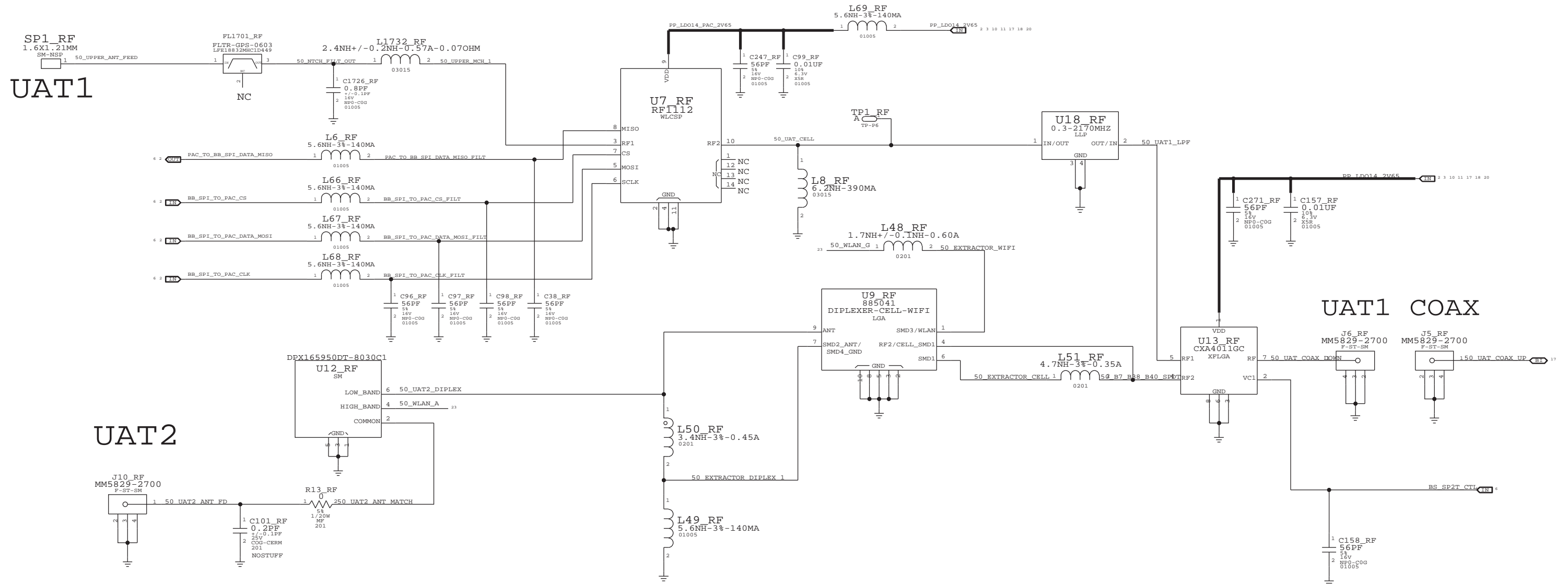
RX DIVERSITY



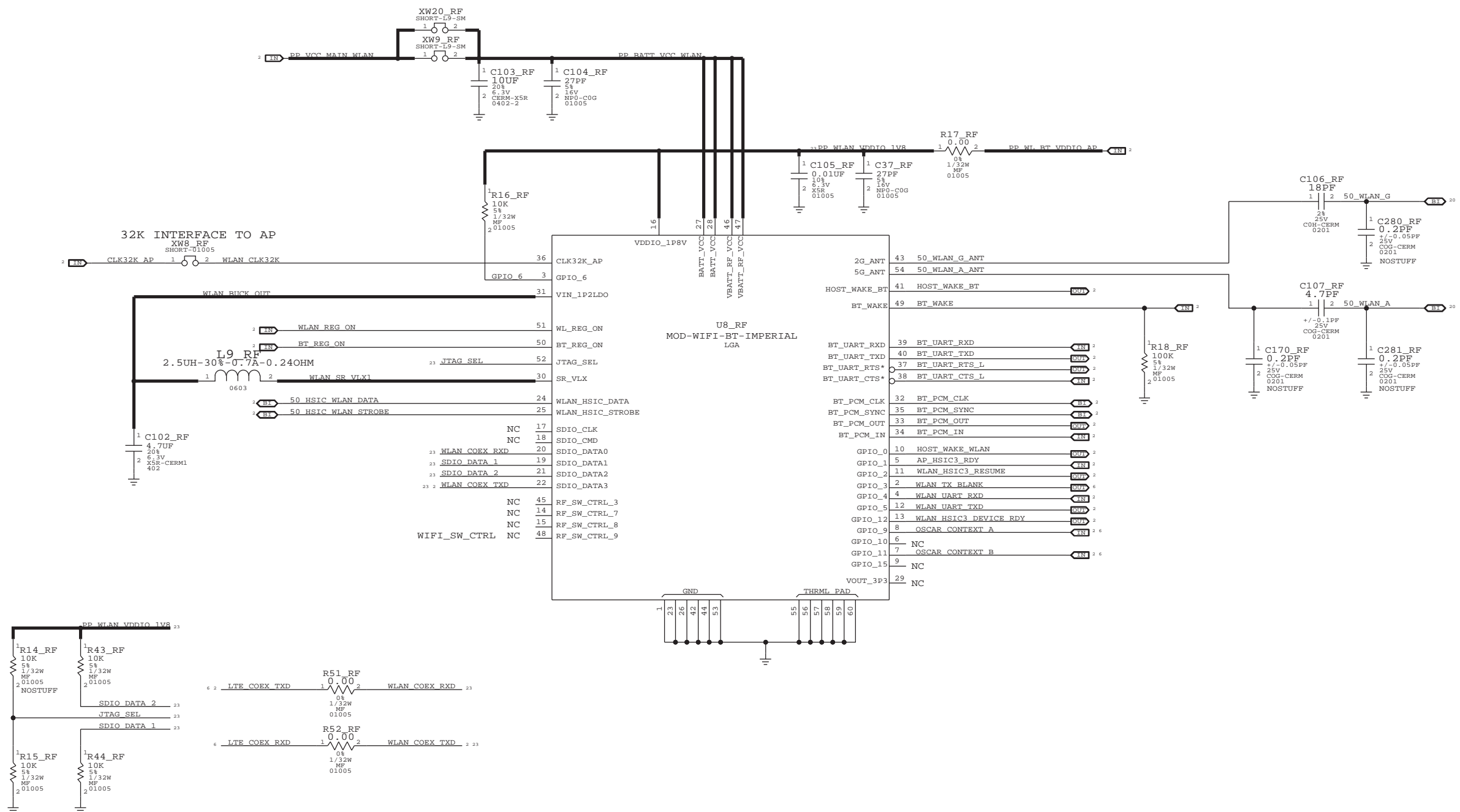
GPS



ANTENNA FEEDS



WLAN/ BT



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

