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

Tue Jul 5 21:36:16 2011

REV	ECN	DESCRIPTION OF REVISION	CK APPD	DATE
12	0001170763	ENGINEERING RELEASED		2011-07-05

# N94 POR MLB\_V3 DVT FOR BOARD\_REV11/REV12

PDF PAGE	CSA PAGE	CONTENTS	SYNC MASTER	DATE
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18	18	TEST POINTS		

SCH 051-8890  
 BRD 820-3031  
 MCO 056-4257

BOM 639-1723(16G,GUC,US)  
 BOM 639-1724(32G,GUC,US)  
 BOM 639-1777(64G,GUC,US)  
 BOM 639-2727(16G,GU,US)  
 BOM 639-2728(32G,GU,US)  
 BOM 639-2729(64G,GU,US)  
 BOM 639-2788(16G,GU,EU)  
 BOM 639-2789(32G,GU,EU)  
 BOM 639-2790(64G,GU,EU)

## N94 EEEE BOM LABELS

PART#	QTY	DESCRIPTION	REFERENCE DESIGNATOR(S)	CRITICAL	BOM OPTION
825-2029	1	EEEE FOR 639-1723 (16G)	EEEE_DJF1	Y	EEEE_16G_GUC_US
825-2029	1	EEEE FOR 639-1724 (32G)	EEEE_DJF2	Y	EEEE_32G_GUC_US
825-2029	1	EEEE FOR 639-1777 (64G)	EEEE_DR00	Y	EEEE_64G_GUC_US
825-2029	1	EEEE FOR 639-2727 (16G)	EEEE_DQ5M	Y	EEEE_16G_GU_US
825-2029	1	EEEE FOR 639-2728 (32G)	EEEE_DQ5D	Y	EEEE_32G_GU_US
825-2029	1	EEEE FOR 639-2729 (64G)	EEEE_DQ5G	Y	EEEE_64G_GU_US
825-2029	1	EEEE FOR 639-2788 (16G)	EEEE_DR42	Y	EEEE_16G_GU_EU
825-2029	1	EEEE FOR 639-2789 (32G)	EEEE_DR44	Y	EEEE_32G_GU_EU
825-2029	1	EEEE FOR 639-2790 (64G)	EEEE_DR41	Y	EEEE_64G_GU_EU

## WIFI/BT MODULE BOM OPTIONS

PART#	QTY	DESCRIPTION	REFERENCE DESIGNATOR(S)	CRITICAL	BOM OPTION
339S0143	1	MURATA WIFI_BT MODULE	U1_RF	Y	WIFI_BT_MODULE

## WIFI/BT MODULE ALTERNATE

PART NUMBER	ALTERNATE FOR PART NUMBER	BOM OPTION	REF DES	COMMENTS:
339S0154	339S0143	WIFI_BT_MODULE	U1_RF	USI WIFI_BT_MODULE
339S0155	339S0143	WIFI_BT_MODULE	U1_RF	SEMCO WIFI_BT_MODULE

## UPPER ANTENNA MATCHING BOM OPTIONS

PART#	QTY	DESCRIPTION	REFERENCE DESIGNATOR(S)	CRITICAL	BOM OPTION	
131S0318	1	CAP,CER,COG,1.6PF,+/-0.1PF,25V	0201,HQ	C6_RF	Y	UAT_US
152S0562	1	IND,WV,HF,5.1NH,+/-0.2NH,470MA	03015	L12_RF	Y	UAT_US
C66_RF = NOSTUFF						
131S0364	1	CAP,CER,4.7PF,+/-0.1PF,25V,COG	0201,HQ	C86_RF	Y	UAT_US
152S1240	1	IND,WV,HF,4.3NH,+/-0.2NH,530MA	03015	L14_RF	Y	UAT_US
131S0279	1	CAP,CER,COG,1.3PF,+/-0.1PF,25V	0201,HQ	C6_RF	Y	UAT_EU
152S0562	1	IND,WV,HF,5.1NH,+/-0.2NH,470MA	03015	L12_RF	Y	UAT_EU
131S0278	1	CAP,CER,CCOG,HF,1PF,+/-0.1PF,2V	0201,HQ	C66_RF	Y	UAT_EU
131S0449	1	CAP,CER,3.6PF,+/-0.1PF,25V,COG	0201,HQ	C86_RF	Y	UAT_EU
152S1240	1	IND,WV,HF,4.3NH,+/-0.2NH,530MA	03015	L14_RF	Y	UAT_EU

## 4.3UF CAP ALTERNATE

PART NUMBER	ALTERNATE FOR PART NUMBER	BOM OPTION	REF DES	COMMENTS:
138S0702	138S0657			MURATA 4.3UF CAP

## INVERTER GATE ALTERNATE

PART NUMBER	ALTERNATE FOR PART NUMBER	BOM OPTION	REF DES	COMMENTS:
311S0549	311S0539		U19_RF	TI INVERTER GATE

## AND GATE ALTERNATE

PART NUMBER	ALTERNATE FOR PART NUMBER	BOM OPTION	REF DES	COMMENTS:
311S0548	311S0398		U18_RF,U20_RF	TI 2-INPUT AND GATE

## 19.2MHZ ALTERNATE

PART NUMBER	ALTERNATE FOR PART NUMBER	BOM OPTION	REF DES	COMMENTS:
197S0402	197S0340		Y1_RF	NDK 19.2MHZ XTAL

## N94 SCH & PCB BOM CALLOUT

PART#	QTY	DESCRIPTION	REFERENCE DESIGNATOR(S)	CRITICAL	BOM OPTION
051-8890	1	N94_MLB_V3 SCHEMATIC	SCH	Y	?
820-3031	1	N94_MLB_V3 PCB	PCB	Y	?

## NAND BOM OPTIONS

PART#	QTY	DESCRIPTION	REFERENCE DESIGNATOR(S)	CRITICAL	BOM OPTION
335S0781	1	16G,HYNIX 26NM PPN10 TLGA52	U1	Y	NAND_16GB_PPN10
335S0782	1	32G,HYNIX 26NM PPN10 TLGA52	U1	Y	NAND_32GB_PPN10
335S0814	1	64G,HYNIX 26NM PPN10 TLGA52	U1	Y	NAND_64GB_PPN10

PART NUMBER	ALTERNATE FOR PART NUMBER	BOM OPTION	REF DES	COMMENTS:
335S0815	335S0781	NAND_16GB_PPN10	U1	16G,SAMSUNG,27NM PPN10
335S0804	335S0781	NAND_16GB_PPN10	U1	16G,TOSHIBA,24NM PPN10
335S0816	335S0782	NAND_32GB_PPN10	U1	32G,SAMSUNG,27NM PPN10
335S0805	335S0782	NAND_32GB_PPN10	U1	32G,TOSHIBA,24NM PPN10
335S0806	335S0814	NAND_64GB_PPN10	U1	64G,TOSHIBA,24NM PPN10

## VIDEO BUFFER ALTERNATE

PART NUMBER	ALTERNATE FOR PART NUMBER	BOM OPTION	REF DES	COMMENTS:
343S0539	343S0520		U9	INTERSIL VIDEO BUFFER

## 32KHZ XTAL ALTERNATE

PART NUMBER	ALTERNATE FOR PART NUMBER	BOM OPTION	REF DES	COMMENTS:
197S0382	197S0392		Y1	TXC XTAL

## STROBE INDUCTOR ALTERNATE

PART NUMBER	ALTERNATE FOR PART NUMBER	BOM OPTION	REF DES	COMMENTS:
152S1173	152S0979		L9	CYNTEC INDUCTOR

## CHARGER INDUCTOR ALTERNATE

PART NUMBER	ALTERNATE FOR PART NUMBER	BOM OPTION	REF DES	COMMENTS:
152S1051	152S0927		L28	CYNTEC INDUCTOR

## LEVEL TRANSLATOR ALTERNATE

PART NUMBER	ALTERNATE FOR PART NUMBER	BOM OPTION	REF DES	COMMENTS:
311S0562	311S0372		U11	TI LEVEL TRANSLATOR

## THERMISTOR ALTERNATE

PART NUMBER	ALTERNATE FOR PART NUMBER	BOM OPTION	REF DES	COMMENTS:
107S0208	107S0150		R21,R22,R34,R35	MURATA THERMISTOR

DRAWING TITLE		DRAWING NUMBER		SIZE
N94 MLB_V3		051-8890		D
DRAWING NUMBER		REVISION		
051-8890		12.0.0		
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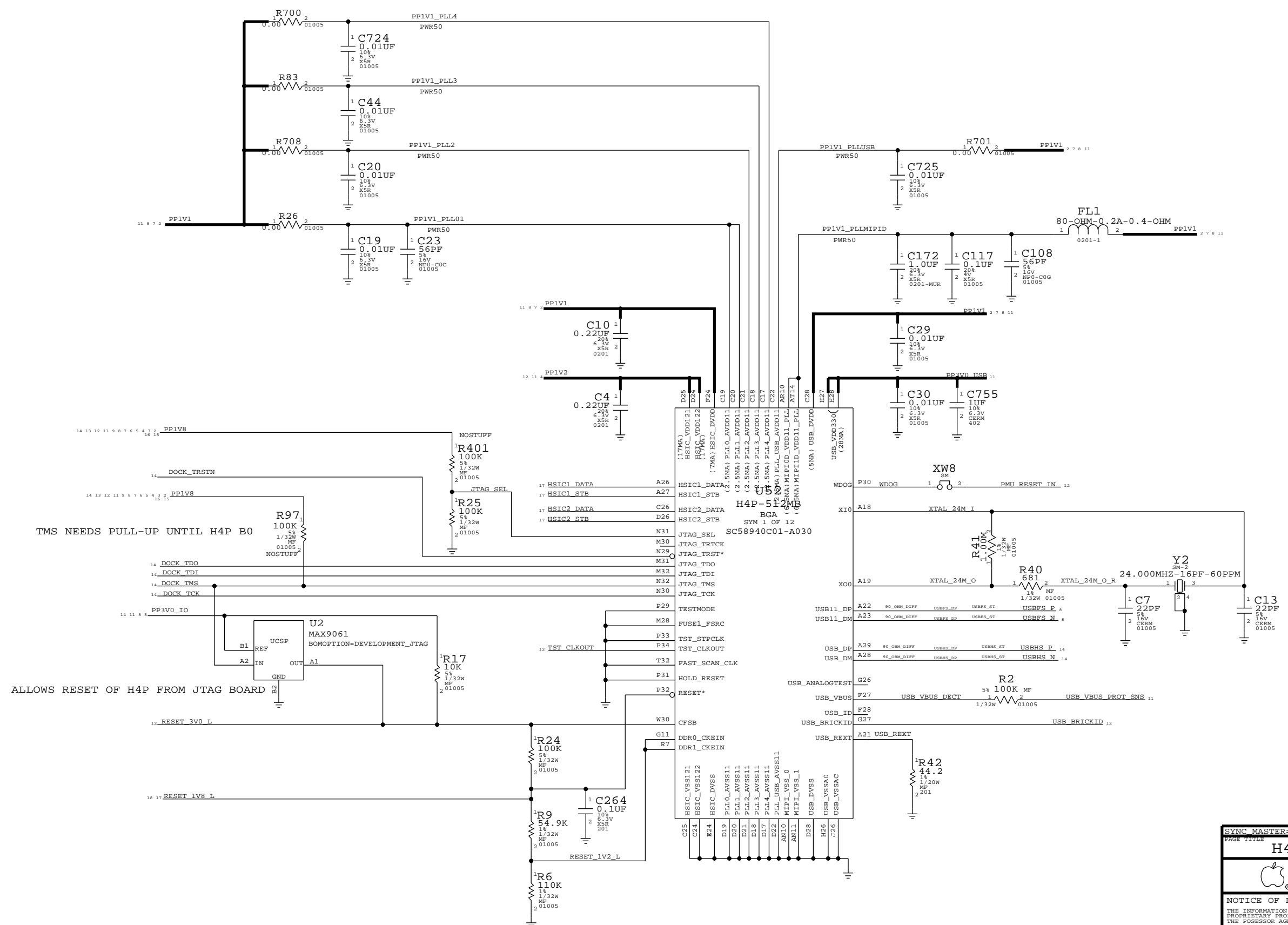
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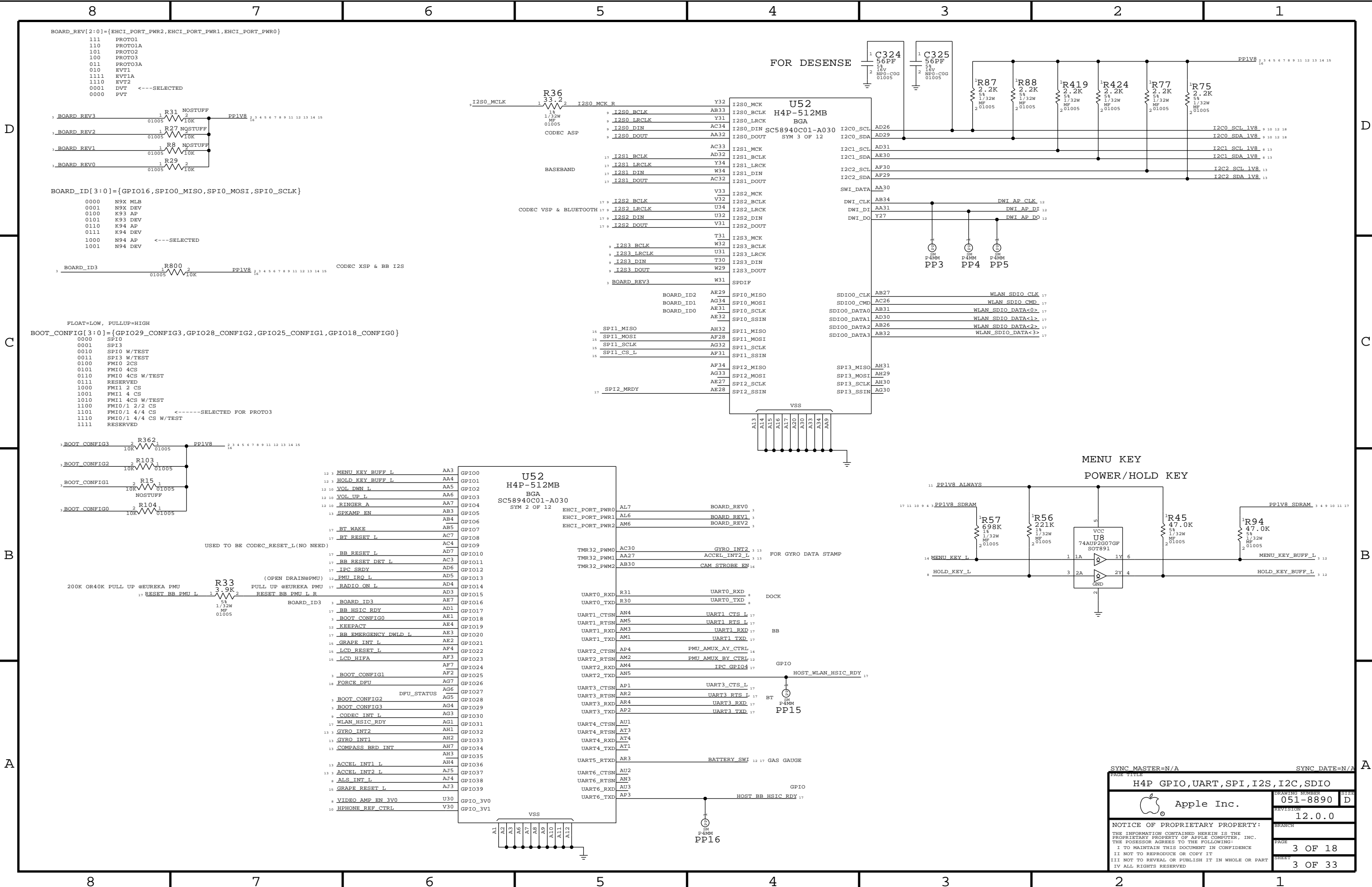
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TMS NEEDS PULL-UP UNTIL H4P B0

ALLOWS RESET OF H4P FROM JTAG BOARD

SYNC MASTER=N/A		SYNC DATE=N/A	
<b>H4P JTAG, USB, PLL</b>			
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```

BOARD_REV[2:0]={EHCI_PORT_PWR2,EHCI_PORT_PWR1,EHCI_PORT_PWR0}
111  PROTO1
110  PROTO1A
101  PROTO2
100  PROTO3
011  PROTO3A
010  EVT1
1111 EVT1A
1110 EVT2
0001 DVT
0000 PVT

```

```

BOARD_ID[3:0]={GPIO16,SPI0_MISO,SPI0_MOSI,SPI0_SCLK}
0000 N9X MLB
0001 N9X DEV
0100 K93 AP
0101 K93 DEV
0110 K94 AP
0111 K94 DEV
1000 N94 AP
1001 N94 DEV

```

```

FLOAT=LOW, PULLUP=HIGH
BOOT_CONFIG[3:0]={GPIO29_CONFIG3,GPIO28_CONFIG2,GPIO25_CONFIG1,GPIO18_CONFIG0}
0000 SPI0
0001 SPI3
0010 SPI0 W/TEST
0011 SPI3 W/TEST
0100 FMIO 2CS
0101 FMIO 4CS
0110 FMIO 4CS W/TEST
0111 RESERVED
1000 FM1L 2 CS
1001 FM1L 4 CS
1010 FM1L 4CS W/TEST
1100 FMIO/1 2/2 CS
1101 FMIO/1 4/4 CS
1110 FMIO/1 4/4 CS W/TEST
1111 RESERVED

```

12 3 MENU_KEY_BUFF_L	AA3	GPIO0
12 3 HOLD_KEY_BUFF_L	AA4	GPIO1
12 10 VOL_DWN_L	AA5	GPIO2
12 10 VOL_UP_L	AA6	GPIO3
12 10 RINGER_A	AA7	GPIO4
13 SEKAMP_EN	AB3	GPIO5
	AB4	GPIO6
17 BT_WAKE	AB5	GPIO7
17 BT_RESET_L	AC7	GPIO8
	AC4	GPIO9
17 BB_RESET_L	AD7	GPIO10
17 BB_RESET_DET_L	AC3	GPIO11
17 IPC_SRDY	AD6	GPIO12
17 PMU_IRQ_L	AD5	GPIO13
17 RADIO_ON_L	AD4	GPIO14
	AD3	GPIO15
3 BOARD_ID3	AE7	GPIO16
17 BB_HSIC_RDY	AD1	GPIO17
3 BOOT_CONFIG0	AE1	GPIO18
12 KEEPACT	AE4	GPIO19
17 BB_EMERGENCY_DWLD_L	AE3	GPIO20
15 GRAPE_INT_L	AE2	GPIO21
15 LCD_RESET_L	AF4	GPIO22
15 LCD_HIFA	AF3	GPIO23
	AF7	GPIO24
	AF2	GPIO25
3 BOOT_CONFIG1	AG7	GPIO26
18 FORCE_DFU	AG6	GPIO27
	AG5	GPIO28
3 BOOT_CONFIG2	AG4	GPIO29
9 CODEC_INT_L	AG3	GPIO30
3 WLAN_HSIC_RDY	AG1	GPIO31
13 GYRO_INT2	AH1	GPIO32
13 GYRO_INT1	AH2	GPIO33
13 COMPASS_BRD_INT	AH7	GPIO34
	AH3	GPIO35
	AH4	GPIO36
13 ACCEL_INT1_L	AJ5	GPIO37
13 ACCEL_INT2_L	AJ4	GPIO38
8 ALS_INT_L	AJ3	GPIO39
15 GRAPE_RESET_L	AJ3	GPIO39
	U30	GPIO_3V0
8 VIDEO_AMP_EN_3V0	U30	GPIO_3V0
10 HPHONE_REF_CTRL	V30	GPIO_3V1

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

H4P GPIO, UART, SPI, I2S, I2C, SDIO

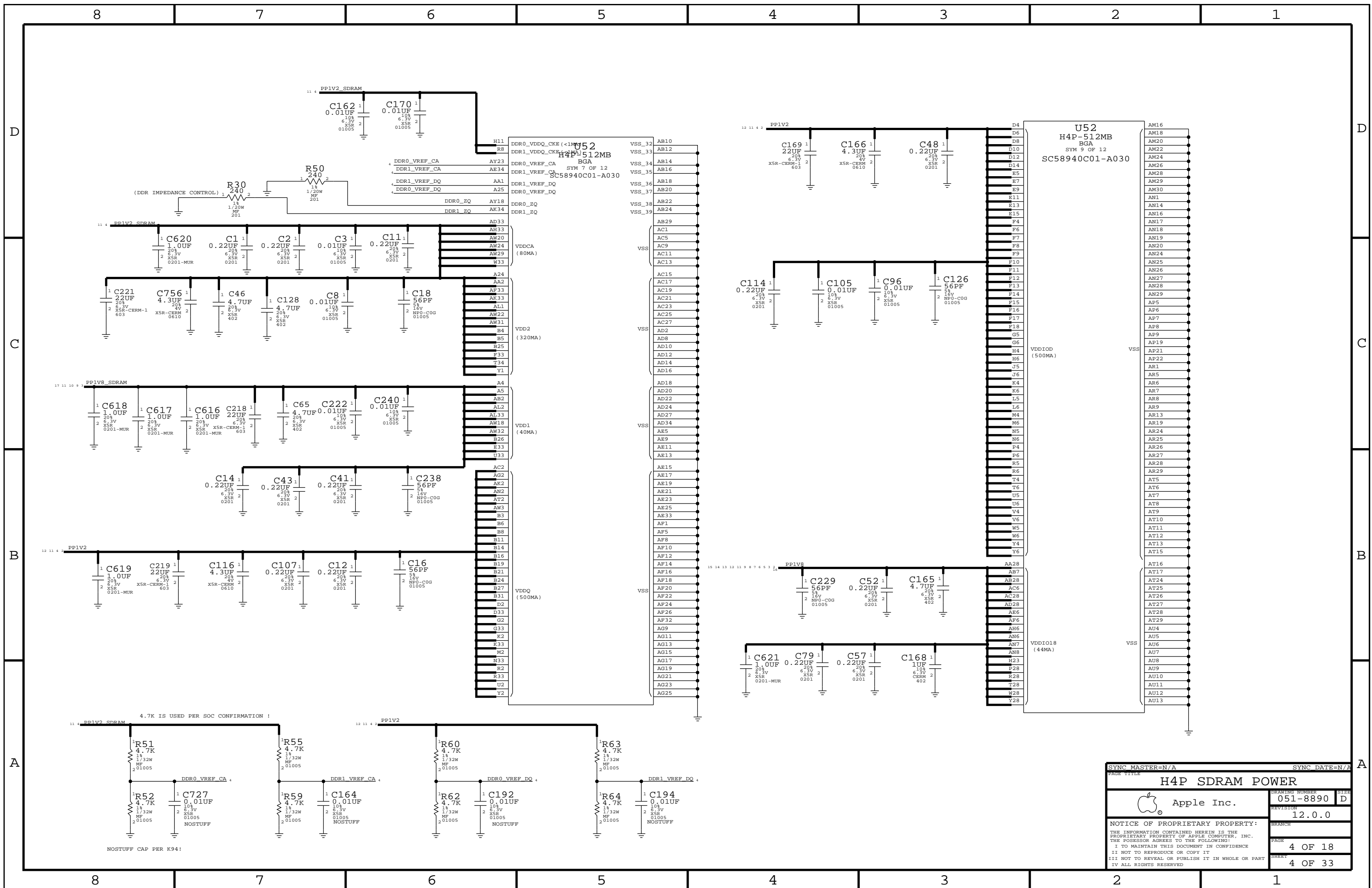
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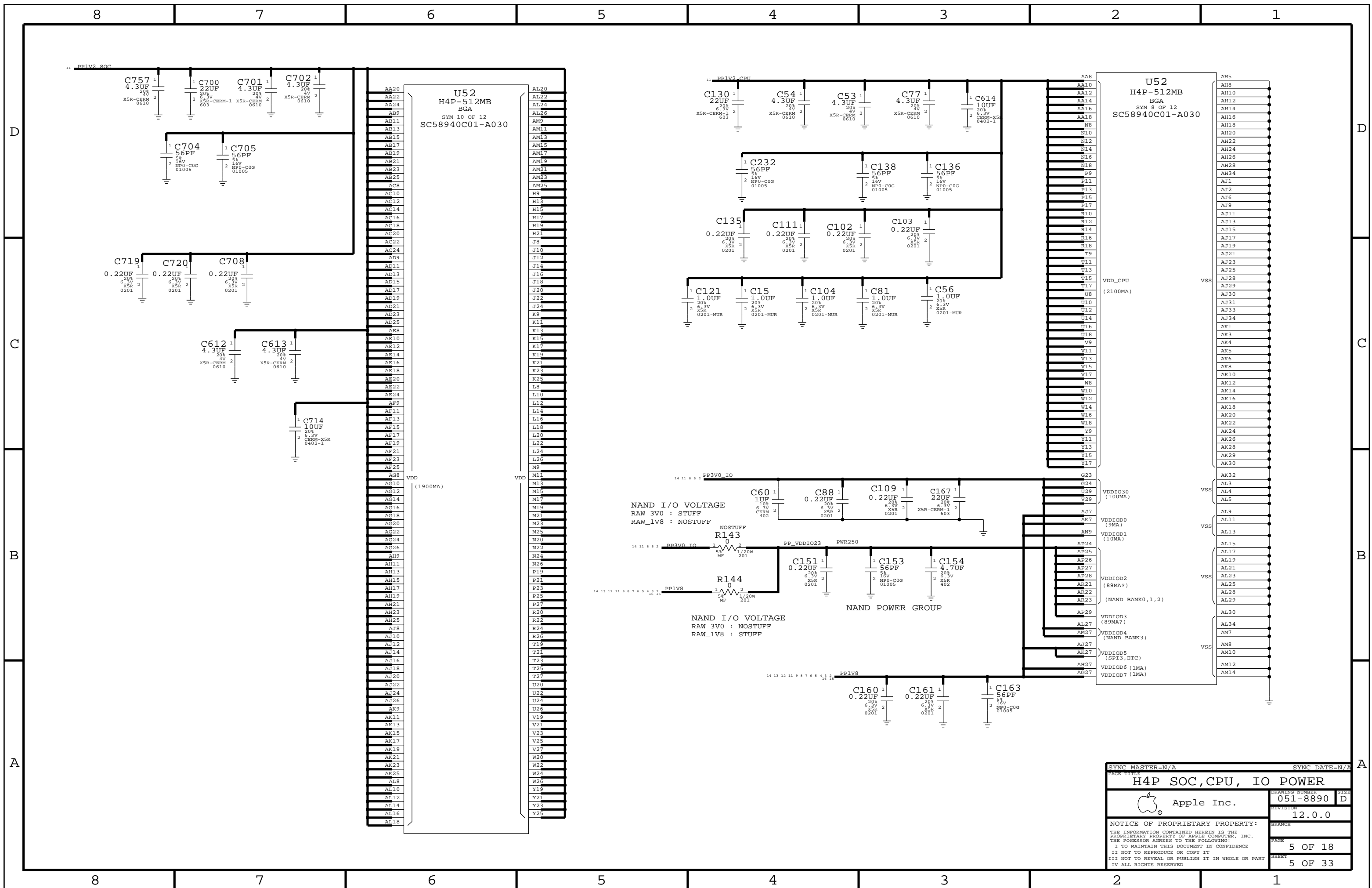
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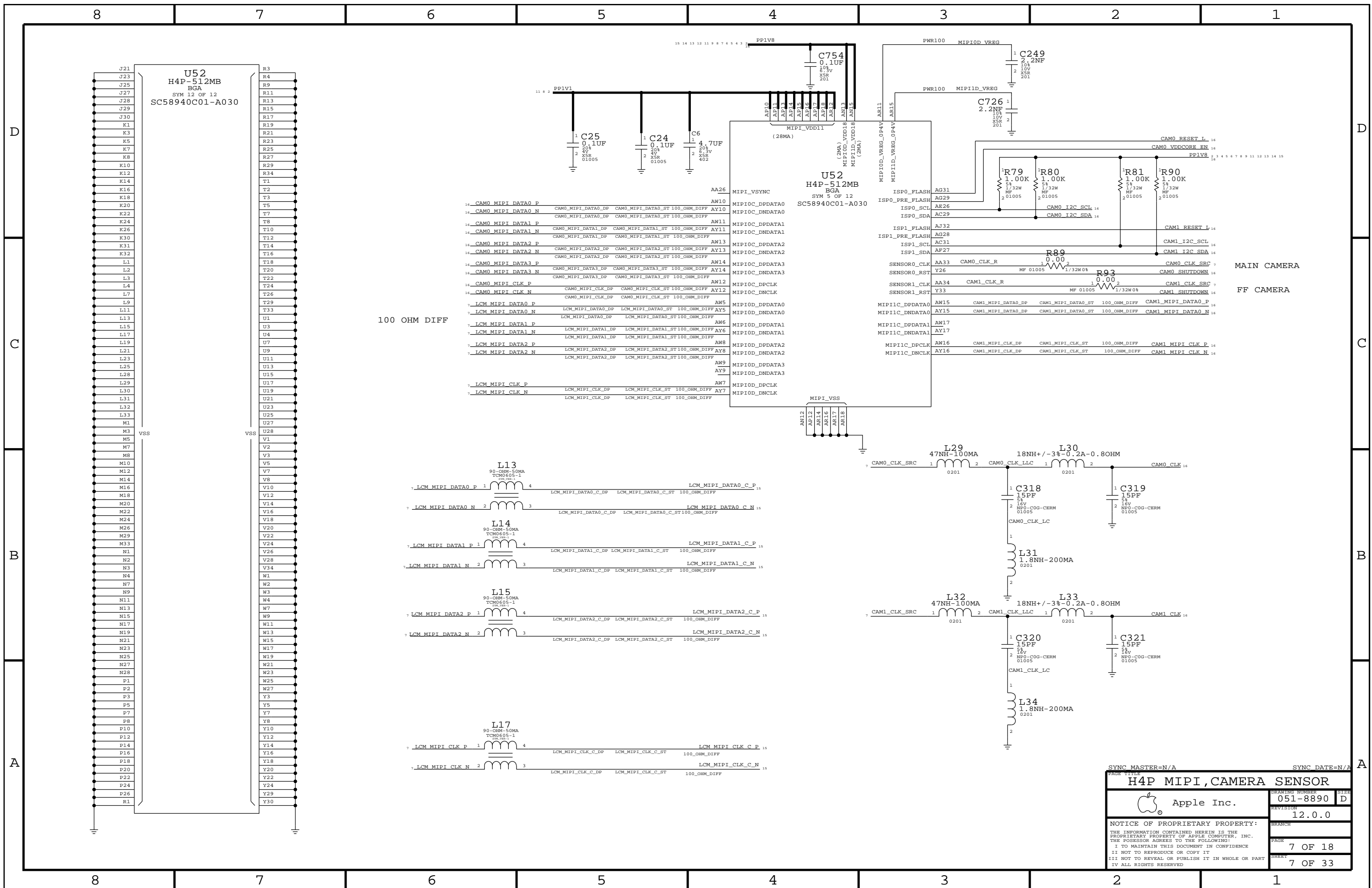


SYNC MASTER=N/A		SYNC DATE=N/A	
<b>H4P SDRAM POWER</b>			
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PAGE TITLE		SYNC DATE=N/A	
<b>H4P SOC, CPU, IO POWER</b>			
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U2  
H4P-512MB  
BGA  
SYM 12 OF 12  
SC58940C01-A030

U2  
H4P-512MB  
BGA  
SYM 5 OF 12  
SC58940C01-A030

100 OHM DIFF

MAIN CAMERA  
FF CAMERA

AA26	MIPI_VSYNC	MIPI0C_DPDATA0	MIPI0C_DNDATA0
AW10	CAMO_MIPI_DATA0_P	CAMO_MIPI_DATA0_DP	CAMO_MIPI_DATA0_ST 100_OHM_DIFF
AY10	CAMO_MIPI_DATA0_N	CAMO_MIPI_DATA0_DP	CAMO_MIPI_DATA0_ST 100_OHM_DIFF
AW11	CAMO_MIPI_DATA1_P	CAMO_MIPI_DATA1_DP	CAMO_MIPI_DATA1_ST 100_OHM_DIFF
AY11	CAMO_MIPI_DATA1_N	CAMO_MIPI_DATA1_DP	CAMO_MIPI_DATA1_ST 100_OHM_DIFF
AW13	CAMO_MIPI_DATA2_P	CAMO_MIPI_DATA2_DP	CAMO_MIPI_DATA2_ST 100_OHM_DIFF
AY13	CAMO_MIPI_DATA2_N	CAMO_MIPI_DATA2_DP	CAMO_MIPI_DATA2_ST 100_OHM_DIFF
AW14	CAMO_MIPI_DATA3_P	CAMO_MIPI_DATA3_DP	CAMO_MIPI_DATA3_ST 100_OHM_DIFF
AY14	CAMO_MIPI_DATA3_N	CAMO_MIPI_DATA3_DP	CAMO_MIPI_DATA3_ST 100_OHM_DIFF
AW12	CAMO_MIPI_CLK_P	CAMO_MIPI_CLK_DP	CAMO_MIPI_CLK_ST 100_OHM_DIFF
AY12	CAMO_MIPI_CLK_N	CAMO_MIPI_CLK_DP	CAMO_MIPI_CLK_ST 100_OHM_DIFF
AW5	LCM_MIPI_DATA0_P	LCM_MIPI_DATA0_DP	LCM_MIPI_DATA0_ST 100_OHM_DIFF
AY5	LCM_MIPI_DATA0_N	LCM_MIPI_DATA0_DP	LCM_MIPI_DATA0_ST 100_OHM_DIFF
AW6	LCM_MIPI_DATA1_P	LCM_MIPI_DATA1_DP	LCM_MIPI_DATA1_ST 100_OHM_DIFF
AY6	LCM_MIPI_DATA1_N	LCM_MIPI_DATA1_DP	LCM_MIPI_DATA1_ST 100_OHM_DIFF
AW8	LCM_MIPI_DATA2_P	LCM_MIPI_DATA2_DP	LCM_MIPI_DATA2_ST 100_OHM_DIFF
AY8	LCM_MIPI_DATA2_N	LCM_MIPI_DATA2_DP	LCM_MIPI_DATA2_ST 100_OHM_DIFF
AW9	LCM_MIPI_CLK_P	LCM_MIPI_CLK_DP	LCM_MIPI_CLK_ST 100_OHM_DIFF
AY9	LCM_MIPI_CLK_N	LCM_MIPI_CLK_DP	LCM_MIPI_CLK_ST 100_OHM_DIFF
AW7	MIPI0D_DPCLK	MIPI0D_DPCLK	MIPI0D_DPCLK
AY7	MIPI0D_DNCLK	MIPI0D_DNCLK	MIPI0D_DNCLK

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

**H4P MIPI, CAMERA SENSOR**

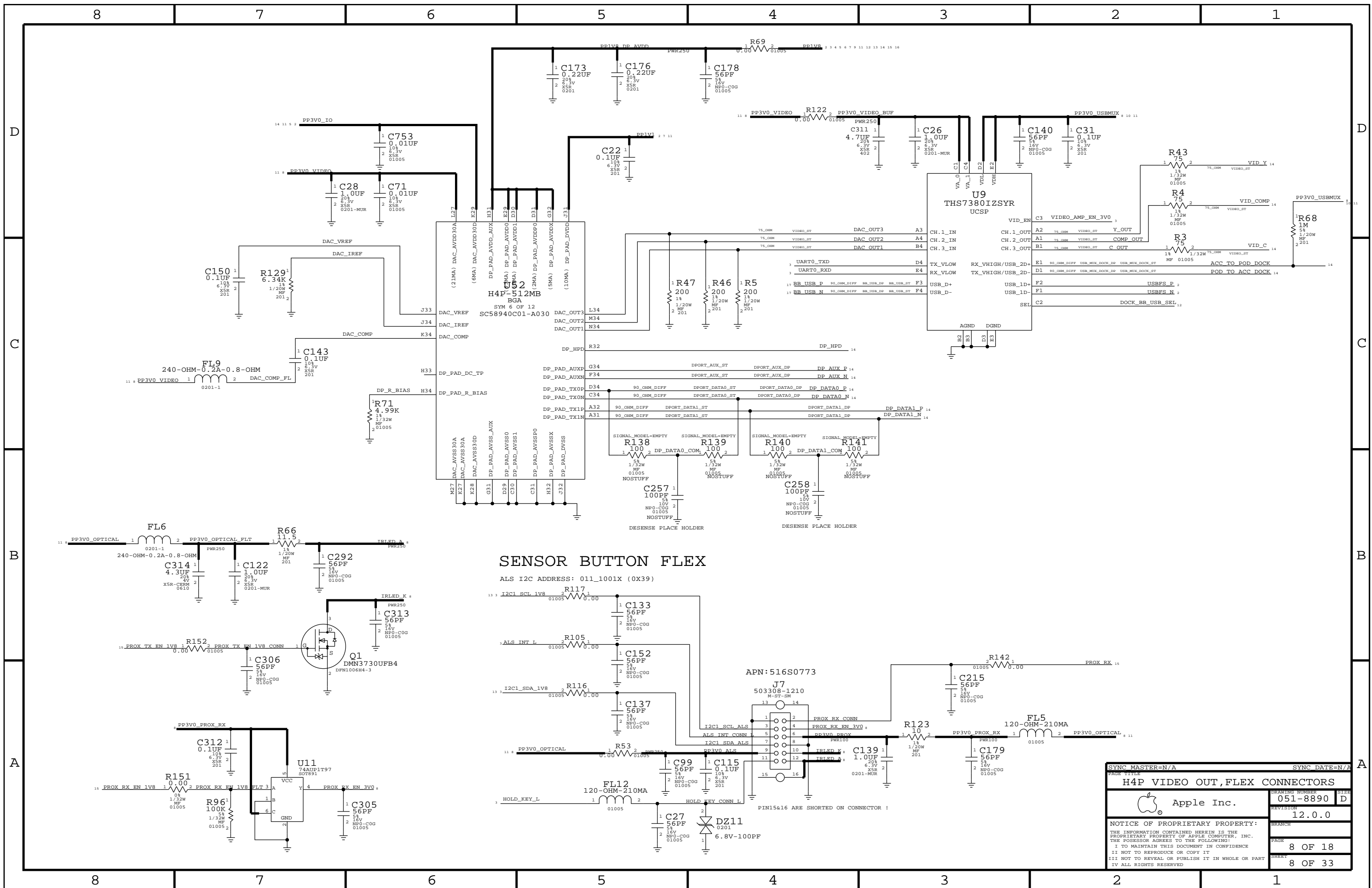
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REVISION: 12.0.0

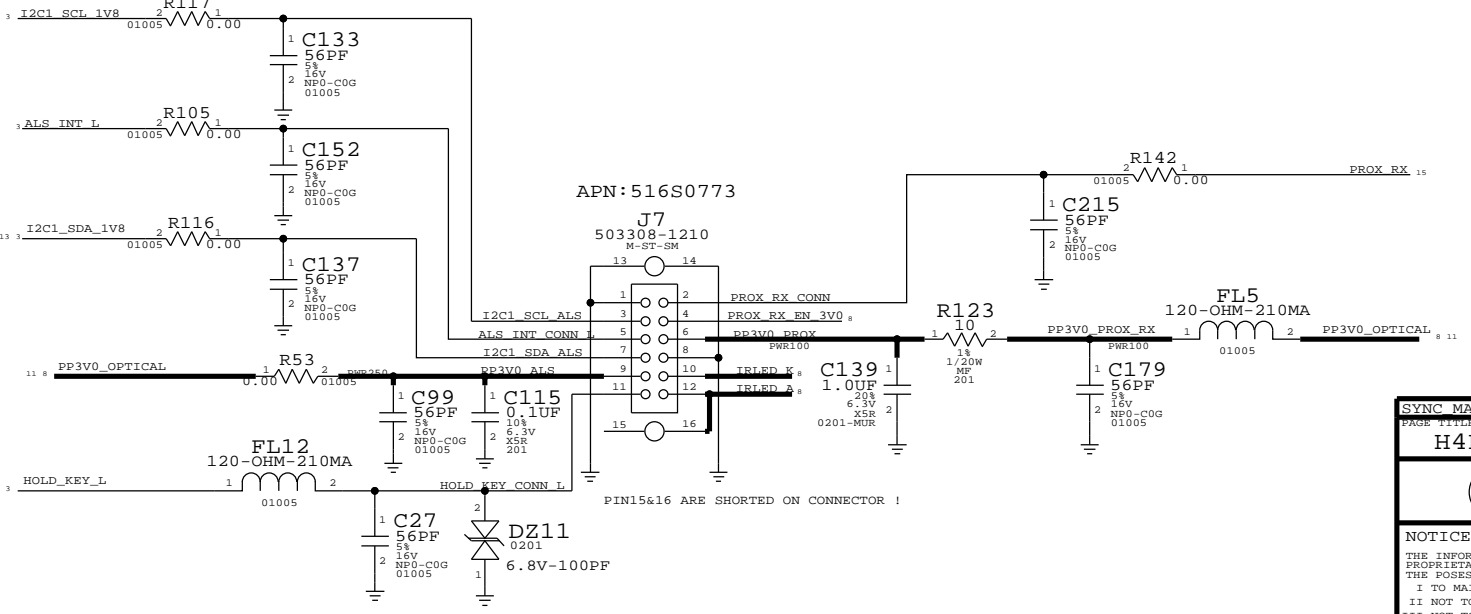
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### SENSOR BUTTON FLEX

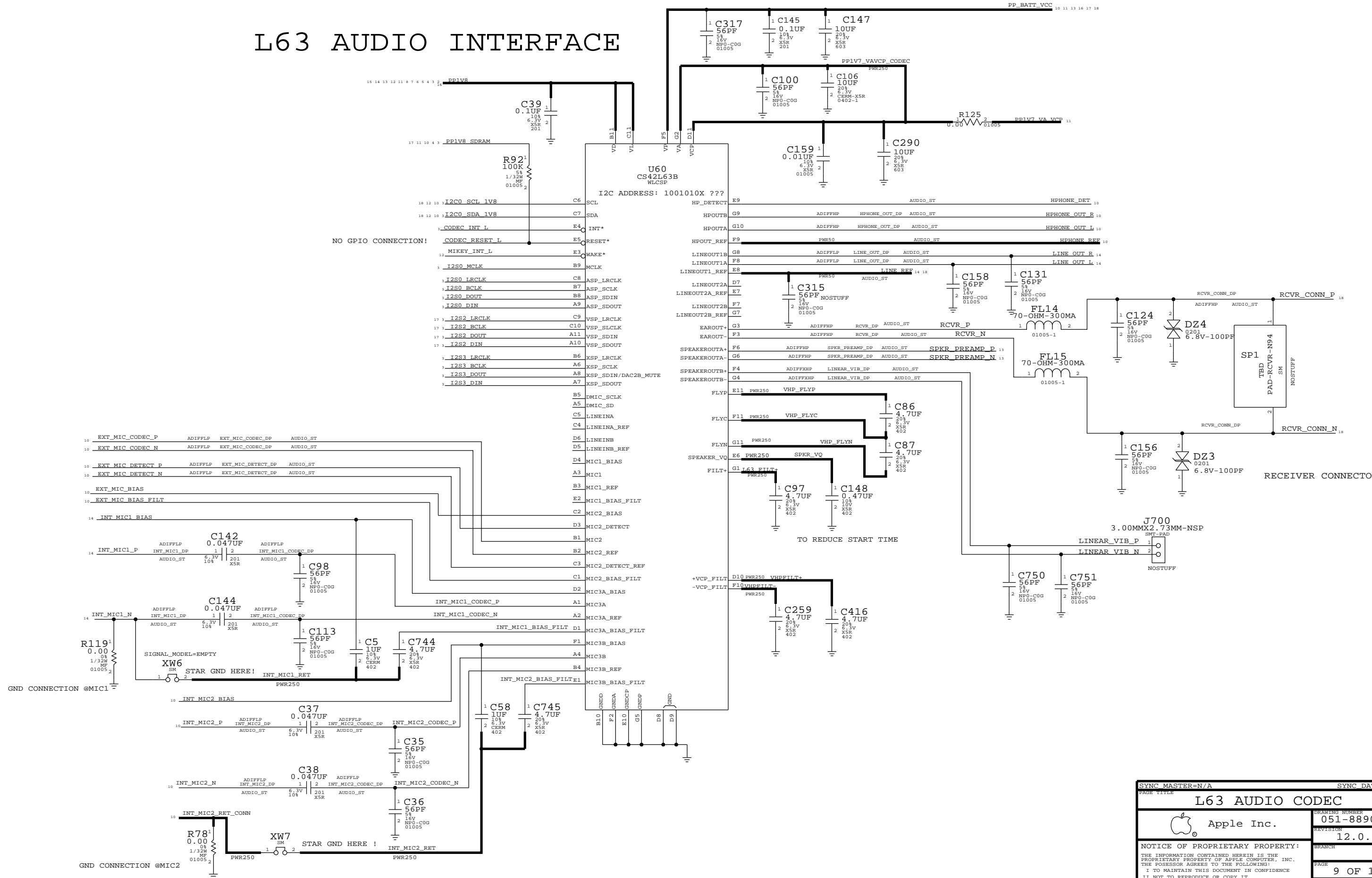
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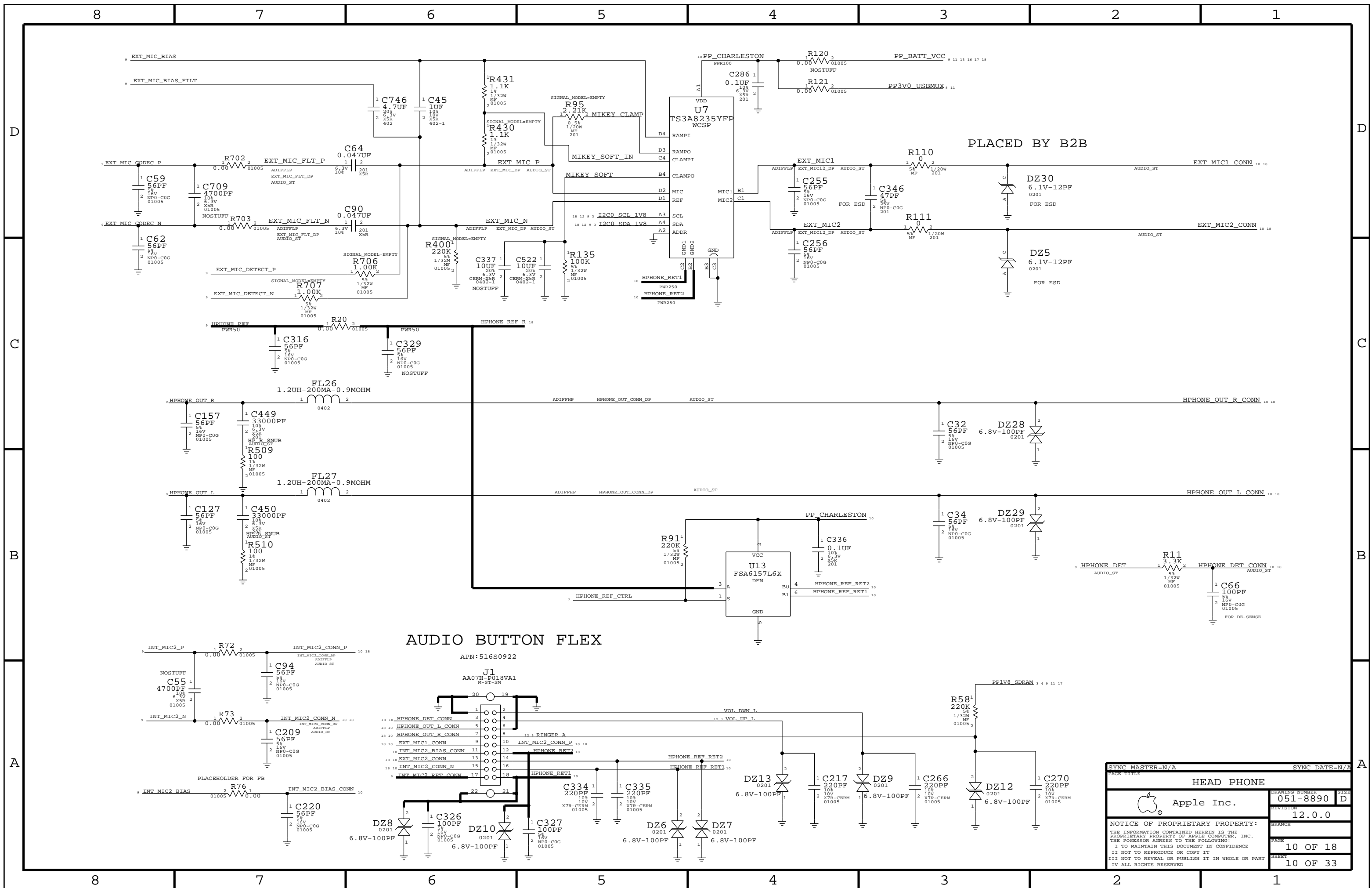
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<b>H4P VIDEO OUT, FLEX CONNECTORS</b>			
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# L63 AUDIO INTERFACE



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<b>L63 AUDIO CODEC</b>			
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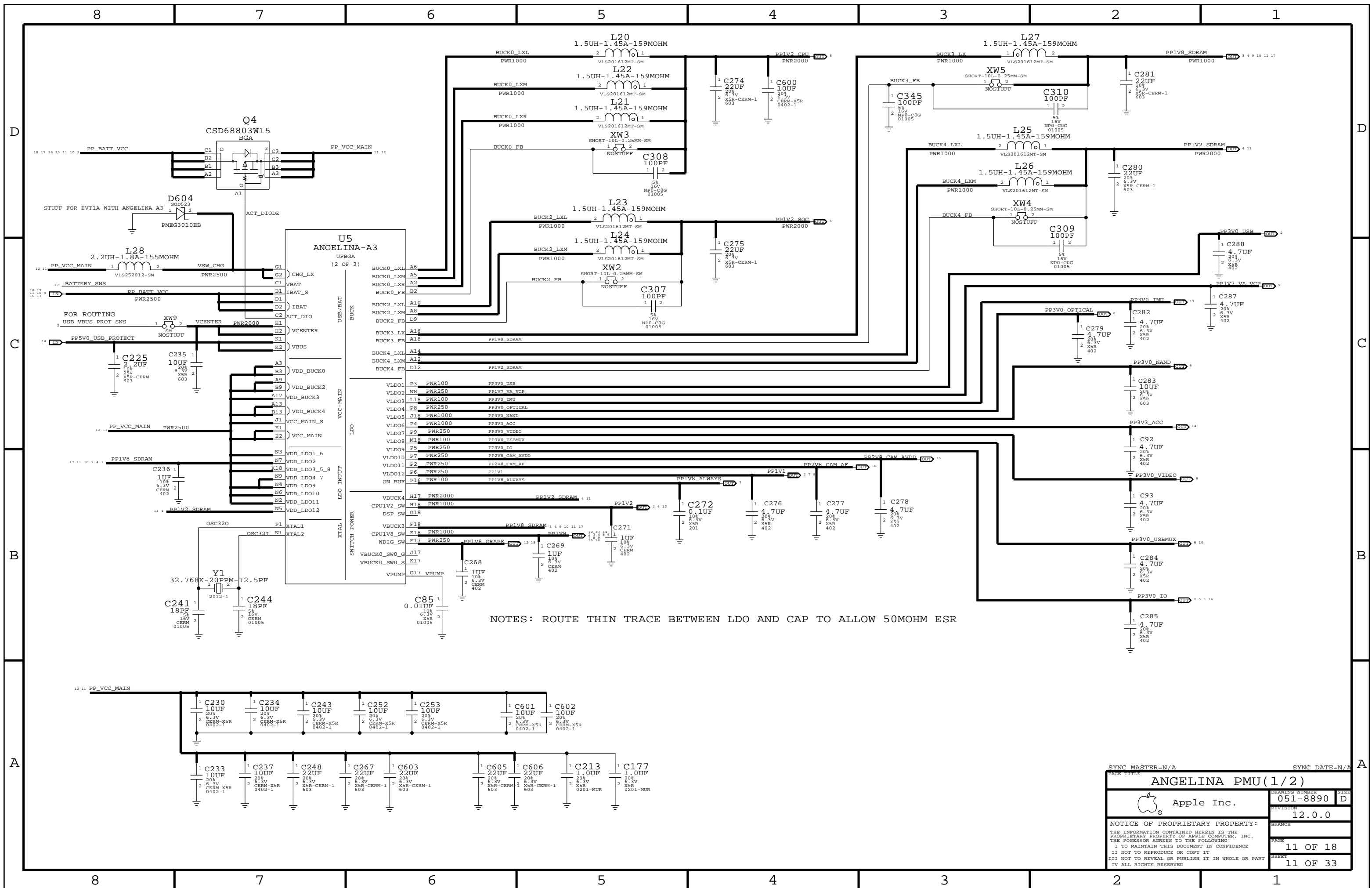


**AUDIO BUTTON FLEX**

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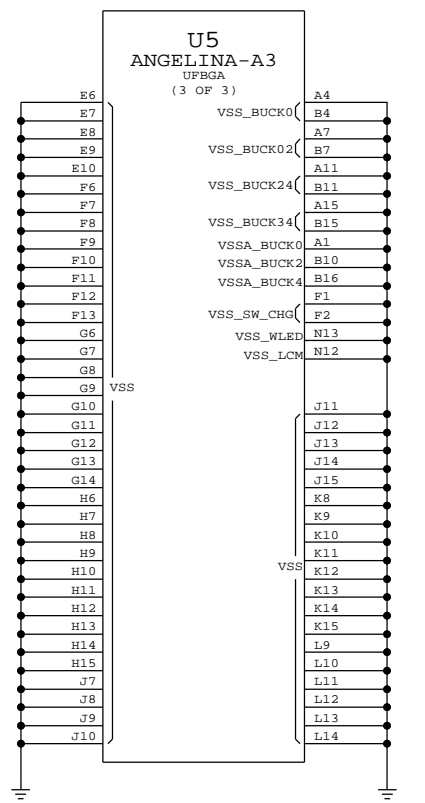
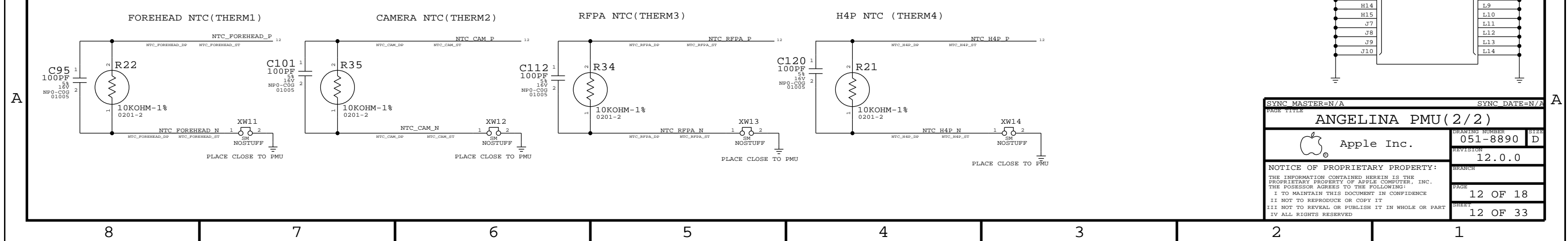
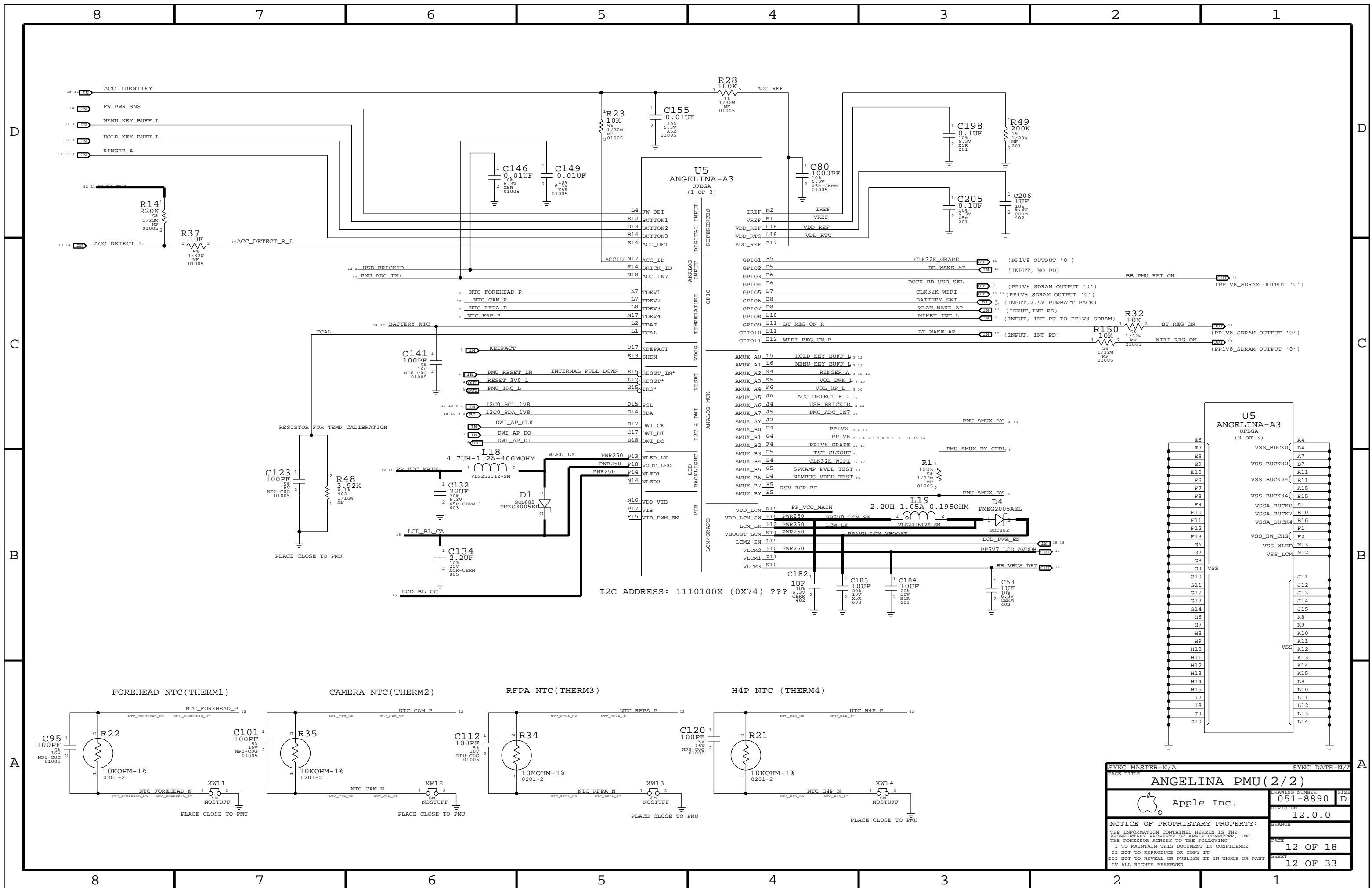
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M-ST-SM

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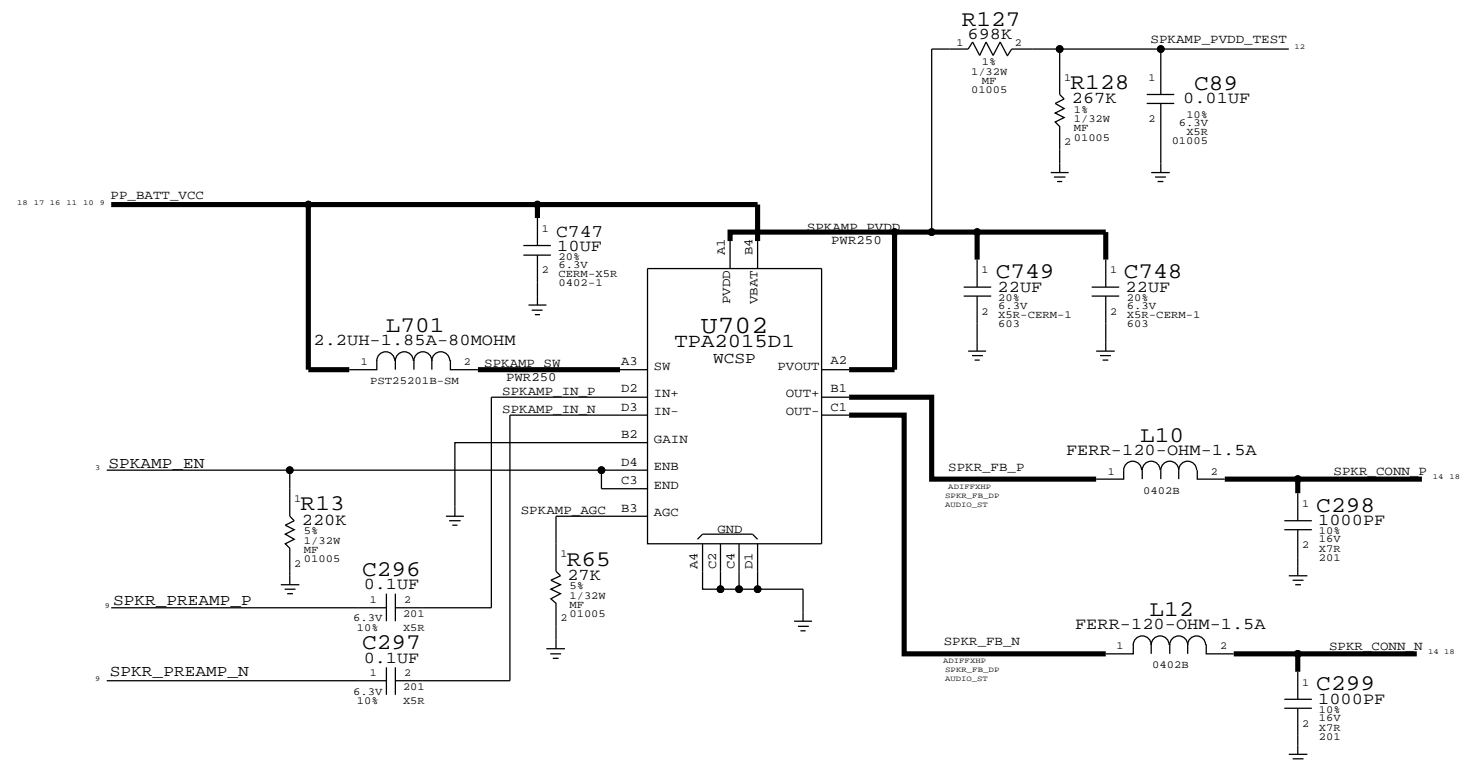


NOTES: ROUTE THIN TRACE BETWEEN LDO AND CAP TO ALLOW 50MOHM ESR

SYNC MASTER=N/A		SYNC DATE=N/A	
<b>ANGELINA PMU (1/2)</b>			
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		PAGE	11 OF 18
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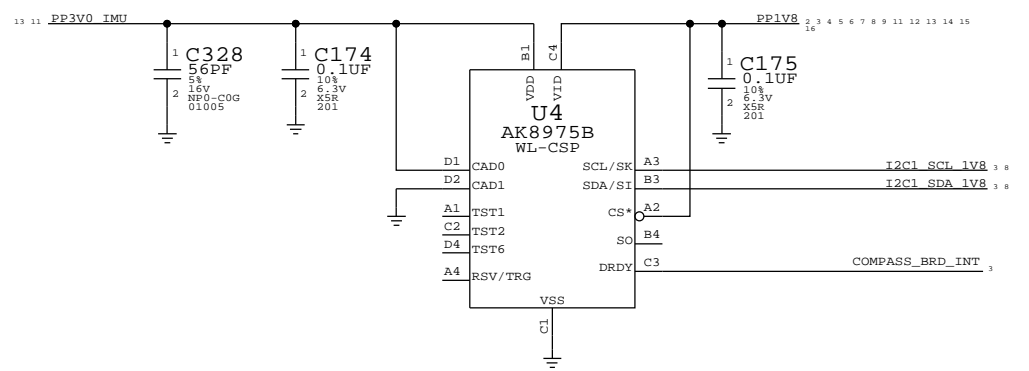


SYNC MASTER=N/A		SYNC DATE=N/A	
<b>ANGELINA PMU (2/2)</b>			
Apple Inc.		DRAWING NUMBER	051-8890
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		PAGE	12 OF 18
		SHEET	12 OF 33



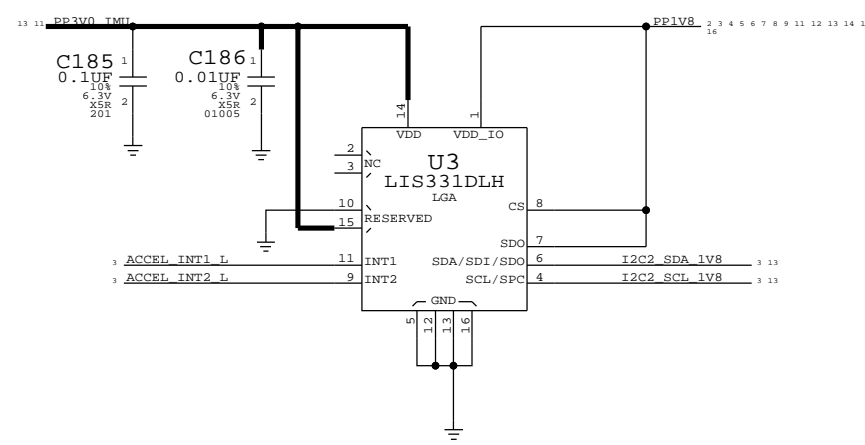
### COMPASS OPTION1

I2C ADDR: 0001100X (0X0D)



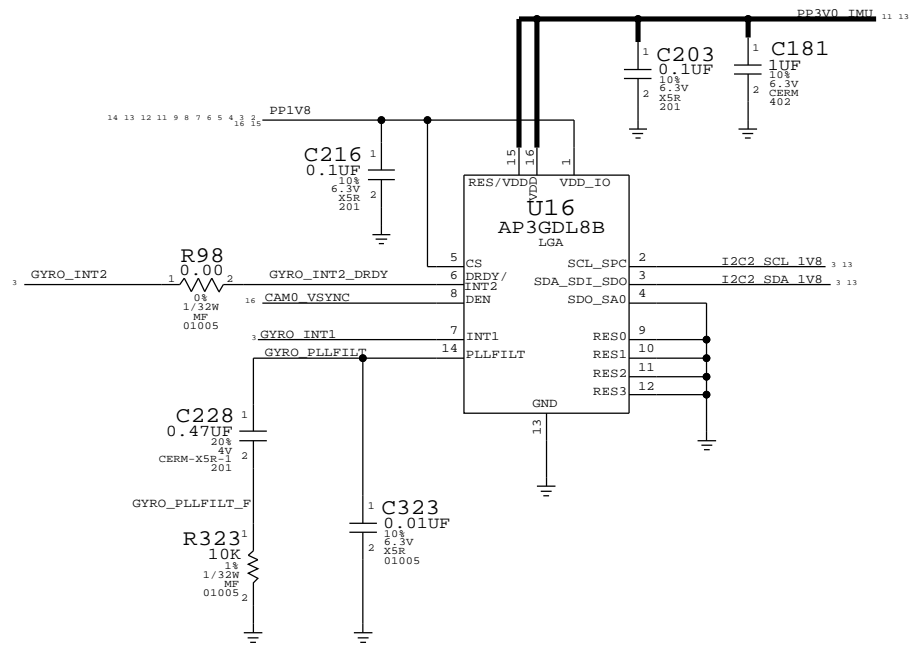
### ACCELEROMETER

I2C ADDRESS: 0011101X (0X1D)

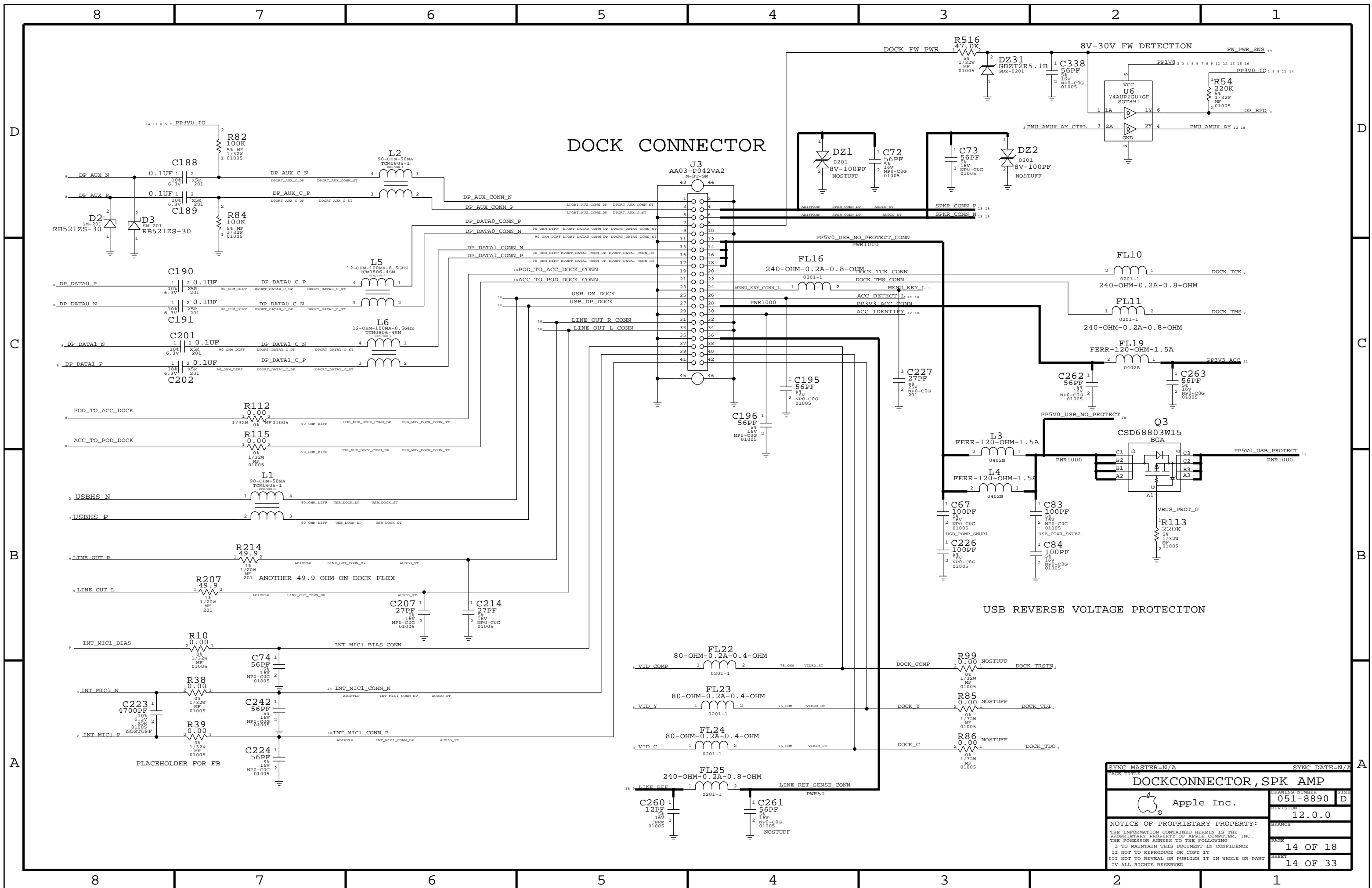


### GYRO 8KHZ

I2C ADDRESS: 0XD0



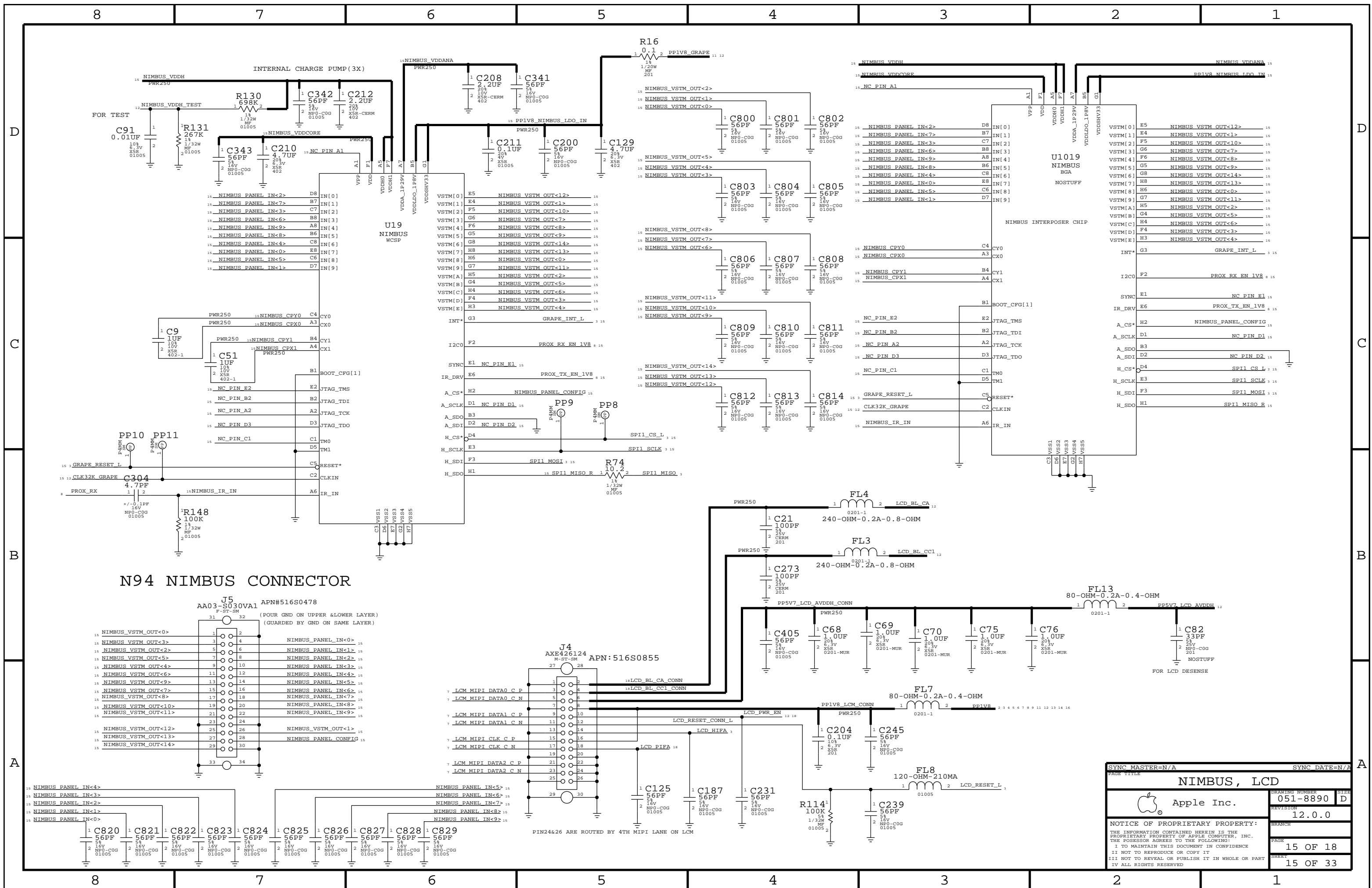
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<b>ACCEL, GYRO, COMPASS, SPK AMP</b>			
Apple Inc.		DRAWING NUMBER	SIZE
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		REVISION	12.0.0
		PAGE	13 OF 18
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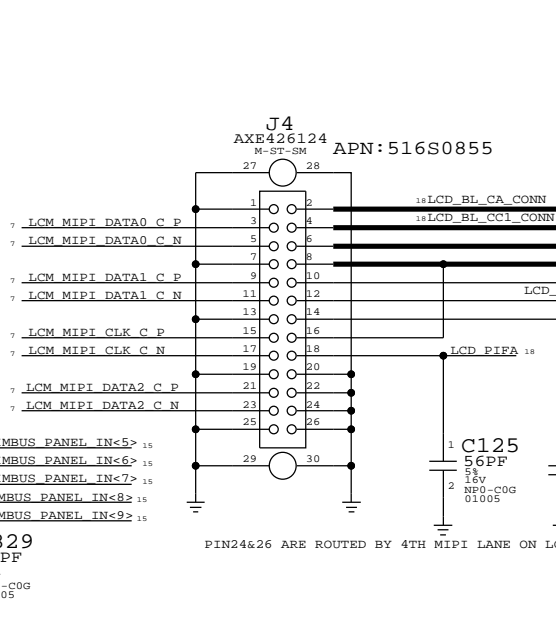
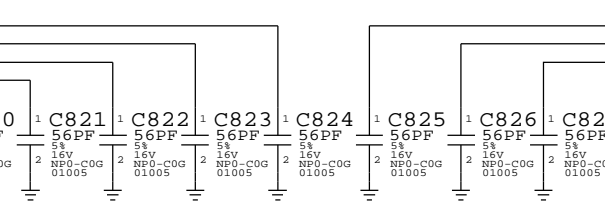
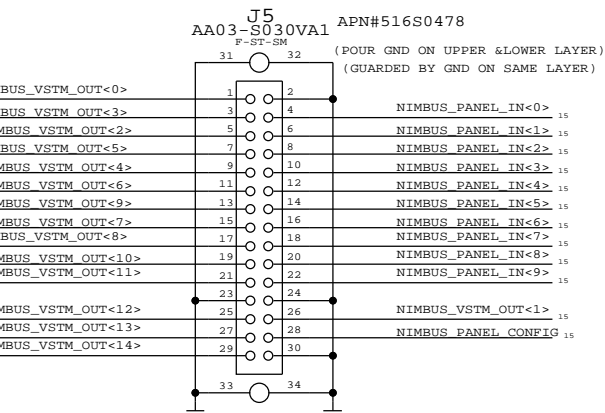
DOCK CONNECTOR

USB REVERSE VOLTAGE PROTECTION

SYNC MASTER=N/A		SYNC DATE=N/A	
<b>DOCKCONNECTOR, SPK AMP</b>			
Apple Inc.		DRAWING NUMBER	051-8890
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		SHEET	14 OF 33



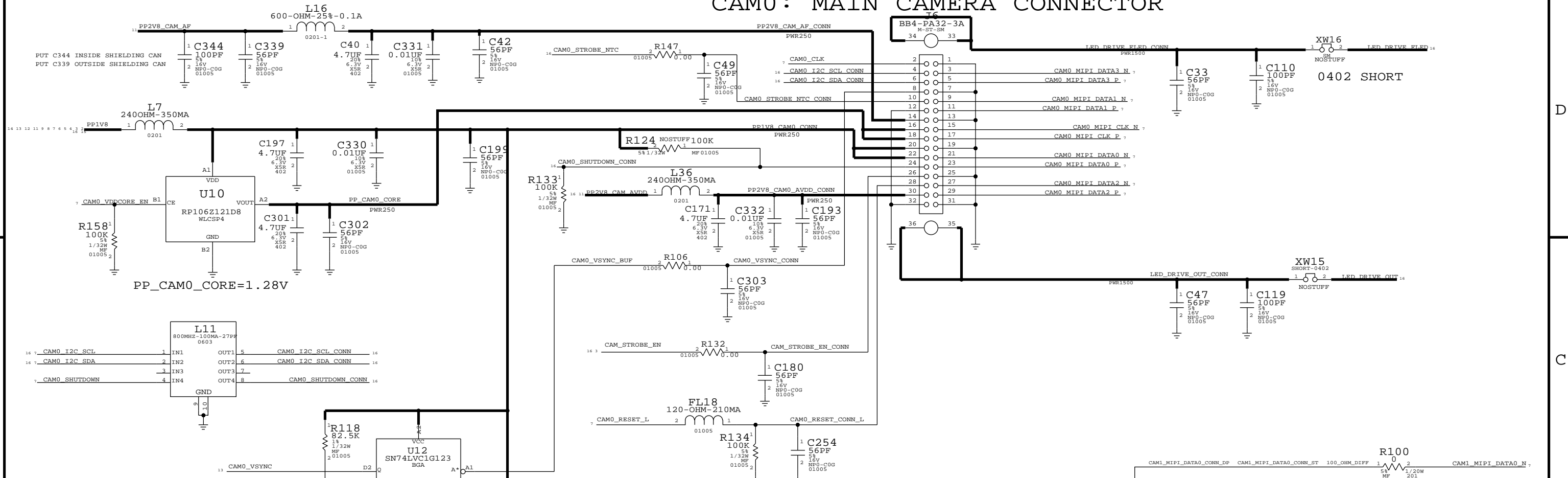
**N94 NIMBUS CONNECTOR**



PAGE TITLE		SYNC DATE=N/A	
<b>NIMBUS, LCD</b>			
Apple Inc.		DRAWING NUMBER	SIZE
		051-8890	D
		REVISION	
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		BRANCH	
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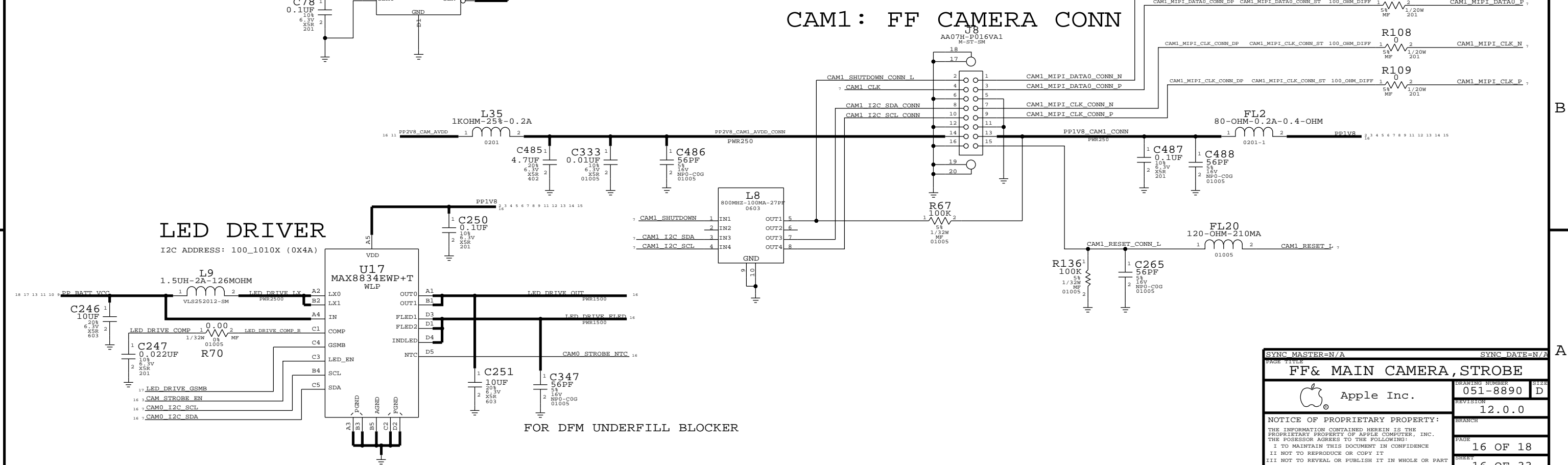
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# CAMO: MAIN CAMERA CONNECTOR



# CAM1: FF CAMERA CONN

APN: 516S0924



## LED DRIVER

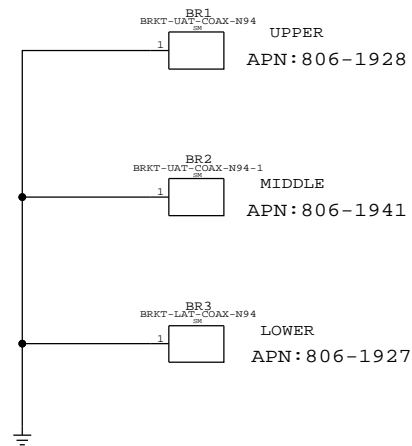
I2C ADDRESS: 100\_1010X (0X4A)

FOR DFM UNDERFILL BLOCKER

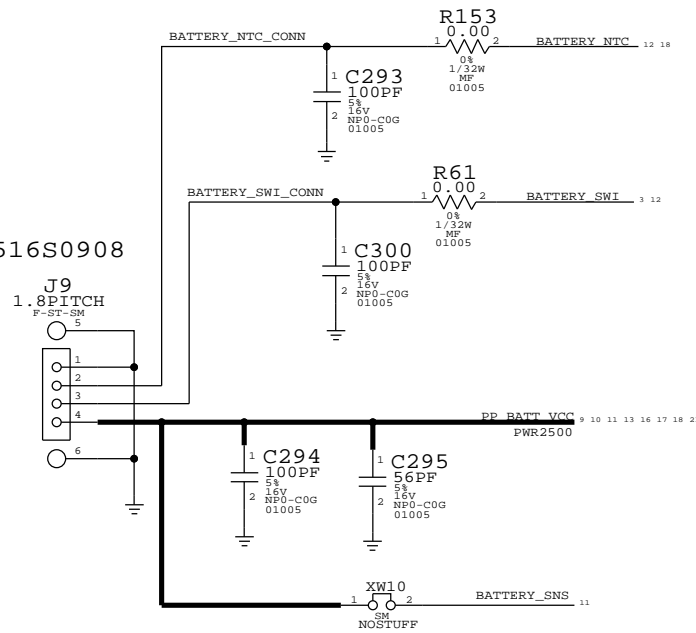
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FF& MAIN CAMERA, STROBE			
DRAWING NUMBER		SIZE	
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REVISION		BRANCH	
12.0.0			
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### STRAIN RELIEF BRACKET



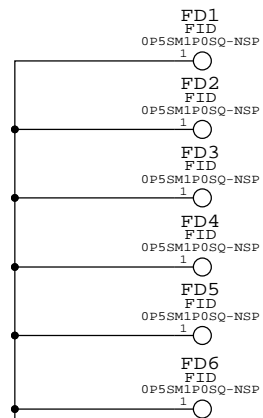
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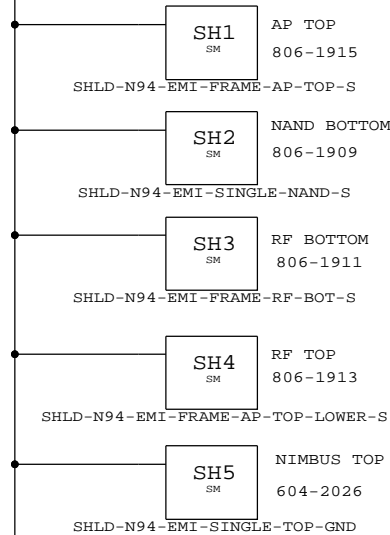
### AP/RADIO INTERFACE

Signal Name	Direction	Make Base	Target Name
PP_BATT_VCC	IN	MAKE_BASE=TRUE	BATT_VCC
RADIO_ON_L	IN	MAKE_BASE=TRUE	RADIO_ON_N
BB_RESET_DET_L	IN	MAKE_BASE=TRUE	RESET_DET_N
BB_PMU_FFT_ON	IN	MAKE_BASE=TRUE	FFT_ON (ANGELINA)
RESET_BB_PMU_L	IN	MAKE_BASE=TRUE	RESET_PMU_N (AP - H4P)
BB_RESET_L	IN	MAKE_BASE=TRUE	BB_RST_N
BB_WAKE_AP	IN	MAKE_BASE=TRUE	BB_WAKE_AP
RESET_IV8_L	IN	MAKE_BASE=TRUE	RF_RESET_N
LED_DRIVE_GSMB	IN	MAKE_BASE=TRUE	GSM_TXBURST_IND
SPI2_MRDY	IN	MAKE_BASE=TRUE	IPC_MRDY
IPC_SRDY	IN	MAKE_BASE=TRUE	IPC_SRDY
IPC_GPIO4	IN	MAKE_BASE=TRUE	IPC_GPIO4
BB_VBUS_DET	IN	MAKE_BASE=TRUE	BB_USB_VBUS
BB_USB_N	IN	MAKE_BASE=TRUE	BB_USB_DN
BB_USB_P	IN	MAKE_BASE=TRUE	BB_USB_DP
UART1_RTS_L	IN	MAKE_BASE=TRUE	BB_UART_CTS_N
UART1_CTS_L	IN	MAKE_BASE=TRUE	BB_UART_RTS_N
UART1_TXD	IN	MAKE_BASE=TRUE	BB_UART_RXD
UART1_RXD	IN	MAKE_BASE=TRUE	BB_UART_TXD
I2S1_BCLK	IN	MAKE_BASE=TRUE	BB_I2S_CLK
I2S1_DOUT	IN	MAKE_BASE=TRUE	BB_I2S_RXD
I2S1_DIN	IN	MAKE_BASE=TRUE	BB_I2S_TXD
I2S1_LRCLK	IN	MAKE_BASE=TRUE	BB_I2S_WS
PP1V8_SDRAM	IN	MAKE_BASE=TRUE	WL_BT_VDDIO
BT_REG_ON	IN	MAKE_BASE=TRUE	BT_REG_ON
WIFI_REG_ON	IN	MAKE_BASE=TRUE	WLAN_REG_ON
WLAN_SDIO_CLK	IN	MAKE_BASE=TRUE	WLAN_SDIO_CLK
WLAN_SDIO_CMD	IN	MAKE_BASE=TRUE	WLAN_SDIO_CMD
WLAN_SDIO_DATA<3..0>	IN	MAKE_BASE=TRUE	WLAN_SDIO_DATA<3..0>
WLAN_WAKE_AP	IN	MAKE_BASE=TRUE	HOST_WAKE_WLAN
BT_WAKE	IN	MAKE_BASE=TRUE	BT_WAKE
CLK32K_WIFI	IN	MAKE_BASE=TRUE	CLK32K_AP
BT_RESET_L	IN	MAKE_BASE=TRUE	BT_RESET_N
BT_WAKE_AP	IN	MAKE_BASE=TRUE	HOST_WAKE_BT
UART3_RTS_L	IN	MAKE_BASE=TRUE	BT_UART_CTS_N
UART3_CTS_L	IN	MAKE_BASE=TRUE	BT_UART_RTS_N
UART3_TXD	IN	MAKE_BASE=TRUE	BT_UART_RXD
UART3_RXD	IN	MAKE_BASE=TRUE	BT_UART_TXD
I2S2_BCLK	IN	MAKE_BASE=TRUE	BT_PCM_CLK
I2S2_DOUT	IN	MAKE_BASE=TRUE	BT_PCM_IN
I2S2_DIN	IN	MAKE_BASE=TRUE	BT_PCM_OUT
I2S2_LRCLK	IN	MAKE_BASE=TRUE	BT_PCM_SYNC
HSIC1_DATA	IN	MAKE_BASE=TRUE	HSIC_BB_DATA
HSIC1_STB	IN	MAKE_BASE=TRUE	HSIC_BB_STROBE
HOST_BB_HSIC_RDY	IN	MAKE_BASE=TRUE	HOST_BB_HSIC_RDY
HOST_WLAN_HSIC_RDY	IN	MAKE_BASE=TRUE	HOST_WLAN_HSIC_RDY
BB_HSIC_RDY	IN	MAKE_BASE=TRUE	BB_HSIC_RDY
HSIC2_DATA	IN	MAKE_BASE=TRUE	HSIC_WLAN_DATA
HSIC2_STB	IN	MAKE_BASE=TRUE	HSIC_WLAN_STROBE
BB_EMERGENCY_DWLD_L	IN	MAKE_BASE=TRUE	BB_EMERGENCY_DWLD
WLAN_HSIC_RDY	IN	MAKE_BASE=TRUE	WLAN_HSIC_RDY

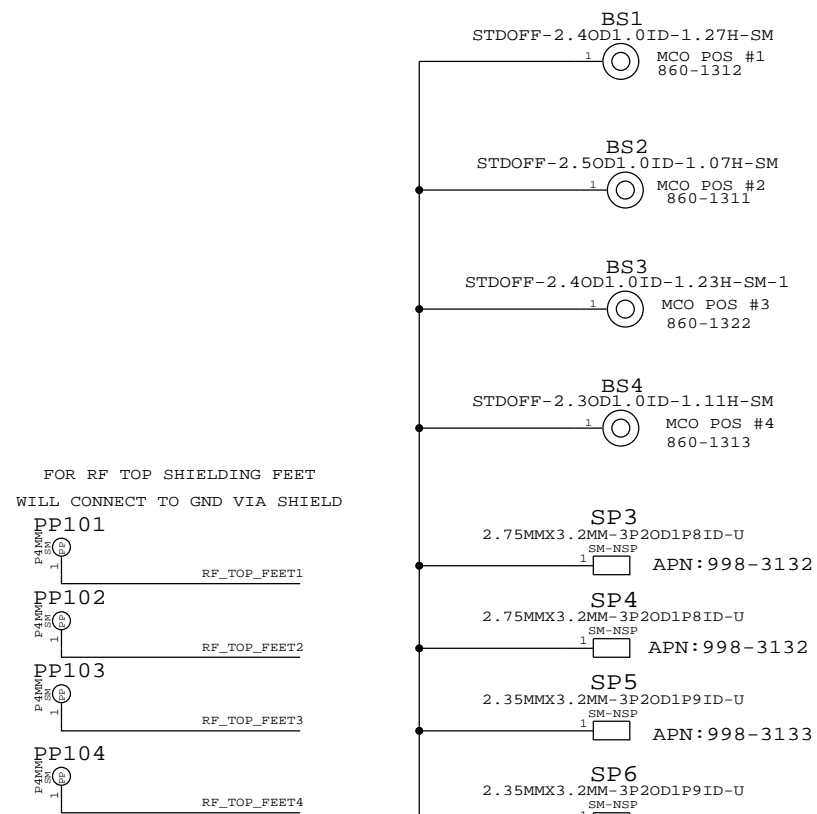
### FIDUCIALS



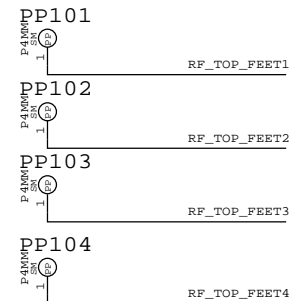
### SHIELDS



### STANDOFFS

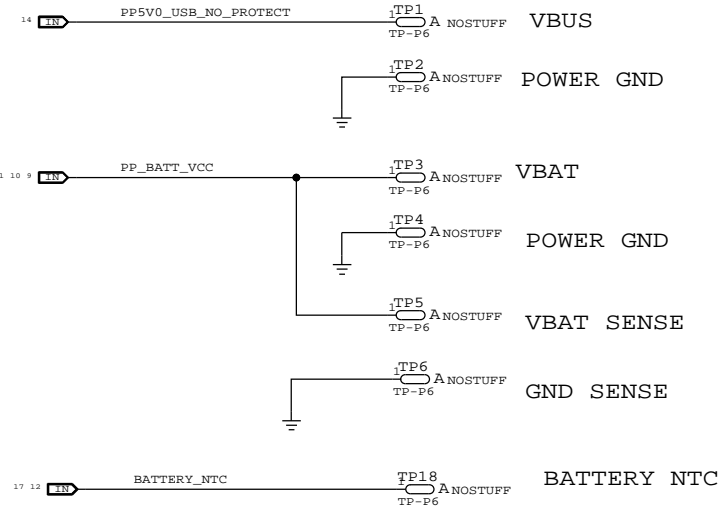


FOR RF TOP SHIELDING FEET WILL CONNECT TO GND VIA SHIELD

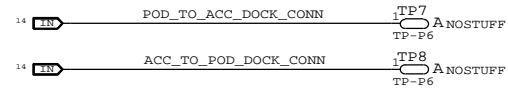


SYNC MASTER=N/A		SYNC DATE=N/A	
RF INT, SHIELD, STNDOFFS			
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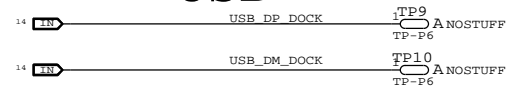
# POWER



# UART



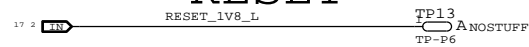
# USB



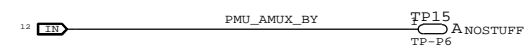
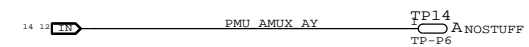
# DFU



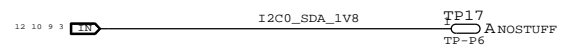
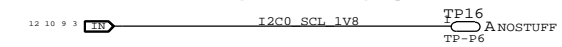
# RESET



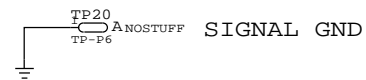
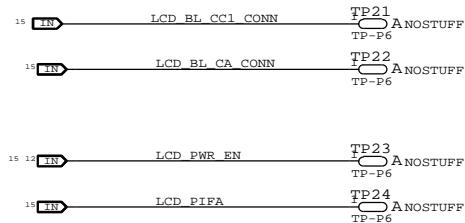
# SUPER TP



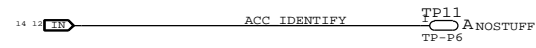
# I2C0 BUS



# GRAPE / LCM

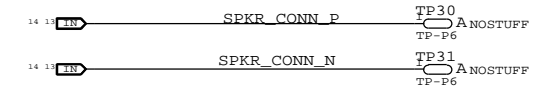


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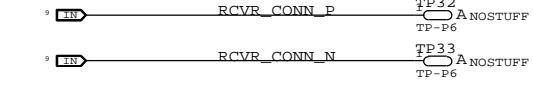


# AUDIO

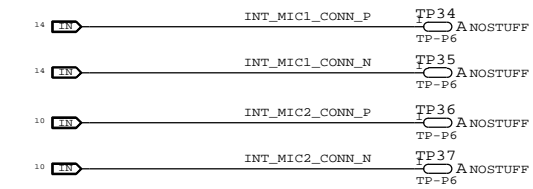
## SPEAKER



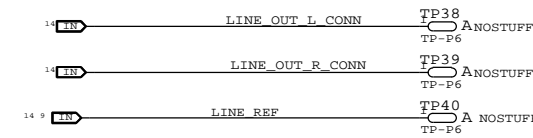
## RECEIVER



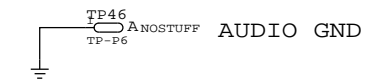
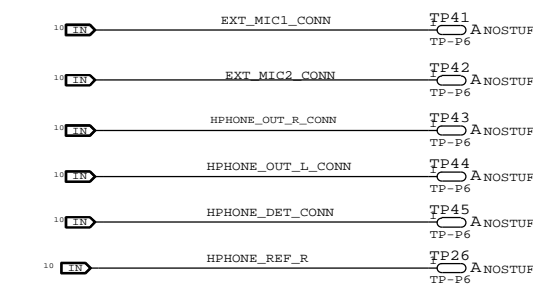
## MIC



## LINE OUT



## HEADPHONE



SYNC MASTER=N/A		SYNC DATE=N/A	
<b>TEST POINTS</b>			
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	REVISION	12.0.0	
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1. ALL RESISTANCE VALUES ARE IN OHMS, 0.1 WATT +/- 5%.  
 2. ALL CAPACITANCE VALUES ARE IN MICROFARADS.  
 3. ALL CRYSTALS & OSCILLATOR VALUES ARE IN HERTZ.

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REV	ECN	DESCRIPTION OF REVISION	CK APPD	DATE
12	0001170763	ENGINEERING RELEASED		2011-07-05

# N94 RADIO\_MLB\_V3 SUBDESIGN

## RADIO - 07/05/2011: SUBDESIGN

PAGE	CONTENTS
02	BASEBAND
03	BASEBAND MEMORY
04	BASEBAND POWER
05	POWER1: CONTROL
06	POWER2: DIGITAL, ANALOG, RF
07	AP INTERFACE AND DEBUG CONNECTOR
08	RF TRANSCEIVER - RX AND TX
09	RF TRANSCEIVER - POWER DECOUPLING
10	RF TRANSCEIVER AND ASM
11	MMPA AND PA DC/DC CONVERTER
12	B2 AND B5 PADS
13	DIVERSITY AND EXTERNAL GPS LNA
14	WLAN/BT/FM
15	DIVERSITY ANTENNA SWITCH AND SIM

SCH #: 951-1604

BASED ON RADIO\_MLB\_EVT2\_RFPE

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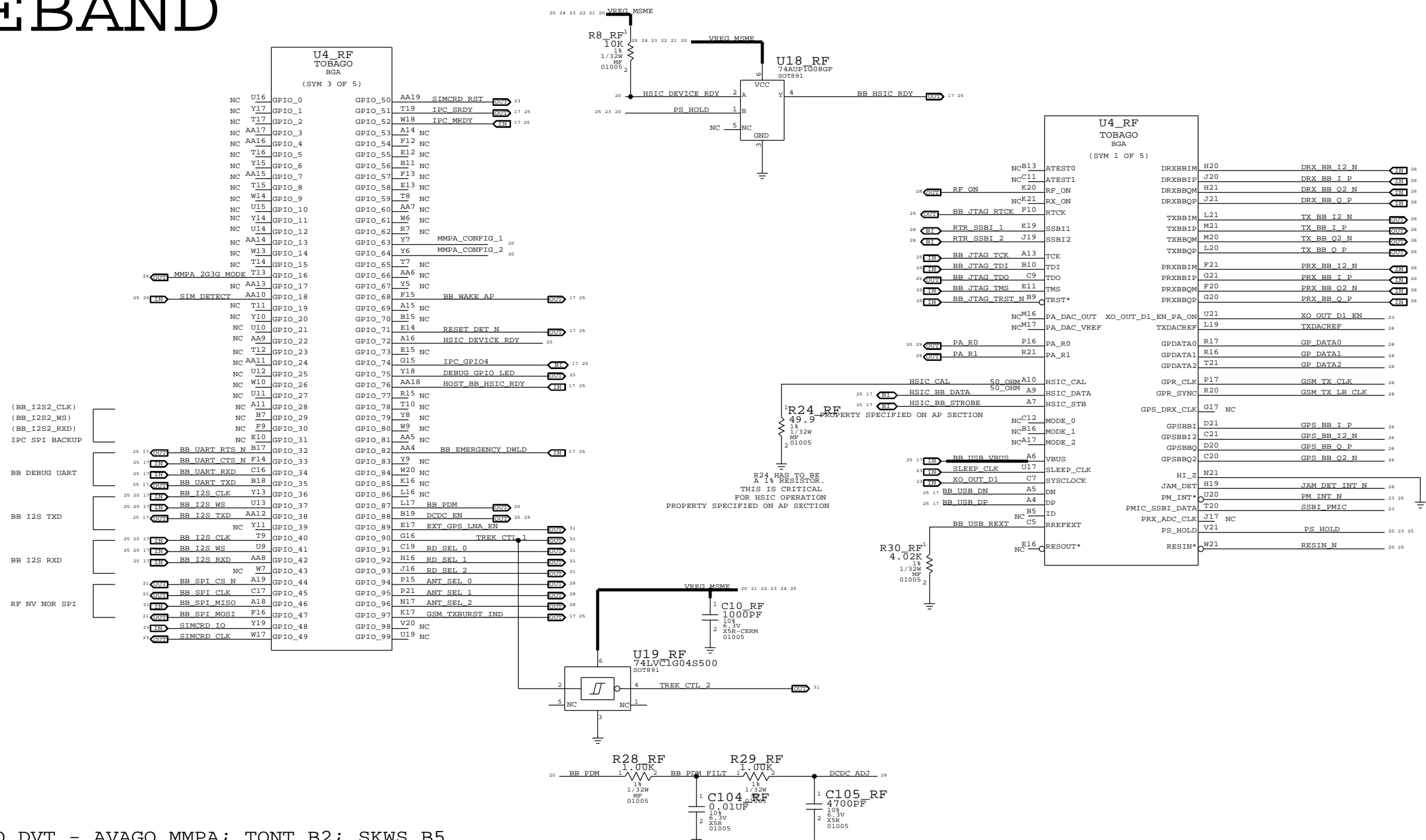
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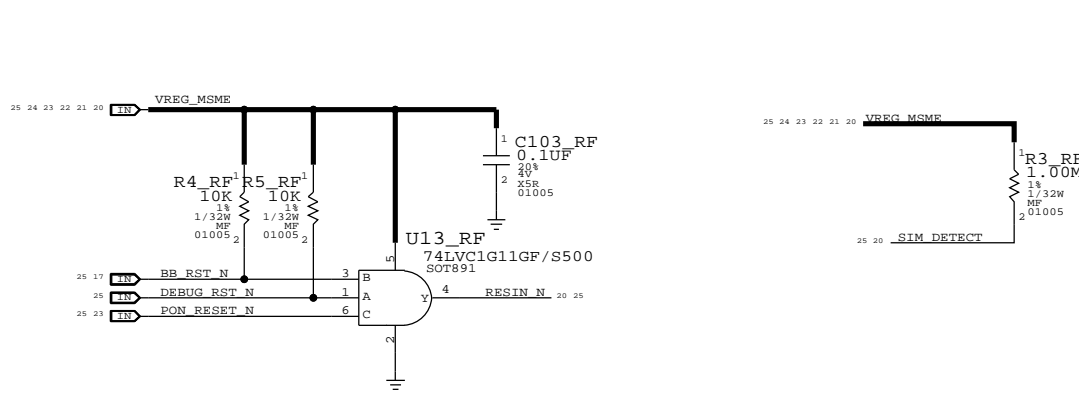
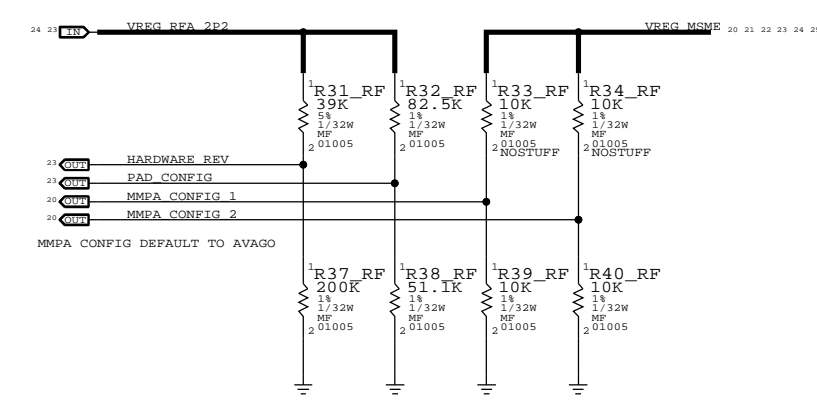
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# BASEBAND

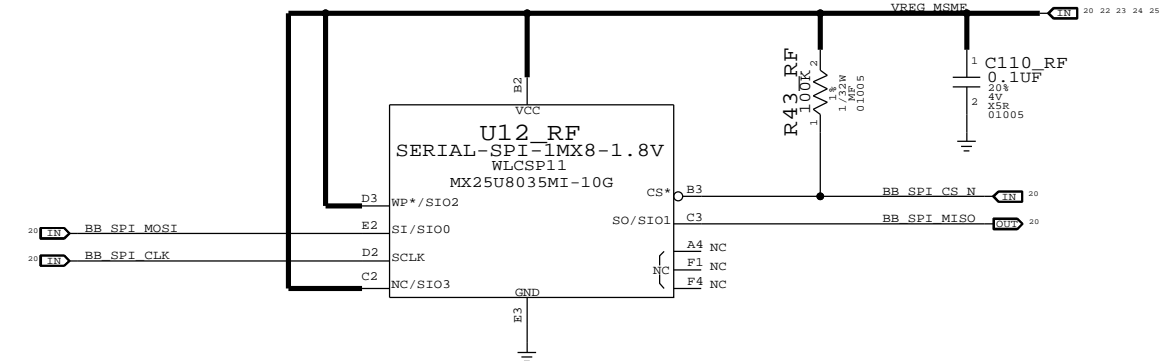
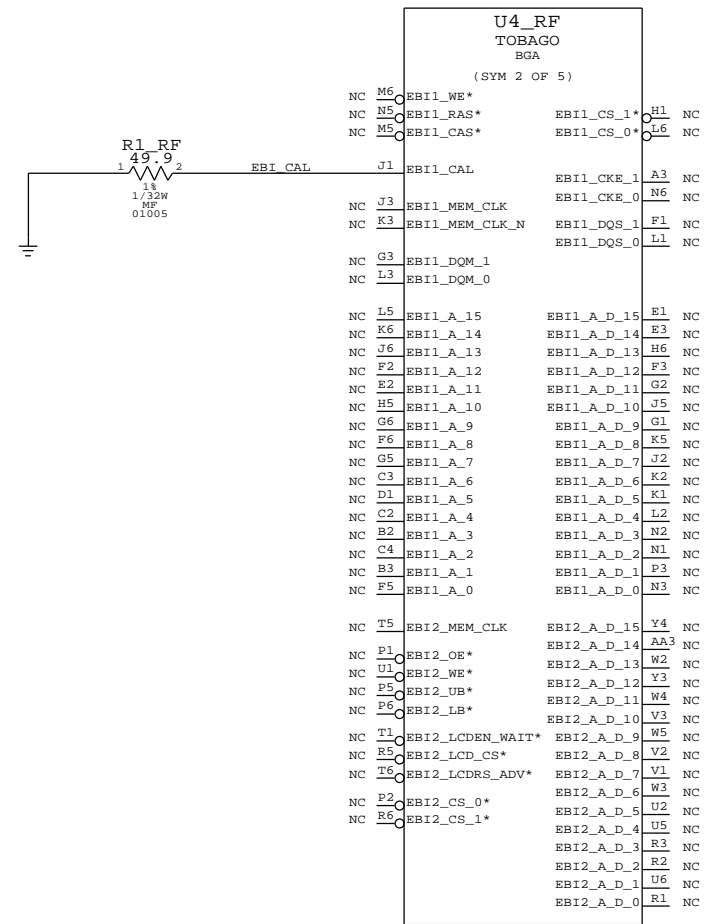
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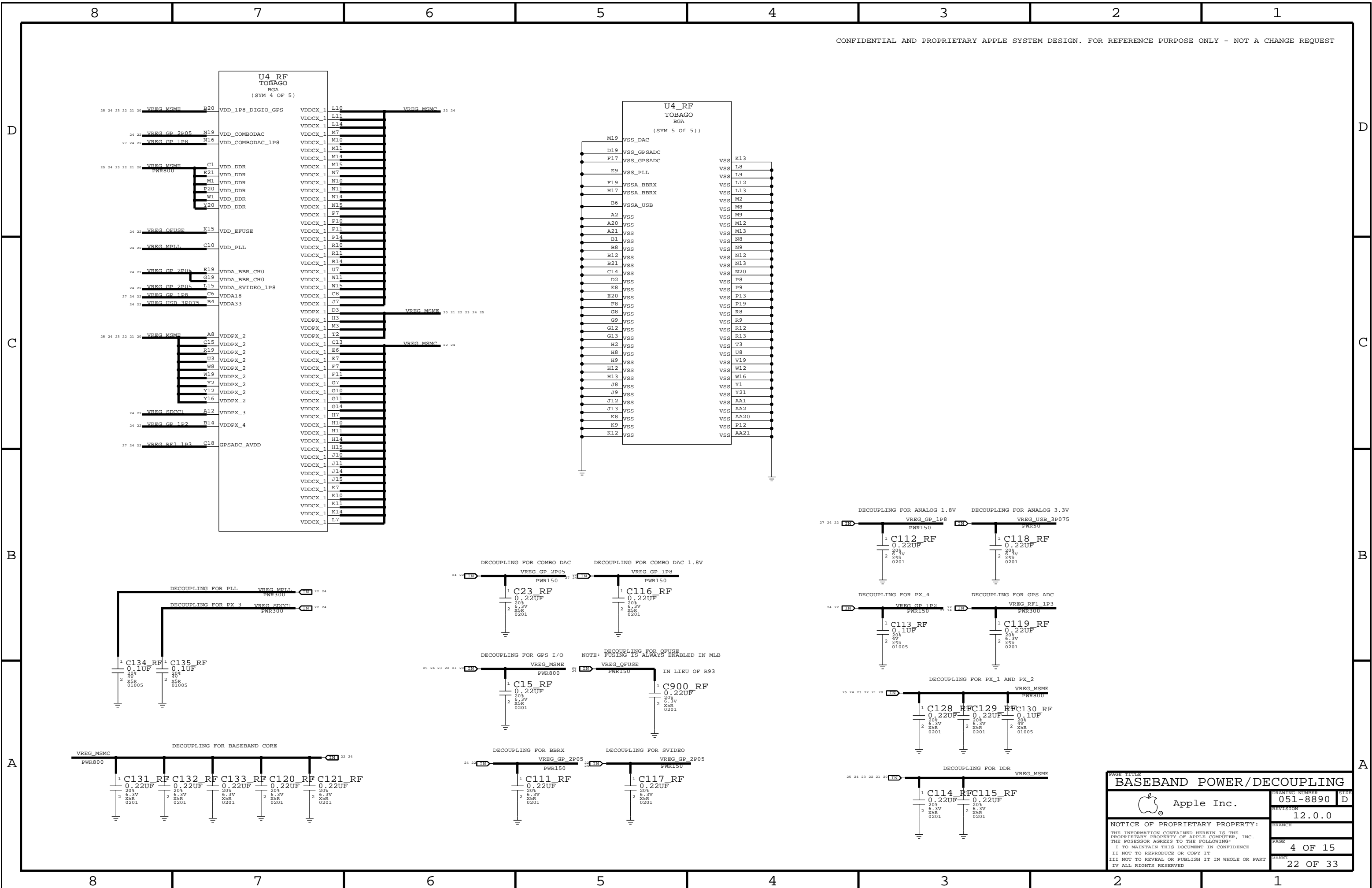
DEFAULT TO DVT - AVAGO MMPA; TQNT B2; SKWS B5



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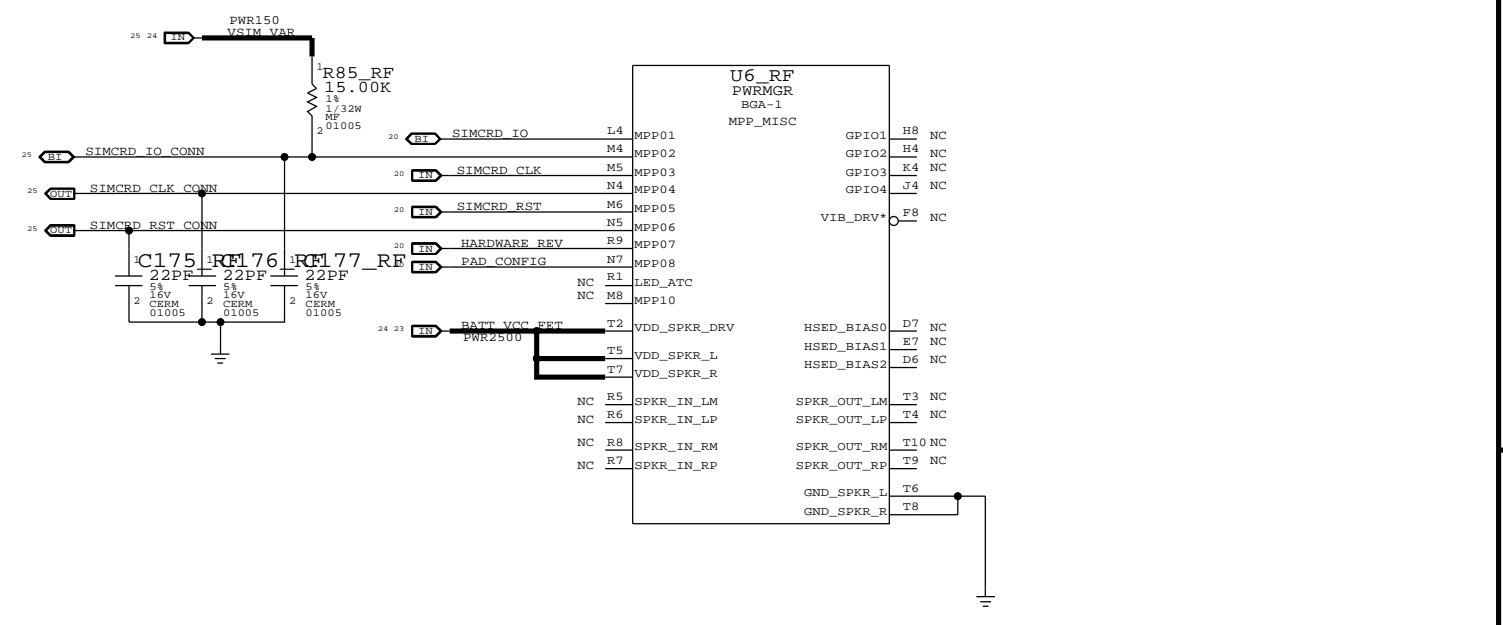
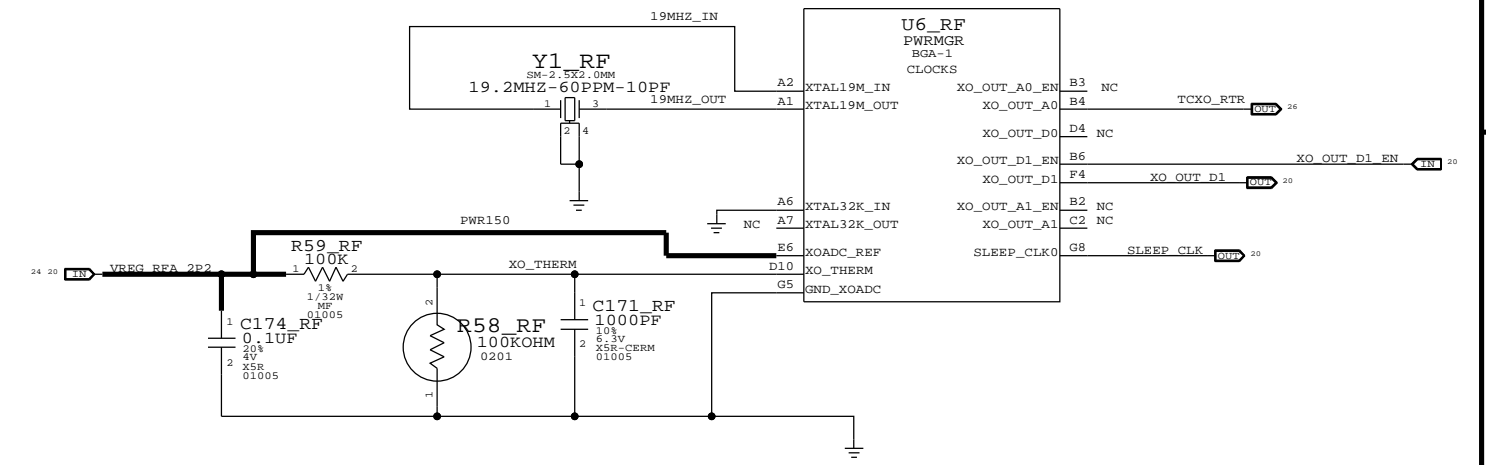
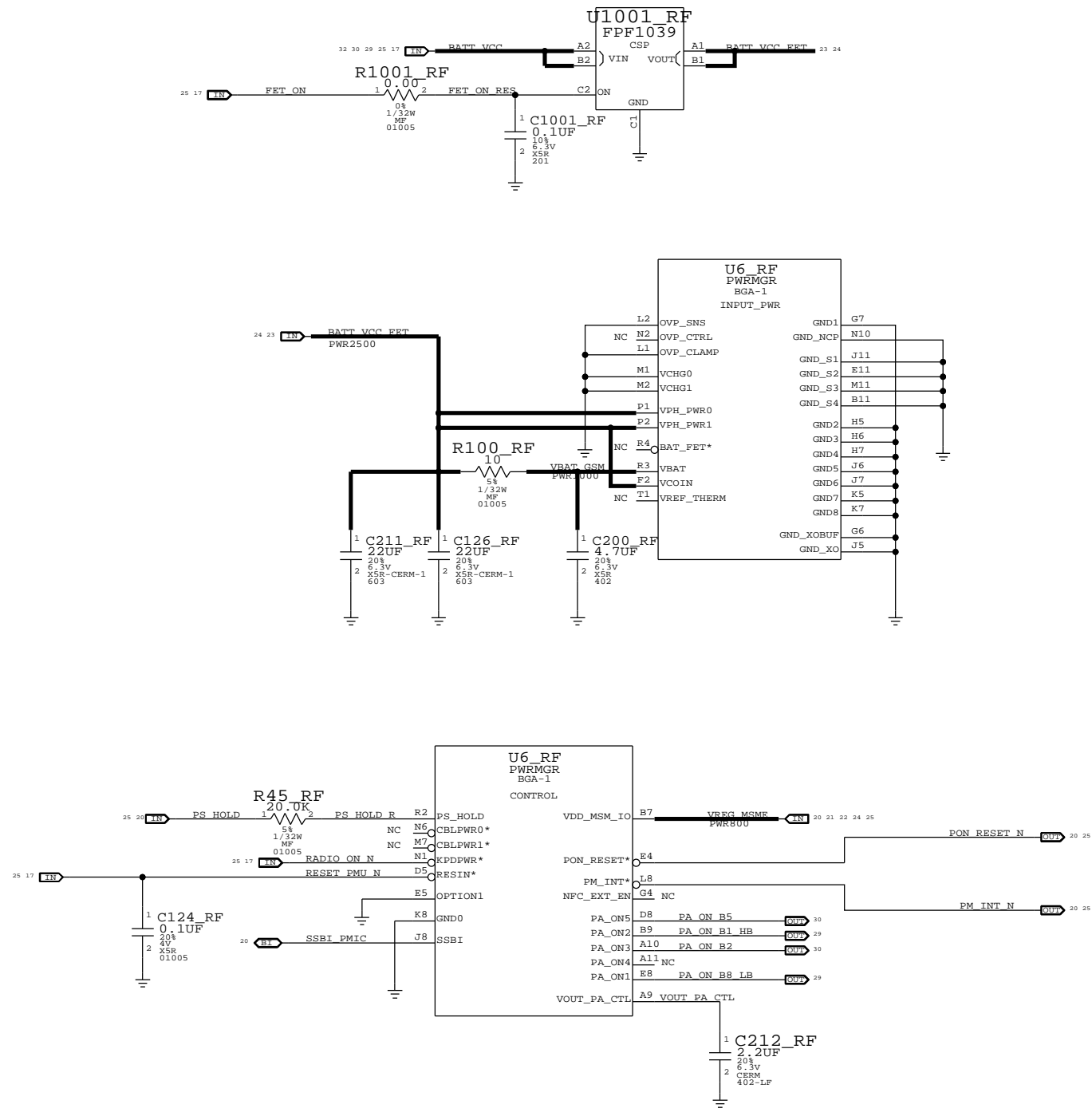


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# BASEBAND PMU

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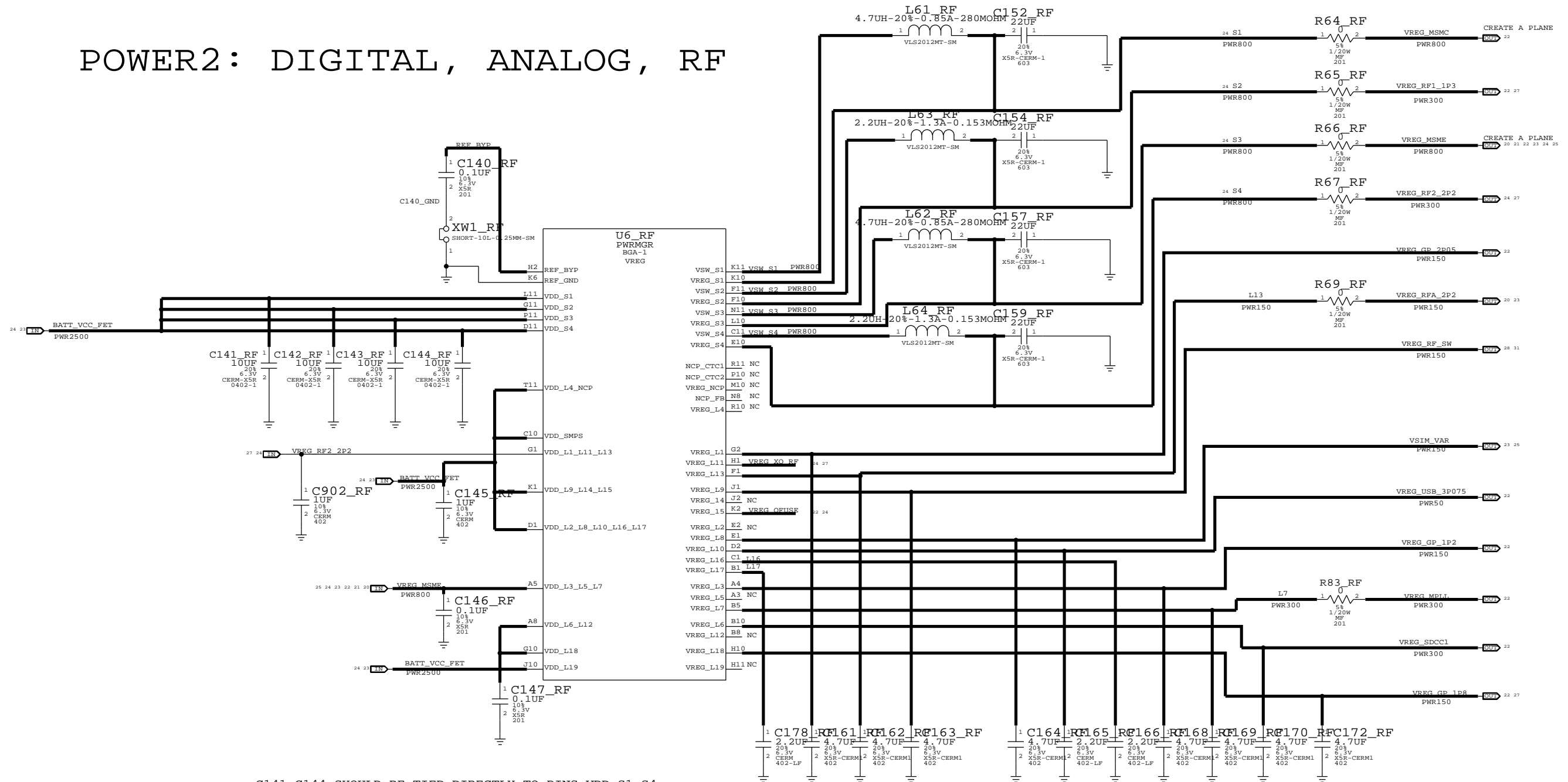


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BRANCH	PAGE	SHEET
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# BASEBAND PMU CONT.

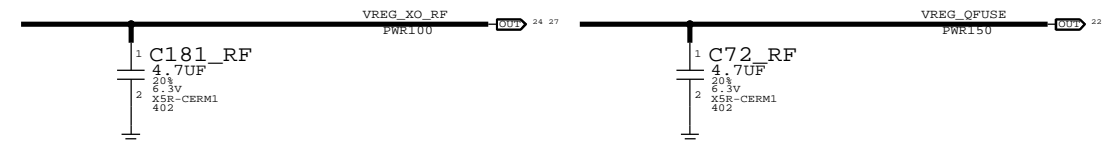
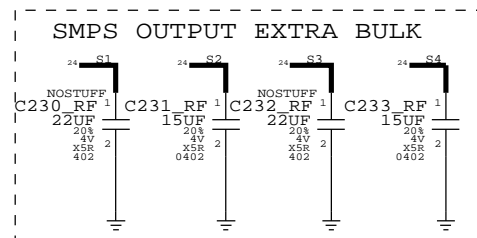
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## POWER2: DIGITAL, ANALOG, RF



C141-C144 SHOULD BE TIED DIRECTLY TO PINS VDD\_S1-S4

L16 AND L17 DECOUPLED PER EUREKA'S RECOMMENDATION

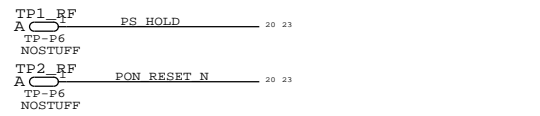
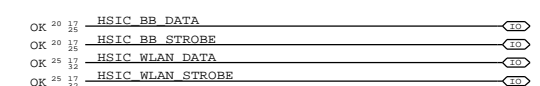
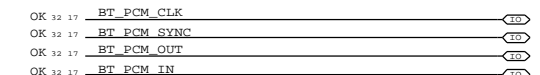
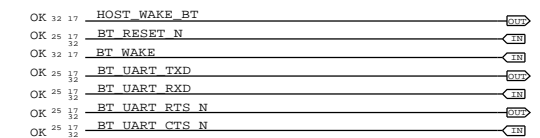
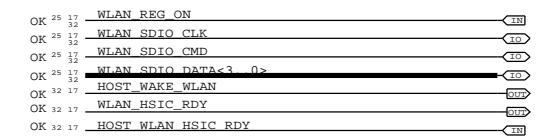
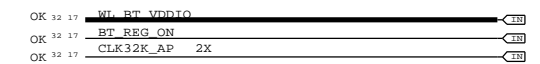
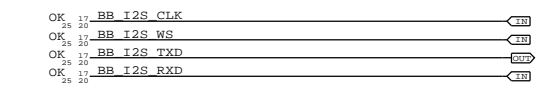
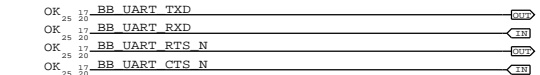
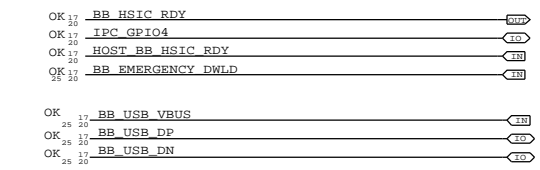
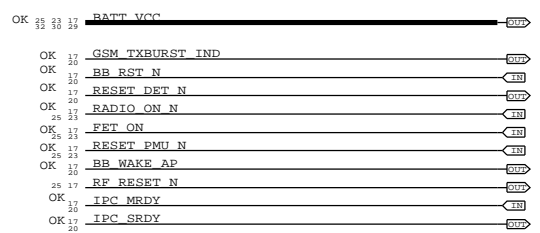


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# DEBUG CONNECTOR

## AP CONNECTIONS



SLEEP\_CLK\_RF -- TEST POINT

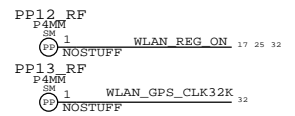
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TCXO\_RTR\_RF -- TEST POINT

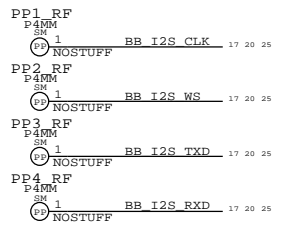
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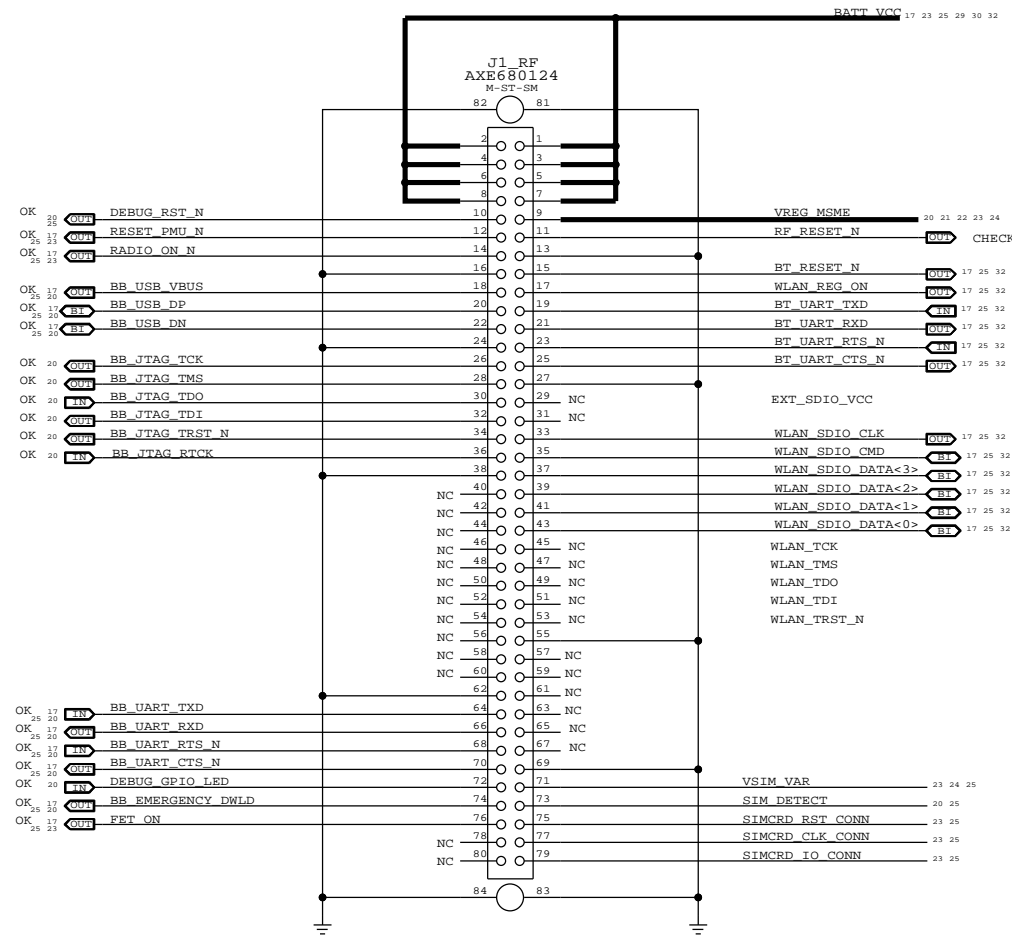
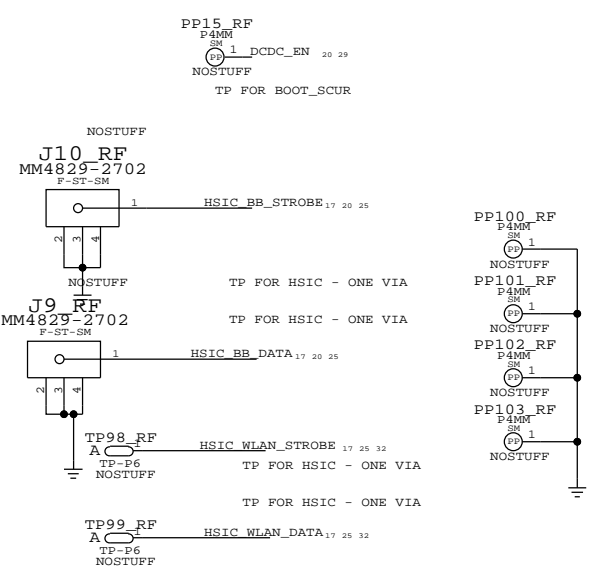
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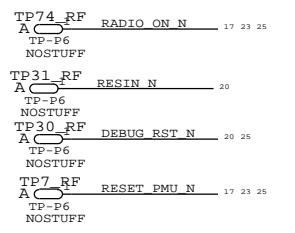
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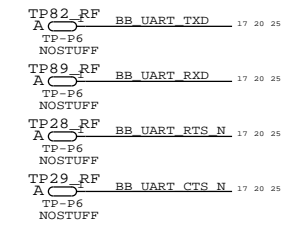
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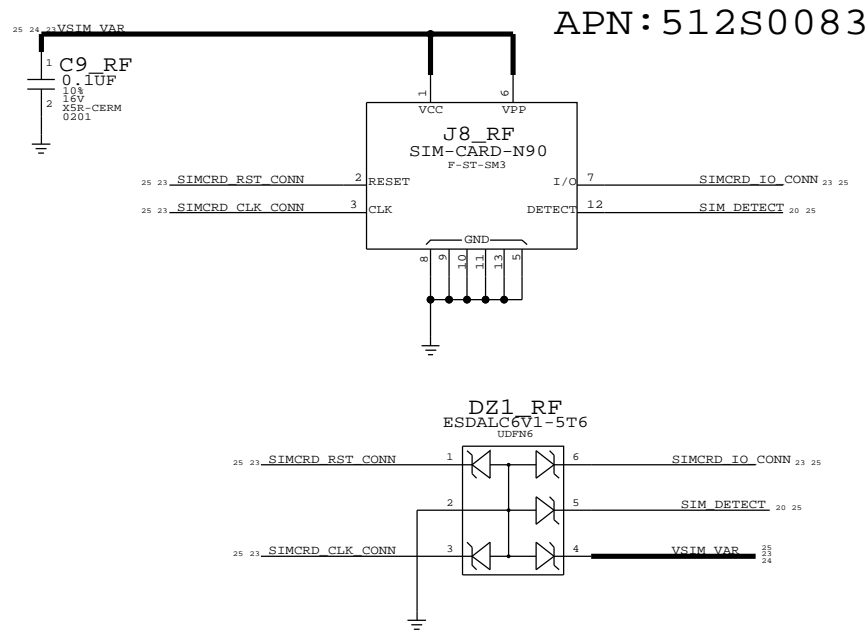
## CONTROL



## UART



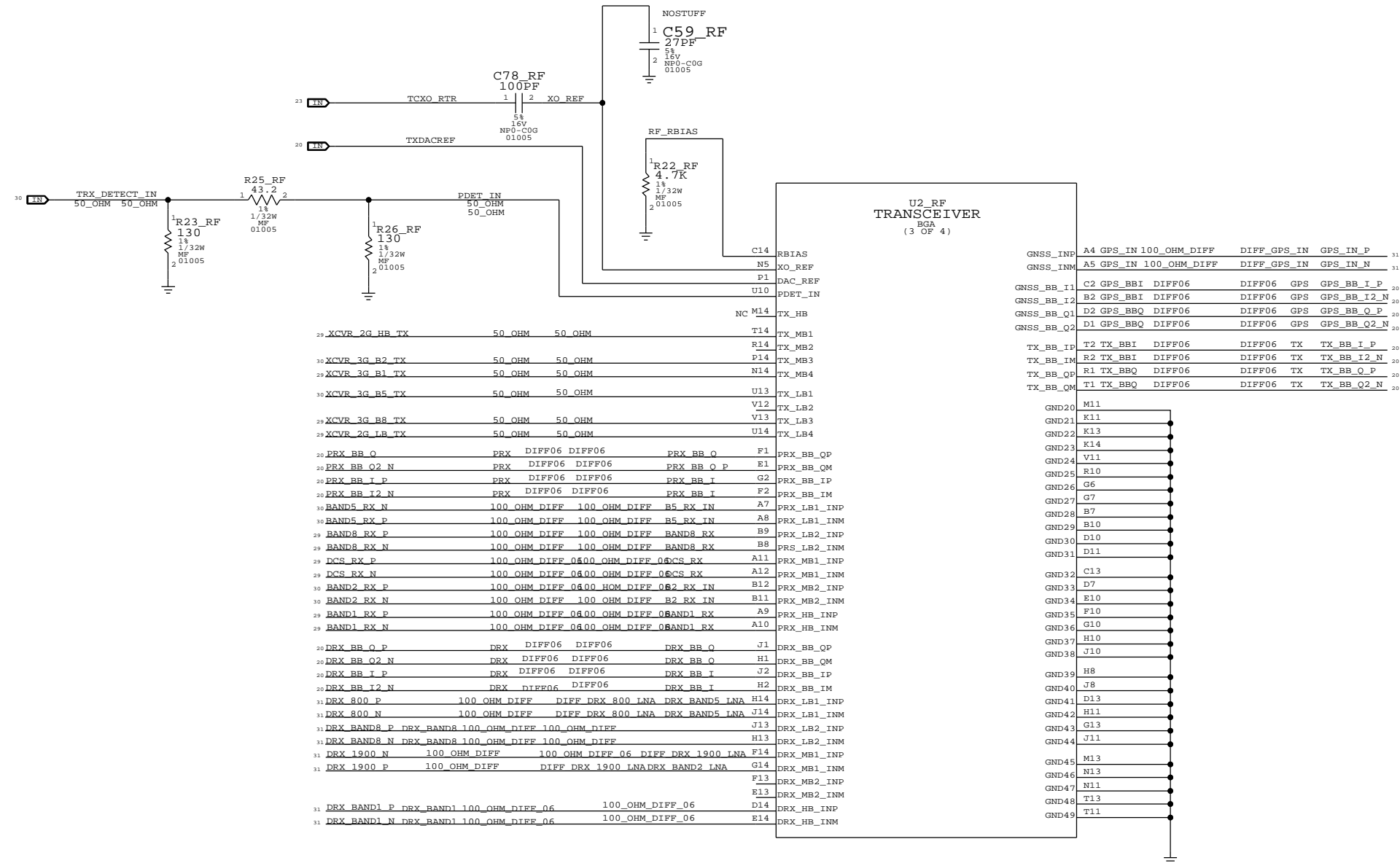
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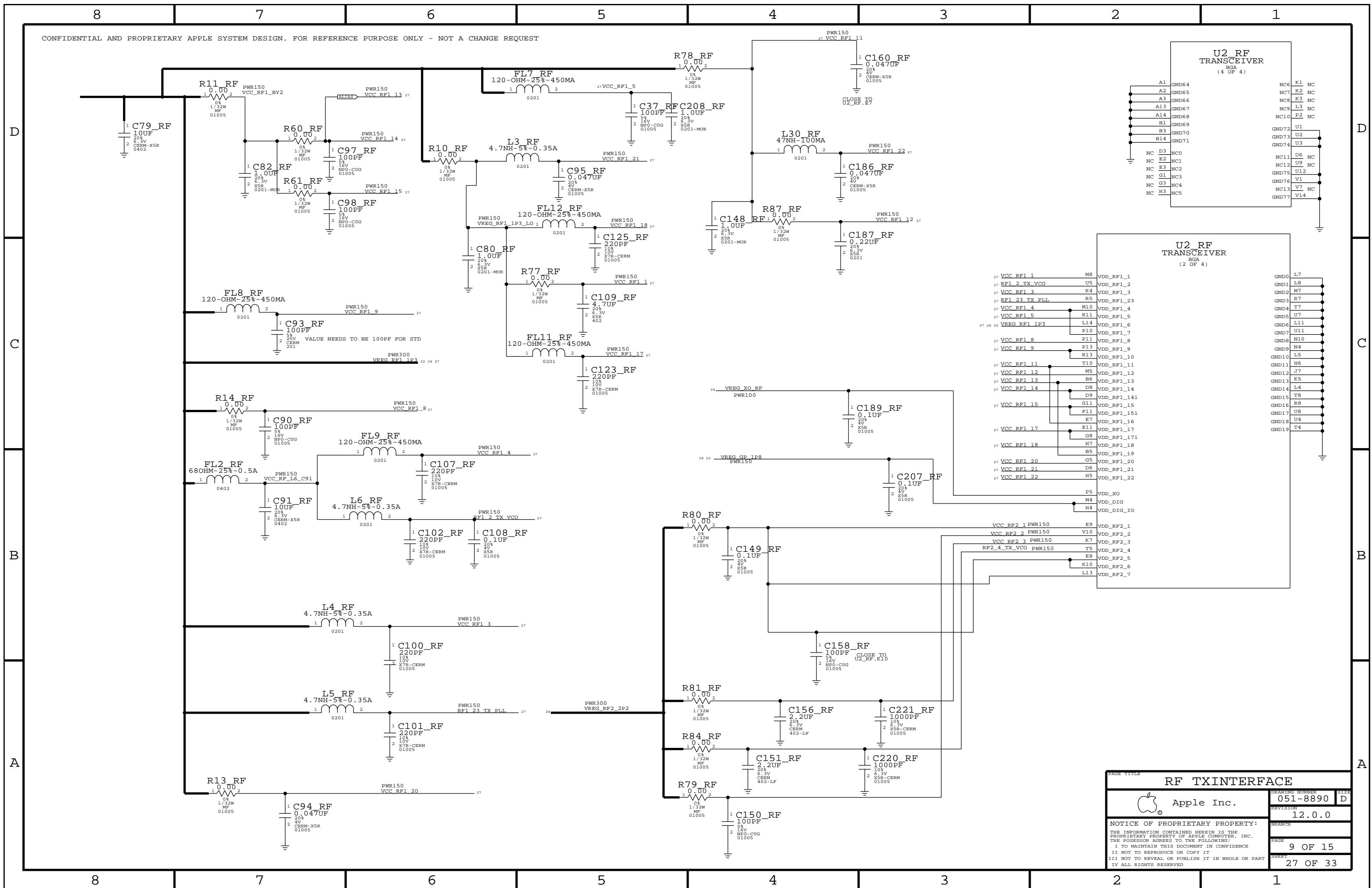
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# RF TRANSCEIVER

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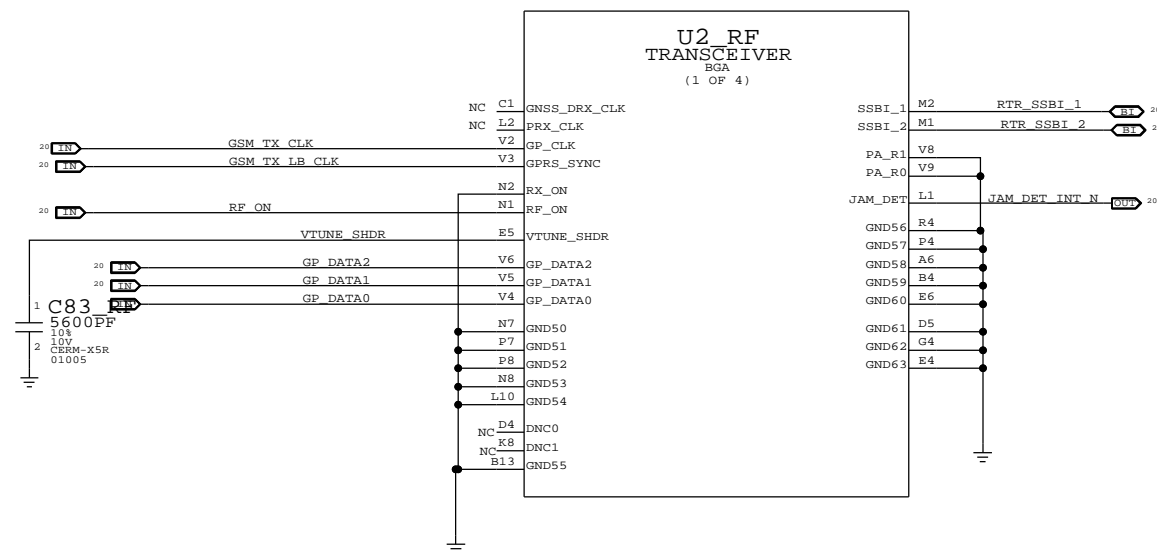
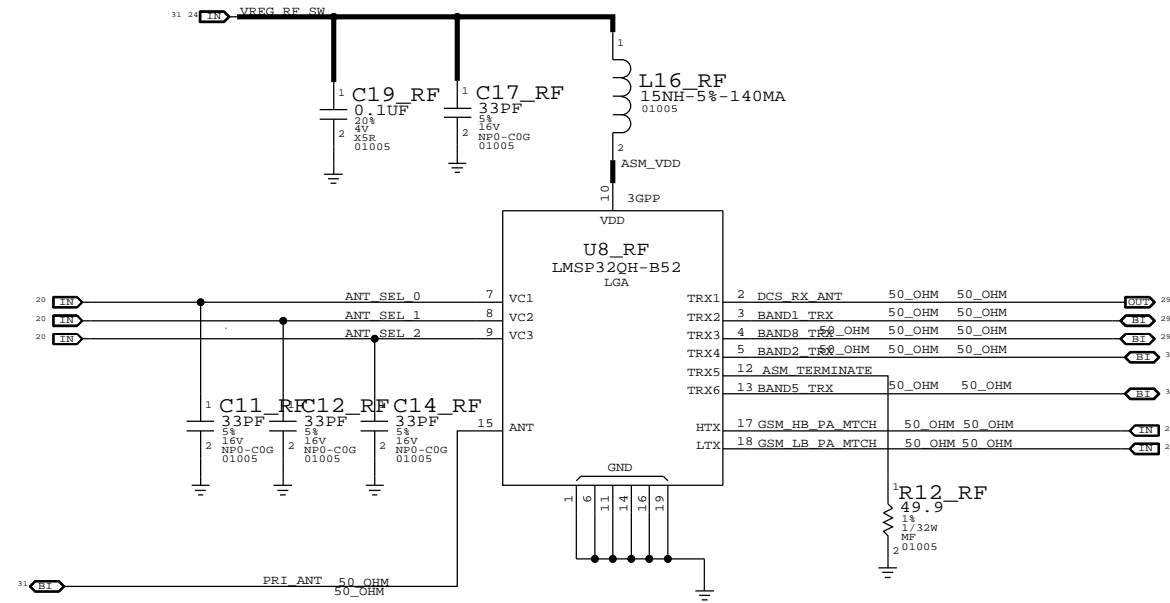


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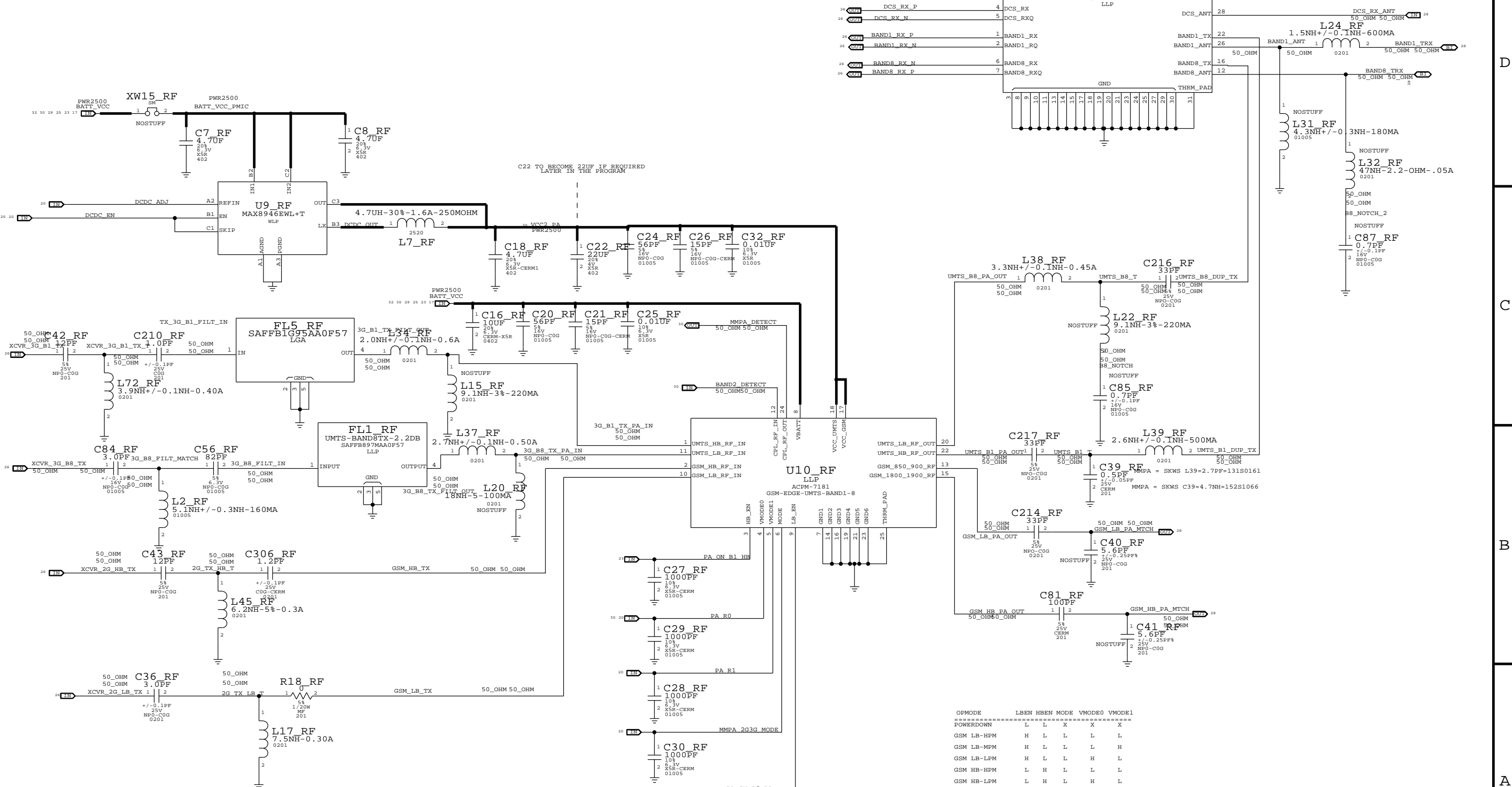
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# RF TRANSCEIVER AND ASM



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# MMPA, DC/DC CONVERTER & FILTER BANK



OPMODE	LBEN	HBEN	MODE	VMODE0	VMODE1
POWERDOWN	L	L	X	X	X
GSM LB-HPM	H	L	L	L	L
GSM LB-MPM	H	L	L	L	H
GSM LB-LPM	H	L	L	H	L
GSM HB-HPM	L	H	L	L	L
GSM HB-LPM	L	H	L	H	L
WCDMA 900-HPM	H	L	H	L	X
WCDMA 900-LPM	H	L	H	H	H
WCDMA 2100-HPM	L	H	H	L	X
WCDMA 2100-LPM	L	H	H	H	H

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2G/3G PA

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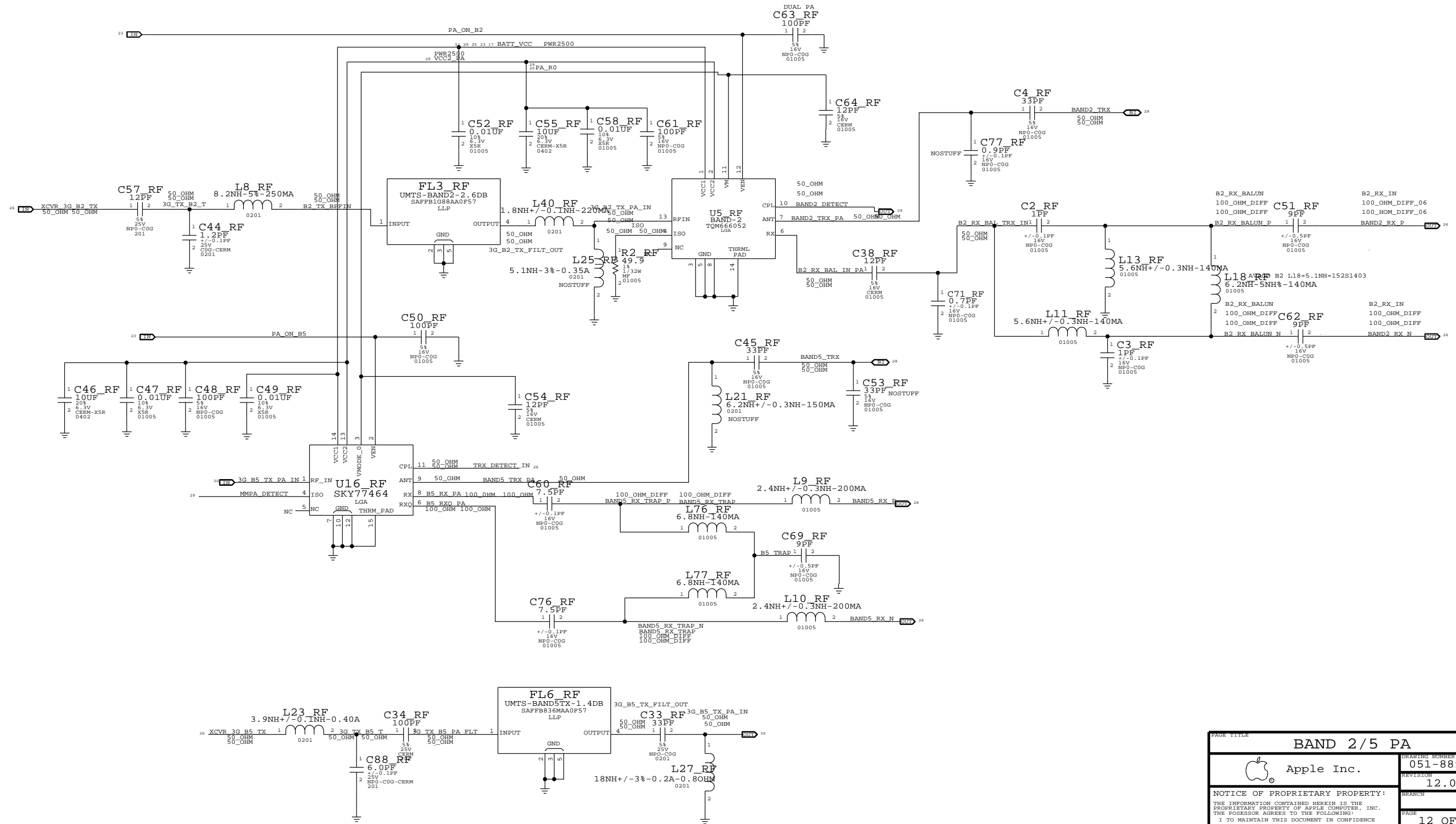
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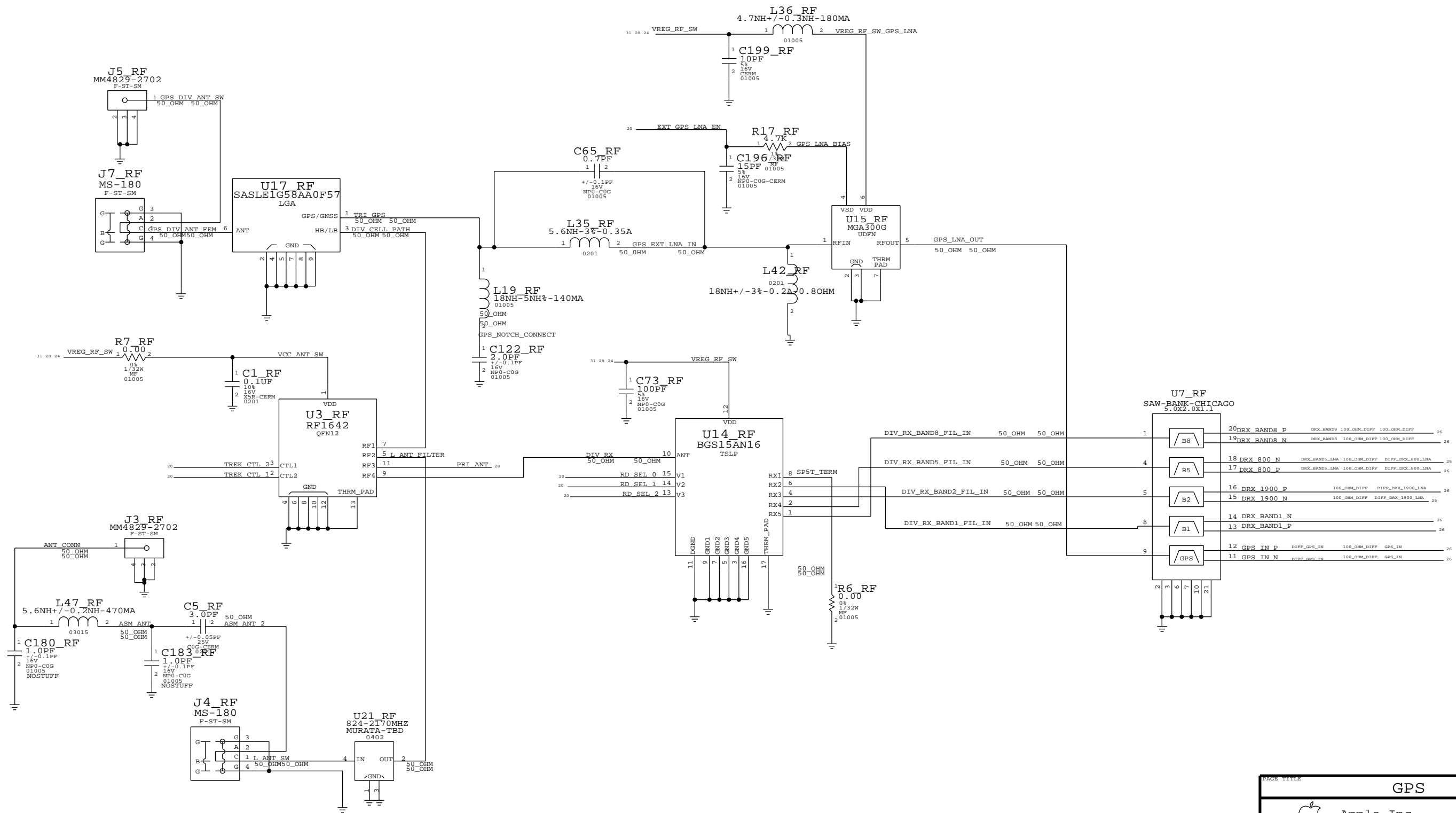
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# DIVERSITY AND EXTERNAL GPS LNA

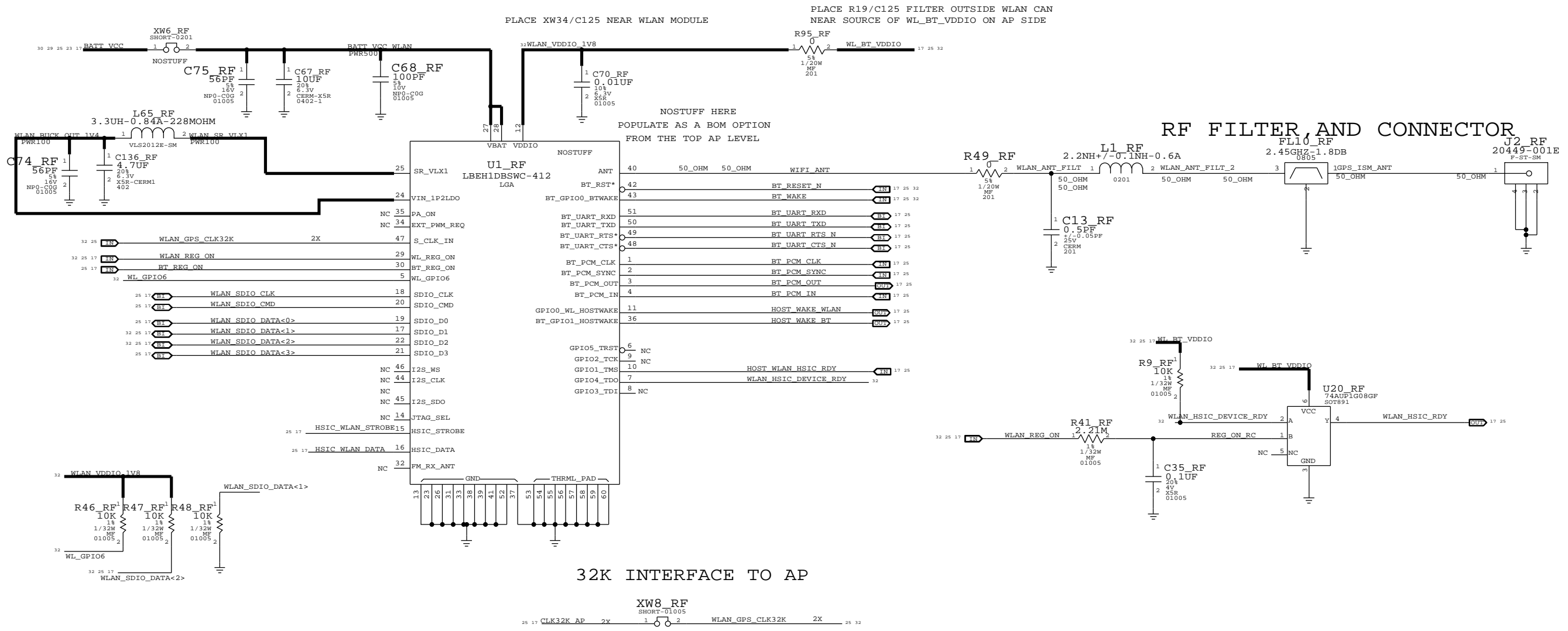
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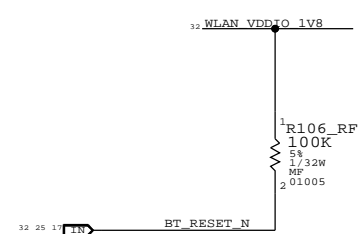
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# WLAN/BLUETOOTH

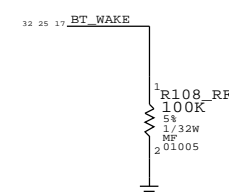
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## PULL UP RESISTORS



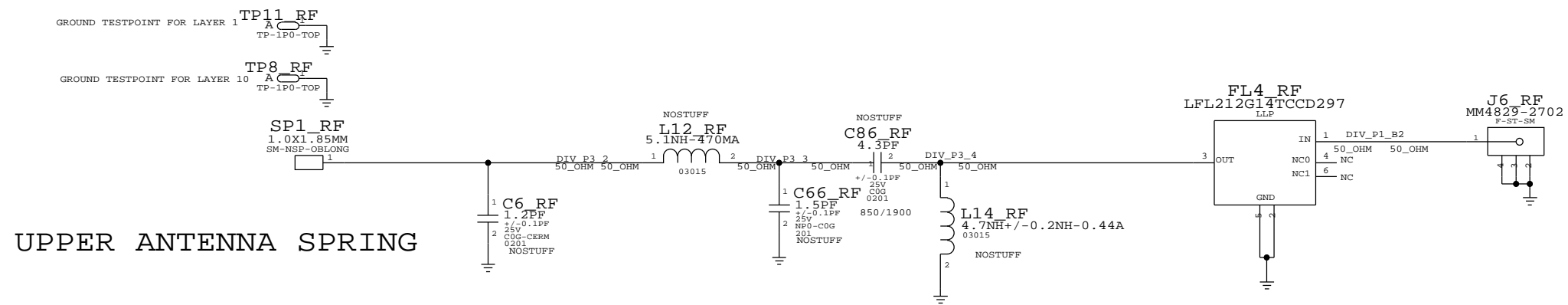
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# ANTENNA MATCHING



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