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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

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6	6	H4P NAND&GND, NAND		
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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,COG,1.3PF,+/-0.1PF,25V	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

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N94 MLB_V3		051-8890		D
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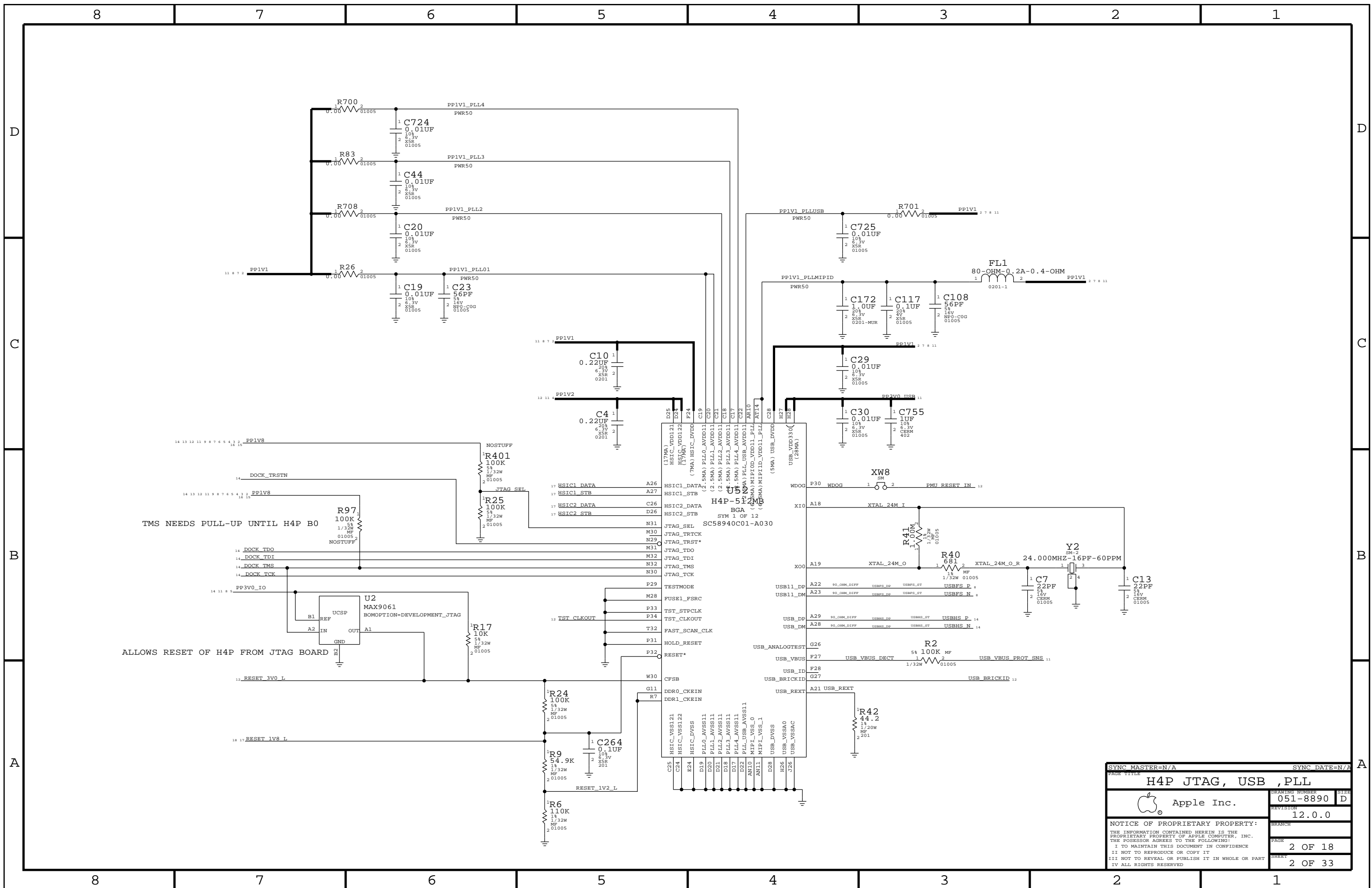
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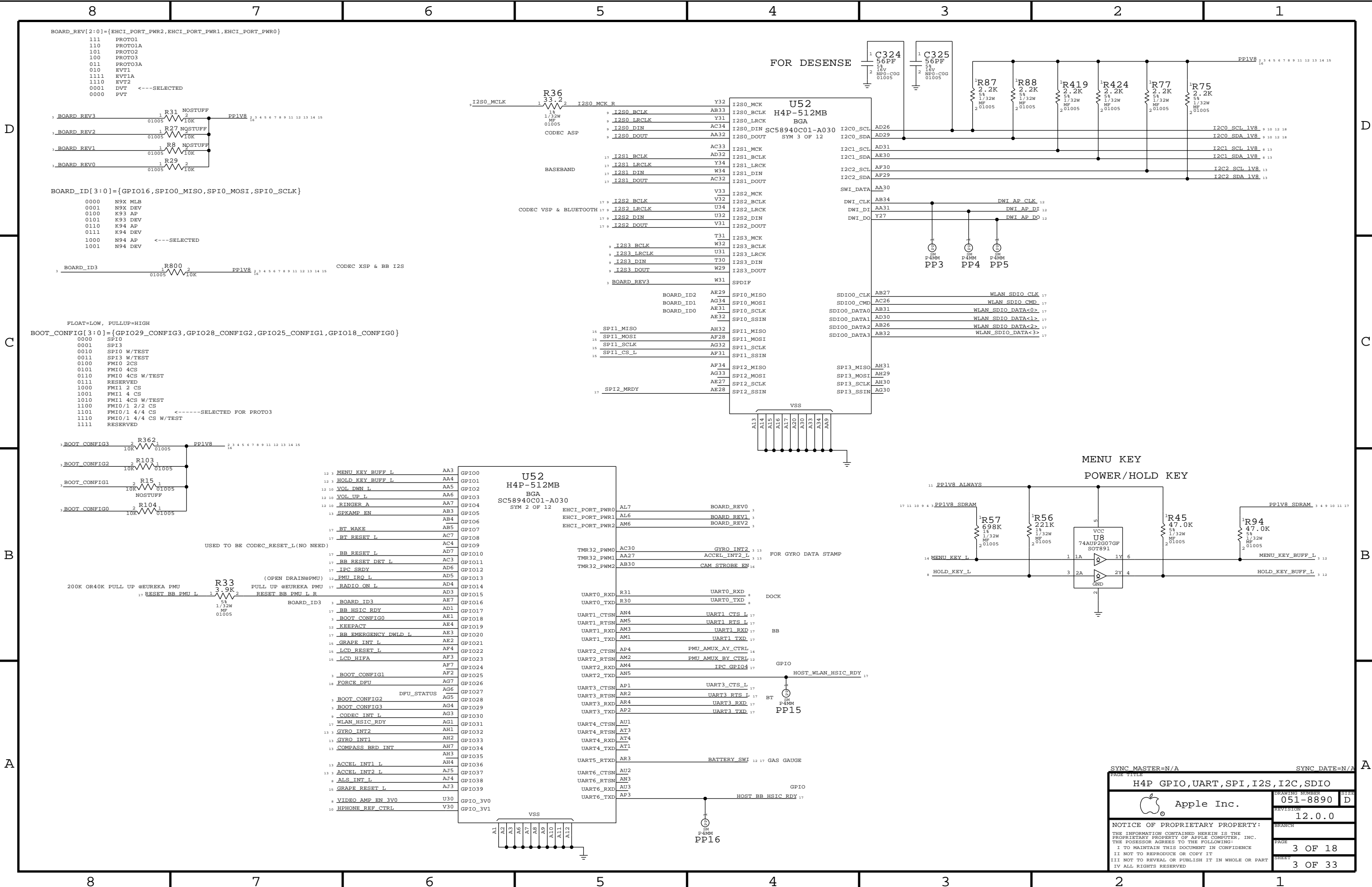
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TMS NEEDS PULL-UP UNTIL H4P B0

ALLOWS RESET OF H4P FROM JTAG BOARD

SYNC MASTER=N/A		SYNC DATE=N/A	
H4P JTAG, USB, PLL			
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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
		BT_WAKE	AB4	GPIO6
		BT_RESET_L	AB5	GPIO7
		BT_RESET_L	AC7	GPIO8
		BT_RESET_L	AC4	GPIO9
		BB_RESET_L	AD7	GPIO10
		BB_RESET_DET_L	AC3	GPIO11
		IPC_SRDY	AD6	GPIO12
		PMU_IRQ_L	AD5	GPIO13
		RADIO_ON_L	AD4	GPIO14
		BOARD_ID3	AE7	GPIO15
		BB_HSIC_RDY	AD1	GPIO17
		BOOT_CONFIG0	AE1	GPIO18
		KEEPACT	AE4	GPIO19
		BB_EMERGENCY_DWLD_L	AE3	GPIO20
		GRAPE_INT_L	AE2	GPIO21
		LCD_RESET_L	AF4	GPIO22
		LCD_HIFA	AF3	GPIO23
		BOOT_CONFIG1	AF7	GPIO24
		FORCE_DFU	AF2	GPIO25
		DFU_STATUS	AG7	GPIO26
		BOOT_CONFIG2	AG6	GPIO27
		BOOT_CONFIG3	AG5	GPIO28
		CODEC_INT_L	AG4	GPIO29
		WLAN_HSIC_RDY	AG1	GPIO30
		GYRO_INT2	AH1	GPIO31
		GYRO_INT1	AH2	GPIO32
		COMPASS_BRD_INT	AH7	GPIO33
		ACCEL_INT1_L	AH3	GPIO34
		ACCEL_INT2_L	AH4	GPIO35
		ALS_INT_L	AJ5	GPIO36
		GRAPE_RESET_L	AJ4	GPIO37
		VIDEO_AMP_EN_3V0	AJ3	GPIO38
		HPHONE_REF_CTRL	AJ3	GPIO39
			U30	GPIO_3V0
			V30	GPIO_3V1

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

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

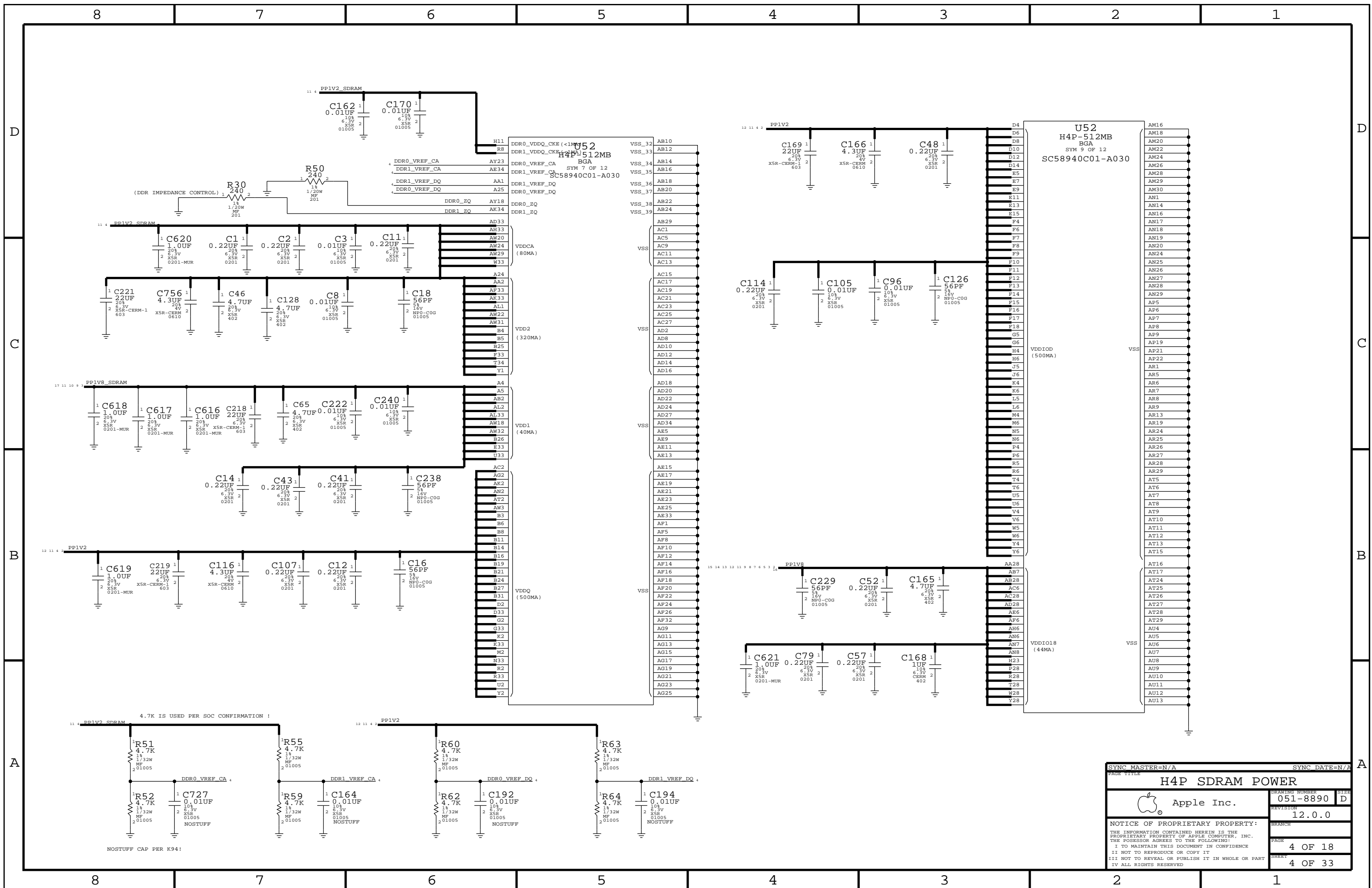
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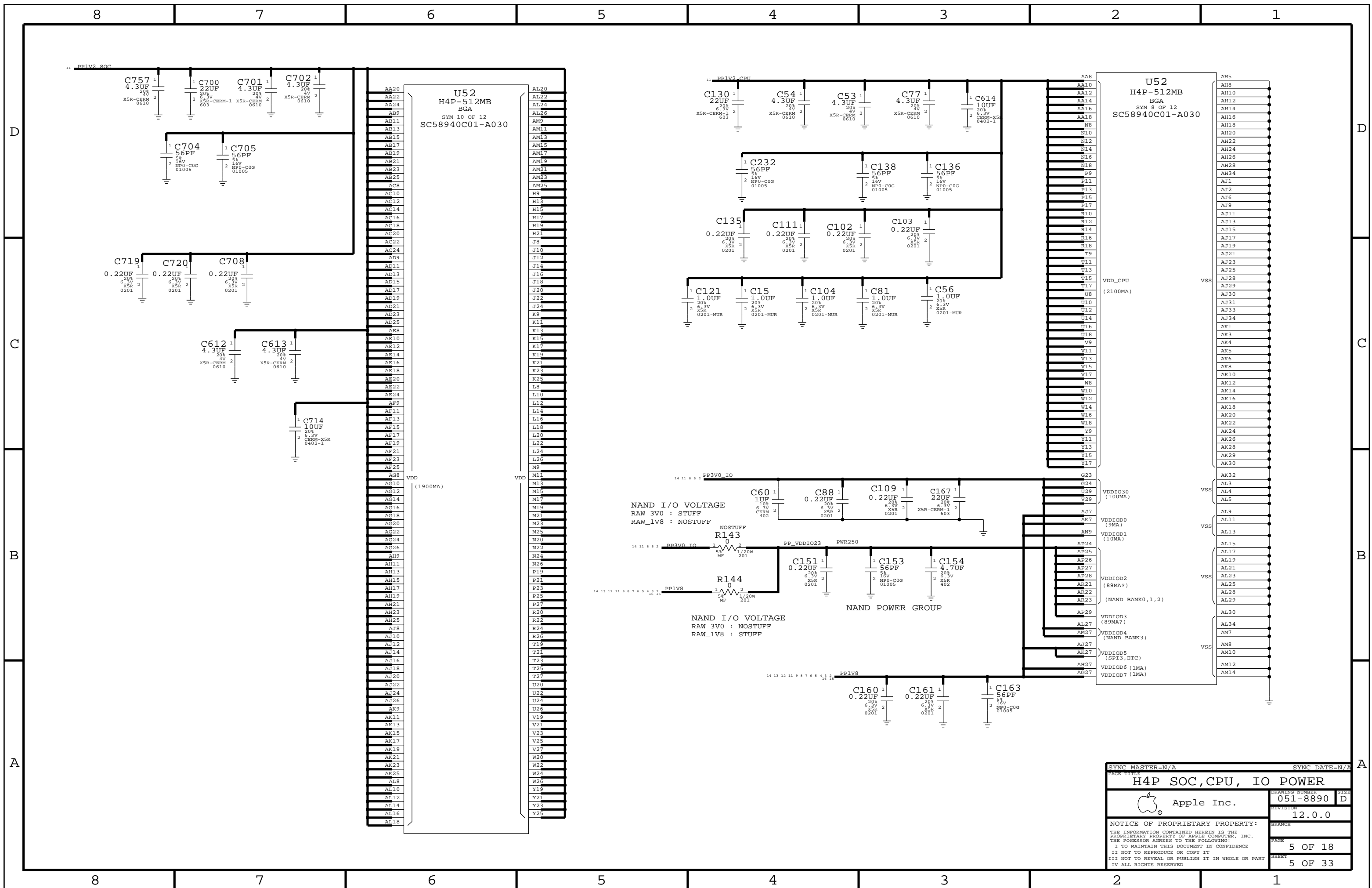
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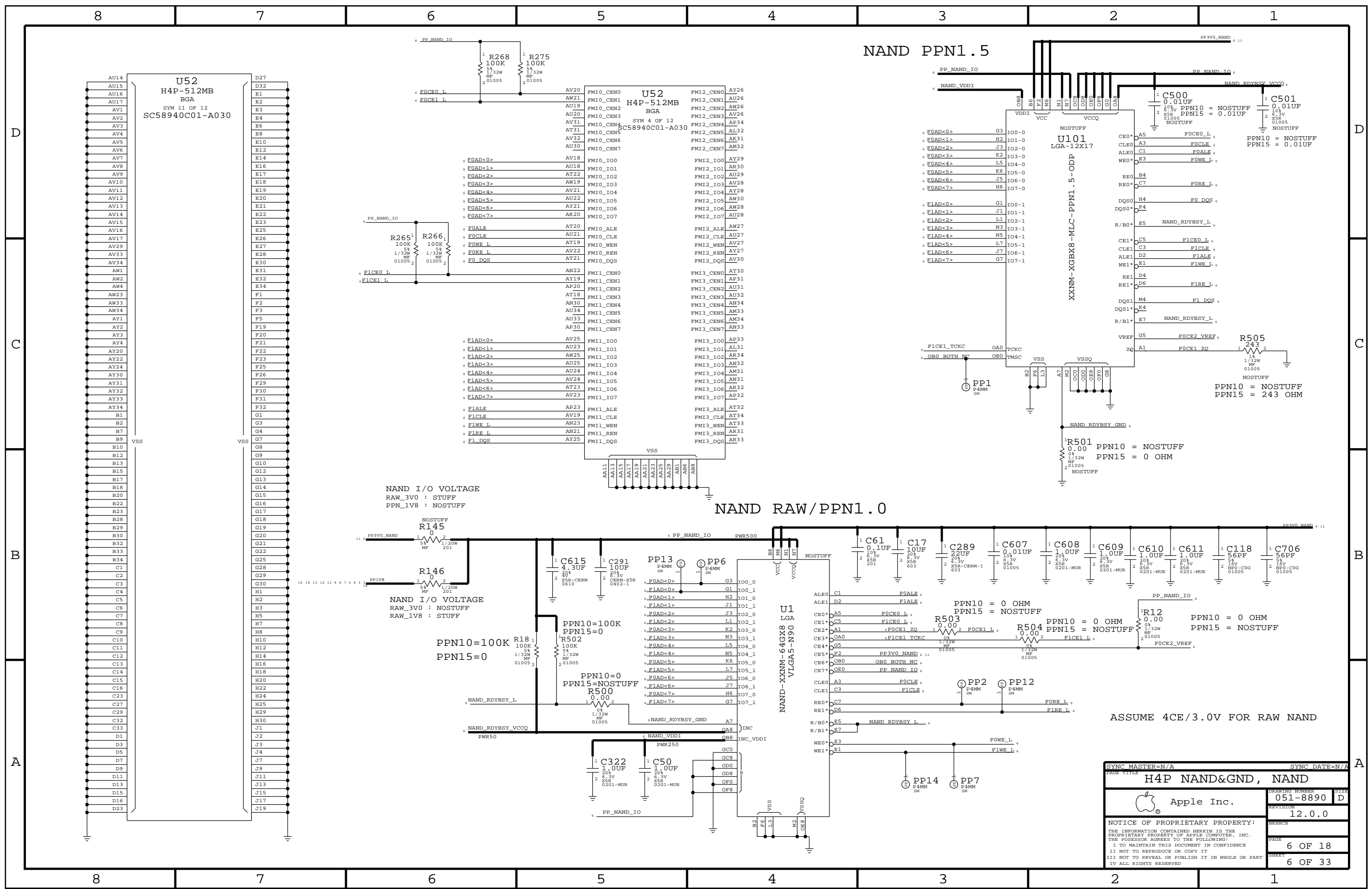
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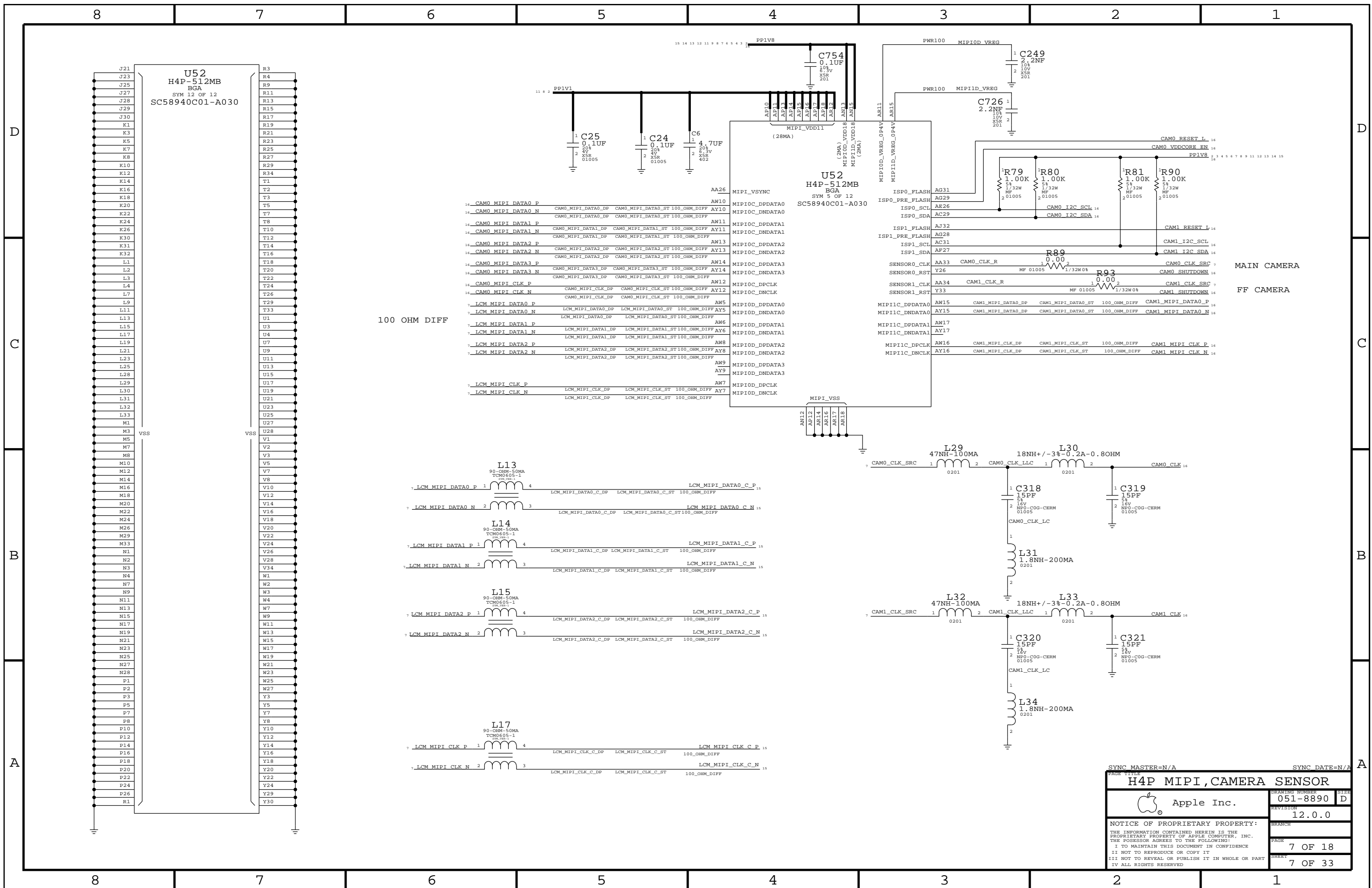
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H4P SDRAM POWER			
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H4P SOC, CPU, IO POWER			
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H4P NAND&GND, NAND		DRAWING NUMBER	SIZE
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U2
H4P-512MB
BGA
SYM 12 OF 12
SC58940C01-A030

U52
H4P-512MB
BGA
SYM 5 OF 12
SC58940C01-A030

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

100 OHM DIFF

MAIN CAMERA
FF CAMERA

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

H4P MIPI , CAMERA SENSOR

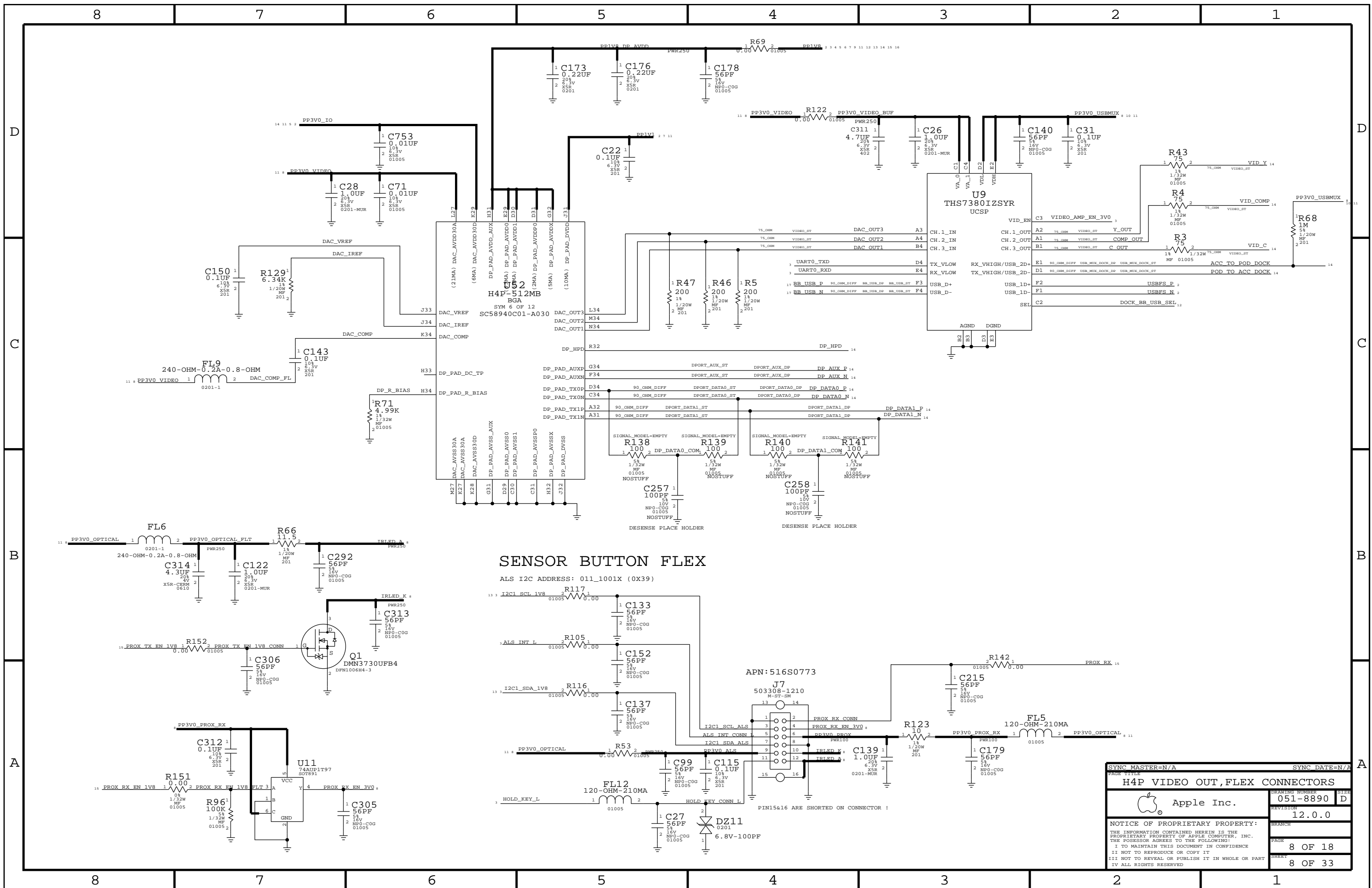
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REVISION: 12.0.0

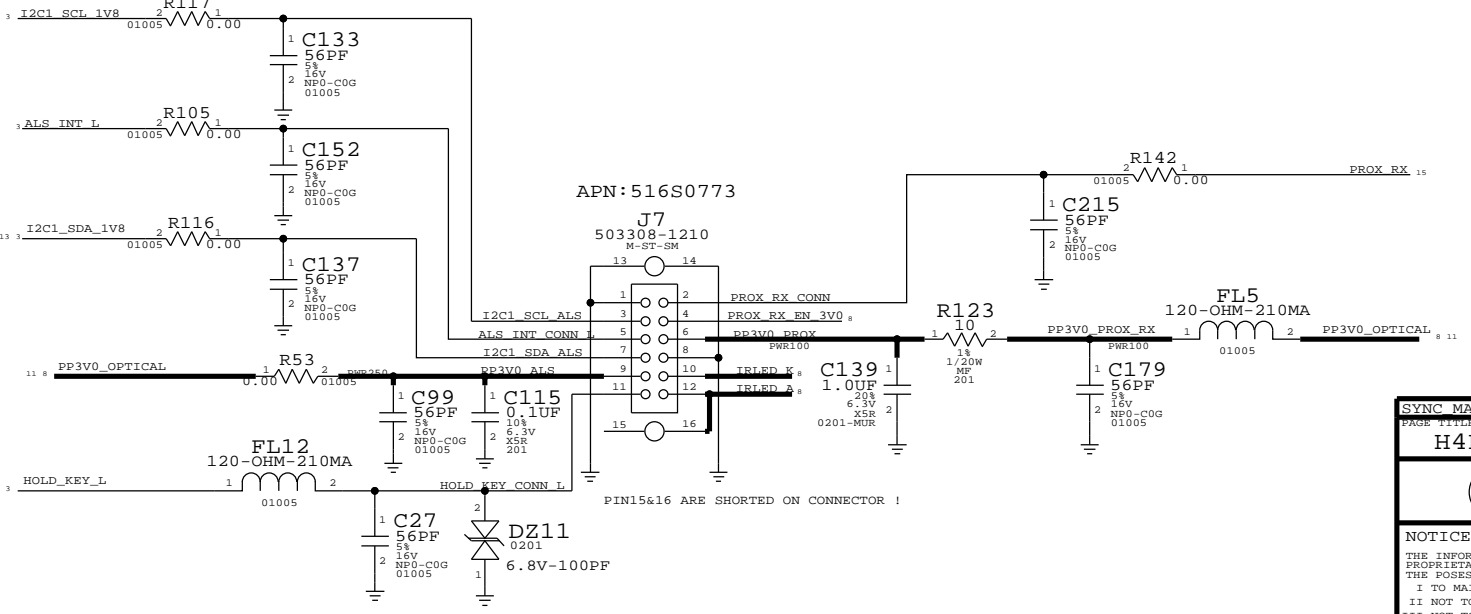
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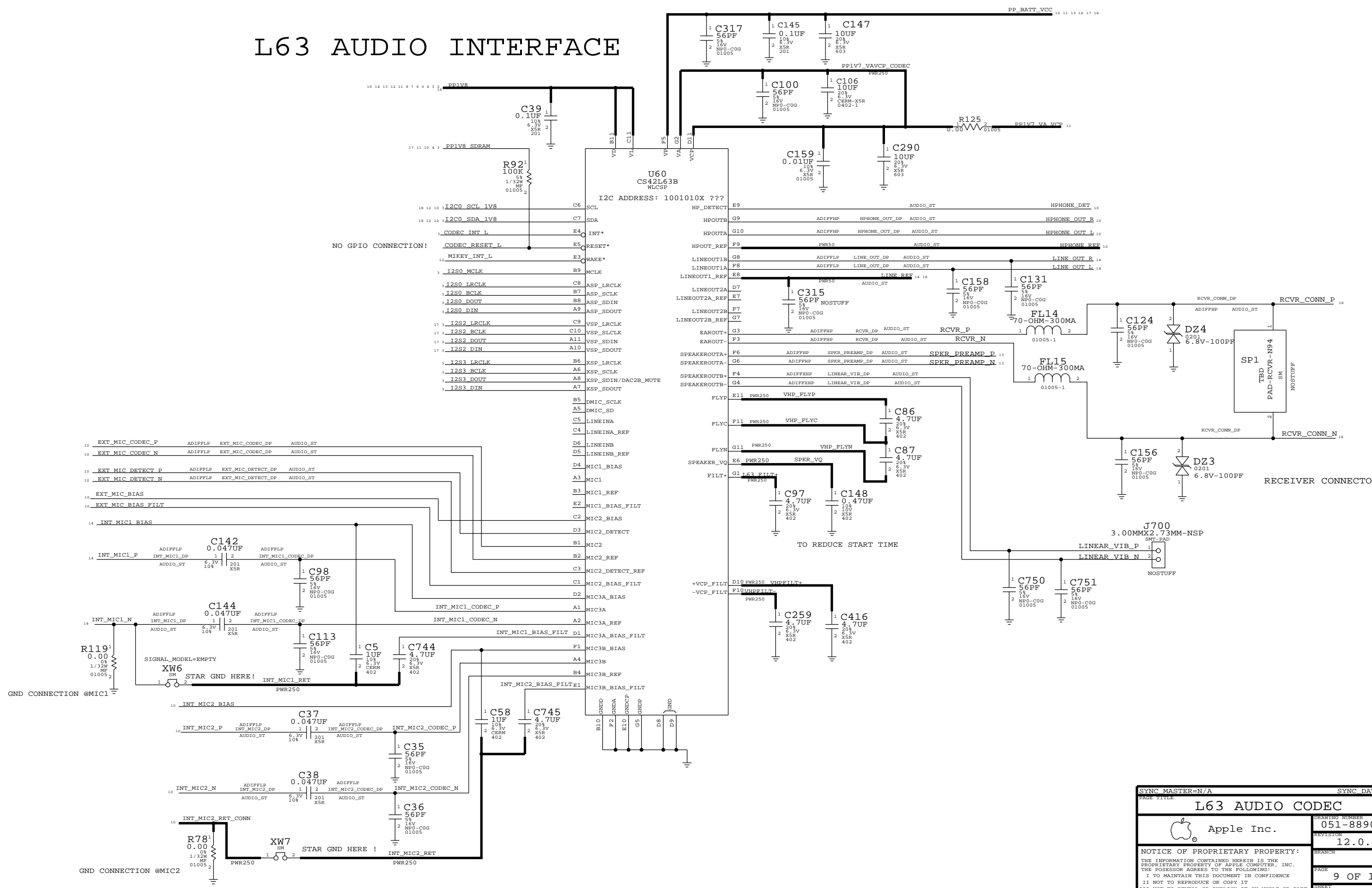
SENSOR BUTTON FLEX

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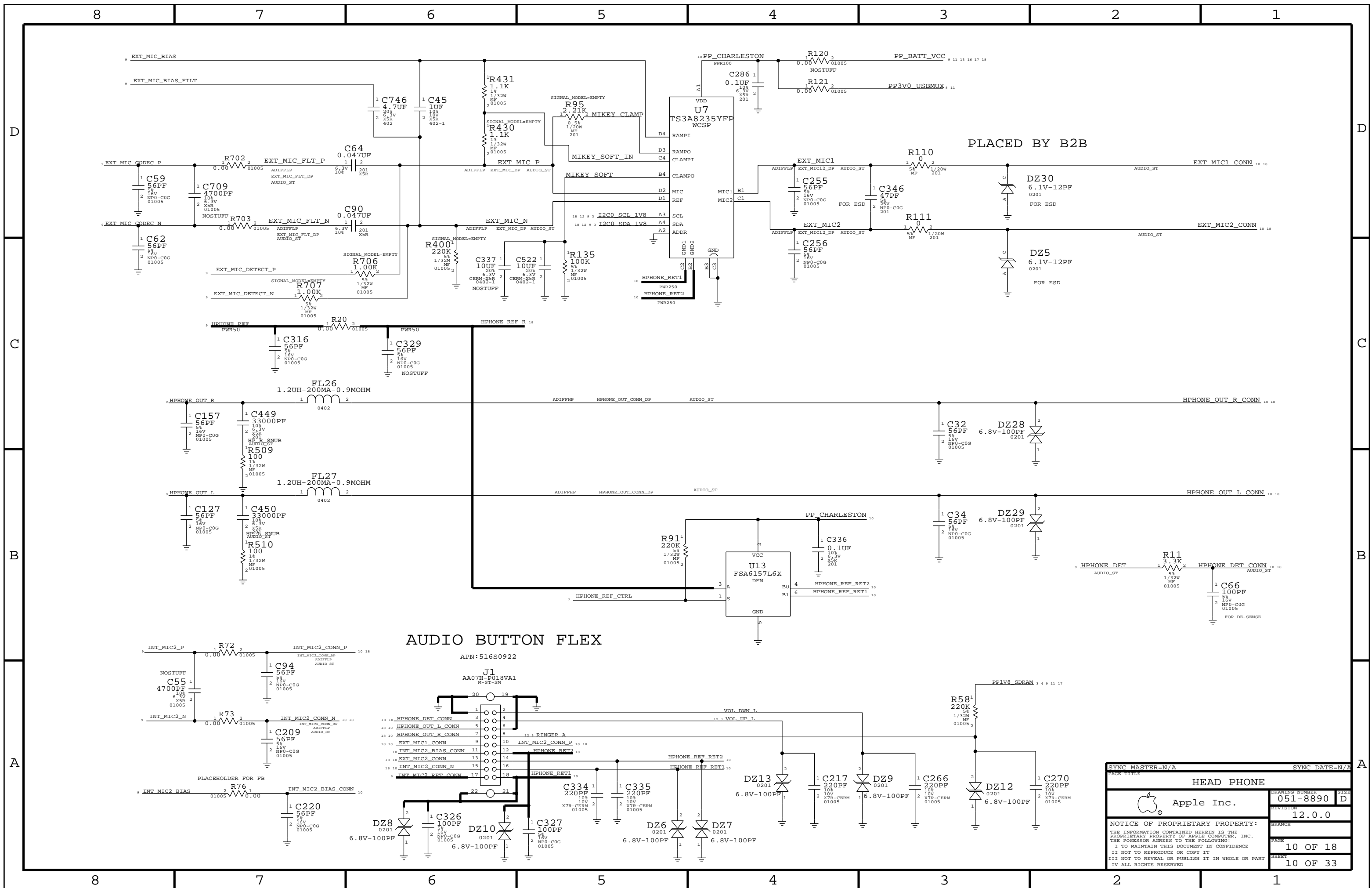


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H4P VIDEO OUT, FLEX CONNECTORS			
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L63 AUDIO INTERFACE



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L63 AUDIO CODEC			
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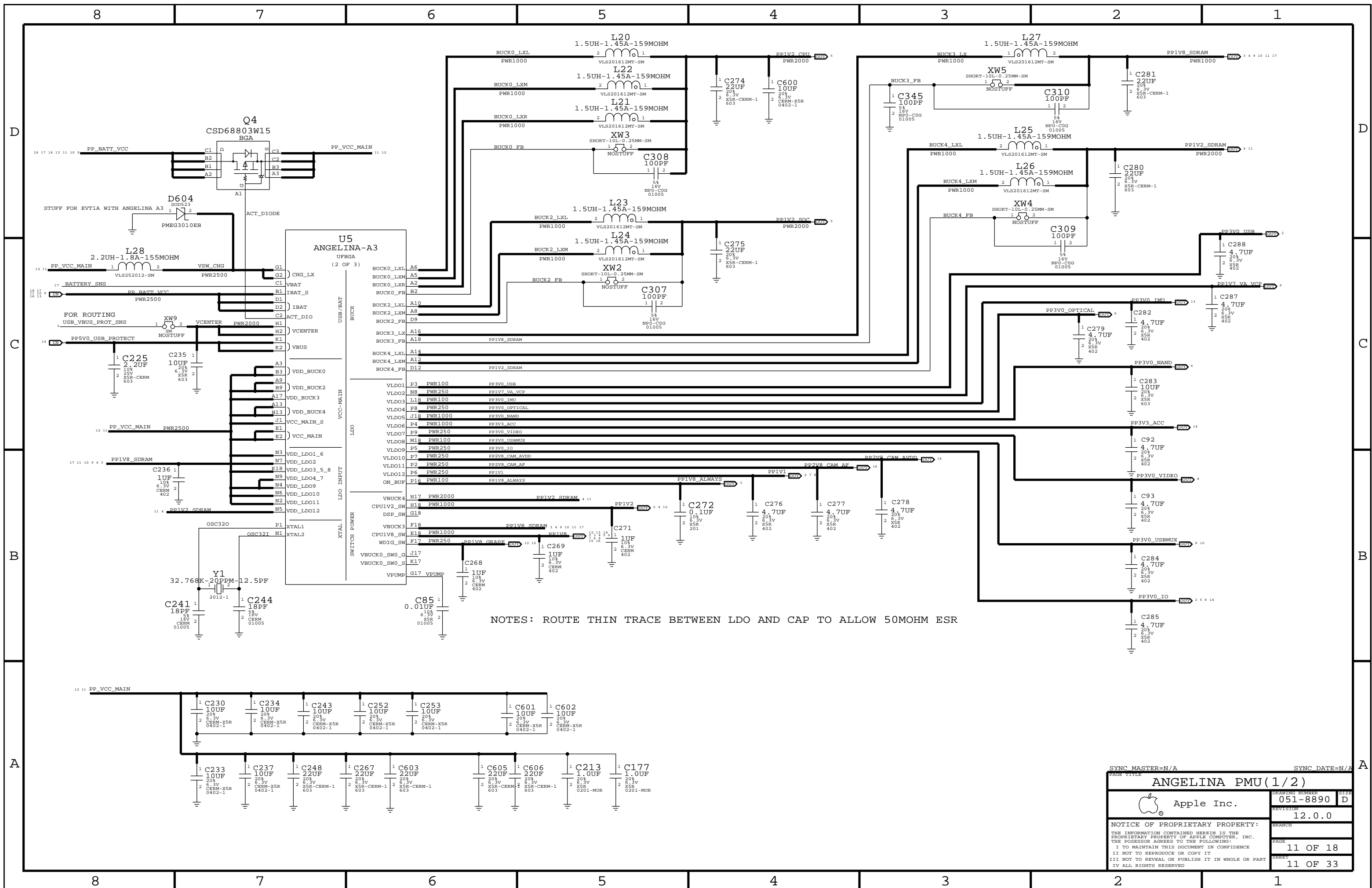


AUDIO BUTTON FLEX

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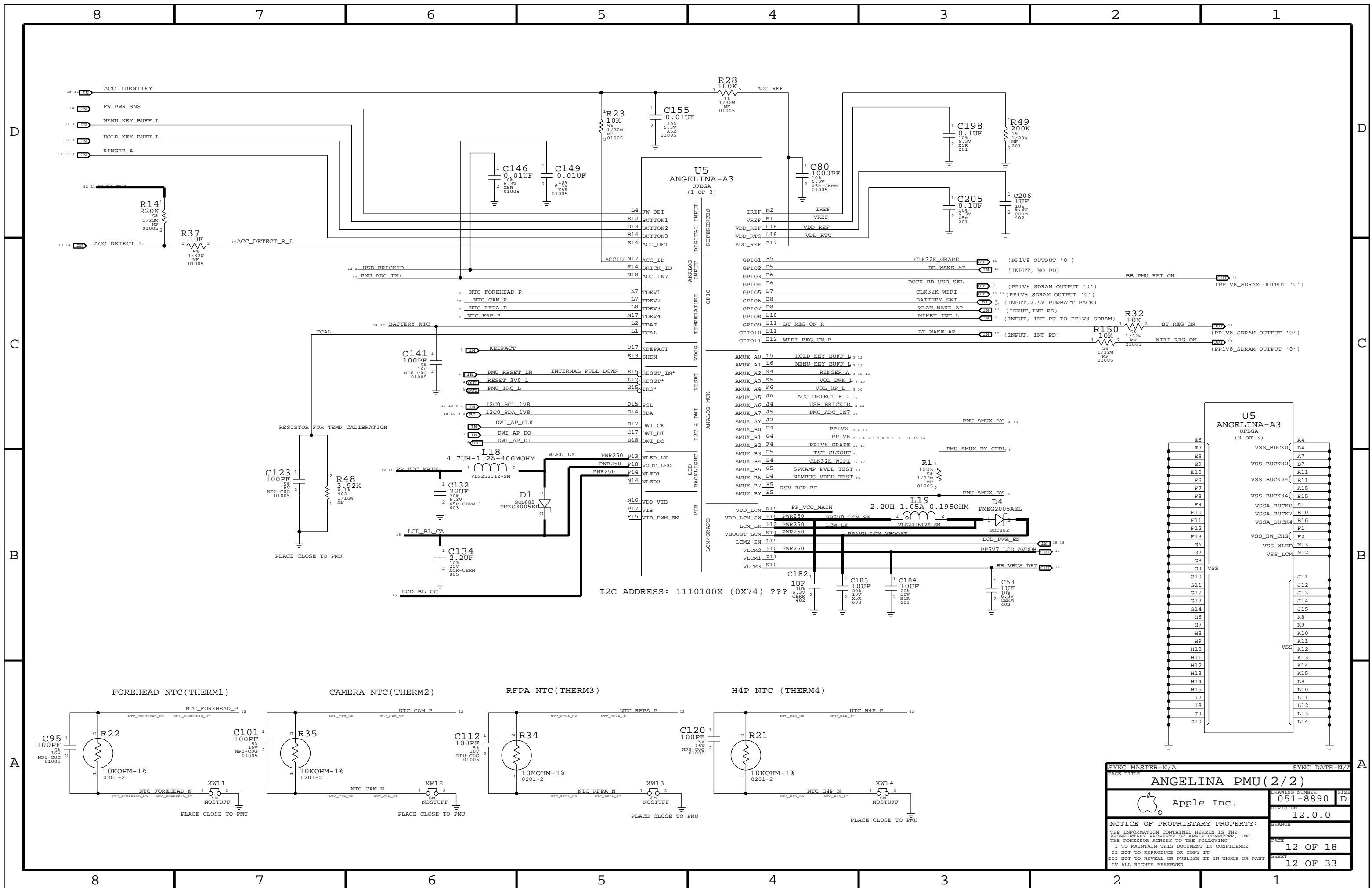
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M-ST-SM

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

SYNC MASTER=N/A		SYNC DATE=N/A	
ANGELINA PMU(1/2)			
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		SHEET	11 OF 33



A

B

C

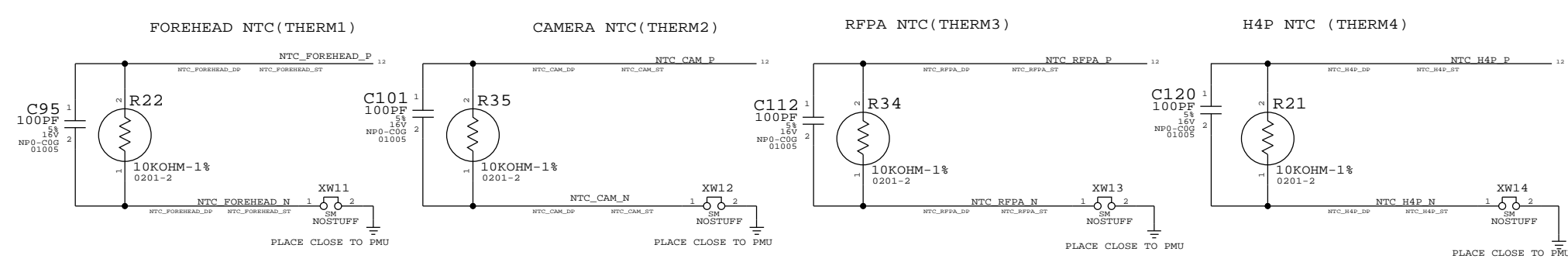
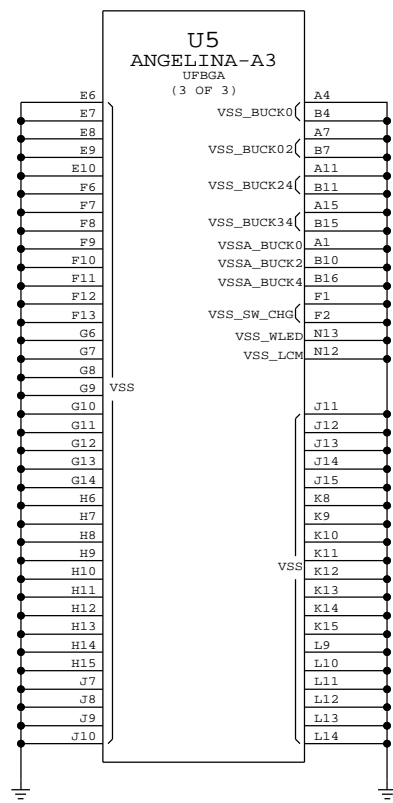
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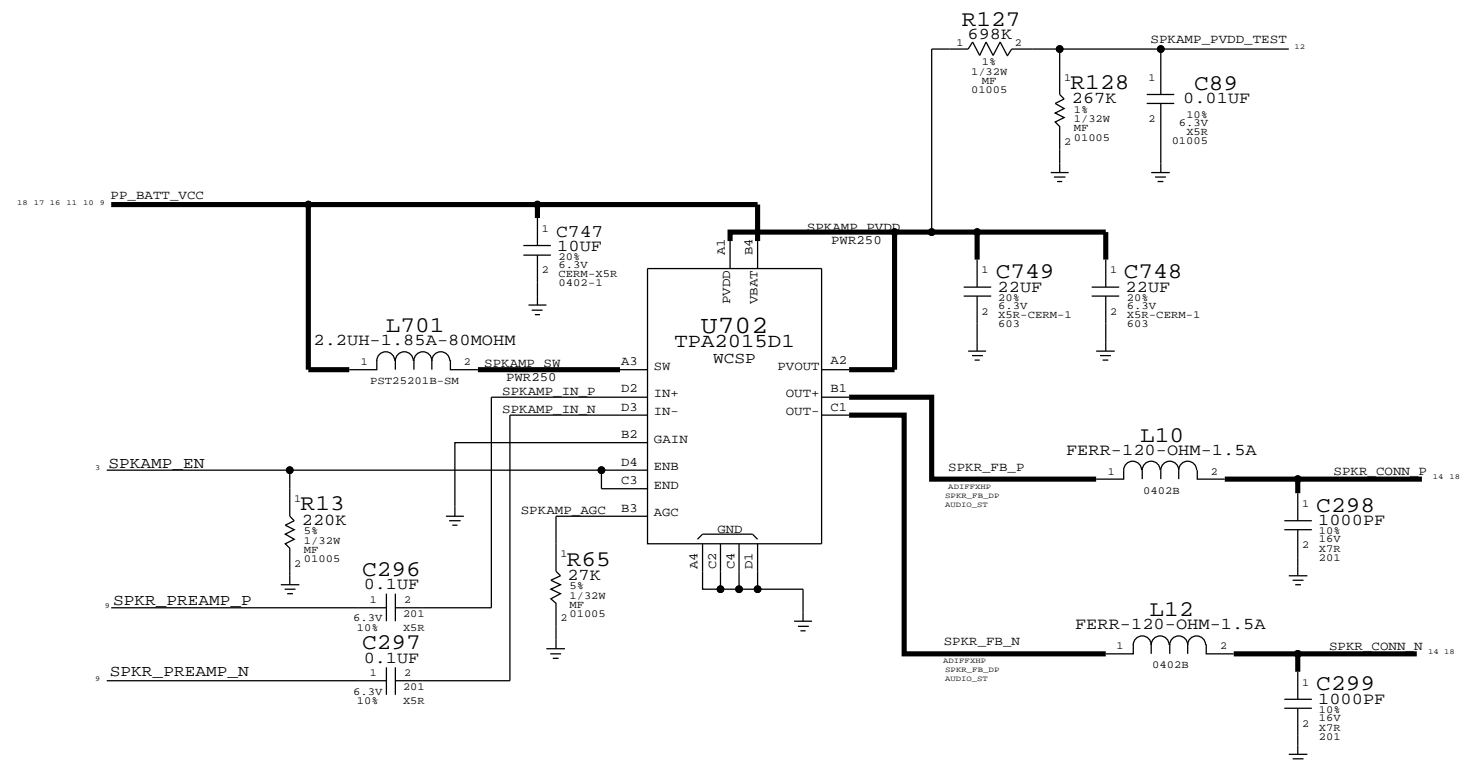
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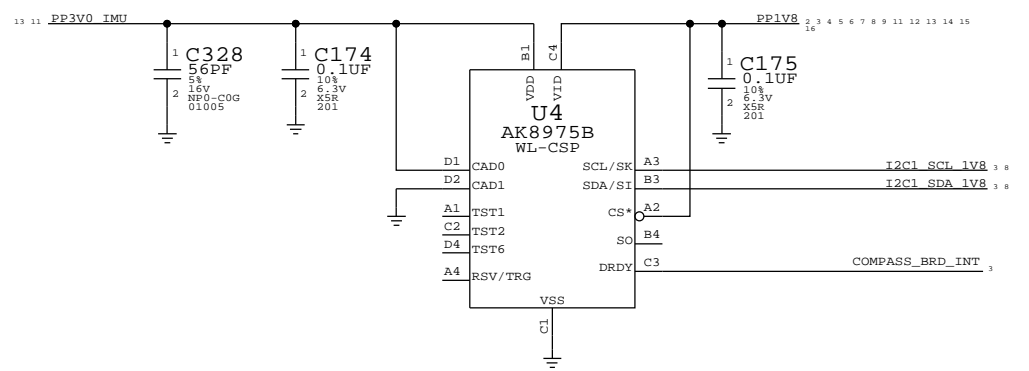


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ANGELINA PMU (2/2)			
Apple Inc.		DRAWING NUMBER	051-8890
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		PAGE	12 OF 18
		SHEET	12 OF 33



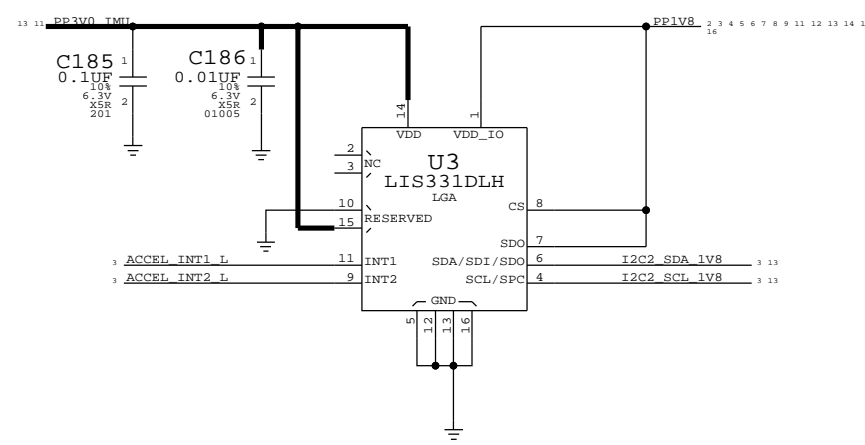
COMPASS OPTION1

I2C ADDR: 0001100X (0X0D)



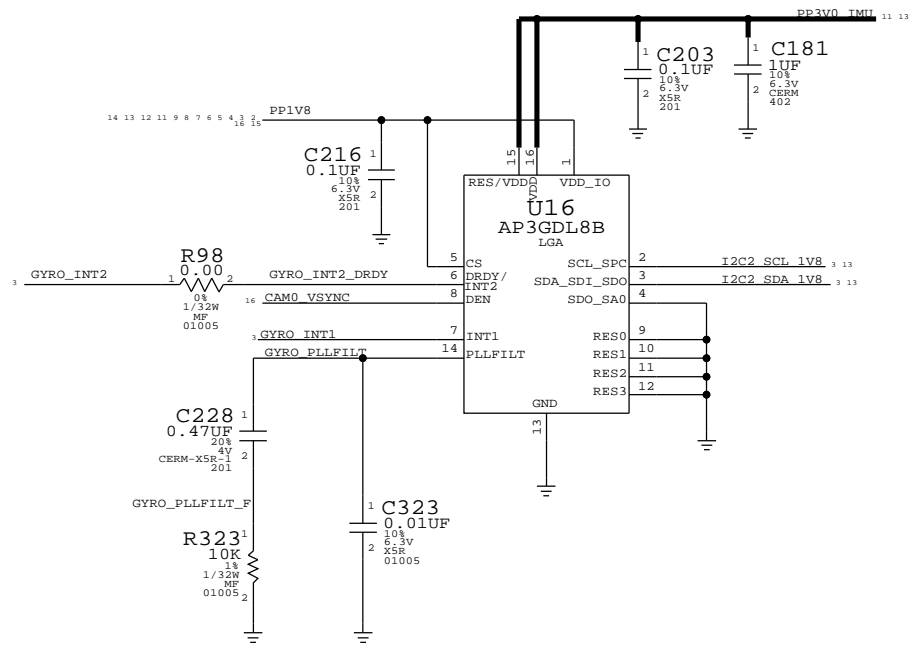
ACCELEROMETER

I2C ADDRESS: 0011101X (0X1D)

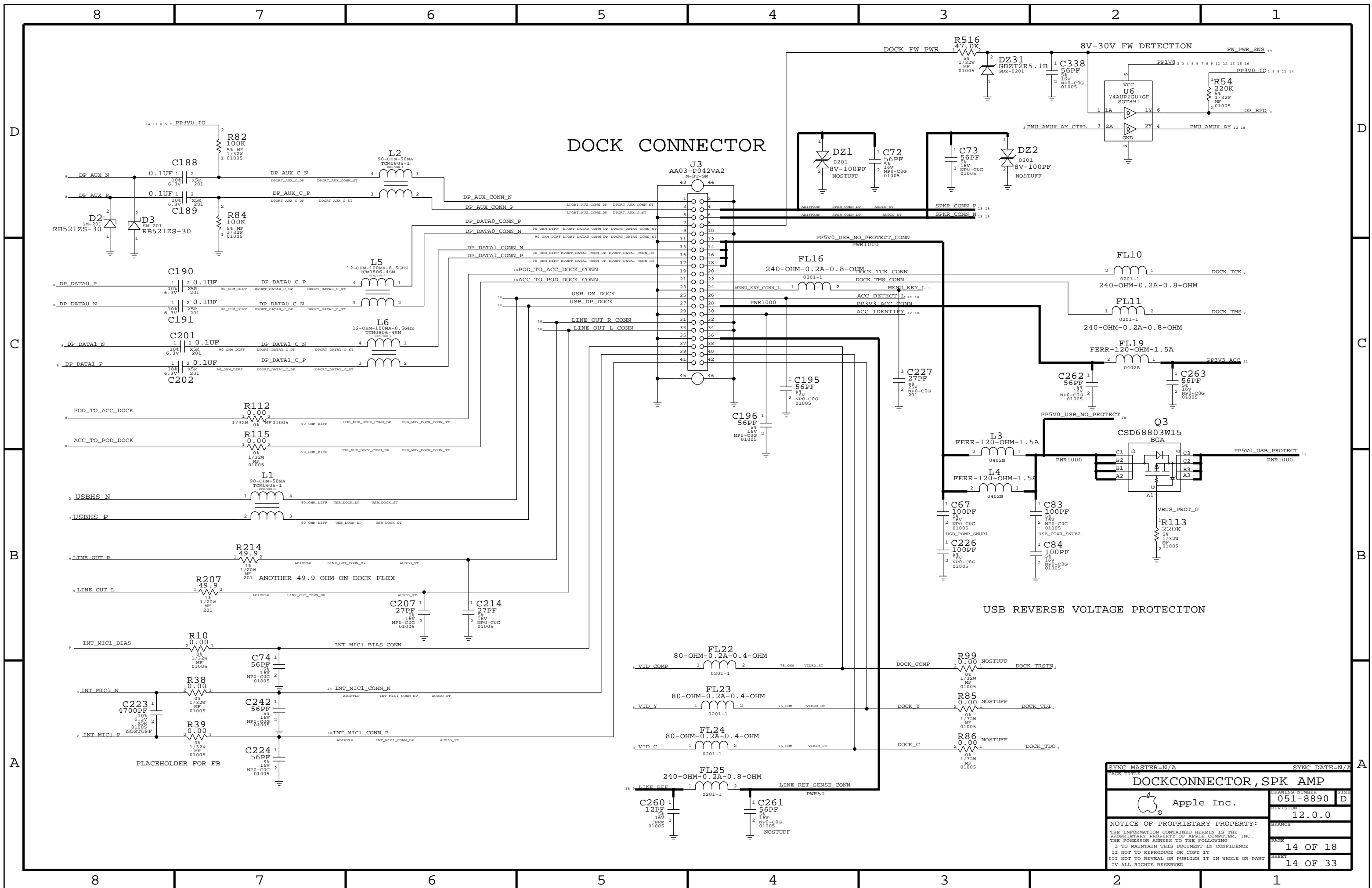


GYRO 8KHZ

I2C ADDRESS: 0XD0



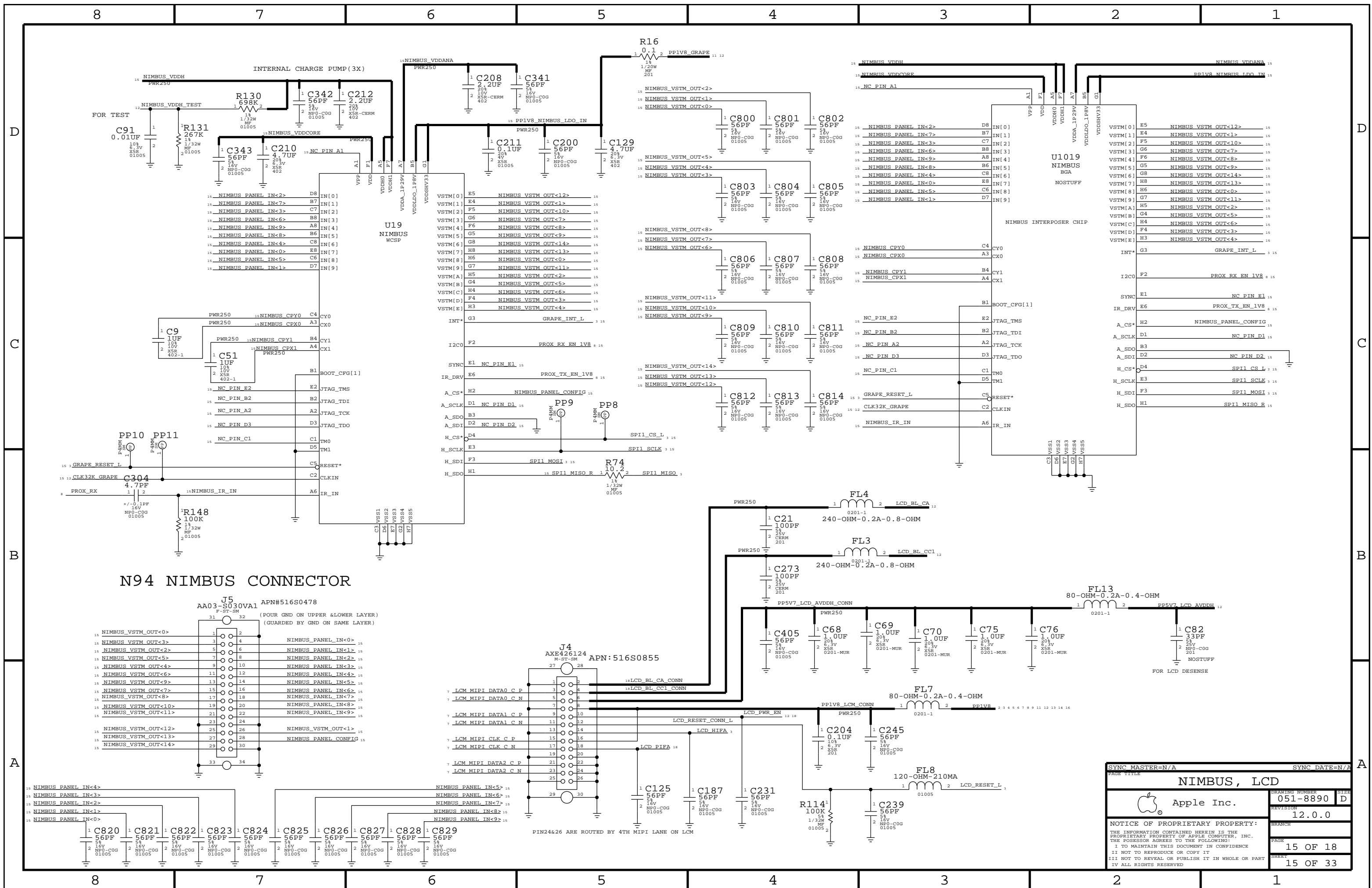
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ACCEL, GYRO, COMPASS, SPK AMP			
DRAWING NUMBER		051-8890	SIZE D
REVISION		12.0.0	
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DOCK CONNECTOR

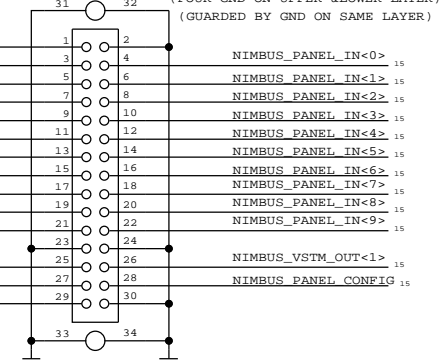
USB REVERSE VOLTAGE PROTECTION

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

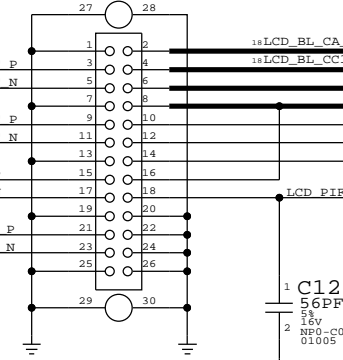


N94 NIMBUS CONNECTOR

J5
AA03-S030VA1 APN#516S0478
F-ST-SM (POUR GND ON UPPER & LOWER LAYER)
(GUARDED BY GND ON SAME LAYER)

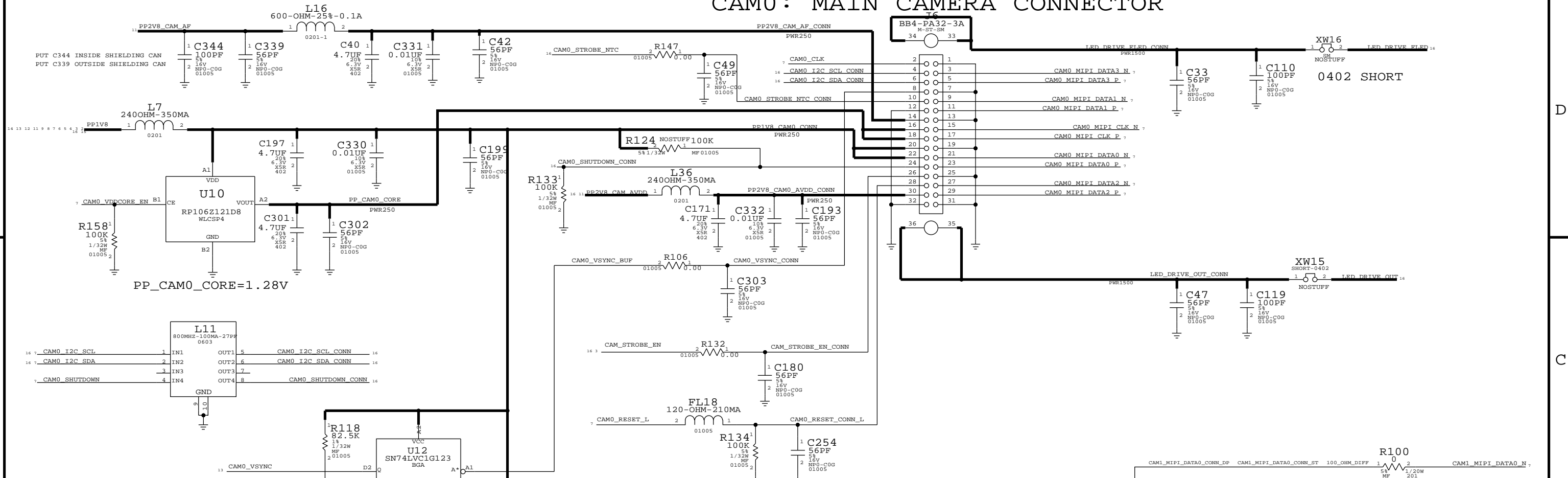


J4
AXE426124 APN:516S0855
M-ST-SM



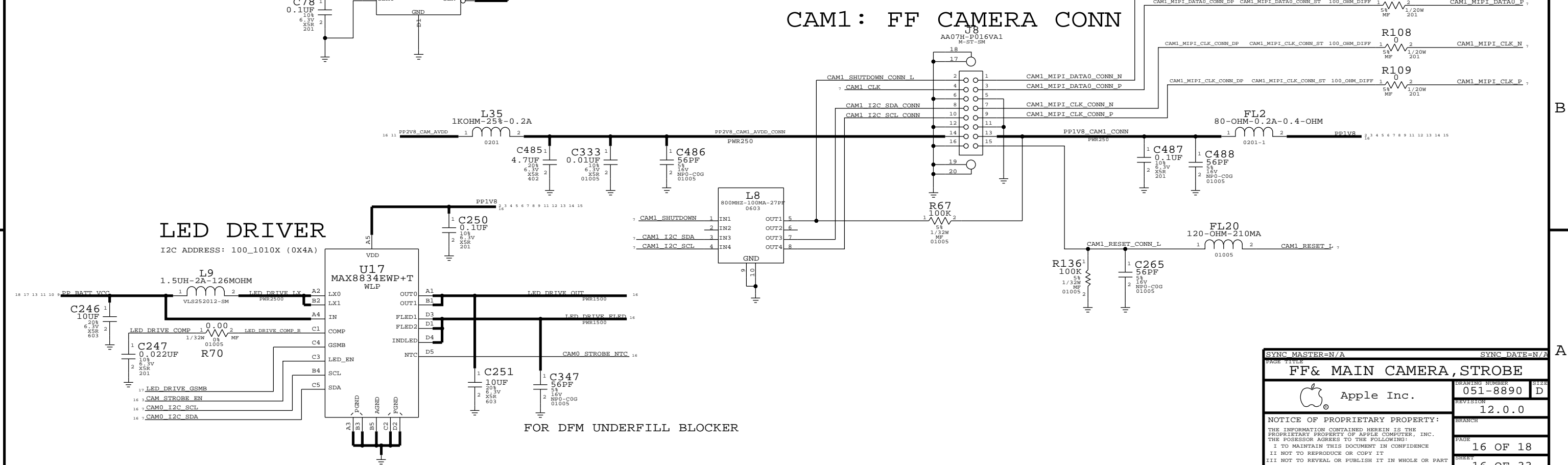
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NIMBUS, LCD			
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CAMO: MAIN CAMERA CONNECTOR



CAM1: FF CAMERA CONN

APN: 516S0924



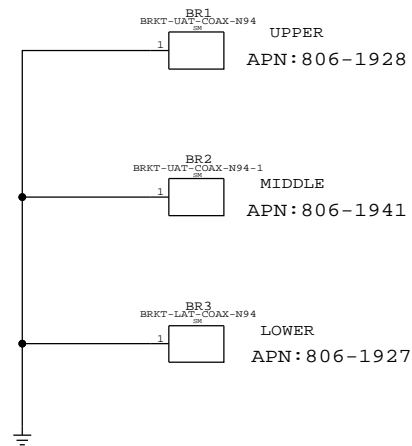
LED DRIVER

I2C ADDRESS: 100_1010X (OX4A)

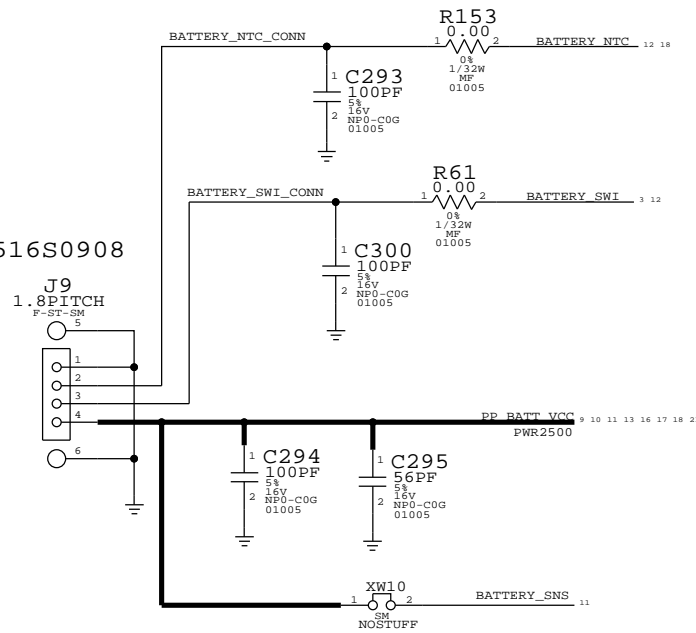
FOR DFM UNDERFILL BLOCKER

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



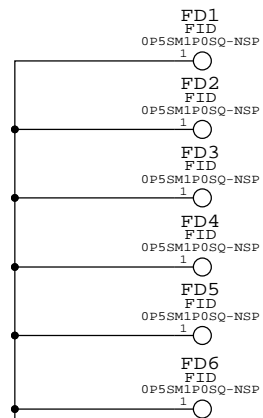
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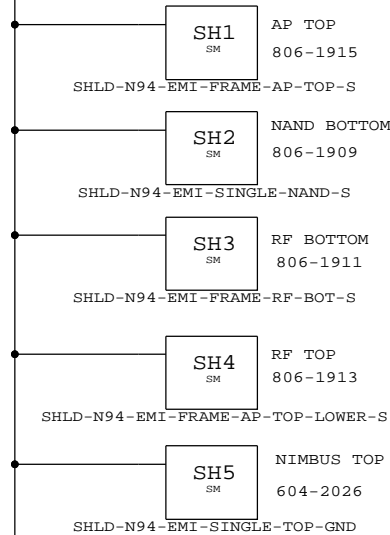
AP/RADIO INTERFACE

Signal Name	Direction	Property	Target Signal
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

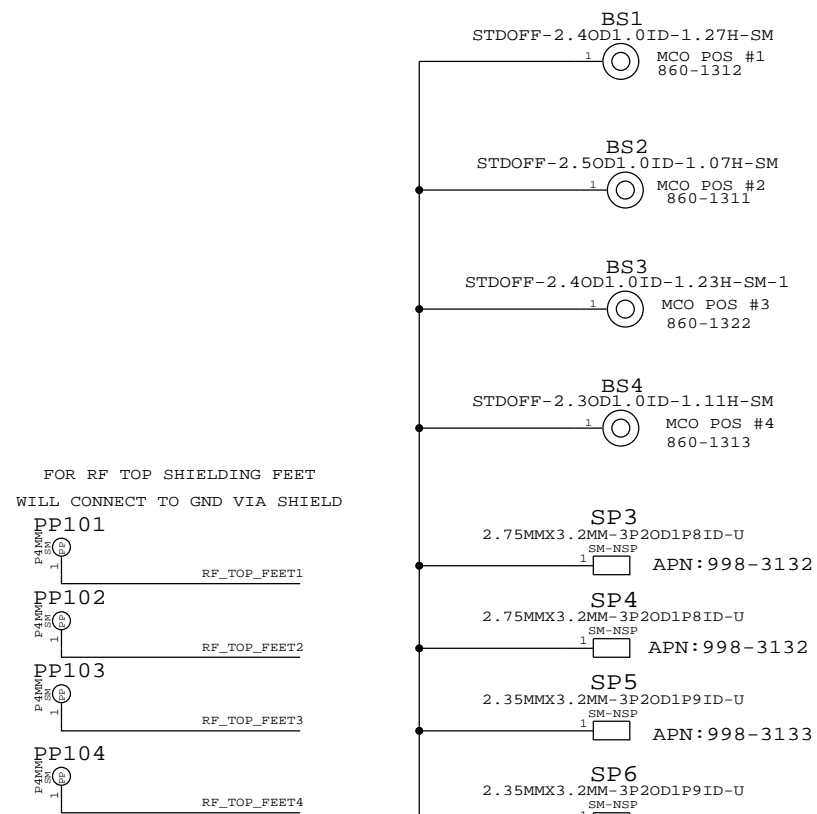
FIDUCIALS



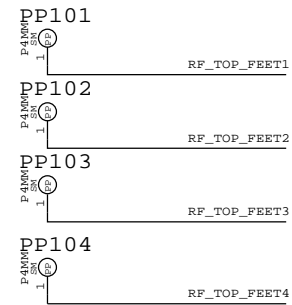
SHIELDS



STANDOFFS

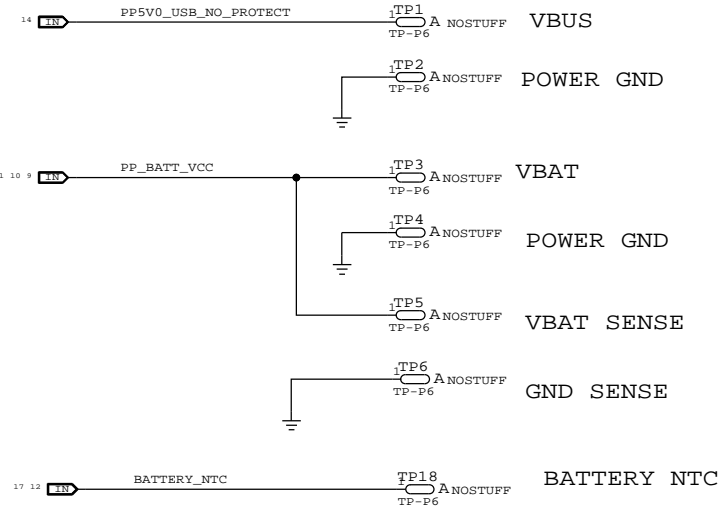


FOR RF TOP SHIELDING FEET WILL CONNECT TO GND VIA SHIELD

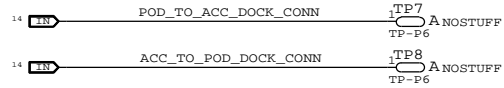


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RF INT, SHIELD, STNDOFFS			
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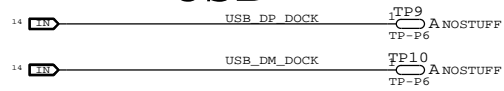
POWER



UART



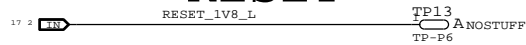
USB



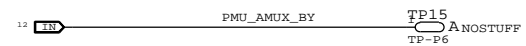
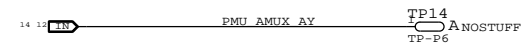
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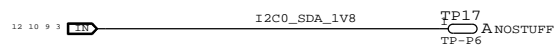
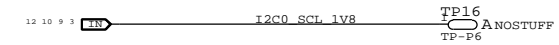
RESET



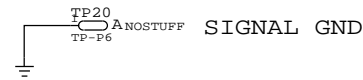
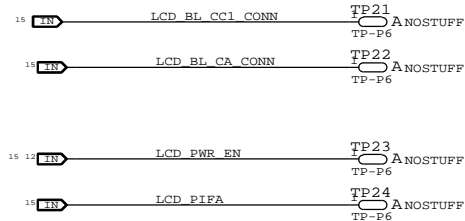
SUPER TP



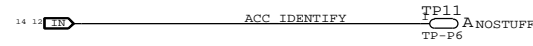
I2C0 BUS



GRAPE / LCM

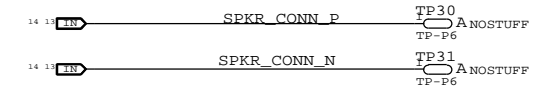


ACCESSORY

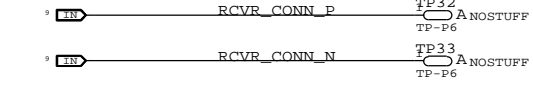


AUDIO

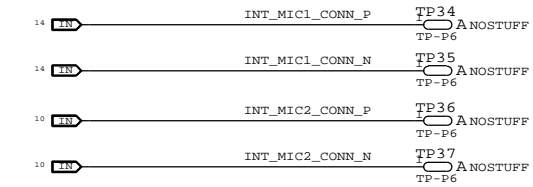
SPEAKER



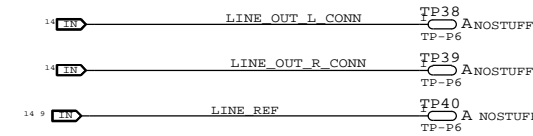
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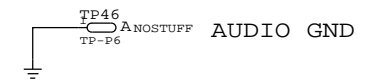
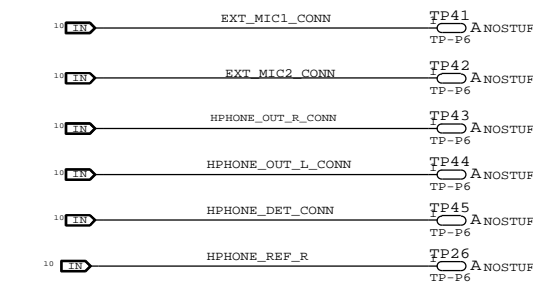
MIC



LINE OUT



HEADPHONE



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TEST POINTS			
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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

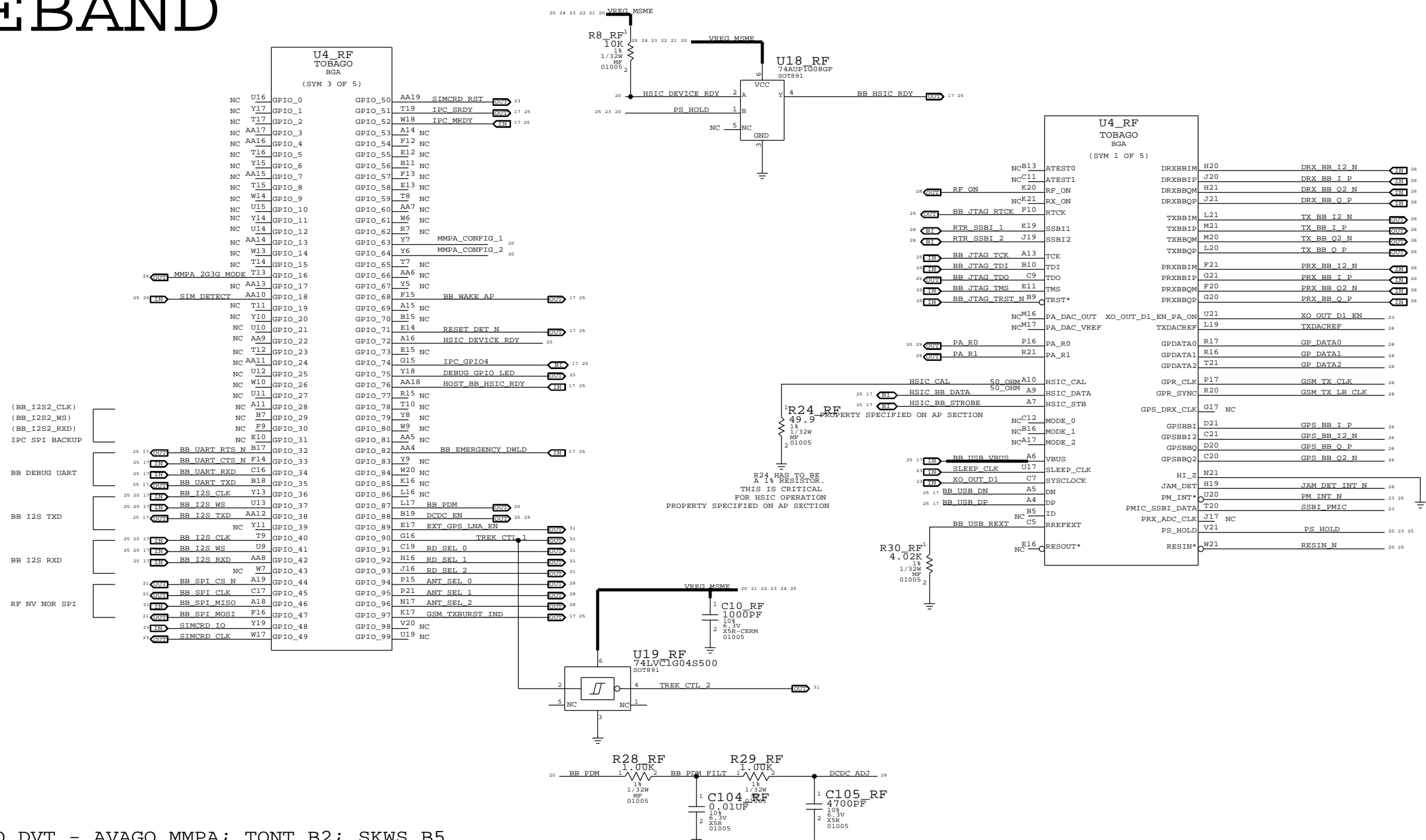
SCH #: 951-1604

BASED ON RADIO_MLB_EVT2_RFPE

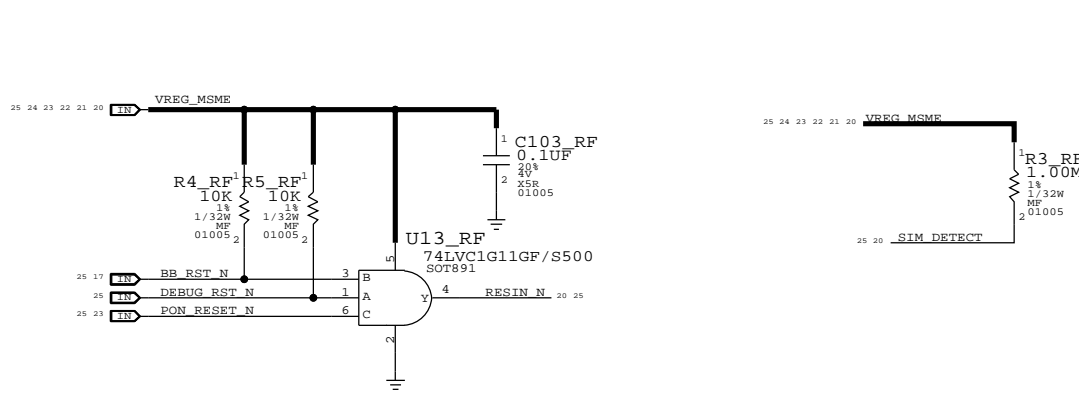
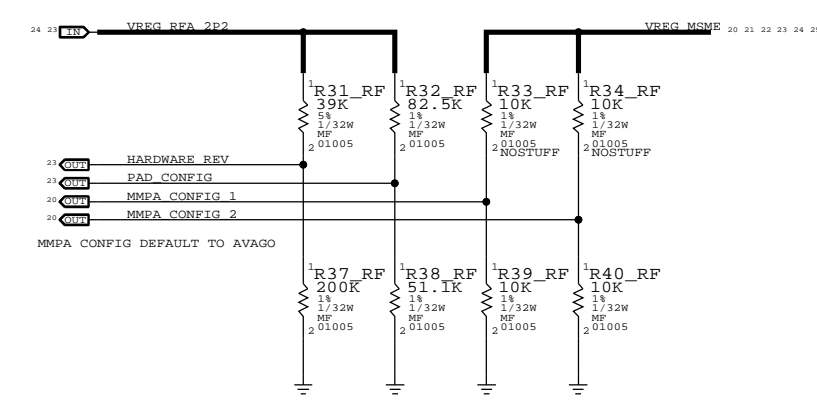
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BASEBAND

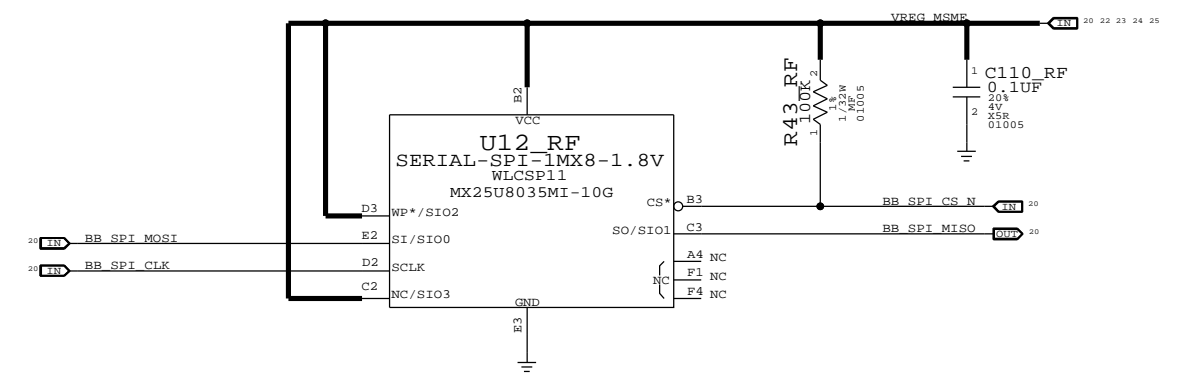
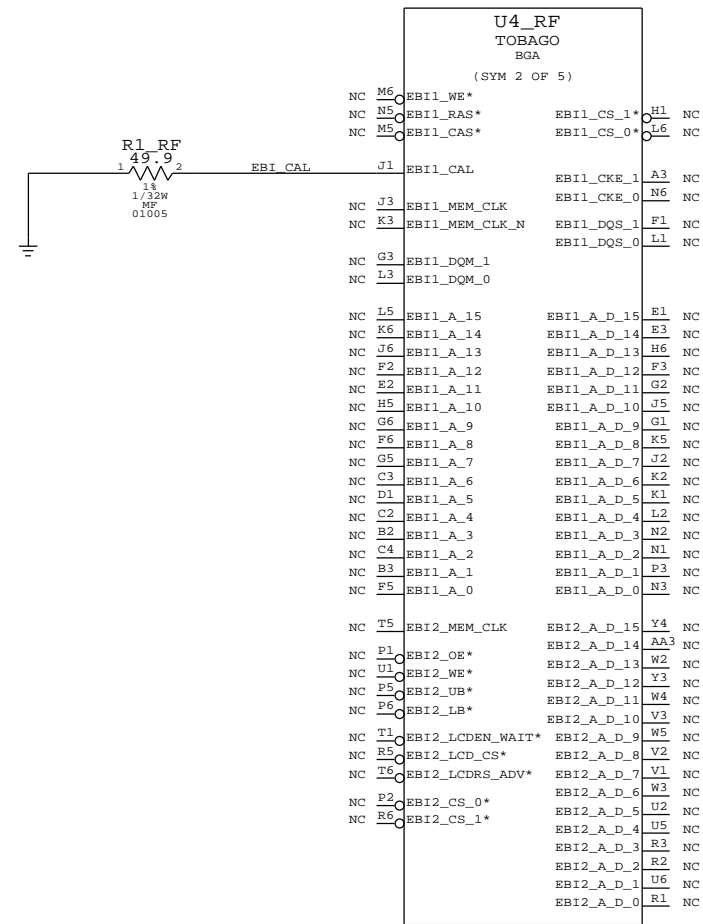
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DEFAULT TO DVT - AVAGO MMPA; TQNT B2; SKWS B5



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BASEBAND MEMORY		
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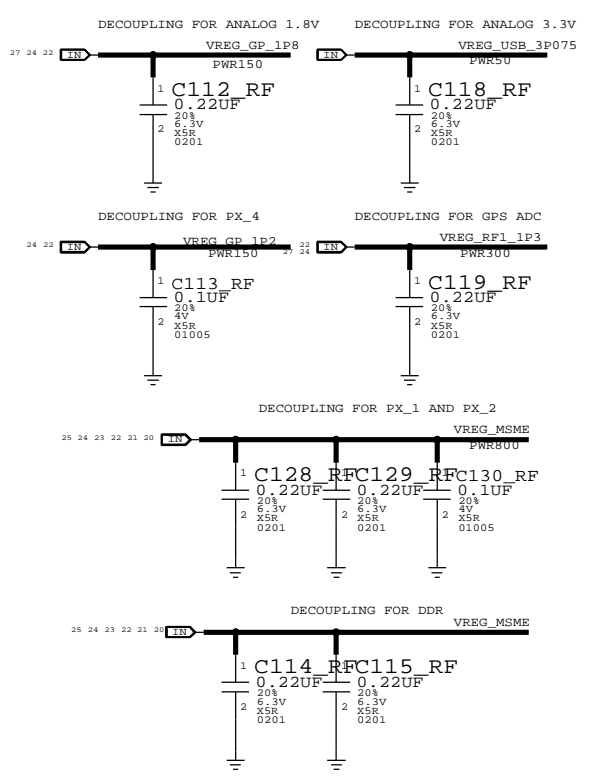
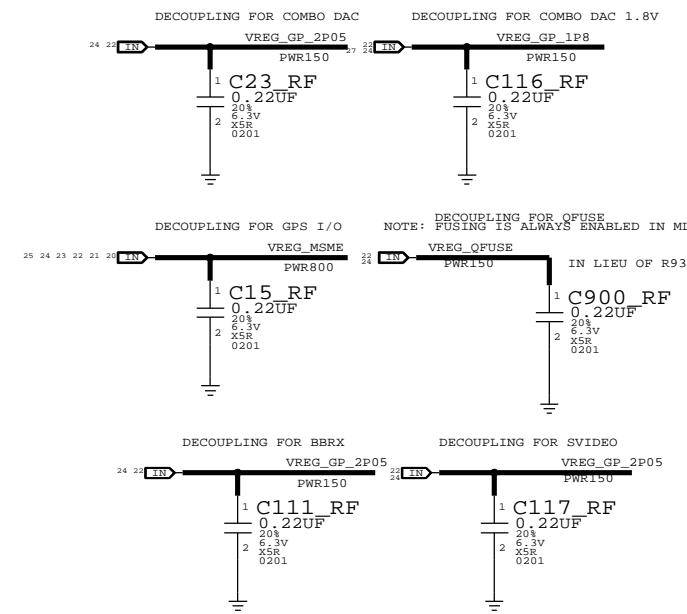
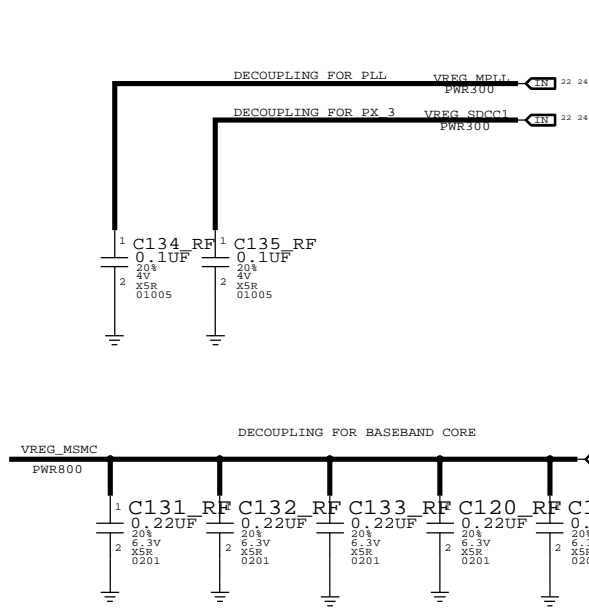
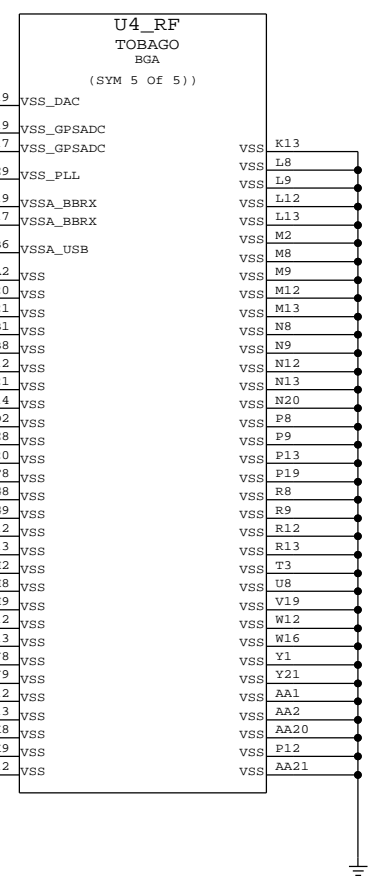
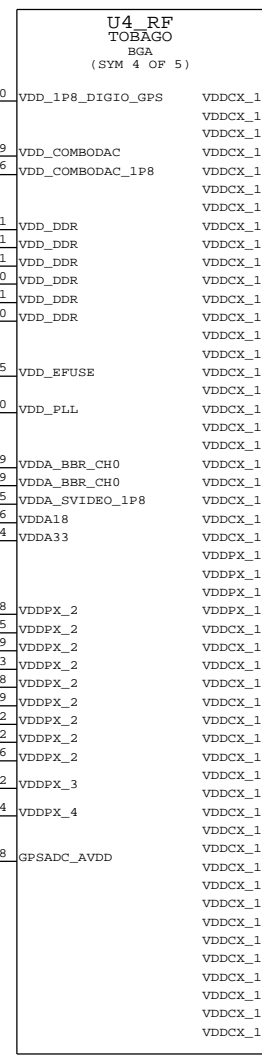
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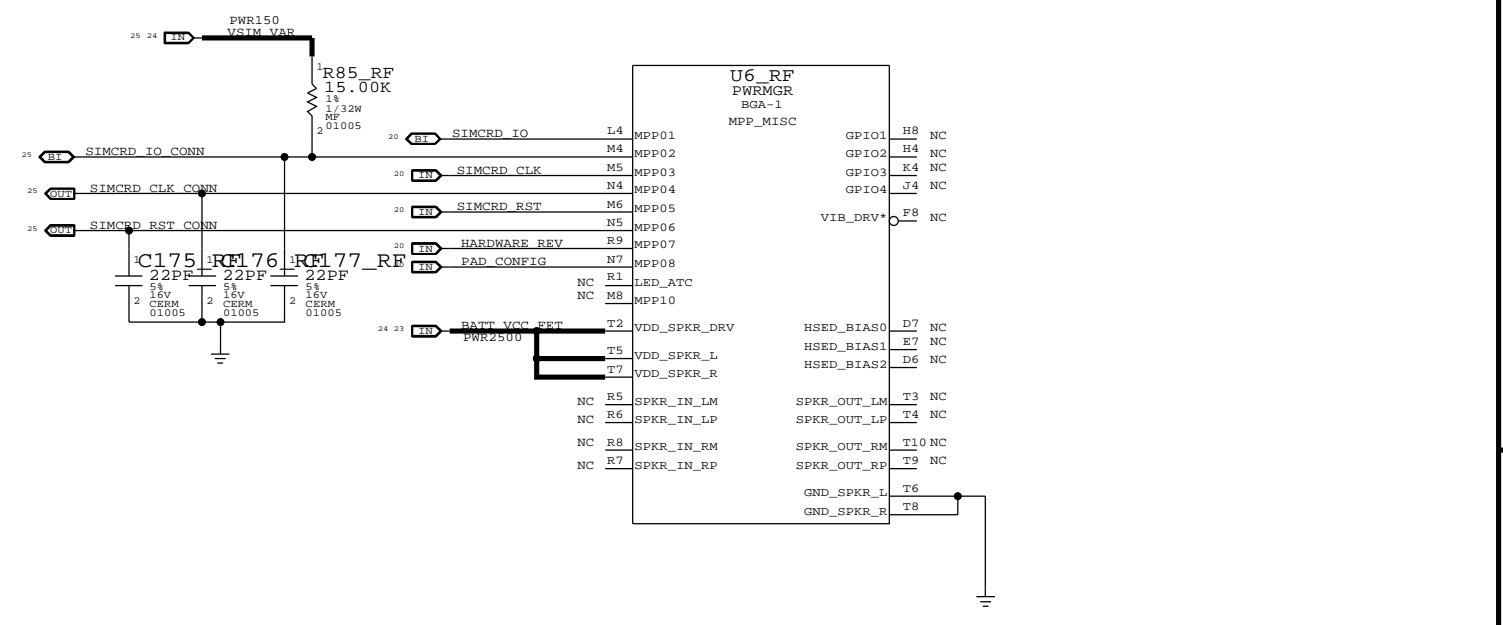
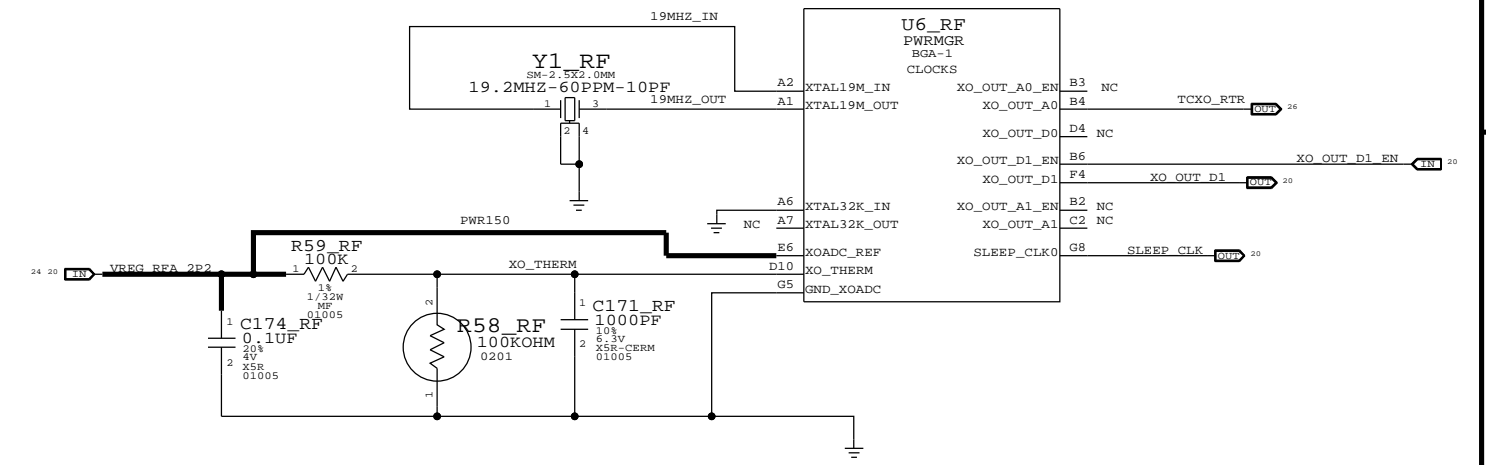
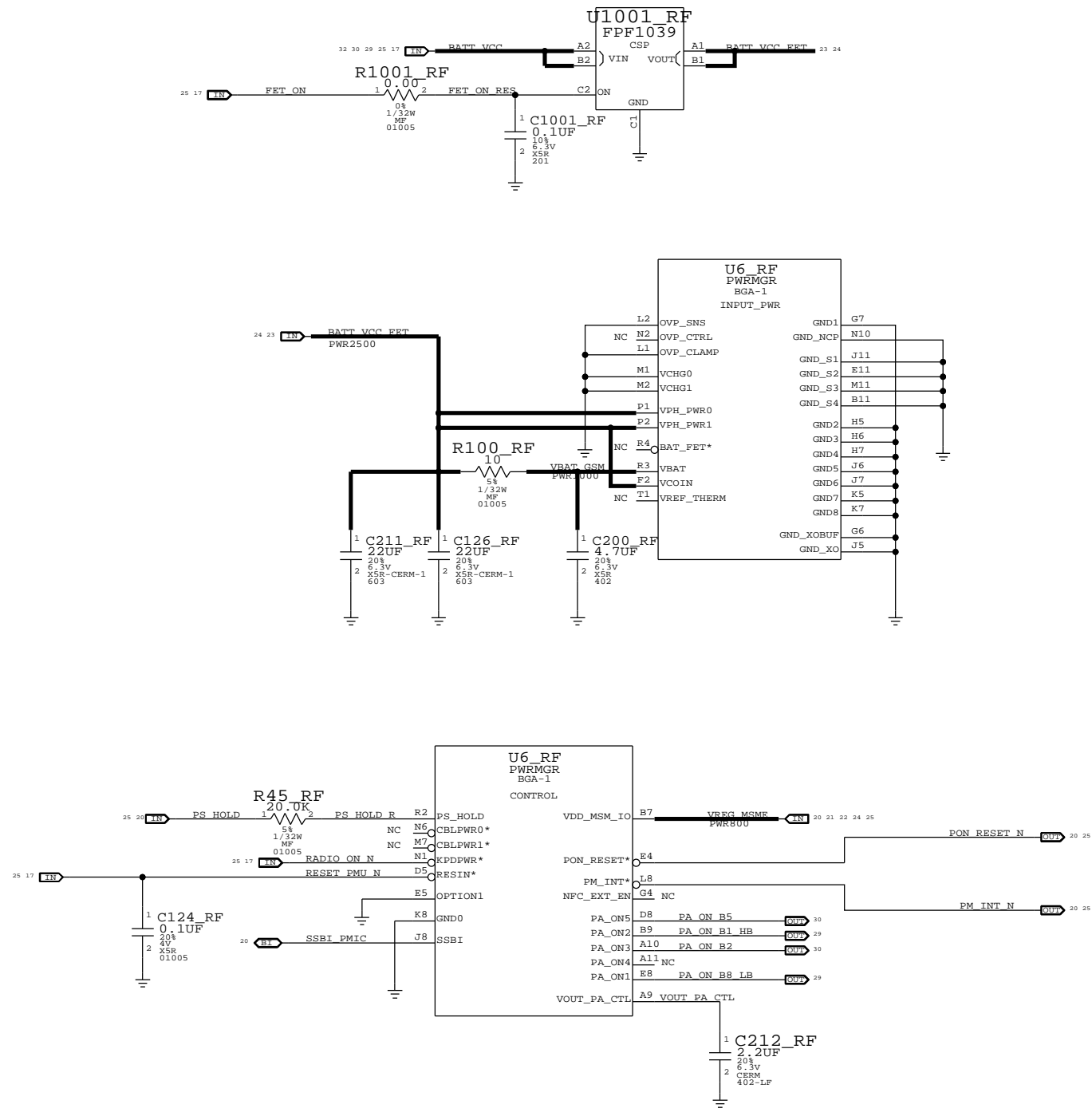


PAGE TITLE BASEBAND POWER/DECOUPLING		DRAWING NUMBER 051-8890	SIZE D
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8 7 6 5 4 3 2 1

BASEBAND PMU

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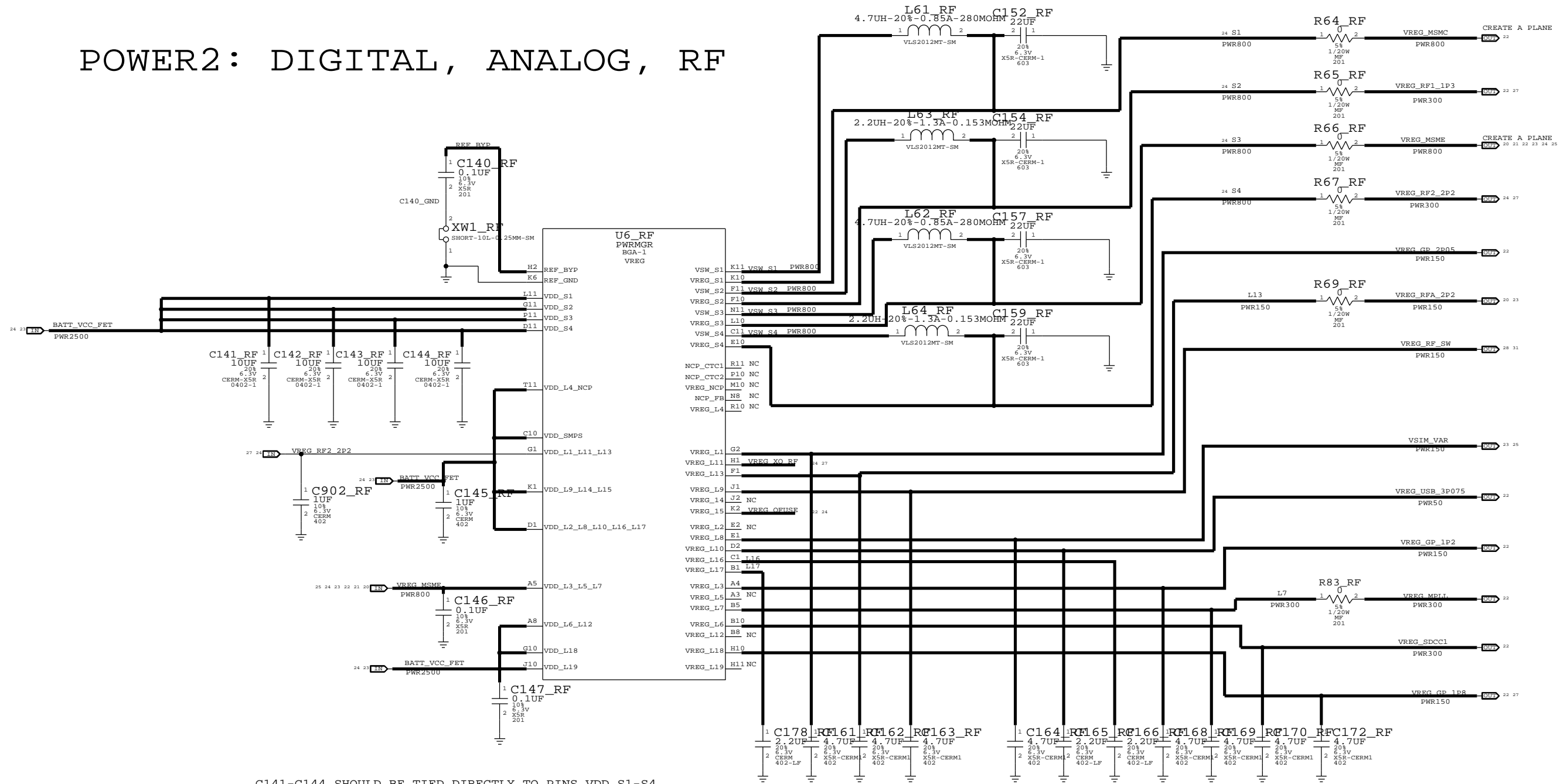


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BASEBAND PMU CONT.

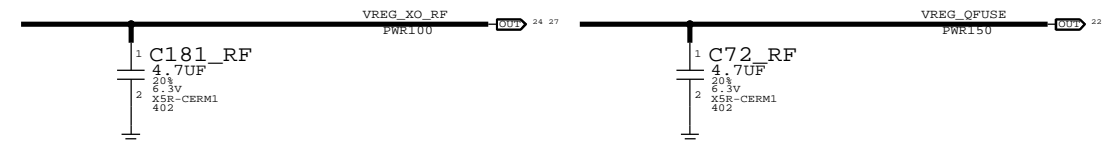
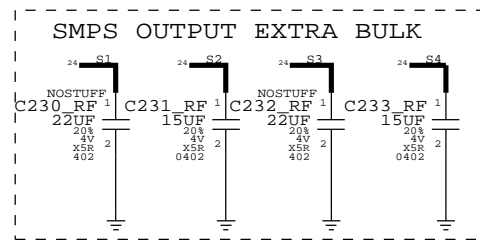
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POWER2: DIGITAL, ANALOG, RF



C141-C144 SHOULD BE TIED DIRECTLY TO PINS VDD_S1-S4

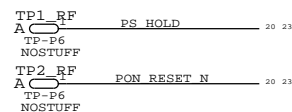
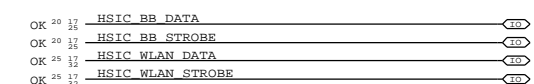
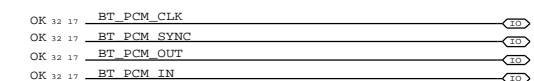
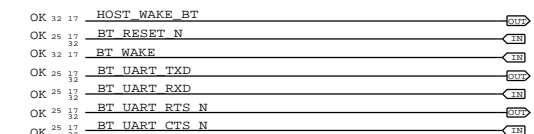
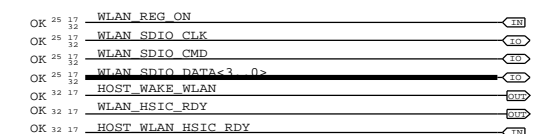
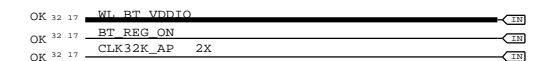
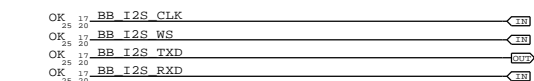
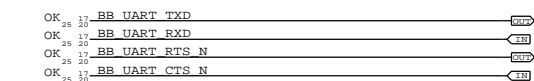
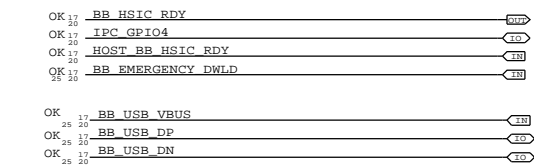
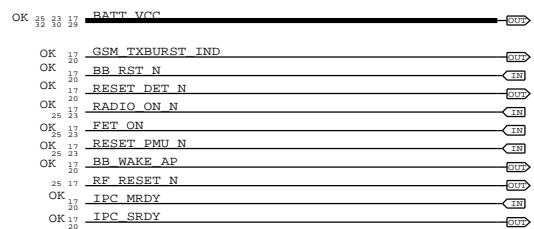
L16 AND L17 DECOUPLED PER EUREKA'S RECOMMENDATION



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DEBUG CONNECTOR

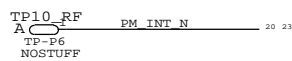
AP CONNECTIONS



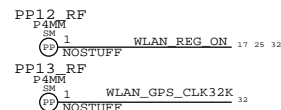
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TCXO_RTR_RF -- TEST POINT

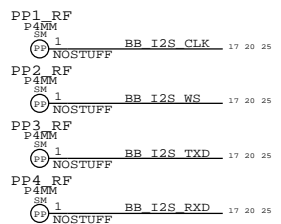
SSBI_PMIC -- TEST POINT



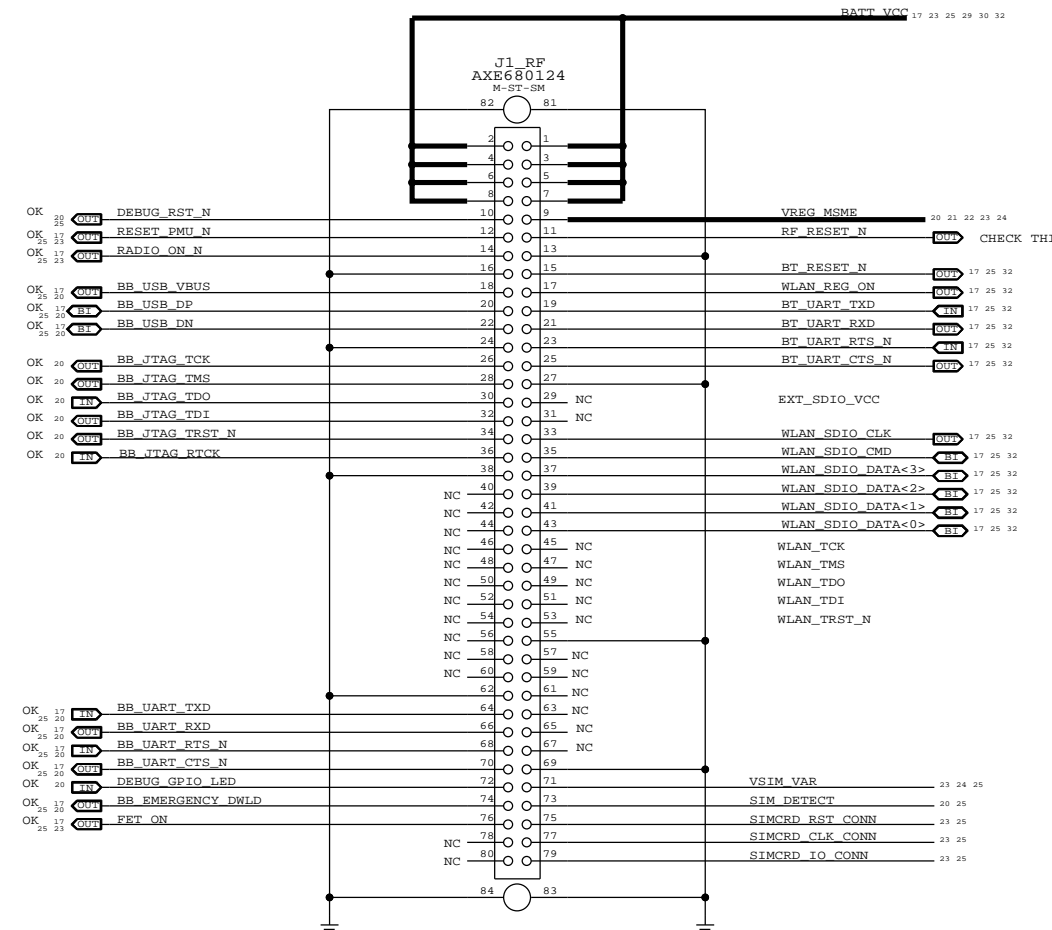
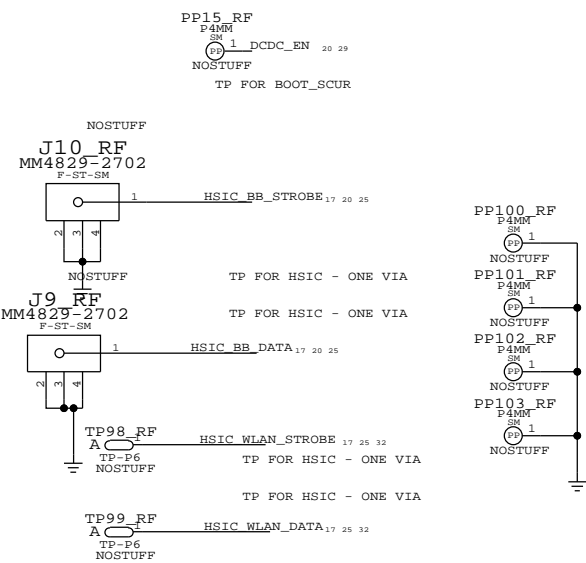
WLAN



DIGITAL AUDIO

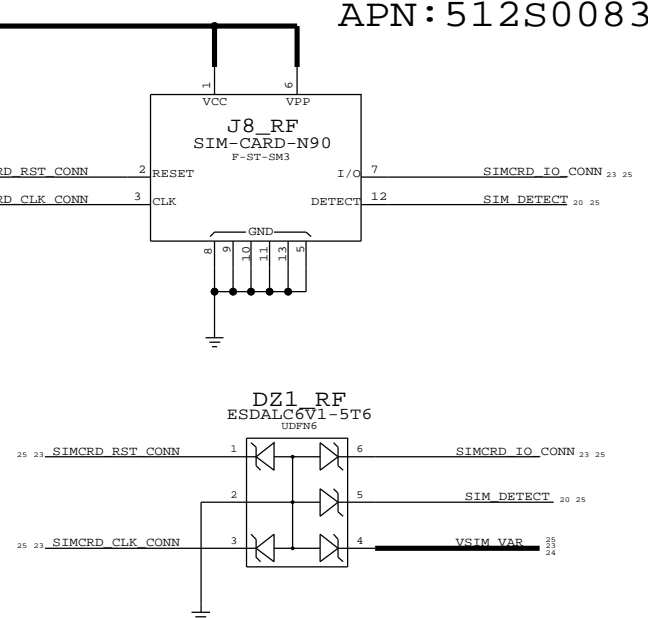


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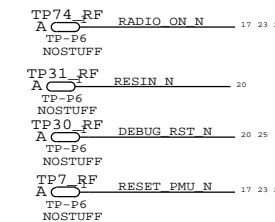


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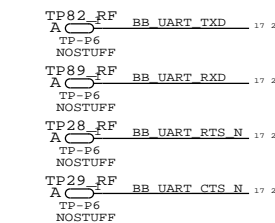
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CONTROL



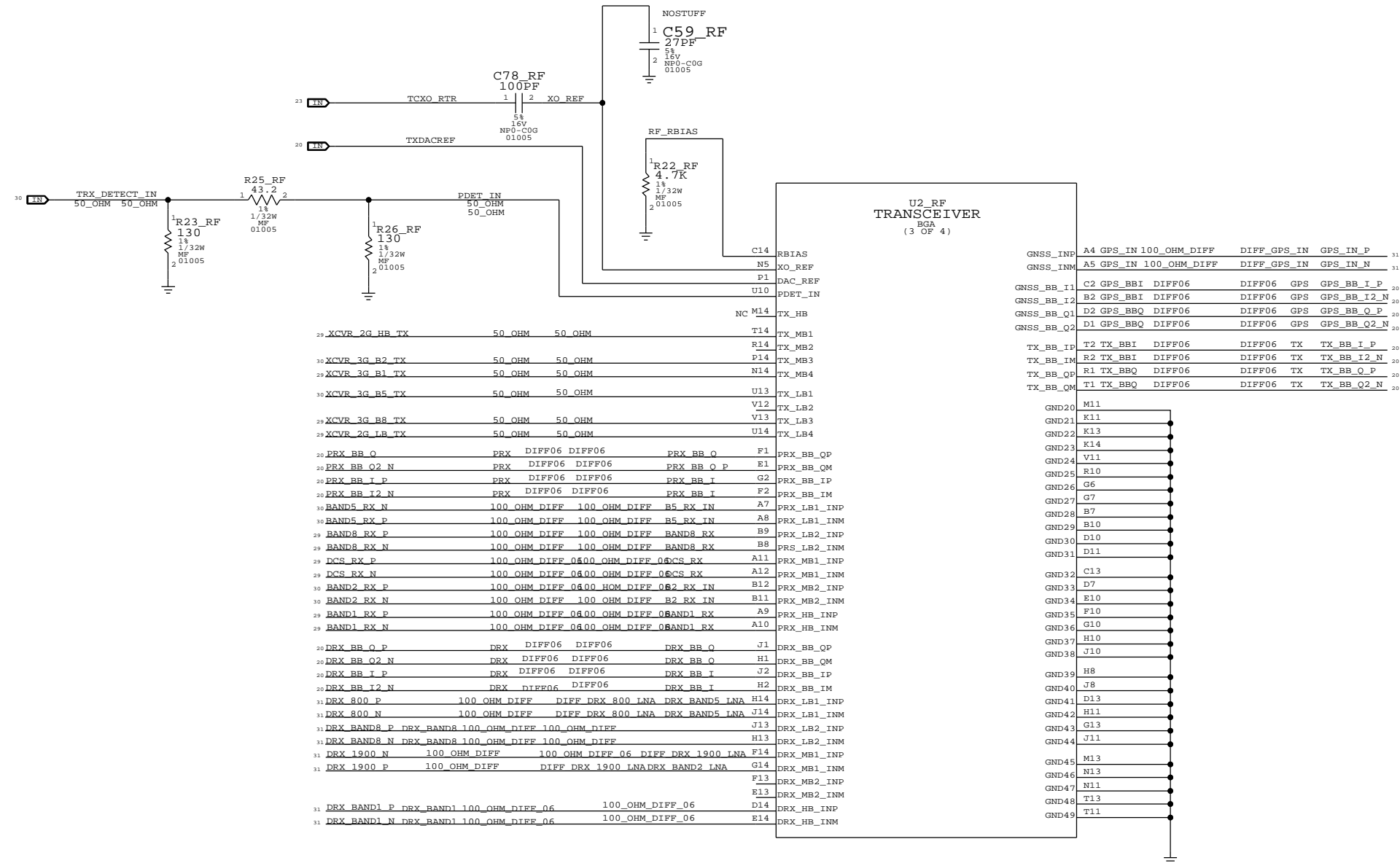
UART



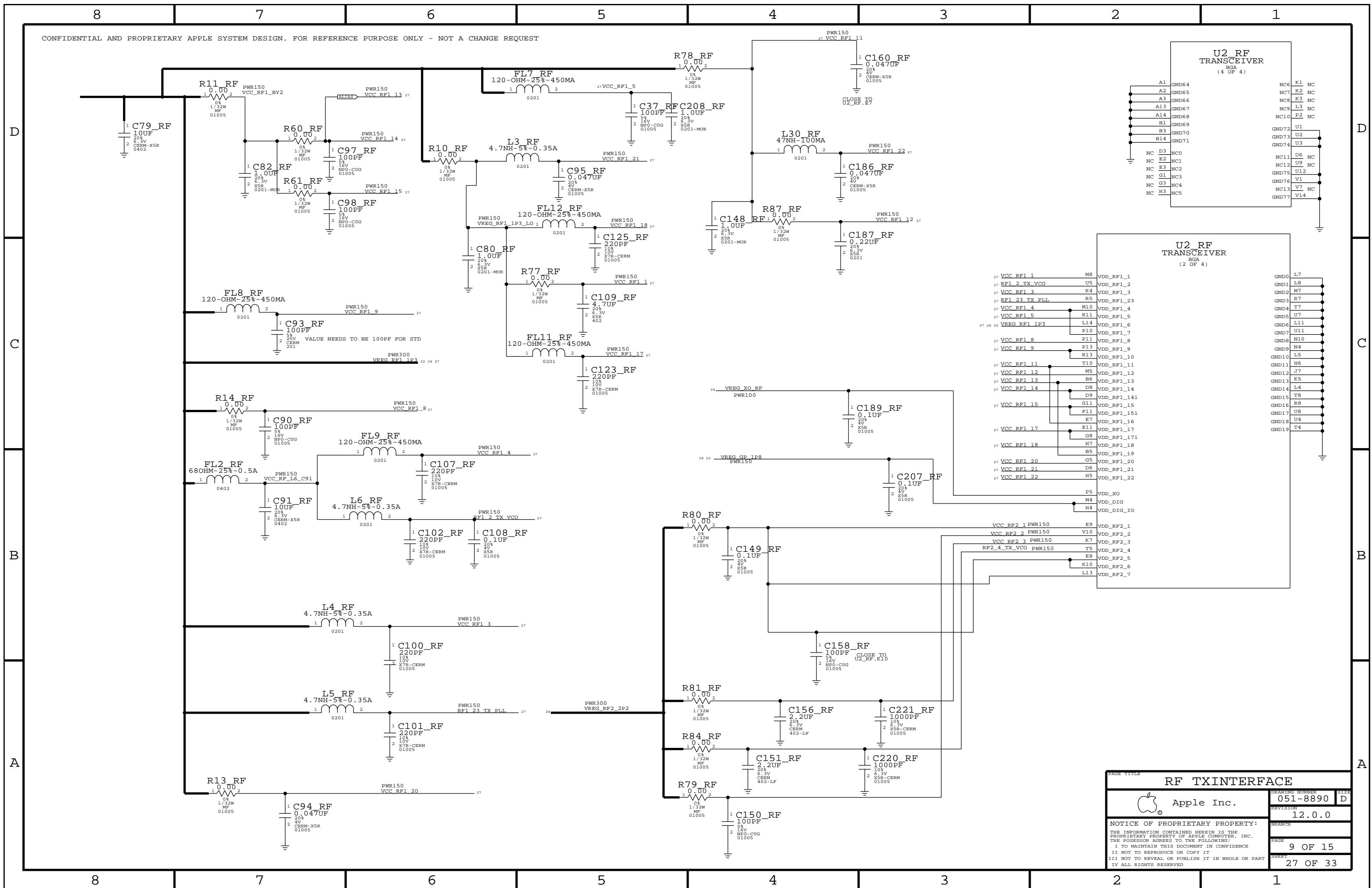
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RF TRANSCEIVER

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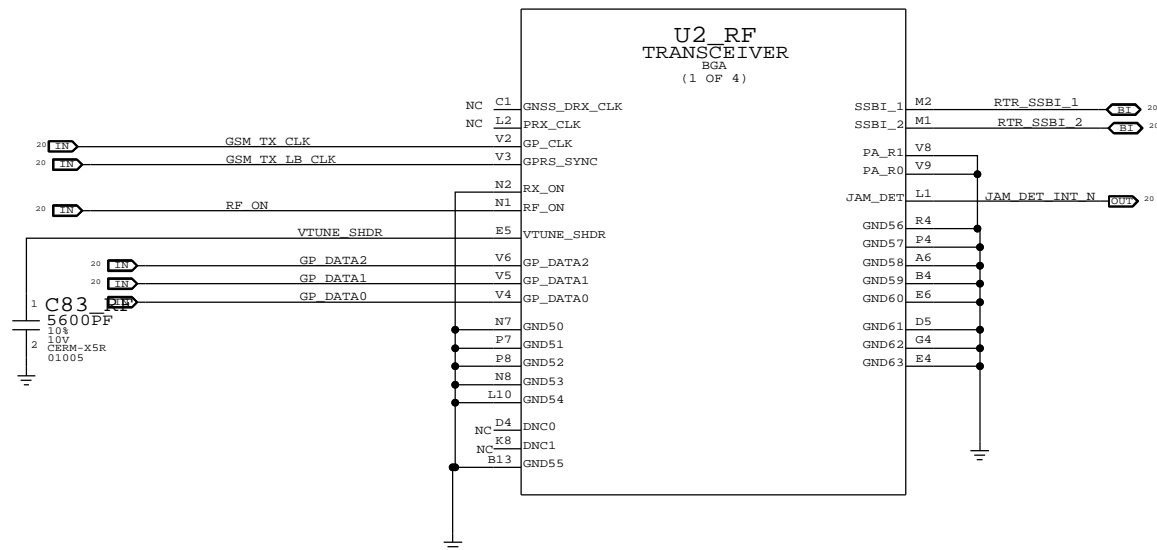
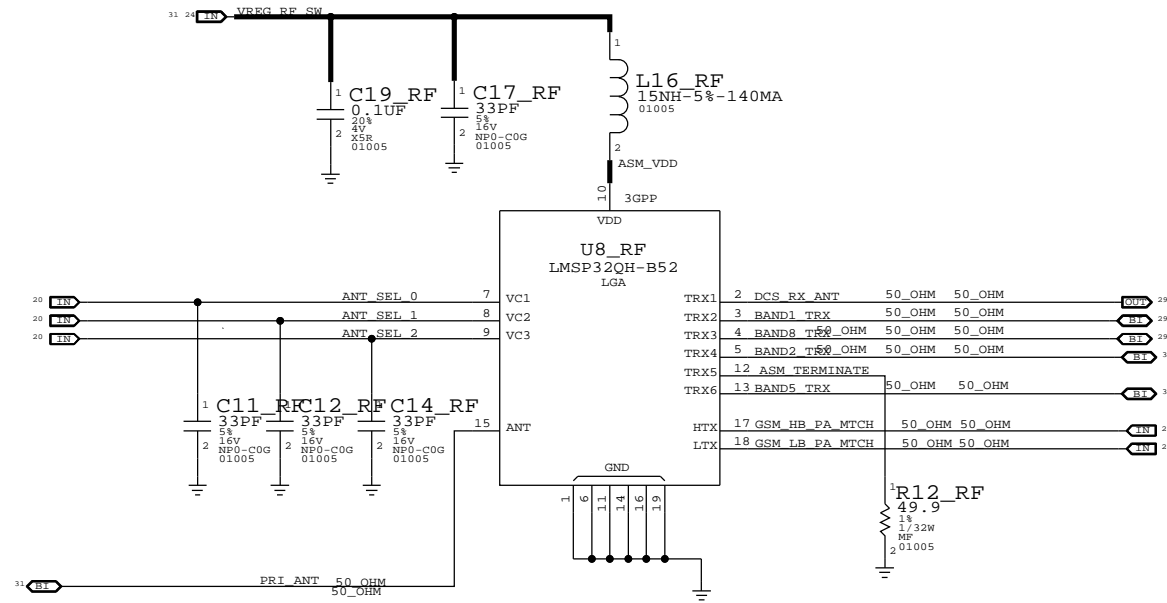


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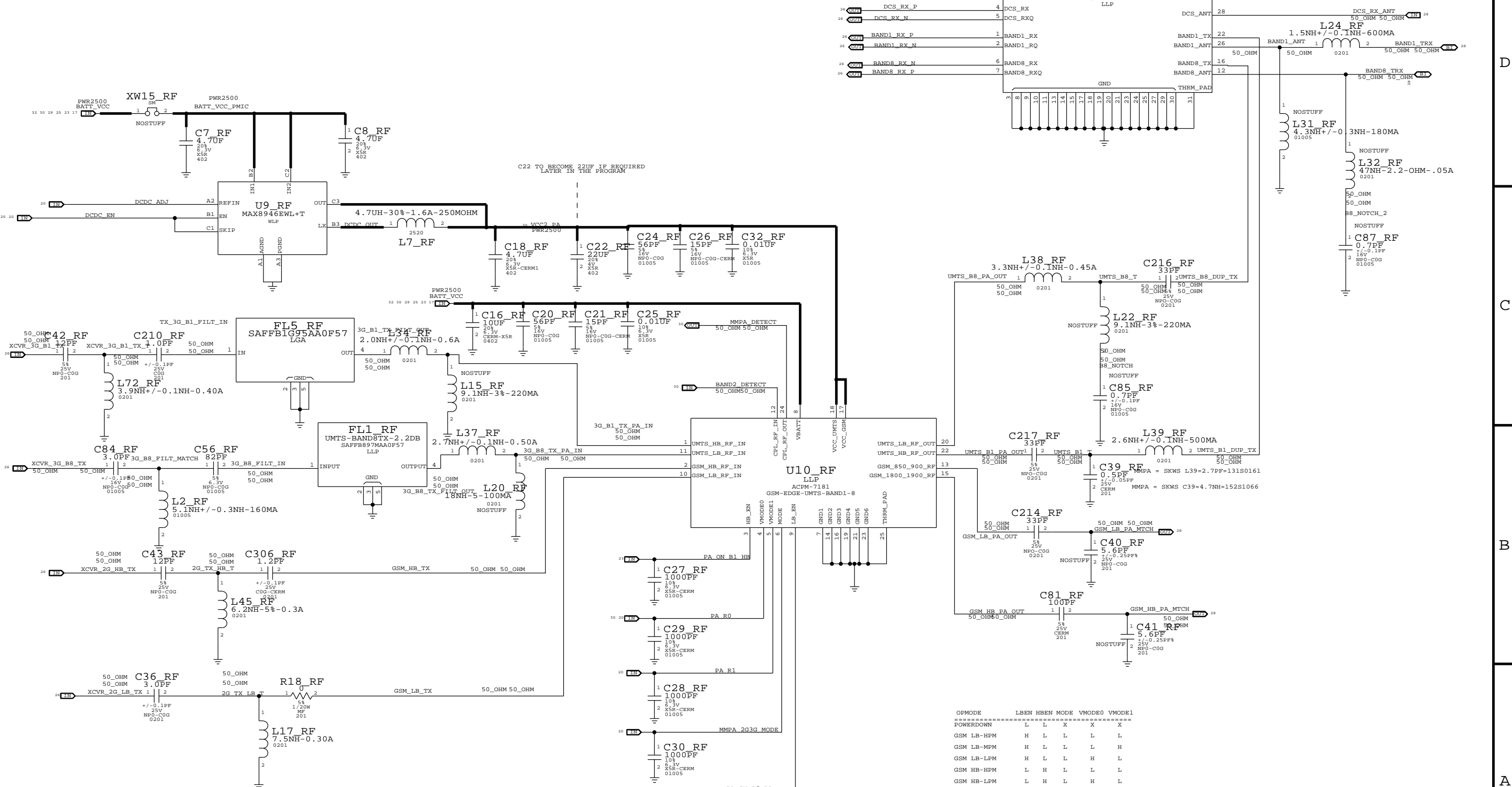
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RF TRANSCEIVER AND ASM



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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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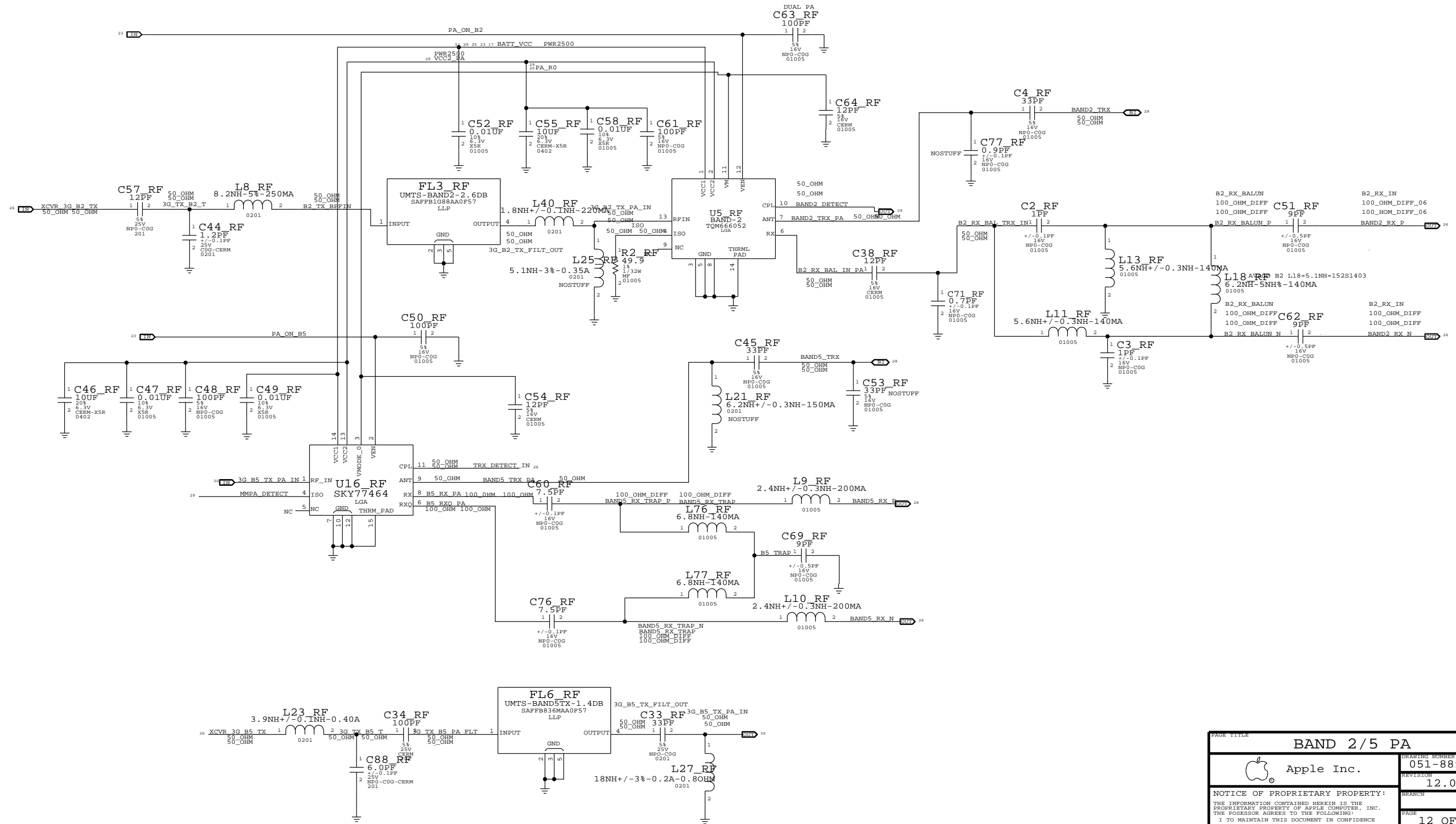
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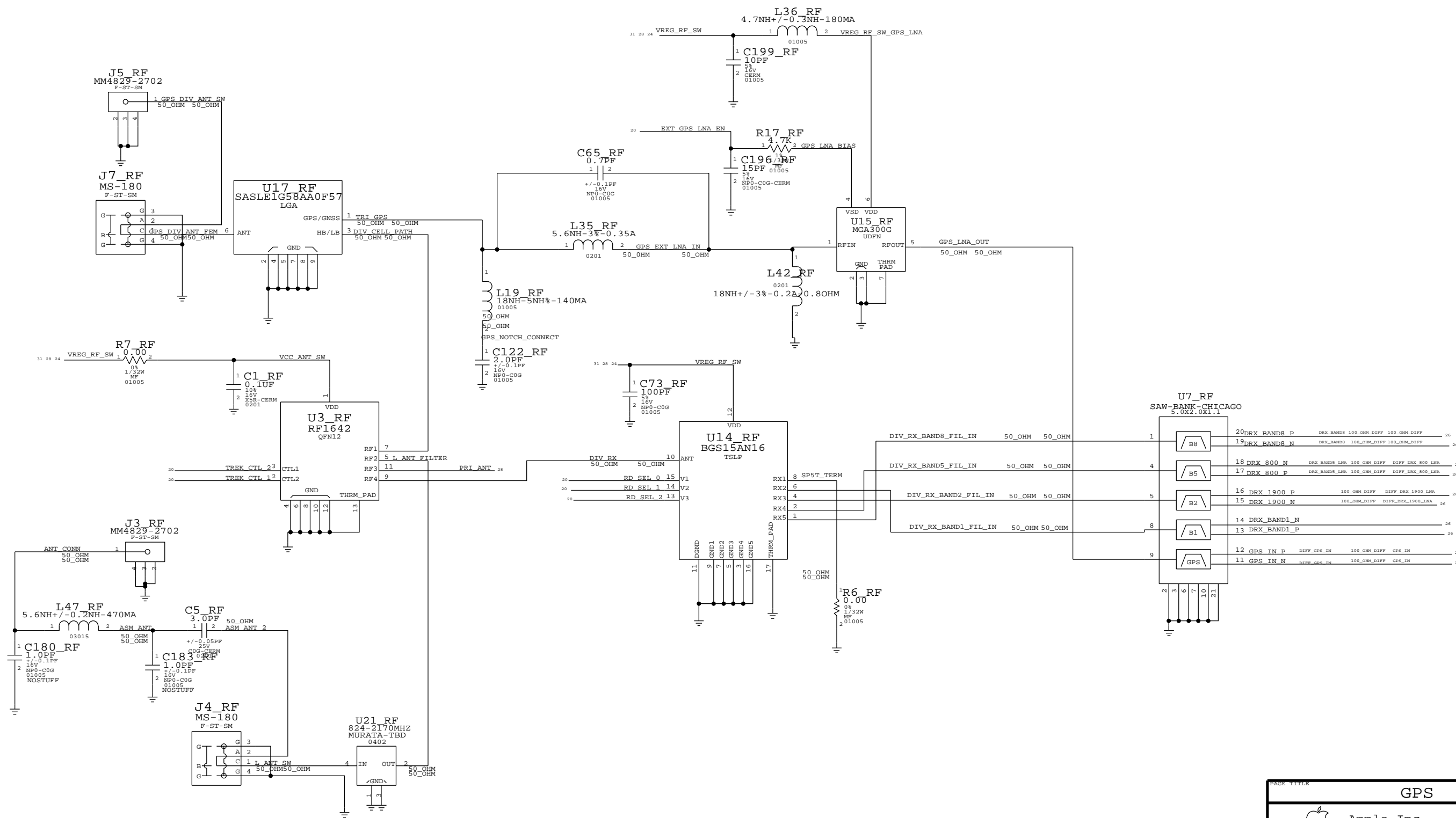
BAND 2 AND BAND 5 PAD



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DIVERSITY AND EXTERNAL GPS LNA

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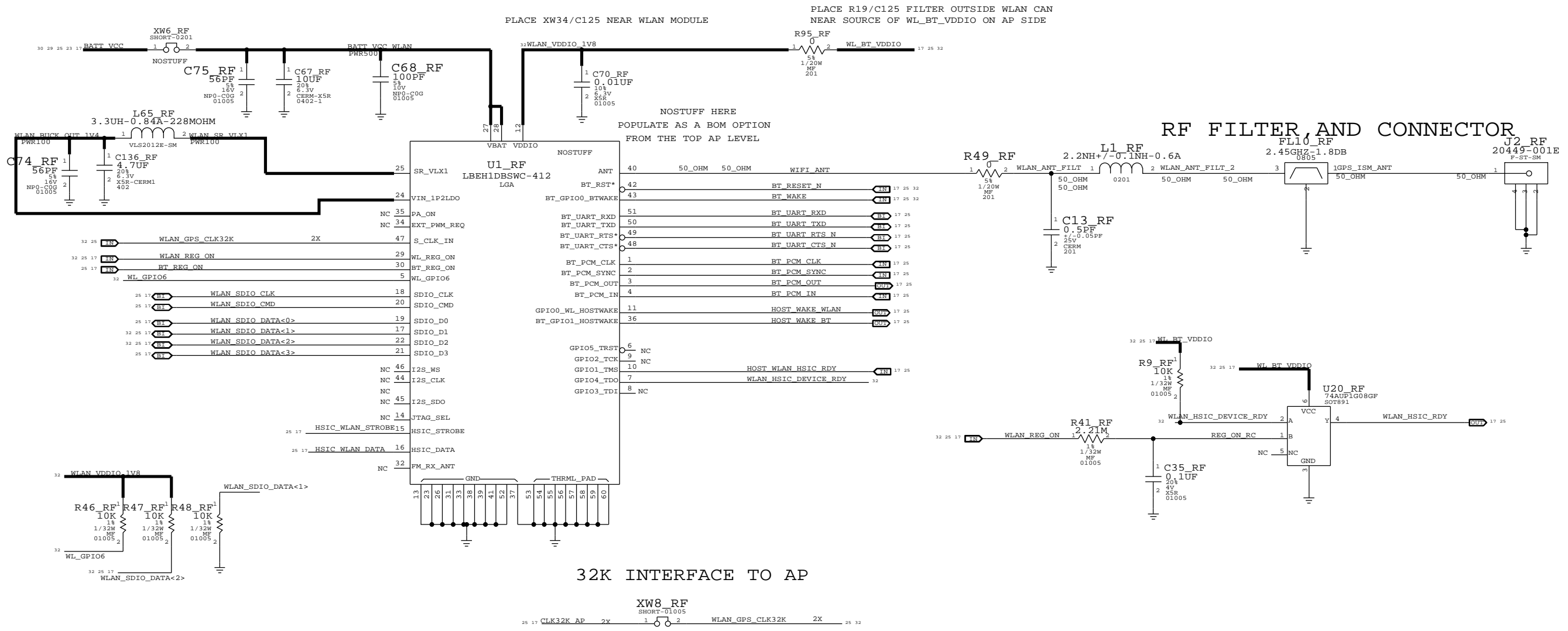


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WLAN/BLUETOOTH

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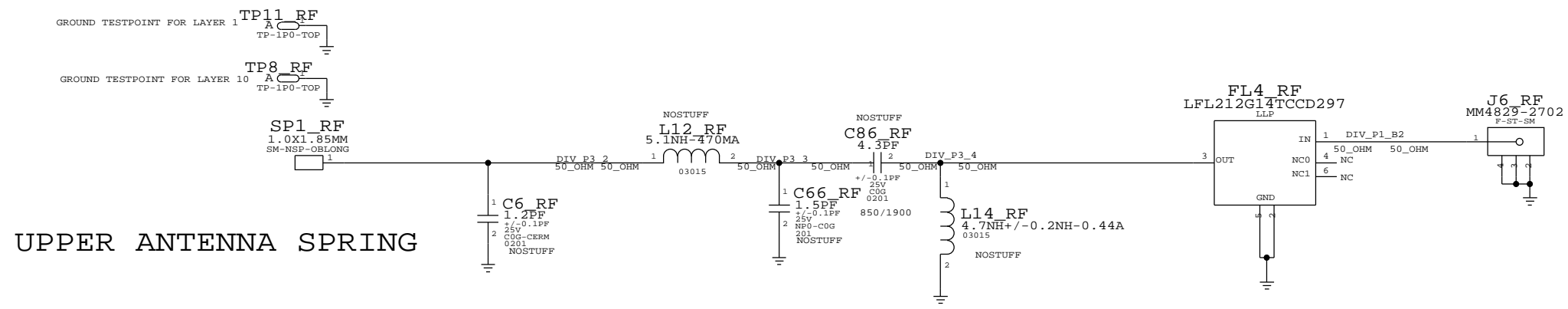
32K INTERFACE TO AP

PULL UP RESISTORS


PULL DOWN RESISTORS

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ANTENNA MATCHING



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