

Tue Jul 5 21:36:16 2011

N94 POR MLB_V3 DVT FOR BOARD_REV11/REV12

N94 EEEE BOM LABELS

PART#	QTY	DESCRIPTION	REFERENCE DESIGNATOR(S)	CRITICAL	BOM OPTION
825-2029	1	EEEE FOR 639-1723 (166)	EEEE_DJP1	Y	EEEE_166_GUC_US
825-2029	1	EEEE FOR 639-1724 (326)	EEEE_DJP2	Y	EEEE_326_GUC_US
825-2029	1	EEEE FOR 639-1777 (646)	EEEE_DK00	Y	EEEE_646_GUC_US
825-2029	1	EEEE FOR 639-2727 (166)	EEEE_DQ5M	Y	EEEE_166_GU_US
825-2029	1	EEEE FOR 639-2728 (326)	EEEE_DQ5D	Y	EEEE_326_GU_US
825-2029	1	EEEE FOR 639-2729 (646)	EEEE_DQ5G	Y	EEEE_646_GU_US
825-2029	1	EEEE FOR 639-2788 (166)	EEEE_DR42	Y	EEEE_166_GU_EU
825-2029	1	EEEE FOR 639-2789 (326)	EEEE_DR44	Y	EEEE_326_GU_EU
825-2029	1	EEEE FOR 639-2790 (646)	EEEE_DR41	Y	EEEE_646_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 :
335S0815	335S0781	NAND_16GB_PP11G	U1	16G, SAMSUNG, 27NM PP11G
335S0804	335S0781	NAND_16GB_PP11G	U1	16G, TOSHIBA, 24NM PP11G
335S0816	335S0782	NAND_32GB_PP11G	U1	32G, SAMSUNG, 27NM PP11G
335S0805	335S0782	NAND_32GB_PP11G	U1	32G, TOSHIBA, 24NM PP11G
335S0806	335S0814	NAND_64GB_PP11G	U1	64G, TOSHIBA, 24NM PP11G

UPPER ANTENNA MATCHING BOM OPTIONS

VIDEO BUFFER ALTERNATE

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

32KHZ	XTAL	ALTERNATE
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PART NUMBER	ALTERNATE FOR PART NUMBER	BOM OPTION	REF DES	COMMENTS:
197S0382	197S0392		Y1	TXC XTAL

STROBE INDUCTOR ALTERNATE

4.3UF CAP ALTERNATE

LEVEL TRANSLATOR ALTERNATE

INVERTER GATE ALTERNATE

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

AND GATE ALTERNATE

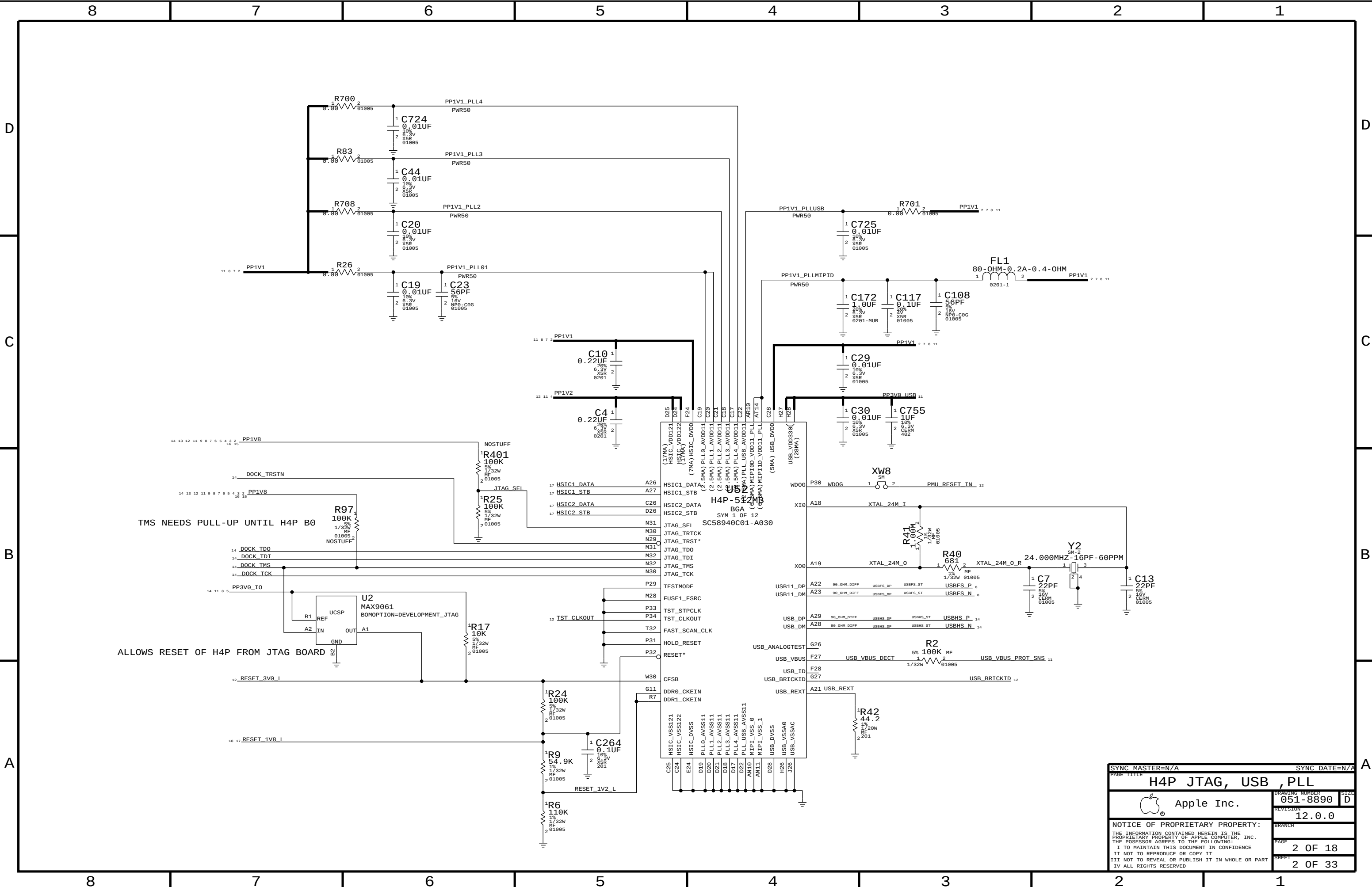
THERMISTOR ALTERNATE

19.2MHZ ALTERNATE

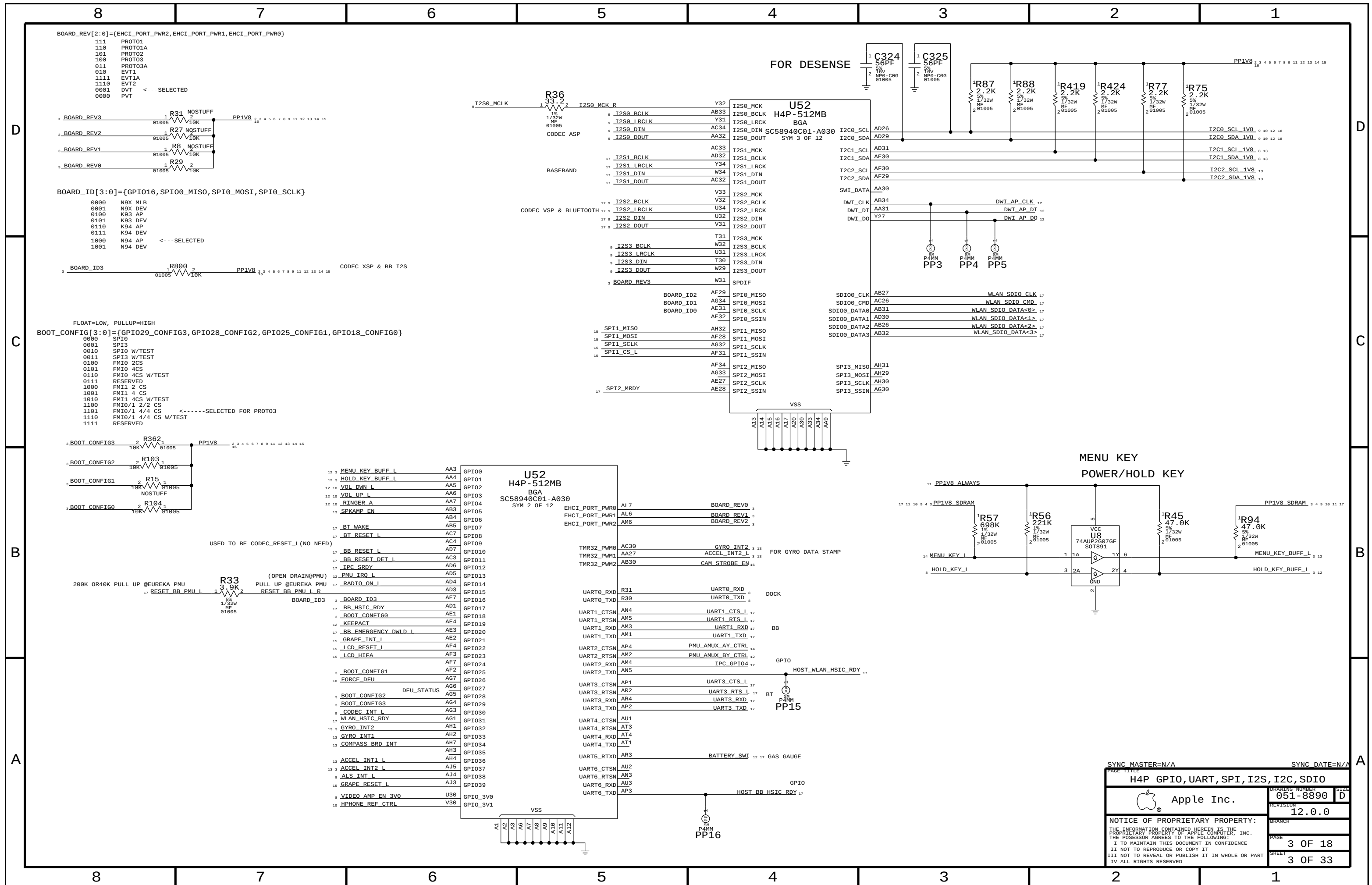
PART NUMBER	ALTERNATE FOR PART NUMBER	BOM OPTION	REF DES	COMMENTS:
107S0208	107S0150		R21, R22, R34, R35	MURATA THERMISTOR

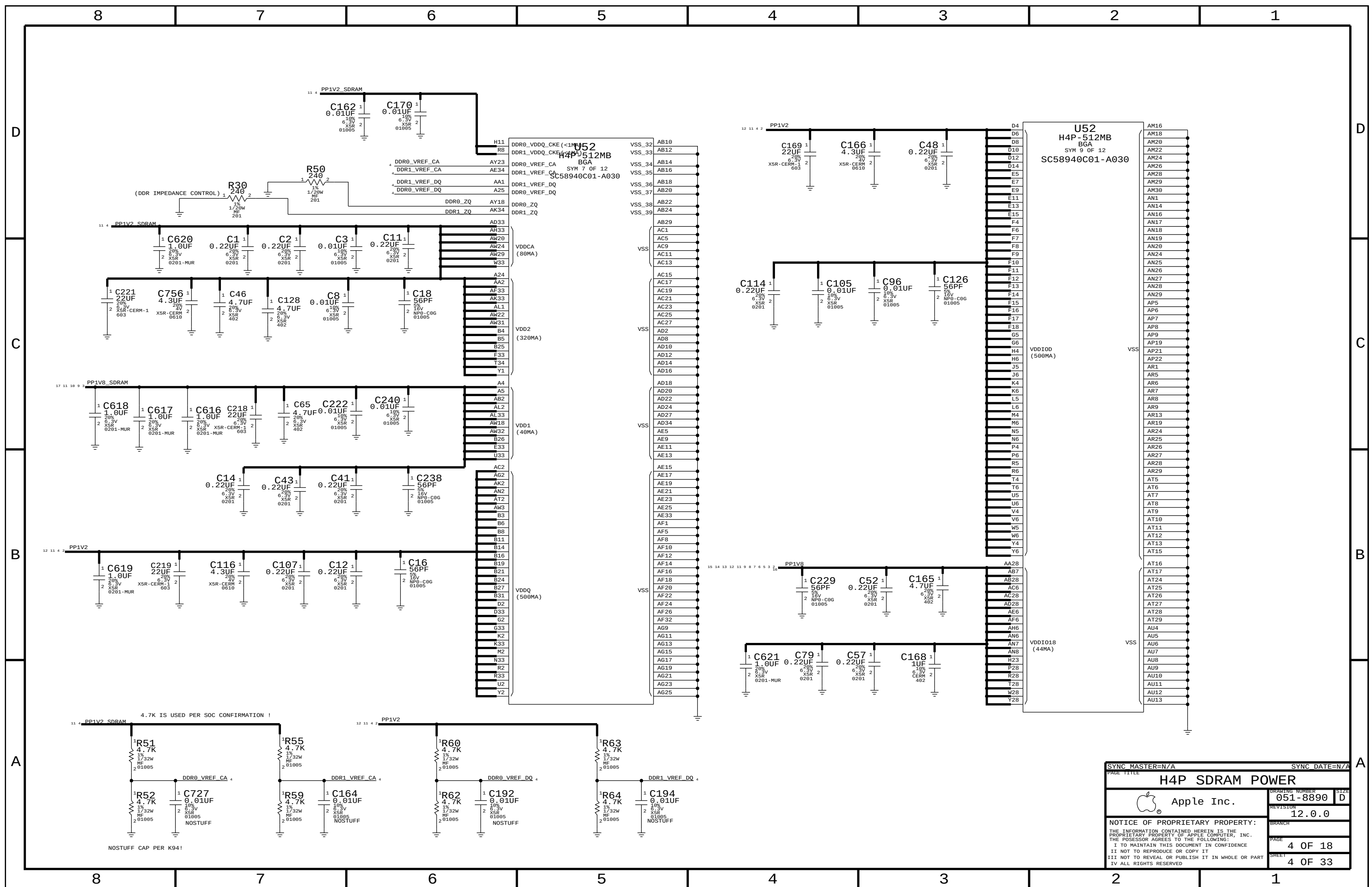
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BRD 820-3031
MCO 056-4257

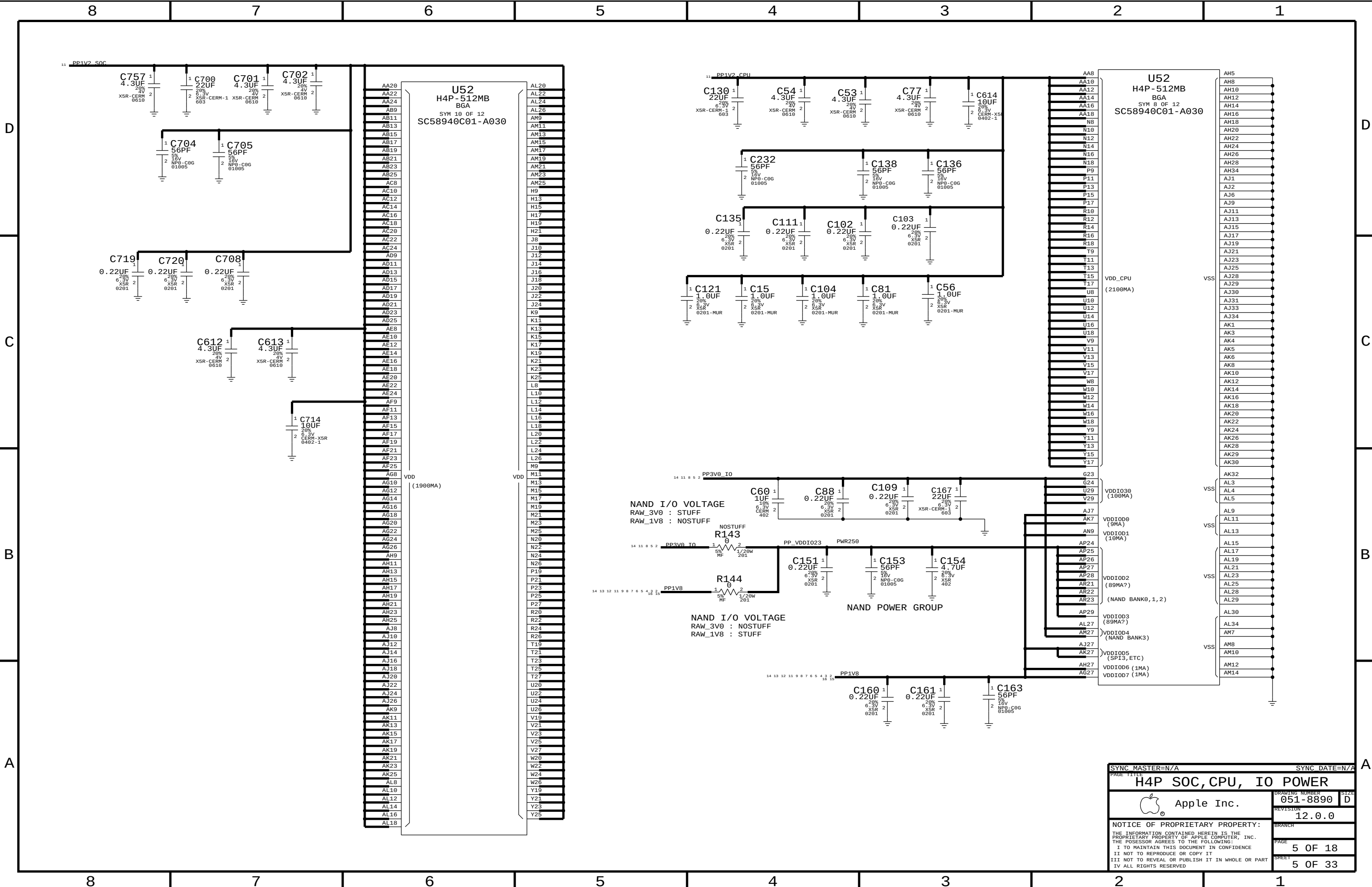
BOM	639-1723	{ 16G, GUC, US }
BOM	639-1724	{ 32G, GUC, US }
BOM	639-1777	{ 64G, GUC, US }
BOM	639-2727	{ 16G, GU, US }
BOM	639-2728	{ 32G, GU, US }
BOM	639-2729	{ 64G, GU, US }
BOM	639-2788	{ 16G, GU, EU }
BOM	639-2789	{ 32G, GU, EU }
BOM	639-2790	{ 64G, GU, EU }



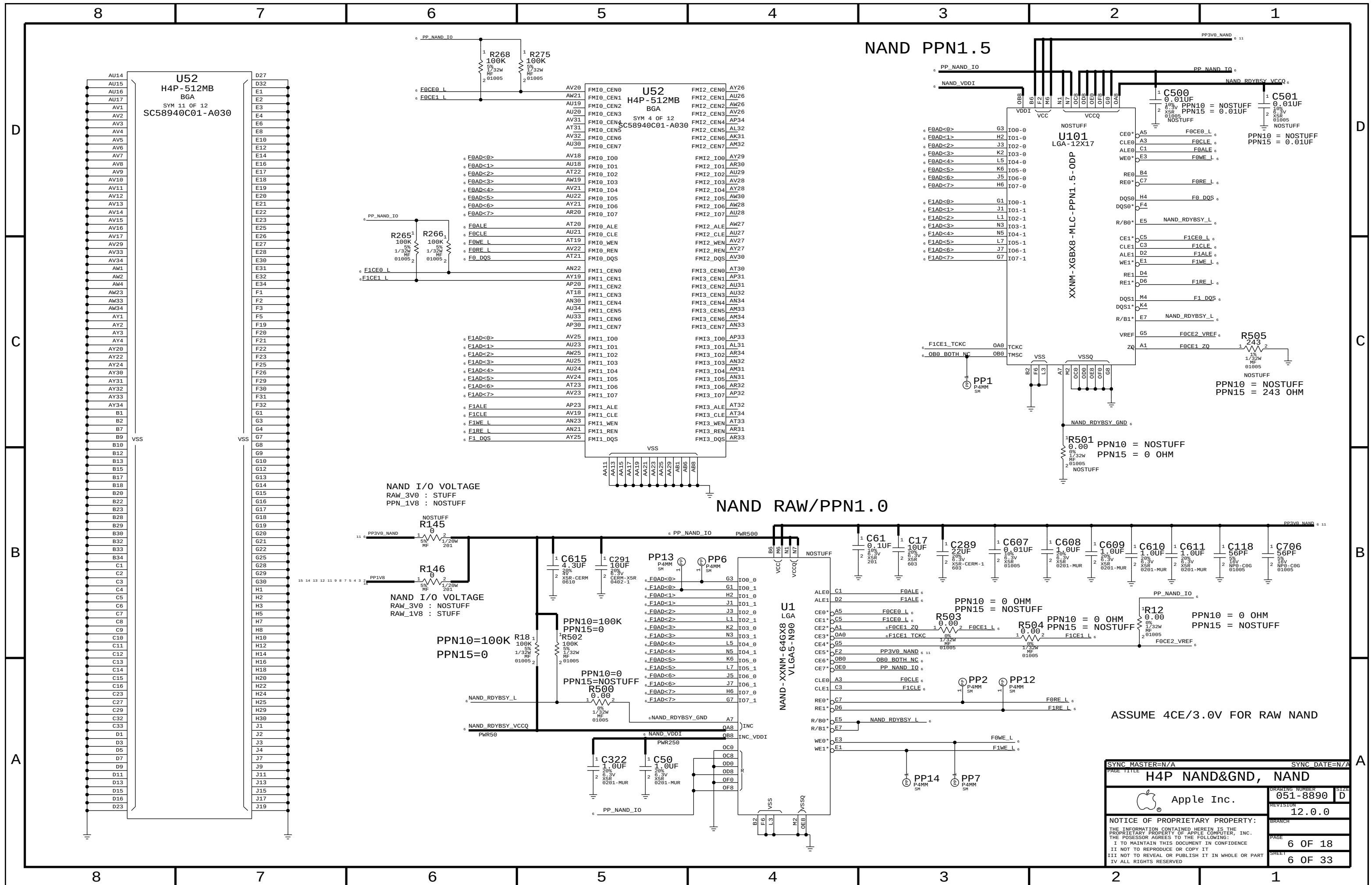
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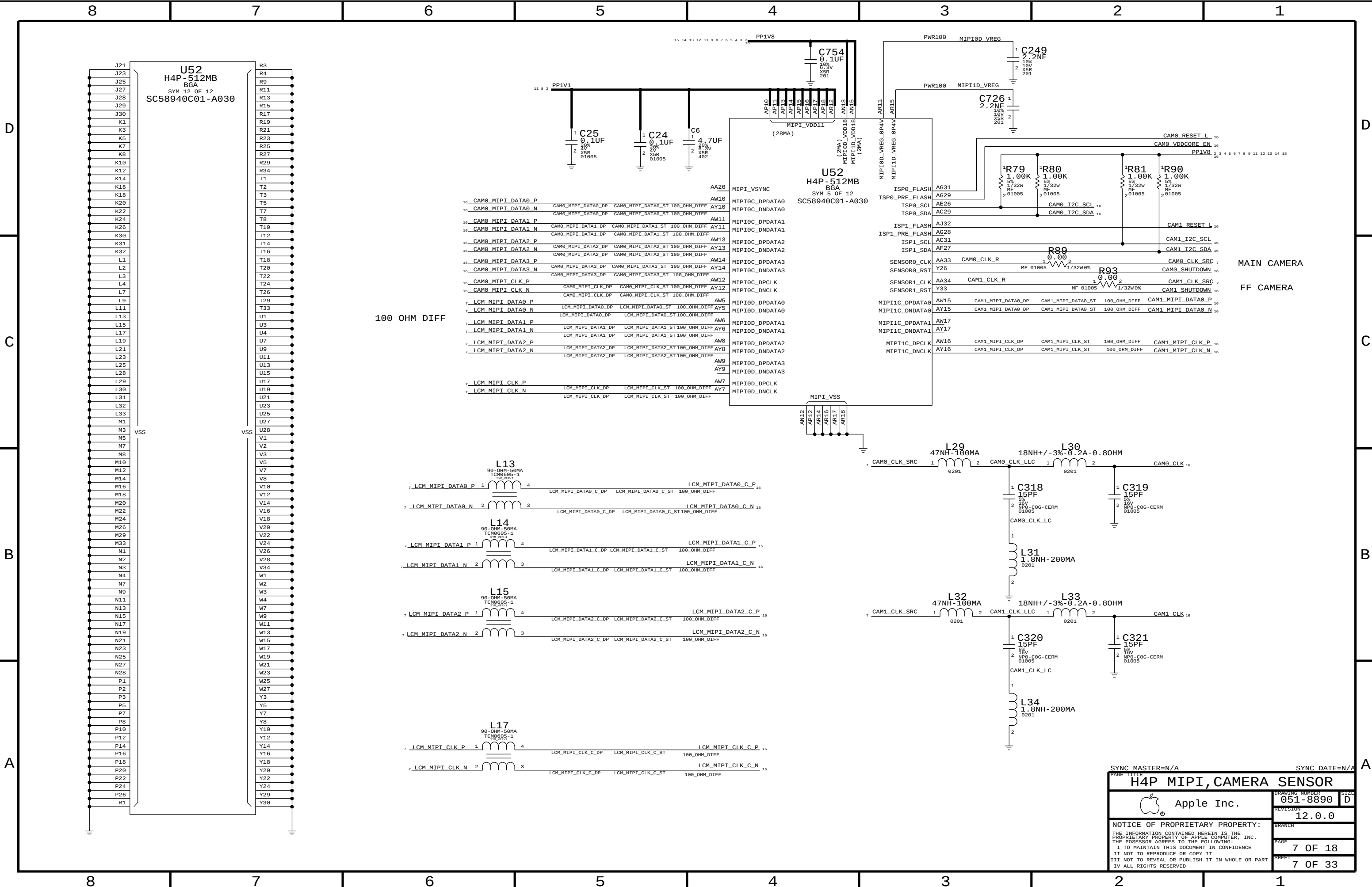




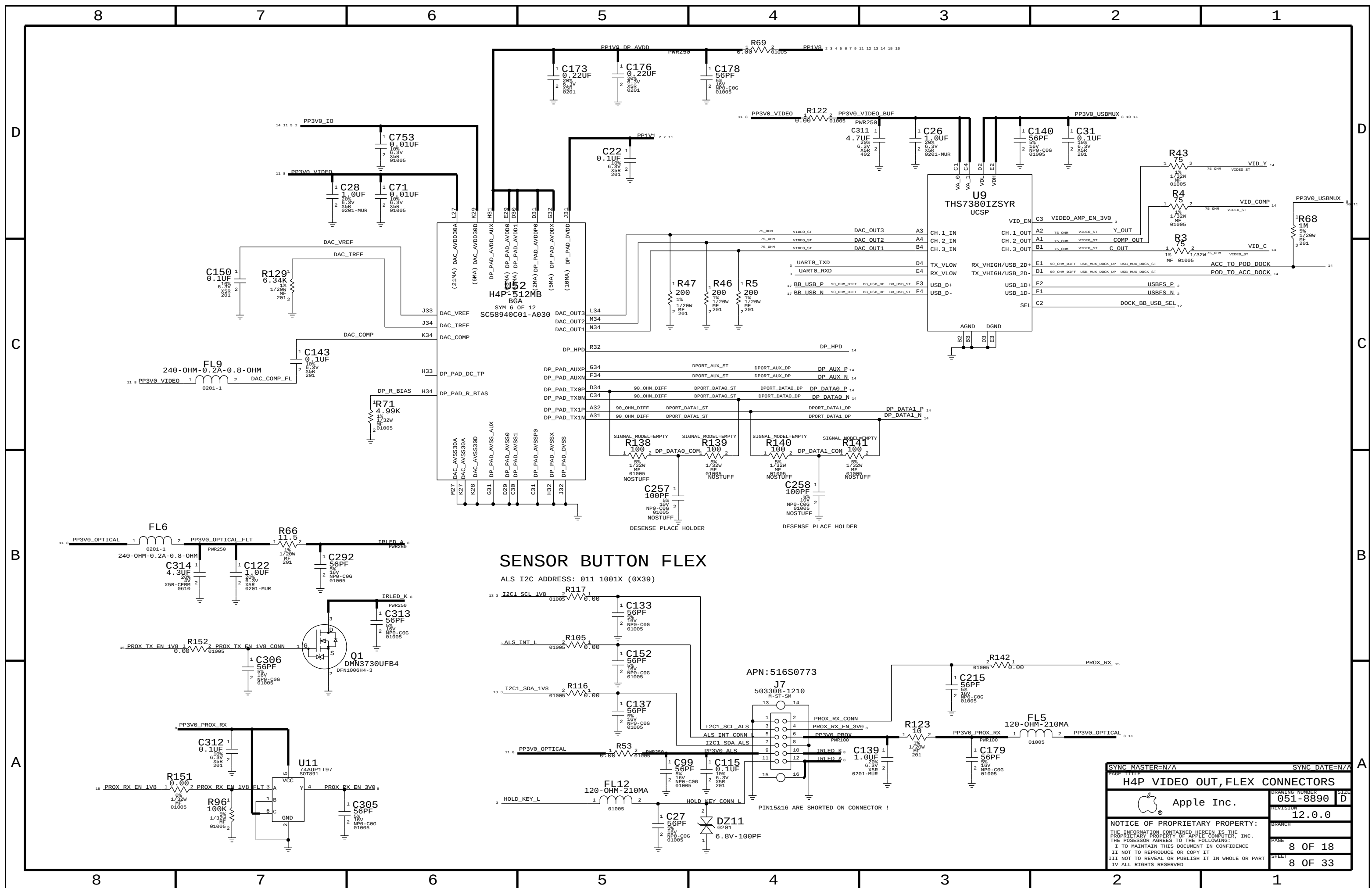


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H4P SOC, CPU, IO POWER		DRAWING NUMBER	
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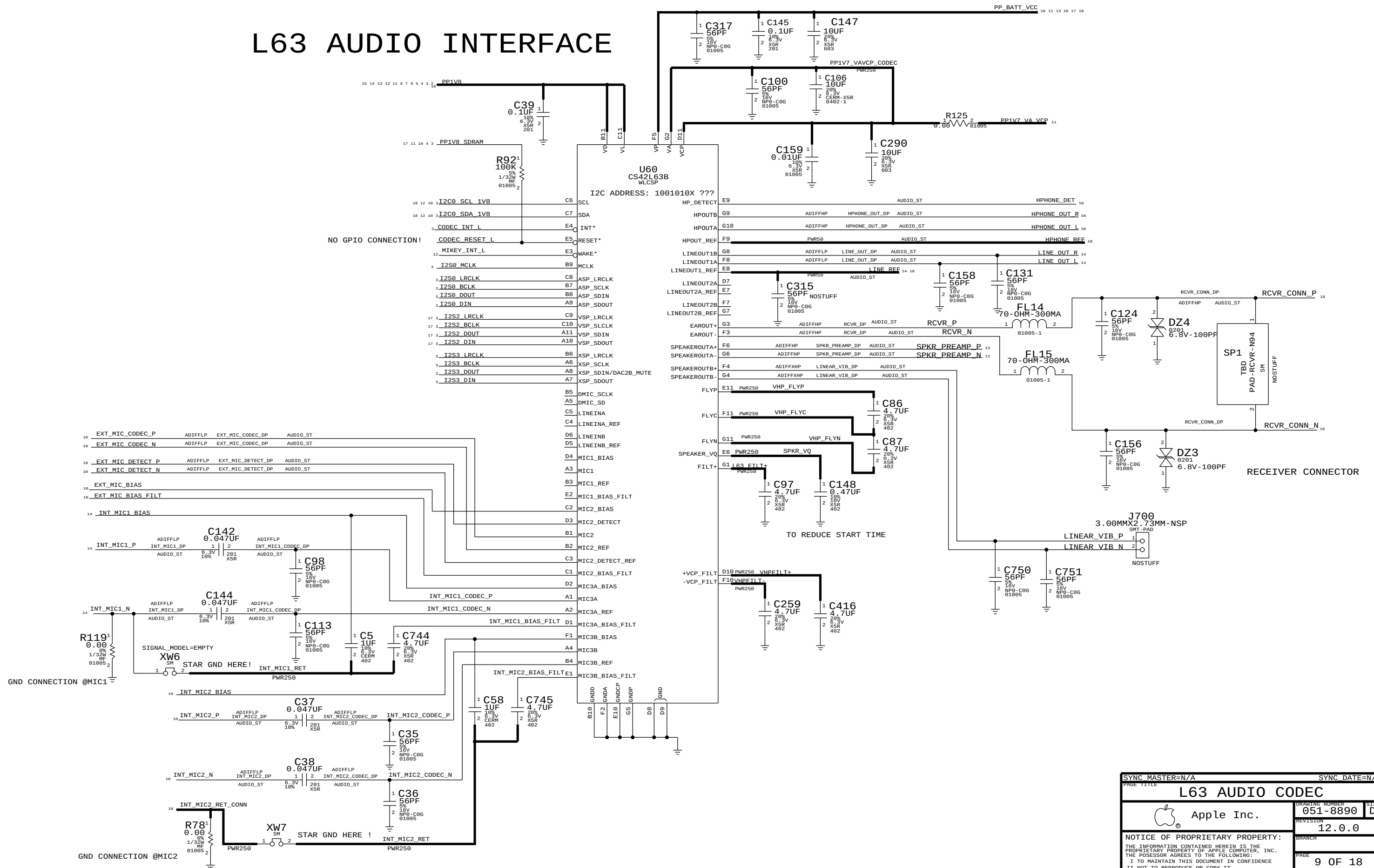




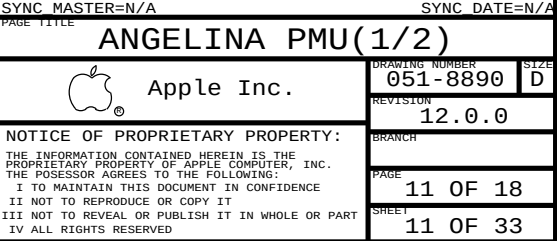
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H4P MIPI, CAMERA SENSOR		REV 051-8890	
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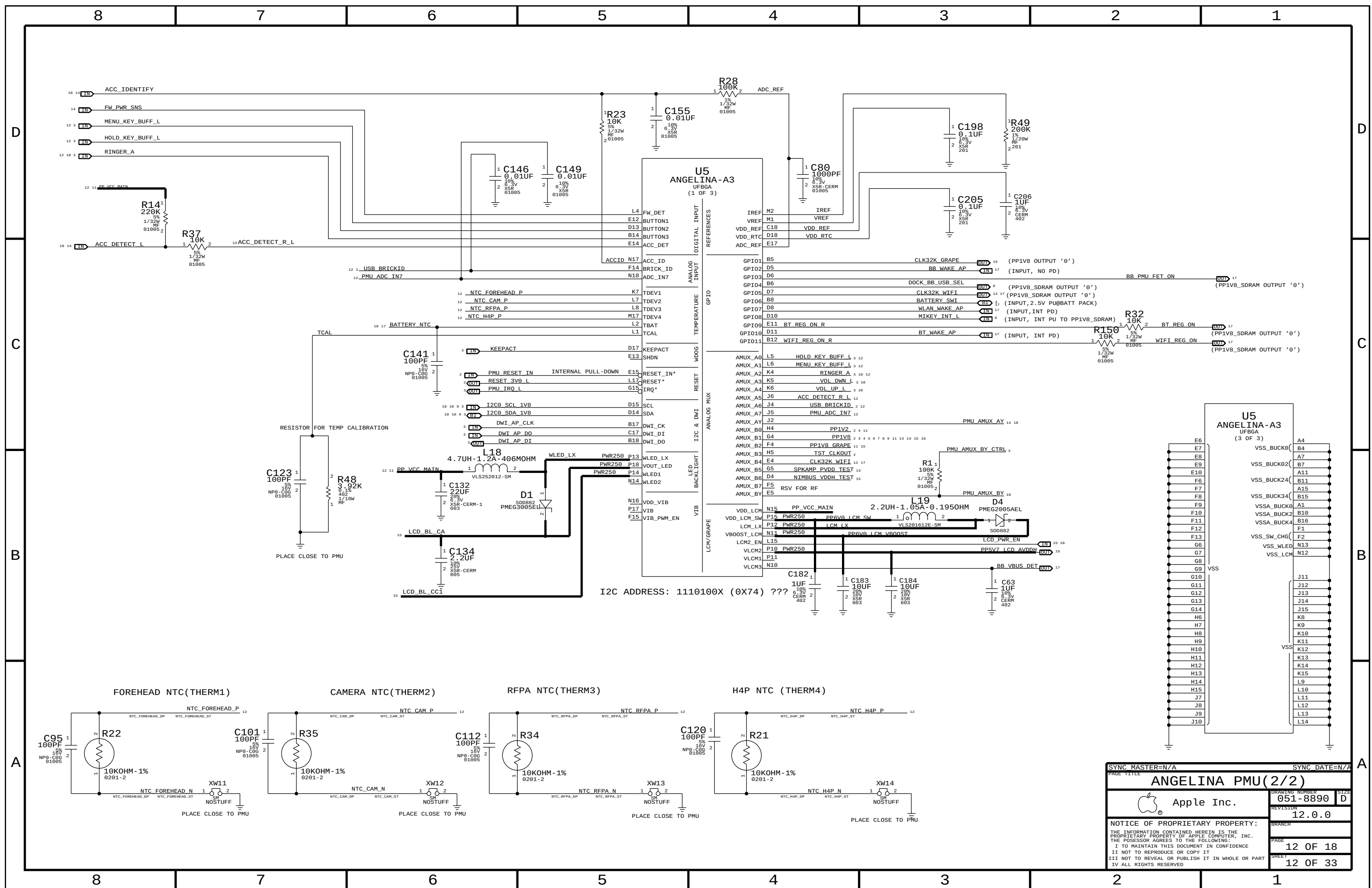


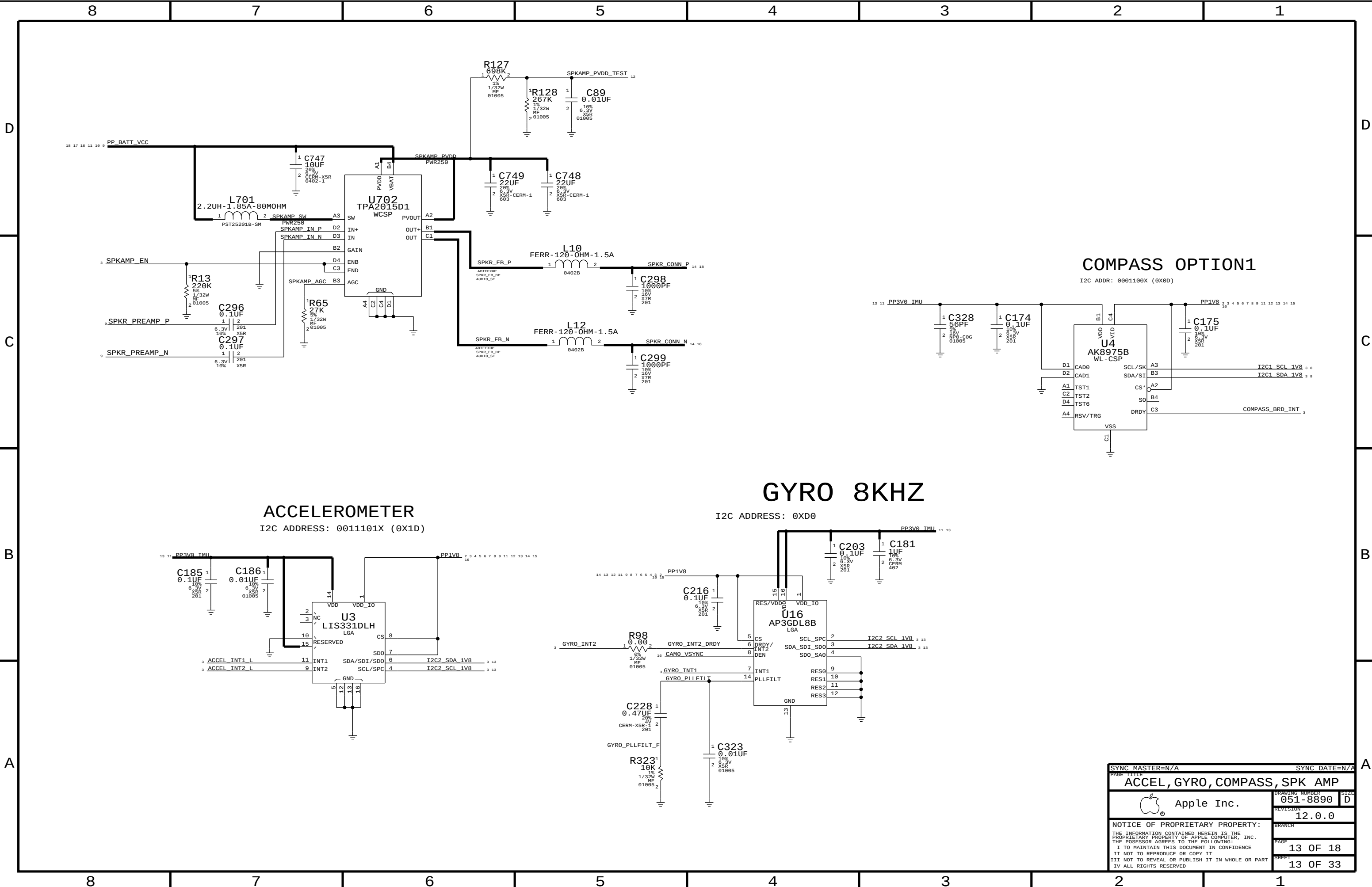
L63 AUDIO INTERFACE



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L63 AUDIO CODEC			
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		REVISION 12.0.0	
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BRANCH		PAGE	
		9 OF 18	
SHEET		9 OF 33	







ACCELEROMETER

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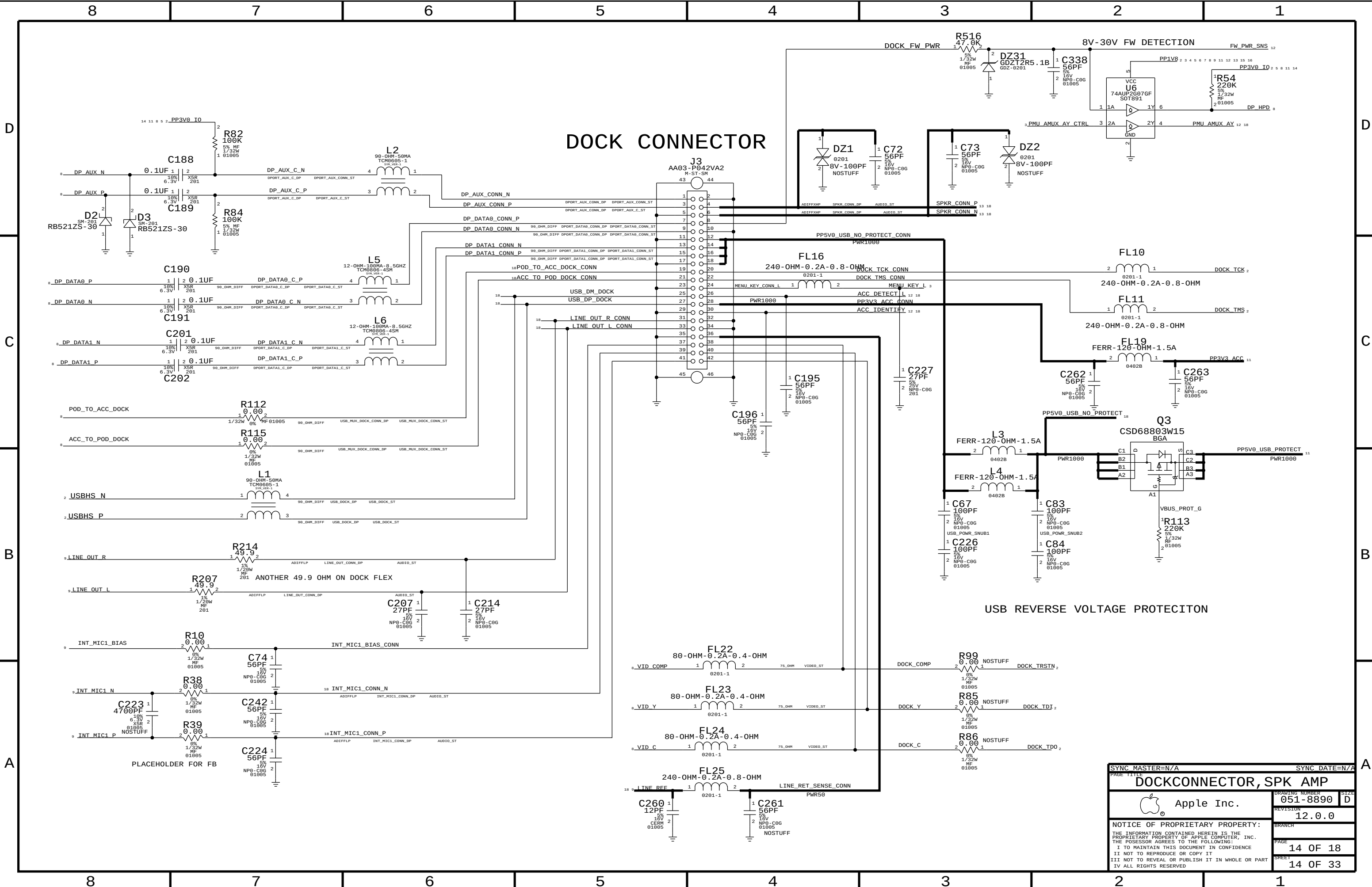
GYRO 8KHZ

I2C ADDRESS: 0XD0

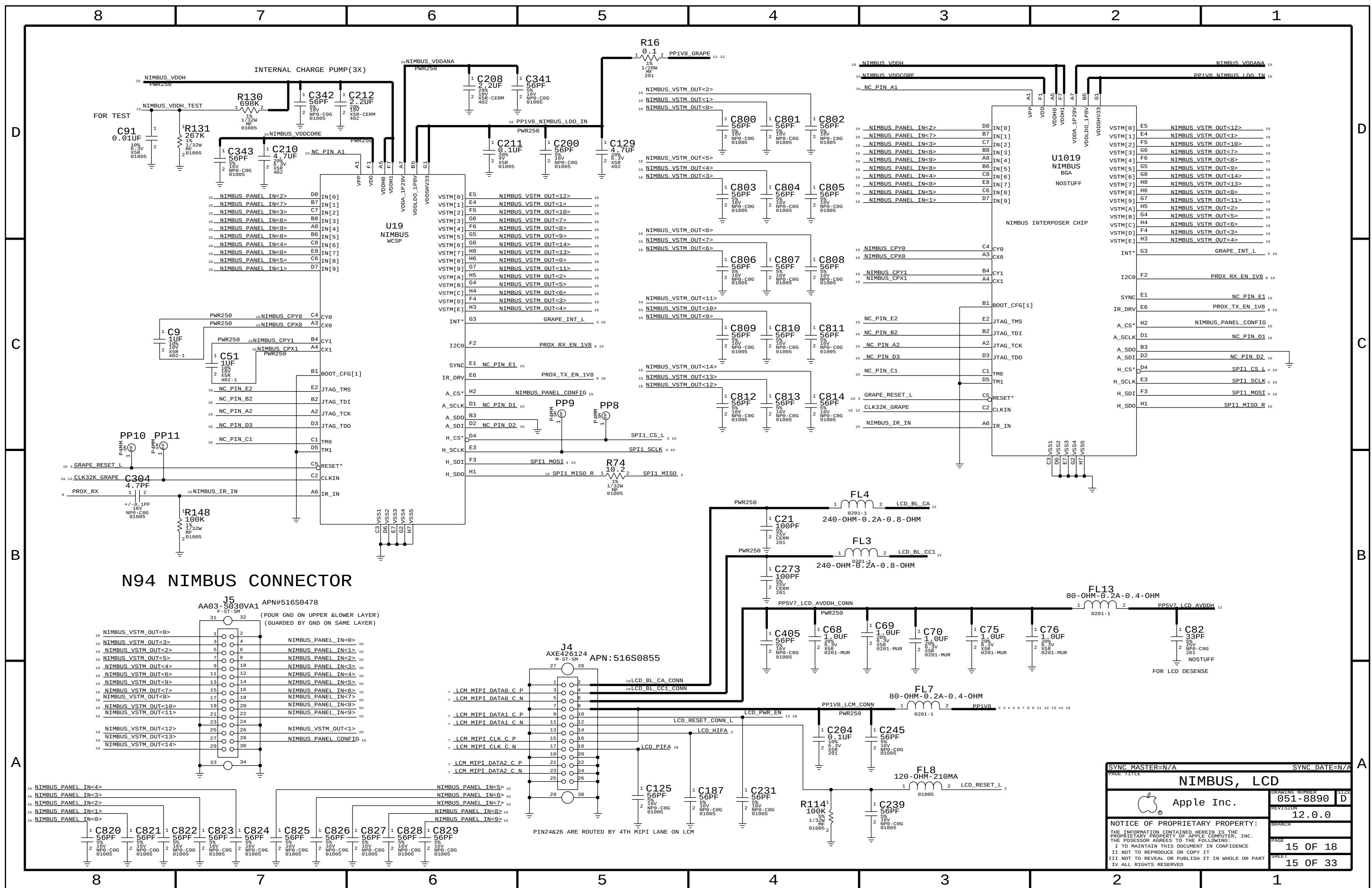
COMPASS OPTION1

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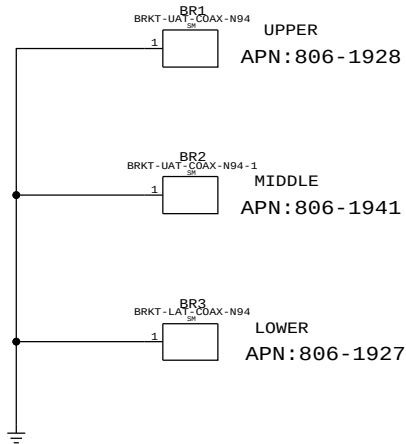
PAGE TITLE		SYNC MASTER=N/A		SYNC DATE=N/A	
ACCEL, GYRO, COMPASS, SPK AMP		DRAWING NUMBER		SIZE	
Apple Inc.		051-8890		D	
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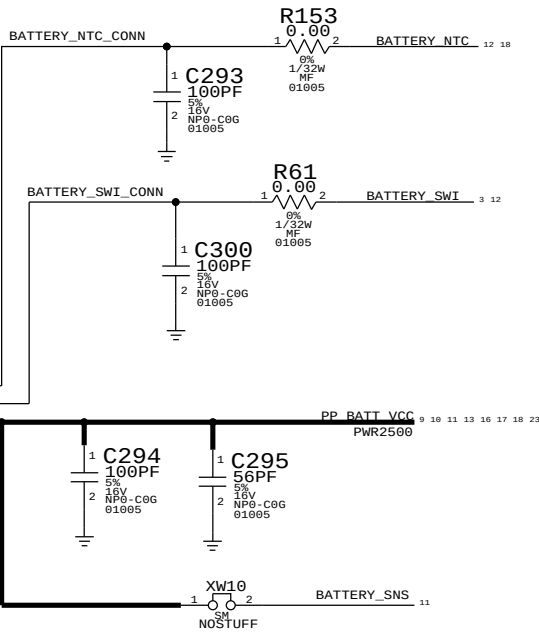
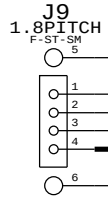
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PAGE TITLE		DOCKCONNECTOR, SPK AMP	
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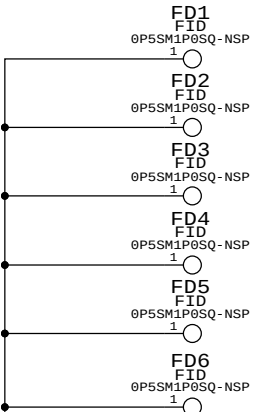
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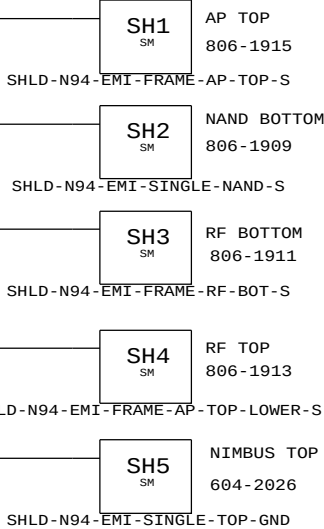
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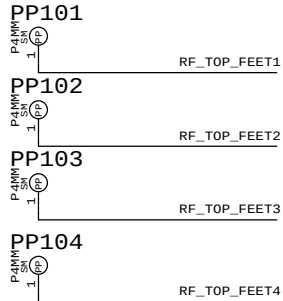
FIDUCIALS



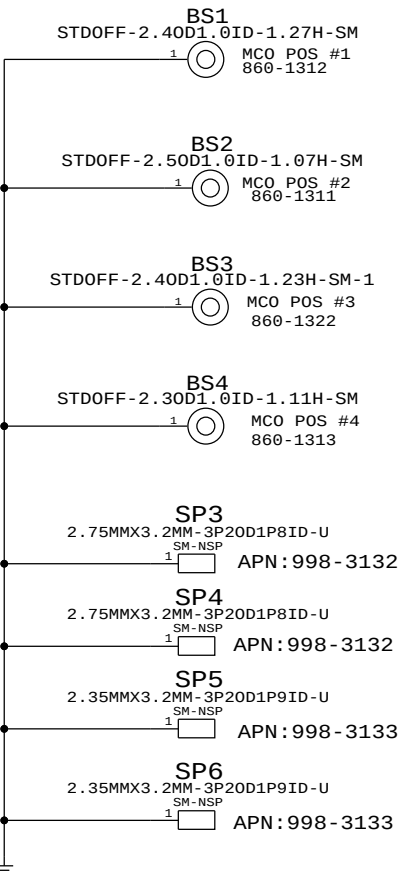
SHIELDS



FOR RF TOP SHIELDING FEET
WILL CONNECT TO GND VIA SHIELD



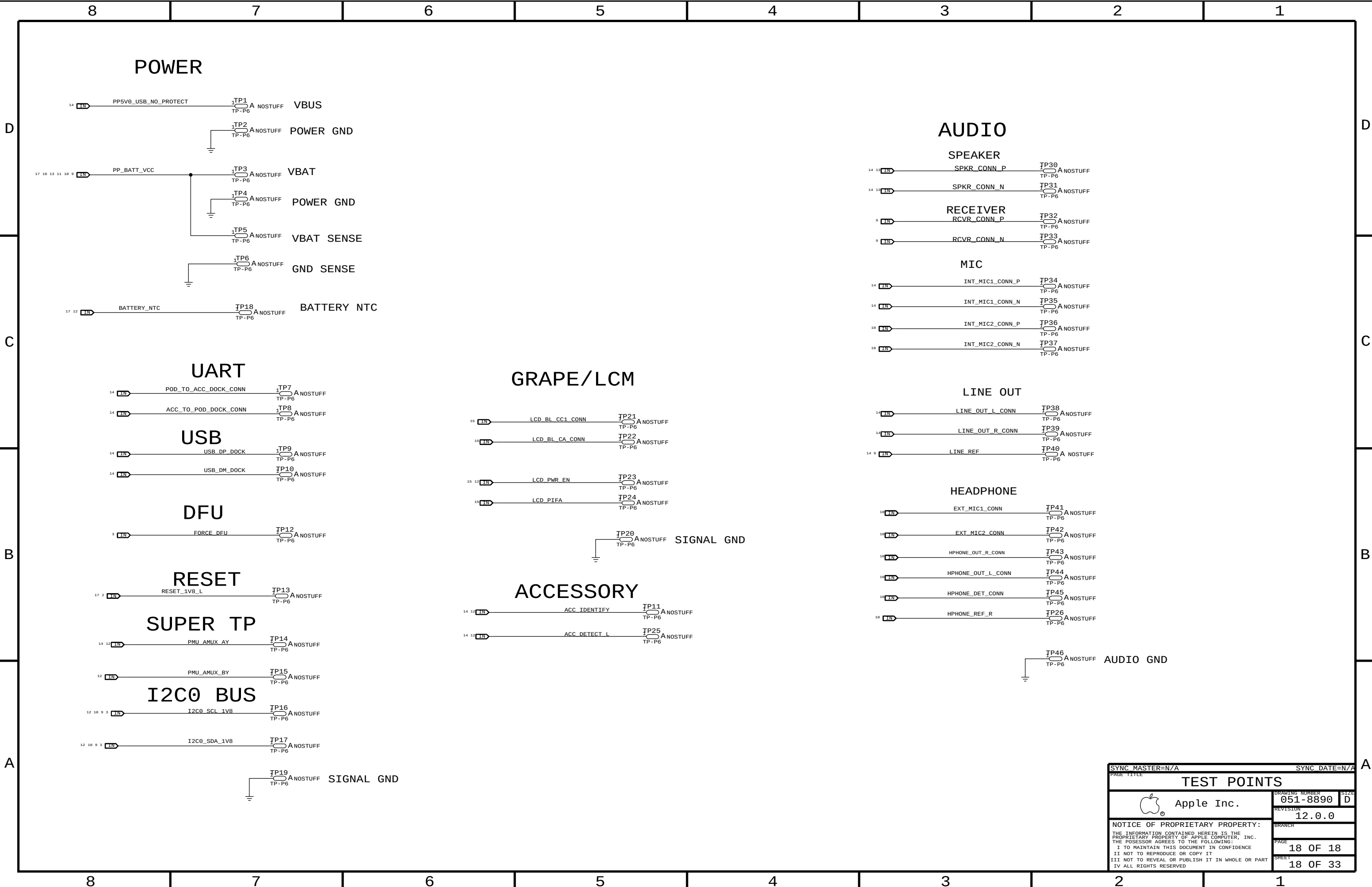
STANDOFFS



AP/RADIO INTERFACE

			SUBDESIGN_SUFFIX=RF
			I550
23 18 17 16 13 11 10 9	PP_BATT_VCC	MAKE_BASE=TRUE	BATT_VCC
23 3	RADIO_ON_L	MAKE_BASE=TRUE	RADIO_ON_N
20 3	BB_RESET_DET_L	MAKE_BASE=TRUE	RESET_DET_N
23 12	BB_PMU_FET_ON	MAKE_BASE=TRUE	FET_ON (ANGELINA)
23 3	RESET_BB_PMU_L	MAKE_BASE=TRUE	RESET_PMU_N (AP - H4P)
20 3	BB_RESET_L	MAKE_BASE=TRUE	BB_RST_N
20 12	BB_WAKE_AP	MAKE_BASE=TRUE	BB_WAKE_AP
25 18 2	RESET_1V8_L	MAKE_BASE=TRUE	RF_RESET_N
20 16	LED_DRIVE_GSMB	MAKE_BASE=TRUE	GSM_TXBURST_IND
20 3	SPI2_MRDY	MAKE_BASE=TRUE	IPC_MRDY
20 3	IPC_SRDY	MAKE_BASE=TRUE	IPC_SRDY
20 3	IPC_GPI04	MAKE_BASE=TRUE	IPC_GPI04
20 12	BB_VBUS_DET	MAKE_BASE=TRUE	BB_USB_VBUS
20 8	BB_USB_N	MAKE_BASE=TRUE	BB_USB_DN
20 8	BB_USB_P	MAKE_BASE=TRUE	BB_USB_DP
20 3	UART1_RTS_L	MAKE_BASE=TRUE	BB_UART_CTS_N
20 3	UART1_CTS_L	MAKE_BASE=TRUE	BB_UART_RTS_N
20 3	UART1_TXD	MAKE_BASE=TRUE	BB_UART_RXD
20 3	UART1_RXD	MAKE_BASE=TRUE	BB_UART_TXD
20 3	I2S1_BCLK	MAKE_BASE=TRUE	BB_I2S_CLK
20 3	I2S1_DOUT	MAKE_BASE=TRUE	BB_I2S_RXD
20 3	I2S1_DIN	MAKE_BASE=TRUE	BB_I2S_TXD
20 3	I2S1_LRCLK	MAKE_BASE=TRUE	BB_I2S_WS
32 11 10 9 4 3	PP1V8_SDRAM	MAKE_BASE=TRUE	WL_BT_VDDIO
32 12	BT_REG_ON	MAKE_BASE=TRUE	BT_REG_ON
32 12	WIFI_REG_ON	MAKE_BASE=TRUE	WLAN_REG_ON
32 3	WLAN_SDIO_CLK	MAKE_BASE=TRUE	WLAN_SDIO_CLK
32 3	WLAN_SDIO_CMD	MAKE_BASE=TRUE	WLAN_SDIO_CMD
32 3	WLAN_SDIO_DATA<3..0>	MAKE_BASE=TRUE	WLAN_SDIO_DATA<3..0>
32 12	WLAN_WAKE_AP	MAKE_BASE=TRUE	HOST_WAKE_WLAN
32 3	BT_WAKE	MAKE_BASE=TRUE	BT_WAKE
32 12	CLK32K_WIFI	MAKE_BASE=TRUE	CLK32K_AP
32 3	BT_RESET_L	MAKE_BASE=TRUE	BT_RESET_N
32 12	BT_WAKE_AP	MAKE_BASE=TRUE	HOST_WAKE_BT
32 3	UART3_RTS_L	MAKE_BASE=TRUE	BT_UART_CTS_N
32 3	UART3_CTS_L	MAKE_BASE=TRUE	BT_UART_RTS_N
32 3	UART3_TXD	MAKE_BASE=TRUE	BT_UART_RXD
32 3	UART3_RXD	MAKE_BASE=TRUE	BT_UART_TXD
32 9 3	I2S2_BCLK	MAKE_BASE=TRUE	BT_PCM_CLK
32 9 3	I2S2_DOUT	MAKE_BASE=TRUE	BT_PCM_IN
32 9 3	I2S2_DIN	MAKE_BASE=TRUE	BT_PCM_OUT
32 9 3	I2S2_LRCLK	MAKE_BASE=TRUE	BT_PCM_SYNC
20 2	HSIC1_DATA	50_OHM HSIC_ST	HSIC_BB_DATA
20 2	HSIC1_STB	50_OHM HSIC_ST	HSIC_BB_STROBE
20 3	HOST_BB_HSIC_RDY	MAKE_BASE=TRUE	HOST_BB_HSIC_RDY
20 3	HOST_WLAN_HSIC_RDY	MAKE_BASE=TRUE	HOST_WLAN_HSIC_RDY
20 3	BB_HSIC_RDY	MAKE_BASE=TRUE	BB_HSIC_RDY
32 2	HSIC2_DATA	50_OHM HSIC_ST	HSIC_WLAN_DATA
32 2	HSIC2_STB	50_OHM HSIC_ST	HSIC_WLAN_STROBE
20 3	BB_EMERGENCY_DWLD_L	MAKE_BASE=TRUE	BB_EMERGENCY_DWLD
32 3	WLAN_HSIC_RDY	MAKE_BASE=TRUE	WLAN_HSIC_RDY

SYNC MASTER=N/A		SYNC DATE=N/A	
PAGE TITLE		RF INT, SHIELD, STNDOFFS	
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		REVISION	12.0.0
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TEST POINTS			
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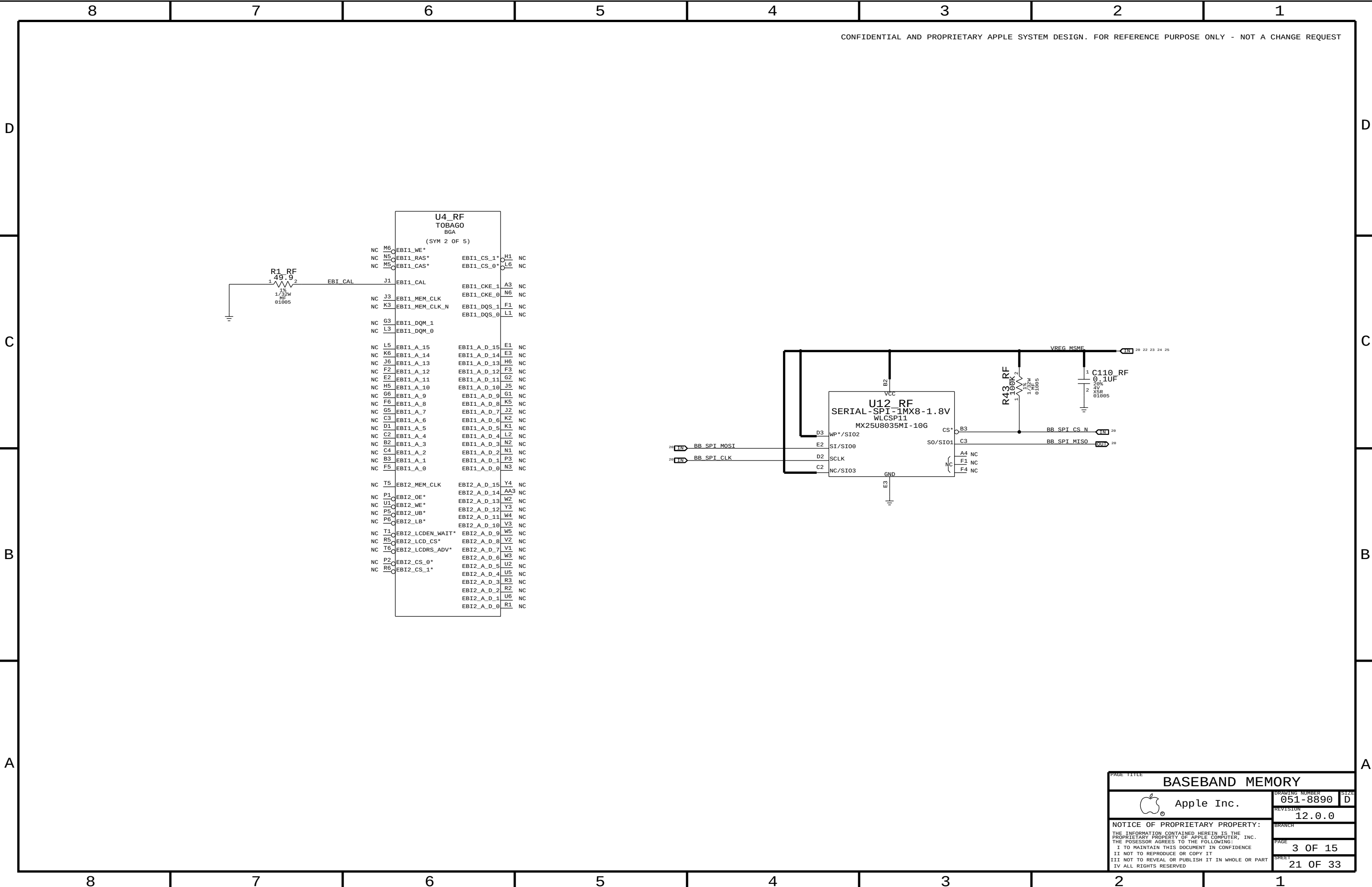
8		7		6		5		4		3		2		1											
1. ALL RESISTANCE VALUES ARE IN OHMS, 0.1 WATT +/- 5%. 2. ALL CAPACITANCE VALUES ARE IN MICROFARADS. 3. ALL CRYSTALS & OSCILLATOR VALUES ARE IN HERTZ.												REV	ECN	DESCRIPTION OF REVISION	CK APPD DATE										
												12	0001170763	ENGINEERING RELEASED	2011-07-05										
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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													
8												7		6		5		4		3		2		1	
DRAWING TITLE N94 RADIO_MLB_V3 SUBDESIGN												DRAWING NUMBER 051-8890		SIZE D											
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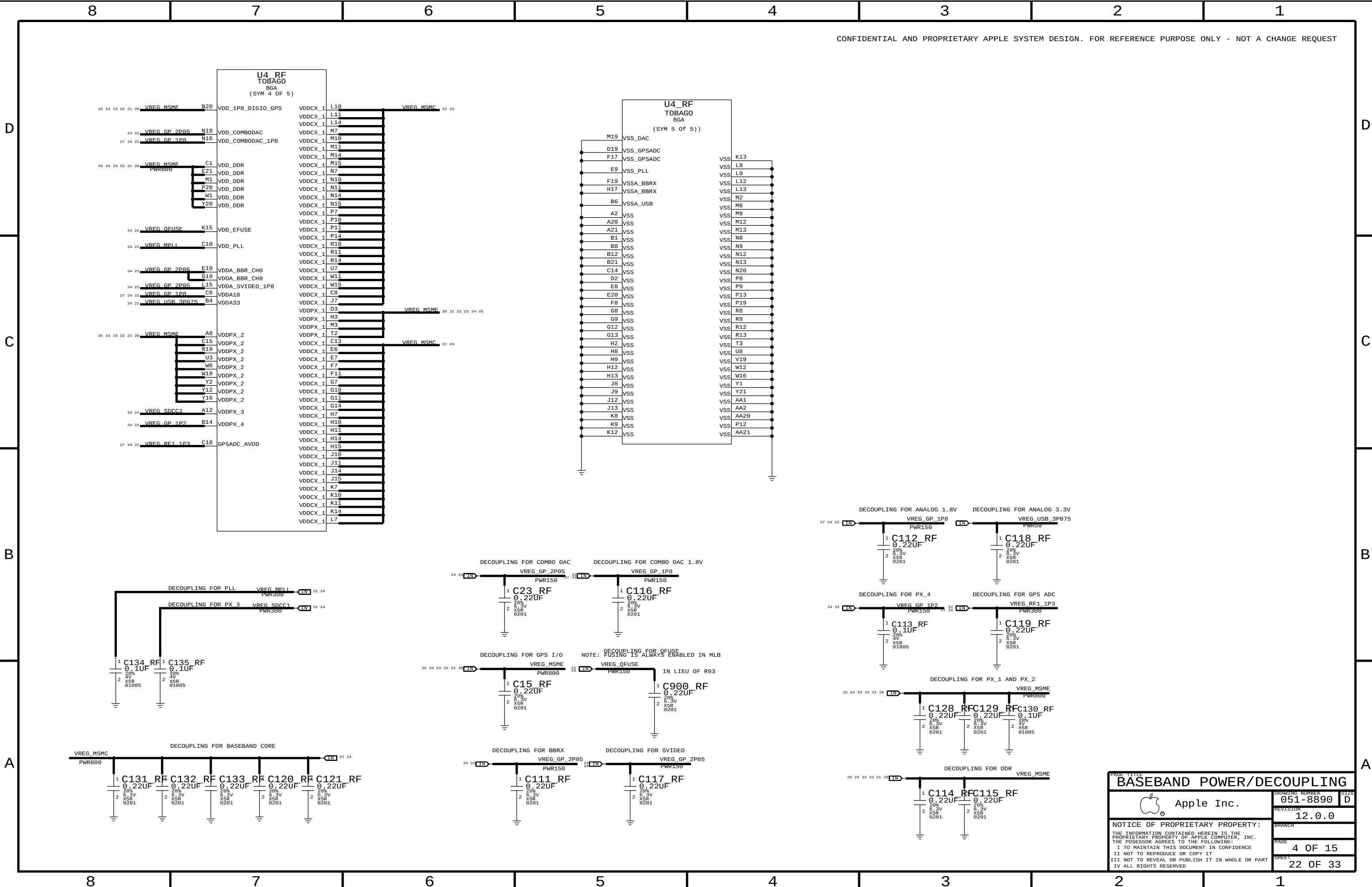
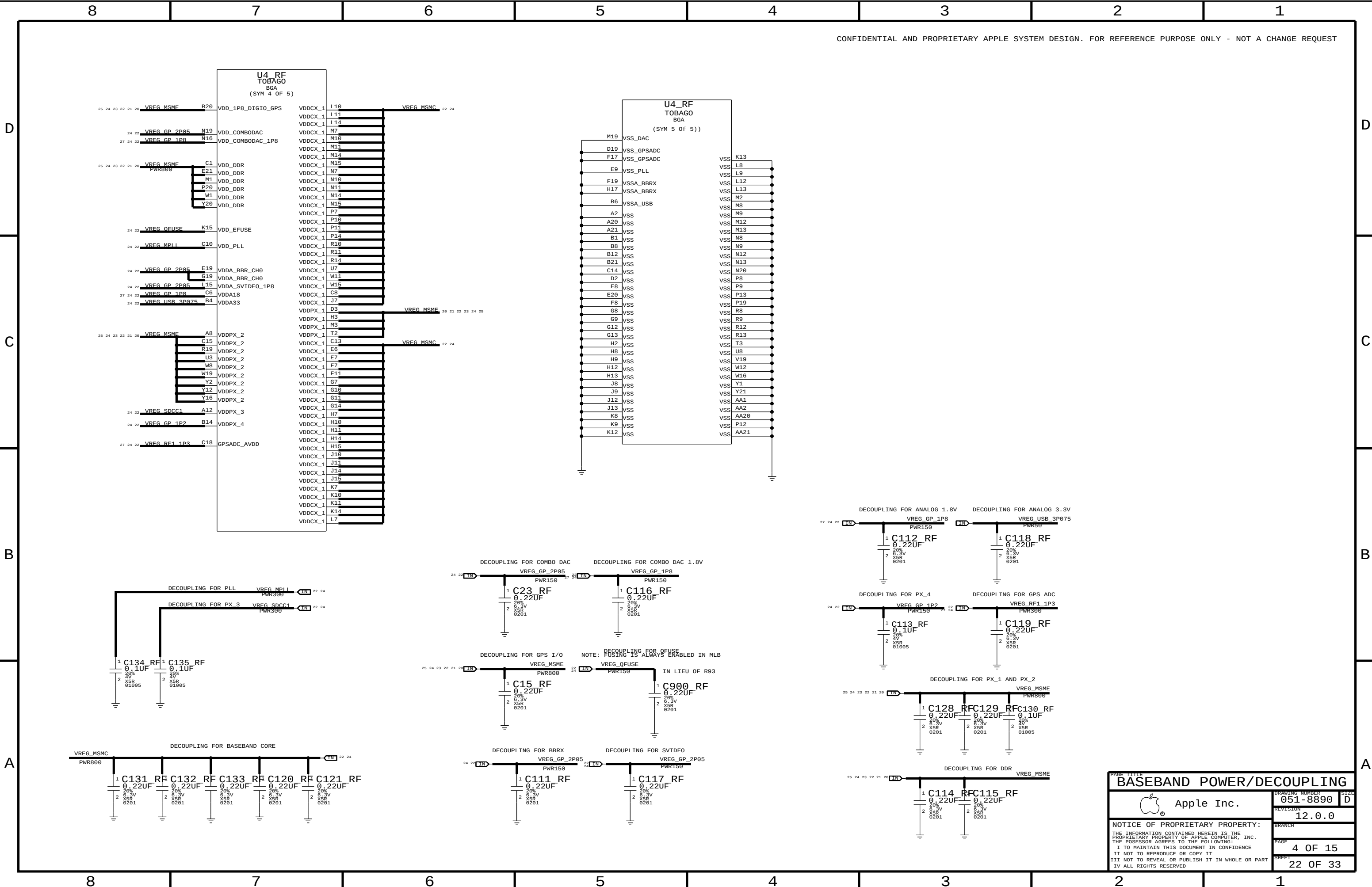
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U4_RF TOBAGO BGA (SYM 4 OF 5)

U4_RF TOBAGO BGA (SYM 5 OF 5)

DECOUPLING FOR PLL VREG_MPLI PWR300

DECOUPLING FOR PX_3 VREG_SDCC1 PWR300

DECOUPLING FOR COMBO DAC VREG_GP_2P05 PWR150

DECOUPLING FOR COMBO DAC 1.8V VREG_GP_1P8 PWR150

DECOUPLING FOR GPS I/O VREG_MSME PWR800

DECOUPLING FOR BBRX VREG_GP_2P05 PWR150

DECOUPLING FOR SVIDEO VREG_GP_2P05 PWR150

DECOUPLING FOR ANALOG 1.8V VREG_GP_1P8 PWR150

DECOUPLING FOR ANALOG 3.3V VREG_USB_3P075 PWR500

DECOUPLING FOR PX_4 VREG_GP_1P2 PWR150

DECOUPLING FOR GPS ADC VREG_RF1_1P3 PWR300

DECOUPLING FOR PX_1 AND PX_2 VREG_MSME PWR800

DECOUPLING FOR DDR VREG_MSME PWR800

DECOUPLING FOR BASEBAND CORE VREG_MSME PWR800

NOTE: FUSING IS ALWAYS ENABLED IN MLB

IN LIEU OF R93

Apple Inc.

051-8890

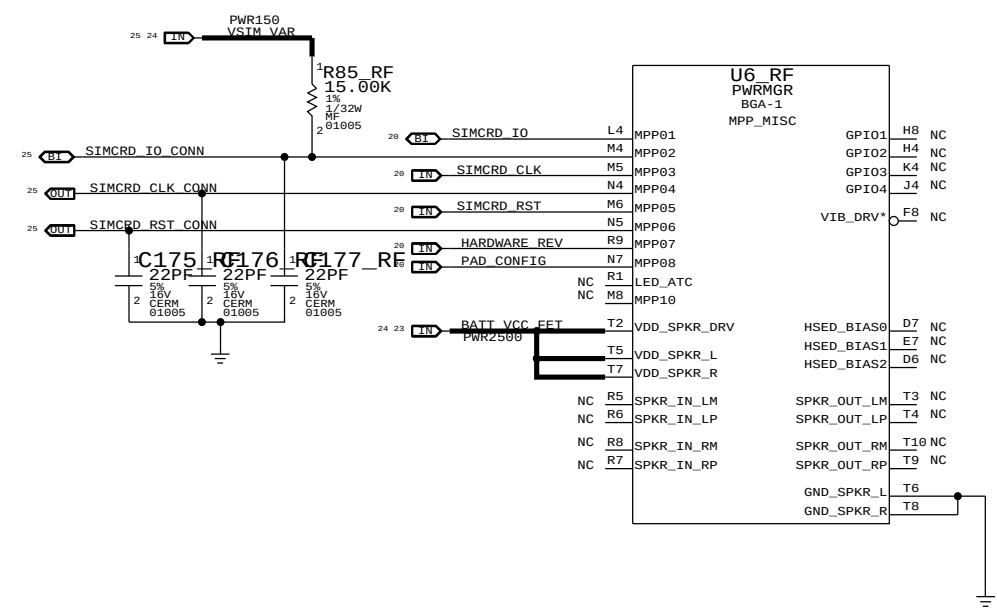
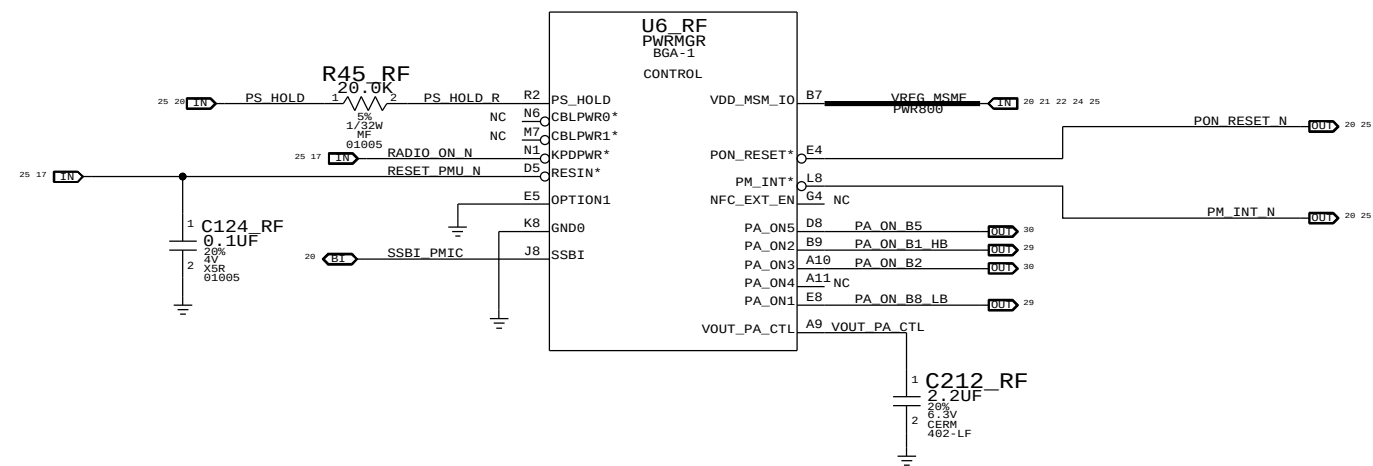
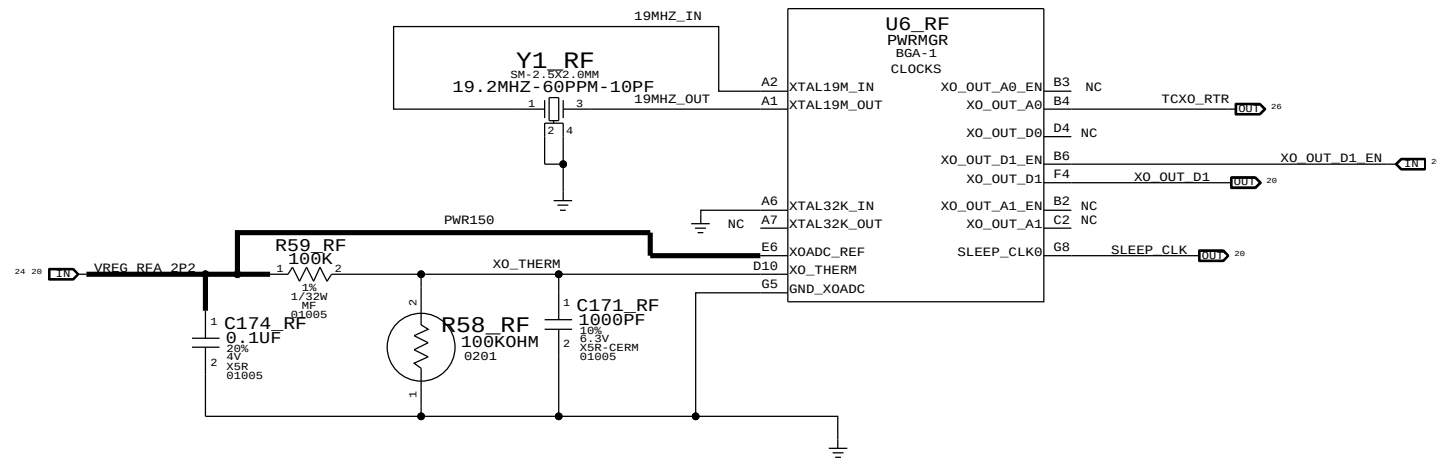
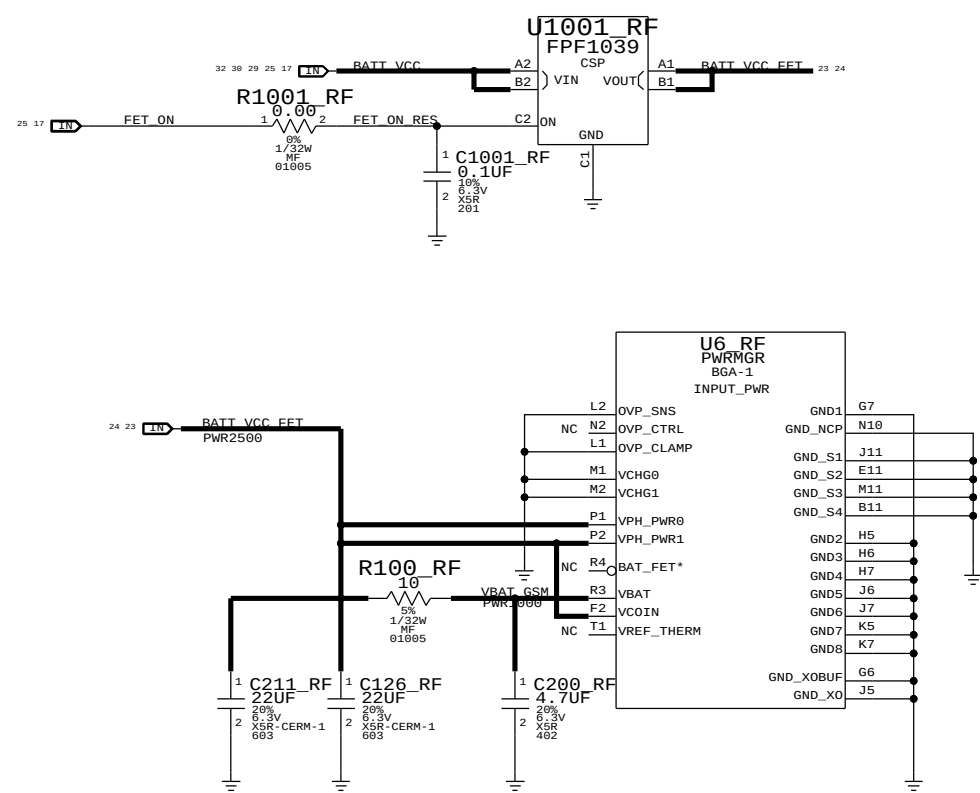
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BASEBAND PMU

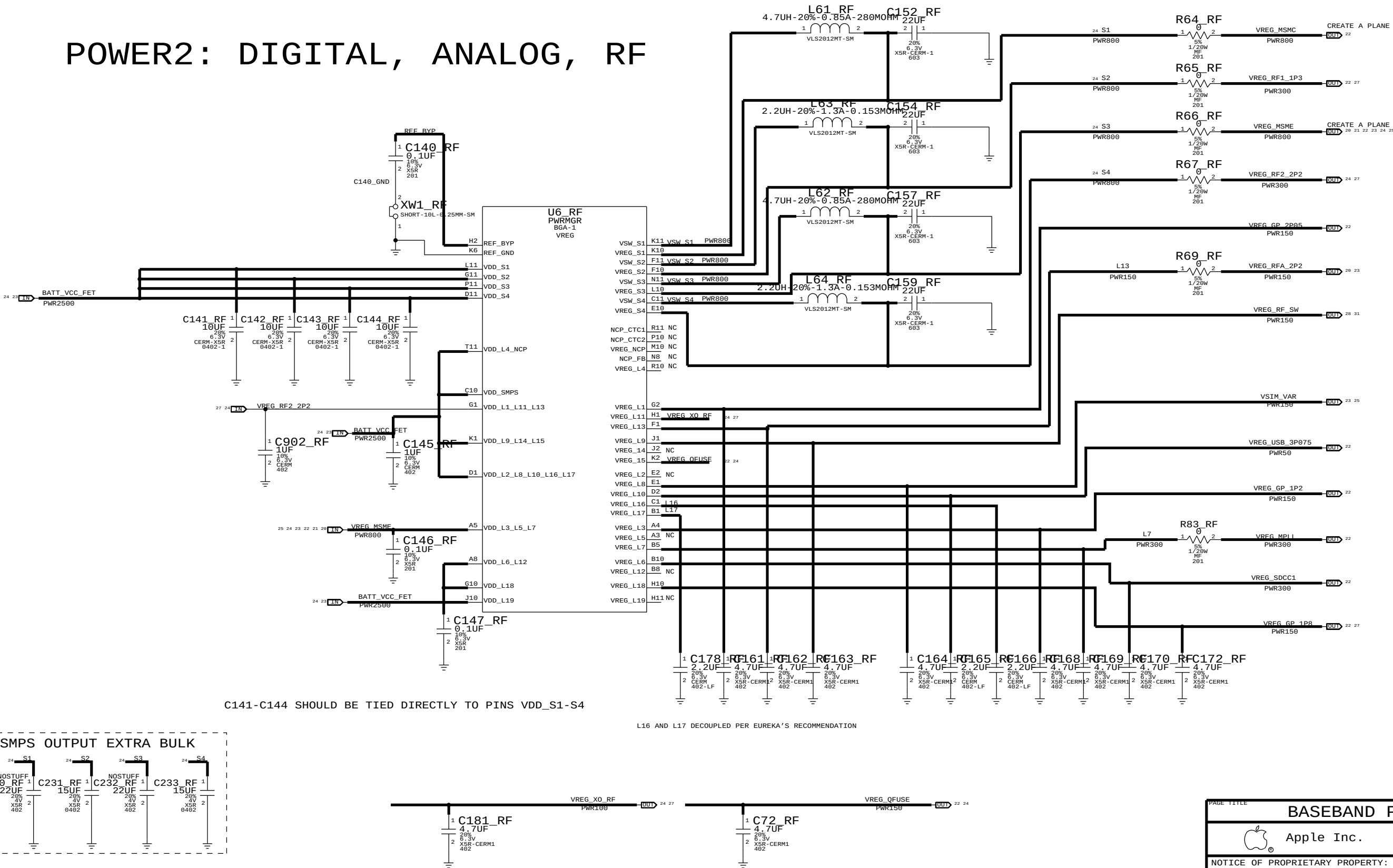
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BASEBAND PMU CONT.

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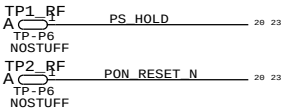
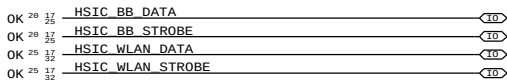
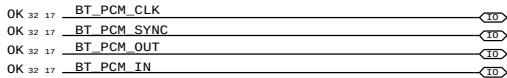
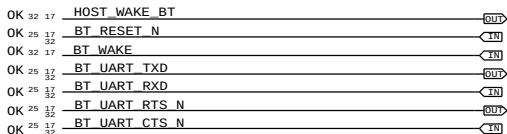
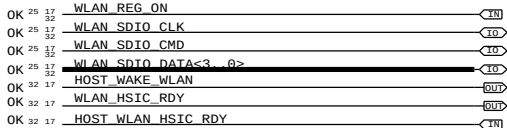
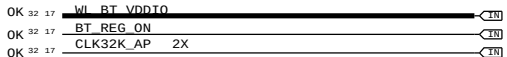
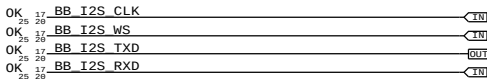
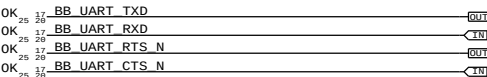
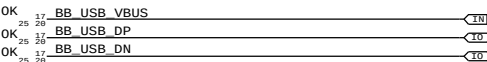
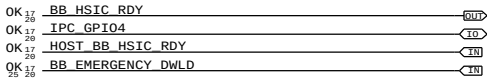
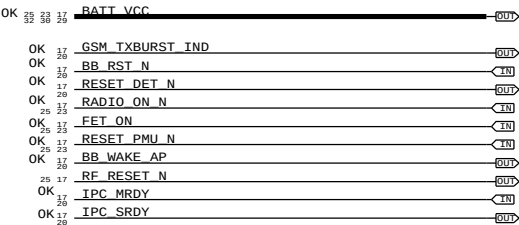
POWER2: DIGITAL, ANALOG, RF



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DEBUG CONNECTOR

AP CONNECTIONS

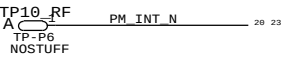


SLEEP_CLK_RF -- TEST POINT

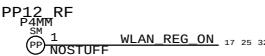
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TCXO_RTR_RF -- TEST POINT

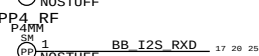
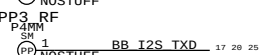
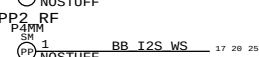
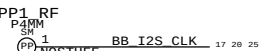
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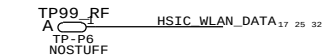
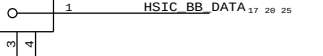
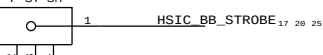
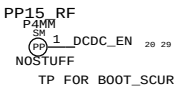
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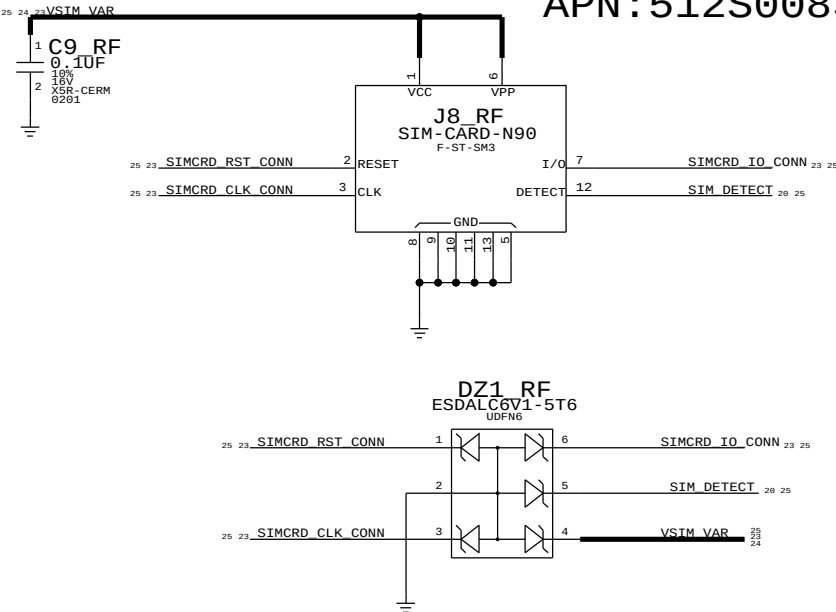


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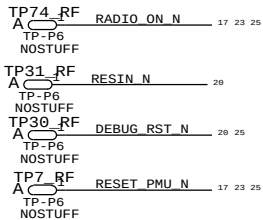


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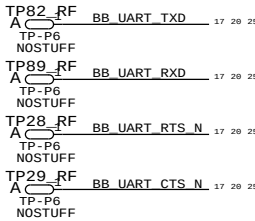
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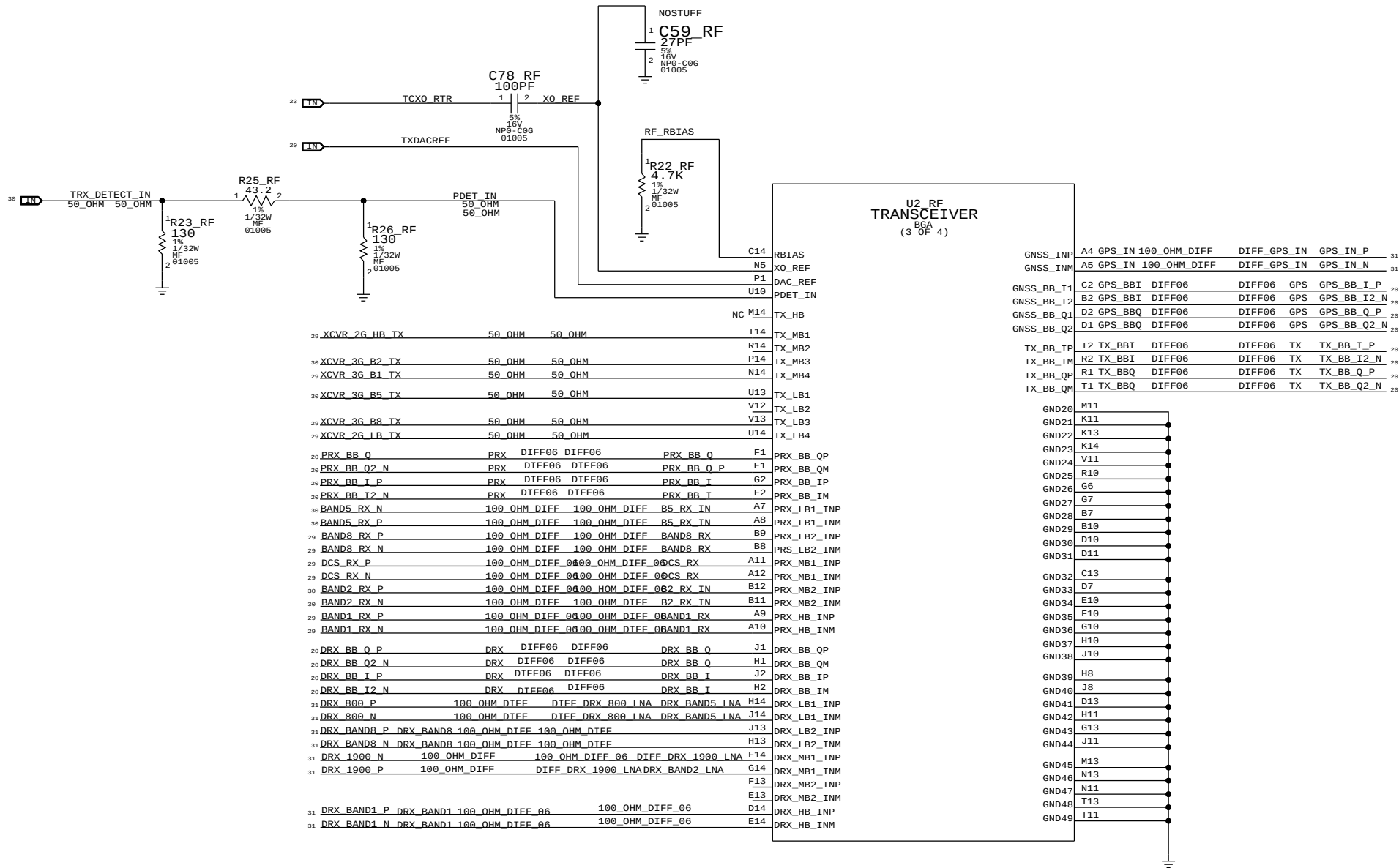
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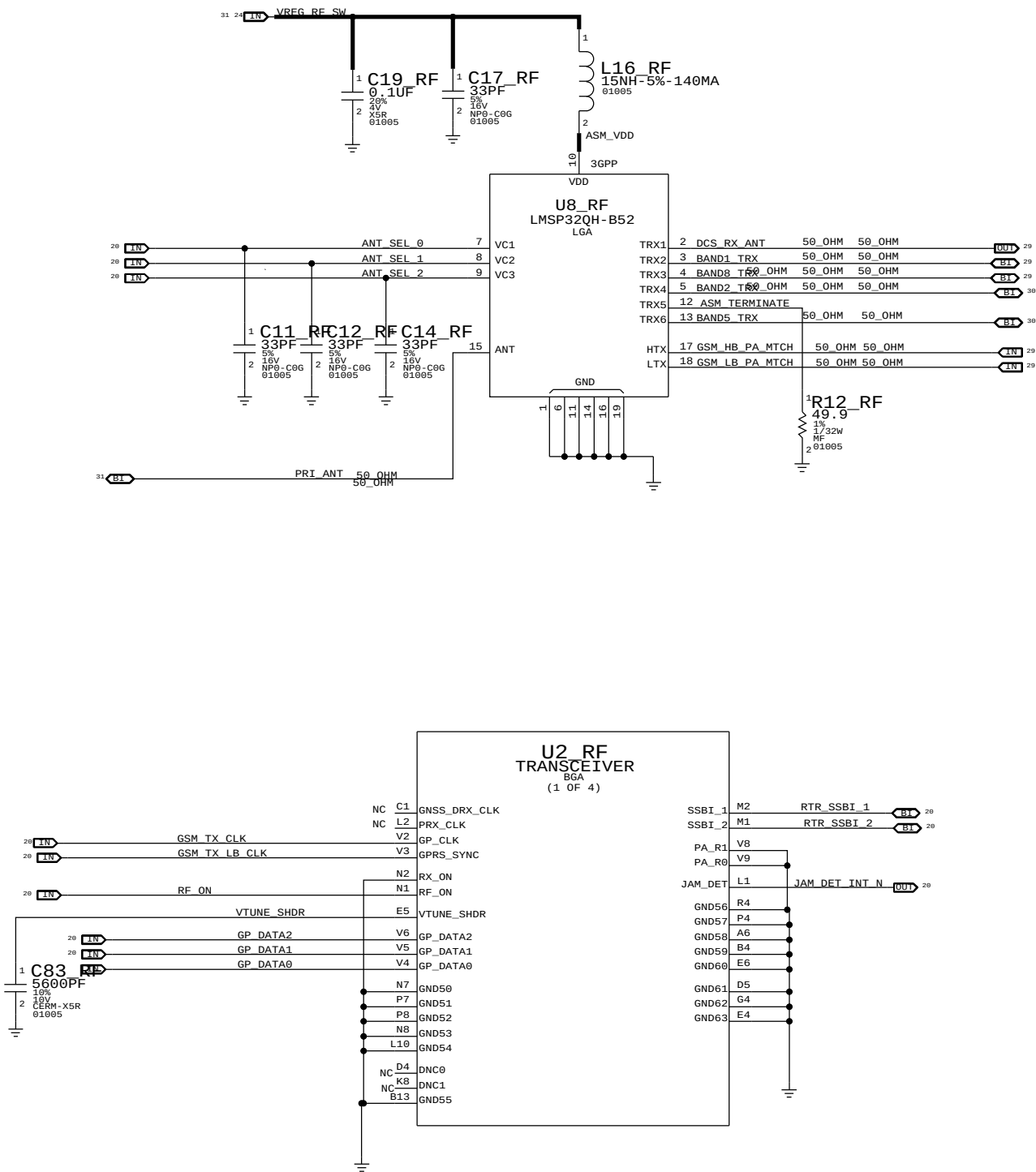
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RF TRANSCEIVER

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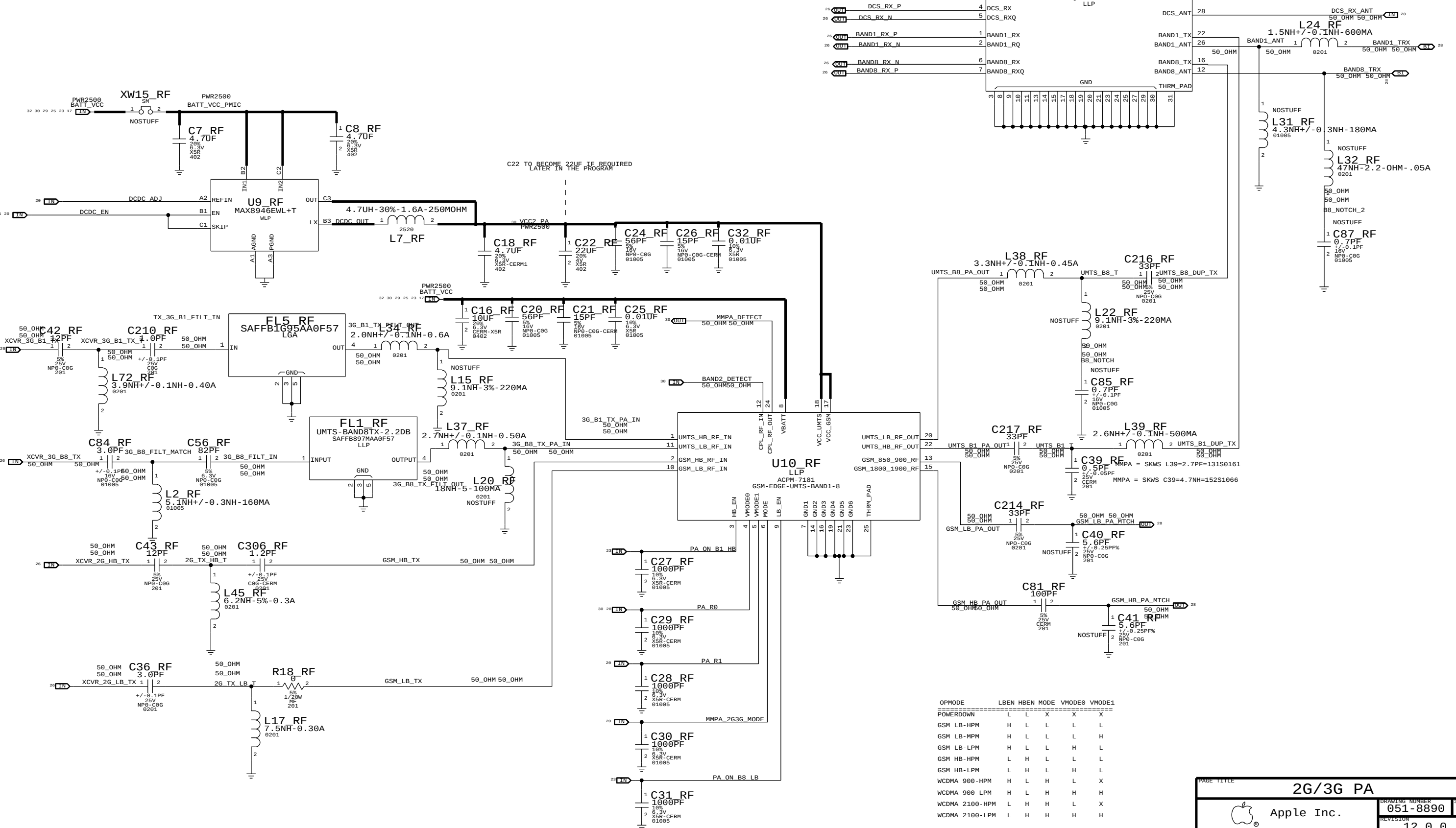
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GSM LB-HPM	H	L	L	L	L
GSM LB-MPM	H	L	L	L	H
GSM LB-LPM	H	L	L	H	L
GSM HB-HPM	L	H	L	L	L
GSM HB-LPM	L	H	L	H	L
WCDMA 900-HPM	H	L	H	L	X
WCDMA 900-LPM	H	L	H	H	H
WCDMA 2100-HPM	L	H	H	L	X
WCDMA 2100-LPM	L	H	H	H	H

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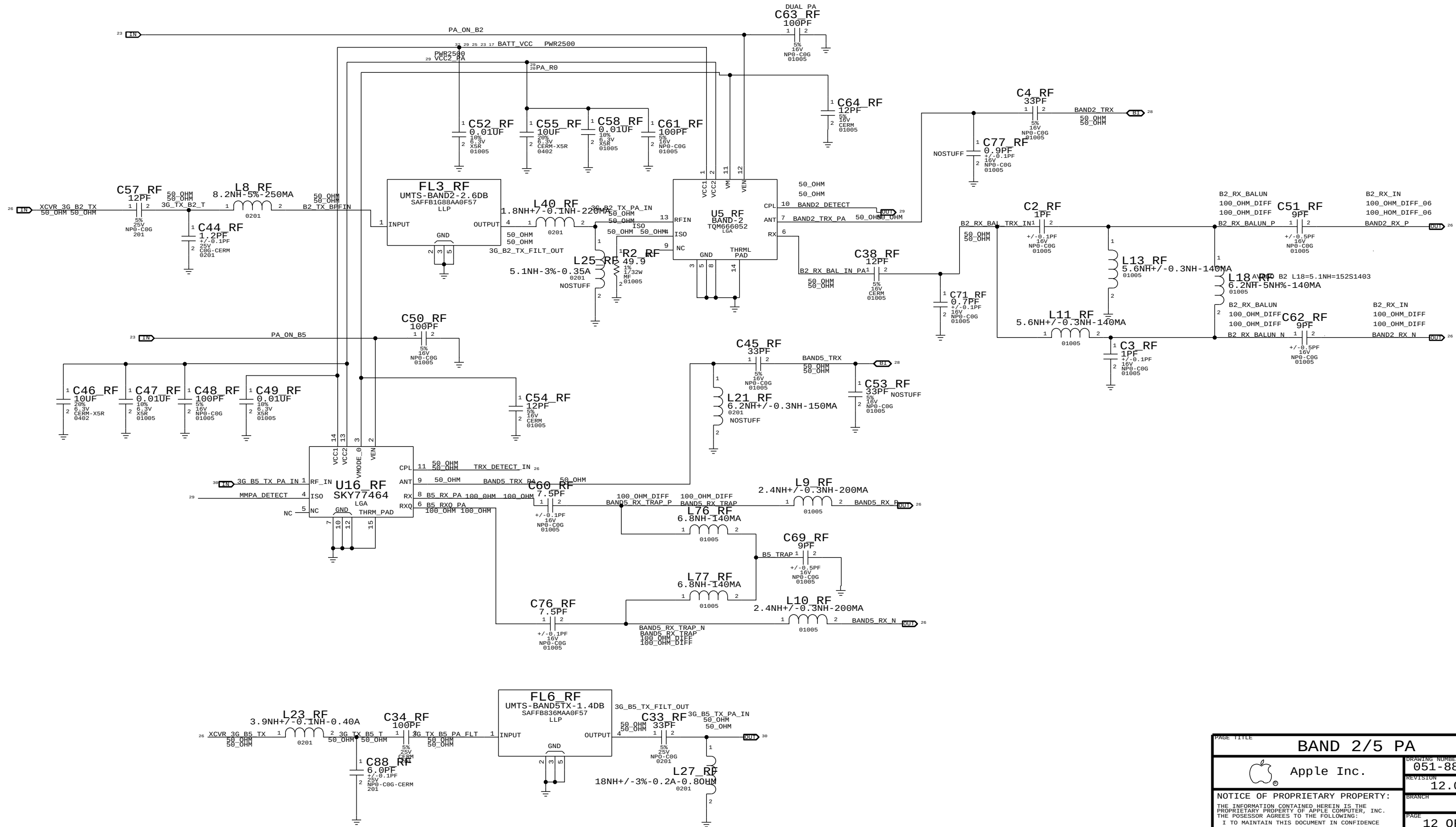
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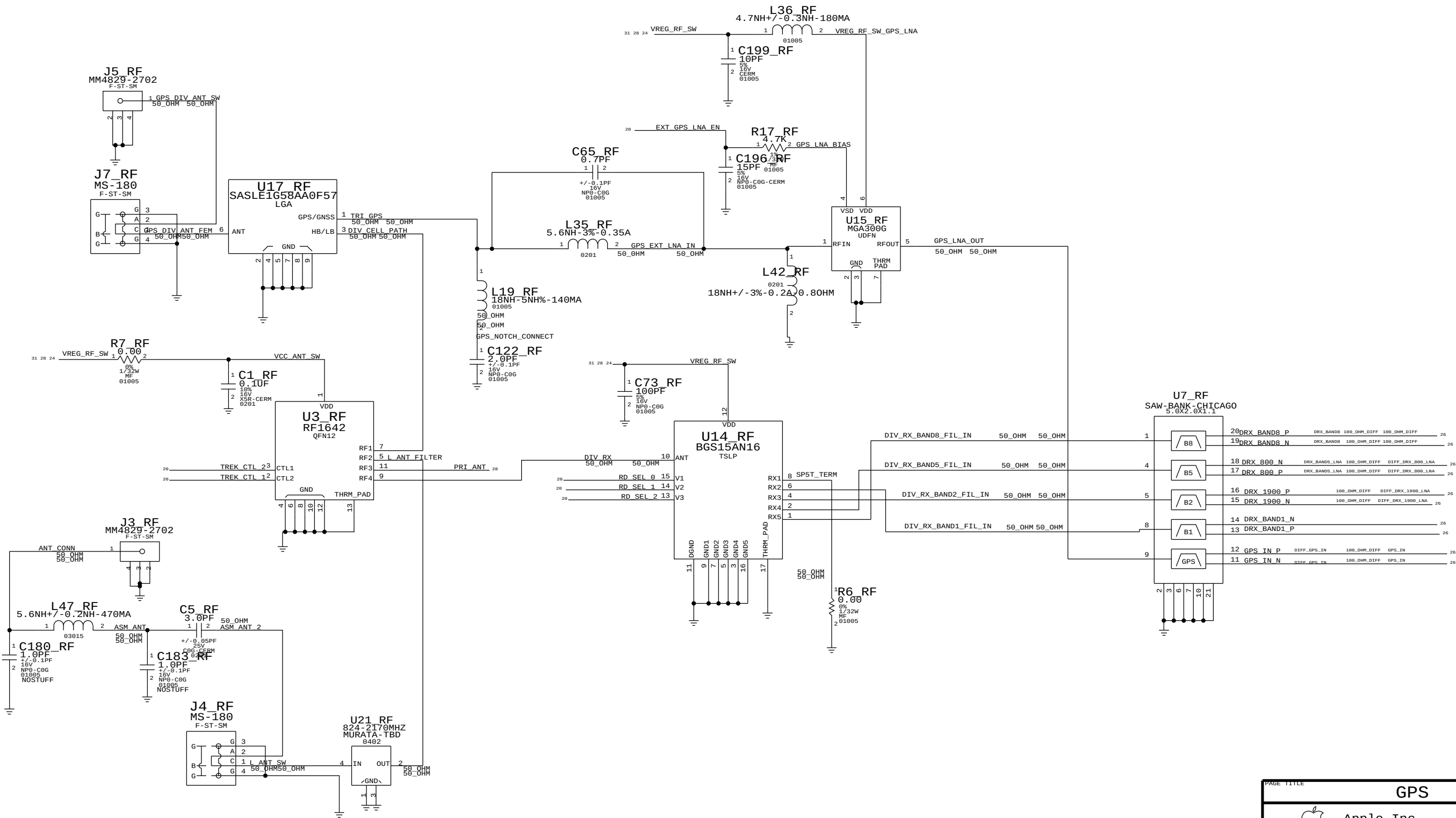
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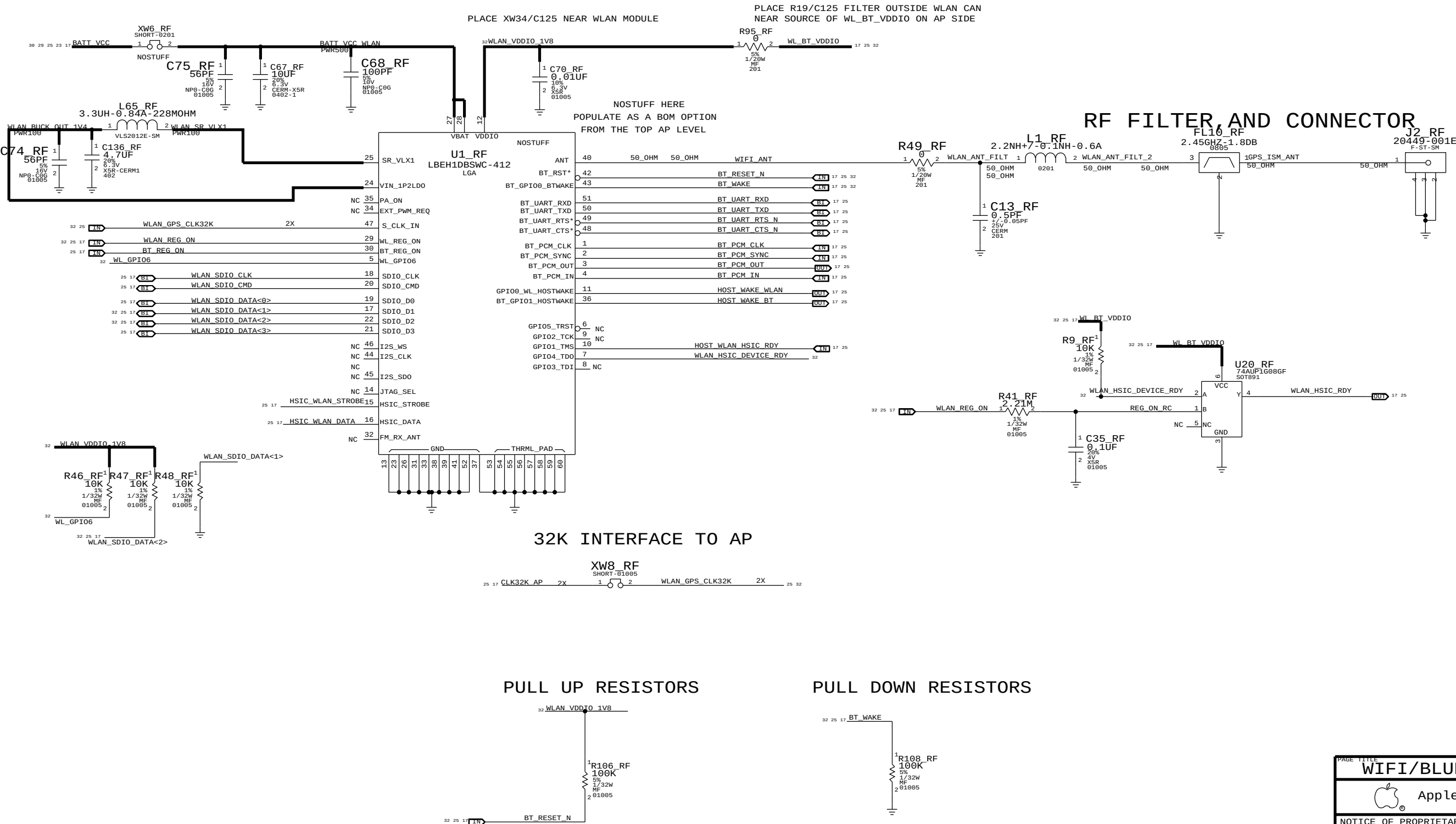


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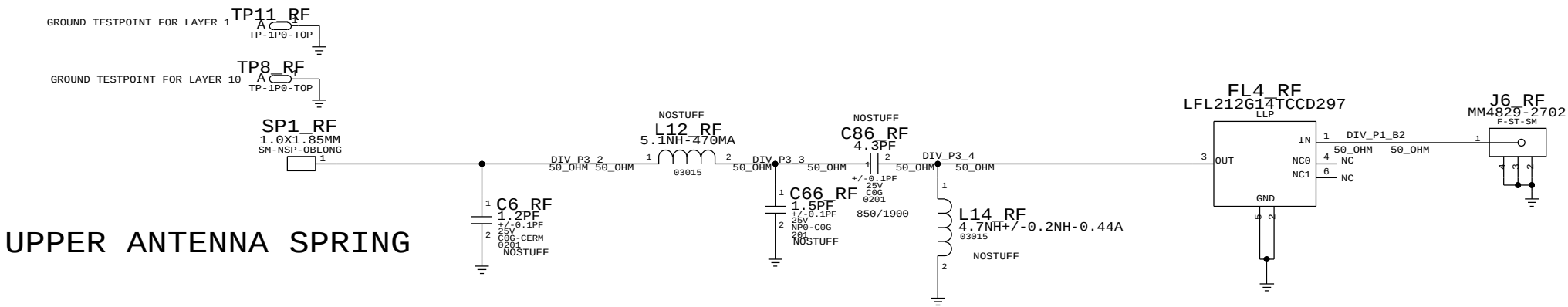
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ANTENNA MATCHING



UPPER ANTENNA SPRING

NOTUFF ALL HERE !
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