

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
16	0001519661	ENGINEERING RELEASED		2012-07-02

# N41 SINGLE\_BRD PVT

## Tue Jul 10 17:52:36 2012

PDF PAGE	CSA PAGE	CONTENTS	SYNC MASTER	DATE
2	2	H5P JTAG, USB ,PLL	N/A	N/A
3	3	H5P GPIO & CONTROL	N/A	N/A
4	4	H5P IO POWER	N/A	N/A
5	5	H5P SOC/CPU/SRAM PWR	N/A	N/A
6	6	H5P W/ NAND	N/A	N/A
7	7	H5P VIDEO	N/A	N/A
8	8	BUTTON CONNECTOR	N/A	N/A
9	9	CS42L65 AUDIO CODEC (1/2)	N/A	N/A
10	10	CS42L65 AUDIO CODEC (2/2)	N/A	N/A
11	11	CG FLEX CONNECTOR	N/A	N/A
12	12	AGATHA PMU(1/2)	N/A	N/A
13	13	AGATHA PMU(2/2)	N/A	N/A
14	14	ACCEL,GYRO,COMPASS,SPK AMP	N/A	N/A
15	15	TRISTAR	N/A	N/A
16	16	DOCK CONNECTOR	N/A	N/A
17	17	GRAPE & CONNECTOR	N/A	N/A
18	18	LCM CONNECTOR	N/A	N/A
19	19	STROBE & NEGATIVE RAIL	N/A	N/A
20	20	CAM0 CONNECTOR	N/A	N/A
21	21	BATTERY & RF INT.	N/A	N/A
22	22	TEST POINTS	N/A	N/A

### N41 BOM CALLOUTS

PART#	QTY	DESCRIPTION	REFERENCE DESIGNATOR(S)	CRITICAL	BOM OPTION
051-9113	1	N41 SINGLE_BRD SCHEMATIC	SCH	Y	?
820-3141	1	N41 SINGLE_BRD PCB	PCB	Y	?
825-6838	1	LABEL FOR N41 639-3259	EEEE_DWJG	Y	EEEE_16G
825-6838	1	LABEL FOR N41 639-3420	EEEE_DY6Q	Y	EEEE_32G
825-6838	1	LABEL FOR N41 639-3421	EEEE_DY6R	Y	EEEE_64G
825-6838	1	LABEL FOR N42 639-2456	EEEE_DNVD	Y	EEEE_16G_N42
825-6838	1	LABEL FOR N41 639-3858	EEEE_F322	Y	EEEE_32G_N42
825-6838	1	LABEL FOR N41 639-3859	EEEE_F321	Y	EEEE_64G_N42
825-6838	1	LABEL FOR N41 639-4085	EEEE_F64R	Y	EEEE_16G_N42_SM
825-6838	1	LABEL FOR N41 639-4084	EEEE_F64Q	Y	EEEE_32G_N42_SM
825-6838	1	LABEL FOR N41 639-4083	EEEE_F64T	Y	EEEE_64G_N42_SM

N41 = BAND 17 COMP  
 N42 = BAND 13 COMP

### ALTERNATES

PART NUMBER	ALTERNATE FOR PART NUMBER	BOM OPTION	REF DES	COMMENTS:
138S0648	138S0652	?	?	4.7UF CERM 0402 6.3V
138S0703	138S0648	?	?	4.7UF CERM 0402 6.3V
138S0702	138S0657	?	?	4.3UF CERM 0610 4V
138S0697	138S0695	?	?	1UF CERM 0204 4V
138S0746	138S0705	?	?	10UF CERM 0402 10V
138S0739	138S0706	?	?	1UF CERM 0201 10V
197S0369	197S0392	?	?	TXC 32KHZ XTAL ALT
197S0399	197S0392	?	?	NDK 32KHZ XTAL ALT
155S0667	155S0583	?	?	PANASONIC CMC
107S0146	107S0208	?	?	TDK 10K NTC ALT
152S1696	152S1432	?	L2	CYNTEC 2.2UH IND ALT
152S1602	152S1604	?	?	CYNTEC 2.2UH IND ALT
311S0591	311S0273	?	?	74LVCI032 OR GATE ALT
311S0548	311S0398	?	?	74AUP1008 AND GATE ALT
311S0560	311S0515	?	?	74LV2G07 BUFFER ALT
339S0177	339S0176	?	?	H5P ALT
339S0178	339S0176	?	?	H5P ALT
155S0773	155S0453	?	?	TAIYO ALT FERRITE
127S0162	127S0160	?	?	WISHAY 1.0UF TANT
127S0164	127S0160	?	?	ROHM 1.0UF TANT
376S1120	376S0774	?	?	DIODES INC FET
376S1060	376S0882	?	?	DIODES INC FET

### NAND OPTIONS

PART#	QTY	DESCRIPTION	REFERENCE DESIGNATOR(S)	CRITICAL	BOM OPTION
341T0427	1	IC, PROGRAM FLASH, BETTER, N41	U4	?	NAND_16G
341T0428	1	IC, PROGRAM FLASH, BEST, N41	U4	?	NAND_32G
341T0429	1	IC, PROGRAM FLASH, ULT, N41	U4	?	NAND_64G

### RADIO\_MLB TDMA CAP OPTION

PART#	QTY	DESCRIPTION	REFERENCE DESIGNATOR(S)	CRITICAL	BOM OPTION
138S0801	3	CAP, CER, 10UF, 20V, 10V, X5R, HRETL, 0402	C235_RF, C236_RF, C237_RF	Y	?
138S0801	2	CAP, CER, 10UF, 20V, 10V, X5R, HRETL, 0402	C1201_RF, C1801_RF	Y	?

### INDUCTOR 607-XXXX SUBBOM GEN

PART#	QTY	DESCRIPTION	REFERENCE DESIGNATOR(S)	CRITICAL	BOM OPTION
152S1547	4	IND, PWR, 1.5UH, 1.95A, 111MOHM, 2520	L10, L50, L14, L54	Y	CPU0_1_TDK_SUBBOM
152S1696	3	IND, PWR, 2.2UH, 1.45A, 138MOHM, 2520	L11, L12, L13	Y	SOC_CYNTEC_SUBBOM
152S1695	4	IND, PWR, 1.5UH, 1.95A, 111MOHM, 2520	L10, L50, L14, L54	Y	CPU0_1_CYNTEC_SUBBOM
152S1432	3	IND, PWR, 2.2UH, 1.45A, 125MOHM, 2520	L11, L12, L13	Y	SOC_TDK_SUBBOM

### INDUCTOR SUBBOM ADDITION

PART#	QTY	DESCRIPTION	REFERENCE DESIGNATOR(S)	CRITICAL	BOM OPTION
607-9979	1	CPU0_1_PWR IND SUBBOM	CPU_IND	Y	?
607-9980	1	SOC_PWR IND SUBBOM	SOC_IND	Y	?

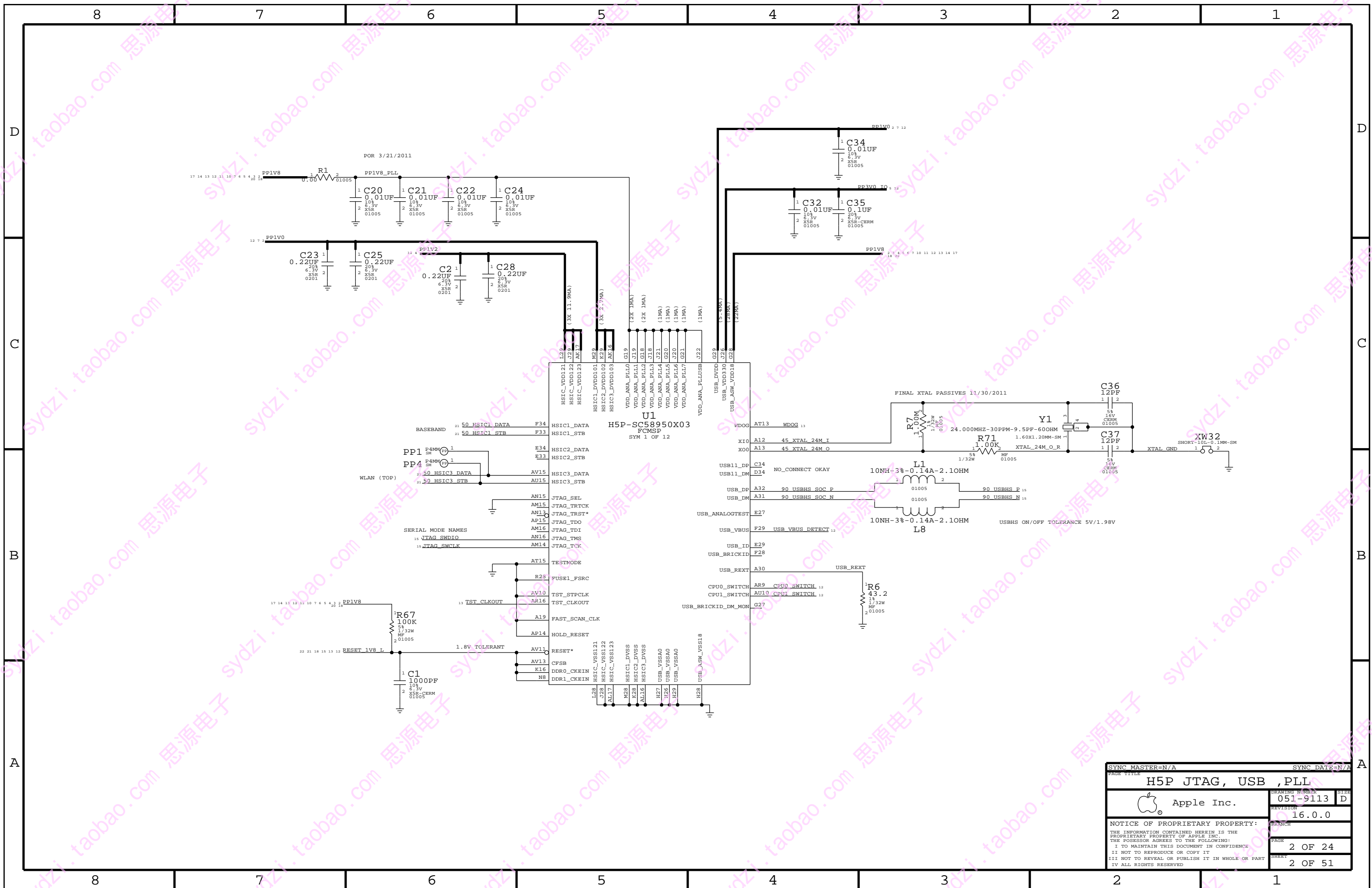
SCH 051-9113  
 BRD 820-3141  
 MCO 056-5192  
 BOM 639-3259 (16GB) BTR N41  
 BOM 639-3420 (32GB) BST N41  
 BOM 639-3421 (64GB) ULT N41  
 BOM 639-2456 (16GB) BTR N42  
 BOM 639-3858 (32GB) BST N42  
 BOM 639-3839 (64GB) ULT N42  
 BOM 639-4085 (16GB) BTR N42  
 BOM 639-4084 (32GB) BST N42  
 BOM 639-4083 (64GB) ULT N42

PART NUMBER	ALTERNATE FOR PART NUMBER	BOM OPTION	REF DES	COMMENTS:
335S0895	335S0874	?	U601_RF	WINBOND ALT
197S0437	197S0410	?	Y301_RF	KYOCERA 19.2MHZ XTAL ALT
197S0409	197S0410	?	Y301_RF	RAKON 19.2MHZ XTAL ALT

PART NUMBER	ALTERNATE FOR PART NUMBER	BOM OPTION	REF DES	COMMENTS:
607-9983	607-9979	?	CPU_IND	ALT CPU CYNTEC SUBBOM
607-9984	607-9980	?	SOC_IND	ALT SOC CYNTEC SUBBOM

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SCHEM, MLB, N41		051-9113	D
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H5P JTAG, USB, PLL			
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BOARD\_REV[3:0]={EHCI\_PORT3,EHCI\_PORT\_PWR2,EHCI\_PORT\_PWR1,EHCI\_PORT\_PWR0}

FLOAT=LOW, PULLUP=HIGH

1111 DEV3
1110 PROTO 0, DEV4 & DEV5
1100 PROTO 2A
1010 TRISTAR / PROTO\_2C LM3534
1000 PROTO3, DEV7
1001 EVT1, DOE1(2/3/4/5/6/7/8/9)
1000 EVT3, DOE1(0/11/15/20/21)
0110 EVT3 PVT

BOARD\_ID[3:0]={GPIO16,SPI0\_MISO,SPI0\_MOSI,SPI0\_SCLK}

FLOAT=LOW, PULLUP=HIGH

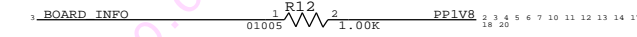
0000 N41 MLB <--- SELECTED
0001 N41 DEV
0010 N42 MLB <--- SELECTED W/ B3\_13 BOM OPTION
0011 N42 DEV

BOOT\_CONFIG[3:0]={GPIO29\_CONFIG3,GPIO28\_CONFIG2,GPIO25\_CONFIG1,GPIO18\_CONFIG0}

FLOAT=LOW, PULLUP=HIGH

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 FMIO 2 CS
1001 FMIO 4 CS
1010 FMIO 4CS W/TEST
1100 FMIO/1 2/2 CS <--- SELECTED AT EVT3
1101 FMIO/1 4/4 CS
1110 FMIO/1 4/4 CS W/TEST
1111 RESERVED

COMMON PULL UP FOR BOARD\_REV, BOARD\_ID AND BOOT\_CONFIG PINS



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

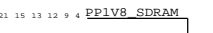
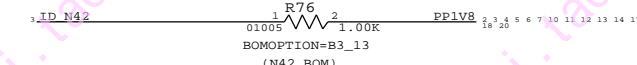
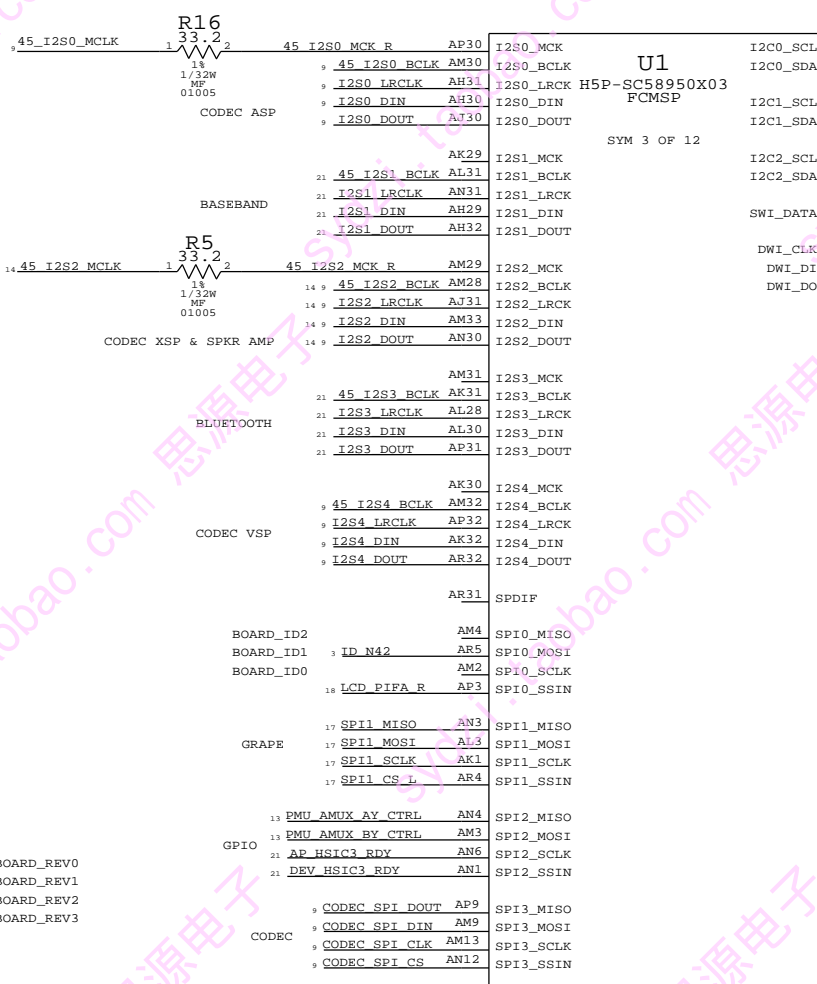


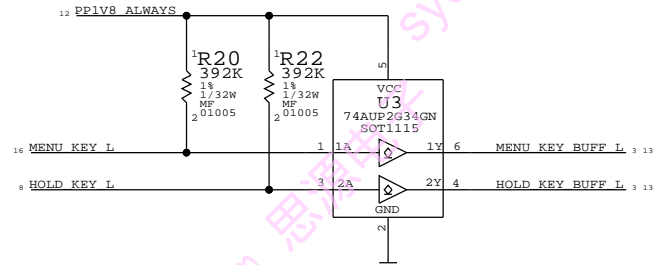
Table mapping board signals to GPIO pins. Signals include MENU KEY BUFF L, HOLD KEY BUFF L, VOL UP L, VOL DWN L, SPKAMP INT L, PMU IRO L, BT WAKE, BEE GEEES, BB HSIC1 REMOTE WAKE, BB JTAG TCK, BB JTAG TDI, BB JTAG TMS, BB JTAG TDO, AP HSIC1 RDY, KEEPACT, WLAN HSIC3 RESUME, GRAPE INT L, LCD RESET L, LCD HIFA BSYNC, BB RST L, FORCE DFU, DFU STATUS, BOARD INFO, BOARD INFO, CODEC INT L, PBI\_RUN\_BB\_HSIC1\_RDY, RADIO\_ON L, GYRO INT1, COMPASS INT 2, AP WAKE MODEM, ACCEL INT2 L, ALS INT L, GRAPE RESET L, HS3 CONTROL, HS4 CONTROL.

Table mapping U1 (H5P-SC58950X03) pins to board signals. Pins include EHCI\_PORT\_PWR0-3, TMR32\_PWM0-2, UART0-6, UART4\_CTSN/SPI4\_SSN, UART4\_RTSN/SPI4\_SCLK, UART4\_RXD/SPI4\_MISO, UART4\_TXD/SPI4\_MOSI, UART5-6, and various control pins like BATTERY SWI, BB RESET DET, BB PP SYNC, SPKAMP RESET L, and UART6 RXD/TXD.

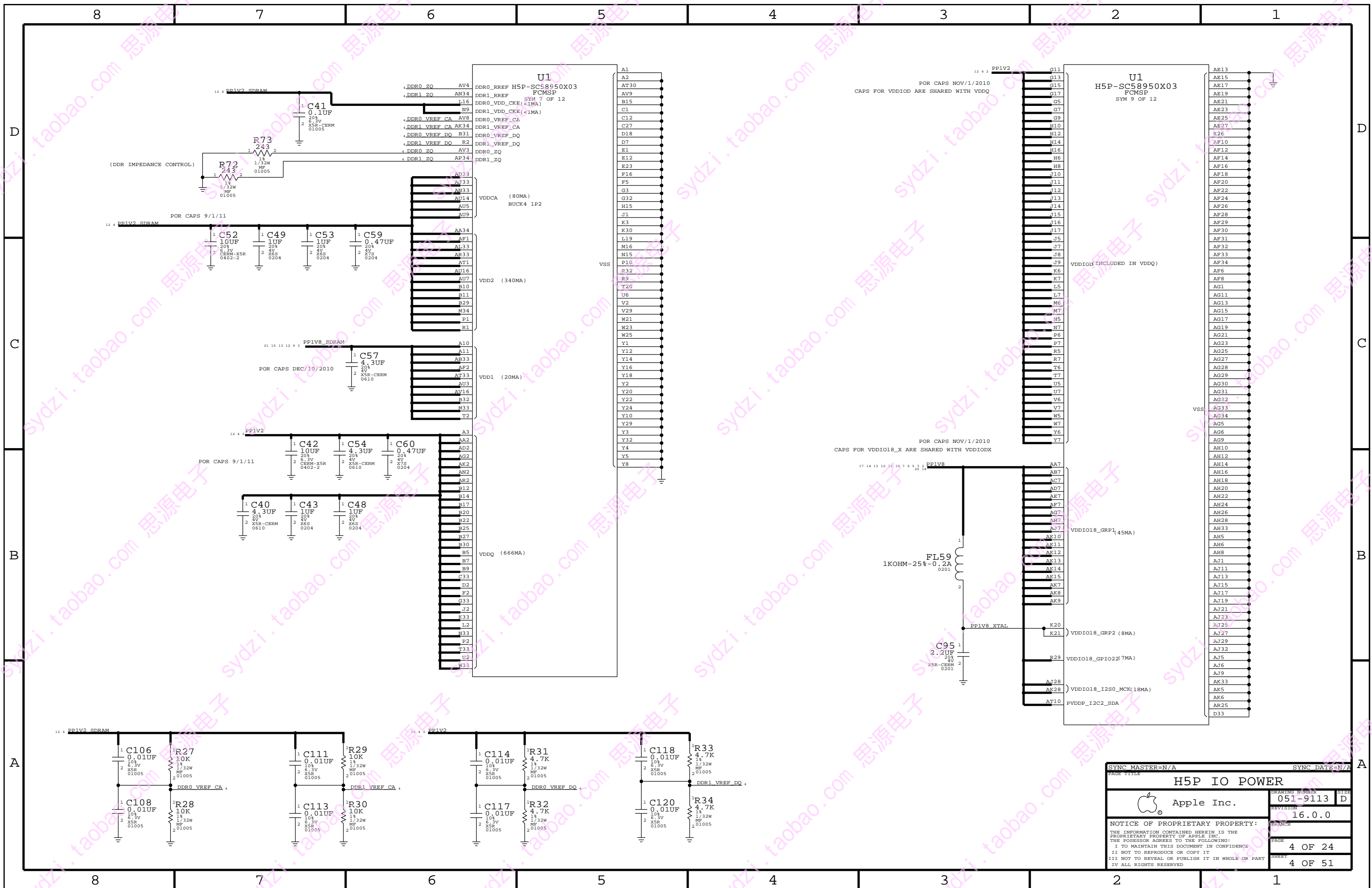
FMI, 00=1.8V | 01=3.0V | 10=3.3V
I2C2, 0=1.8V | 1=3.0V
SPI3, 0=1.8V | 1=3.0V



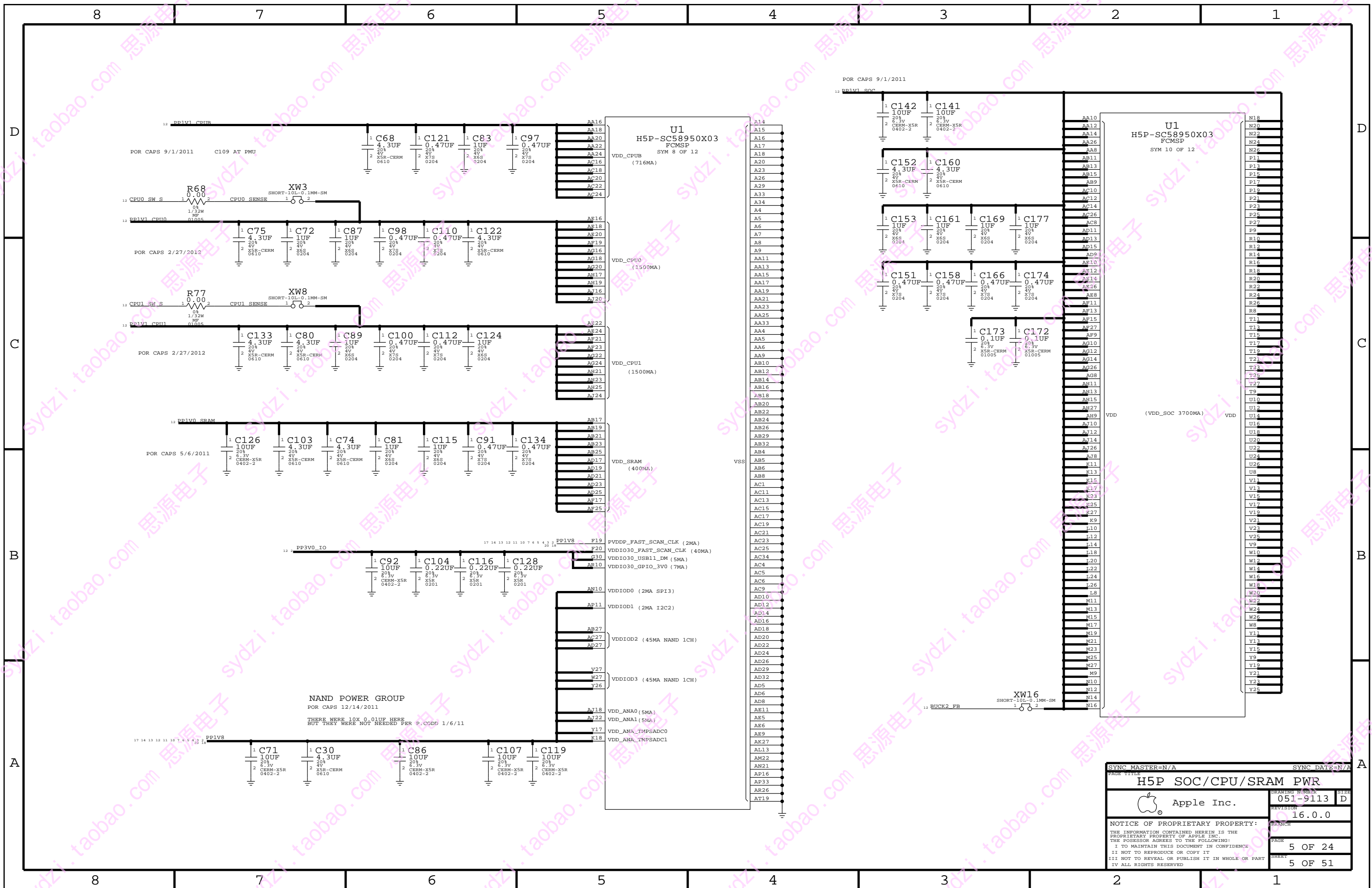
MENU & POWER / HOLD KEY



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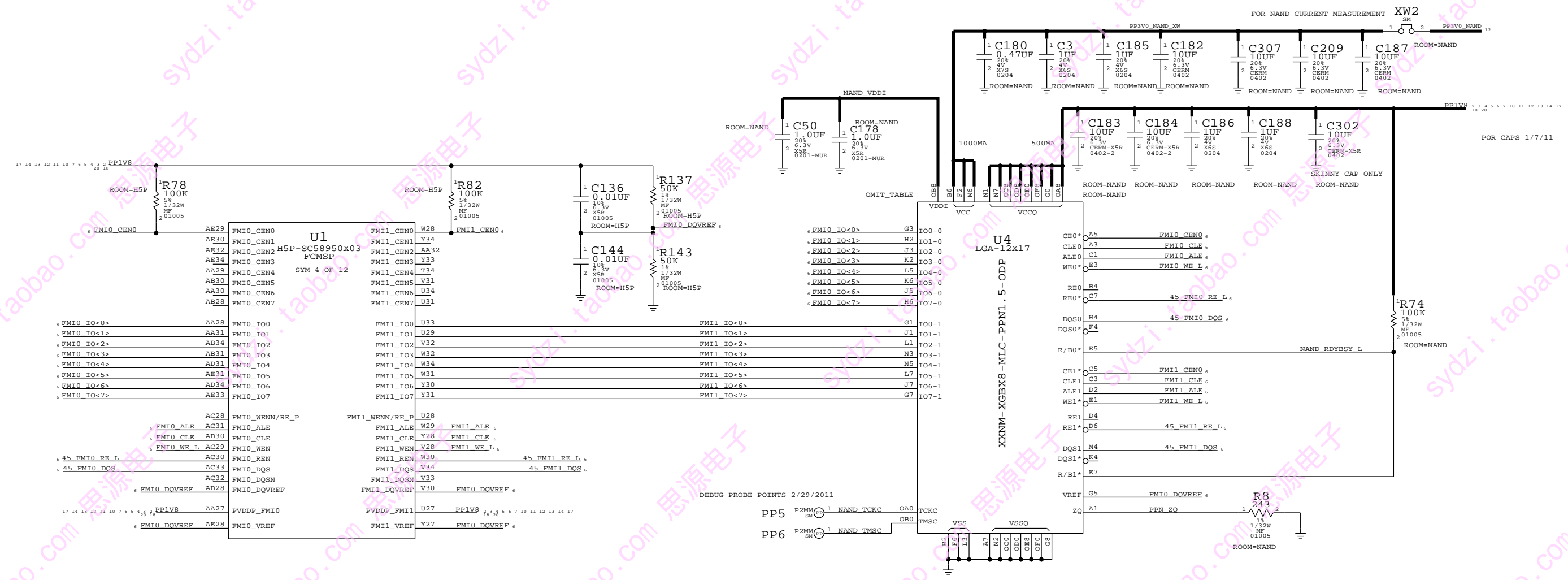
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<b>H5P IO POWER</b>			
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		PAGE	5 OF 24
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# NAND

SUPPORT FOR PPN1.5 AND PPN1.0 W/ 1.8V IO ONLY



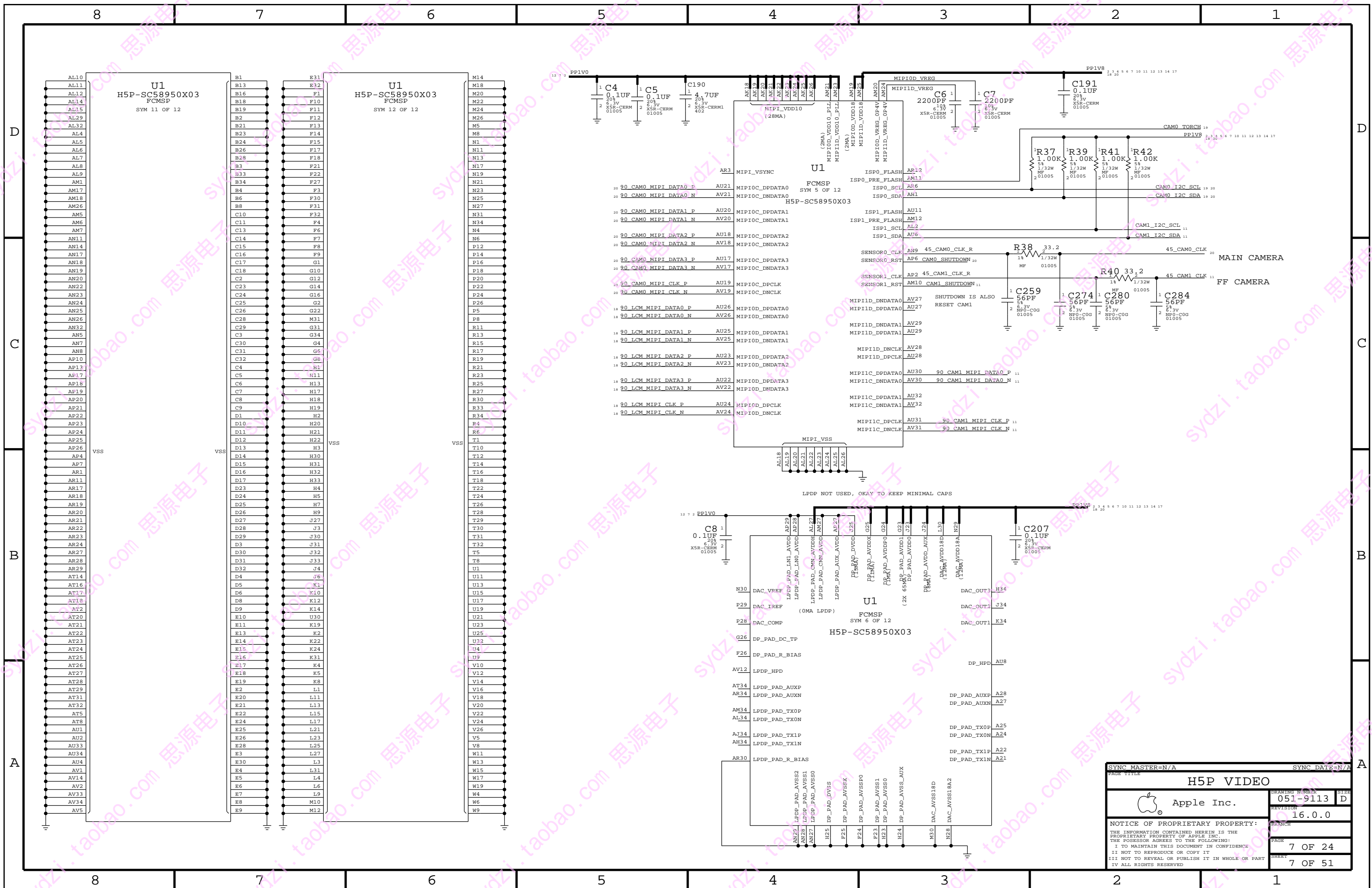
AE29	FMI0_CEN0	FMI1_CEN0	W28	FMI1_CEN0
AE30	FMI0_CEN1	FMI1_CEN1	Y34	FMI1_CEN1
AE32	FMI0_CEN2	FMI1_CEN2	AA32	FMI1_CEN2
AE34	FMI0_CEN3	FMI1_CEN3	Y33	FMI1_CEN3
AA29	FMI0_CEN4	FMI1_CEN4	T34	FMI1_CEN4
AB30	FMI0_CEN5	FMI1_CEN5	V31	FMI1_CEN5
AA30	FMI0_CEN6	FMI1_CEN6	U34	FMI1_CEN6
AB28	FMI0_CEN7	FMI1_CEN7	U31	FMI1_CEN7
AA28	FMI0_IO0	FMI1_IO0	U33	FMI1_IO0
AA31	FMI0_IO1	FMI1_IO1	U29	FMI1_IO1
AB34	FMI0_IO2	FMI1_IO2	V32	FMI1_IO2
AB31	FMI0_IO3	FMI1_IO3	W32	FMI1_IO3
AD31	FMI0_IO4	FMI1_IO4	W34	FMI1_IO4
AE31	FMI0_IO5	FMI1_IO5	W31	FMI1_IO5
AD34	FMI0_IO6	FMI1_IO6	Y30	FMI1_IO6
AE33	FMI0_IO7	FMI1_IO7	Y31	FMI1_IO7
AC28	FMI0_WENN/RE_P	FMI1_WENN/RE_P	U28	FMI1_WENN/RE_P
AC31	FMI0_ALE	FMI1_ALE	W29	FMI1_ALE
AD30	FMI0_CLE	FMI1_CLE	Y28	FMI1_CLE
AC29	FMI0_WE_L	FMI1_WE_L	V28	FMI1_WE_L
AC30	FMI0_REN	FMI1_REN	W30	FMI1_REN
AC33	FMI0_DQS	FMI1_DQS	V34	FMI1_DQS
AC32	FMI0_DQSN	FMI1_DQSN	V33	FMI1_DQSN
AD28	FMI0_DQVREF	FMI1_DQVREF	V30	FMI1_DQVREF
AA27	PVDDP_FMI0	PVDDP_FMI1	U27	FMI1_VREF
AE28	FMI0_VREF	FMI1_VREF	Y27	FMI1_DQVREF

PP2	P4MM	1	FMI0_IO<0>
PP3	P4MM	1	45_FMI0_RE_L
PP10	P4MM	1	45_FMI0_DQS

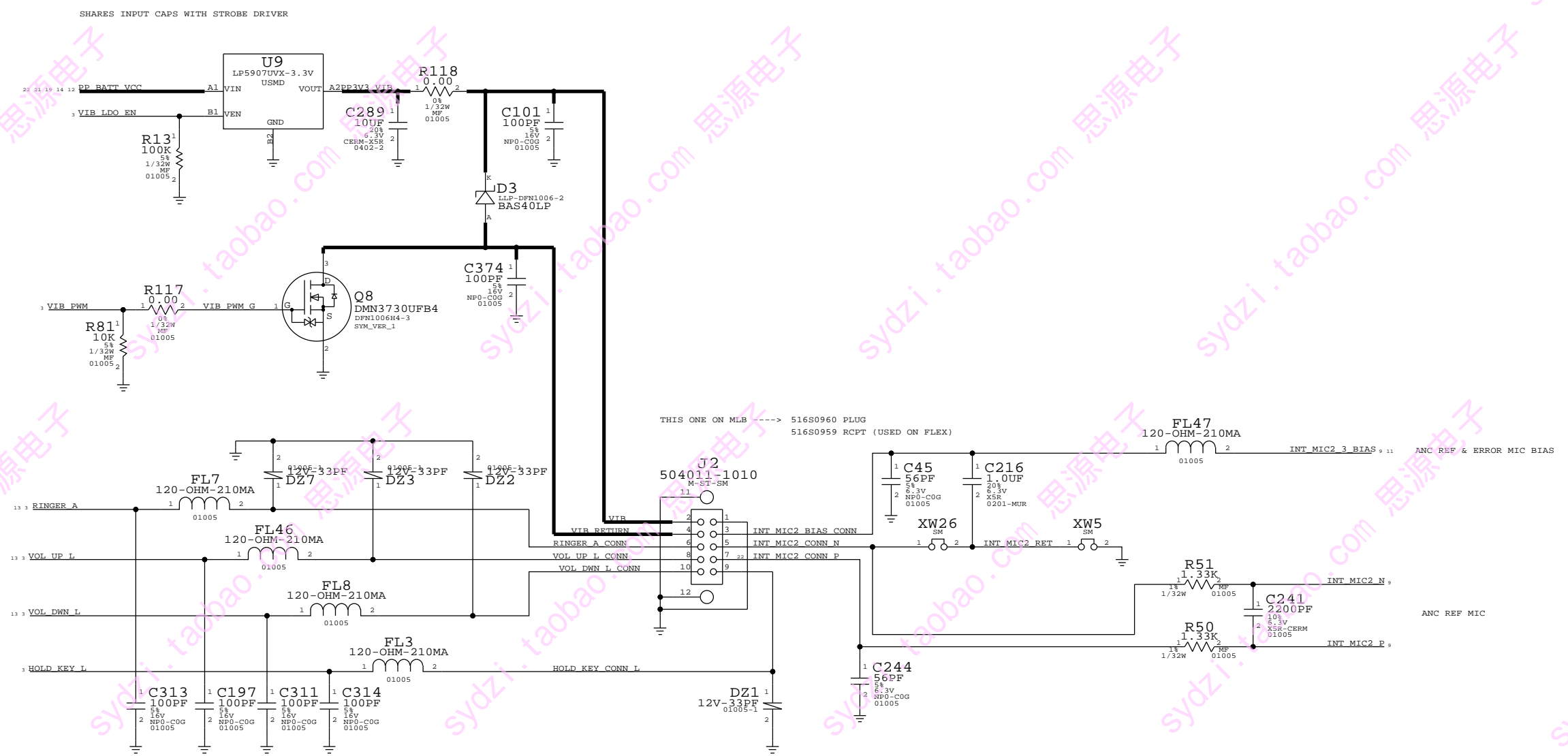
DEBUG PROBE POINTS 2/29/2011

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

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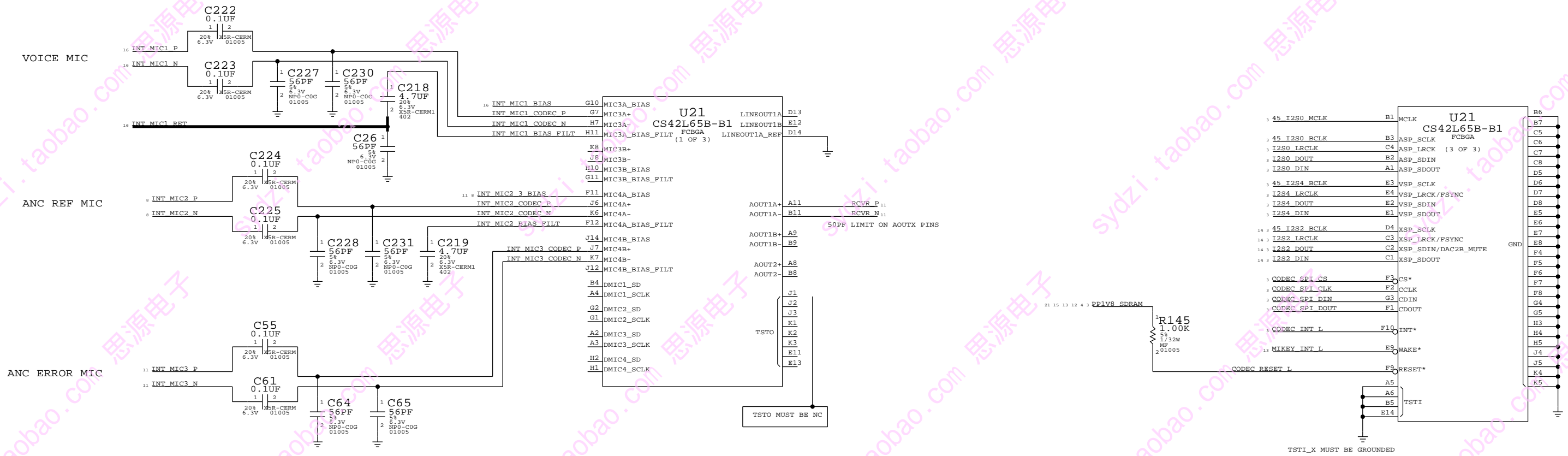
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<b>H5P VIDEO</b>					
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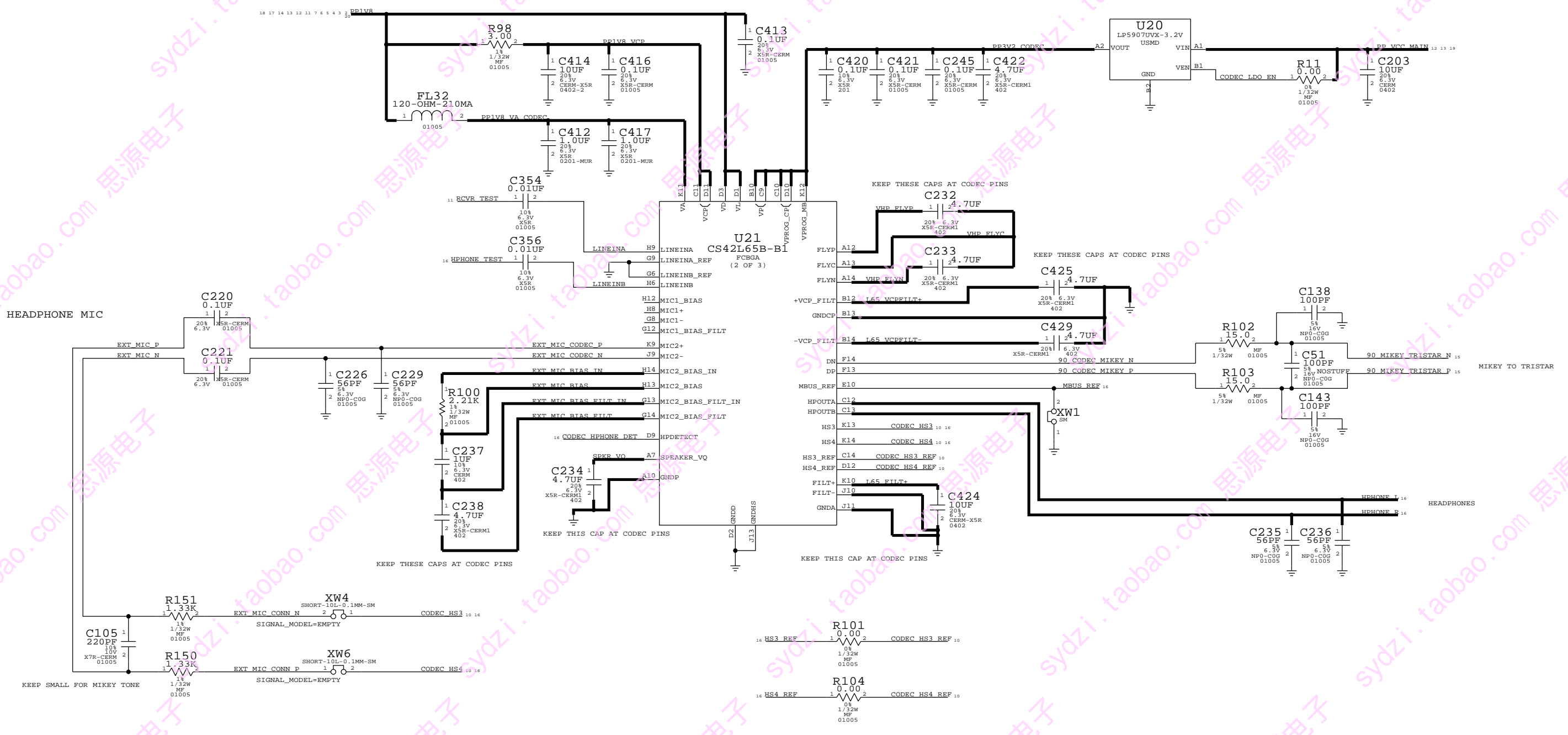
# CS42L65 AUDIO CODEC



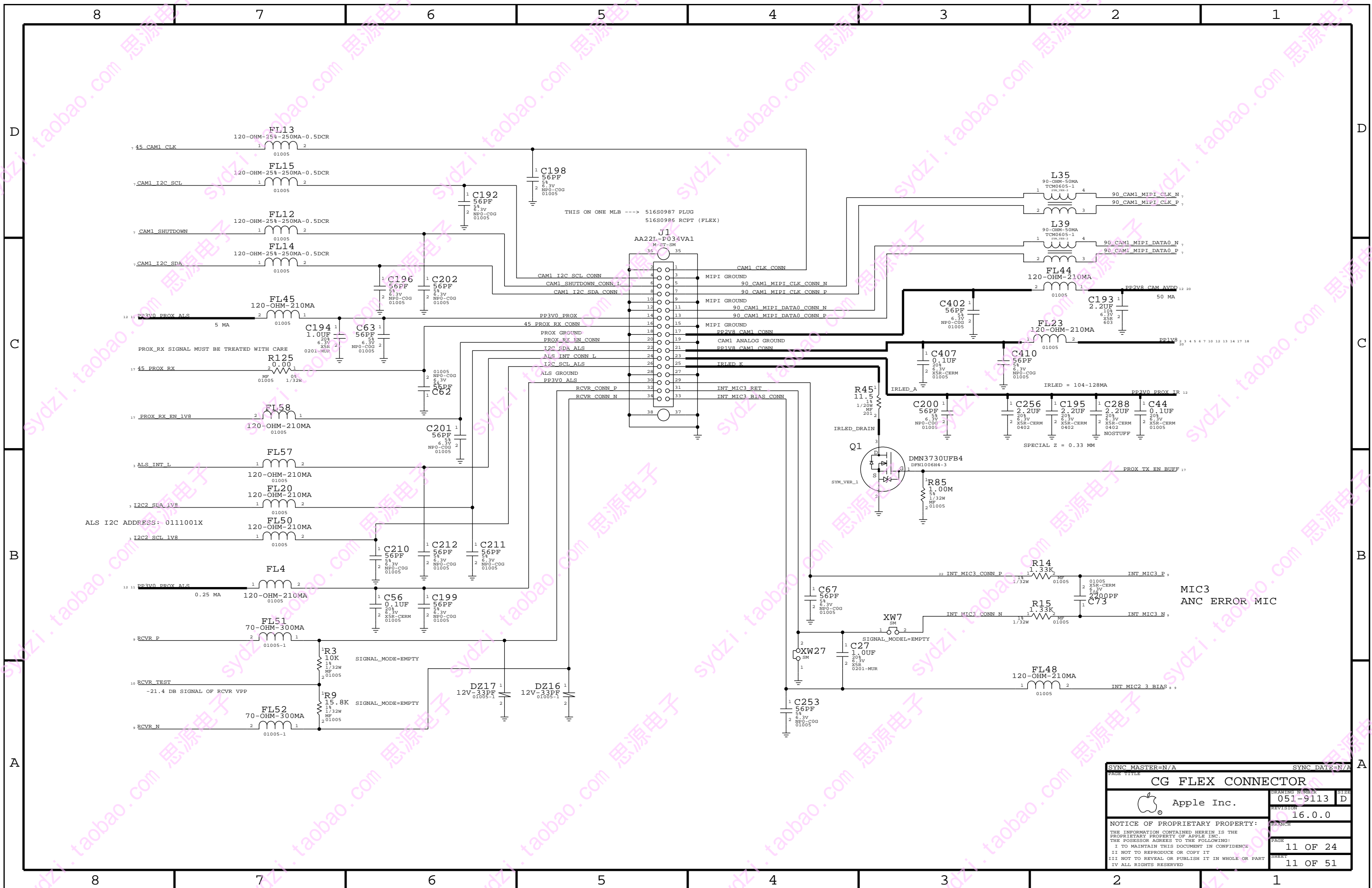
Pin	Signal	Chip Pin	Notes
45	I2S0 MCLK	B1	MCLK
45	I2S0 BCLK	B3	ASP_SCLK
12S0	LRCLK	C4	ASP_LRCK (3 OF 3)
12S0	DOUT	B2	ASP_SDIN
12S0	DIN	A1	ASP_SDOUT
45	I2S4 BCLK	E3	VSP_SCLK
12S4	LRCLK	E4	VSP_LRCK/FSYNC
12S4	DOUT	E2	VSP_SDIN
12S4	DIN	E1	VSP_SDOUT
45	I2S2 BCLK	D4	XSP_SCLK
12S2	LRCLK	C3	XSP_LRCK/FSYNC
12S2	DOUT	C2	XSP_SDIN/DAC2B_MUTE
12S2	DIN	C1	XSP_SDOUT
CODEC	SPI_CS	F3	CS*
CODEC	SPI_CLK	F2	CCLK
CODEC	SPI_DIN	G3	CDIN
CODEC	SPI_DOUT	F1	CDOUT
CODEC	INT L	F10	INT*
MIKEY	INT L	E9	WAKE*
CODEC	RESET L	F9	RESET*
TSTI		A5, B5, E14	TSTI

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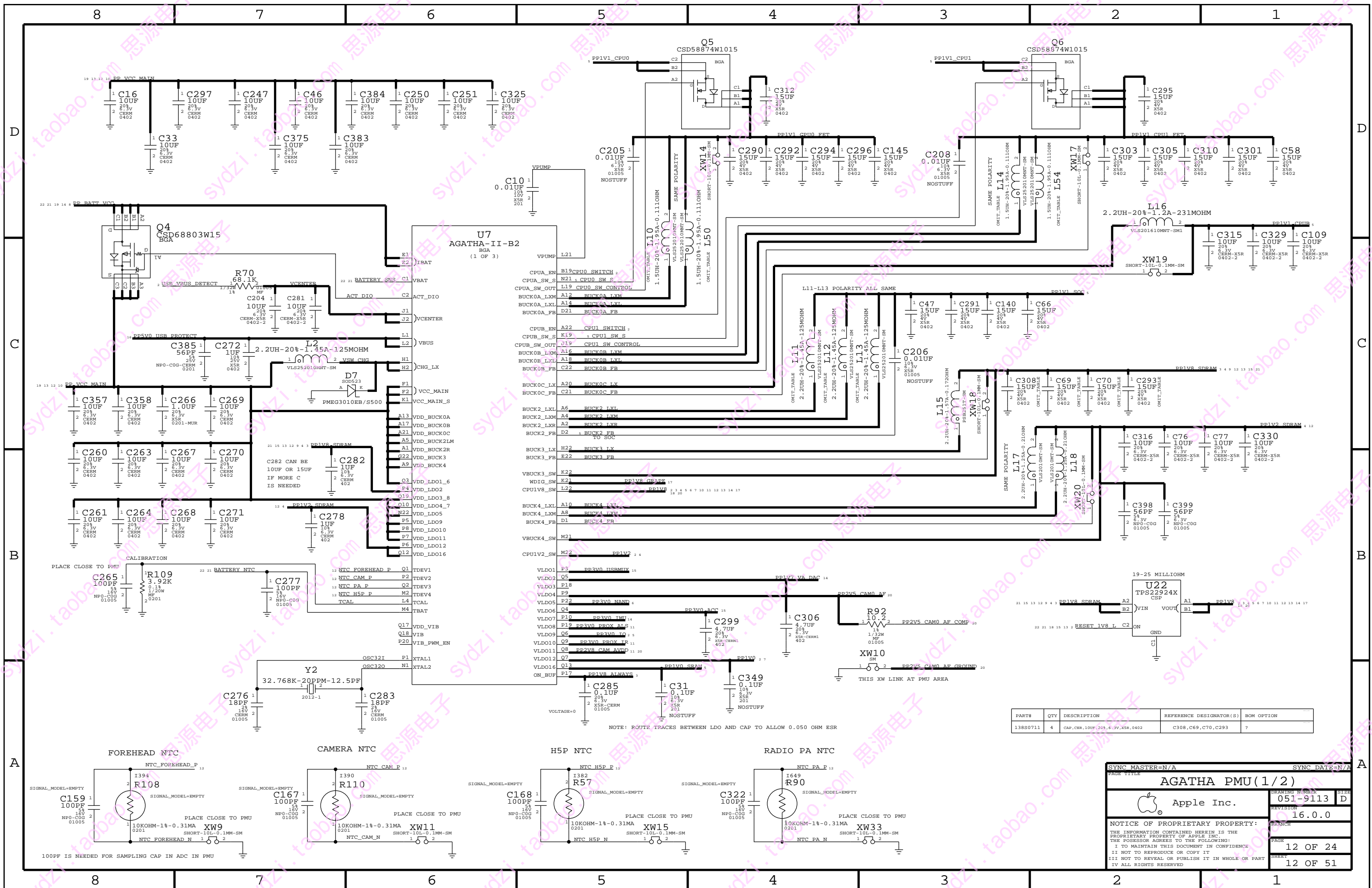
# CS42L65 AUDIO CODEC



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		SHEET	10 OF 51		



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		SHEET	11 OF 51



NOTE: ROUTE TRACES BETWEEN LDO AND CAP TO ALLOW 0.050 OHM ESR

PART#	QTY	DESCRIPTION	REFERENCE DESIGNATOR(S)	BOM OPTION
138S0711	4	CAP,CER,100PF,20%,6.3V,X5R,0402	C308,C69,C70,C293	?

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

PAGE TITLE

### AGATHA PMU (1/2)

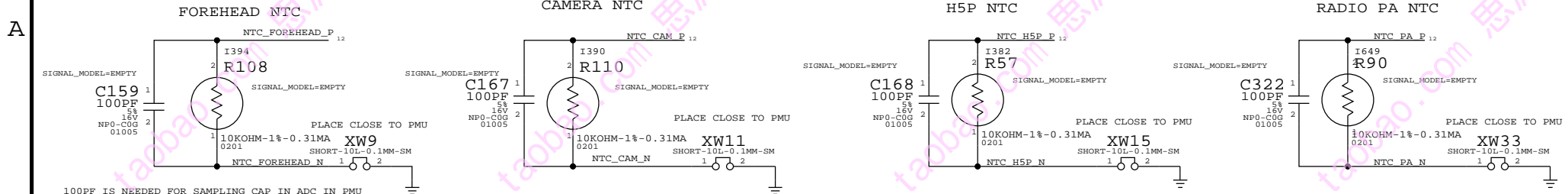
Apple Inc.

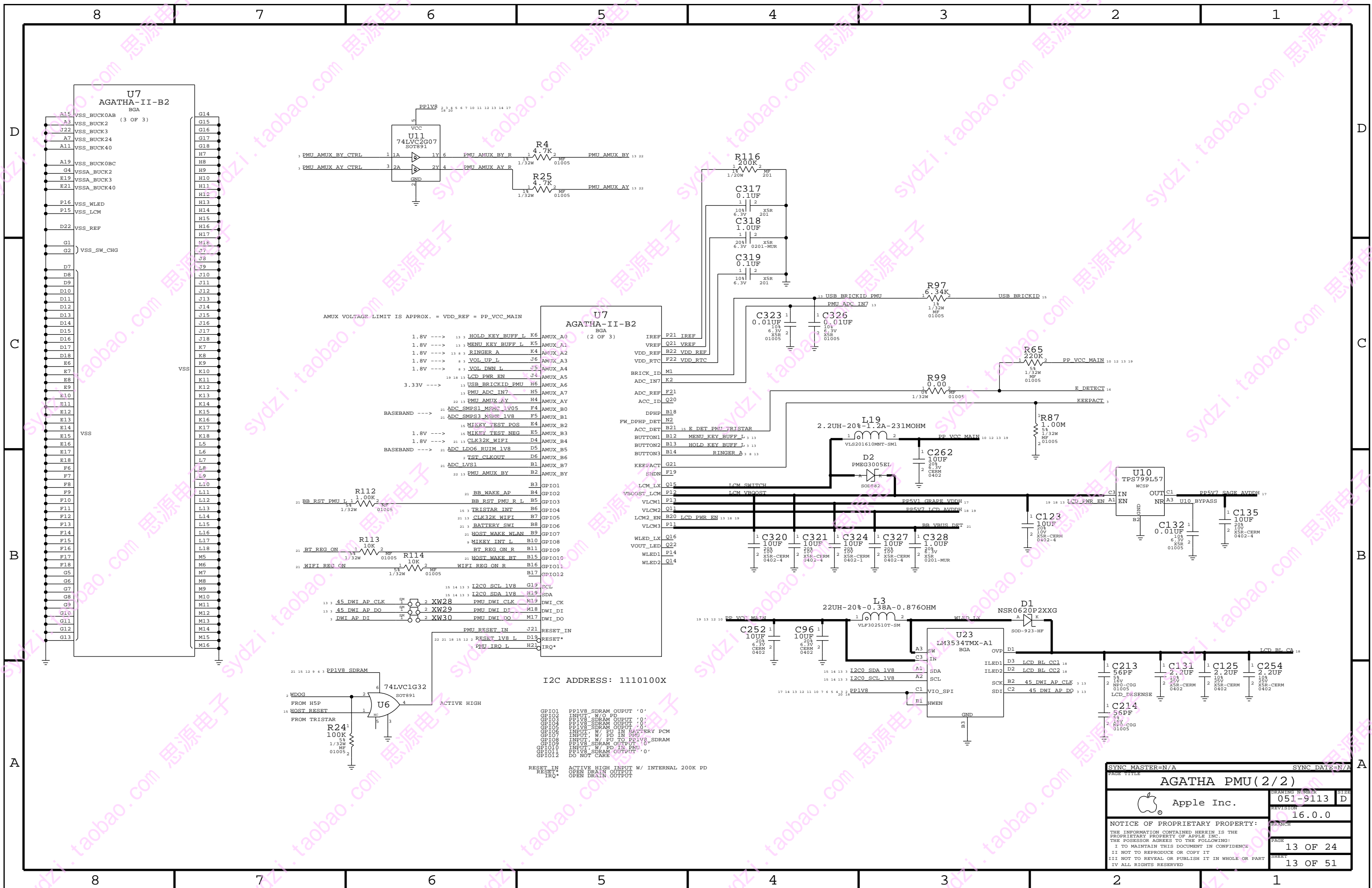
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REVISION: 16.0.0

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PAGE: 12 OF 24 SHEET: 12 OF 51

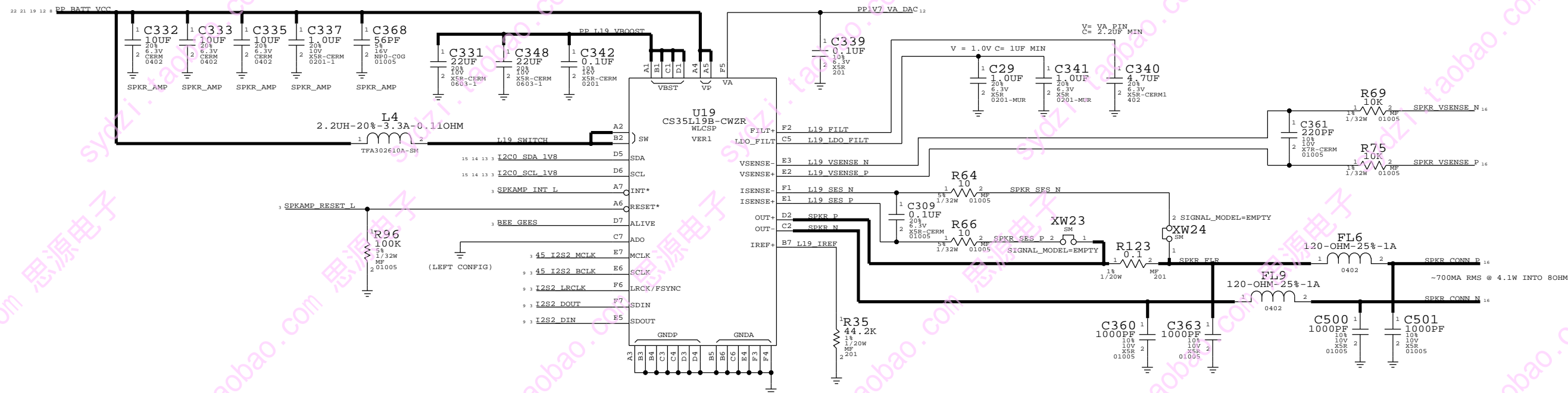




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# SPEAKER AMP

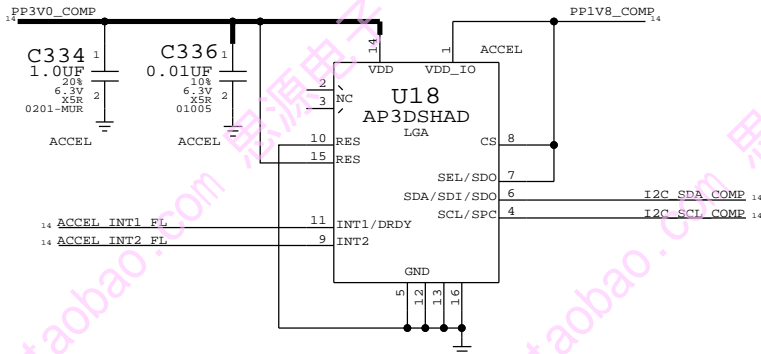
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THESE PARTS OUTSIDE OF SHIELD

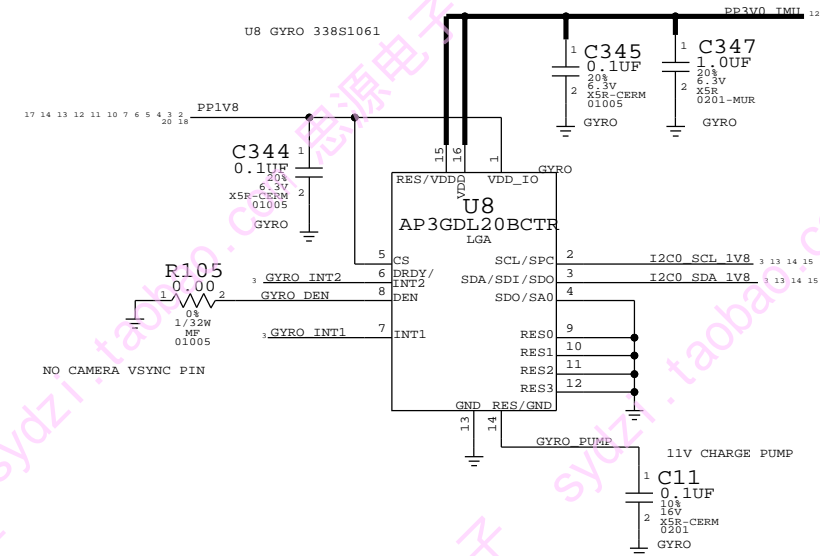
## ACCELEROMETER

I2C ADDRESS: 0011101X



## GYRO 20KHZ

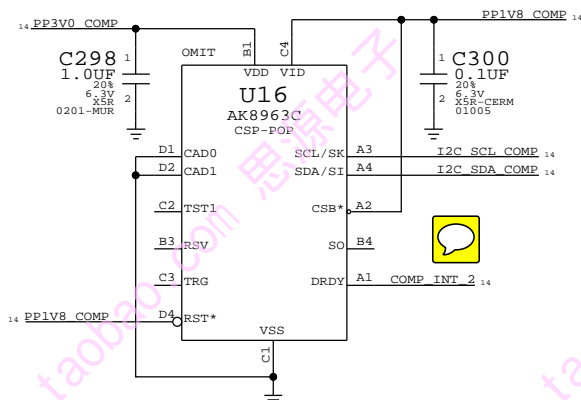
I2C ADDRESS: 1101010X



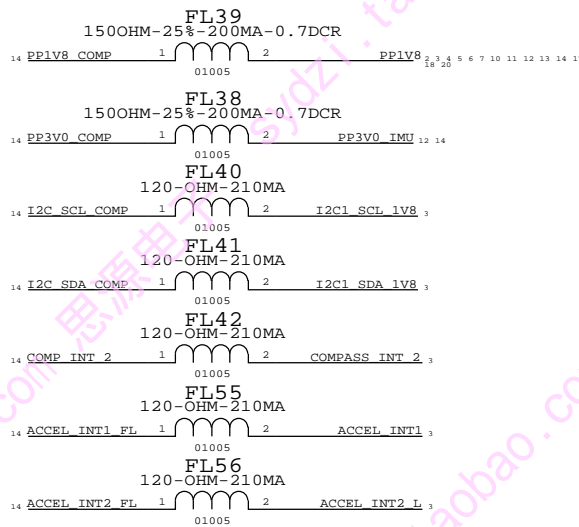
## COMPASS 2

I2C ADDR: 0001100X

COMPASS POP FOOTPRINT: 998-5120  
COMPASS DEVICE: 338S1014



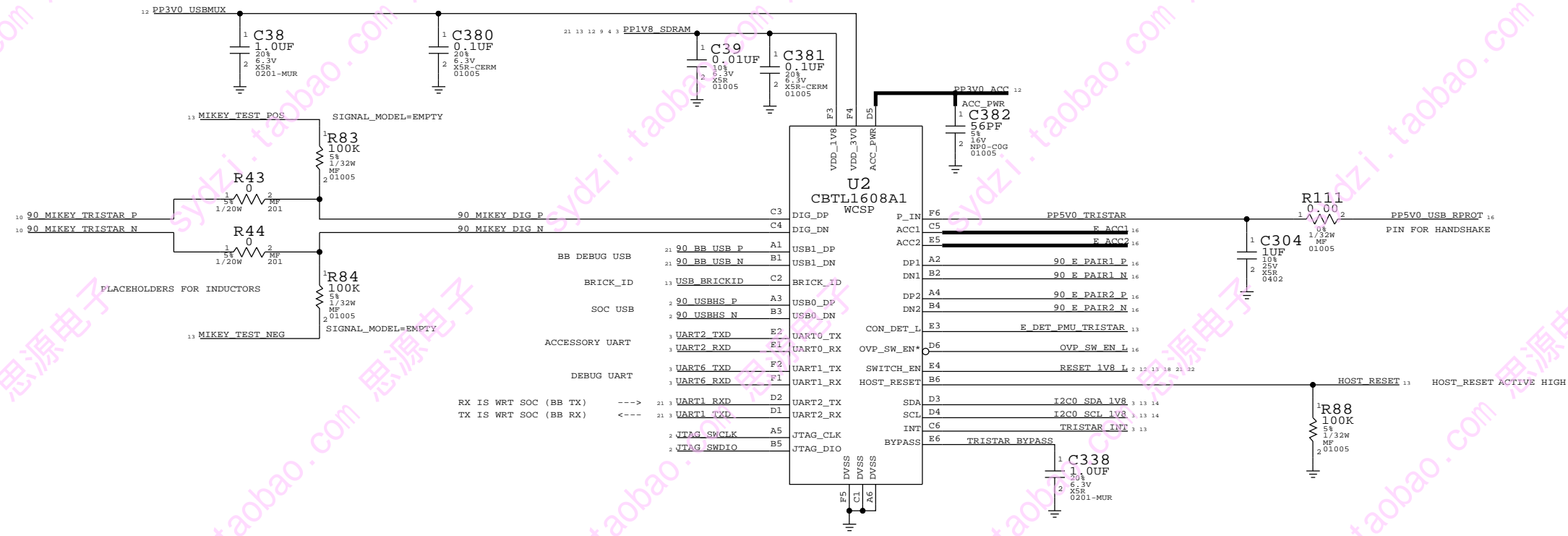
PART#	QTY	DESCRIPTION	REFERENCE DESIGNATOR(S)	BOM OPTION
639-4024	1	PCB, COMPASS POP, N41	U16	?



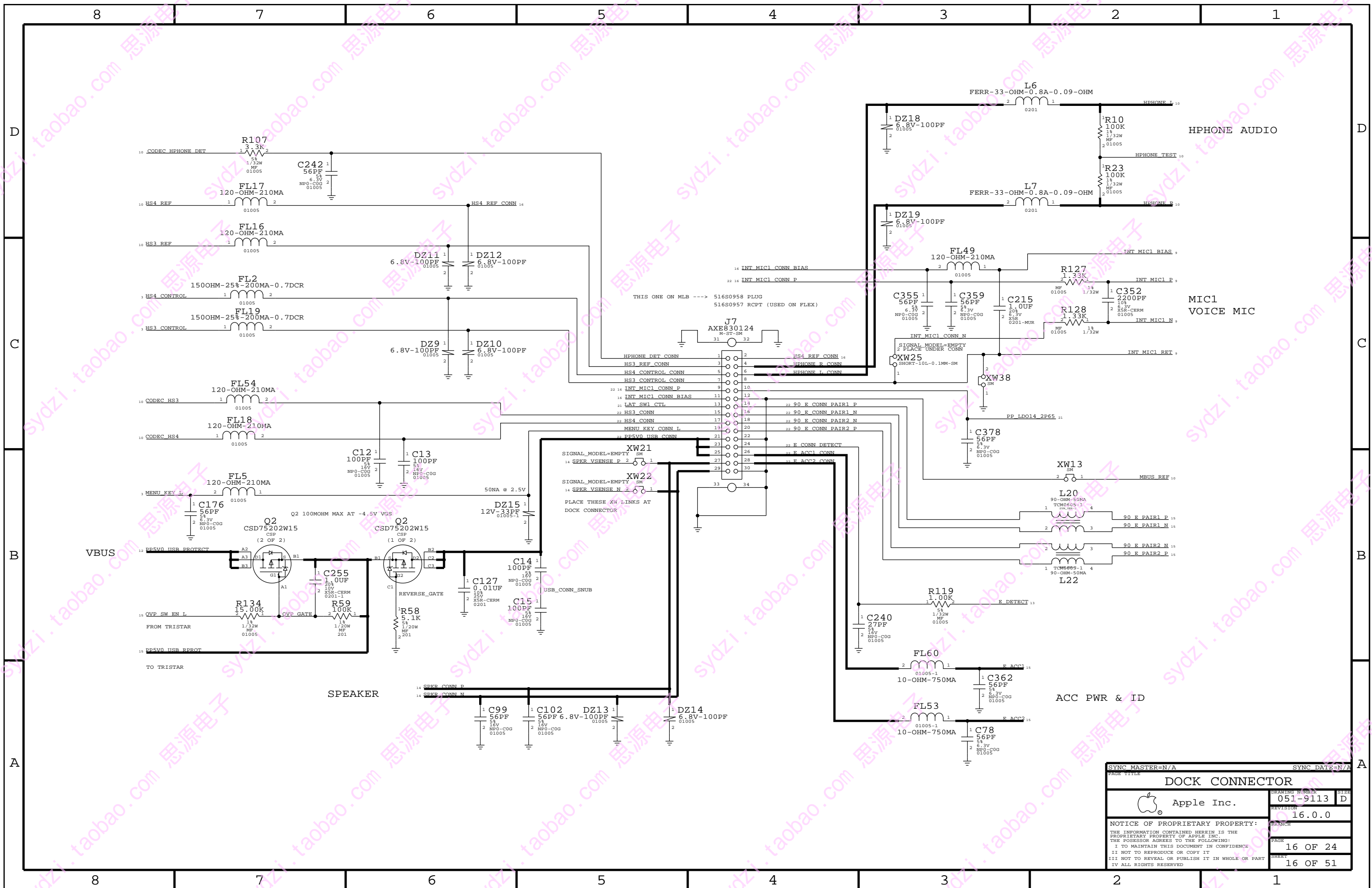
SYNC MASTER=N/A		SYNC DATE=N/A	
ACCEL, GYRO, COMPASS, SPK AMP			
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# TRISTAR

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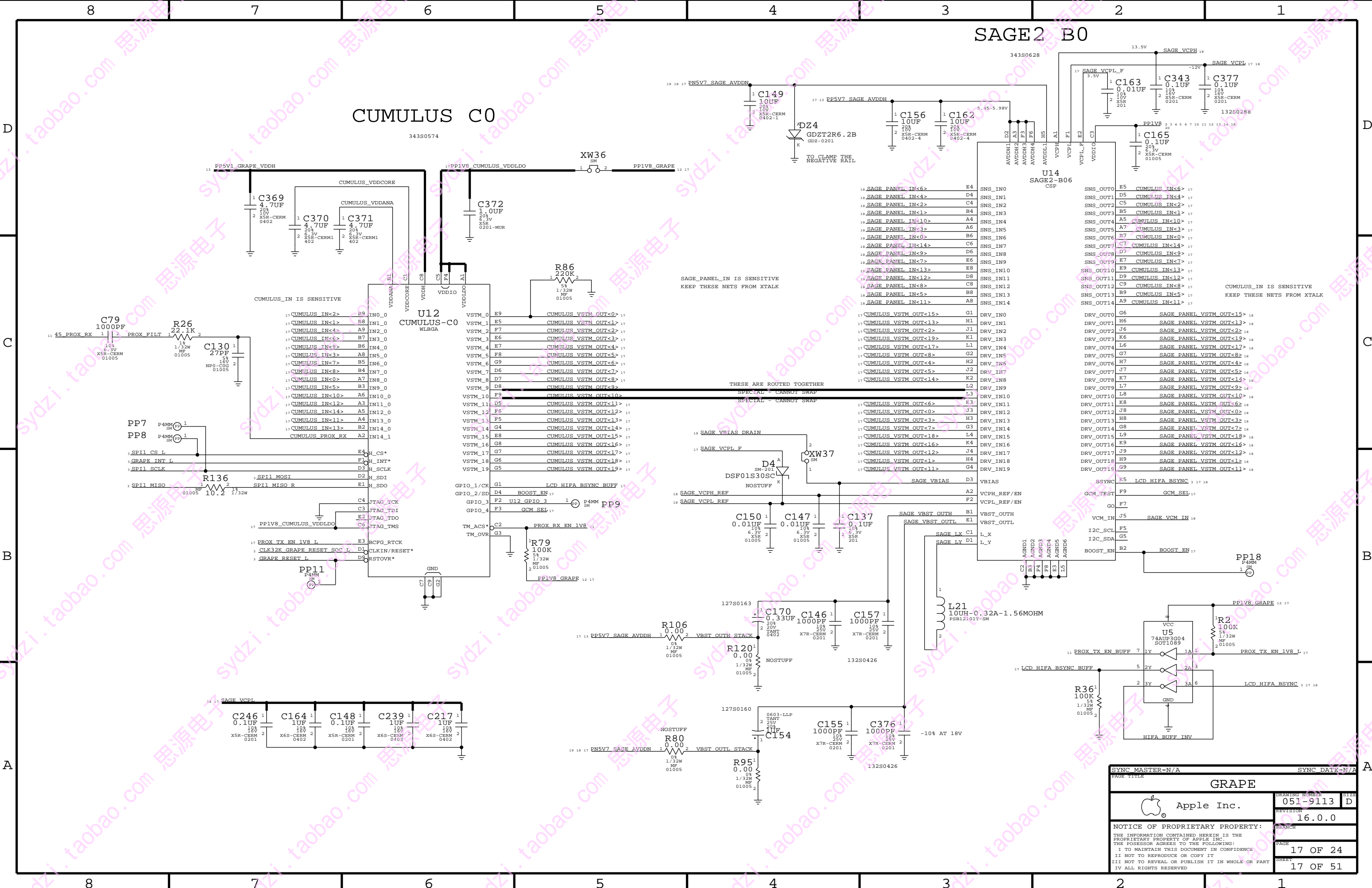


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		REVISION	
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		SHEET	15 OF 51



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<b>DOCK CONNECTOR</b>			
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			SHEET 16 OF 51





CUMULUS C0

SAGE2 B0

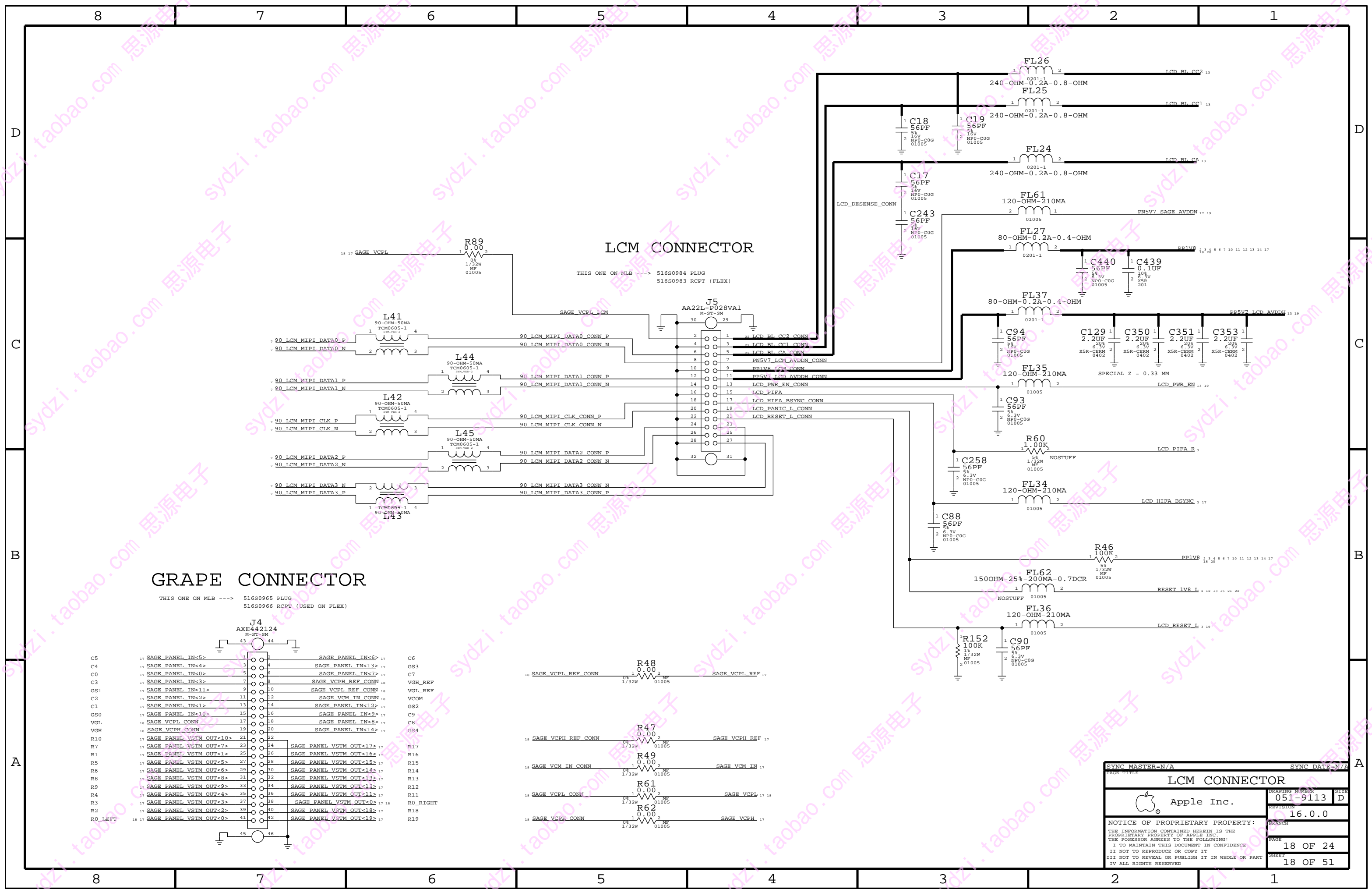
U12 CUMULUS-C0 WLBGA

VDDANA	E1	IN0_0
VDDCORE	C1	IN1_0
VDDH	C8	IN2_0
VDDIO	C5	IN3_0
VDDLDO	A1	IN4_0
VSTM_0	E9	IN5_0
VSTM_1	E8	IN6_0
VSTM_2	F7	IN7_0
VSTM_3	E6	IN8_0
VSTM_4	E7	IN9_0
VSTM_5	F8	IN10_0
VSTM_6	G9	IN11_0
VSTM_7	D6	IN12_0
VSTM_8	D7	IN13_0
VSTM_9	D8	IN14_0
VSTM_10	F9	IN15_0
VSTM_11	D5	IN16_0
VSTM_12	F6	IN17_0
VSTM_13	F5	IN18_0
VSTM_14	G4	IN19_0
VSTM_15	E8	IN20_0
VSTM_16	G8	IN21_0
VSTM_17	G7	IN22_0
VSTM_18	G6	IN23_0
VSTM_19	G5	IN24_0
GPIO_1/CK	G1	IN25_0
GPIO_2/SD	D4	IN26_0
GPIO_3	F2	IN27_0
GPIO_4	F3	IN28_0
TM_ACS*	C2	IN29_0
TM_OVR	G3	IN30_0
H_CS*	E4	IN31_0
H_INT*	F1	IN32_0
H_SCLK	D3	IN33_0
H_SDI	D2	IN34_0
H_SDO	E1	IN35_0
BCFG_RTCK	E3	IN36_0
CLKIN/RESET*	D1	IN37_0
RSTOVR*	D9	IN38_0

U14 SAGE2-B06 CSP

SNS_IN0	E4	CUMULUS_IN<6>
SNS_IN1	D4	CUMULUS_IN<4>
SNS_IN2	C4	CUMULUS_IN<2>
SNS_IN3	B4	CUMULUS_IN<1>
SNS_IN4	A4	CUMULUS_IN<10>
SNS_IN5	A6	CUMULUS_IN<3>
SNS_IN6	B6	CUMULUS_IN<0>
SNS_IN7	C6	CUMULUS_IN<14>
SNS_IN8	D6	CUMULUS_IN<9>
SNS_IN9	E6	CUMULUS_IN<7>
SNS_IN10	E8	CUMULUS_IN<13>
SNS_IN11	D8	CUMULUS_IN<12>
SNS_IN12	C8	CUMULUS_IN<8>
SNS_IN13	B8	CUMULUS_IN<5>
SNS_IN14	A8	CUMULUS_IN<11>
DRV_IN0	G1	SAGE_PANEL_VSTM_OUT<15>
DRV_IN1	H1	SAGE_PANEL_VSTM_OUT<13>
DRV_IN2	J1	SAGE_PANEL_VSTM_OUT<2>
DRV_IN3	K1	SAGE_PANEL_VSTM_OUT<19>
DRV_IN4	L1	SAGE_PANEL_VSTM_OUT<17>
DRV_IN5	G2	SAGE_PANEL_VSTM_OUT<8>
DRV_IN6	H2	SAGE_PANEL_VSTM_OUT<4>
DRV_IN7	J2	SAGE_PANEL_VSTM_OUT<5>
DRV_IN8	K2	SAGE_PANEL_VSTM_OUT<14>
DRV_IN9	L2	SAGE_PANEL_VSTM_OUT<9>
DRV_IN10	L3	SAGE_PANEL_VSTM_OUT<10>
DRV_IN11	K3	SAGE_PANEL_VSTM_OUT<6>
DRV_IN12	J3	SAGE_PANEL_VSTM_OUT<0>
DRV_IN13	H3	SAGE_PANEL_VSTM_OUT<3>
DRV_IN14	G3	SAGE_PANEL_VSTM_OUT<7>
DRV_IN15	L4	SAGE_PANEL_VSTM_OUT<18>
DRV_IN16	K4	SAGE_PANEL_VSTM_OUT<16>
DRV_IN17	J4	SAGE_PANEL_VSTM_OUT<12>
DRV_IN18	H4	SAGE_PANEL_VSTM_OUT<1>
DRV_IN19	G4	SAGE_PANEL_VSTM_OUT<11>
BSYNC	K5	LCD_HIFA_BSYNC
VCPH_REF/EN	A2	VCPH_REF/EN
VCPH_SEL	F2	VCPH_SEL
VBST_OUTH	B1	VBST_OUTH
VBST_OUTL	E1	VBST_OUTL
L_X	C1	L_X
L_Y	D1	L_Y
AGND1	C2	AGND1
AGND2	E2	AGND2
AGND3	F2	AGND3
AGND4	H2	AGND4
AGND5	E3	AGND5
AGND6	L5	AGND6
GCM_TEST	F9	GCM_TEST
GCM_SEL	F7	GCM_SEL
VCM_IN	J5	SAGE_VCM_IN
I2C_SCL	F5	I2C_SCL
I2C_SDA	G5	I2C_SDA
BOOST_EN	B2	BOOST_EN

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<b>GRAPE</b>			
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### LCM CONNECTOR

THIS ONE ON MLB ----> 516S0984 PLUG  
516S0983 RCPT (FLEX)

### GRAPE CONNECTOR

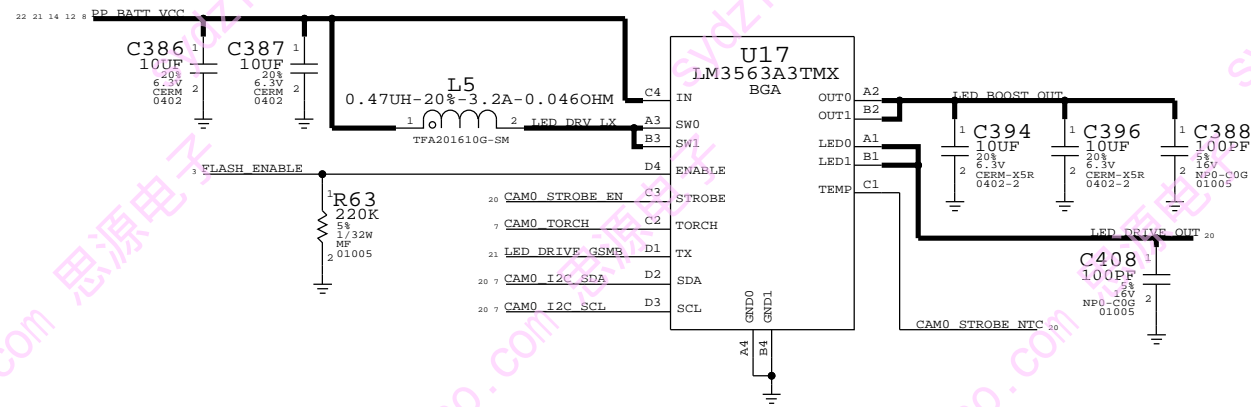
THIS ONE ON MLB ----> 516S0965 PLUG  
516S0966 RCPT (USED ON FLEX)

C5	17	SAGE PANEL IN<5>	2	SAGE PANEL IN<6>	17	C6
C4	17	SAGE PANEL IN<4>	3	SAGE PANEL IN<13>	17	GS3
C0	17	SAGE PANEL IN<0>	5	SAGE PANEL IN<7>	17	C7
C3	17	SAGE PANEL IN<3>	7	SAGE VCPH REF CONN	18	VGH_REF
GS1	17	SAGE PANEL IN<11>	9	SAGE VCPL REF CONN	18	VGL_REF
C2	17	SAGE PANEL IN<2>	11	SAGE VCM IN CONN	18	VCOM
C1	17	SAGE PANEL IN<1>	13	SAGE PANEL IN<12>	17	GS2
GS0	17	SAGE PANEL IN<10>	15	SAGE PANEL IN<9>	17	C9
VGL	18	SAGE VCPL CONN	17	SAGE PANEL IN<8>	17	C8
VGH	18	SAGE VCPH CONN	19	SAGE PANEL IN<14>	17	GS4
R10	17	SAGE PANEL VSTM OUT<10>	21			
R7	17	SAGE PANEL VSTM OUT<7>	23	SAGE PANEL VSTM OUT<17>	17	R17
R1	17	SAGE PANEL VSTM OUT<1>	25	SAGE PANEL VSTM OUT<16>	17	R16
R5	17	SAGE PANEL VSTM OUT<5>	27	SAGE PANEL VSTM OUT<15>	17	R15
R6	17	SAGE PANEL VSTM OUT<6>	29	SAGE PANEL VSTM OUT<14>	17	R14
R8	17	SAGE PANEL VSTM OUT<8>	31	SAGE PANEL VSTM OUT<13>	17	R13
R9	17	SAGE PANEL VSTM OUT<9>	33	SAGE PANEL VSTM OUT<12>	17	R12
R4	17	SAGE PANEL VSTM OUT<4>	35	SAGE PANEL VSTM OUT<11>	17	R11
R3	17	SAGE PANEL VSTM OUT<3>	37	SAGE PANEL VSTM OUT<0>	18	R0_RIGHT
R2	17	SAGE PANEL VSTM OUT<2>	39	SAGE PANEL VSTM OUT<18>	17	R18
R0_LEFT	18	SAGE PANEL VSTM OUT<0>	41	SAGE PANEL VSTM OUT<19>	17	R19

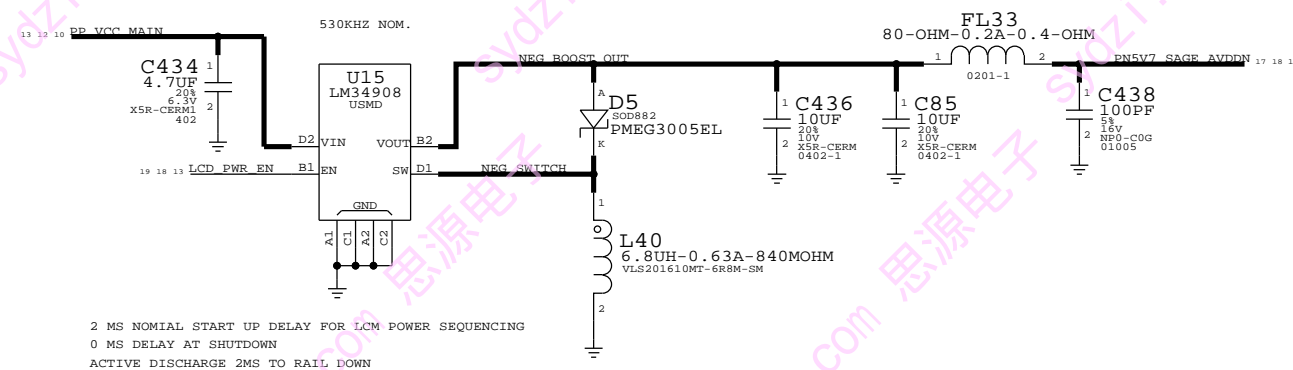
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				SHEET	18 OF 51

# LED DRIVER

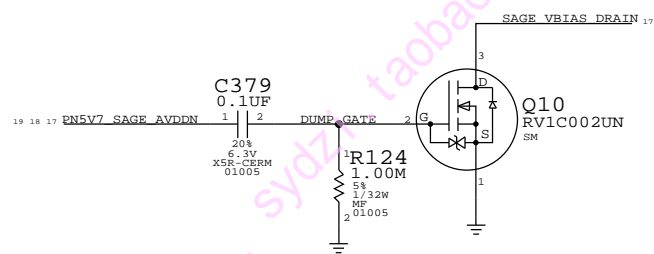
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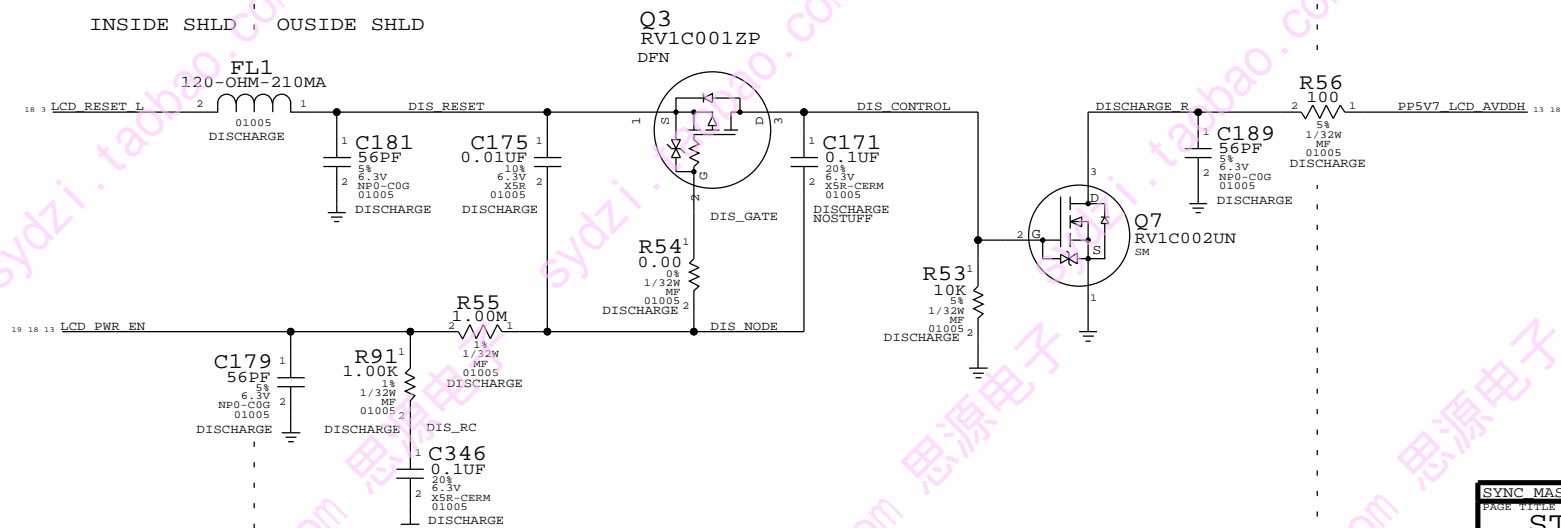
# NEGATIVE BOOST SUPPLY



## SAGE\_VBIAS DISCHARGE

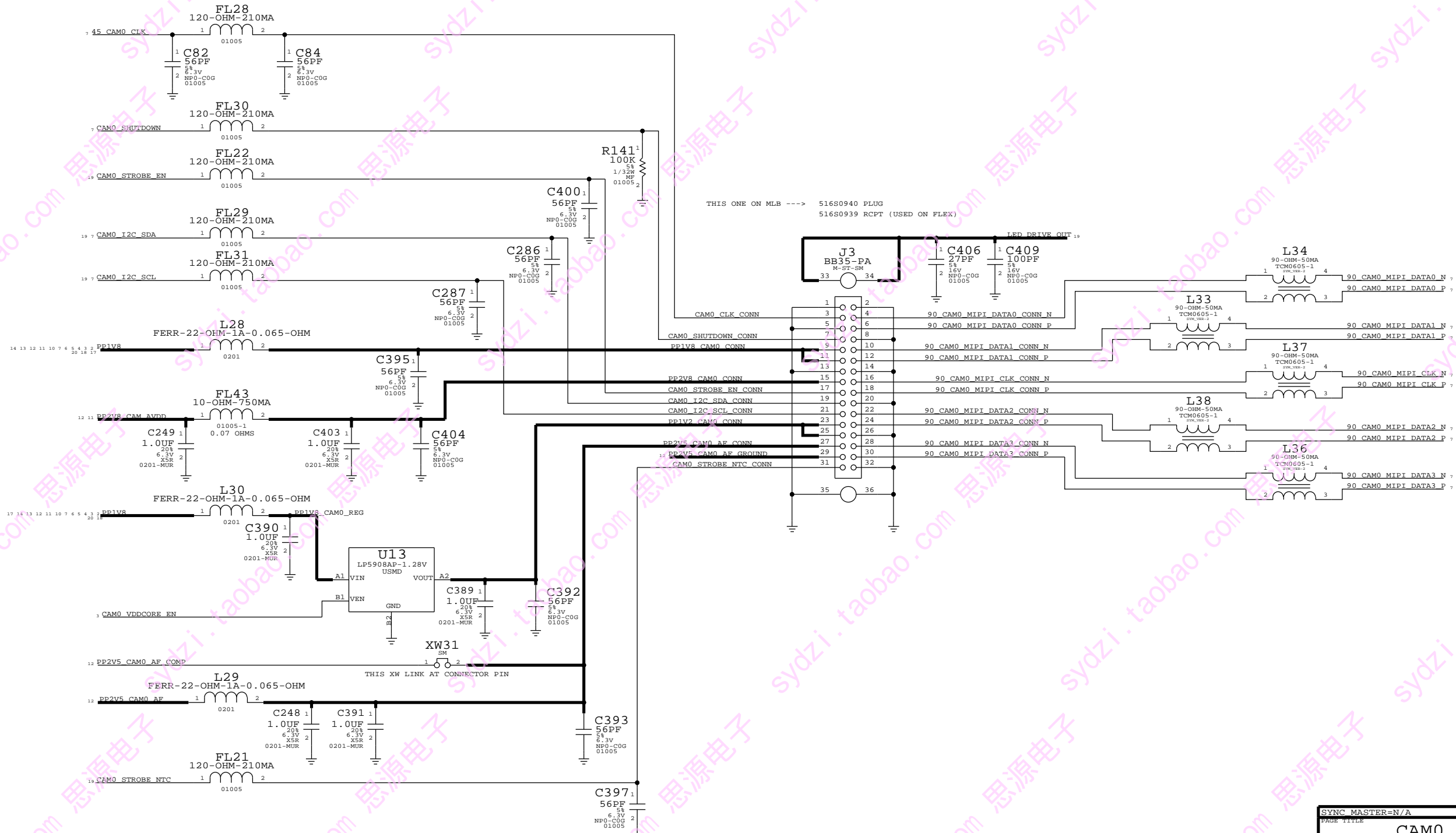


THIS CIRCUIT IS BEHIND THE SIM TRAY



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<b>STROBE &amp; NEGATIVE RAIL</b>			
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		PAGE	19 OF 24
		SHEET	19 OF 51

# CAM0: MAIN CAMERA CONNECTOR



THIS ONE ON MLB ----> 516S0940 PLUG  
516S0939 RCPT (USED ON FLEX)

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<b>CAM0 CONNECTOR</b>			
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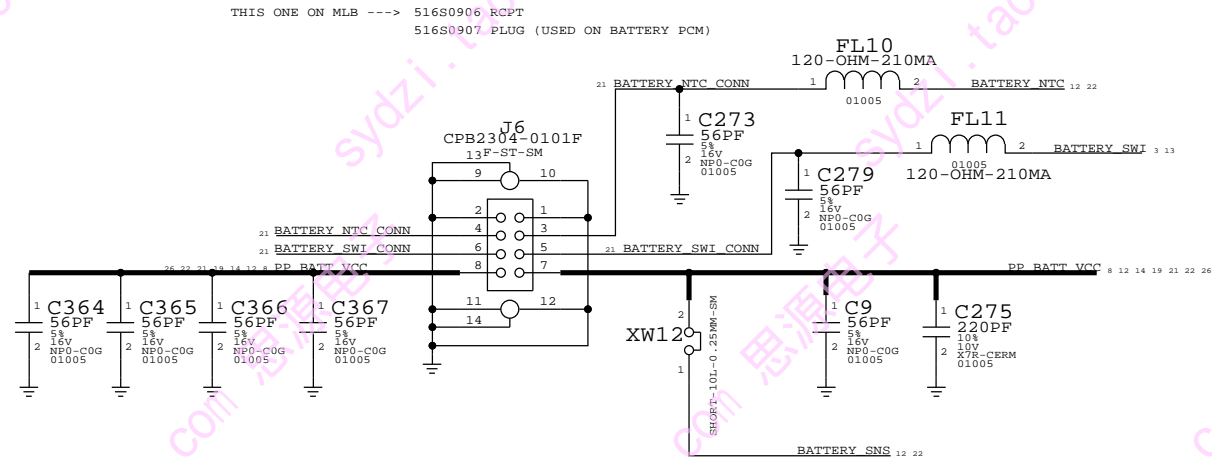
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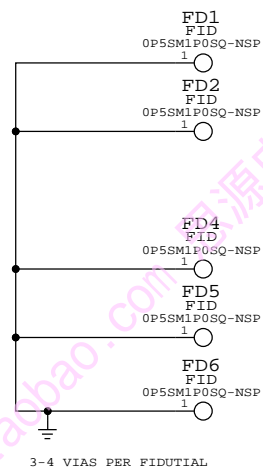
### BATTERY CONN



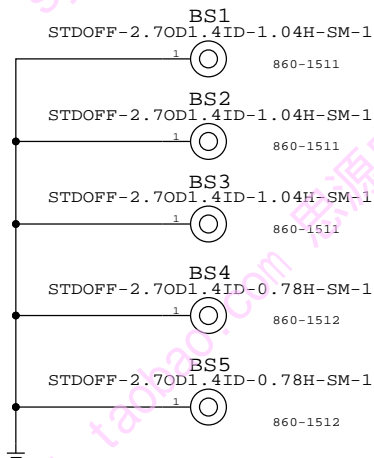
### AP/RADIO INTERFACE

SUBDESIGN_SUFFIX=RF		I594	
26 22 21 19 14 12	PP_BATT_VCC MAKE_BASE=TRUE	PP_BATT_VCC_CONN	AP_HSIC3_RDY MAKE_BASE=TRUE AP_HSIC3_RDY 3 42
26 1	RADIO_ON_L MAKE_BASE=TRUE	RADIO_ON_L	DEV_HSIC3_RDY MAKE_BASE=TRUE DEV_HSIC3_RDY 3 42
26 3	BB_RESET_DET_L MAKE_BASE=TRUE	RESET_DET_L	BB_JTAG_TCK MAKE_BASE=TRUE BB_JTAG_TCK 3 26
26 11	BB_RST_PMU_L MAKE_BASE=TRUE	RESET_PMU_L	BB_JTAG_TDI MAKE_BASE=TRUE BB_JTAG_TDI 3 26
26 4	BB_RST_L MAKE_BASE=TRUE	BB_RST_L	BB_JTAG_TMS MAKE_BASE=TRUE BB_JTAG_TMS 3 26
26 23	BB_WAKE_AP MAKE_BASE=TRUE	HOST_WAKE_BB	BB_JTAG_TRST_L MAKE_BASE=TRUE BB_JTAG_TRST_L 3 26
26 22 18 15 12 2	RESET_IV8_L MAKE_BASE=TRUE	RF_RESET_L	BB_JTAG_TDO MAKE_BASE=TRUE BB_JTAG_TDO 3 26
USED TO HOLD AP IN RESET DEBUG ONLY			
26 3	PBL_RUN_BB_HSIC1_RDY MAKE_BASE=TRUE	PBL_RUN_BB_HSIC1_RDY	
30 3	BB_HSIC1_REMOTE_WAKE MAKE_BASE=TRUE	BB_HSIC1_REMOTE_WAKE	
30 15	LED_DRIVE_GSMB MAKE_BASE=TRUE	TX_GTR_THRESH	
26 11	BB_VBUS_DET MAKE_BASE=TRUE	BB_USB_VBUS	
26 15	90_BB_USB_N MAKE_BASE=TRUE	90_BB_USB_D_N	
26 11	90_BB_USB_P MAKE_BASE=TRUE	90_BB_USB_D_P	
30 3	UART1_RTS_L MAKE_BASE=TRUE	BB_UART_CTS_L	RADIO_MLB
30 3	UART1_CTS_L MAKE_BASE=TRUE	BB_UART_RTS_L	
30 3	UART1_TXD MAKE_BASE=TRUE	BB_UART_RXD	
30 15	UART1_RXD MAKE_BASE=TRUE	BB_UART_TXD	
30 3	BB_PP_SYNC MAKE_BASE=TRUE	PP_SYNC	
30 3	45_I2S1_BCLK MAKE_BASE=TRUE	BB_I2S_CLK	
30 3	I2S1_DOUT MAKE_BASE=TRUE	BB_I2S_AXD	
30 3	I2S1_DIN MAKE_BASE=TRUE	BB_I2S_TXD	
30 3	I2S1_LRCLK MAKE_BASE=TRUE	BB_I2S_WS	
26 13	ADC_SMP31_MSMC_IV05 MAKE_BASE=TRUE	ADC_SMP31_MSMC_IV05	
26 13	ADC_SMP31_MSME_IV8 MAKE_BASE=TRUE	ADC_SMP31_MSME_IV8	
26 13	ADC_LDO6_RUIM_IV8 MAKE_BASE=TRUE	ADC_LDO6_RUIM_IV8	
26 13	ADC_LVS1 MAKE_BASE=TRUE	ADC_LVS1	
42 15 13 12 9 4 3	PP1V8_SDRAM MAKE_BASE=TRUE	PP_WL_BT_VDDIO_AP	
42 13	WIFI_REG_ON MAKE_BASE=TRUE	WLAN_REG_ON	
42 13	BT_REG_ON MAKE_BASE=TRUE	BT_REG_ON	
42 13	UART4_TXD MAKE_BASE=TRUE	WLAN_UART_RXD	
42 13	UART4_RXD MAKE_BASE=TRUE	WLAN_UART_TXD	
42 13	HOST_WAKE_WLAN MAKE_BASE=TRUE	HOST_WAKE_WLAN	
42 3	BT_WAKE MAKE_BASE=TRUE	BT_WAKE	
42 13	CLK32K_WIFI MAKE_BASE=TRUE	CLK32K_AP	
42 13	HOST_WAKE_BT MAKE_BASE=TRUE	HOST_WAKE_BT	
42 3	UART3_RTS_L MAKE_BASE=TRUE	BT_UART_CTS_L	
42 3	UART3_CTS_L MAKE_BASE=TRUE	BT_UART_RTS_L	
42 3	UART3_TXD MAKE_BASE=TRUE	BT_UART_RXD	
42 3	UART3_RXD MAKE_BASE=TRUE	BT_UART_TXD	
42 3	45_I2S3_BCLK MAKE_BASE=TRUE	BT_PCM_CLK	
42 3	I2S3_DOUT MAKE_BASE=TRUE	BT_PCM_IN	
42 3	I2S3_DIN MAKE_BASE=TRUE	BT_PCM_OUT	
42 3	I2S3_LRCLK MAKE_BASE=TRUE	BT_PCM_SYNC	
26 3	50_HSIC1_DATA MAKE_BASE=TRUE	50_HSIC_BB_DATA	
26 3	50_HSIC1_STB MAKE_BASE=TRUE	50_HSIC_BB_STROBE	
30 3	AP_WAKE_MODEM MAKE_BASE=TRUE	AP_WAKE_MODEM	
42 3	50_HSIC3_DATA MAKE_BASE=TRUE	50_HSIC_WLAN_DATA	
42 3	50_HSIC3_STB MAKE_BASE=TRUE	50_HSIC_WLAN_STROBE	
26 3	AP_HSIC1_RDY MAKE_BASE=TRUE	AP_HSIC1_RDY	
27 16	PP_LDO14_2P65 MAKE_BASE=TRUE	PP_LDO14_2P65	
26 16	LAT_SW1_CTL MAKE_BASE=TRUE	LAT_SW1_CTL	
42 3	WLAN_HSIC3_RESUME MAKE_BASE=TRUE	WLAN_HSIC3_RESUME	

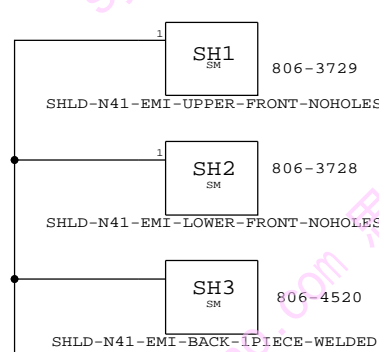
### FIDUCIALS



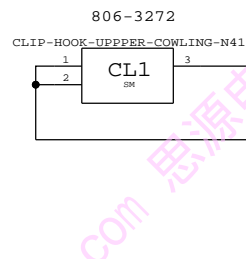
### STANDOFFS



### SHIELDS



### UPPER COWLING CLIP/HOOK



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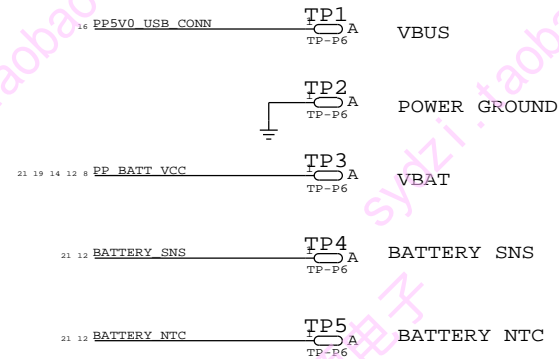
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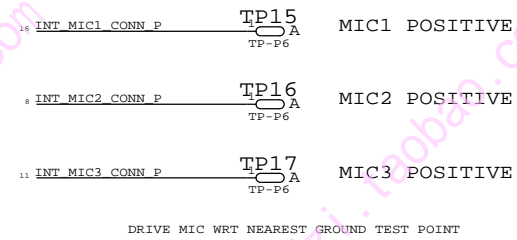
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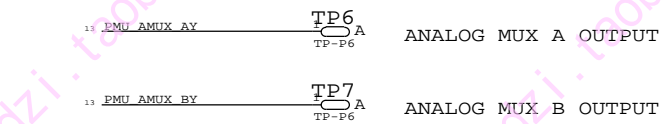
### POWER TP



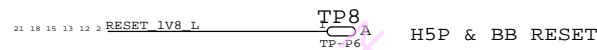
### MIC AUDIO



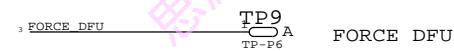
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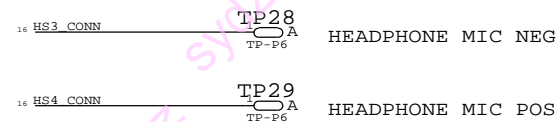
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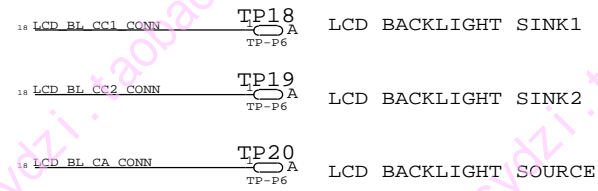
### DFU



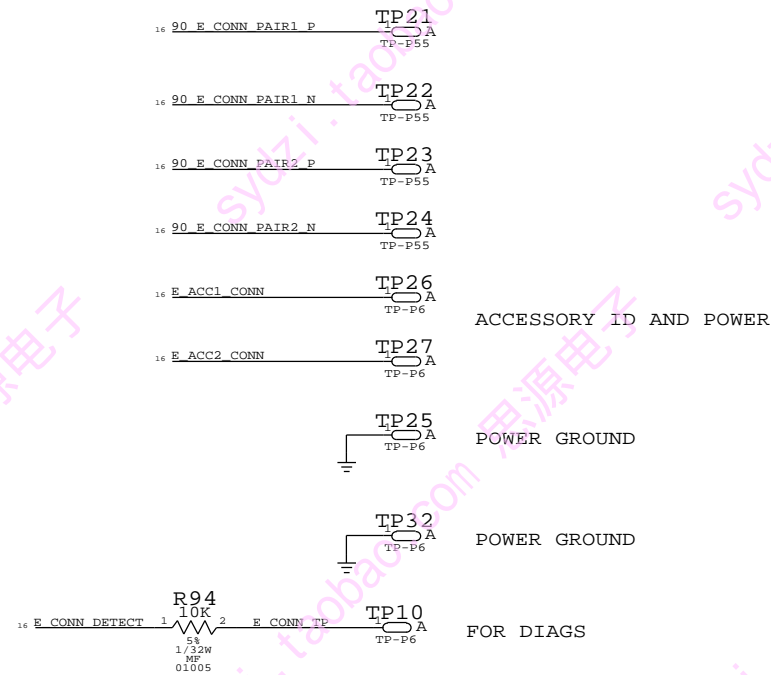
### HEADPHONE MIC



### LCM BACKLIGHT



### E75 - USB/UART/ID/POWER



SYNC MASTER=N/A		SYNC DATE=N/A	
<b>TEST POINTS</b>			
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			22 OF 24
			SHEET
			22 OF 51

8

7

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1

# RADIO BOM OPTIONS

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## HW\_ID PA\_ID BOM OPTIONS

PART#	QTY	DESCRIPTION	REFERENCE DESIGNATOR(S)	CRITICAL	BOM OPTION
118S0685	1	PA_ID RES DIVIDER	R304_RF	Y	B4_17
118S0656	1	PA_ID RES DIVIDER	R304_RF	Y	B3_13
118S0719	1	PA_ID RES DIVIDER	R302_RF	Y	B4_17
118S0685	1	PA_ID RES DIVIDER	R302_RF	Y	B3_13

## SPI NOR BOM OPTIONS

PART#	QTY	DESCRIPTION	REFERENCE DESIGNATOR(S)	CRITICAL	BOM OPTION
335S0874	1	SERIAL SPI NOR - MICRONIX	U601_RF	Y	B4_17
335S0874	1	SERIAL SPI NOR - MICRONIX	U601_RF	Y	B3_13

## B5/B5E BOM OPTIONS

PART#	QTY	DESCRIPTION	REFERENCE DESIGNATOR(S)	CRITICAL	BOM OPTION
353S3415	1	SKY77487 BAND 5/8 PAD	U1001_RF	Y	B4_17
353S3569	1	SKY77491 BAND5E/8 PAD	U1001_RF	Y	B3_13
155S0552	1	BAND5 TX SAW	FL1001_RF	Y	B4_17
155S0742	1	BAND5/BC10 TX SAW	FL1001_RF	Y	B3_13
152S1563	1	1.5NH, INDUCTOR - MURATA	L1001_RF	Y	B4_17
152S1662	1	1.5NH, INDUCTOR - TDK	L1001_RF	Y	B3_13
152S1577	1	15NH, INDUCTOR - MURATA	L1002_RF	Y	B4_17
152S1665	1	15NH, INDUCTOR - TDK	L1002_RF	Y	B3_13
152S1576	1	12NH, INDUCTOR - MURATA	L1003_RF	Y	B4_17
152S1664	1	12NH, INDUCTOR - TDK	L1003_RF	Y	B3_13
152S1570	1	4.7NH, INDUCTOR - MURATA	L1010_RF	Y	B4_17
152S1663	1	4.7NH, INDUCTOR - TDK	L1010_RF	Y	B3_13

## B13/17 BOM OPTIONS

PART#	QTY	DESCRIPTION	REFERENCE DESIGNATOR(S)	CRITICAL	BOM OPTION
152S1328	1	4.3NH INDUCTOR - 0201	C1111_RF	Y	B4_17
152S1353	1	3.6NH INDUCTOR - 0201	C1111_RF	Y	B3_13
131S0198	1	1.8PF CAPACITOR - 0201	L1103_RF	Y	B4_17
118S0724	1	0 OHM JUMPER - 0201	C1112_RF	Y	B4_17
131S0204	1	22PF CAPACITOR - 0201	C1112_RF	Y	B3_13
118S0724	1	0 OHM JUMPER - 0201	L1105_RF	Y	B4_17
152S1443	1	2.0NH INDUCTOR - 0201	L1105_RF	Y	B3_13
152S1320	1	7.5NH INDUCTOR - 0201	C1113_RF	Y	B4_17
131S0166	1	39PF CAPACITOR - 0201	C1113_RF	Y	B3_13
131S0176	1	2.4PF CAPACITOR - 0201	C1117_RF	Y	B4_17

## DCDC BOM OPTIONS

PART#	QTY	DESCRIPTION	REFERENCE DESIGNATOR(S)	CRITICAL	BOM OPTION
152S1648	1	POWER INDUCTOR - TAIYO YUDEN	L1201_RF	Y	B4_17
152S1648	1	POWER INDUCTOR - TAIYO YUDEN	L1201_RF	Y	B3_13
152S1564	1	2.4NH, INDUCTOR - MURATA	L1205_RF	Y	B4_17
152S1564	1	2.4NH, INDUCTOR - MURATA	L1205_RF	Y	B3_13

## WIFI BOM OPTIONS

PART#	QTY	DESCRIPTION	REFERENCE DESIGNATOR(S)	CRITICAL	BOM OPTION
339S0171	1	WIFI MODULE - MURATA	U1801_RF	Y	B4_17
339S0171	1	WIFI MODULE - MURATA	U1801_RF	Y	B3_13
339S0175	1	WIFI MODULE - USI	U1801_RF	Y	B4_17
339S0175	1	WIFI MODULE - USI	U1801_RF	Y	B3_13

SINGING CAP BOM OPTIONS  
NEED TO COPY FROM AP TABLE  
WHEN STAN FINISHES

## B5/B5E BOM OPTIONS

PART#	QTY	DESCRIPTION	REFERENCE DESIGNATOR(S)	CRITICAL	BOM OPTION
117S0002	1	0 OHM RESISTOR - 0201	C1023_RF	Y	B4_17
152S1343	1	12NH INDUCTOR - 0201	C1012_RF	Y	B4_17
131S0428	1	10PF CAPACITOR - 0201	L1004_RF	Y	B4_17
131S0457	1	100PF CAPACITOR - 0201	C1023_RF	Y	B3_13
131S0425	1	0.5PF CAPACITOR - 0201	C1012_RF	Y	B3_13
152S1336	1	8.2NH INDUCTOR - 0201	L1004_RF	Y	B3_13

## B13/17 BOM OPTIONS

PART#	QTY	DESCRIPTION	REFERENCE DESIGNATOR(S)	CRITICAL	BOM OPTION
155S0620	1	BAND17 TX SAW	FL1101_RF	Y	B4_17
155S0619	1	BAND13 TX SAW	FL1101_RF	Y	B3_13
353S3567	1	BAND17 PAM - SKYWORKS	U1101_RF	Y	B4_17
353S3441	1	BAND13 PAM - AVAGO	U1101_RF	Y	B3_13
155S0709	1	BAND17 DUPLEXER - MURATA	U1102_RF	Y	B4_17
155S0738	1	BAND13 DUPLEXER - EPCOS	U1102_RF	Y	B3_13
152S1336	1	BAND17 INDUCTOR - 8.2NH	L1104_RF	Y	B4_17
152S1342	1	BAND13 INDUCTOR - 15NH	L1104_RF	Y	B3_13
152S1577	1	15NH, INDUCTOR - MURATA	L1102_RF	Y	B4_17
152S1576	1	12NH, INDUCTOR - MURATA	L1102_RF	Y	B3_13

## B2 PAD BOM OPTIONS

PART#	QTY	DESCRIPTION	REFERENCE DESIGNATOR(S)	CRITICAL	BOM OPTION
353S3715	1	TQM666084 B2 TQS PAD	U1501_RF	Y	B4_17
353S3459	1	TQM666083 B25 TQS PAD	U1501_RF	Y	B3_13

## DIVERISTY MODULE BOM OPTIONS

PART#	QTY	DESCRIPTION	REFERENCE DESIGNATOR(S)	CRITICAL	BOM OPTION
353S3516	1	B17 MURATA DIVERSITY MODULE	U1601_RF	Y	B4_17
353S3562	1	B13/BC10 DIVERSITY MODULE	U1601_RF	Y	B3_13

## B3/DCS1800 BOM OPTIONS

PART#	QTY	DESCRIPTION	REFERENCE DESIGNATOR(S)	CRITICAL	BOM OPTION
155S0596	1	DCS1800 RX FIL	FL1301_RF	Y	B4_17
155S0729	1	BAND3 RX FIL	FL1301_RF	Y	B3_13
155S0695	1	THRU LINE	FL1302_RF	Y	B4_17
155S0722	1	BAND13 TX LPF	FL1302_RF	Y	B3_13
152S1656	1	3.0NH INDUCTOR	R1301_RF	Y	B3_13
152S1742	1	1.6NH INDUCTOR	R1302_RF	Y	B4_17
118S0652	1	49.90HM RES	R1303_RF	Y	B3_13
118S0652	1	49.90HM RES	R1305_RF	Y	B4_17
152S1562	1	1.2NH INDUCTOR	L1304_RF	Y	B4_17
152S1720	1	1.8NH INDUCTOR	L1304_RF	Y	B3_13
152S1562	1	1.2NH INDUCTOR	L1305_RF	Y	B4_17
152S1720	1	1.8NH INDUCTOR	L1305_RF	Y	B3_13
152S1569	1	3.9NH INDUCTOR	L1301_RF	Y	B4_17
152S1570	1	4.7NH INDUCTOR	L1301_RF	Y	B3_13

## B3/B4 RX BOM OPTIONS

PART#	QTY	DESCRIPTION	REFERENCE DESIGNATOR(S)	CRITICAL	BOM OPTION
152S1570	1	4.7NH INDUCTOR - 01005	C1414_RF	Y	B4_17
131S0375	1	1.0PF CAPACITOR - 01005	C1415_RF	Y	B4_17
131S0375	1	1.0PF CAPACITOR - 01005	C1420_RF	Y	B4_17
152S1570	1	4.7NH INDUCTOR - 01005	L1416_RF	Y	B4_17
152S1571	1	5.6NH INDUCTOR - 01005	C1414_RF	Y	B3_13
131S0377	1	1.2PF CAPACITOR - 01005	C1415_RF	Y	B3_13
131S0377	1	1.2PF CAPACITOR - 01005	C1420_RF	Y	B3_13
152S1571	1	5.6NH INDUCTOR - 01005	L1416_RF	Y	B3_13
131S0219	1	10PF CAPACITOR - 01005	L1420_RF	Y	B4_17
131S0219	1	10PF CAPACITOR - 01005	L1421_RF	Y	B4_17
152S1562	1	1.2NH INDUCTOR - 01005	L1420_RF	Y	B3_13
152S1562	1	1.2NH INDUCTOR - 01005	L1421_RF	Y	B3_13
152S1328	1	4.3NH INDUCTOR - 0201	R1402_RF	Y	B4_17
152S1688	1	3.5NH INDUCTOR - 0201	C1416_RF	Y	B4_17
152S1284	1	3.3NH INDUCTOR - 0201	R1402_RF	Y	B3_13
152S1284	1	3.3NH INDUCTOR - 0201	C1416_RF	Y	B3_13

## B3/B4 TX BOM OPTIONS

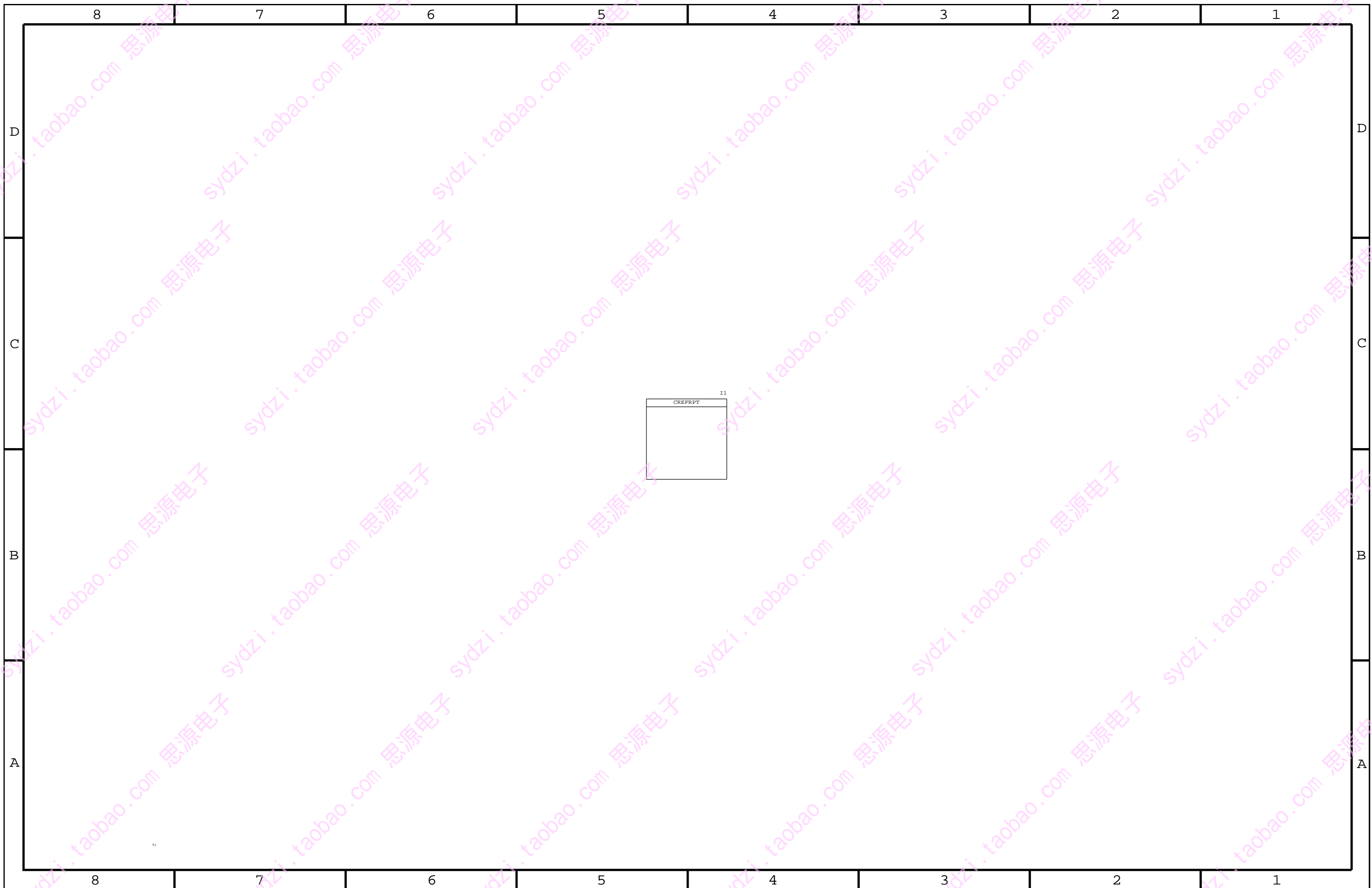
PART#	QTY	DESCRIPTION	REFERENCE DESIGNATOR(S)	CRITICAL	BOM OPTION
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152S1569	1	3.9NH INDUCTOR - 01005	L1417_RF	Y	B3_13
131S0369	1	0.5PF CAPACITOR - 01005	L1408_RF	Y	B3_13
152S1284	1	3.3NH INDUCTOR - 0201	C1425_RF	Y	B4_17
152S1221	1	2.7NH INDUCTOR - 0201	L1419_RF	Y	B4_17
131S0551	1	1.2PF CAPACITOR - 0201	L1415_RF	Y	B4_17
152S1284	1	3.3NH INDUCTOR - 0201	C1425_RF	Y	B3_13
152S1221	1	2.7NH INDUCTOR - 0201	L1419_RF	Y	B3_13
131S0551	1	1.2PF CAPACITOR - 0201	L1415_RF	Y	B3_13

## B3/B4 BOM OPTIONS

PART#	QTY	DESCRIPTION	REFERENCE DESIGNATOR(S)	CRITICAL	BOM OPTION
353S3255	1	B1/4 PAD - AVAGO	U1401_RF	Y	B4_17
353S3443	1	B1/3 PAD - AVAGO	U1401_RF	Y	B3_13
155S0590	1	B4 TX FIL	FL1402_RF	Y	B4_17
155S0712	1	B3 TX FIL	FL1402_RF	Y	B3_13

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PAGE		23 OF 24		
SHEET		23 OF 51		

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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.

REV	ECN	DESCRIPTION OF REVISION	CK APPD	DATE
16	0001519661	ENGINEERING RELEASED		2012-07-02

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# N41 RADIO\_MLB SUBDESIGN

## RADIO - 07/12/2012: SUBDESIGN

PAGE	CONTENTS
02	AP INTERFACE AND DEBUG CONNECTORS
03	BASEBAND PMU (1 OF 2)
04	BASEBAND PMU (2 OF 2)
05	BASEBAND (1 OF 2)
06	BASEBAND (2 OF 2) & SERIAL EEPROM
07	RF TRANSCEIVER (1 OF 3)
08	RF TRANSCEIVER SWITCHING NETWORKS (2 OF 3)
09	RF TRANSCEIVER DECOUPLING (3 OF 3)
10	BAND 5/8 PAD
11	BAND 13 INTERSTAGE, PA, AND DUPLEXER
12	2G PA, PA DCDC CONVERTER
13	ASM, DCS RX
14	BAND 1/4 PAD
15	BAND 2 PAD
16	RX DIVERSITY
17	GPS
18	WLAN/BT
19	BOM OPTION TABLES

PART#	QTY	DESCRIPTION	REFERENCE DESIGNATOR(S)	CRITICAL	BOM OPTION
051-9119	1	N41_RADIO_MLB	SCH	Y	
825-2029	1	EEE FOR 639-2482	EEEE_DNVM	Y	B4_17
825-2029	1	EEE FOR 639-3241	EEEE_DW3L	Y	B3_13

SCH # : 051-9119  
 BOM (B4\_17) : 639-2482  
 BOM (B3\_13) : 639-3241

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SHEET	25 OF 51	

8

7

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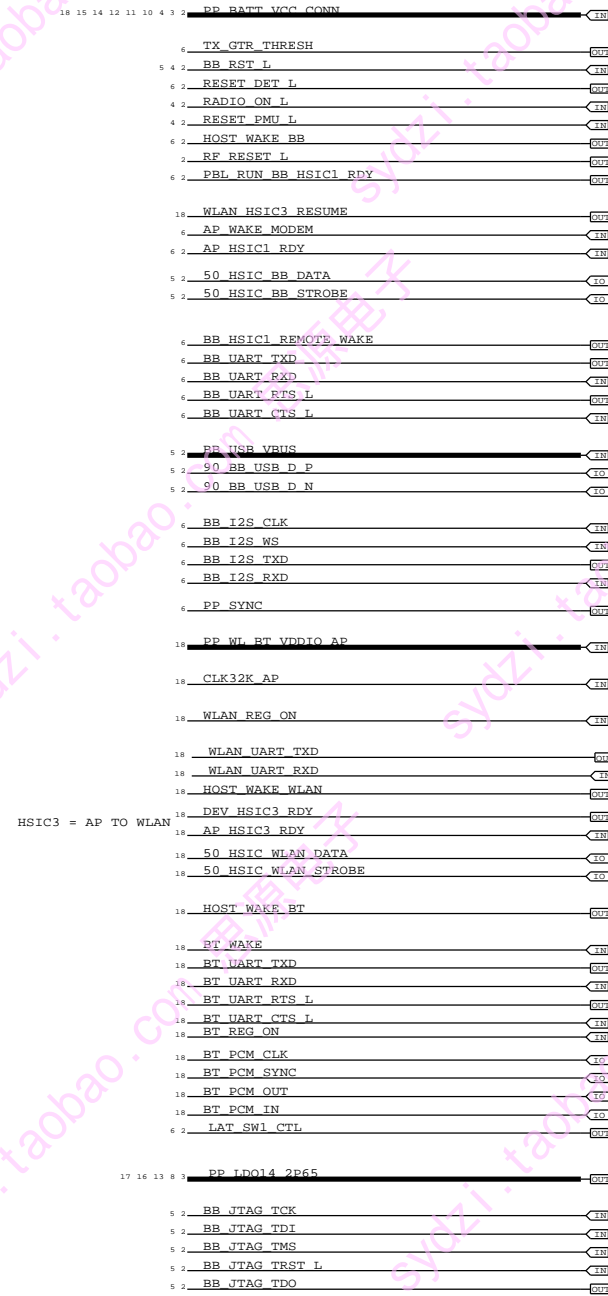
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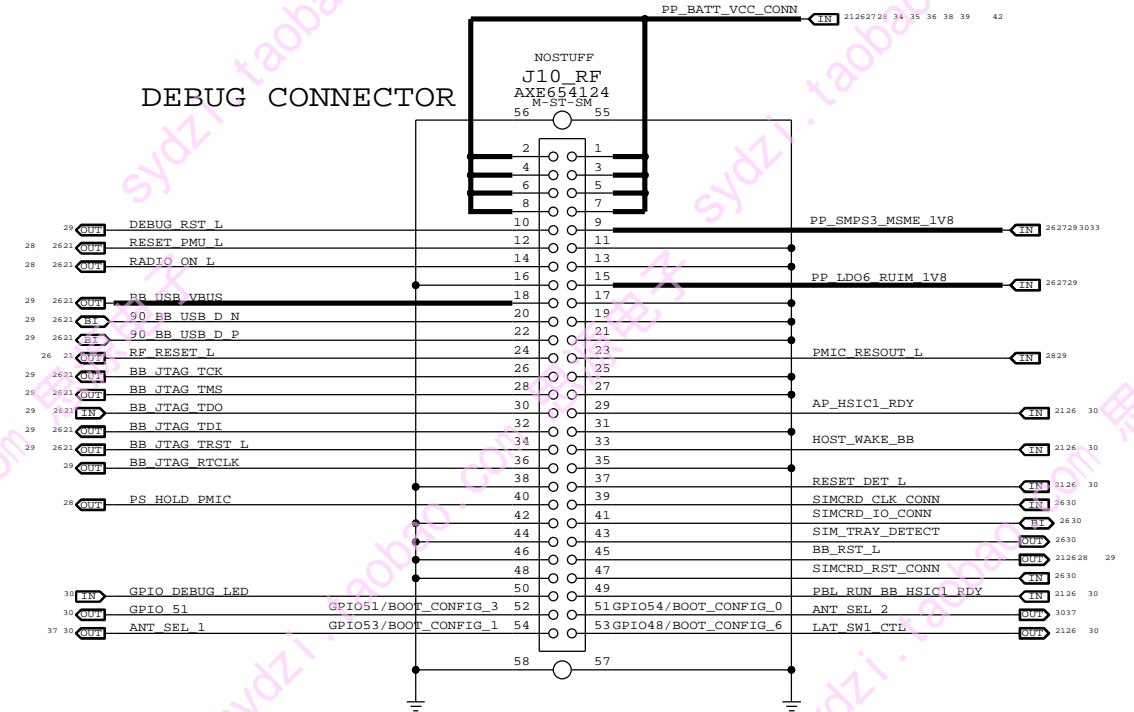
# AP INTERFACE & DEBUG CONNECTOR

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## AP CONNECTIONS

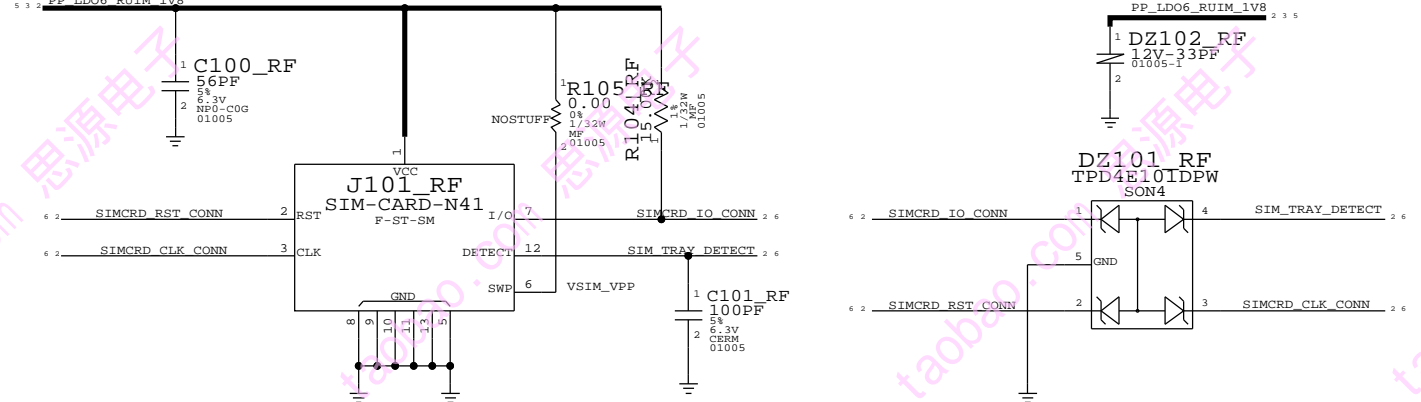


## DEBUG CONNECTOR



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

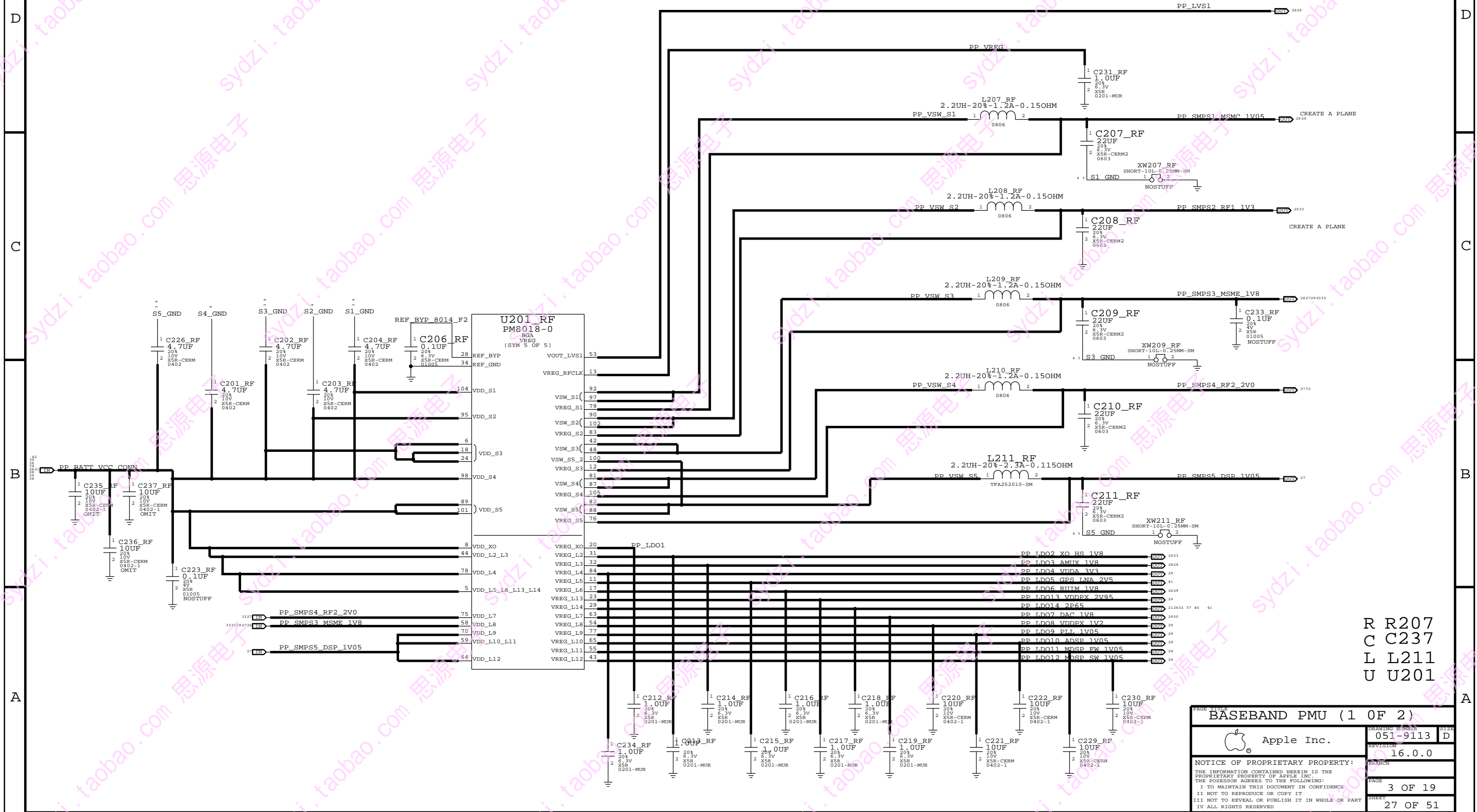


R R105  
C C101  
XWXW206  
DZDZ101  
U U101

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# BASEBAND PMU (1 OF 2)

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R R207  
C C237  
L L211  
U U201

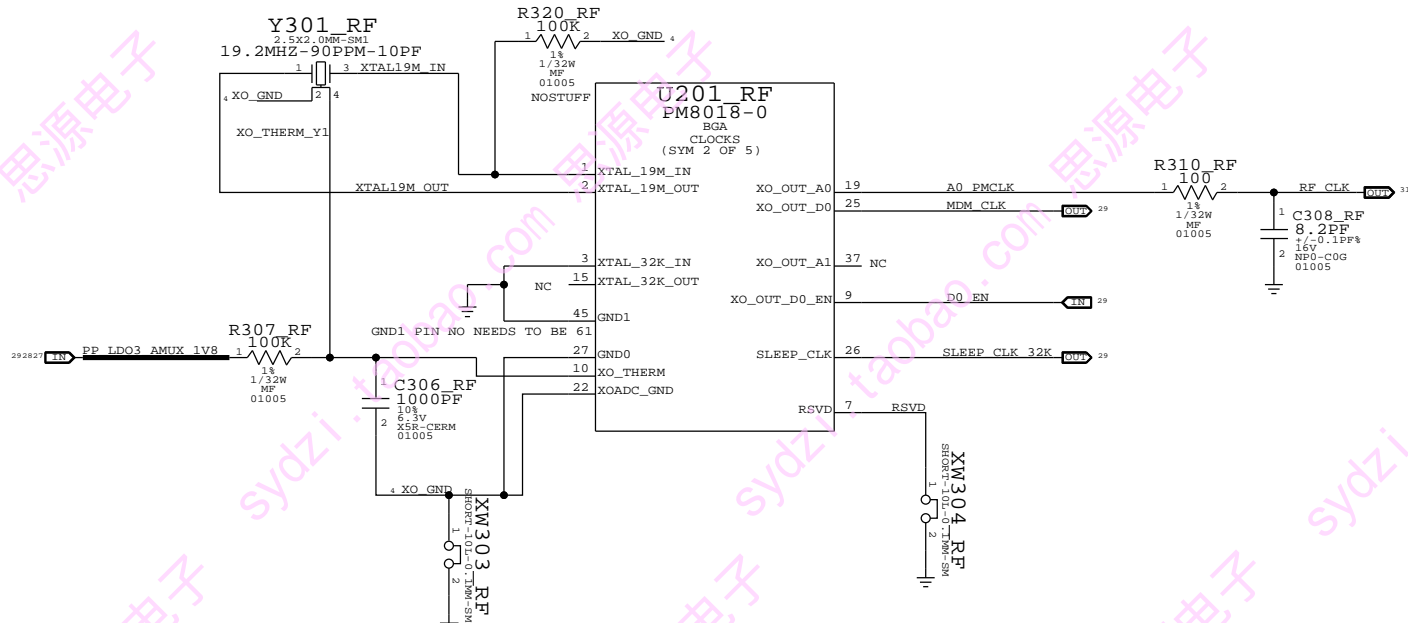
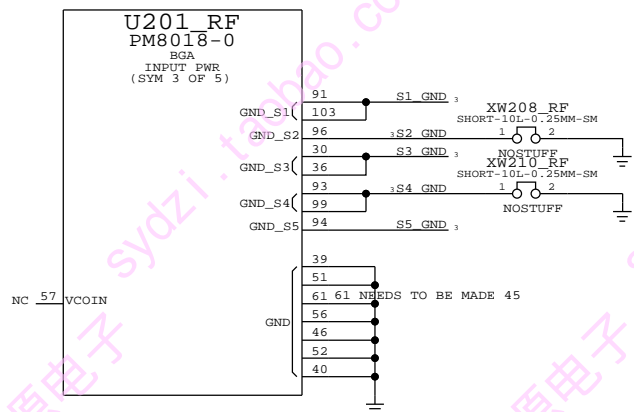
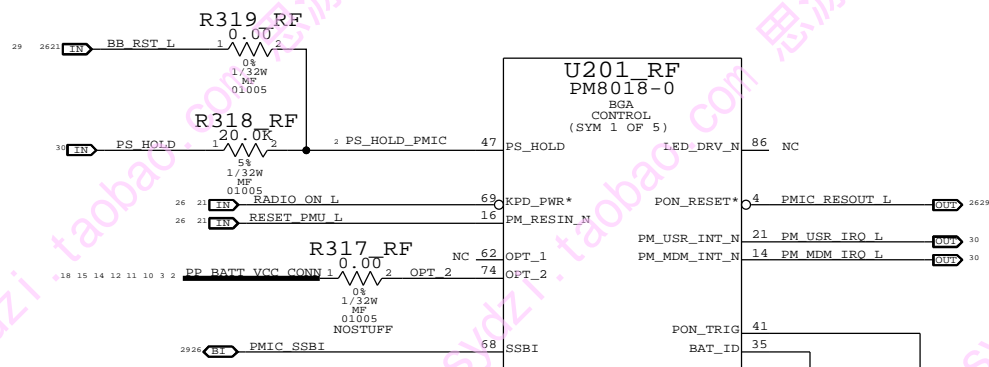
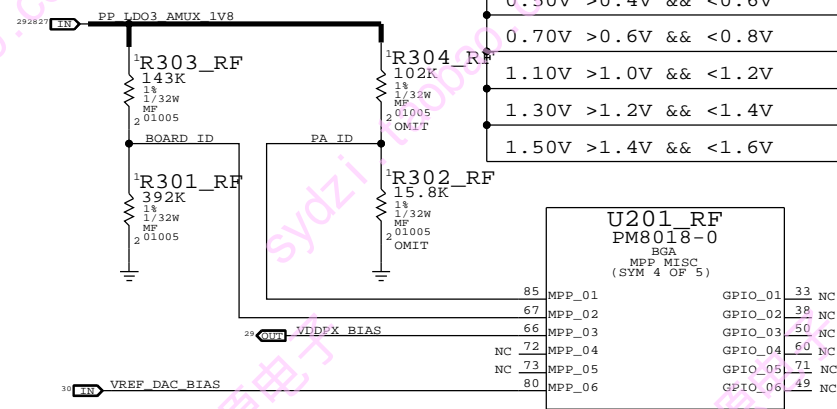
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# BASEBAND PMU (2 OF 2)

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BOARD_ID	REVISION
0.25V : >0.2V && <0.4V	PROTO1
0.50V : >0.4V && <0.6V	PROTO2
0.70V : >0.6V && <0.8V	PROTO3
0.90V : >0.8V && <1.0V	EVT1
1.10V : >1.0V && <1.2V	EVT2
1.30V : >1.2V && <1.4V	EVT3/PVT

PA_ID	PA CONFIG
0.25V >0.2V && <0.4V	B4_17 MAIN
0.50V >0.4V && <0.6V	BUILD MATRIX
0.70V >0.6V && <0.8V	BUILD MATRIX
1.10V >1.0V && <1.2V	B3_13 MAIN
1.30V >1.2V && <1.4V	BUILD MATRIX
1.50V >1.4V && <1.6V	BUILD MATRIX

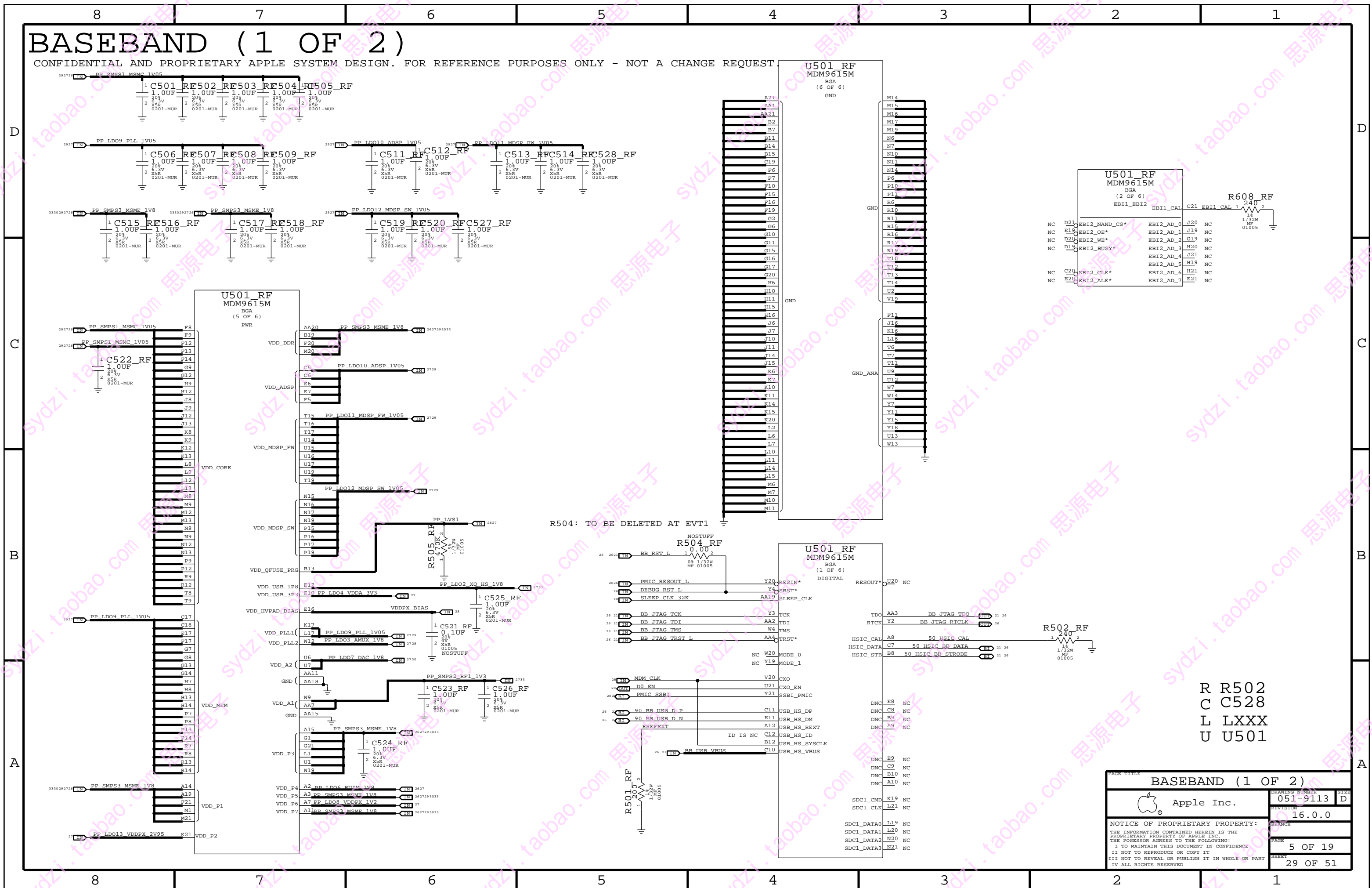


R R320  
C C309  
L LXXX  
U U301  
XW XW305

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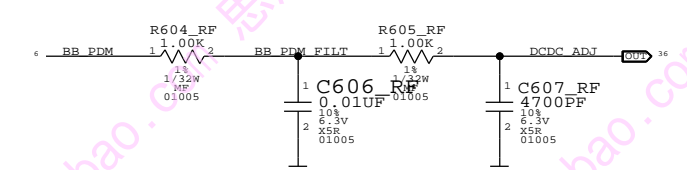
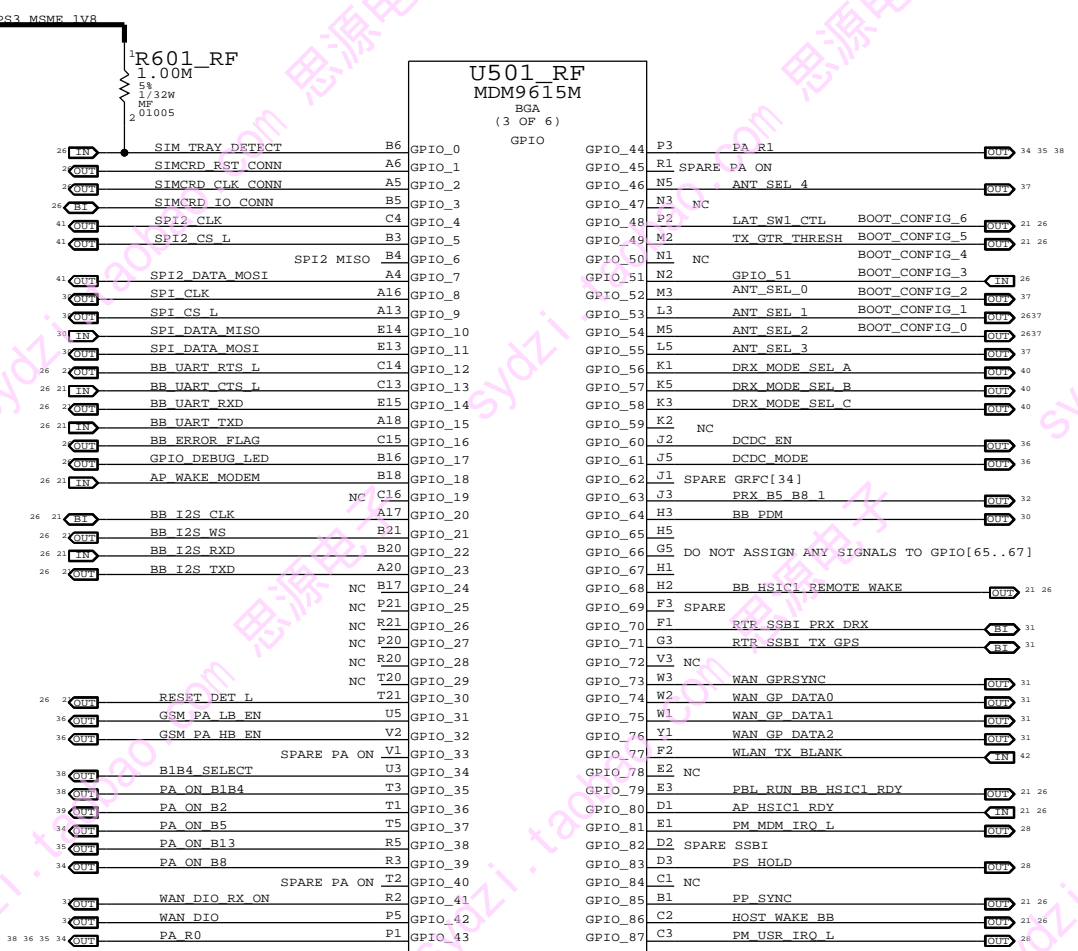
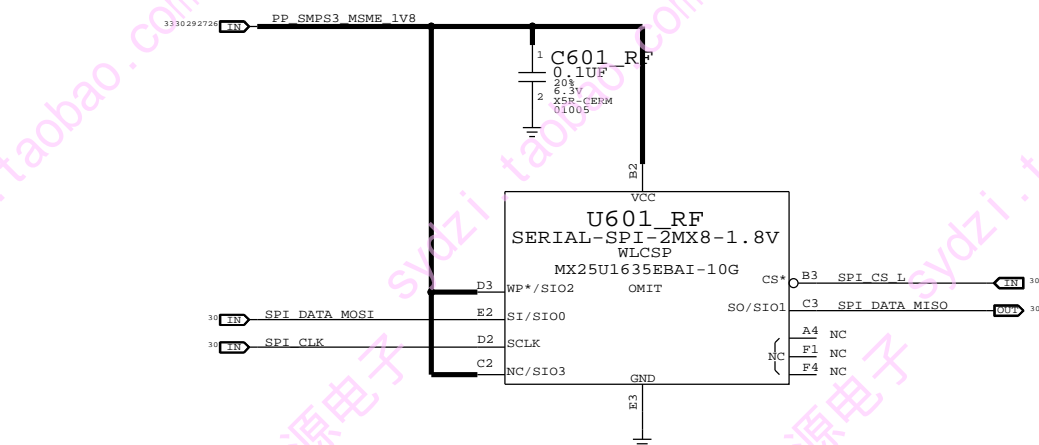
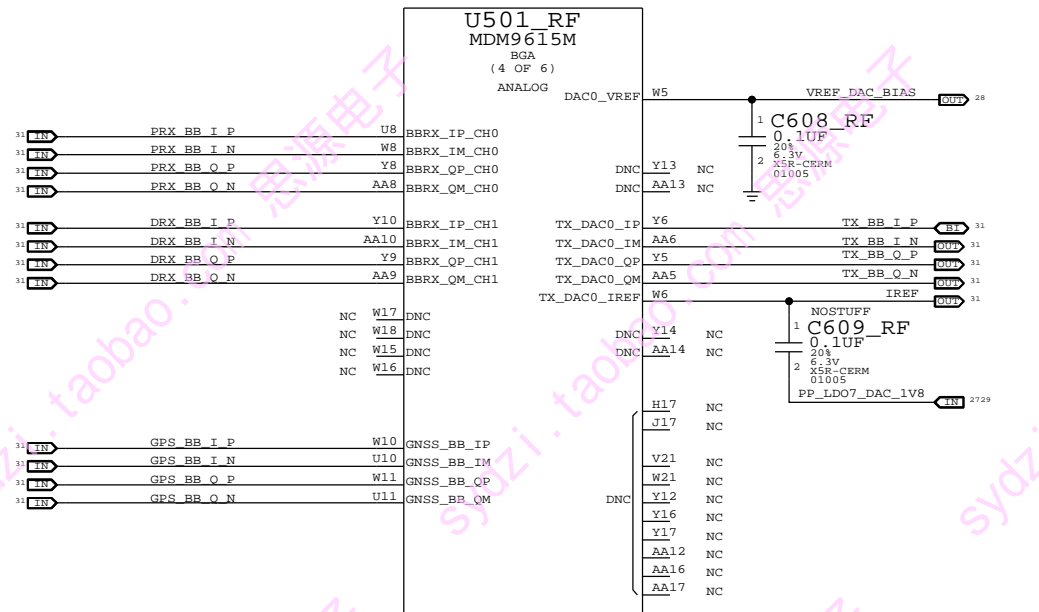
R504: TO BE DELETED AT EVT1

R R502  
C C528  
L LXXX  
U U501

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# BASEBAND ( 2 OF 2 )

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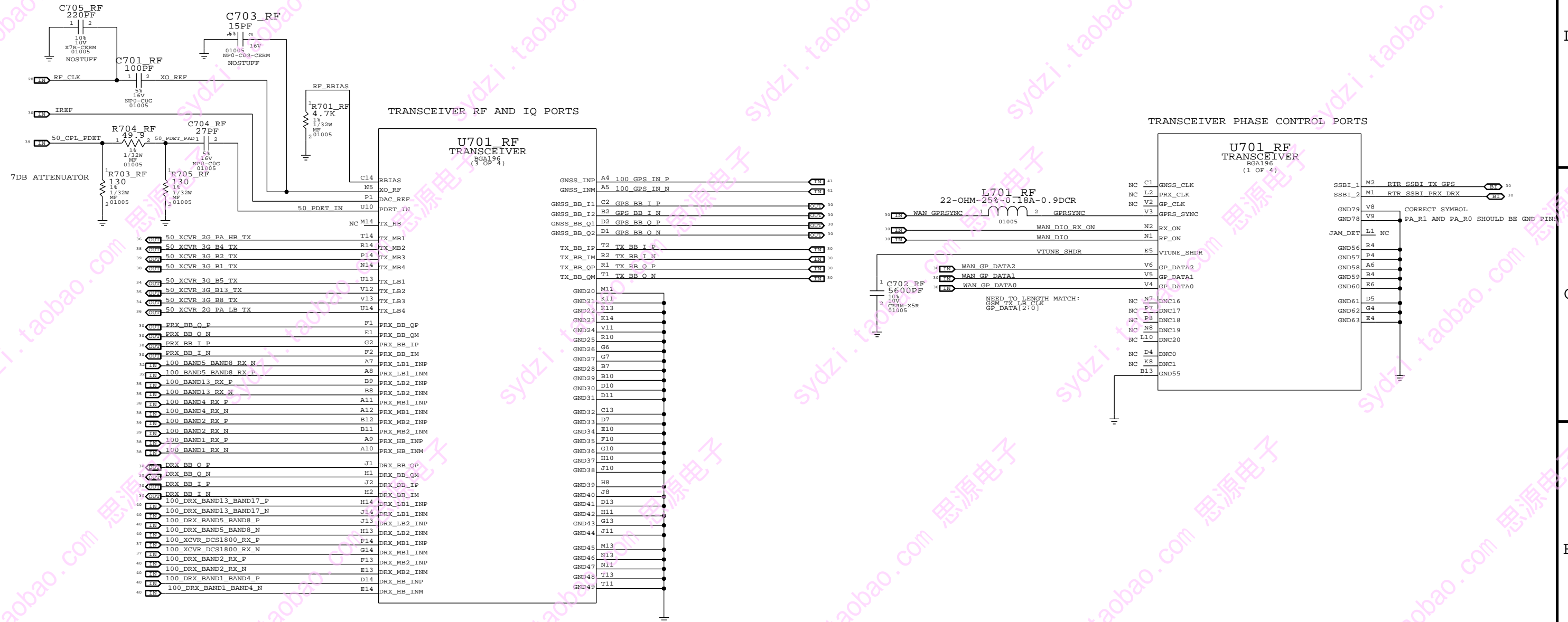


R R608  
C C609  
L L601

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# RF TRANSCEIVER (1 OF 3)

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R R705  
C C705  
L L701  
U U701

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# RF TRANSCEIVER SWITCHING NETWORKS ( 2 OF 3 )

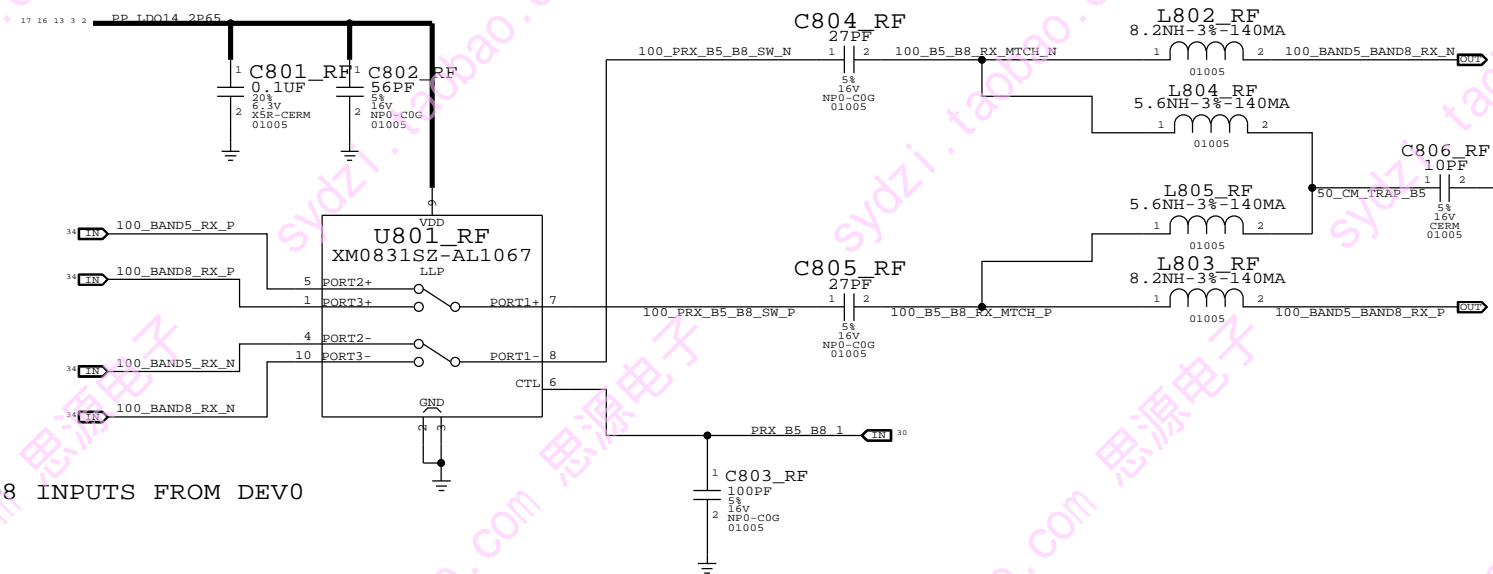
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## BAND 5/BAND 8 PRX TRANSCEIVER SWITCH

### XM0830SZ SWITCH LOGIC

PRX_B5_B8	ACTIVE BAND	PORT
HIGH	8	PORT 1 TO PORT 3
LOW	5	PORT 1 TO PORT 2

SWAPPED BAND5 AND BAND8 INPUTS FROM DEV0

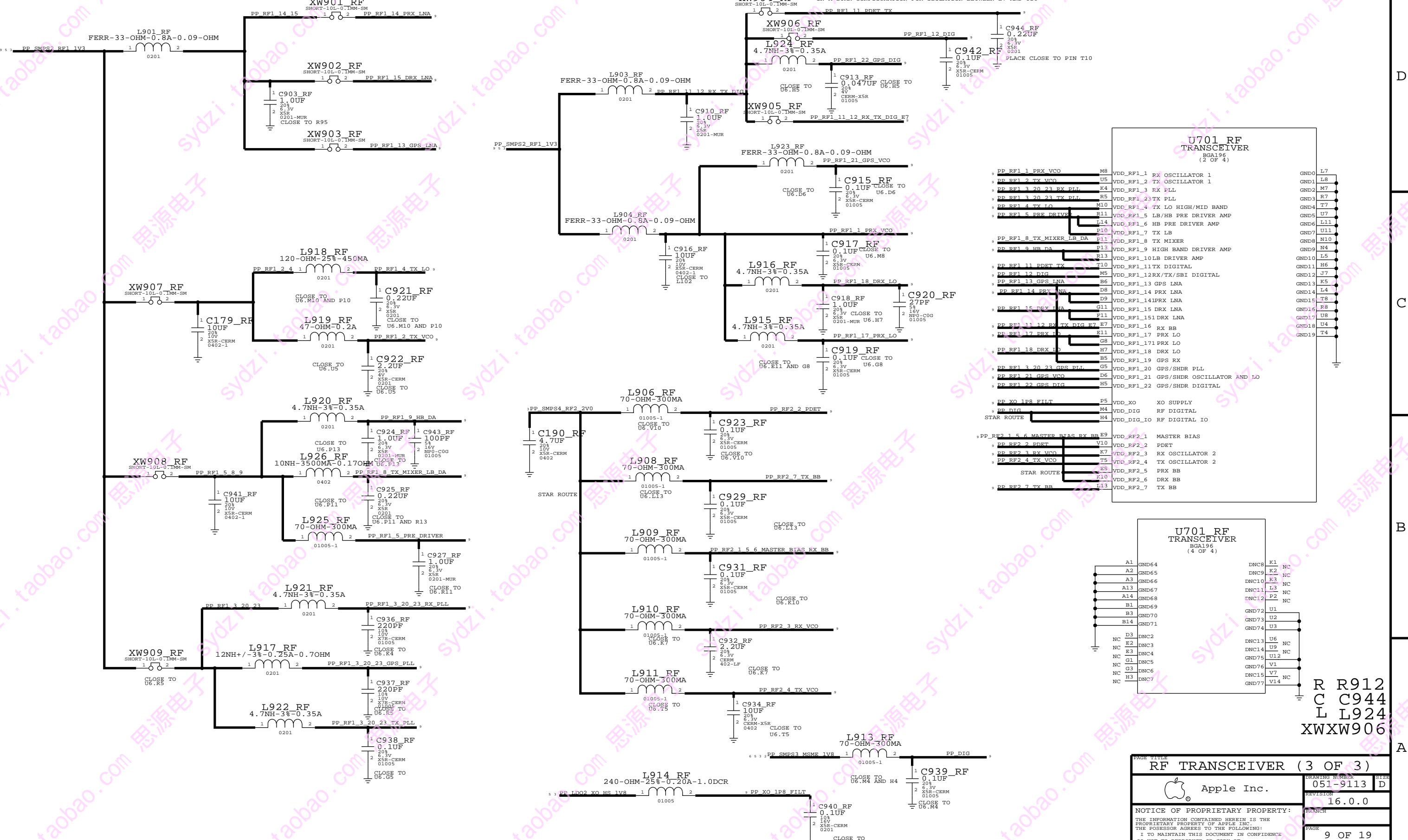


R RXXX  
C C806  
L L803  
U U801

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# RF TRANSCEIVER DECOUPLING (3 OF 3)



**U701 RF TRANSCEIVER (BGA196, 2 OF 4)**

PP_RF1_1 PRX VCO	M8	VDD_RF1_1 RX OSCILLATOR 1	GND0	L7
PP_RF1_2 TX VCO	U5	VDD_RF1_2 TX OSCILLATOR 1	GND1	L8
PP_RF1_3 20 23 RX PLL	K4	VDD_RF1_3 RX PLL	GND2	M7
PP_RF1_3 20 23 TX PLL	R5	VDD_RF1_23 TX PLL	GND3	P7
PP_RF1_4 TX LO	M10	VDD_RF1_4 TX LO HIGH/MID BAND	GND4	T7
PP_RF1_5 PRE DRIVER	R11	VDD_RF1_5 LB/HB PRE DRIVER AMP	GND5	U7
	L14	VDD_RF1_6 HB PRE DRIVER AMP	GND6	L11
	P10	VDD_RF1_7 TX LB	GND7	U11
PP_RF1_8 TX MIXER LB DA	F11	VDD_RF1_8 TX MIXER	GND8	N10
PP_RF1_9 HB DA	P13	VDD_RF1_9 HIGH BAND DRIVER AMP	GND9	N4
	R13	VDD_RF1_10 LB DRIVER AMP	GND10	L5
PP_RF1_11 DEDET TX	T10	VDD_RF1_11 TX DIGITAL	GND11	H6
PP_RF1_12 DIG	M5	VDD_RF1_12 RX/TX/SBI DIGITAL	GND12	J7
PP_RF1_13 GPS LNA	B6	VDD_RF1_13 GPS LNA	GND13	K5
PP_RF1_14 PRX LNA	D8	VDD_RF1_14 PRX LNA	GND14	L4
PP_RF1_15 DRX LNA	G11	VDD_RF1_15 DRX LNA	GND15	T8
	F11	VDD_RF1_15 DRX LNA	GND16	P8
PP_RF1_11 12 RX TX DIG E7	E7	VDD_RF1_16 RX BB	GND17	U4
PP_RF1_17 PRX LO	E11	VDD_RF1_17 PRX LO	GND18	U4
	G8	VDD_RF1_17 PRX LO	GND19	T4
PP_RF1_18 DRX LO	H7	VDD_RF1_18 DRX LO		
	B5	VDD_RF1_19 GPS RX		
PP_RF1_3 20 23 GPS PLL	G5	VDD_RF1_20 GPS/SHDR PLL		
PP_RF1_21 GPS VCO	D6	VDD_RF1_21 GPS/SHDR OSCILLATOR AND LO		
PP_RF1_22 GPS DIG	H5	VDD_RF1_22 GPS/SHDR DIGITAL		
PP_XO_LPB FILT	P5	VDD_XO XO SUPPLY		
PP_DIG	M4	VDD_DIG RF DIGITAL IO		
STAR ROUTE	H4	VDD_DIG_IO RF DIGITAL IO		
PP_RF2_1 5 6 MASTER BIAS RX BB	E9	VDD_RF2_1 MASTER BIAS		
PP_RF2_2 PDET	V10	VDD_RF2_2 PDET		
PP_RF2_3 RX VCO	K7	VDD_RF2_3 RX OSCILLATOR 2		
PP_RF2_4 TX VCO	T5	VDD_RF2_4 TX OSCILLATOR 2		
STAR ROUTE	B8	VDD_RF2_5 PRX BB		
	K10	VDD_RF2_6 DRX BB		
PP_RF2_7 TX BB	L13	VDD_RF2_7 TX BB		

**U701 RF TRANSCEIVER (BGA196, 4 OF 4)**

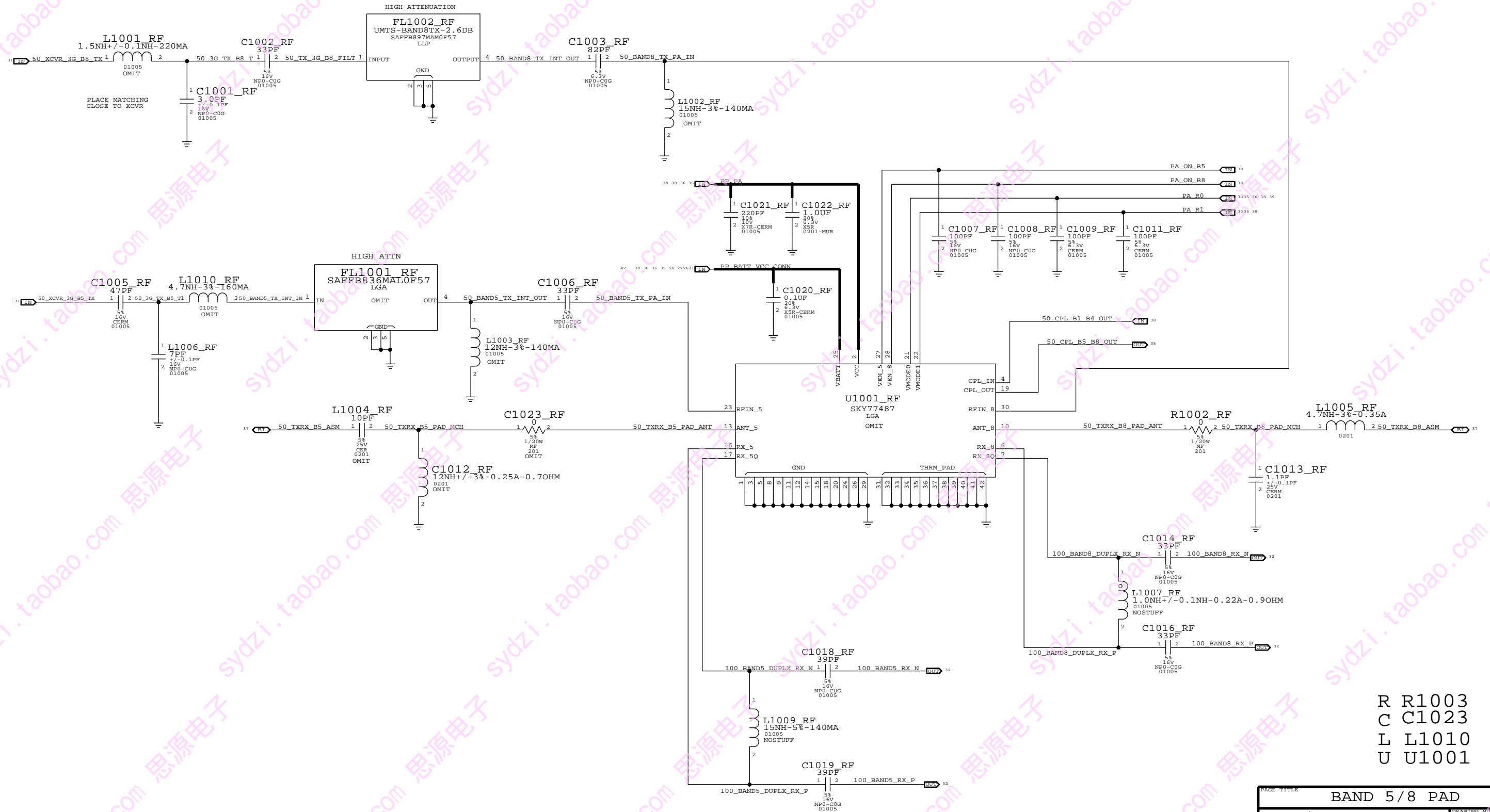
A1	GND64	DNC8	K1	NC
A2	GND65	DNC9	K2	NC
A3	GND66	DNC10	K3	NC
A13	GND67	DNC11	L3	NC
A14	GND68	DNC12	P2	NC
B1	GND69	GND72	U1	
B2	GND70	GND73	U2	
B14	GND71	GND74	U3	
D3	DNC2	DNC13	U6	NC
E2	DNC3	DNC14	U9	NC
E3	DNC4	GND75	U12	NC
G1	DNC5	GND76	V1	NC
G3	DNC6	DNC15	V7	NC
H3	DNC7	GND77	V14	NC

R R912  
C C944  
L L924  
XW XW906

RF TRANSCEIVER (3 OF 3)		
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# BAND 5/8 PAD

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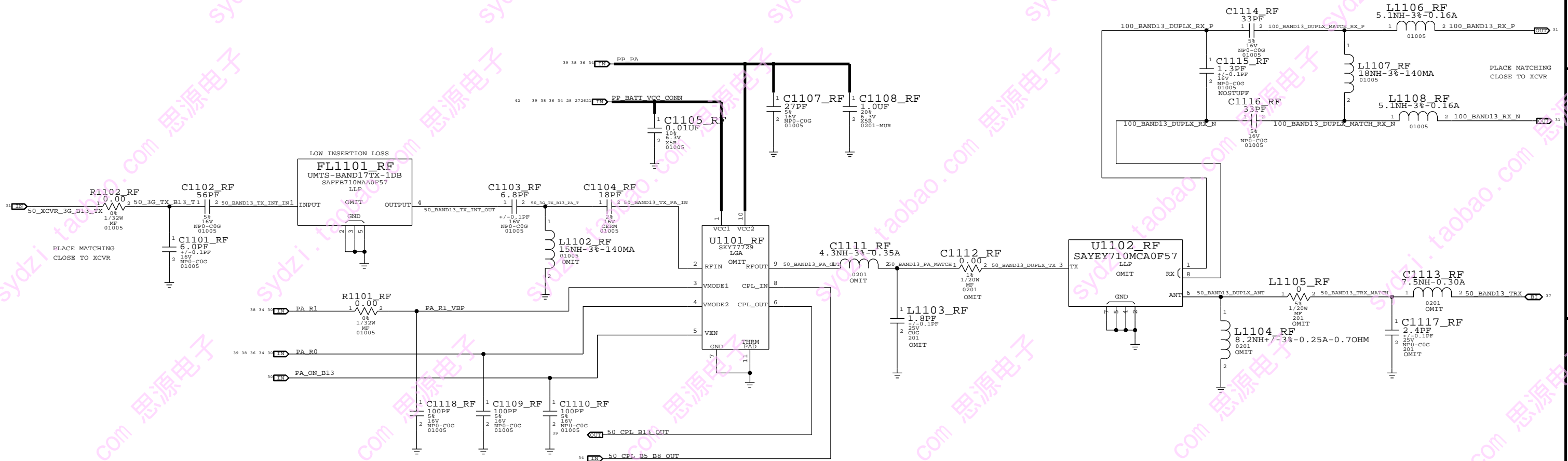


- R R1003
- C C1023
- L L1010
- U U1001

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# B13/17 INTERSTAGE, PA, AND DUPLEXER

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## PA POWER MODES

MODE	PA_R0	PA_R1
LOW	HIGH	HIGH
MEDIUM	LOW	HIGH
HIGH	LOW	LOW

- FLFL1101
- R R1102
- C C1118
- L L1108
- U U1102

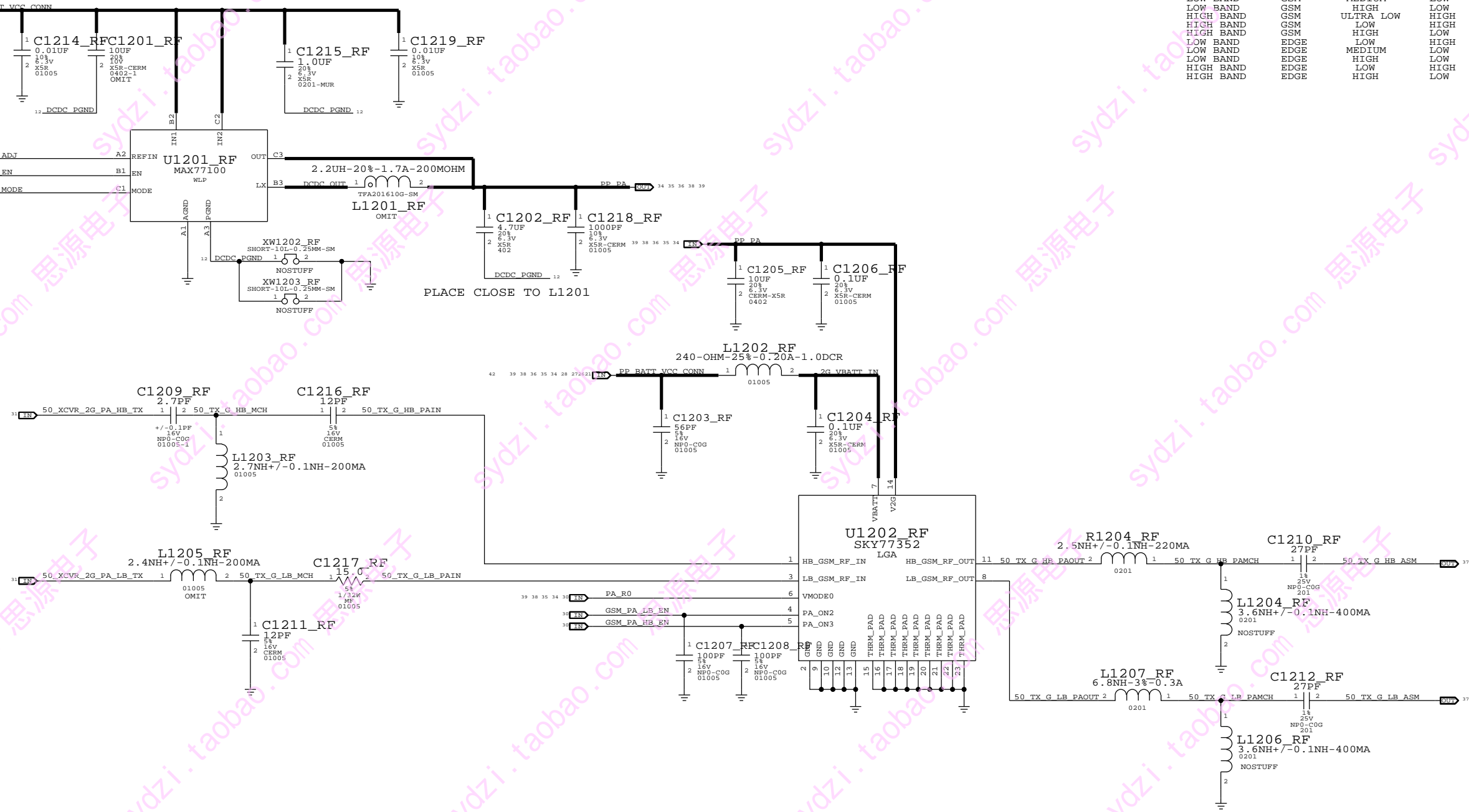
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# 2G PA, PA DC/DC CONVERTER

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## 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

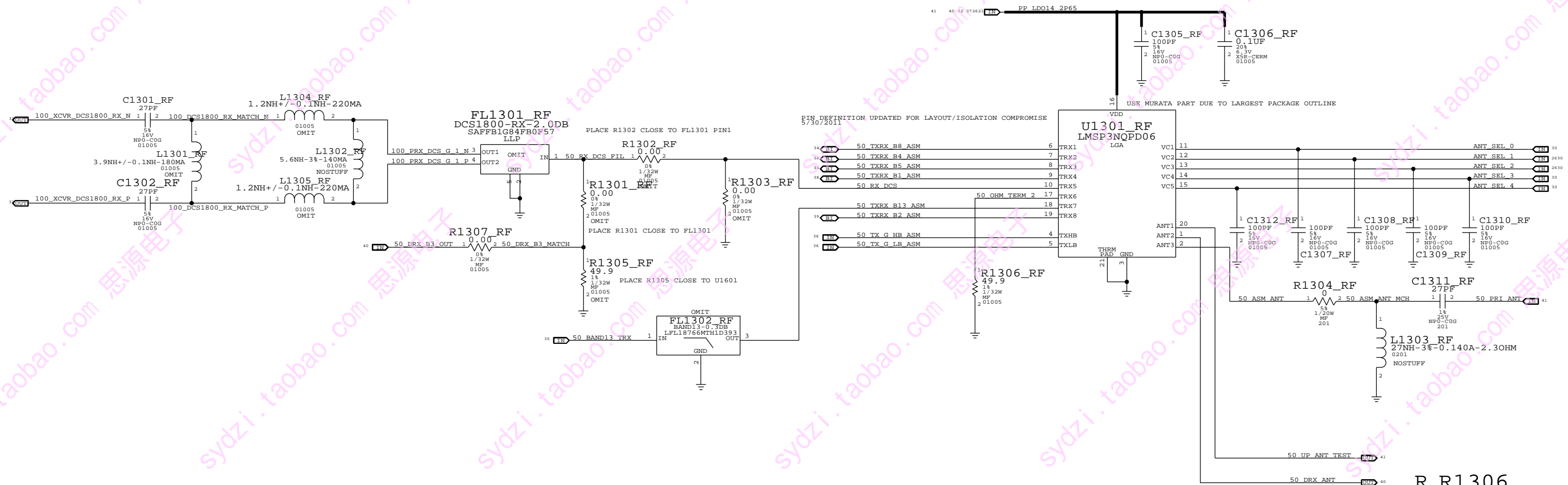


- R R1209
- C C1220
- L L1207
- U U1202

PAGE TITLE		
2G PA, DCDC CONVERTER		
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# ASM, DCS RX

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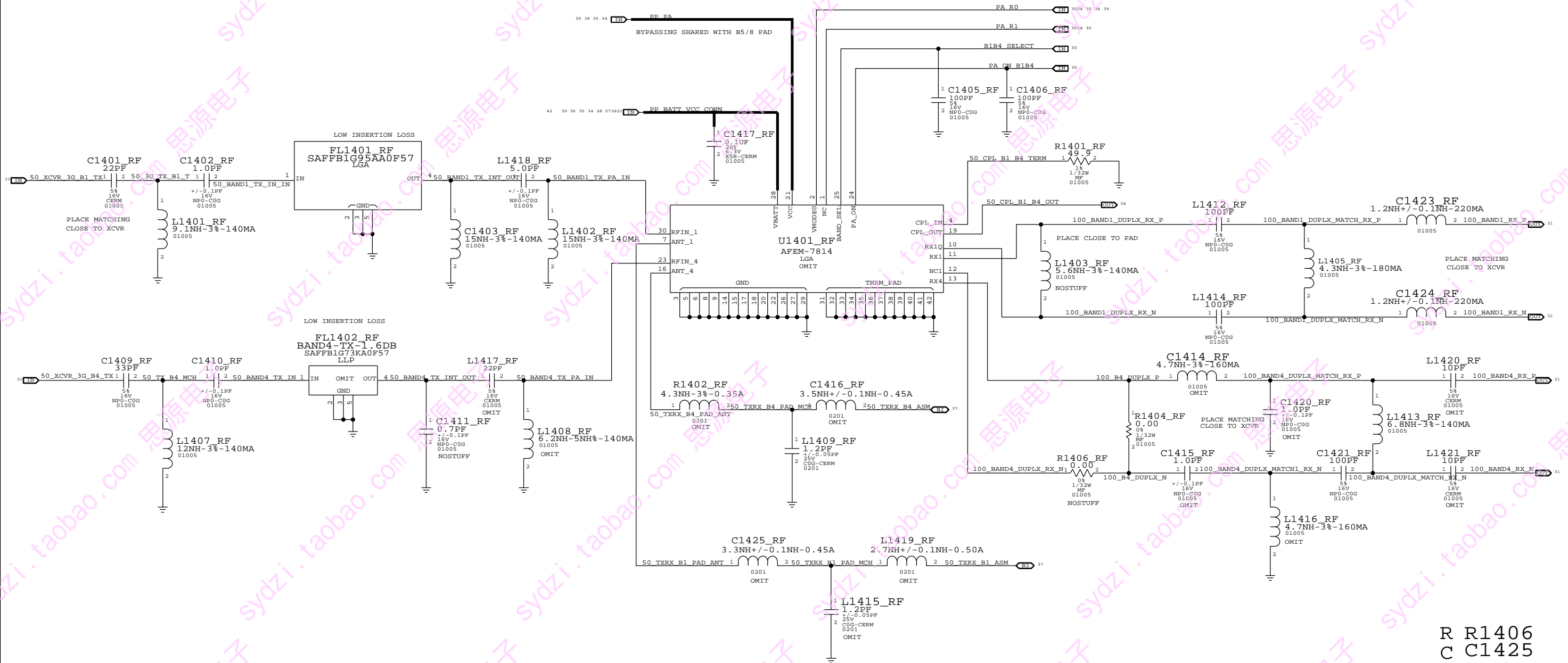


- R R1306
- C C1312
- L 1305
- U U1301
- FL FL1302

PAGE TITLE		
DCS RX, ASM		
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# BAND 1/4 PAD

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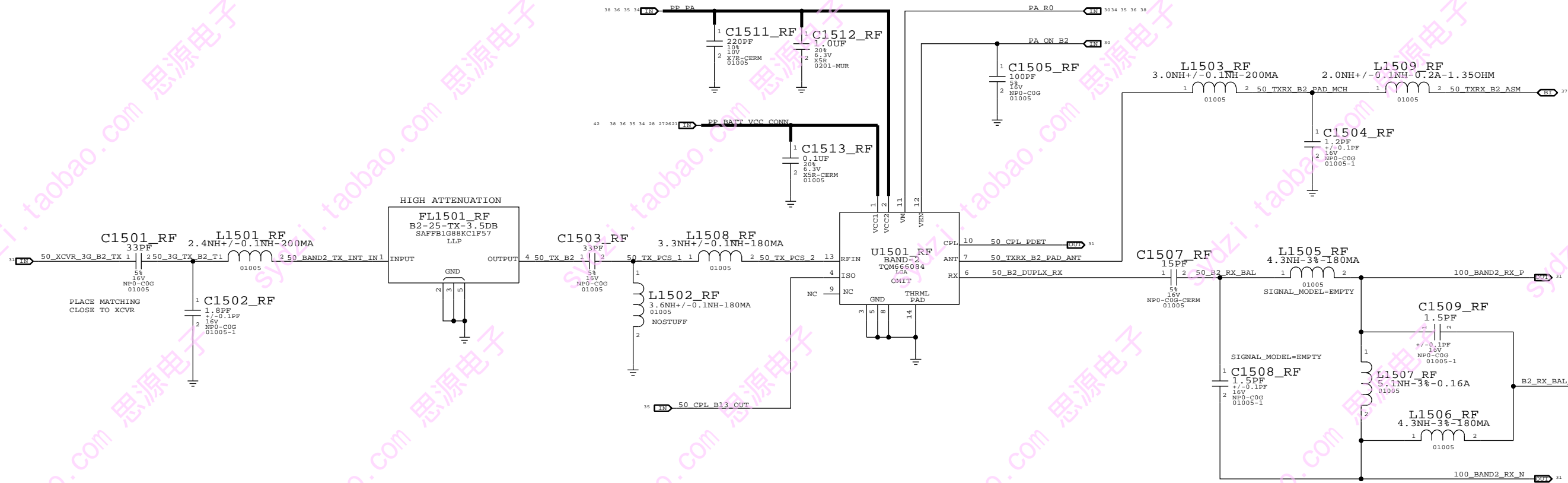


- R R1406
- C C1425
- L L1422
- U U1401
- FL FL1101


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# BAND2 PAD

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- R R1501
- C C1513
- L L1509
- U U1501
- FL FL1501

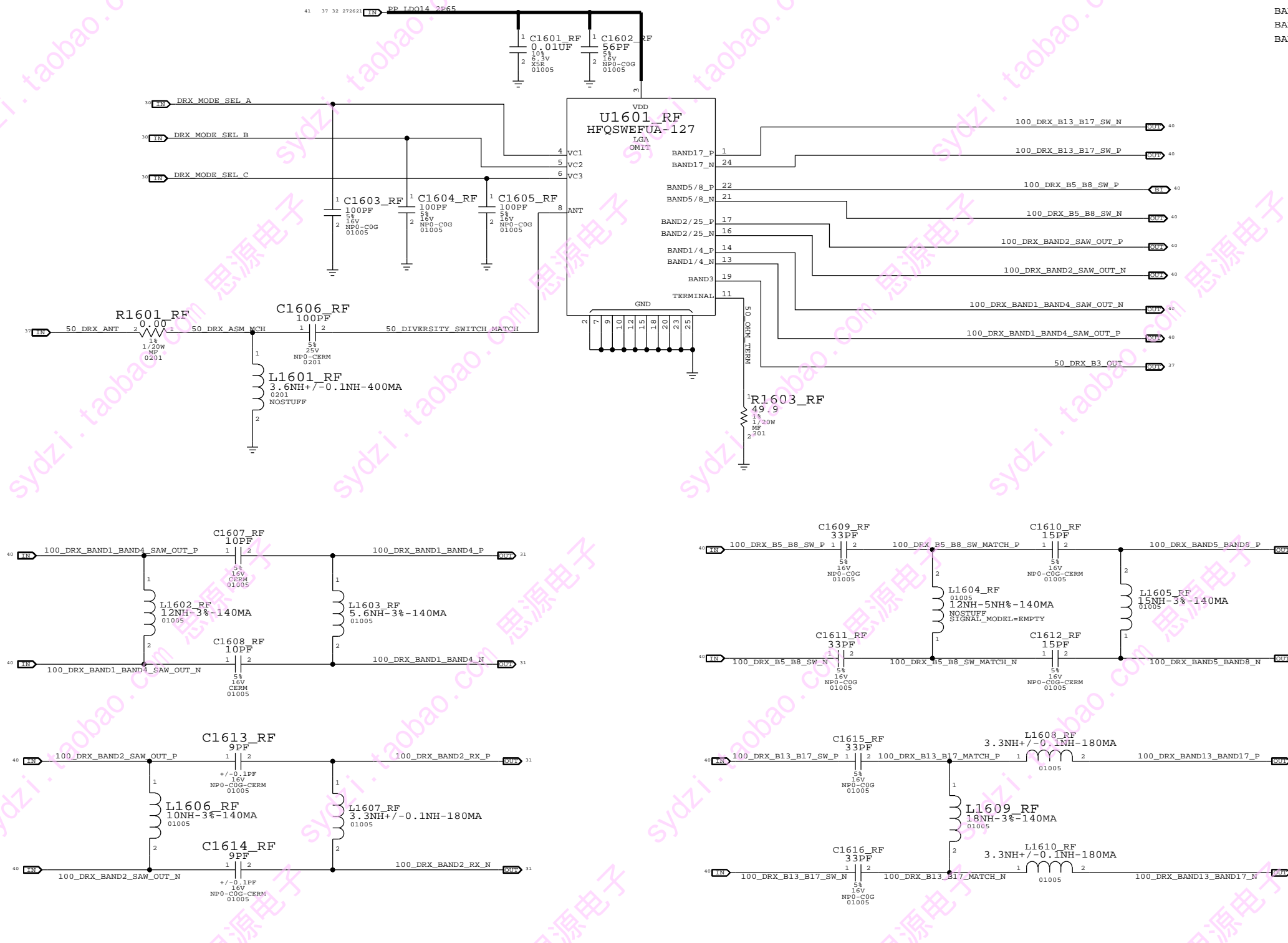
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# RX DIVERSITY

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## DIVERSITY MODULE LOGIC

BAND	VC1	VC2	VC3
=====			
BAND 1/4			
BAND 2			
BAND 5			
BAND 8			
BAND 13/17			

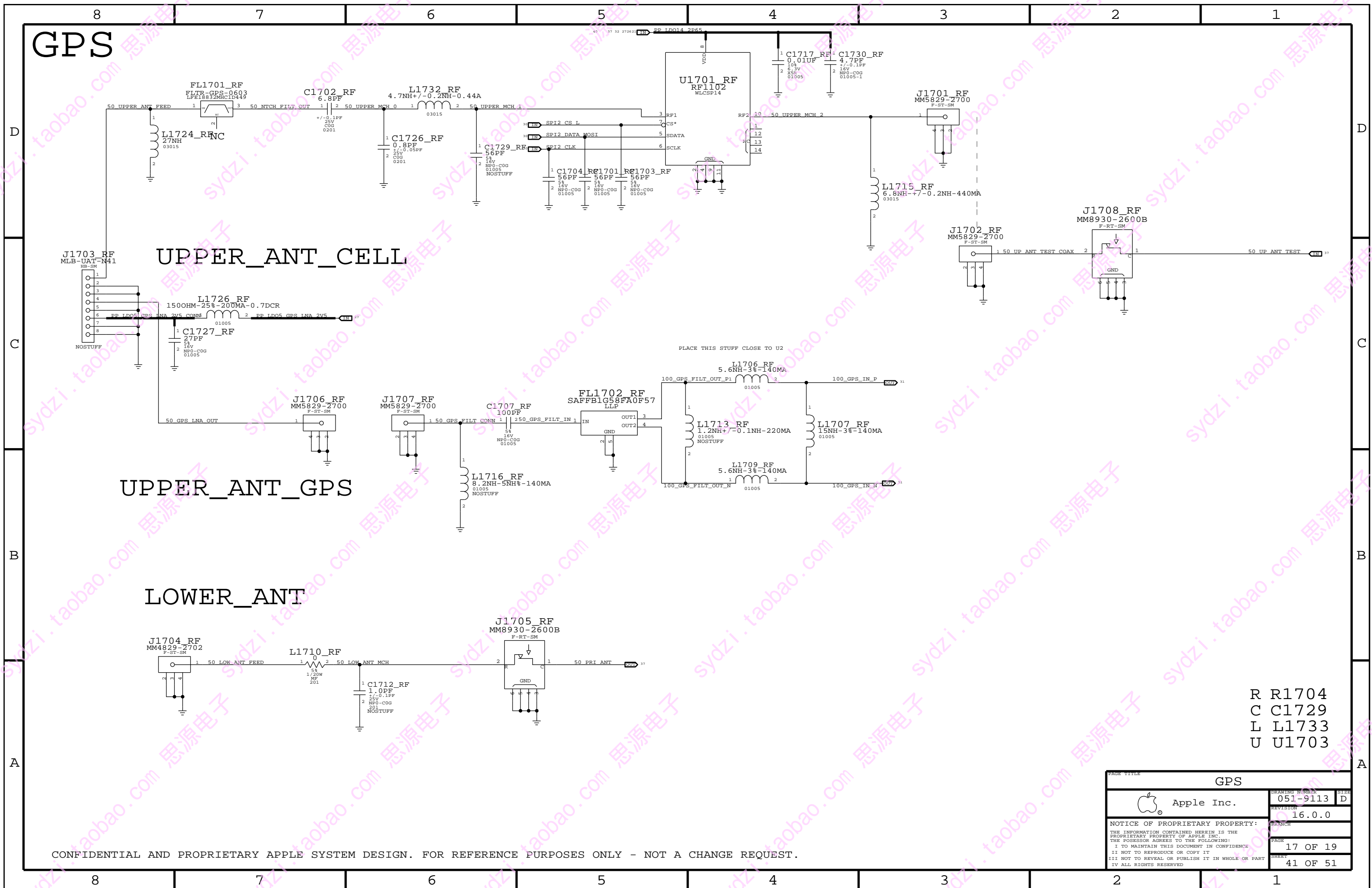


R R1603  
C C1616  
L L1610  
U U1601

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# GPS



## UPPER\_ANT\_CELL

## UPPER\_ANT\_GPS

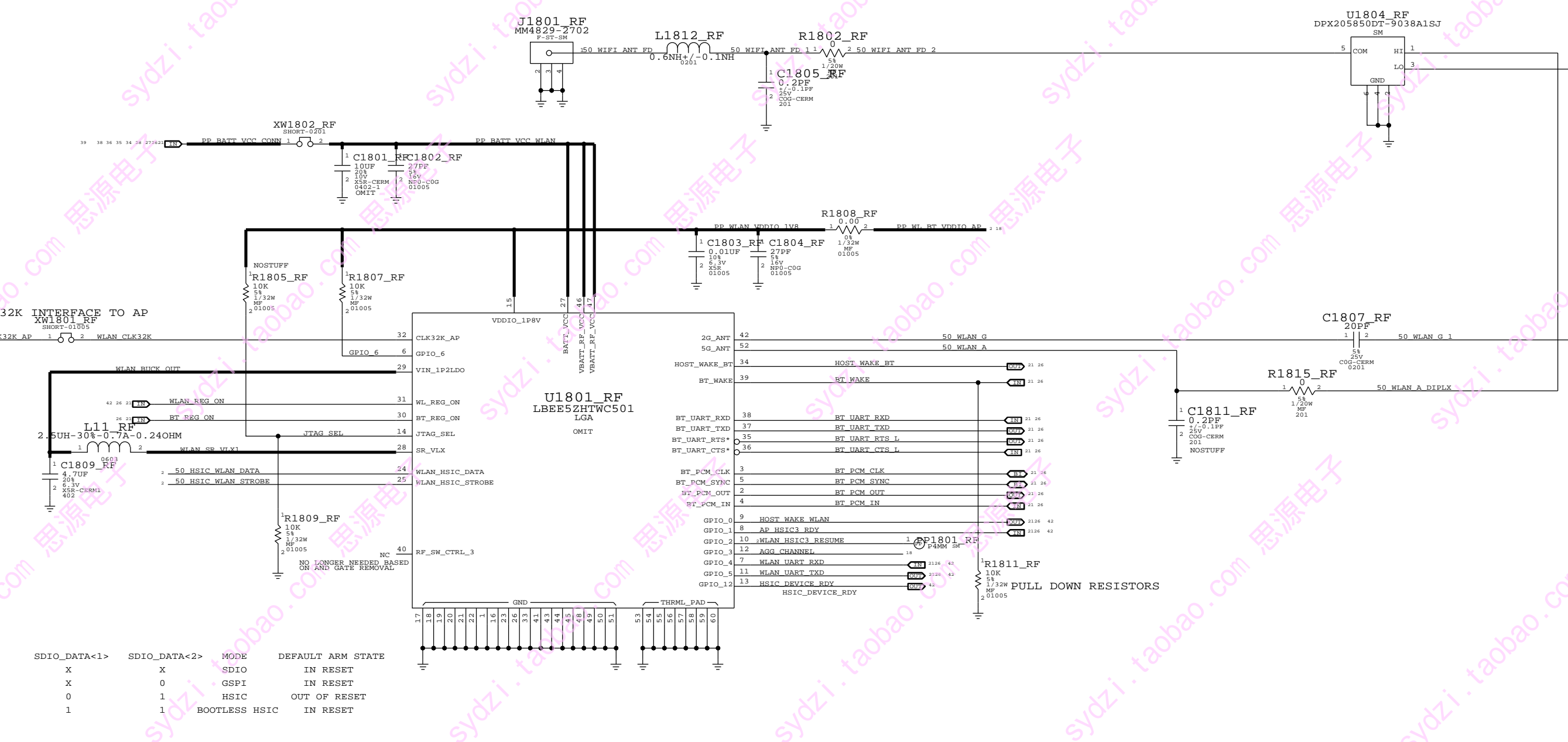
## LOWER\_ANT

- R R1704
- C C1729
- L L1733
- U U1703

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# WLAN/BT

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GPIO6	SDIO_DATA<1>	SDIO_DATA<2>	MODE	DEFAULT ARM STATE
0	X	X	SDIO	IN RESET
1	X	0	GSPI	IN RESET
1	0	1	HSIC	OUT OF RESET
1	1	1	BOOTLESS HSIC	IN RESET

- R R1815
- C C1811
- L L1812
- U U1802
- J J1802

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# RADIO BOM OPTIONS

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## HW\_ID PA\_ID BOM OPTIONS

PART#	QTY	DESCRIPTION	REFERENCE DESIGNATOR(S)	CRITICAL	BOM OPTION
118S0685	1	PA_ID RES DIVIDER	R304_RF	Y	B4_17
118S0656	1	PA_ID RES DIVIDER	R304_RF	Y	B3_13
118S0719	1	PA_ID RES DIVIDER	R302_RF	Y	B4_17
118S0685	1	PA_ID RES DIVIDER	R302_RF	Y	B3_13

## SPI NOR BOM OPTIONS

PART#	QTY	DESCRIPTION	REFERENCE DESIGNATOR(S)	CRITICAL	BOM OPTION
335S0874	1	SERIAL SPI NOR - MICRONIX	U601_RF	Y	B4_17
335S0874	1	SERIAL SPI NOR - MICRONIX	U601_RF	Y	B3_13

## B5/B5E BOM OPTIONS

PART#	QTY	DESCRIPTION	REFERENCE DESIGNATOR(S)	CRITICAL	BOM OPTION
353S3415	1	SKY77487 BAND 5/8 PAD	U1001_RF	Y	B4_17
353S3568	1	SKY77491 BAND5E/8 PAD	U1001_RF	Y	B3_13
155S0552	1	BAND5 TX SAW	FL1001_RF	Y	B4_17
155S0742	1	BAND5/BC10 TX SAW	FL1001_RF	Y	B3_13
152S1563	1	1.5NH, INDUCTOR - MURATA	L1001_RF	Y	B4_17
152S1662	1	1.5NH, INDUCTOR - TDK	L1001_RF	Y	B3_13
152S1577	1	1.5NH, INDUCTOR - MURATA	L1002_RF	Y	B4_17
152S1665	1	1.5NH, INDUCTOR - TDK	L1002_RF	Y	B3_13
152S1576	1	1.2NH, INDUCTOR - MURATA	L1003_RF	Y	B4_17
152S1664	1	1.2NH, INDUCTOR - TDK	L1003_RF	Y	B3_13
152S1570	1	4.7NH, INDUCTOR - MURATA	L1010_RF	Y	B4_17
152S1663	1	4.7NH, INDUCTOR - TDK	L1010_RF	Y	B3_13

## B13/17 BOM OPTIONS

PART#	QTY	DESCRIPTION	REFERENCE DESIGNATOR(S)	CRITICAL	BOM OPTION
152S1328	1	4.3NH INDUCTOR - 0201	C1111_RF	Y	B4_17
152S1353	1	3.6NH INDUCTOR - 0201	C1111_RF	Y	B3_13
131S0198	1	1.8PF CAPACITOR - 0201	L1103_RF	Y	B4_17
118S0724	1	0 OHM JUMPER - 0201	C1112_RF	Y	B4_17
131S0204	1	22PF CAPACITOR - 0201	C1112_RF	Y	B3_13
118S0724	1	0 OHM JUMPER - 0201	L1105_RF	Y	B4_17
152S1443	1	2.0NH INDUCTOR - 0201	L1105_RF	Y	B3_13
152S1320	1	7.5NH INDUCTOR - 0201	C1113_RF	Y	B4_17
131S0166	1	39PF CAPACITOR - 0201	C1113_RF	Y	B3_13
131S0176	1	2.4PF CAPACITOR - 0201	C1117_RF	Y	B4_17

## DCDC BOM OPTIONS

PART#	QTY	DESCRIPTION	REFERENCE DESIGNATOR(S)	CRITICAL	BOM OPTION
152S1648	1	POWER INDUCTOR - TAIYO YUDEN	L1201_RF	Y	B4_17
152S1648	1	POWER INDUCTOR - TAIYO YUDEN	L1201_RF	Y	B3_13
152S1564	1	2.4NH, INDUCTOR - MURATA	L1205_RF	Y	B4_17
152S1564	1	2.4NH, INDUCTOR - MURATA	L1205_RF	Y	B3_13

## WIFI BOM OPTIONS

PART#	QTY	DESCRIPTION	REFERENCE DESIGNATOR(S)	CRITICAL	BOM OPTION
339S0171	1	WIFI MODULE - MURATA	U1801_RF	Y	B4_17
339S0171	1	WIFI MODULE - MURATA	U1801_RF	Y	B3_13
339S0175	1	WIFI MODULE - USI	U1801_RF	Y	B4_17
339S0175	1	WIFI MODULE - USI	U1801_RF	Y	B3_13

SINGING CAP BOM OPTIONS  
NEED TO COPY FROM AP TABLE  
WHEN STAN FINISHES

## B5/B5E BOM OPTIONS

PART#	QTY	DESCRIPTION	REFERENCE DESIGNATOR(S)	CRITICAL	BOM OPTION
117S0002	1	0 OHM RESISTOR - 0201	C1023_RF	Y	B4_17
152S1343	1	1.2NH INDUCTOR - 0201	C1012_RF	Y	B4_17
131S0428	1	10PF CAPACITOR - 0201	L1004_RF	Y	B4_17
131S0457	1	100PF CAPACITOR - 0201	C1023_RF	Y	B3_13
131S0425	1	0.5PF CAPACITOR - 0201	C1012_RF	Y	B3_13
152S1336	1	8.2NH INDUCTOR - 0201	L1004_RF	Y	B3_13

## B13/17 BOM OPTIONS

PART#	QTY	DESCRIPTION	REFERENCE DESIGNATOR(S)	CRITICAL	BOM OPTION
155S0620	1	BAND17 TX SAW	FL1101_RF	Y	B4_17
155S0619	1	BAND13 TX SAW	FL1101_RF	Y	B3_13
353S3567	1	BAND17 PAM - SKYWORKS	U1101_RF	Y	B4_17
353S3441	1	BAND13 PAM - AVAGO	U1101_RF	Y	B3_13
155S0709	1	BAND17 DUPLEXER - MURATA	U1102_RF	Y	B4_17
155S0738	1	BAND13 DUPLEXER - EPCOS	U1102_RF	Y	B3_13
152S1336	1	BAND17 INDUCTOR - 8.2NH	L1104_RF	Y	B4_17
152S1342	1	BAND13 INDUCTOR - 15NH	L1104_RF	Y	B3_13
152S1577	1	1.5NH, INDUCTOR - MURATA	L1102_RF	Y	B4_17
152S1576	1	1.2NH, INDUCTOR - MURATA	L1102_RF	Y	B3_13

## B2 PAD BOM OPTIONS

PART#	QTY	DESCRIPTION	REFERENCE DESIGNATOR(S)	CRITICAL	BOM OPTION
353S3715	1	TQM666084 B2 TQS PAD	U1501_RF	Y	B4_17
353S3459	1	TQM666083 B25 TQS PAD	U1501_RF	Y	B3_13

## DIVERISTY MODULE BOM OPTIONS

PART#	QTY	DESCRIPTION	REFERENCE DESIGNATOR(S)	CRITICAL	BOM OPTION
353S3516	1	B17 MURATA DIVERSITY MODULE	U1601_RF	Y	B4_17
353S3562	1	B13/BC10 DIVERSITY MODULE	U1601_RF	Y	B3_13

## B3/DCS1800 BOM OPTIONS

PART#	QTY	DESCRIPTION	REFERENCE DESIGNATOR(S)	CRITICAL	BOM OPTION
155S0596	1	DCS1800 RX FIL	FL1301_RF	Y	B4_17
155S0729	1	BAND3 RX FIL	FL1301_RF	Y	B3_13
155S0695	1	THRU LINE	FL1302_RF	Y	B4_17
155S0722	1	BAND13 TX LFF	FL1302_RF	Y	B3_13
152S1656	1	3.0NH INDUCTOR	R1301_RF	Y	B3_13
152S1742	1	1.6NH INDUCTOR	R1302_RF	Y	B4_17
118S0652	1	49.90HM RES	R1303_RF	Y	B3_13
118S0652	1	49.90HM RES	R1305_RF	Y	B4_17
152S1562	1	1.2NH INDUCTOR	L1304_RF	Y	B4_17
152S1720	1	1.8NH INDUCTOR	L1304_RF	Y	B3_13
152S1562	1	1.2NH INDUCTOR	L1305_RF	Y	B4_17
152S1720	1	1.8NH INDUCTOR	L1305_RF	Y	B3_13
152S1569	1	3.9NH INDUCTOR	L1301_RF	Y	B4_17
152S1570	1	4.7NH INDUCTOR	L1301_RF	Y	B3_13

## B3/B4 RX BOM OPTIONS


PART#	QTY	DESCRIPTION	REFERENCE DESIGNATOR(S)	CRITICAL	BOM OPTION
152S1570	1	4.7NH INDUCTOR - 01005	C1414_RF	Y	B4_17
131S0375	1	1.0PF CAPACITOR - 01005	C1415_RF	Y	B4_17
131S0375	1	1.0PF CAPACITOR - 01005	C1420_RF	Y	B4_17
152S1570	1	4.7NH INDUCTOR - 01005	L1416_RF	Y	B4_17
152S1571	1	5.6NH INDUCTOR - 01005	C1414_RF	Y	B3_13
131S0377	1	1.2PF CAPACITOR - 01005	C1415_RF	Y	B3_13
131S0377	1	1.2PF CAPACITOR - 01005	C1420_RF	Y	B3_13
152S1571	1	5.6NH INDUCTOR - 01005	L1416_RF	Y	B3_13
131S0219	1	10PF CAPACITOR - 01005	L1420_RF	Y	B4_17
131S0219	1	10PF CAPACITOR - 01005	L1421_RF	Y	B4_17
152S1562	1	1.2NH INDUCTOR - 01005	L1420_RF	Y	B3_13
152S1562	1	1.2NH INDUCTOR - 01005	L1421_RF	Y	B3_13
152S1328	1	4.3NH INDUCTOR - 0201	R1402_RF	Y	B4_17
152S1688	1	3.5NH INDUCTOR - 0201	C1416_RF	Y	B4_17
152S1284	1	3.3NH INDUCTOR - 0201	R1402_RF	Y	B3_13
152S1284	1	3.3NH INDUCTOR - 0201	C1416_RF	Y	B3_13

## B3/B4 TX BOM OPTIONS

PART#	QTY	DESCRIPTION	REFERENCE DESIGNATOR(S)	CRITICAL	BOM OPTION
131S0215	1	22PF CAPACITOR - 01005	L1417_RF	Y	B4_17
152S1569	1	3.9NH INDUCTOR - 01005	L1417_RF	Y	B3_13
131S0369	1	0.5PF CAPACITOR - 01005	L1408_RF	Y	B3_13
152S1284	1	3.3NH INDUCTOR - 0201	C1425_RF	Y	B4_17
152S1221	1	2.7NH INDUCTOR - 0201	L1419_RF	Y	B4_17
131S0551	1	1.2PF CAPACITOR - 0201	L1415_RF	Y	B4_17
152S1284	1	3.3NH INDUCTOR - 0201	C1425_RF	Y	B3_13
152S1221	1	2.7NH INDUCTOR - 0201	L1419_RF	Y	B3_13
131S0551	1	1.2PF CAPACITOR - 0201	L1415_RF	Y	B3_13

## B3/B4 BOM OPTIONS

PART#	QTY	DESCRIPTION	REFERENCE DESIGNATOR(S)	CRITICAL	BOM OPTION
353S3255	1	B1/4 PAD - AVAGO	U1401_RF	Y	B4_17
353S3443	1	B1/3 PAD - AVAGO	U1401_RF	Y	B3_13
155S0590	1	B4 TX FIL	FL1402_RF	Y	B4_17
155S0712	1	B3 TX FIL	FL1402_RF	Y	B3_13

RADIO BOM OPTIONS		
 Apple Inc.	DRAWING NUMBER 051-9113	SIZE D
	REVISION 16.0.0	
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	8	7	6	5	4	3	2	1
	NAND_VDDI NAND_VDDI - @single_brd_lib.SINGLE_BRD 6D4 NEG_BOOST_OUT NEG_BOOST_OUT - @single_brd_lib.SINGLE_BRD 19D3 NEG_SWITCH NEG_SWITCH - @single_brd_lib.SINGLE_BRD 19D3 NTC_CAM_N NTC_CAM_N - @single_brd_lib.SINGLE_BRD 12A6 NTC_CAM_P NTC_CAM_P - @single_brd_lib.SINGLE_BRD 12A6 12B7 NTC_FORHEAD_N NTC_FORHEAD_N - @single_brd_lib.SINGLE_BRD 12A8 NTC_FORHEAD_P NTC_FORHEAD_P - @single_brd_lib.SINGLE_BRD 12A7 12B7 NTC_HSP_N NTC_HSP_N - @single_brd_lib.SINGLE_BRD 12A5 NTC_HSP_P NTC_HSP_P - @single_brd_lib.SINGLE_BRD 12A5 12B7 NTC_PA_N NTC_PA_N - @single_brd_lib.SINGLE_BRD 12A4 NTC_PA_P NTC_PA_P - @single_brd_lib.SINGLE_BRD 12A4 12B7 OSC32I OSC32I - @single_brd_lib.SINGLE_BRD 12B6 OSC32O OSC32O - @single_brd_lib.SINGLE_BRD 12A6 OVP_GATE OVP_GATE - @single_brd_lib.SINGLE_BRD 16B7 OVP_SW_EN_L OVP_SW_EN_L - @single_brd_lib.SINGLE_BRD 15B4 16B8 PBL_RUN_BB_HSIIC1_RDY PBL_RUN_BB_HSIIC1_RDY - @single_brd_lib.SINGLE_BRD 3A7 21D4 PBL_RUN_BB_HSIIC1_RDY - @single_brd_lib.RADIO_MLB(1594_page 19) 26C1 26D8 30B2 PMU_ADC_IN7 PMU_ADC_IN7 - 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@single_brd_lib.SINGLE_BRD 12C7 VDD_REF VDD_REF - @single_brd_lib.SINGLE_BRD 13C5 VDD_RTC VDD_RTC - @single_brd_lib.SINGLE_BRD 13C5 VHP_FLYC VHP_FLYC - @single_brd_lib.SINGLE_BRD 10C4 VHP_FLYN VHP_FLYN - @single_brd_lib.SINGLE_BRD 10C4 VHP_FLYP VHP_FLYP - @single_brd_lib.SINGLE_BRD 10C4 VIB VIB - @single_brd_lib.SINGLE_BRD 8B5 VIB_LDO_EN VIB_LDO_EN - @single_brd_lib.SINGLE_BRD 3B5 8C7 VIB_PWM VIB_PWM - @single_brd_lib.SINGLE_BRD 3B5 8C7 VIB_PWM_G VIB_PWM_G - @single_brd_lib.SINGLE_BRD 8C7 VIB_RETURN VIB_RETURN - @single_brd_lib.SINGLE_BRD 8B5 VOL_DWN_L VOL_DWN_L - @single_brd_lib.SINGLE_BRD 3B7 8B7 13C6 VOL_DWN_L_CONN VOL_DWN_L_CONN - @single_brd_lib.SINGLE_BRD 8B5 VOL_UP_L VOL_UP_L - @single_brd_lib.SINGLE_BRD 3B7 8B7 13C6 VOL_UP_L_CONN VOL_UP_L_CONN - @single_brd_lib.SINGLE_BRD 8B5 VPUMP VPUMP - @single_brd_lib.SINGLE_BRD 12D5 VREF VREF - @single_brd_lib.SINGLE_BRD 13C5 VSW_CHG VSW_CHG - @single_brd_lib.SINGLE_BRD 12C7 WDOG WDOG - @single_brd_lib.SINGLE_BRD 2C4 13A7 WIFI_REG_ON WIFI_REG_ON - @single_brd_lib.SINGLE_BRD 13B7 21C4 WIFI_REG_ON_R WIFI_REG_ON_R - @single_brd_lib.RADIO_MLB(1594_page 19) 26C8 42A4 42A8 42C7 WLAN_HSIIC3_RESUME WLAN_HSIIC3_RESUME - @single_brd_lib.SINGLE_BRD 3B7 21A4 WLAN_HSIIC3_RESUME - @single_brd_lib.SINGLE_BRD 26D8 42B5 WLED_LX WLED_LX - @single_brd_lib.SINGLE_BRD 13B3 XTAL_24M_O_R XTAL_24M_O_R - @single_brd_lib.SINGLE_BRD 2C3 XTAL_GND XTAL_GND - @single_brd_lib.SINGLE_BRD 2B2							
	8	7	6	5	4	3	2	1









8			7			6			5			4			3			2			1																																																																																																																																																																																																																																																			
C525_RF	CAP_0201-MUR	radio_mbl2986 single_brd[21]	C1417_RF	CAP_01005	radio_mbl3825 single_brd[21]	FL18	FILTER_2P_01005	single_brd[16C7]	L15	IND_P_PSB251T-SM	single_brd[12C3]	L16	IND_P_VLS201610MNT-S	single_brd[12D2]	L17	IND_P_VLS2010MT-SM	single_brd[12B2]	L18	IND_P_VLS2010MT-SM	single_brd[12B2]	L19	IND_P_VLS201610MNT-S	single_brd[13C3]	L20	FILTER_4P_TCM0605-1	single_brd[16B2]	L21	IND_P_VLS201610MNT-S	single_brd[17B3]	L22	FILTER_4P_TCM0605-1	single_brd[16B2]	L23	IND_0201	single_brd[20C7]	L24	IND_0201	single_brd[20A7]	L25	IND_0201	single_brd[20B7]	L26	FILTER_4P_TCM0605-1	single_brd[20C3]	L27	FILTER_4P_TCM0605-1	single_brd[20C2]	L28	FILTER_4P_TCM0605-1	single_brd[11D2]	L29	FILTER_4P_TCM0605-1	single_brd[20B2]	L30	FILTER_4P_TCM0605-1	single_brd[20B7]	L31	FILTER_4P_TCM0605-1	single_brd[20B3]	L32	FILTER_4P_TCM0605-1	single_brd[11C2]	L33	IND_P_VLS201610MNT-6R	single_brd[19C3]	L34	FILTER_4P_TCM0605-1	single_brd[18C6]	L35	FILTER_4P_TCM0605-1	single_brd[18B6]	L36	FILTER_4P_TCM0605-1	single_brd[18C6]	L37	FILTER_4P_TCM0605-1	single_brd[18B6]	L38	FILTER_4P_TCM0605-1	single_brd[18C6]	L39	FILTER_4P_TCM0605-1	single_brd[18C6]	L40	FILTER_4P_TCM0605-1	single_brd[18B6]	L41	IND_P_VLS252010MNT-S	single_brd[12C4]	L42	M	L43	IND_P_VLS252010MNT-S	single_brd[12D2]	L44	M	L45	IND_0806	radio_mbl27D3 single_brd[21]	L46	IND_0806	radio_mbl27C3 single_brd[21]	L47	IND_0806	radio_mbl27C3 single_brd[21]	L48	IND_0806	radio_mbl27B3 single_brd[21]	L49	IND_TFA252010-SM	radio_mbl27A3 single_brd[21]	L50	IND_01005	radio_mbl32C3 single_brd[21]	L51	IND_01005	radio_mbl32B3 single_brd[21]	L52	IND_01005	radio_mbl32C3 single_brd[21]	L53	IND_01005	radio_mbl32C3 single_brd[21]	L54	IND_01005	radio_mbl32C3 single_brd[21]	L55	IND_01005	radio_mbl32C3 single_brd[21]	L56	IND_01005	radio_mbl32C3 single_brd[21]	L57	IND_01005	radio_mbl32C3 single_brd[21]	L58	IND_01005	radio_mbl32C3 single_brd[21]	L59	IND_01005	radio_mbl32C3 single_brd[21]	L60	IND_01005	radio_mbl32C3 single_brd[21]	L61	IND_01005	radio_mbl32C3 single_brd[21]	L62	IND_01005	radio_mbl32C3 single_brd[21]	L63	IND_01005	radio_mbl32C3 single_brd[21]	L64	IND_01005	radio_mbl32C3 single_brd[21]	L65	IND_01005	radio_mbl32C3 single_brd[21]	L66	IND_01005	radio_mbl32C3 single_brd[21]	L67	IND_01005	radio_mbl32C3 single_brd[21]	L68	IND_01005	radio_mbl32C3 single_brd[21]	L69	IND_01005	radio_mbl32C3 single_brd[21]	L70	IND_01005	radio_mbl32C3 single_brd[21]	L71	IND_01005	radio_mbl32C3 single_brd[21]	L72	IND_01005	radio_mbl32C3 single_brd[21]	L73	IND_01005	radio_mbl32C3 single_brd[21]	L74	IND_01005	radio_mbl32C3 single_brd[21]	L75	IND_01005	radio_mbl32C3 single_brd[21]	L76	IND_01005	radio_mbl32C3 single_brd[21]	L77	IND_01005	radio_mbl32C3 single_brd[21]	L78	IND_01005	radio_mbl32C3 single_brd[21]	L79	IND_01005	radio_mbl32C3 single_brd[21]	L80	IND_01005	radio_mbl32C3 single_brd[21]	L81	IND_01005	radio_mbl32C3 single_brd[21]	L82	IND_01005	radio_mbl32C3 single_brd[21]	L83	IND_01005	radio_mbl32C3 single_brd[21]	L84	IND_01005	radio_mbl32C3 single_brd[21]	L85	IND_01005	radio_mbl32C3 single_brd[21]	L86	IND_01005	radio_mbl32C3 single_brd[21]	L87	IND_01005	radio_mbl32C3 single_brd[21]	L88	IND_01005	radio_mbl32C3 single_brd[21]	L89	IND_01005	radio_mbl32C3 single_brd[21]	L90	IND_01005	radio_mbl32C3 single_brd[21]	L91	IND_01005	radio_mbl32C3 single_brd[21]	L92	IND_01005	radio_mbl32C3 single_brd[21]	L93	IND_01005	radio_mbl32C3 single_brd[21]	L94	IND_01005	radio_mbl32C3 single_brd[21]	L95	IND_01005	radio_mbl32C3 single_brd[21]	L96	IND_01005	radio_mbl32C3 single_brd[21]	L97	IND_01005	radio_mbl32C3 single_brd[21]	L98	IND_01005	radio_mbl32C3 single_brd[21]	L99	IND_01005	radio_mbl32C3 single_brd[21]	L100	IND_01005	radio_mbl32C3 single_brd[21]

Table with columns 1-8 and rows A-D. Each row contains a list of components with their part numbers, descriptions, and values. The table is organized into a grid with columns labeled 1 through 8 and rows labeled A through D.