

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
A	0011206569	PRODUCTION RELEASED	2018-02-13

J71B MLB_B1

PART#	QTY	DESCRIPTION	REFERENCE DESIGNATOR(S)	CRITICAL	BOM OPTION
051-03587	1	SCHM,MLB-B1,NY,J72B	SCH1	CRITICAL	
620-01327	1	PCBF,MLB-B1,NY,J72B	PCB1	CRITICAL	

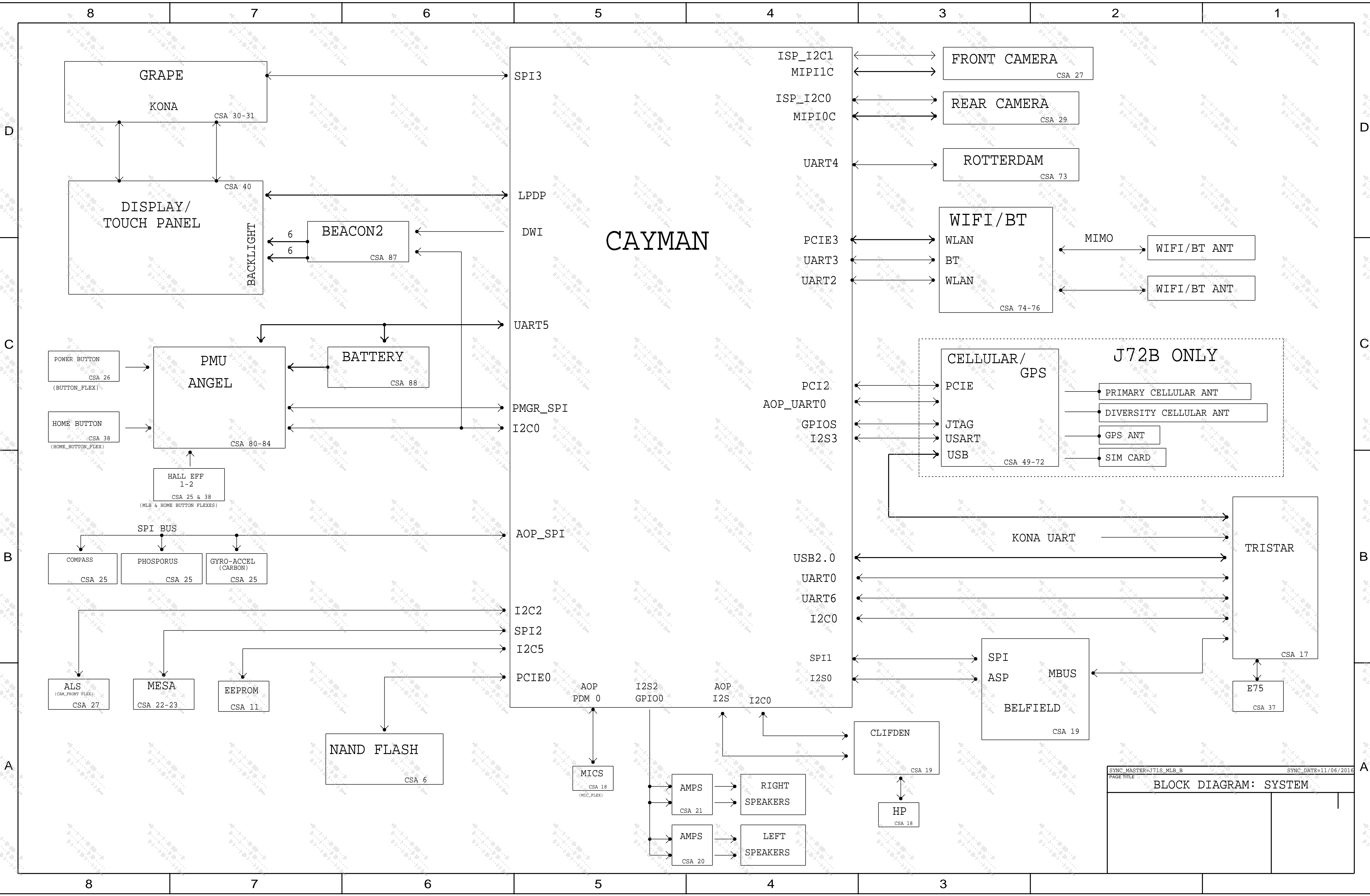
LAST_MODIFICATION= Tue Feb 13 14:23:25 2018

PAGE	CSA	CONTENTS	SYNC	DATE
1	1	TABLE OF CONTENTS		
2	2	BLOCK DIAGRAM: SYSTEM	J71S_MLB_B	11/06/2016
3	4	BOM TABLES	J71S_MLB_B	11/06/2016
4	5	SOC: MISC & ALIASES	J71S_MLB_B	11/06/2016
5	6	NAND	D11_MLB	01/30/2017
6	7	SOC:JTAG,USB,XTAL	D11_MLB	01/30/2017
7	8	SOC:PCIE	D11_MLB	01/30/2017
8	9	SOC:MIPI AND ISP	D11_MLB	11/06/2016
9	10	SOC:LPDP	D11_MLB	11/06/2016
10	11	SOC:SERIAL	D11_MLB	01/30/2017
11	12	SOC:GPIO & UART	D11_MLB	11/06/2016
12	13	SOC:AOP	D11_MLB	01/30/2017
13	14	SOC:POWER (1/3)	D11_MLB	11/06/2016
14	15	SOC:POWER (2/3)	D11_MLB	11/06/2016
15	16	SOC:POWER (3/3)	D11_MLB	11/06/2016
16	17	IO: TRISTAR	J71S_MLB_B	11/06/2016
17	18	AUDIO: HP/DMIC FLEX CONNS	J71S_MLB_B	11/06/2016
18	19	AUDIO: CLIFDEN & BELFIELD	J71S_MLB_B	11/06/2016
19	20	AUDIO: SPEAKER AMPS LEFT	J71S_MLB_B	11/06/2016
20	21	AUDIO: SPEAKER AMPS RIGHT	J71S_MLB_B	11/06/2016
21	22	SENSOR: MESA SUPPORT	J71S_MLB_B	11/06/2016
22	23	SENSOR: MESA BOOST	J71S_MLB_B	11/06/2016
23	25	SENSOR: HALL, CARBON, COMPASS, PHOS	JAMES_MLBB	10/04/2017
24	26	IO: BUTTON FLEX CONN	J71S_MLB_B	11/06/2016
25	27	CAMERA: FF AND ALS CONN	JAMES_MLBB	10/04/2017
26	29	CAMERA: REAR CONN & FILTERS	JAMES_MLBB	10/04/2017
27	30	TOUCH: KONA #1	JAMES_MLBB	11/30/2017
28	31	TOUCH: KONA #2	J71B_MLB_B	06/27/2017
29	32	TOUCH: CONNS	J71B_MLB_B	06/27/2017
30	37	IO: FLEX HOTBAR & FILTERS	J71S_MLB_B	11/06/2016
31	38	SENSOR-BTN: HALL, HOME & MESA	J71S_MLB_B	11/06/2016
32	41	DISPLAY: EDP CONN	J71S_MLB_B	11/06/2016
33	49	RADIOS: ALIASES	J71S_MLB_B	11/06/2016
34	50	DEBUG TEST POINTS	RADIO_MLB	02/13/2018
35	51	CELLULAR BASEBAND: POWER1	RADIO_MLB	02/13/2018
36	52	CELLULAR BASEBAND: POWER2	RADIO_MLB	02/13/2018
37	53	CELLULAR BASEBAND: CONTROL AND INTERFACES	RADIO_MLB	02/13/2018
38	54	CELLULAR BASEBAND: GPIOs	RADIO_MLB	02/13/2018
39	55	CELLULAR PMU: CONTROL AND CLOCKS	RADIO_MLB	02/13/2018
40	56	CELLULAR PMU: SWITCHERS AND LDOS	RADIO_MLB	02/13/2018
41	57	CELLULAR PMU: ET MODULATOR	RADIO_MLB	02/13/2018
42	58	CELLULAR TRANSCEIVER: POWER	RADIO_MLB	02/13/2018
43	59	CELLULAR TRANSCEIVER: PRX PORTS	RADIO_MLB	02/13/2018
44	60	CELLULAR TRANSCEIVER: DRX/GPS PORTS	RADIO_MLB	02/13/2018
45	61	CELLULAR TRANSCEIVER: TX PORTS	RADIO_MLB	02/13/2018

PAGE	CSA	CONTENTS	SYNC	DATE
46	62	CELLULAR FRONT END: LB PAD	RADIO_MLB	02/13/2018
47	63	CELLULAR FRONT END: MB PAD	RADIO_MLB	02/13/2018
48	64	CELLULAR FRONT END: HB PAD	RADIO_MLB	02/13/2018
49	65	CELLULAR FRONT END: 2G PA	RADIO_MLB	02/13/2018
50	66	CELLULAR FRONT END: LB ASM	RADIO_MLB	02/13/2018
51	67	CELLULAR FRONT END: MB-HB ASM	RADIO_MLB	02/13/2018
52	68	CELLULAR FRONT END: DIVERSITY	RADIO_MLB	02/13/2018
53	69	GPS FILTER	RADIO_MLB	02/13/2018
54	70	RXD LNA/UAT	RADIO_MLB	02/13/2018
55	71	PRIMARY ANTENNA CONNECTOR	RADIO_MLB	02/13/2018
56	73	CELL: SIM FLEX CONN	J71B_MLB_B	06/27/2017
57	74	SECURE ELEMENT	RADIO_MLB	02/13/2018
58	75	WIFI/BT: MODULE	WIFI_MLB	11/16/2017
59	77	WIFI/BT: J72B FRONT END	WIFI_MLB	11/16/2017
60	81	POWER: ANGEL (1/5)	J71S_MLB_B	11/06/2016
61	82	POWER: ANGEL (2/5)	J71S_MLB_B	11/06/2016
62	83	POWER: ANGEL (3/5)	J71S_MLB_B	11/06/2016
63	84	POWER: ANGEL (4/5)	J71S_MLB_B	11/06/2016
64	85	POWER: ANGEL (5/5)	JAMES_MLBB	11/30/2017
65	86	POWER: EXTERNAL SWITCHES & LDOS	J71S_MLB_B	11/06/2016
66	87	POWER: BUCKS 4,5,8	J71S_MLB_B	11/06/2016
67	88	BEACON2	J71S_MLB_B	11/06/2016
68	89	POWER: BATTERY CONNECTOR	J71S_MLB_B	11/06/2016
69	93	TEST: TP/HOLES/FIDUCIALS	J71S_MLB_B	11/06/2016
70	94	TEST: EE TP/PP	J71S_MLB_B	11/06/2016
71	121	POWER: ALIASES	J71S_MLB_B	11/06/2016

TABLE OF CONTENTS

SYNC_MASTER=J71S_MLB_B	SYNC_DATE=11/06/2016
DRAWING TITLE	
SCHEM,MLB-B1,NY,J72B	



8

7

6

5

4

3

2

1

Page Notes

Power aliases required by this page: (NONE)
Signal aliases required by this page: (NONE)
BOM options provided by this page:

SOC

PART#	QTY	DESCRIPTION	REFERENCE DESIGNATOR(S)	CRITICAL	BOM OPTION
339S00485	1	POW, C339000+208 208M, B3, A12, 180, H, C395467	U0700	CRITICAL	

S
H

PART NUMBER	ALTERNATE FOR PART NUMBER	BOM OPTION	REF DES	COMMENTS:
339S00486	339S00485		U0700	
339S00487	339S00485		U0700	

FLASH CONFIGURATIONS

PART#	QTY	DESCRIPTION	REFERENCE DESIGNATOR(S)	CRITICAL	BOM OPTION
335S00307	1	NAND, 3DV3, 32GBT, XXX, S38, 128G, T, SLGA70	U0601	CRITICAL	32GB
335S00311	1	NAND, 3DV3, 64GBT, XXX, S38, 128G, SD, SLGA70	U0601	CRITICAL	64GB
335S00180	1	NAND, 15, 128GBT, 021, S38, 128G, T, SLGA70	U0601	CRITICAL	128GB
335S00156	1	NAND, 3DV3, 256GBT, S38, 256G, H, SLGA70	U0601	CRITICAL	256GB
138S0867	5	CAP, X5R, 100P, 20V, 6, 3V, 0.45MM, H8275, 0402	C0648, C0613, C0616, C0621, C0633	CRITICAL	32GB
138S00003	5	CAP, X5R, 150P, 20V, 6, 3V, 0.45MM, H8275, 0402	C0648, C0613, C0616, C0621, C0633	CRITICAL	64GB
138S00003	5	CAP, X5R, 150P, 20V, 6, 3V, 0.45MM, H8275, 0402	C0648, C0613, C0616, C0621, C0633	CRITICAL	128GB
138S00003	5	CAP, X5R, 150P, 20V, 6, 3V, 0.45MM, H8275, 0402	C0648, C0613, C0616, C0621, C0633	CRITICAL	256GB

TOSHIBA
WESTERN DIGITAL
TOSHIBA
HYNIX

BICS3

PART NUMBER	ALTERNATE FOR PART NUMBER	BOM OPTION	REF DES	COMMENTS:
335S00309	335S00307		U0601	WD 32G 3D-TLC 2DP

BICS3

335S00182	335S00180		U0601	HYNIX 128G TLC 8DP
-----------	-----------	--	-------	--------------------

ANGEL

PART#	QTY	DESCRIPTION	REFERENCE DESIGNATOR(S)	CRITICAL	BOM OPTION
343S00203	1	IC, PM2, ANGEL, D2345A0, OTP-CC, MLCSP361	U8100	CRITICAL	

MECHANICAL PARTS

PART#	QTY	DESCRIPTION	REFERENCE DESIGNATOR(S)	CRITICAL	BOM OPTION
806-13579	1	FENCE, AP, J71B	PD_FENCE_AP	CRITICAL	
806-13580	1	SHIELD, RADIO, NY, J71B	PD_SHIELD_RF	CRITICAL	
806-13581	1	CAN, TINY, J71B	PD_TINY_CAN	CRITICAL	

BARCODE LABEL/EEEE CODES

PART#	QTY	DESCRIPTION	REFERENCE DESIGNATOR(S)	CRITICAL	BOM OPTION
825-7639	1	EEEE FOR BETTER	JKY6	CRITICAL	EEEE_J72B_BTR
825-7639	1	EEEE FOR BEST	JMM4	CRITICAL	EEEE_J72B_BEST
825-7639	1	EEEE FOR ULTIMATE	JKY7	CRITICAL	EEEE_J72B_ULT
825-7639	1	EEEE FOR SUPREME	JMM5	CRITICAL	EEEE_J72B_SUP

PART NUMBER	ALTERNATE FOR PART NUMBER	BOM OPTION	REF DES	COMMENTS:
155S00007	155S0667			

L2710, L2711, L2910, L2911, L2912, L2913, L2920

138S00049	138S0831		C0410, C0480, ...	2, 20P, 0201
138S00006	138S0835		C0400, C0480, ...	2, 20P
138S00048	138S00003		C0140, C0161, ...	150P
138S0945	138S0739		C1760, ...	10P
138S0706	138S0739		C1760, ...	10P
376S00071	376S00070		C0504	
376S00159	376S1211		C0550	
376S0948	376S00076		C0500	

RDAR #22885449

RDAR #22886293

197S0369	197S0392		C0300	32, 768K, XTAL
155S00097	155S0664		FL2780, ...	FILTER_2P
155S00341	155S0755		FL4190	PERWRITE HEAD
155S00016	155S0686		L1800, ...	FILTER_2P
155S00342	155S0453		FL2290-FL2292, L12295, FL2296	FILTER_3S
155S00200	155S00400		FL2080, ...	FILTER_2P

RDAR #24177192

RDAR #23399925

RDAR #23169091

138S0786	138S0847		C0305	100P
138S0864	138S0709		C0547, ...	4, 70P
138S0875	138S0678		C0140, ...	100P

RDAR #24161406

RDAR #23320528

335S00013	335S0894		U5403	EEPROM
335S00066	335S0946		U1103	EEPROM
131S00150	131S0890		C1285, C1302	
132S00088	132S0639		C1023, C1032	
138S00086	138S0884		C0204	
138S00024	138S0986			

C1404, 07, 11, 16-17, 21, 26, 32-33
C1437, 40, 60-61; C1503, C7502

371S00118	371S00117		D3001	
376S00030	376S1131		U0770	
377S0116	377S0108		D03700	

128S00067	128S00062		C0100, C0101, C0102	
132S00154	132S0683			
155S00402	155S0511			
155S00232	155S0665			

C30001-05, 08-10, 19, 28
L1900-05
FL1850-51, L4180, 85

197S00120	197S0612		V0700	
197S00118	197S0612		V0700	

131S00172	131S00164		C0820, C0821	Q200P
131S00173	131S00164		C0820, C0821	Q200P

371S00173	371S0644		D0500	
371S00172	371S0490		D0801, D0802	

SYNC_MASTER=J71S_MLB_B
PAGE TITLE

SYNC_DATE=11/06/2016

BOM TABLES

8

7

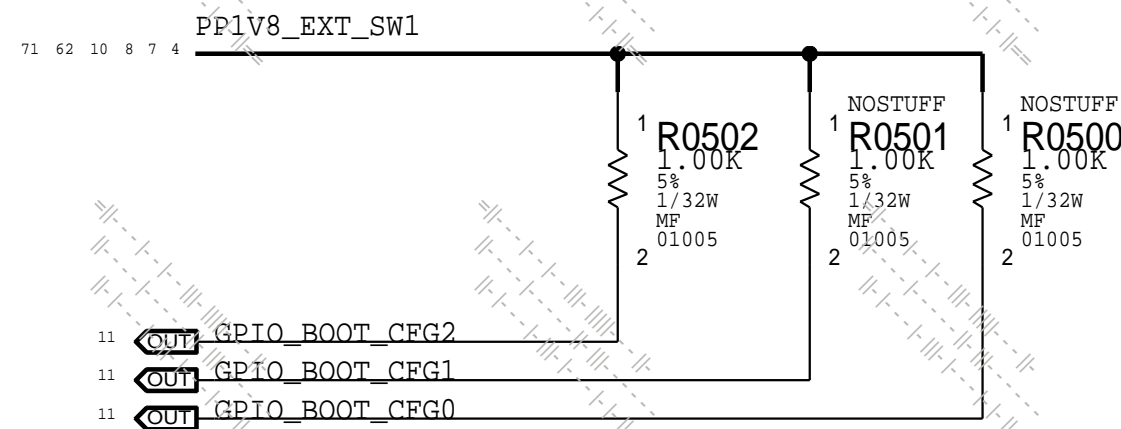
6

5

4

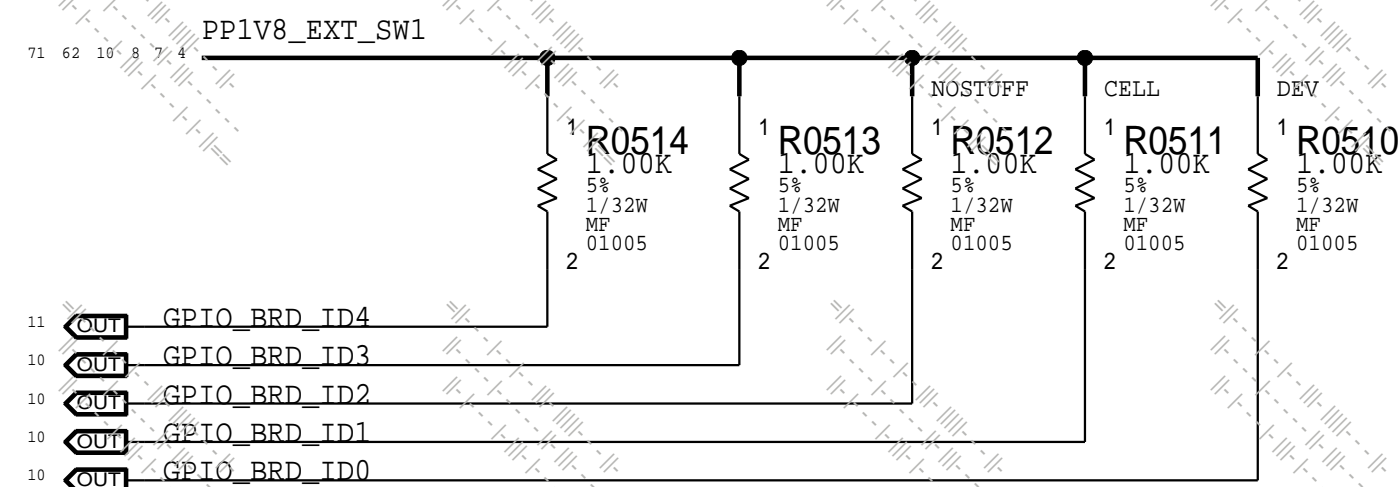
3

BOOT CONFIG ID



BOOT_CFG[2:0]	MODE	S/W READ FLOW
000	SP10 TEST MODE	1. SET GPIO AS INPUT
001	SP10 TEST MODE	2. DISABLE PU AND ENABLE PD
010	NVME0 X2 MODE	3. READ
011	NVME0 X2 TEST MODE	
100	NVME0 X1 MODE	
101	NVME0 X1 TEST MODE	
110	SLOW SP10 TEST MODE	
111	FAST SP10 TEST MODE	

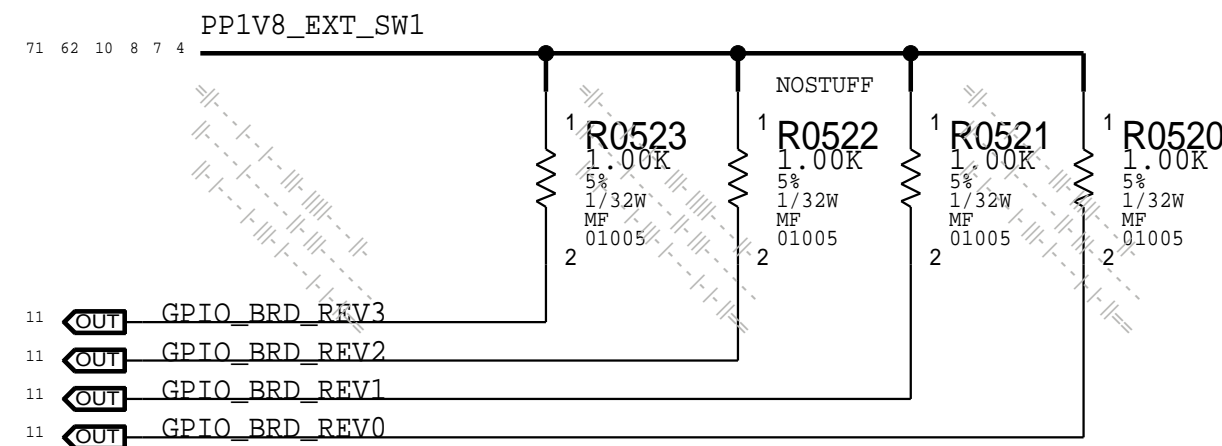
BOARD ID



BRD_ID[4-0]	
11000	J71B AP (WIFI)
11001	J71B DEV
11010	J72B AP (CELL)
11011	J72B_DEV

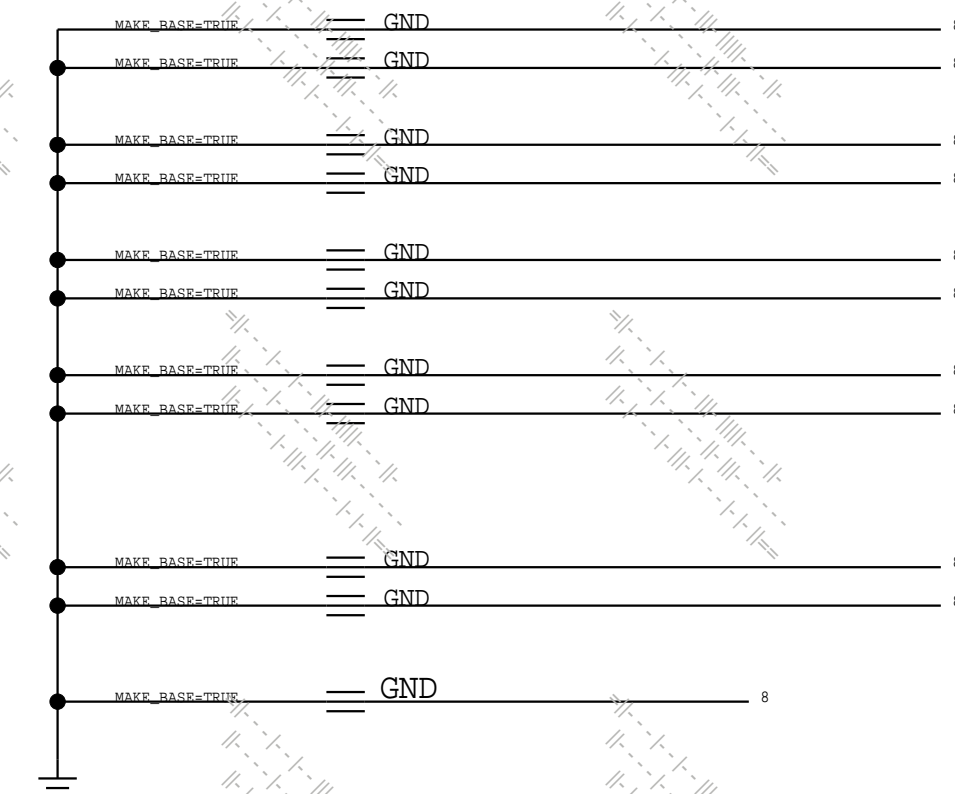
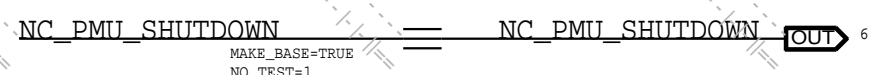
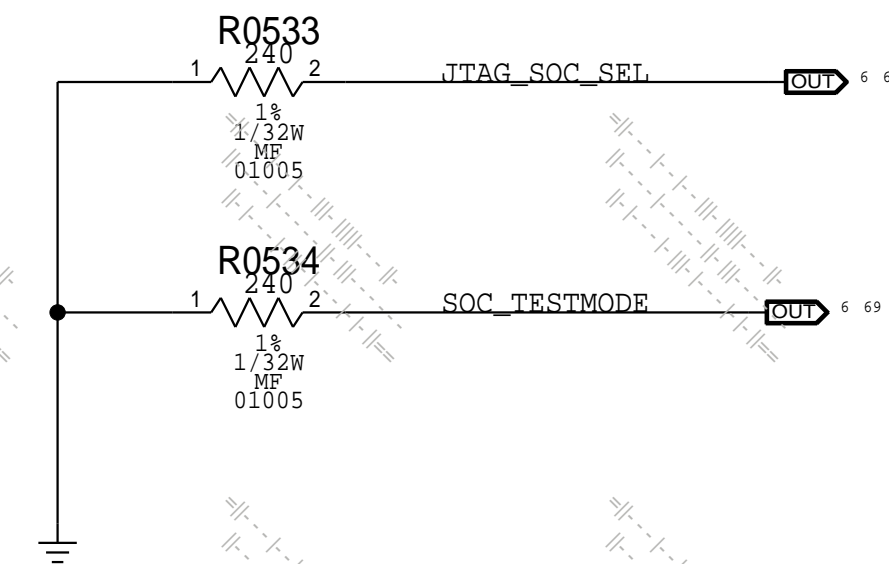
RDAR//PROBLEM/29855408

BOARD REVISION



BRD_REV[3-0]	
1111	PROTO_0
1110	PROTO_1
1101	EVT
1100	DVT
1011	PVT

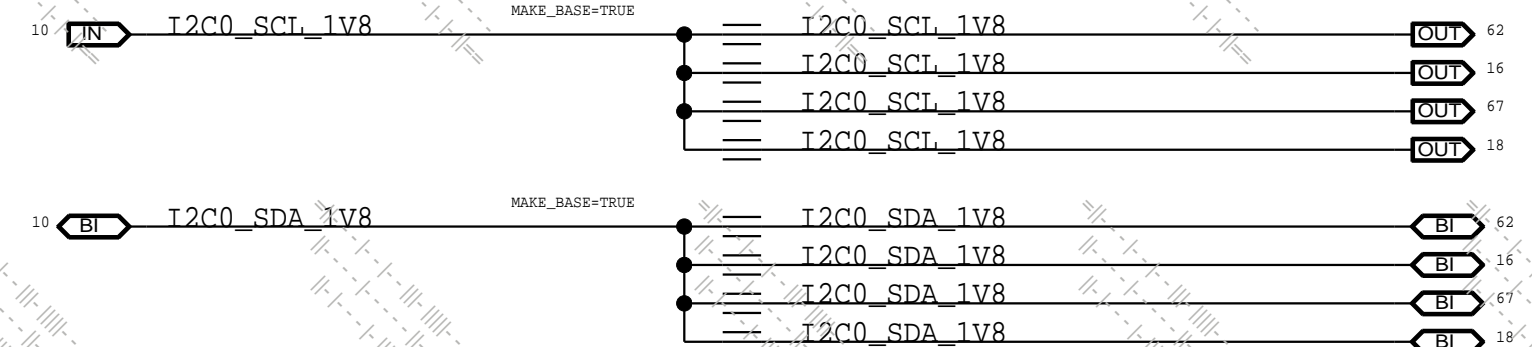
- S/W READ FLOW
- SET GPIO AS INPUT
 - ENABLE PD AND DISABLE PU
 - READ



DC RESISTANCE FAI REQUIRED MEASUREMENTS			
FROM PIN (REFDES.PN)	TO PIN (REFDES.PN)	VALUE (MILIOHM) (OPTIONAL)	TOLERANCE (+/-) (OPTIONAL)
U8100.W19	J8900.4	3.75	10%
U8100.H16	L2700.1	187.0	10%

I2C0

DEVICE	8-BIT	7-BIT
ANGEL	0X78	0X3C
VE1STAR	0X7A	0X3A
BEACON	0X4C	0X26

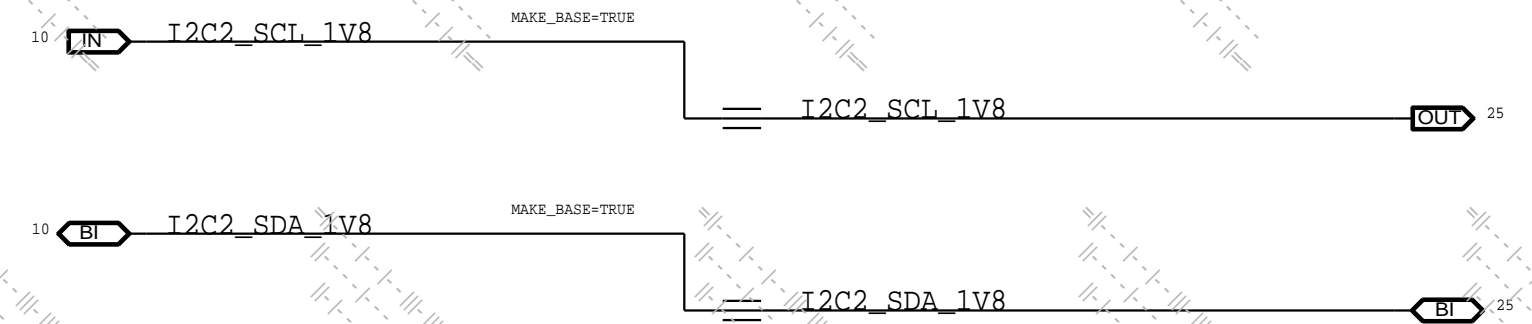


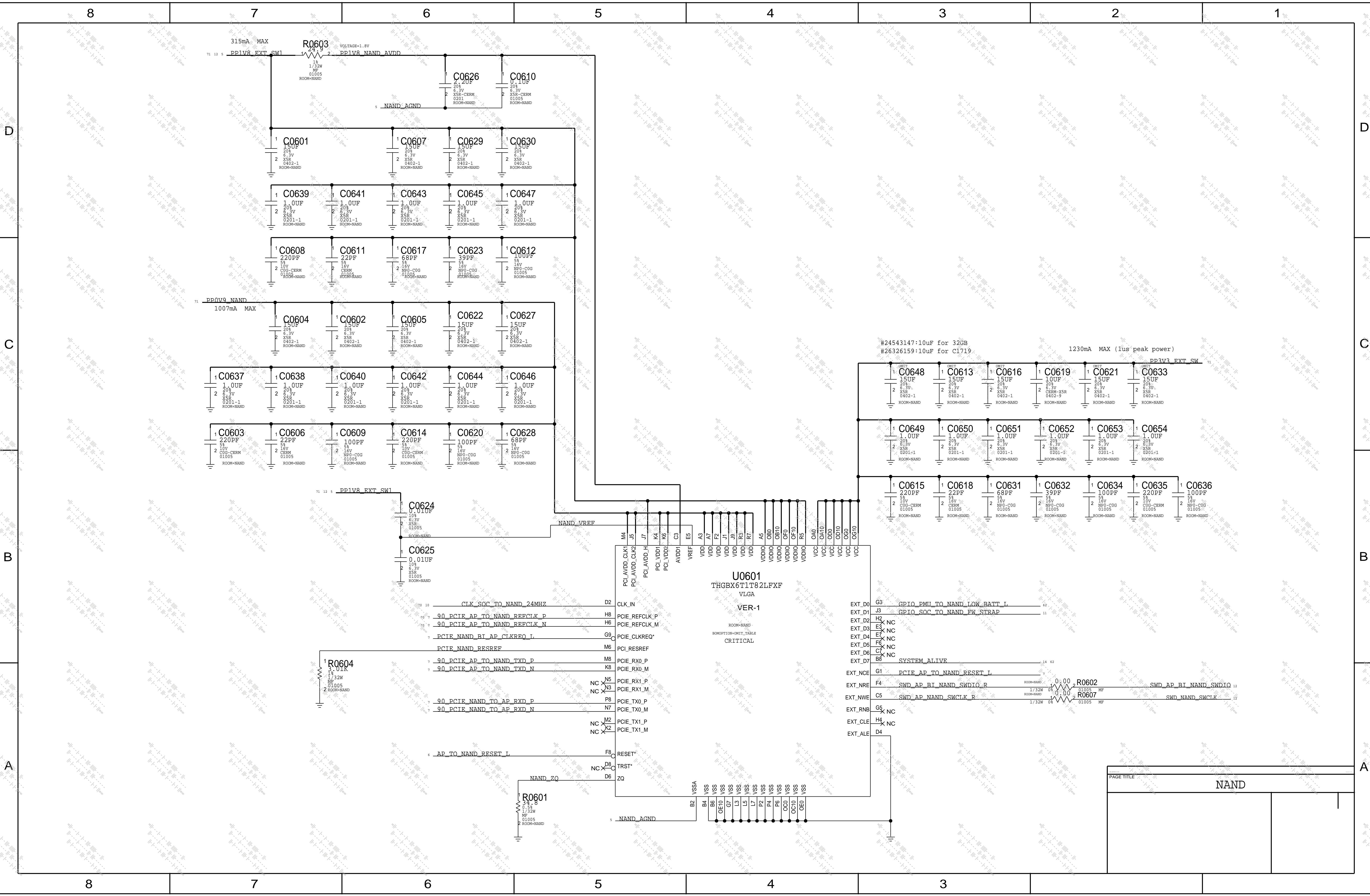
I2C1

DEVICE	8-BIT	7-BIT
--------	-------	-------

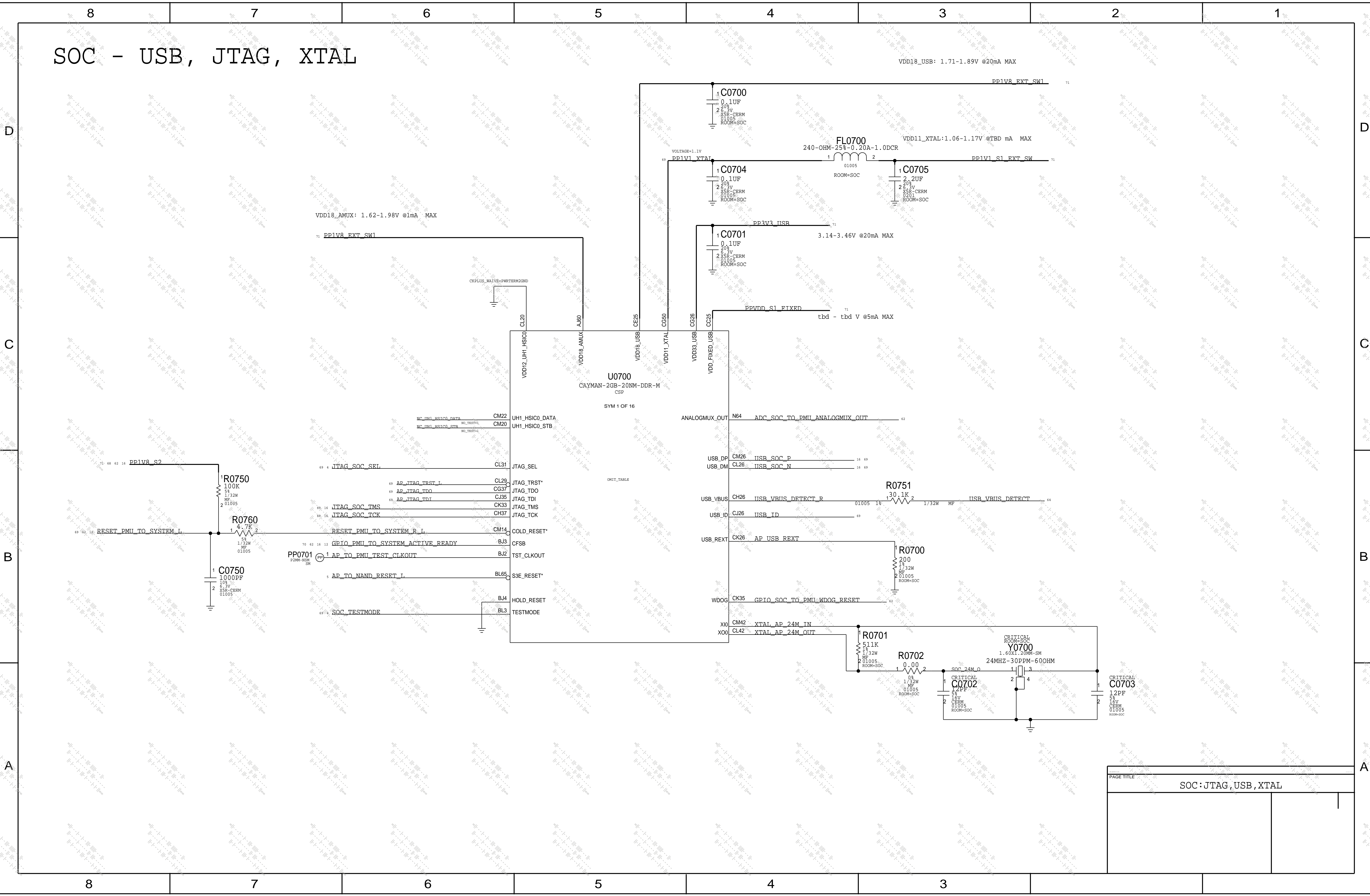
I2C2

DEVICE	8-BIT	7-BIT
ALS (FRONT CAM)	0X72	0X39

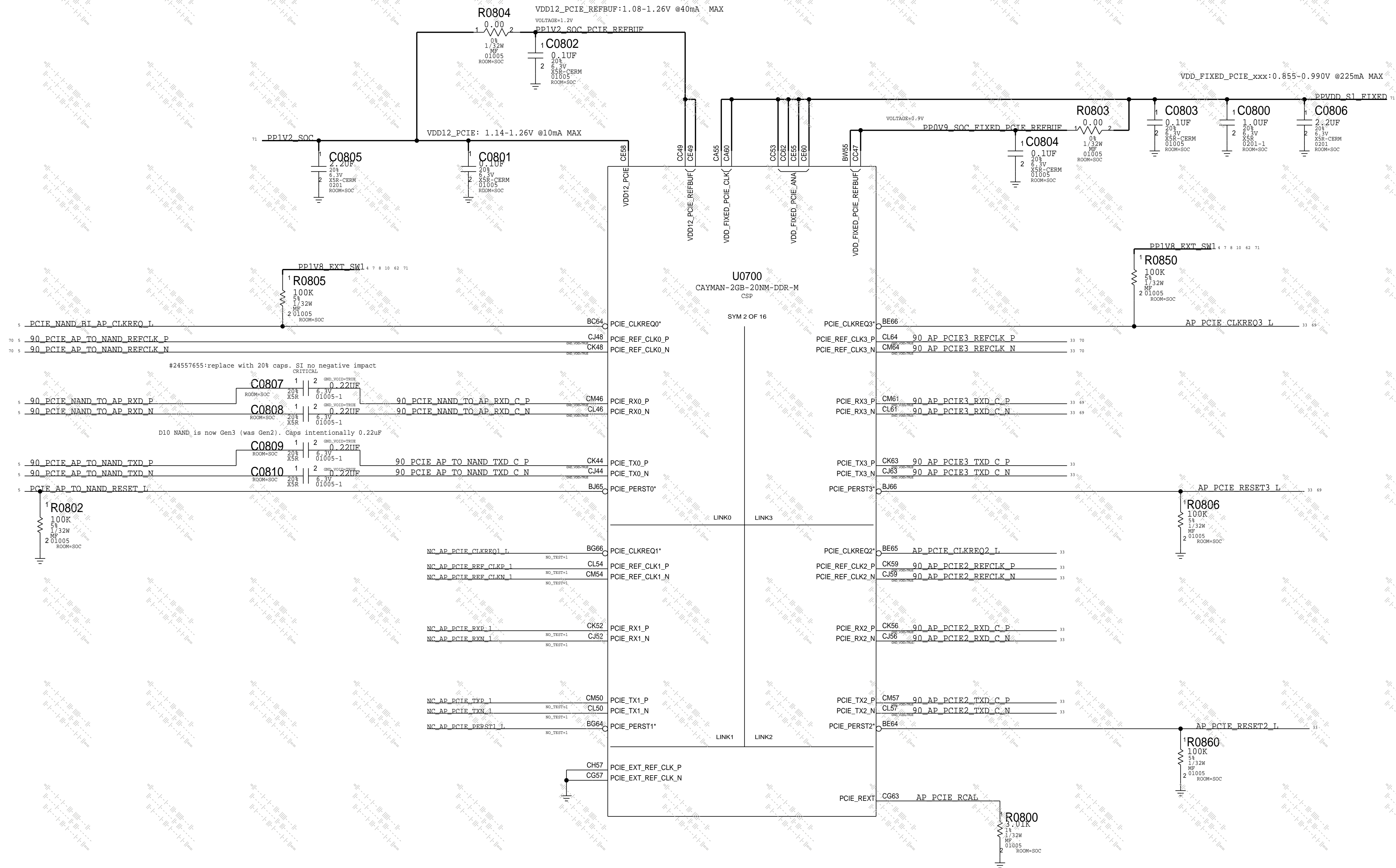




SOC - USB, JTAG, XTAL



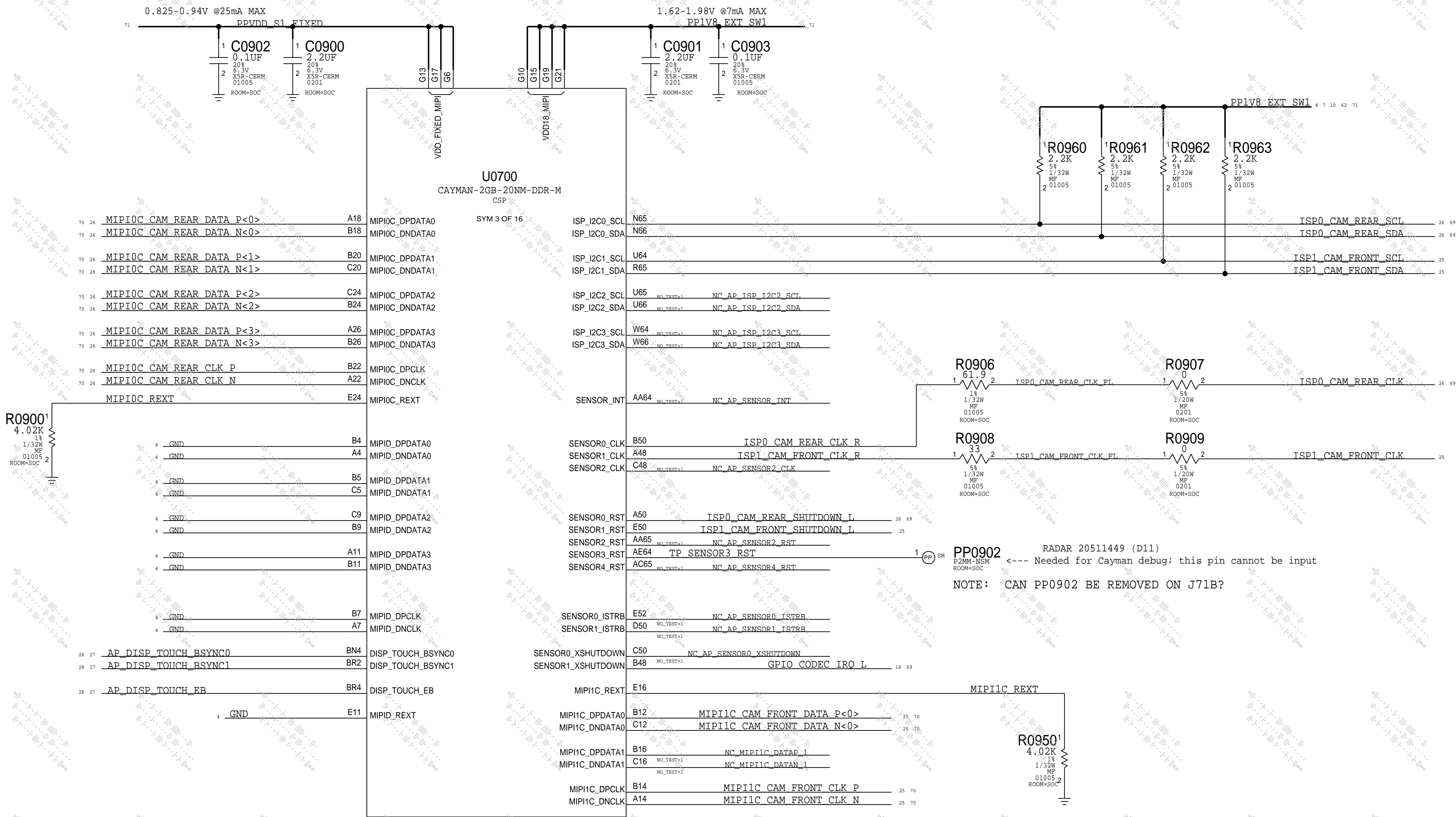
SOC - PCIE INTERFACES



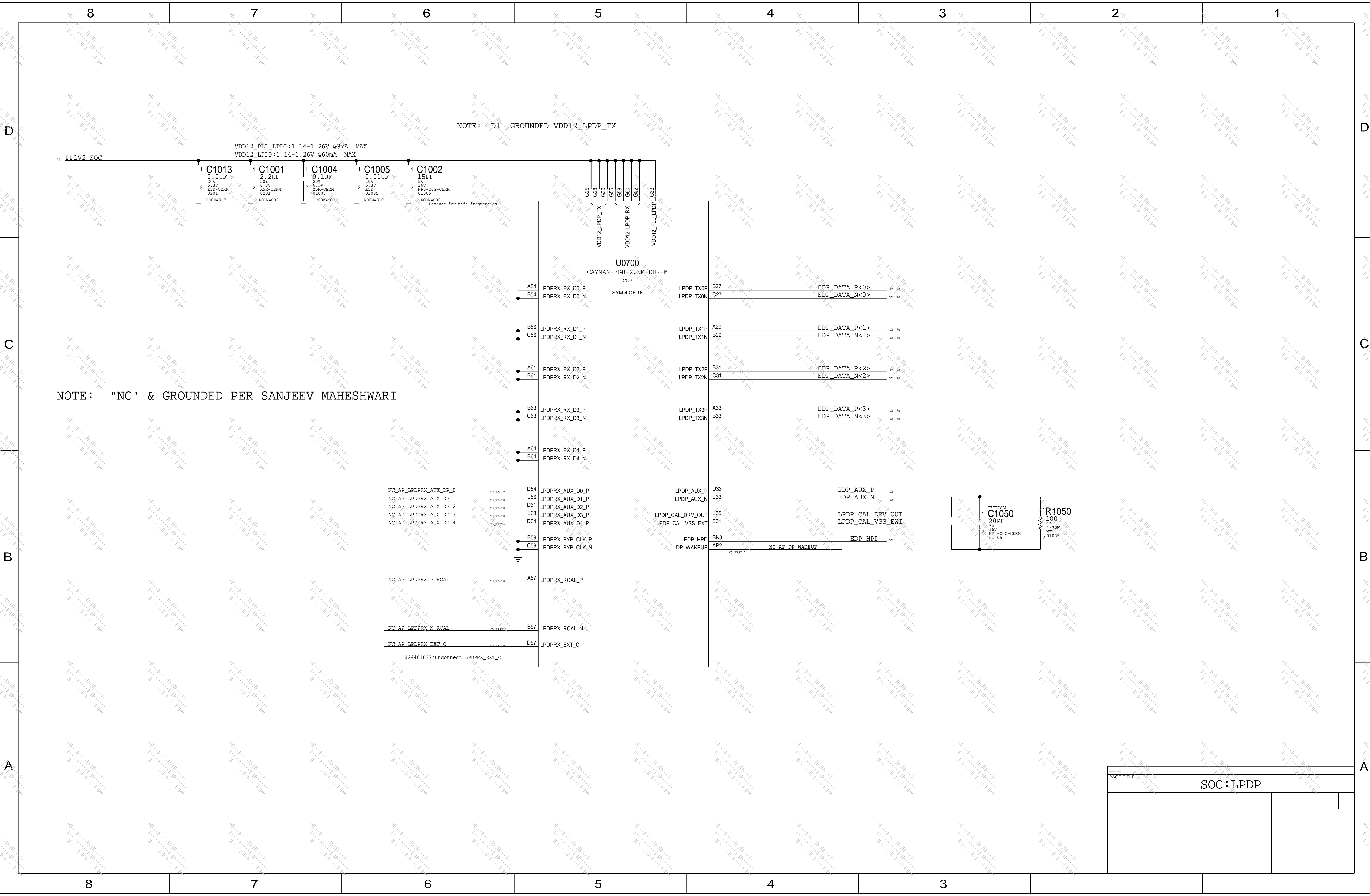
PAGE TITLE

SOC:PCIE

SOC - MIPI & ISP INTERFACES



TO BE REVIEWED



NOTE: D11 GROUNDED VDD12_LPDP_TX

VDD12_PLL_LPDP:1.14-1.26V @3mA MAX
VDD12_LPDP:1.14-1.26V @60mA MAX

C1013 2.2UF 20% 6.3V X5R-CERM 0201 ROOM+SOC
C1001 2.2UF 20% 6.3V X5R-CERM 0201 ROOM+SOC
C1004 0.1UF 20% 6.3V X5R-CERM 01005 ROOM+SOC
C1005 0.01UF 10% 6.3V X5R 01005 ROOM+SOC
C1002 15PF 5% 15V NP0-COG-CERM 01005 ROOM+SOC
Desense for Wifi frequencies

U0700
CAYMAN-2GB-20NM-DDR-M
CSP
SYM 4 OF 16

NOTE: "NC" & GROUNDED PER SANJEEV MAHESHWARI

NC AP LPDPRX_AUX_DP_0 NO_TEST+1 D54 LPDPRX_AUX_D0_P
NC AP LPDPRX_AUX_DP_1 NO_TEST+1 E56 LPDPRX_AUX_D1_P
NC AP LPDPRX_AUX_DP_2 NO_TEST+1 D61 LPDPRX_AUX_D2_P
NC AP LPDPRX_AUX_DP_3 NO_TEST+1 E63 LPDPRX_AUX_D3_P
NC AP LPDPRX_AUX_DP_4 NO_TEST+1 D64 LPDPRX_AUX_D4_P

B59 LPDPRX_BYP_CLK_P
C59 LPDPRX_BYP_CLK_N

NC AP LPDPRX_P_RCAL NO_TEST+1 A57 LPDPRX_RCAL_P

NC AP LPDPRX_N_RCAL NO_TEST+1 B57 LPDPRX_RCAL_N

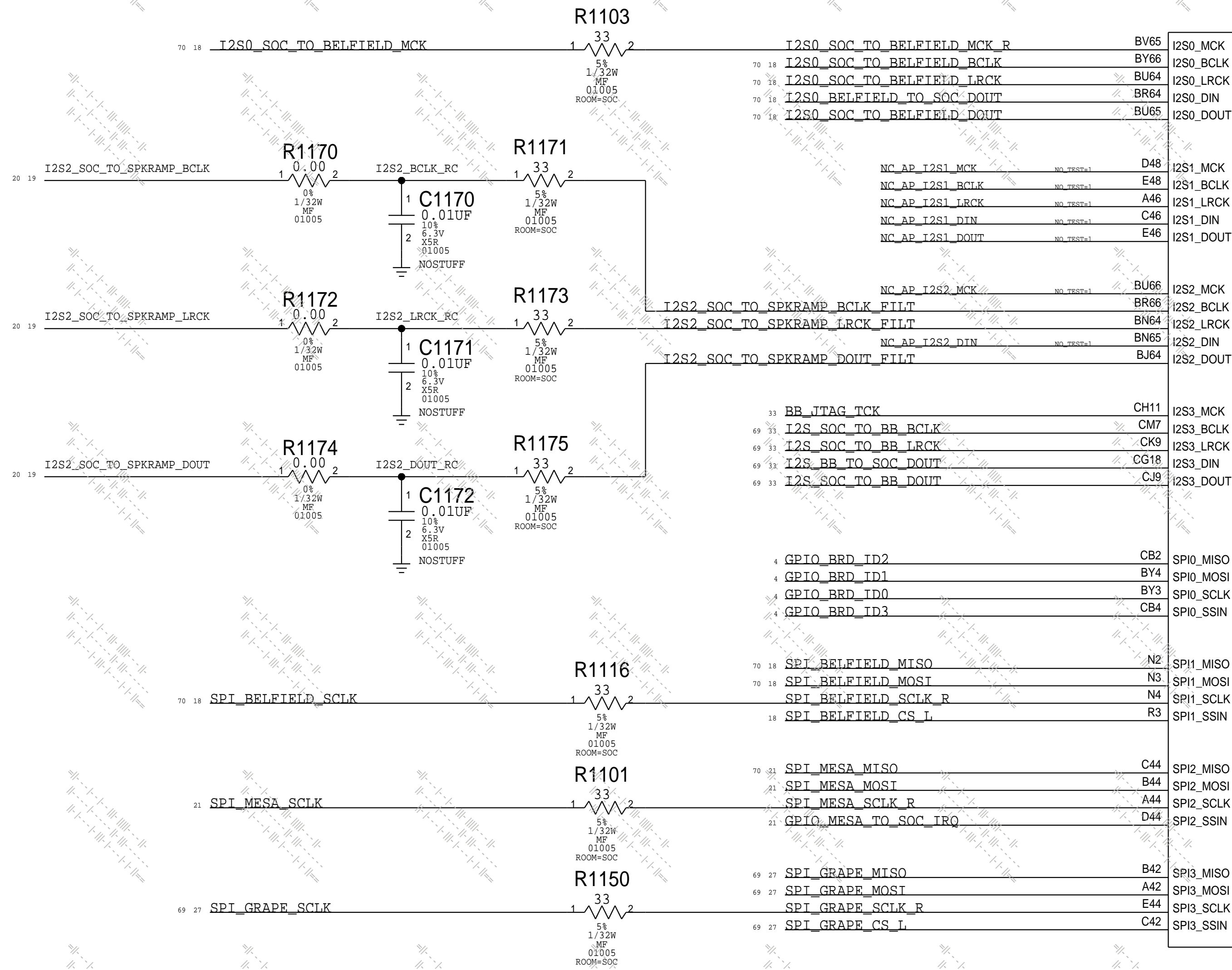
NC AP LPDPRX_EXT_C NO_TEST+1 D57 LPDPRX_EXT_C

#24401637:Unconnect LPDPRX_EXT_C

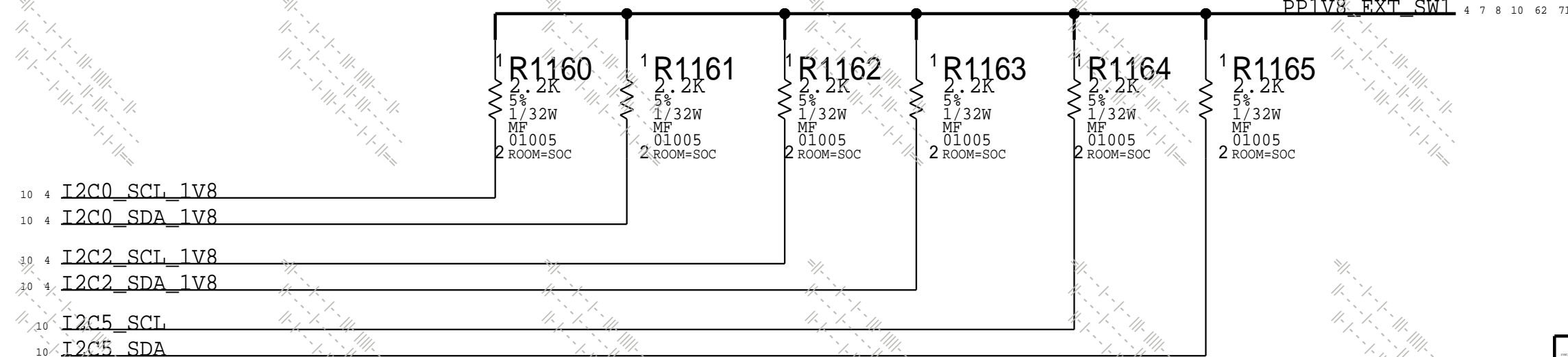
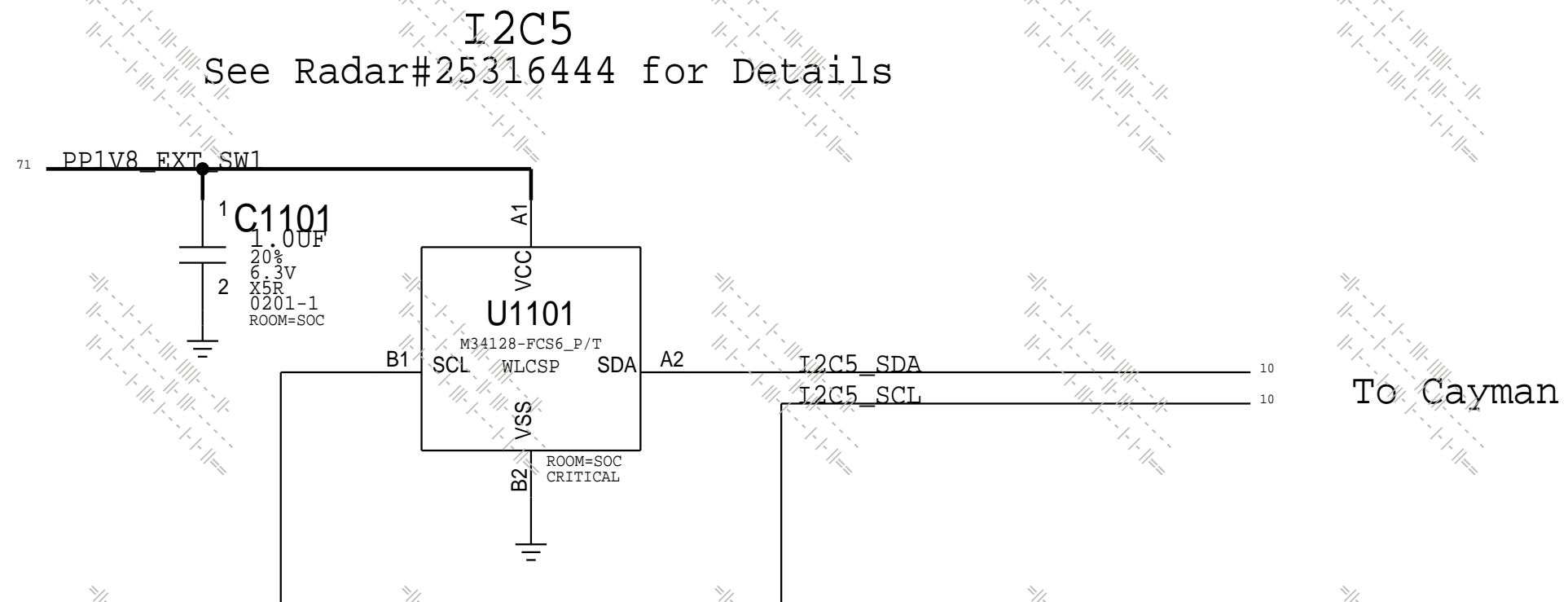
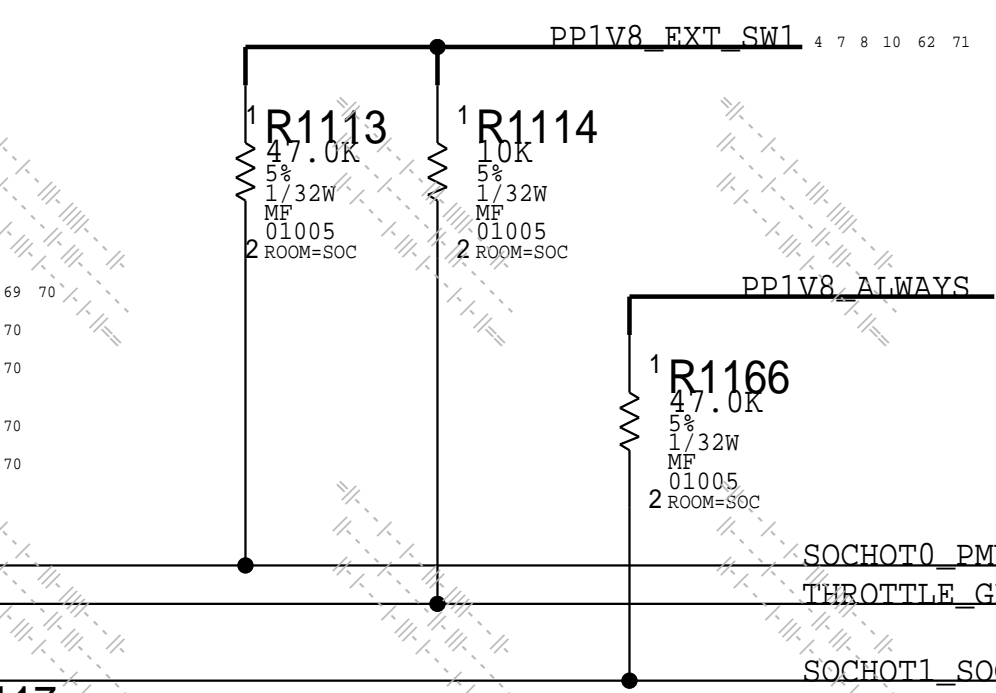
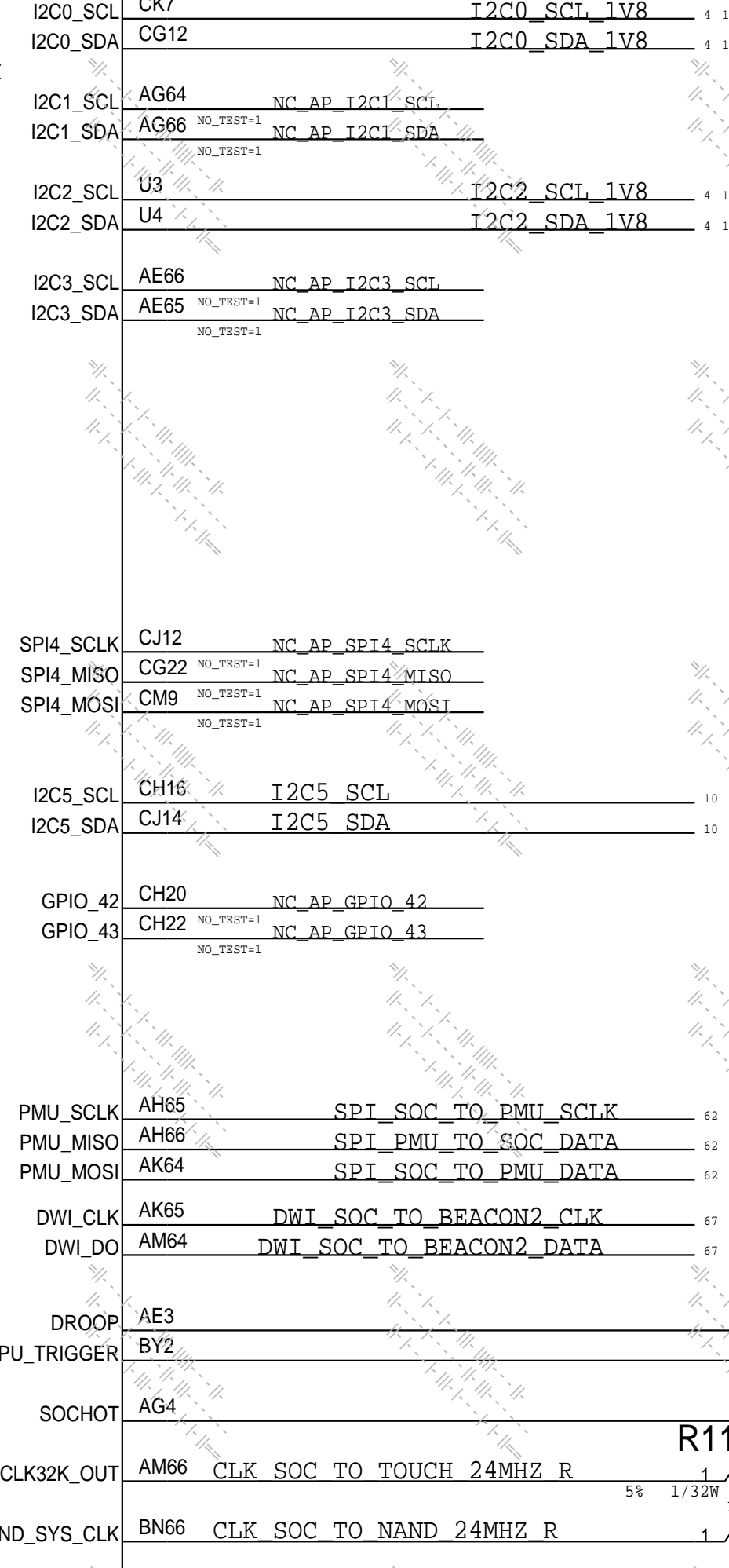
C1050 20PF 5% 15V NP0-COG-CERM 01005
R1050 100 1% 33W MF 01005

PAGE TITLE SOC:LPDP

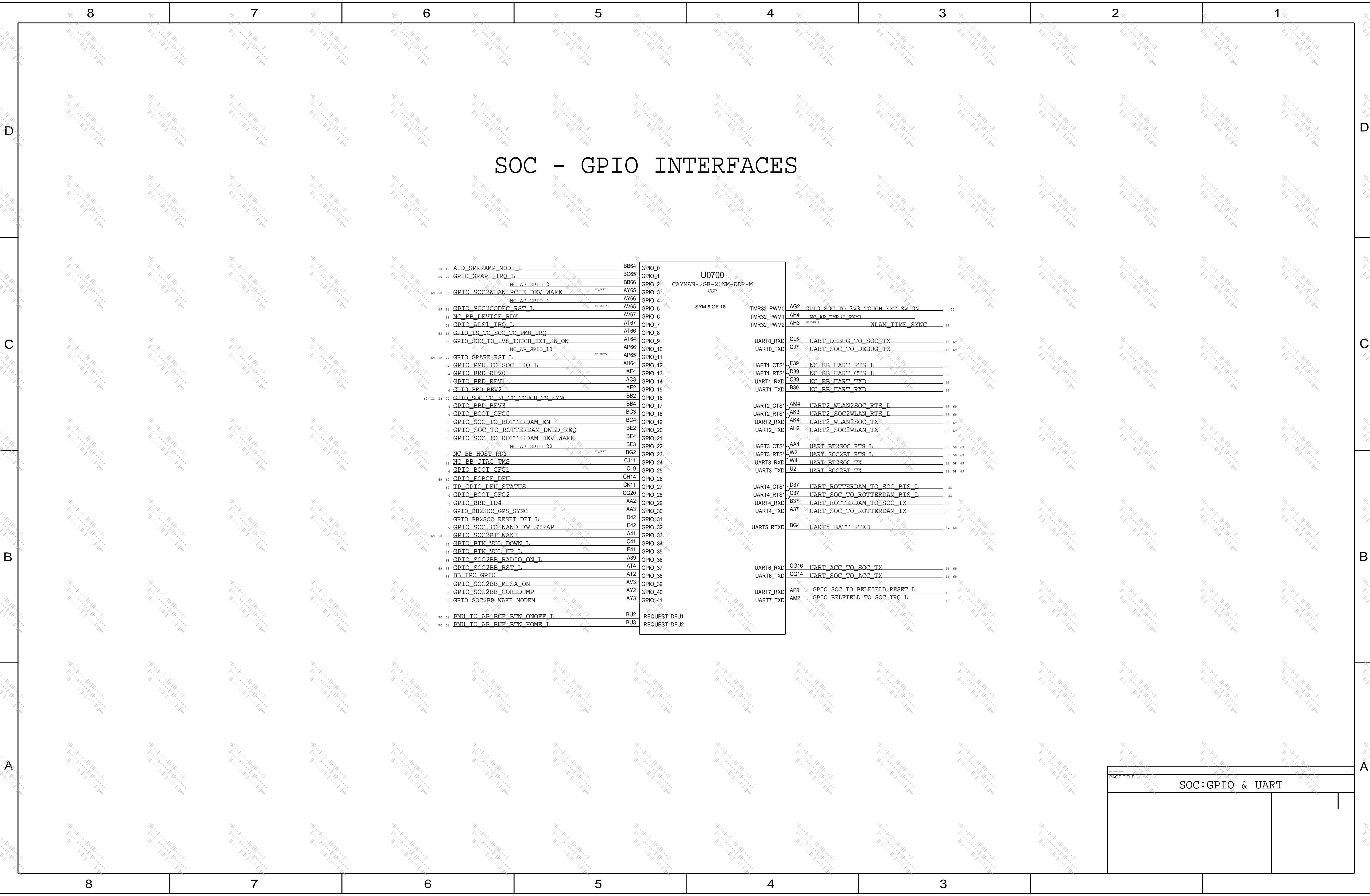
SOC – SERIAL INTERFACES



U0700
CAYMAN-2GB-20NM-DDR-M
CSP
SYM 6 OF 16



PAGE TITLE	
SOC: SERIAL	



SOC - AOP

D

C

B

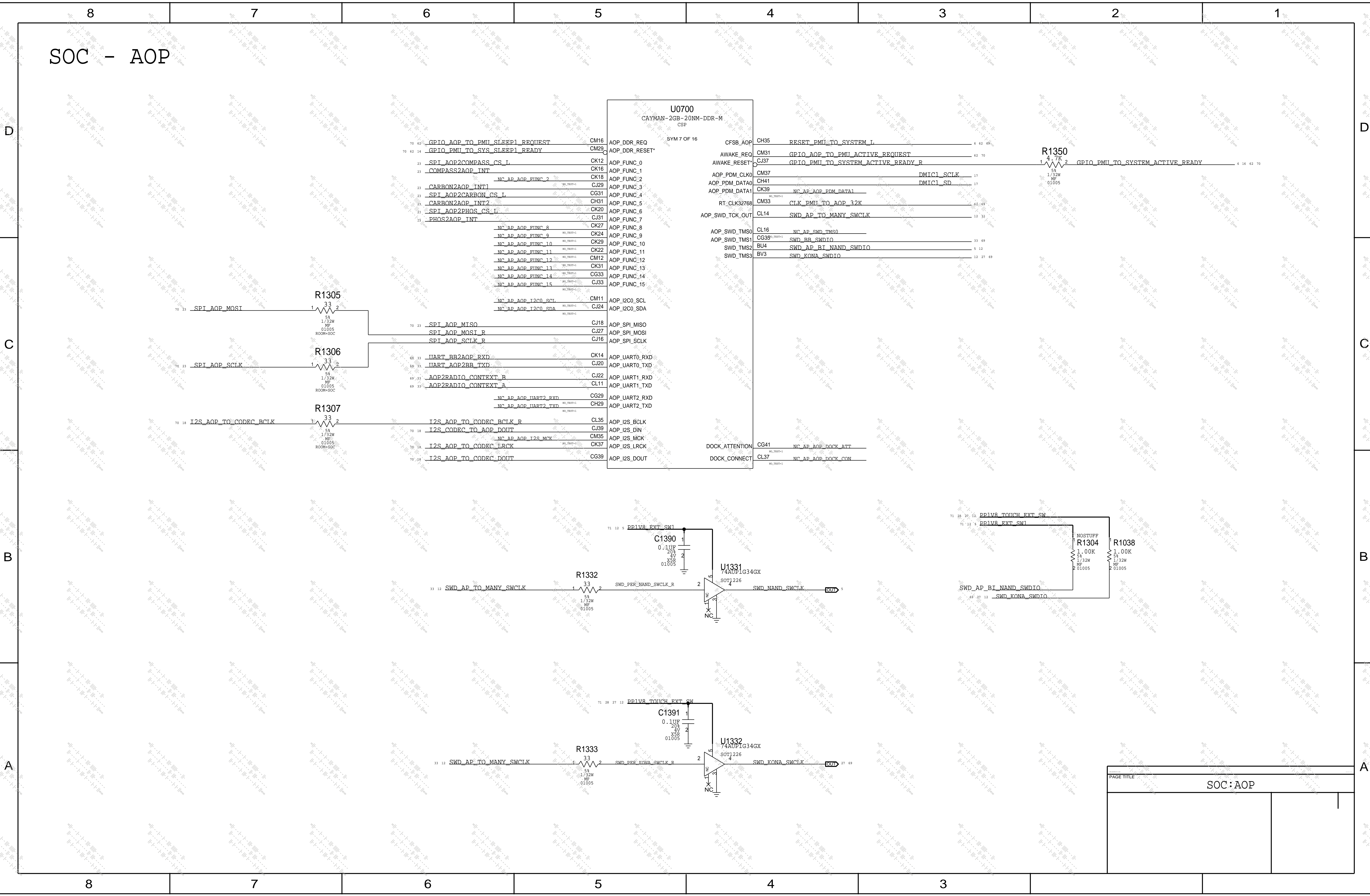
A

D

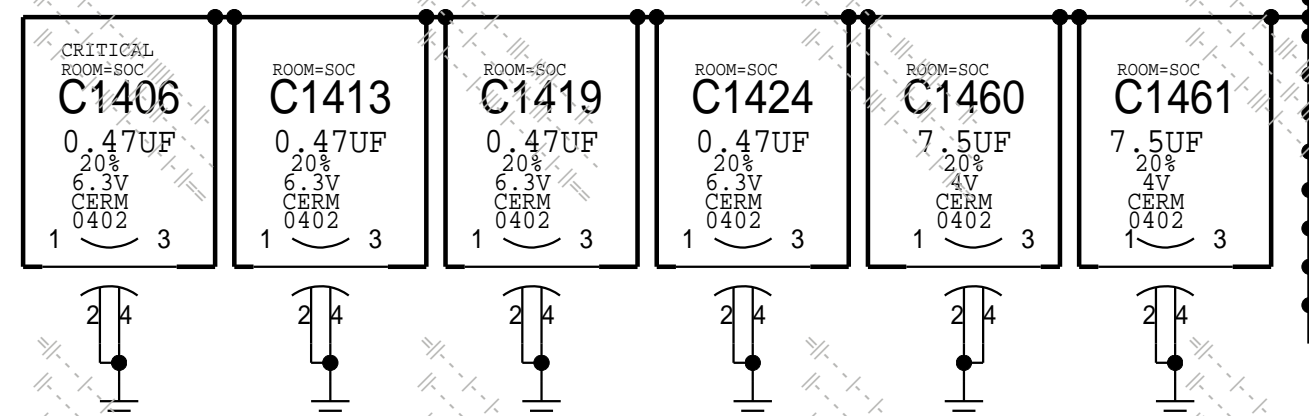
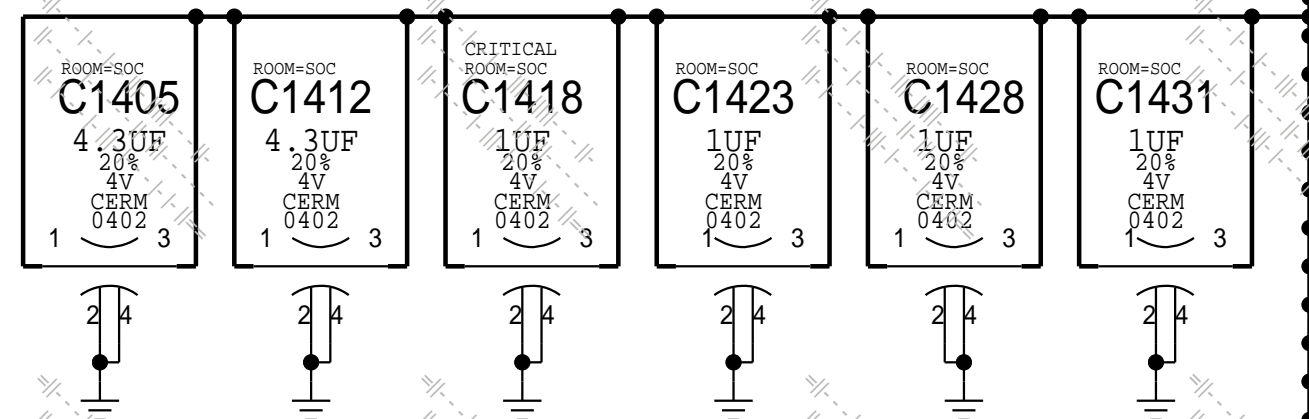
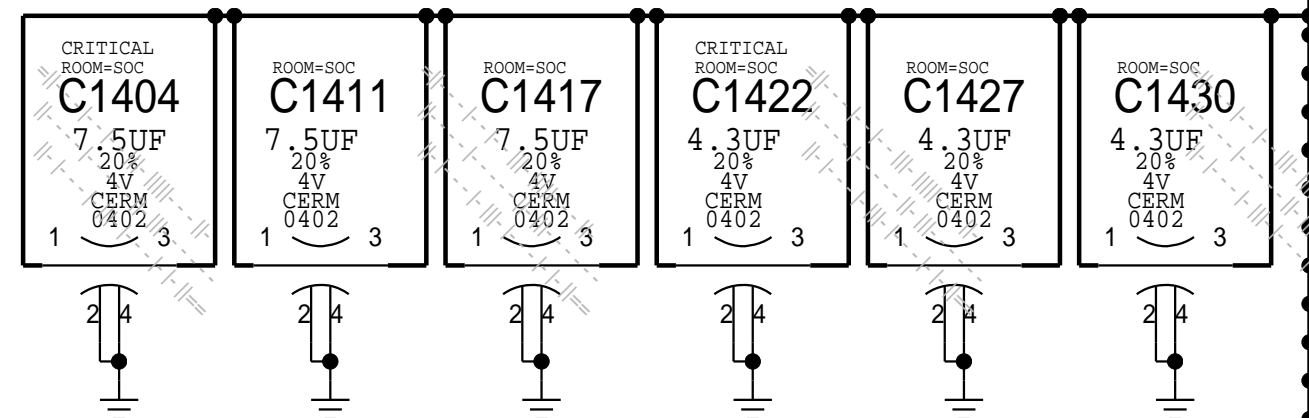
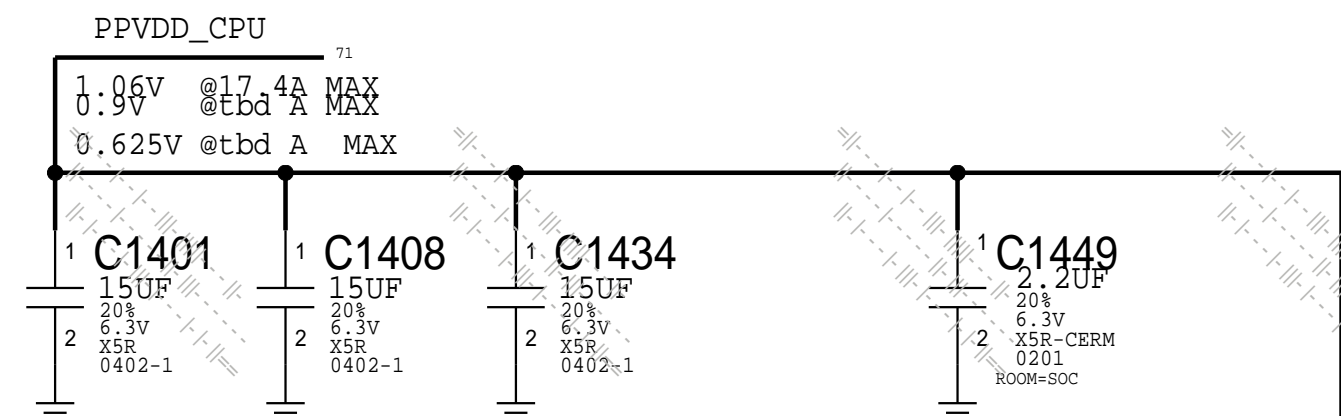
C

B

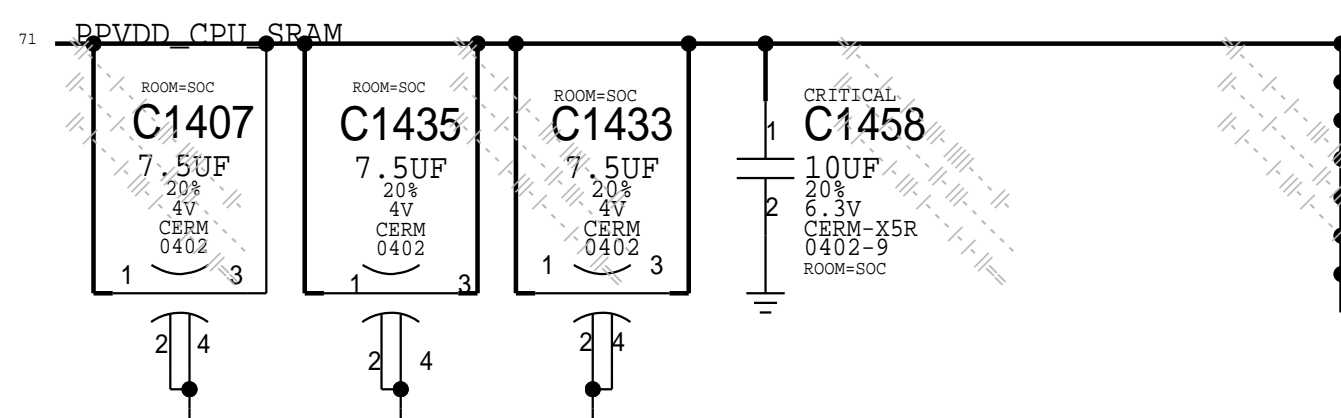
A



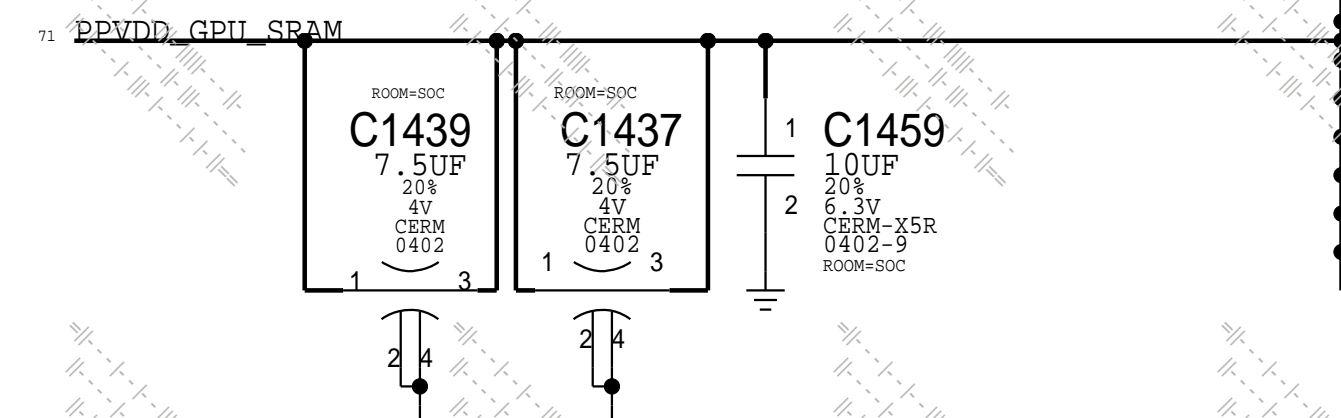
SOC - CPU, GPU & SOC RAILS



1.06V @1.0A MAX
0.80V @TBD A MAX



1.03V @1.44A MAX
0.92V @1.50A MAX
0.80V @TBD A MAX



U0700
CAYMAN-2GB-20NM-DDR-M
CSP
SYM 8 OF 16

VDD_CPU

VDD_GPU

VDD_CPU_SRAM

VDD_GPU_SRAM

VDD_CPU_SENSE BK23 ADC_SOC_TO_PMI_VDD_CPU 62 70

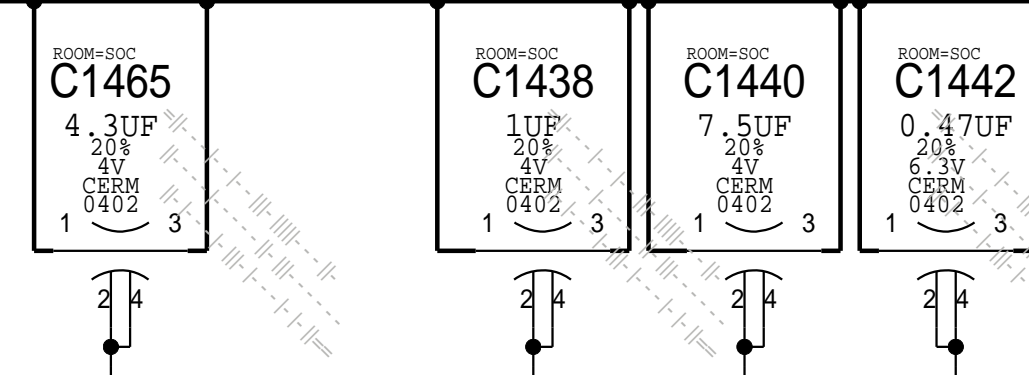
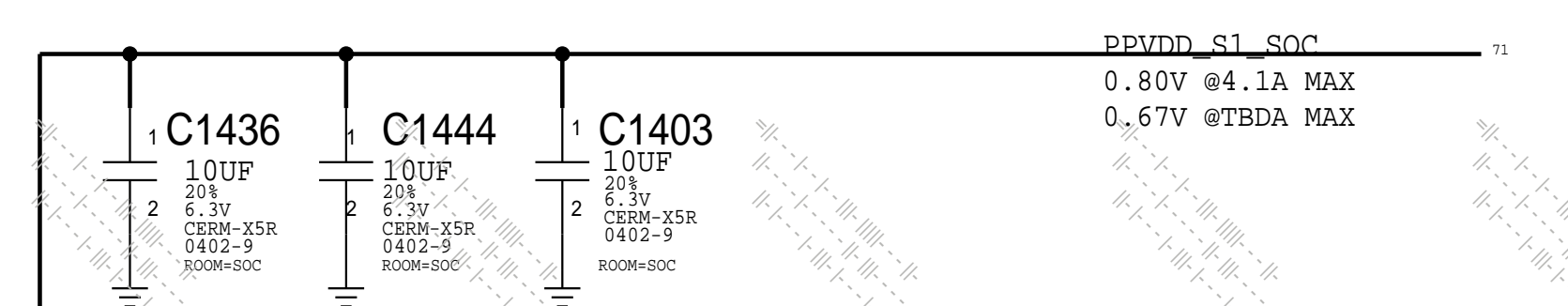
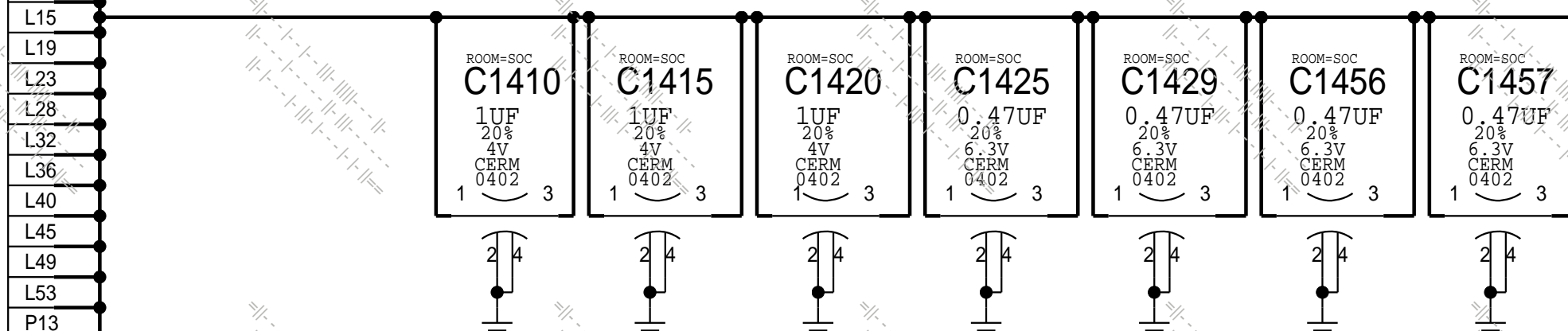
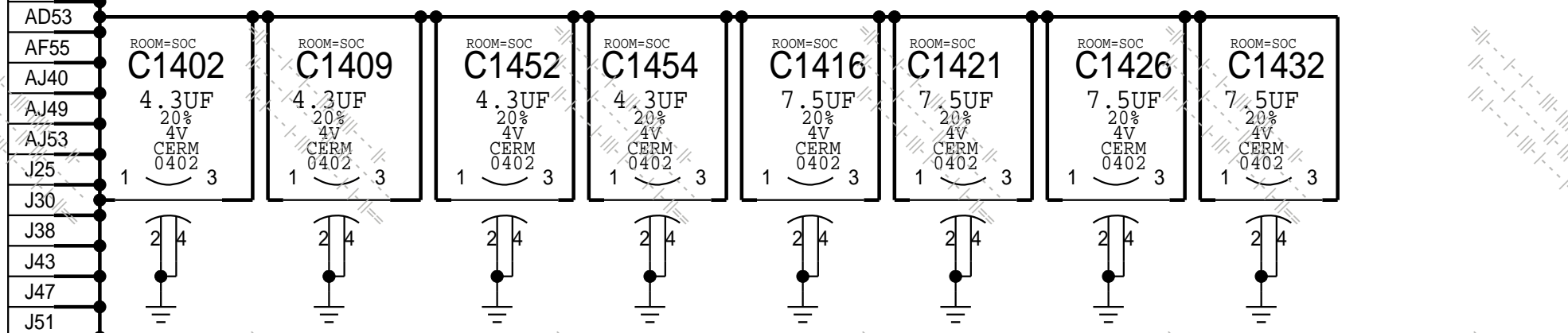
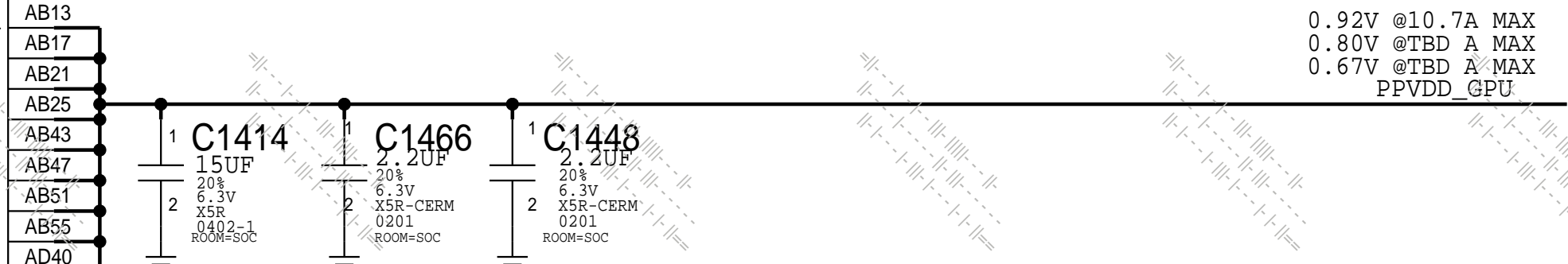
VSS_CPU_SENSE BK21 AP_VSS_CPU_SENSE 70

VDD_GPU_SENSE AJ45 ADC_SOC_TO_PMI_VDD_GPU 62 70

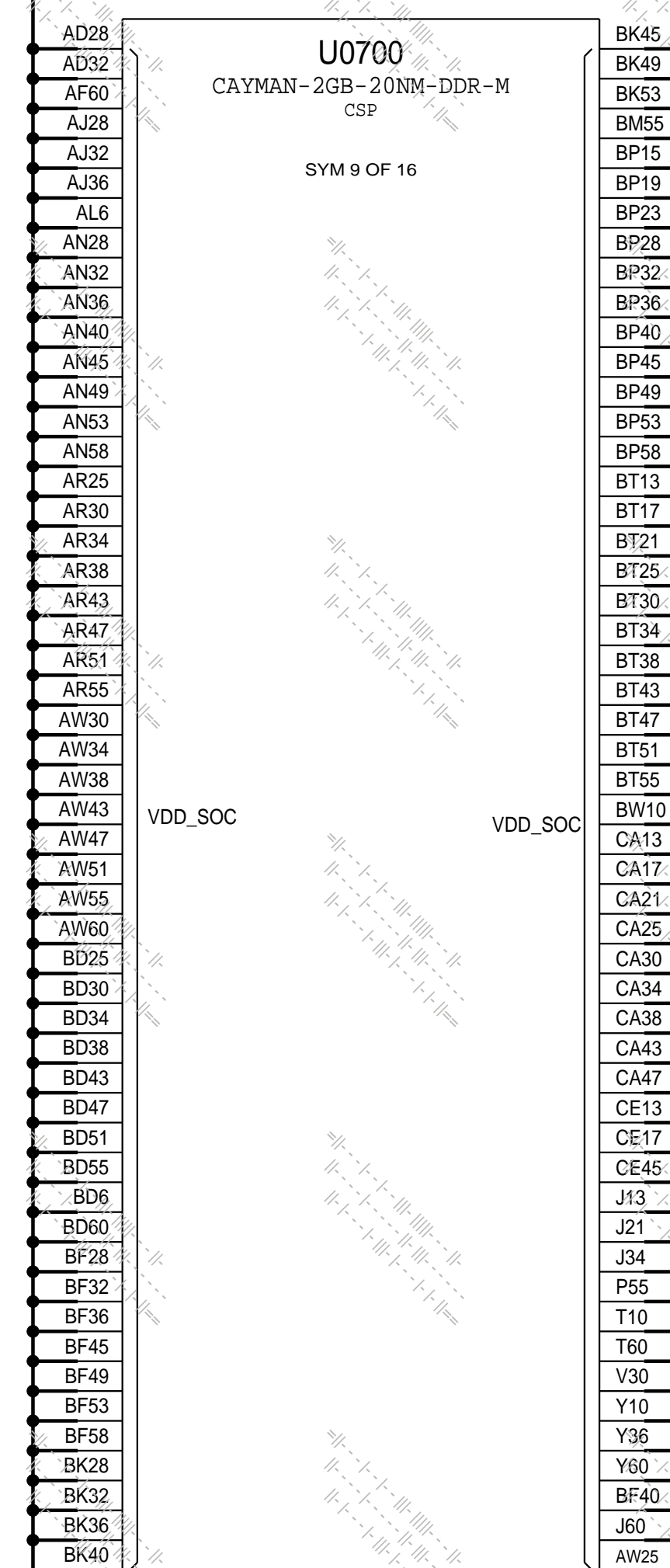
VDD_SOC_SENSE AL47 ADC_SOC_TO_PMI_VDD_SOC 62

VSS_SENSE AJ47 AP_VSS_SENSE 70

1.03V @12.9A MAX
0.92V @10.7A MAX
0.80V @TBD A MAX
0.67V @TBD A MAX
PPVDD_GPU

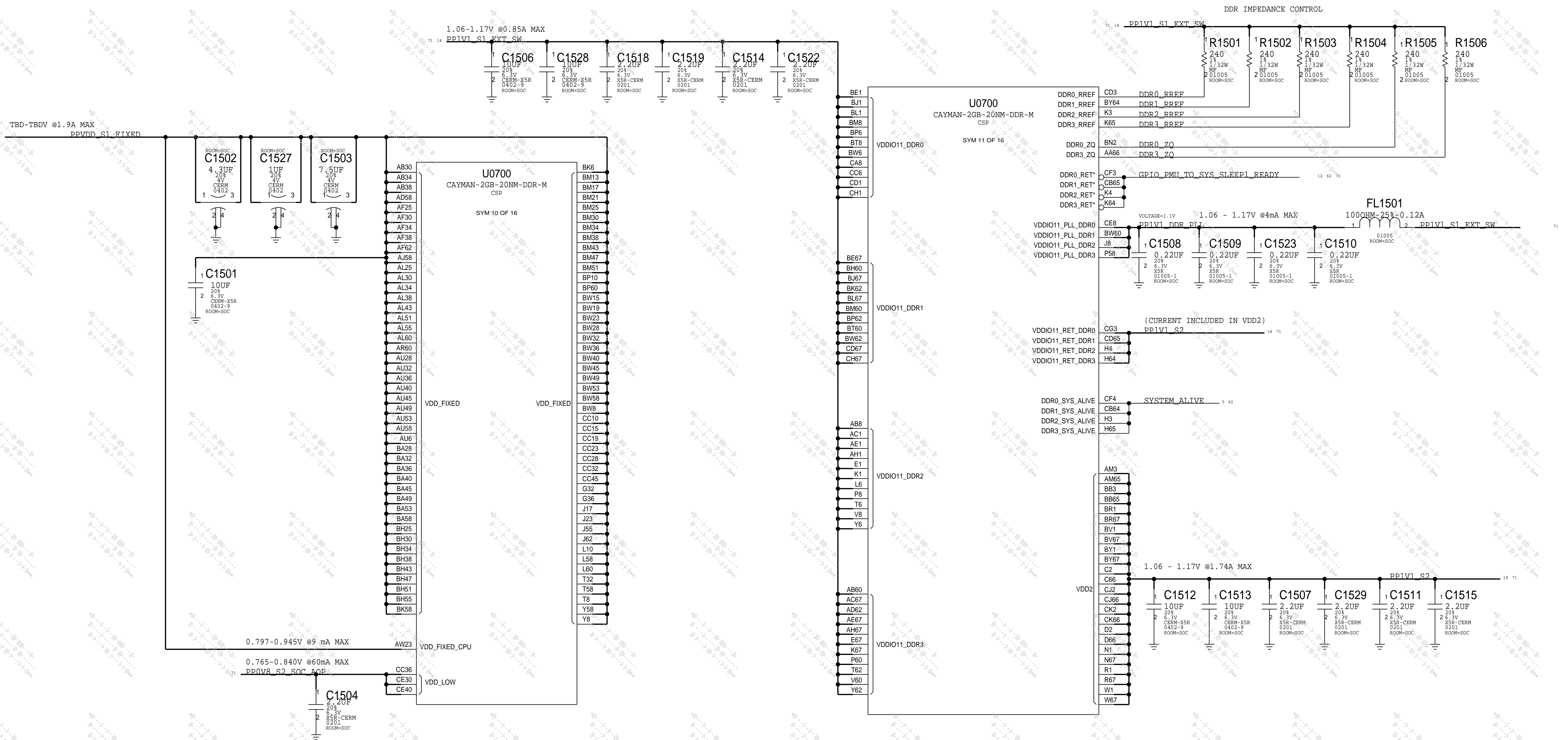


U0700
CAYMAN-2GB-20NM-DDR-M
CSP
SYM 9 OF 16

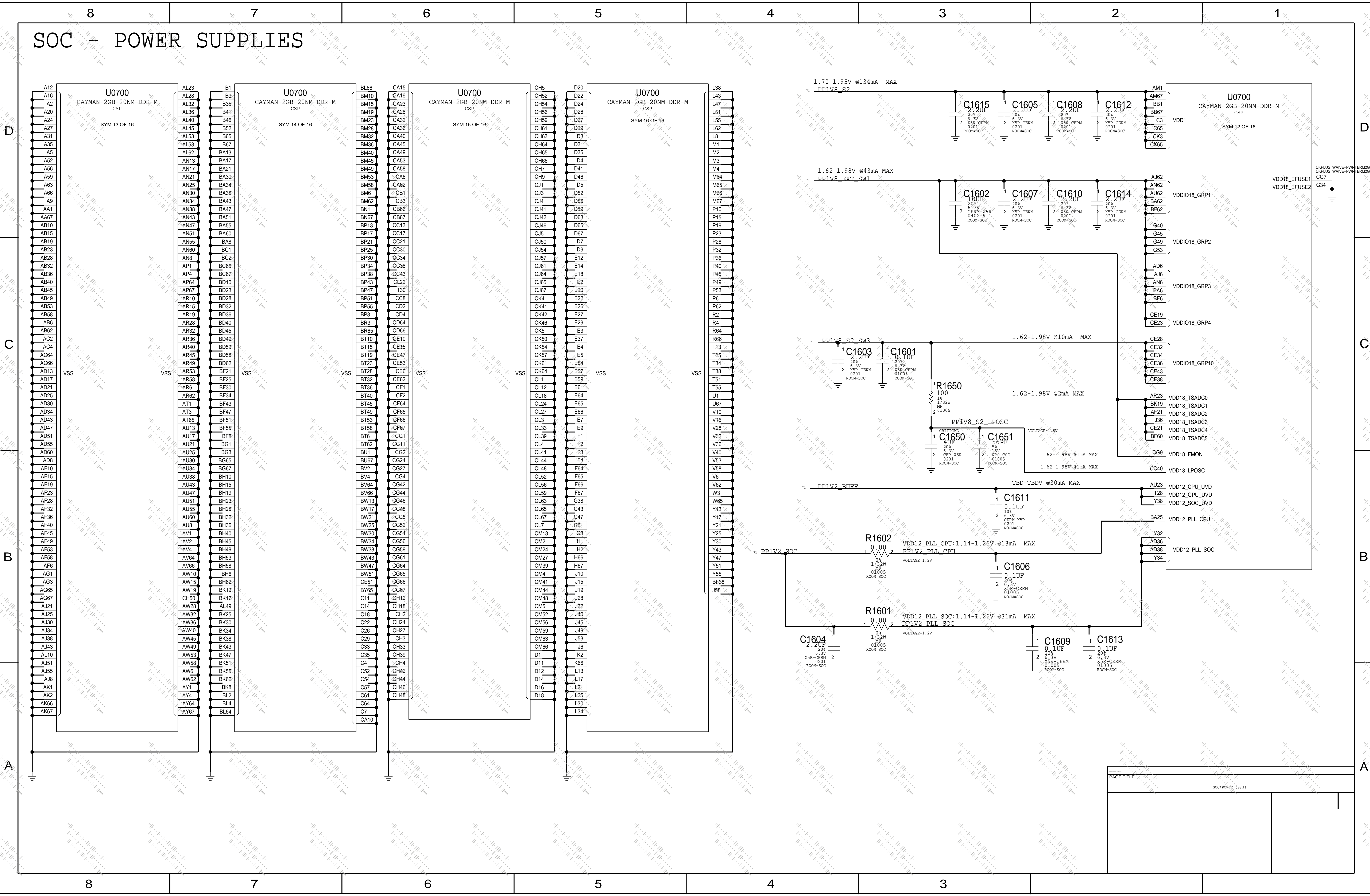


SOC:POWER (1/3)

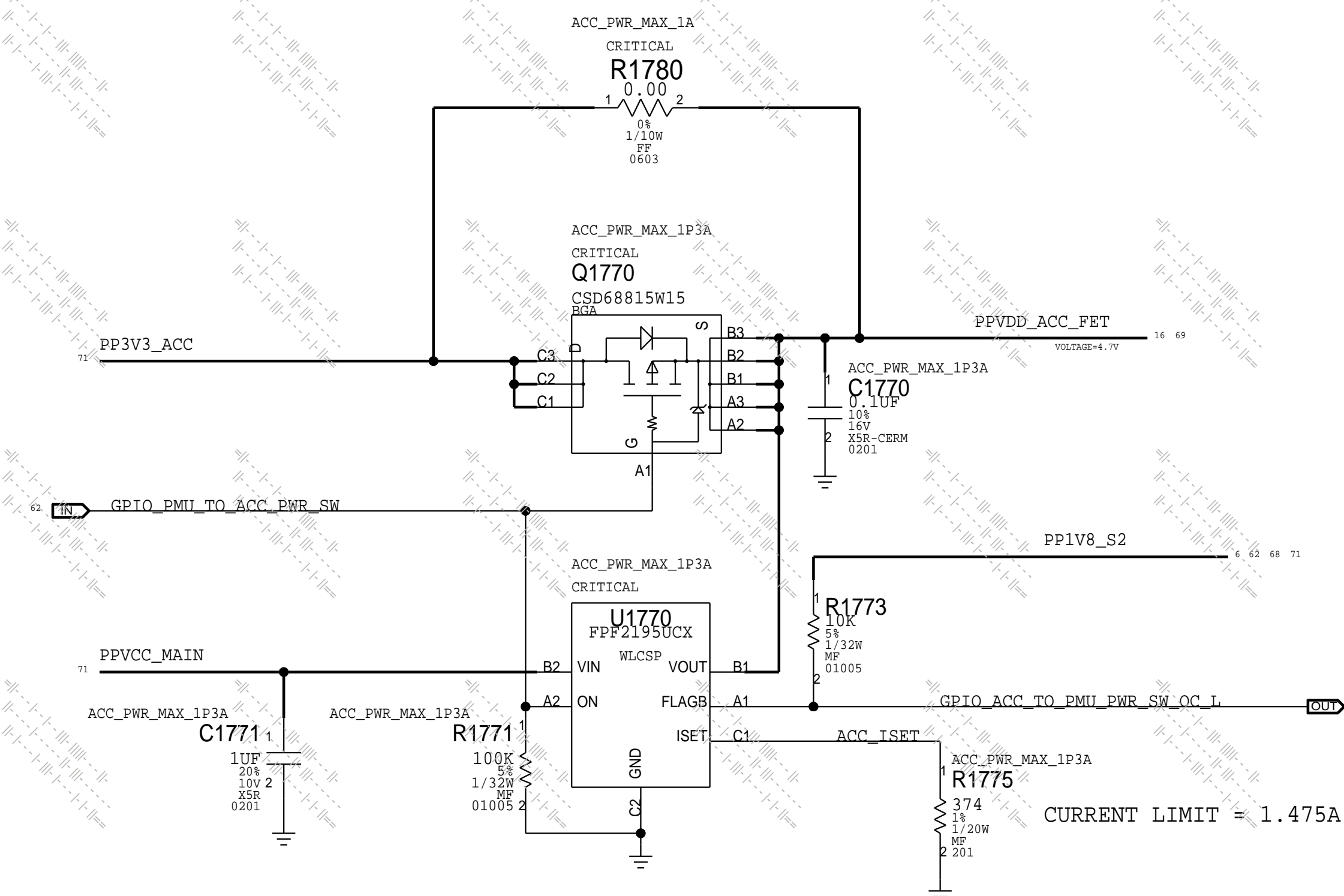
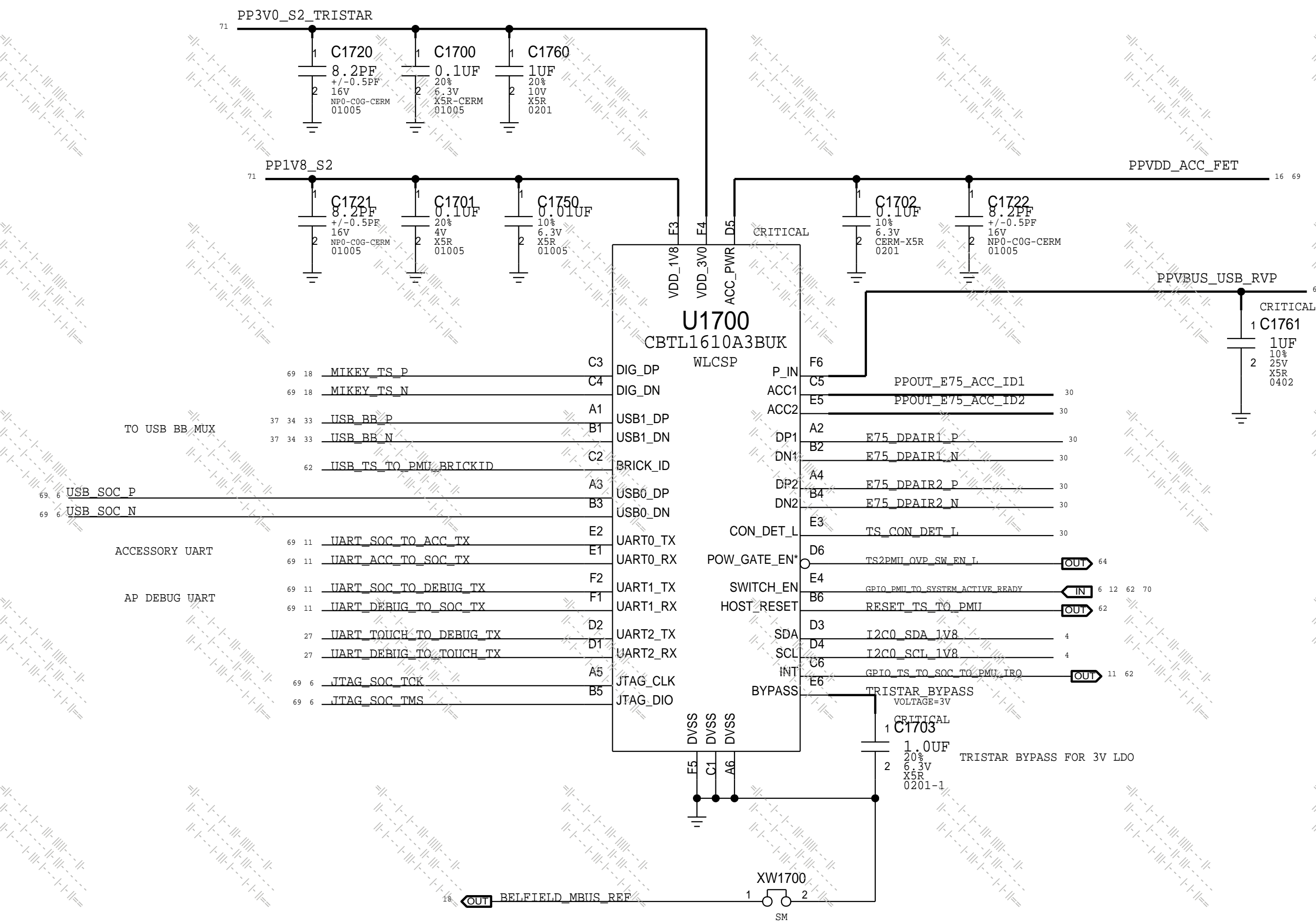
SOC - POWER SUPPLIES



SOC - POWER SUPPLIES



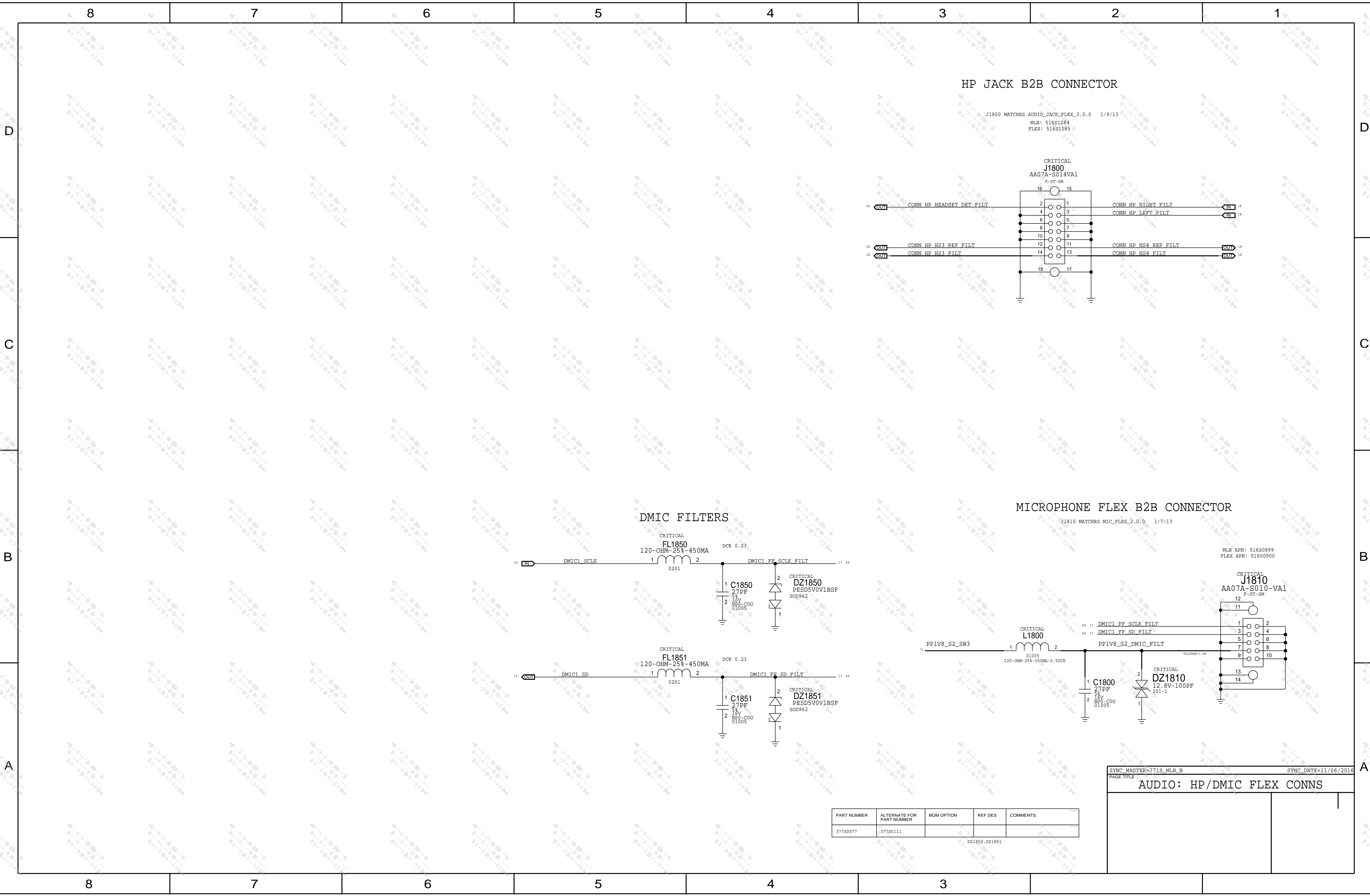
TRISTAR



343S0695 = TRISTAR 2, A3
343S0658 = TRISTAR 2, A1
998-5855 = TRISTAR 2, TC
343S0639 = TRISTAR 2, A0
343S0614 = TRISTAR 1
NOTE: A2 ONLY USED ON IPHONES

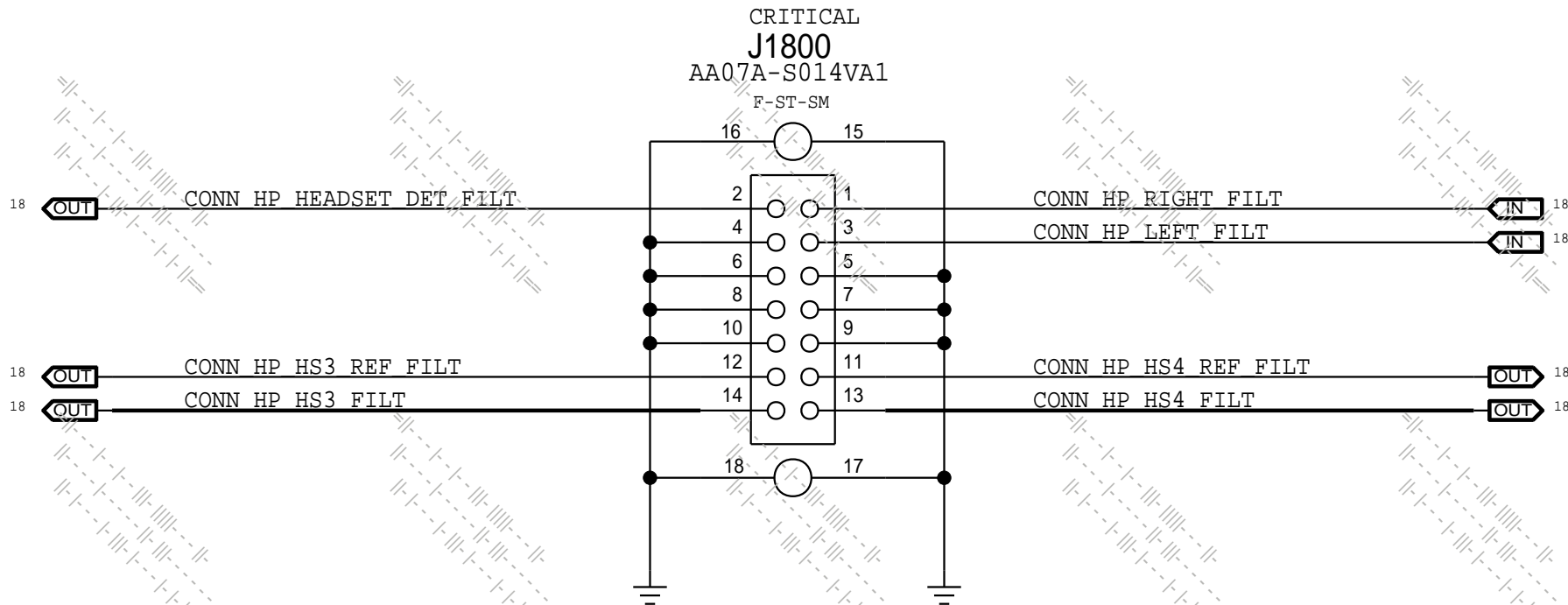
SYNC_MASTER=J71S_MLB_B	SYNC_DATE=11/06/2016
PAGE TITLE	

IO: TRISTAR

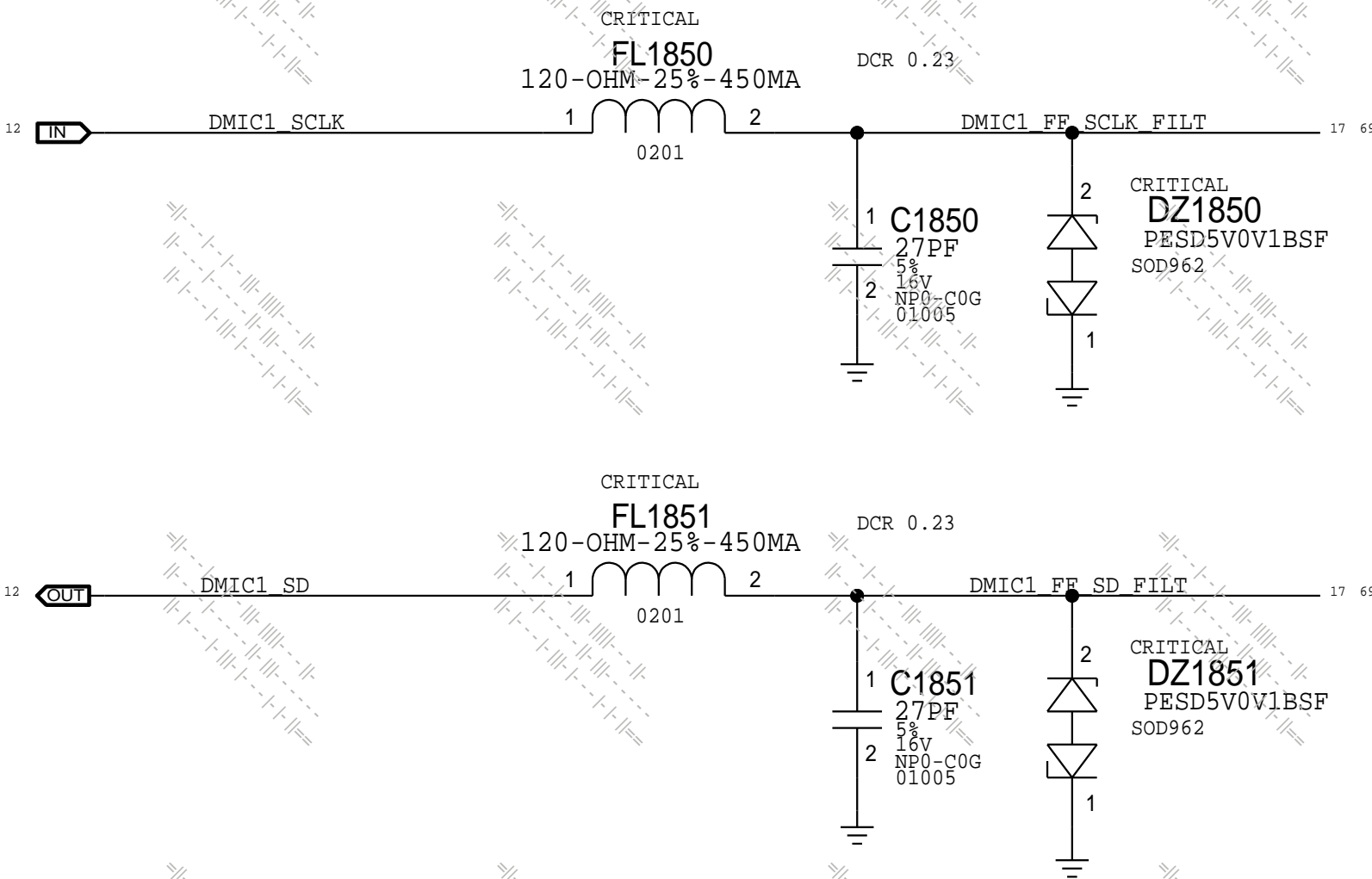


HP JACK B2B CONNECTOR

J1800 MATCHES AUDIO_JACK_FLEX_3.0.0 1/9/13
MLB: 516S1084
FLEX: 516S1085



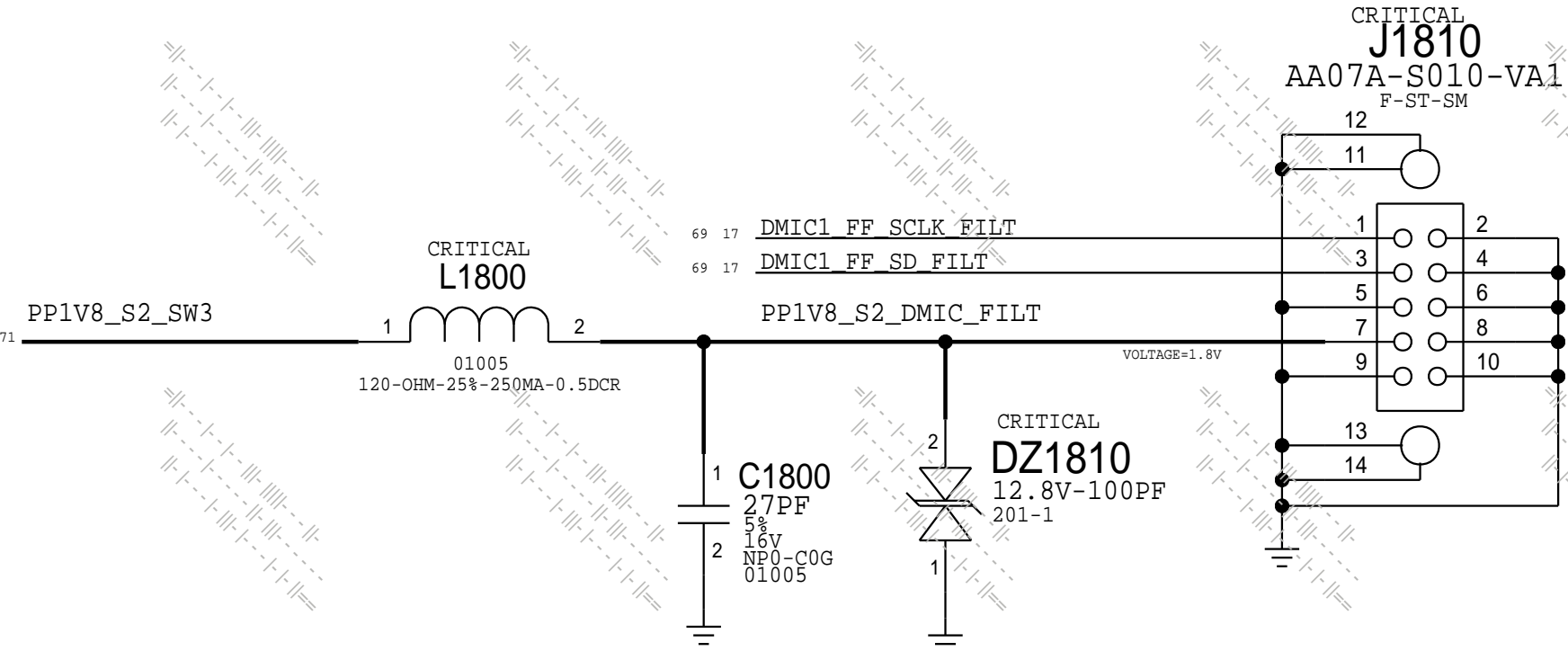
DMIC FILTERS



MICROPHONE FLEX B2B CONNECTOR

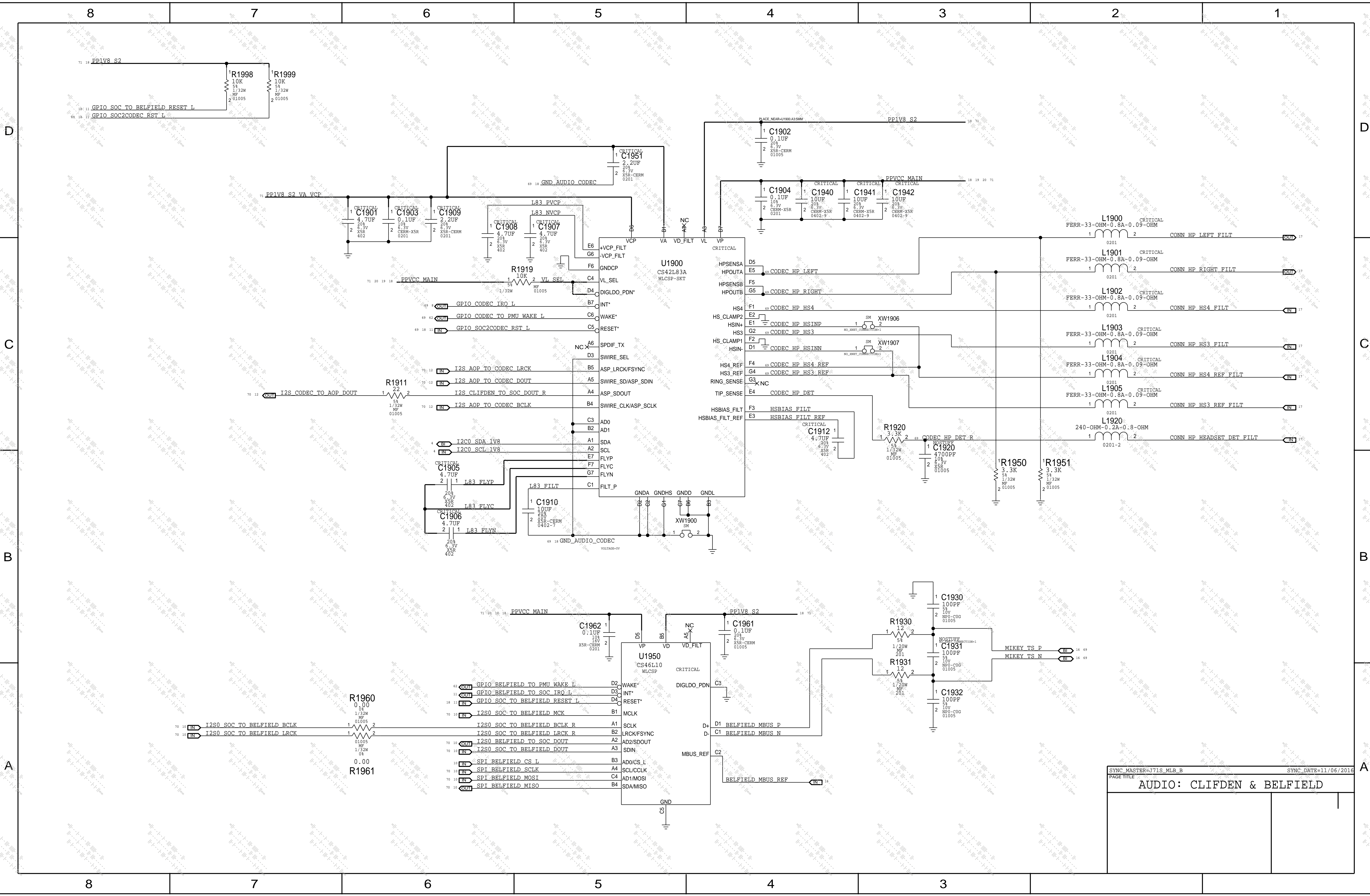
J1810 MATCHES MIC_FLEX_2.0.0 1/7/13

MLB APN: 516S0899
FLEX APN: 516S0900



PART NUMBER	ALTERNATE FOR PART NUMBER	BOM OPTION	REF DES	COMMENTS:
377S0077	377S0111			

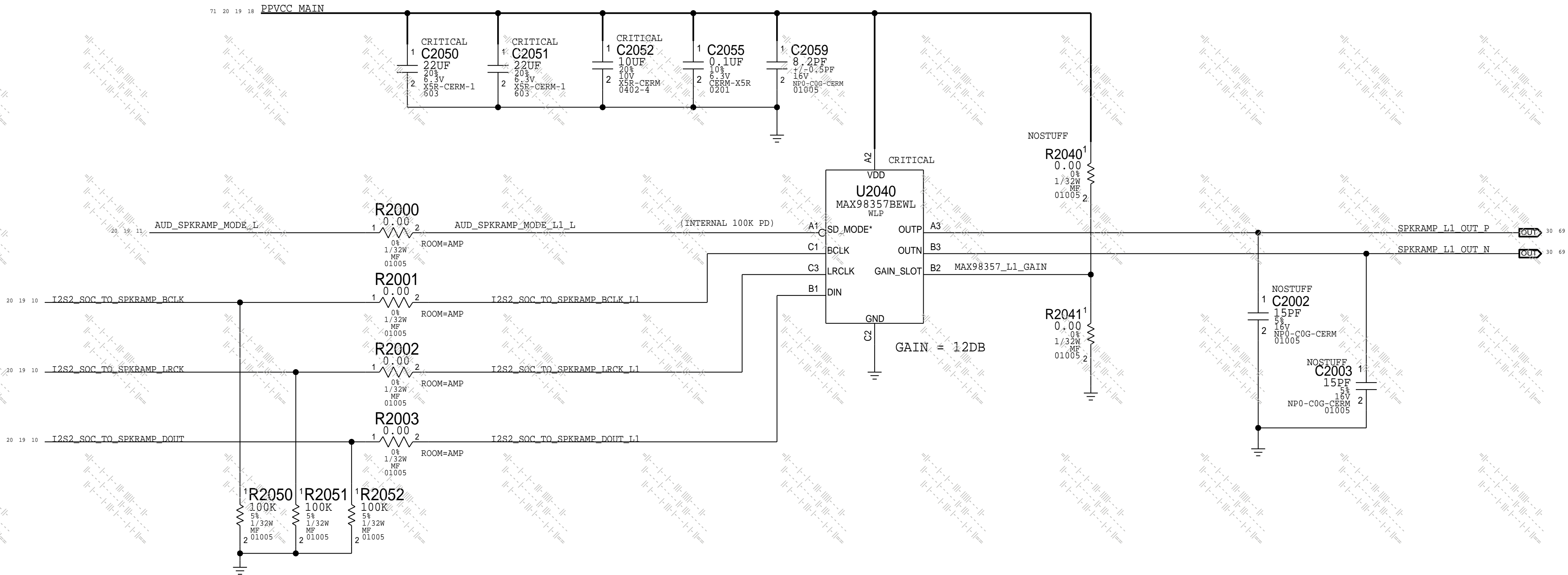
DZ1850, DZ1851



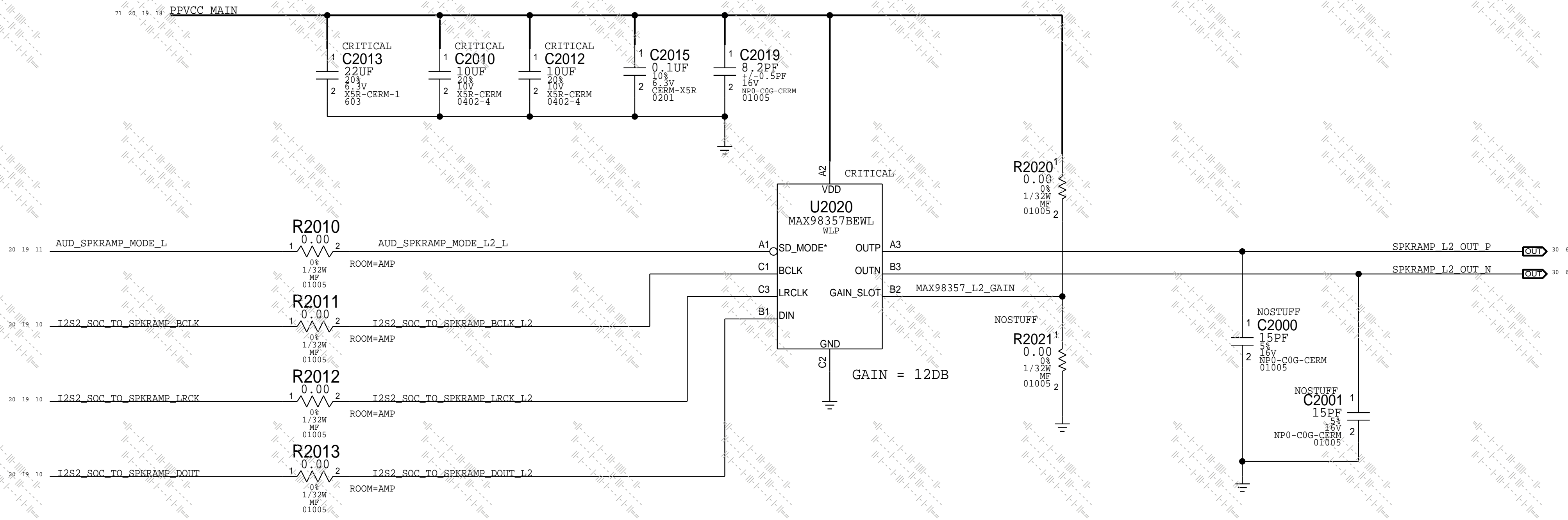
SPEAKER AMPLIFIERS

APN: 353S4265

TDM CHANNEL 1



TDM CHANNEL 2



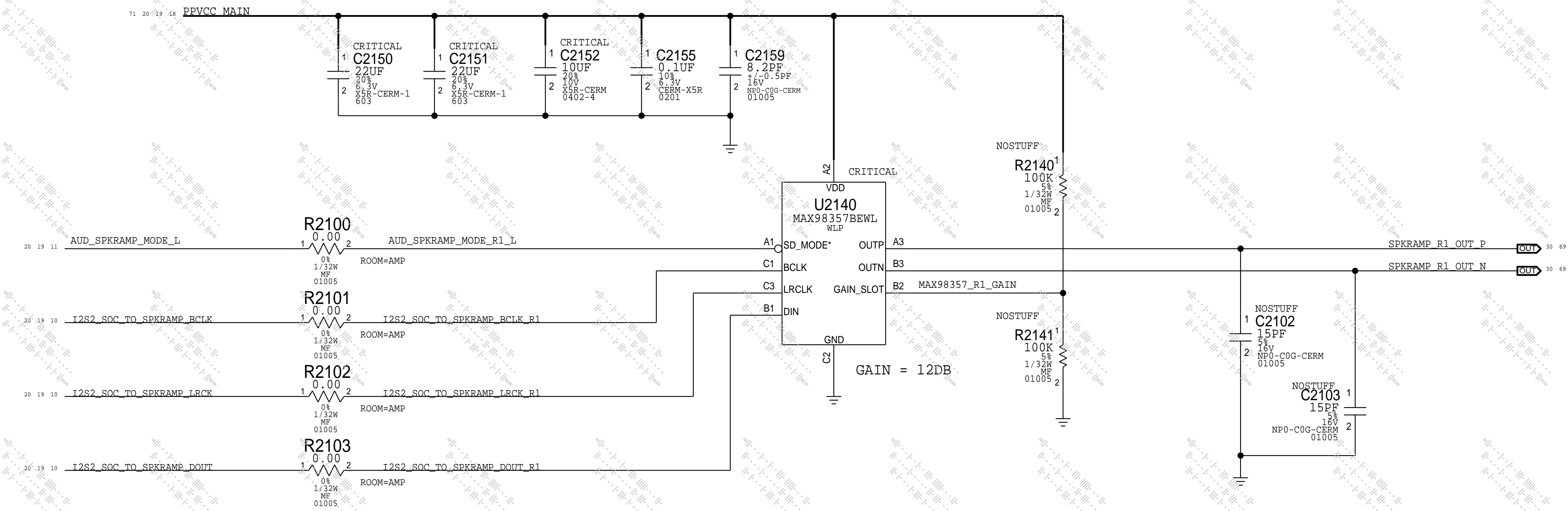
SYNC_MASTER=J71S_MLB_B SYNC_DATE=11/06/2016

AUDIO: SPEAKER AMPS LEFT

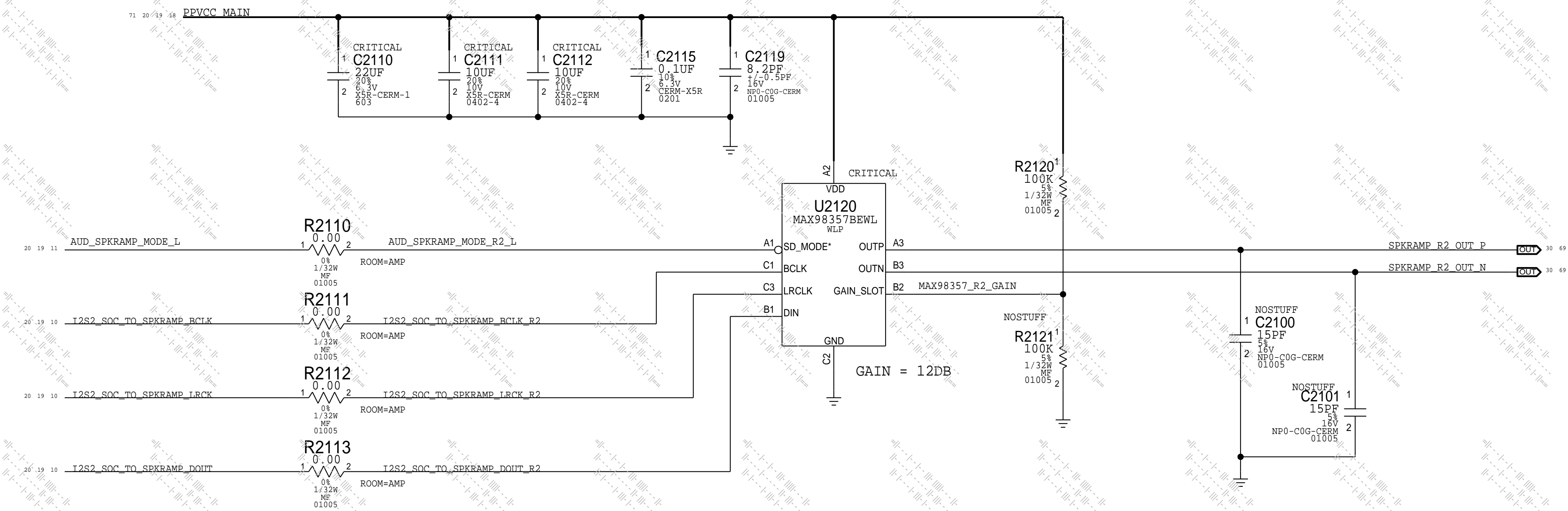
SPEAKER AMPLIFIERS

APN:353S4265

TDM CHANNEL 3

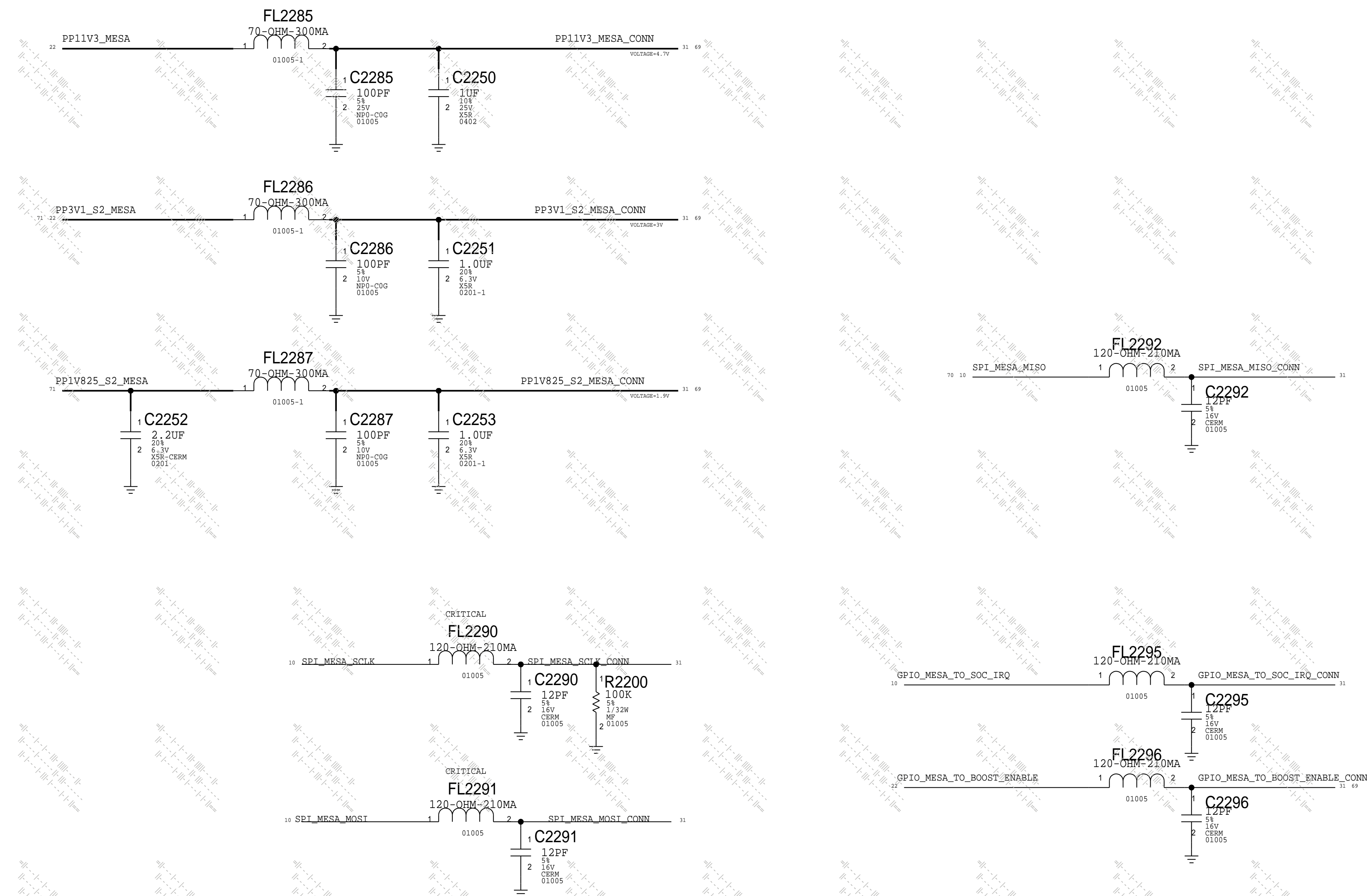


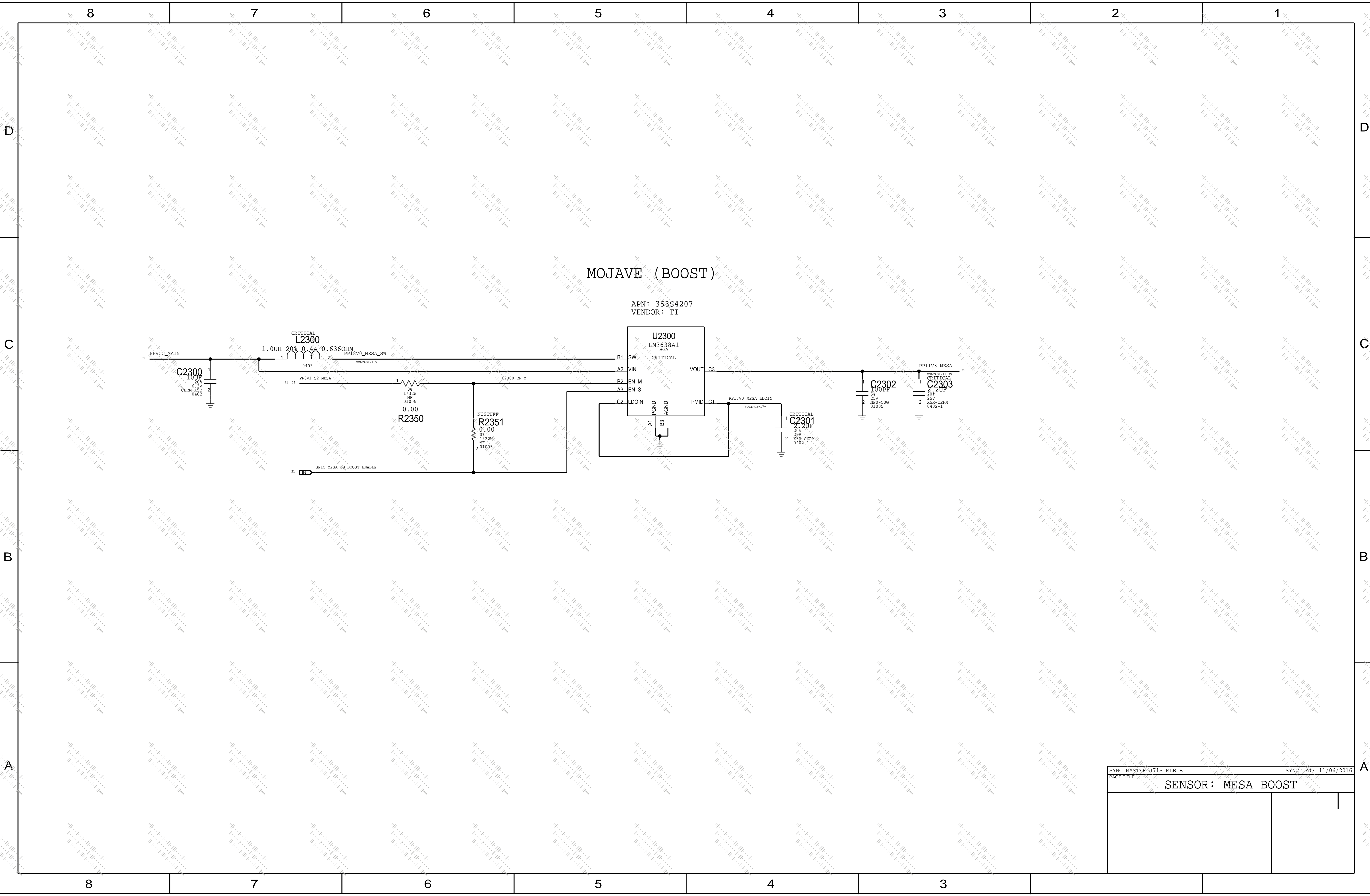
TDM CHANNEL 4



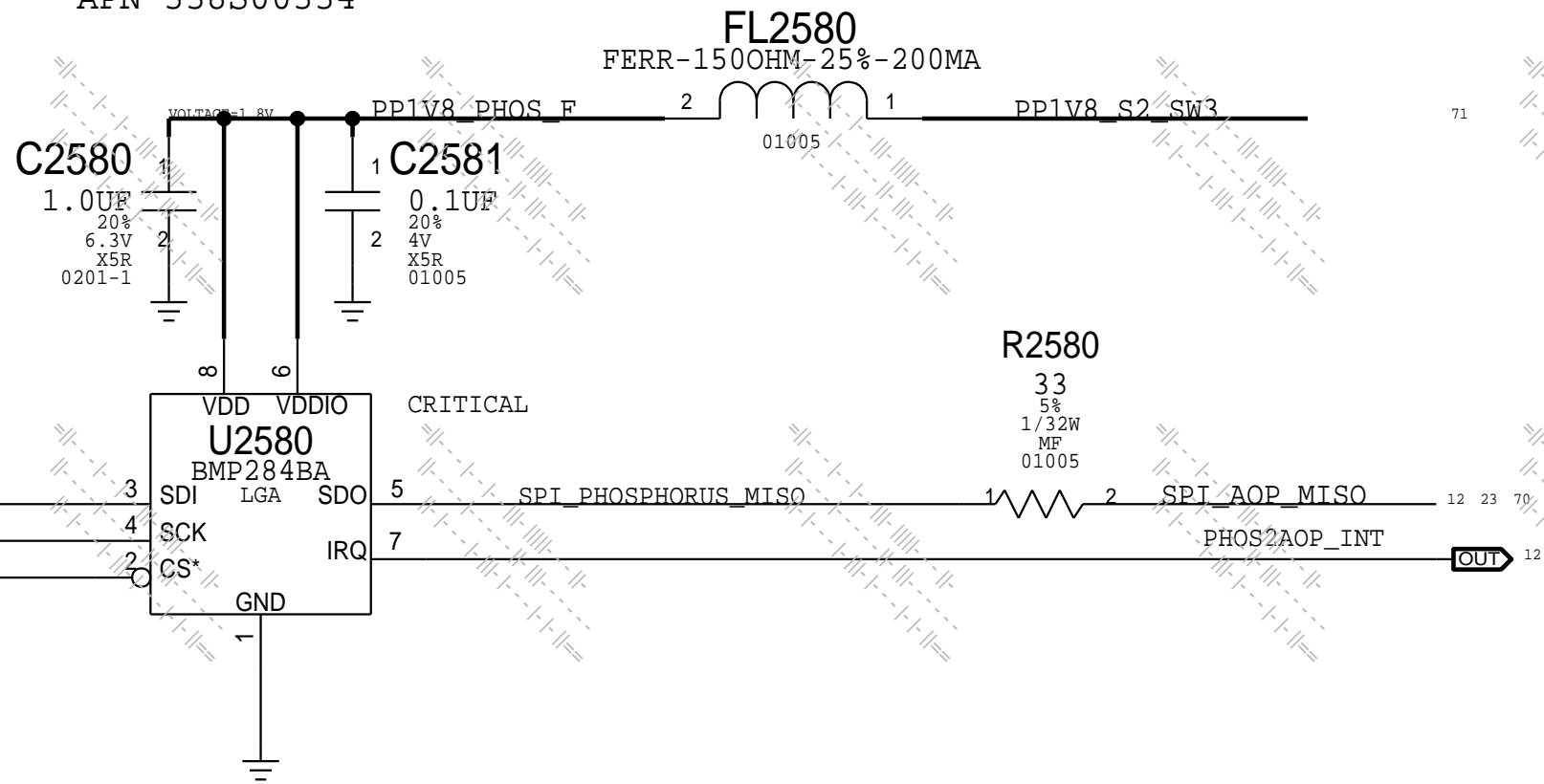
SD_MODE#	TDM CHANNEL	GAIN_SLOT
H	1	PULLED TO GND
H	2	PULLED WITH 0-OHM TO VDD
H	3	FLOAT
H	4	PULLED WITH 100K-OHM TO VDD

MESA SUPPORT

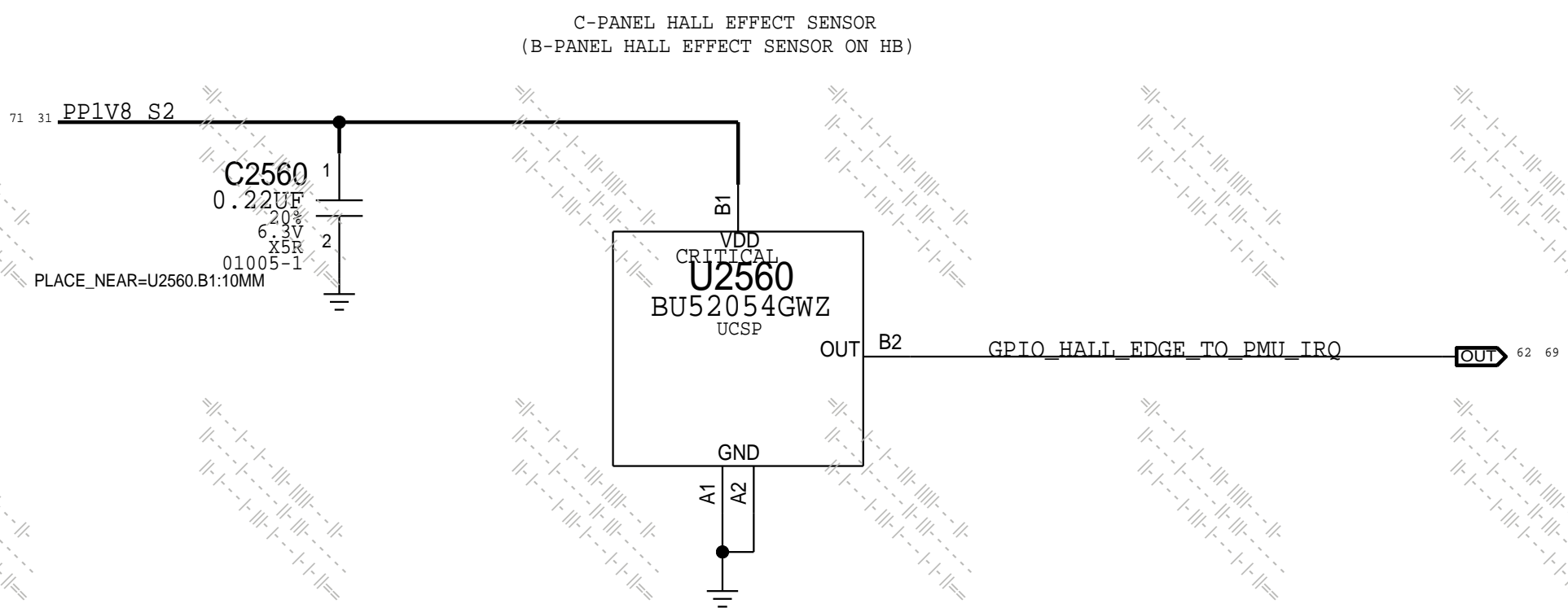




PHOSPHORUS
APN 338S00334



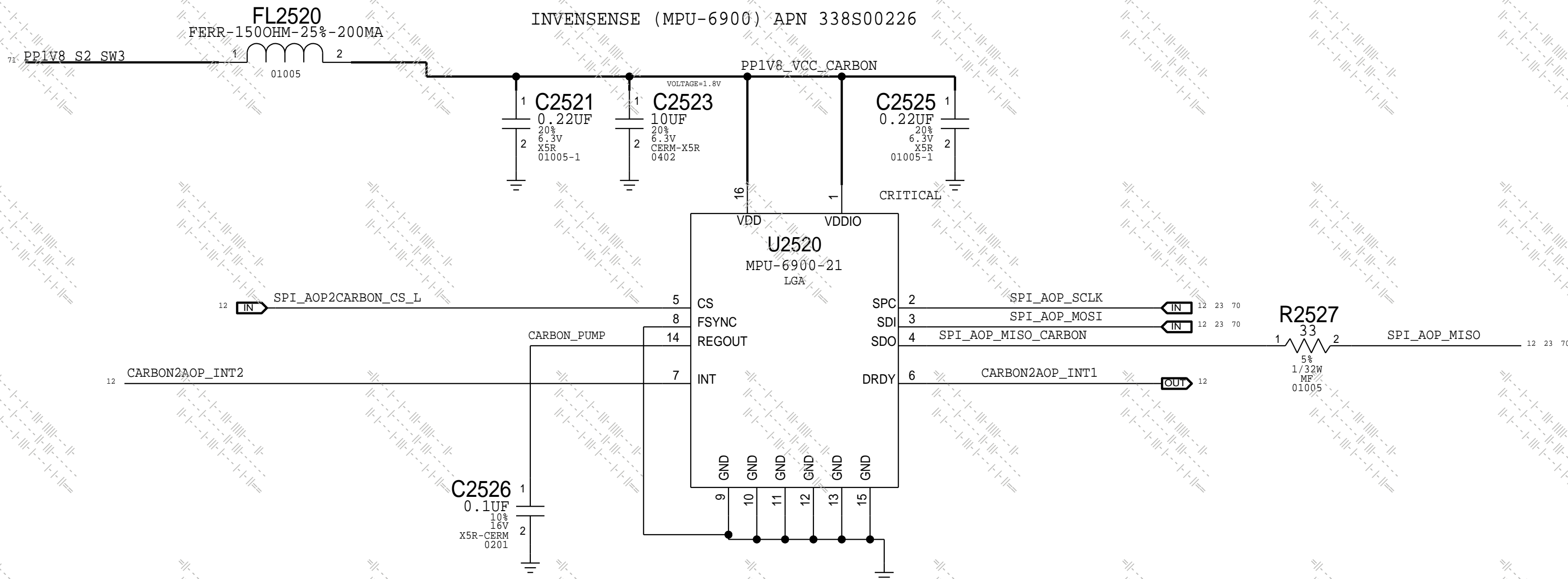
HALL EFFECT
BIPOLAR ONE OUTPUT APN 353S3687



CARBON

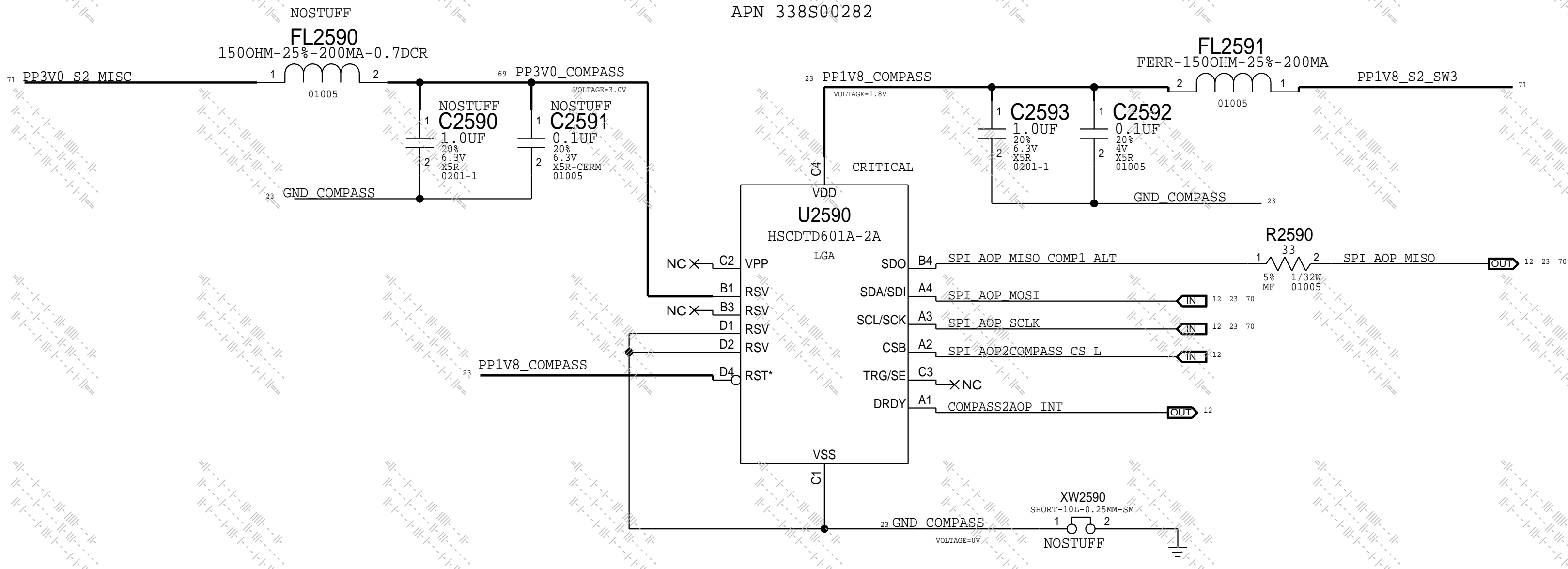
(ACCEL-GYRO COMBO)

INVENSENSE (MPU-6900) APN 338S00226



COMPASS

APN 338S00282



SYNC_MASTER=JAMES_MLBB SYNC_DATE=10/04/2017

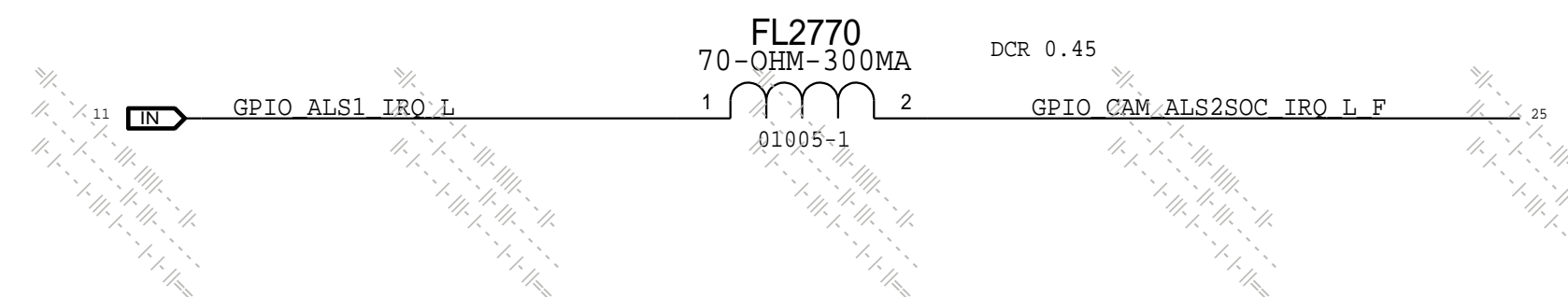
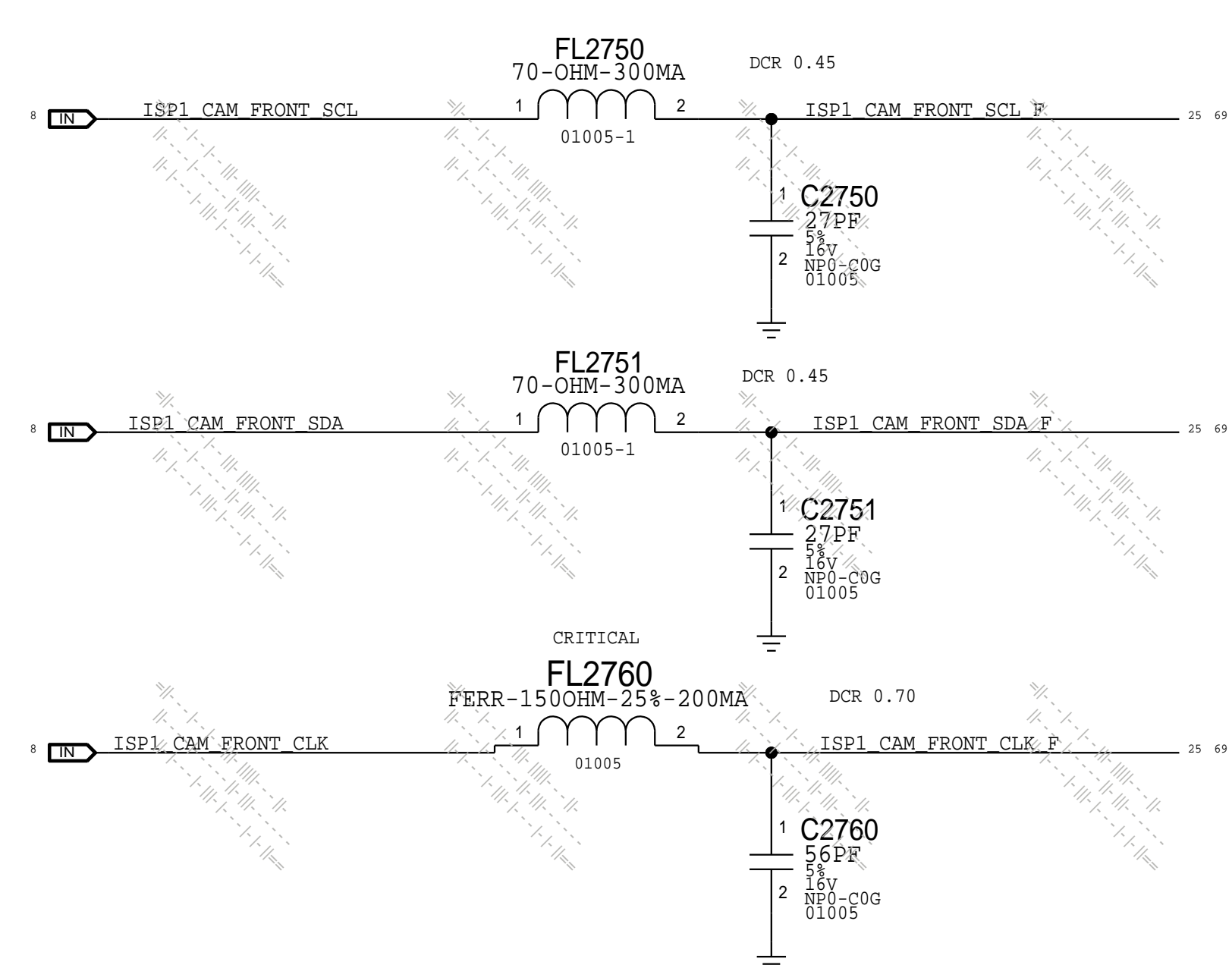
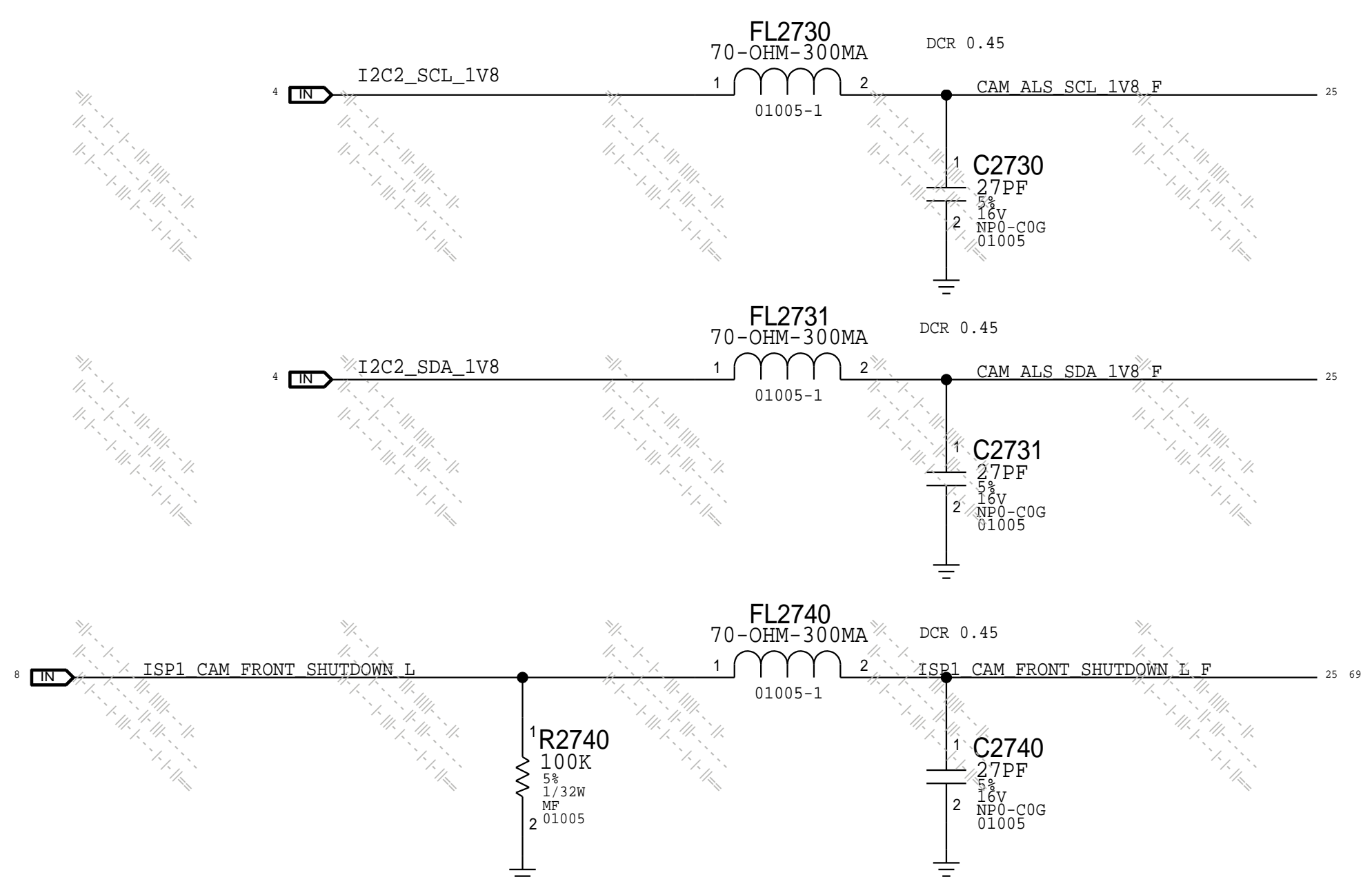
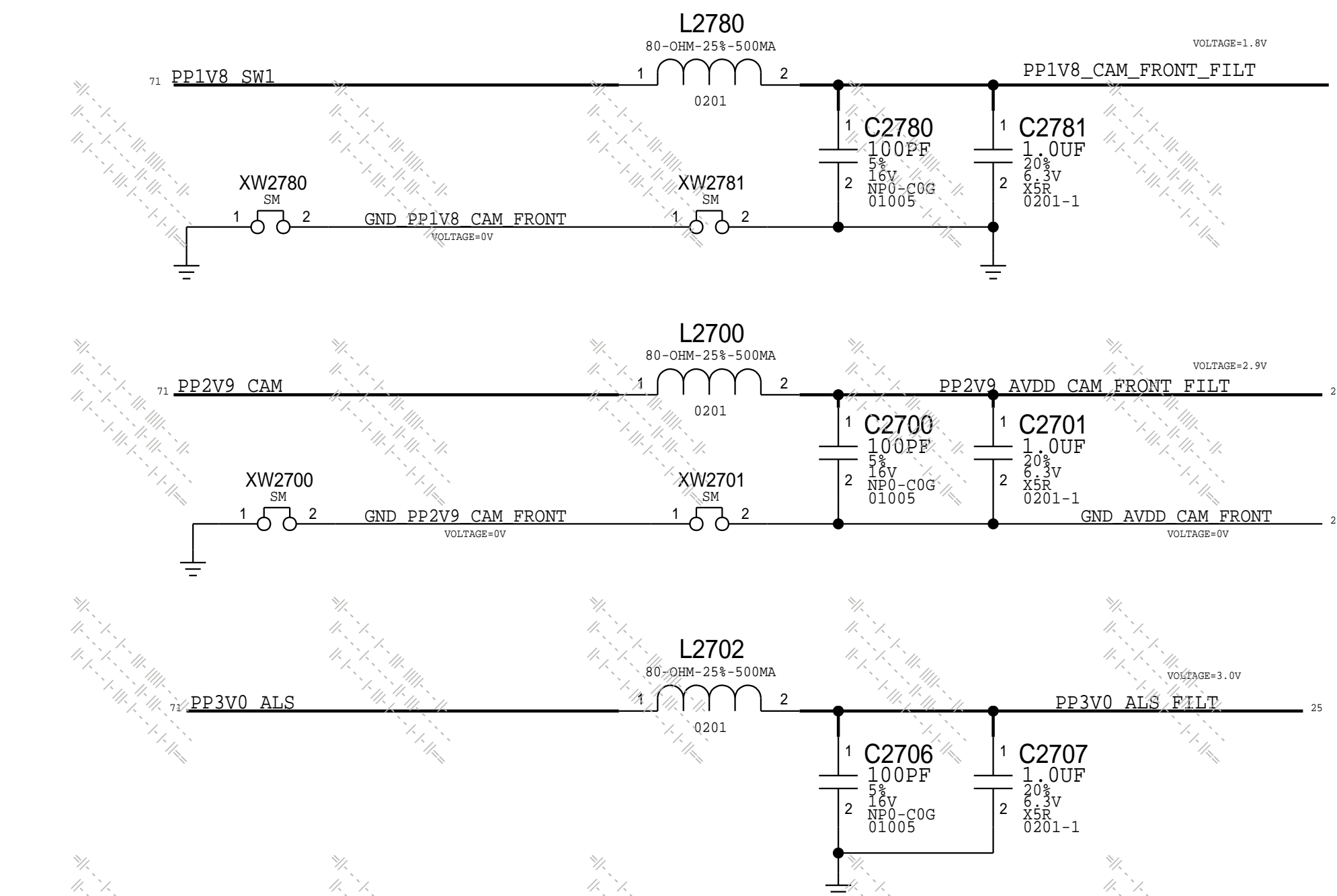
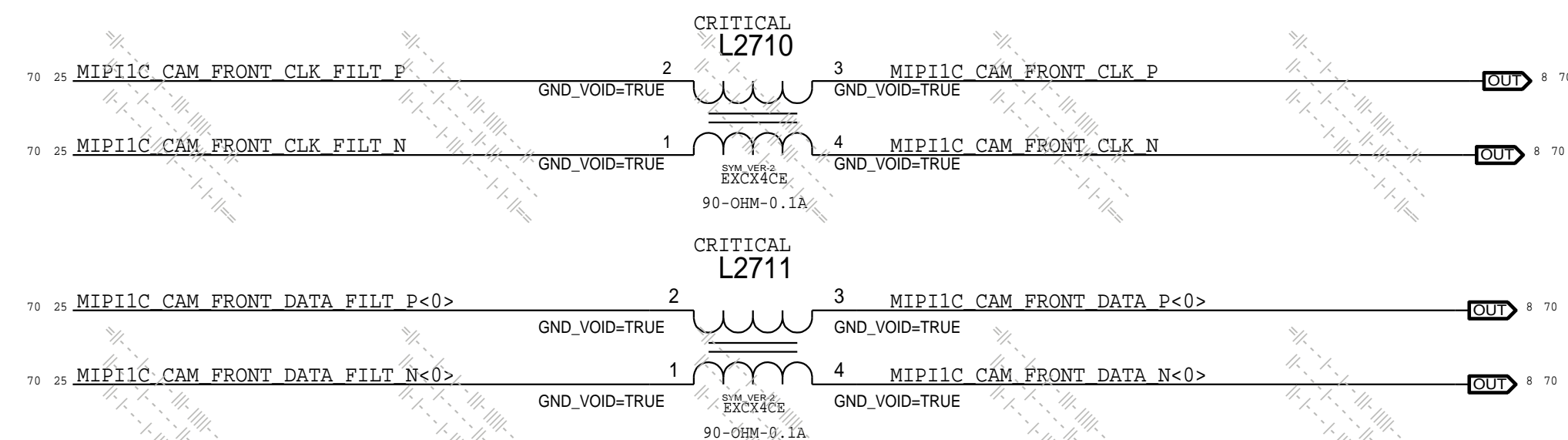
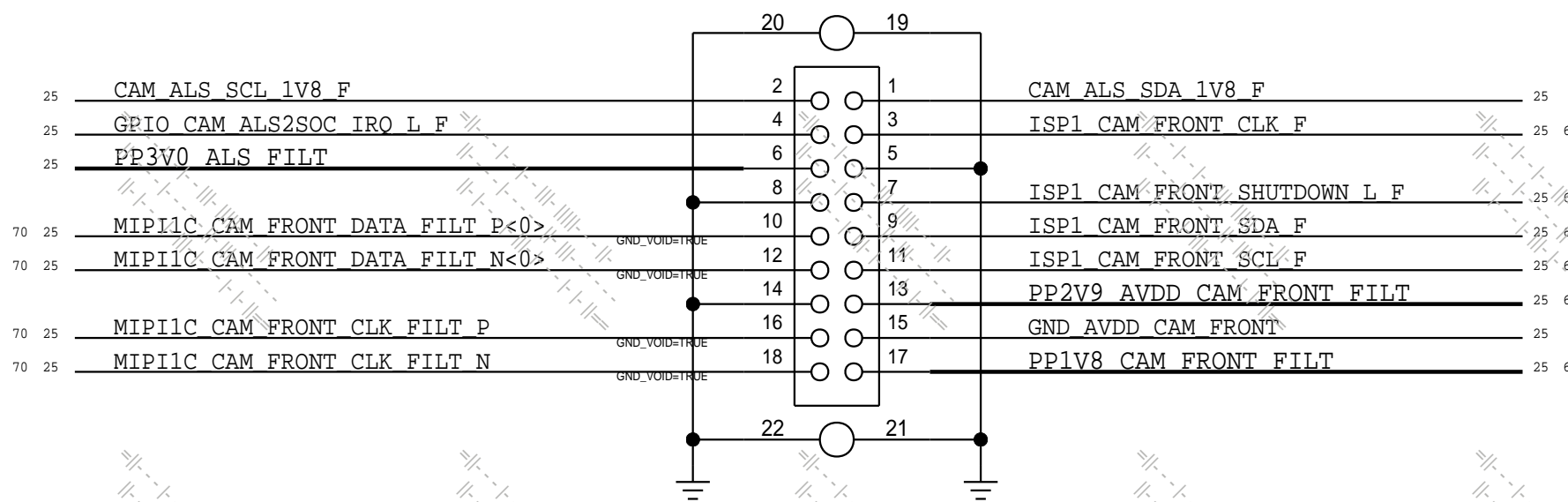
PAGE TITLE SENSOR: HALL, CARBON, COMPASS, PHOS

FRONT CAMERA CONNECTOR

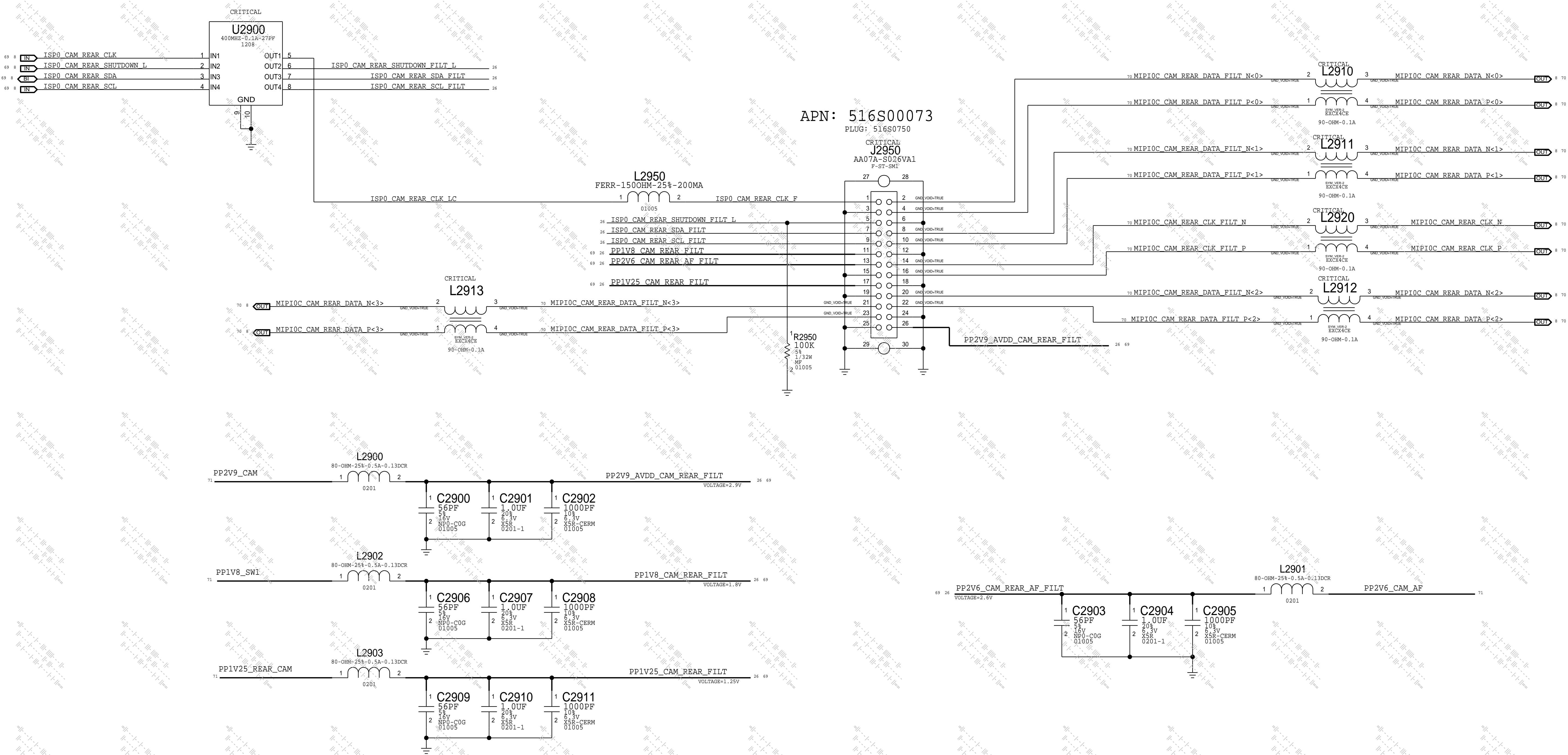
J65 CAMERA CONNECTOR

APN:MLB 516S0876
APN:FLEX 516S0869

CRITICAL
J2700
503548-182
F-ST-SM

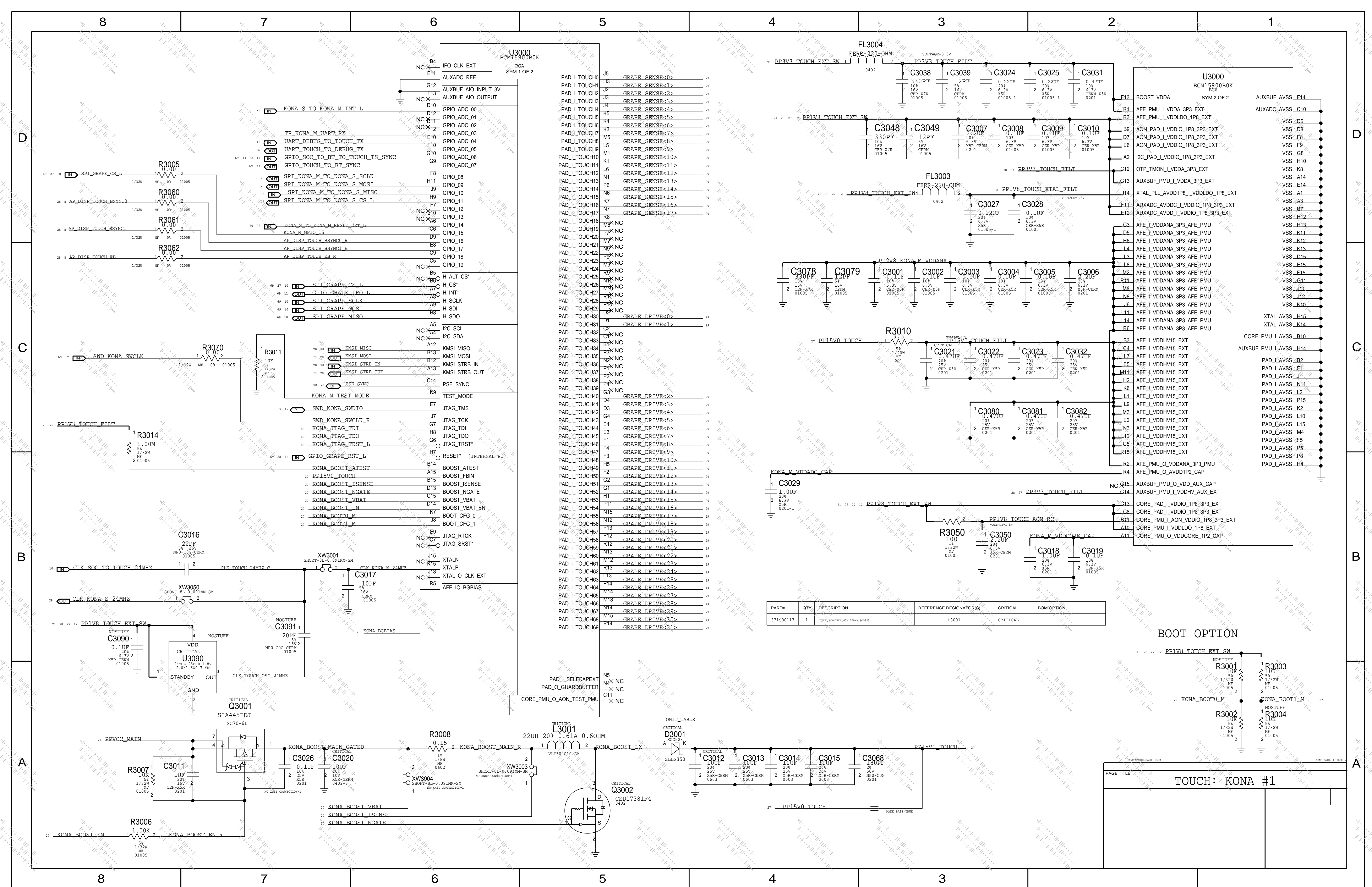


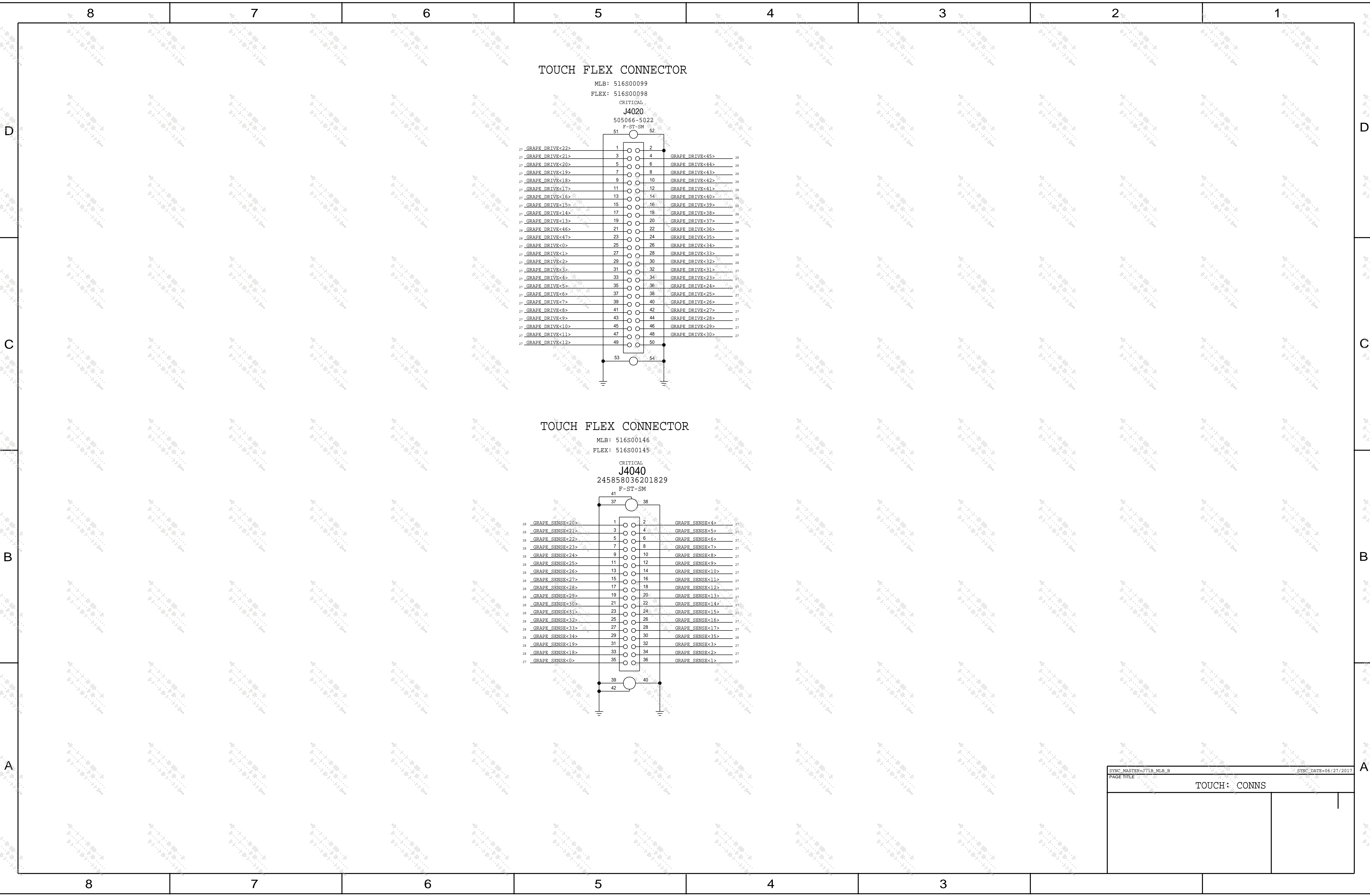
REAR CAMERA CONNECTOR



SYNC_MASTER=JAMES_MLBB SYNC_DATE=10/04/2017

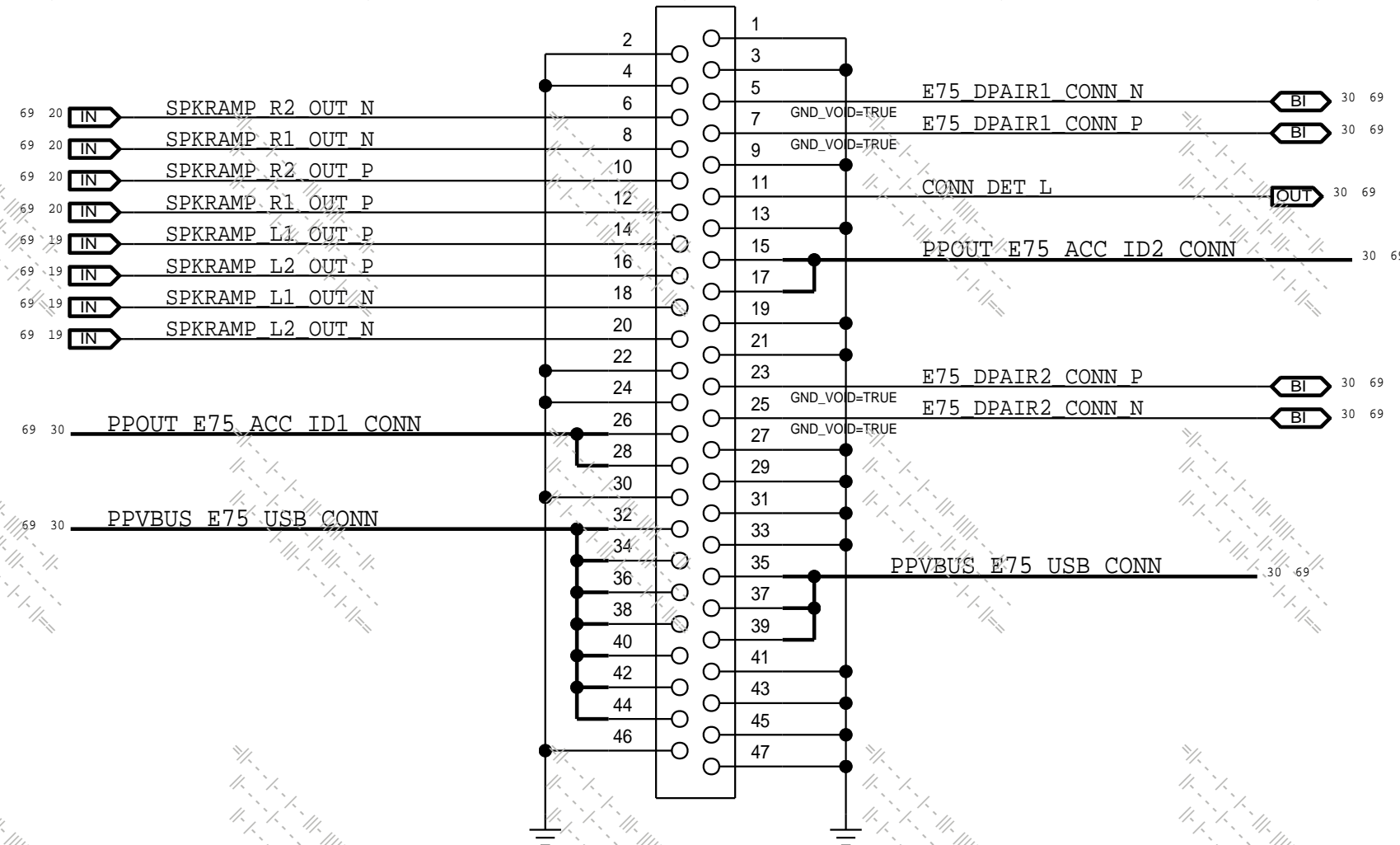
PAGE TITLE CAMERA: REAR CONN & FILTERS



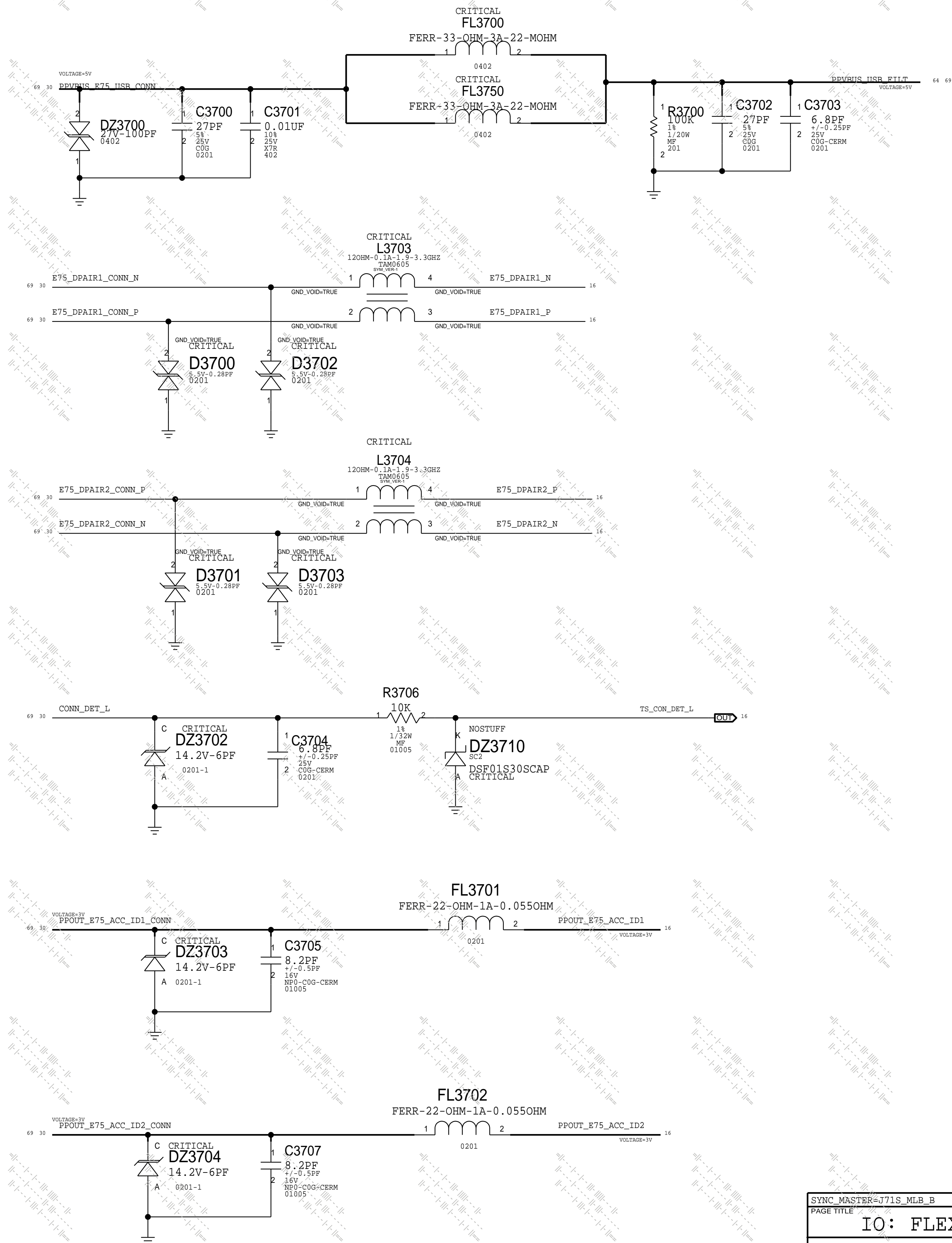


~~MLB~~ 998-5877
~~FLEX~~ 998-5876

OMIT
J3700
PCB-X110
HB-SM



PINOUT MATCHES IO_FLEX 4.2.0 3/12/13

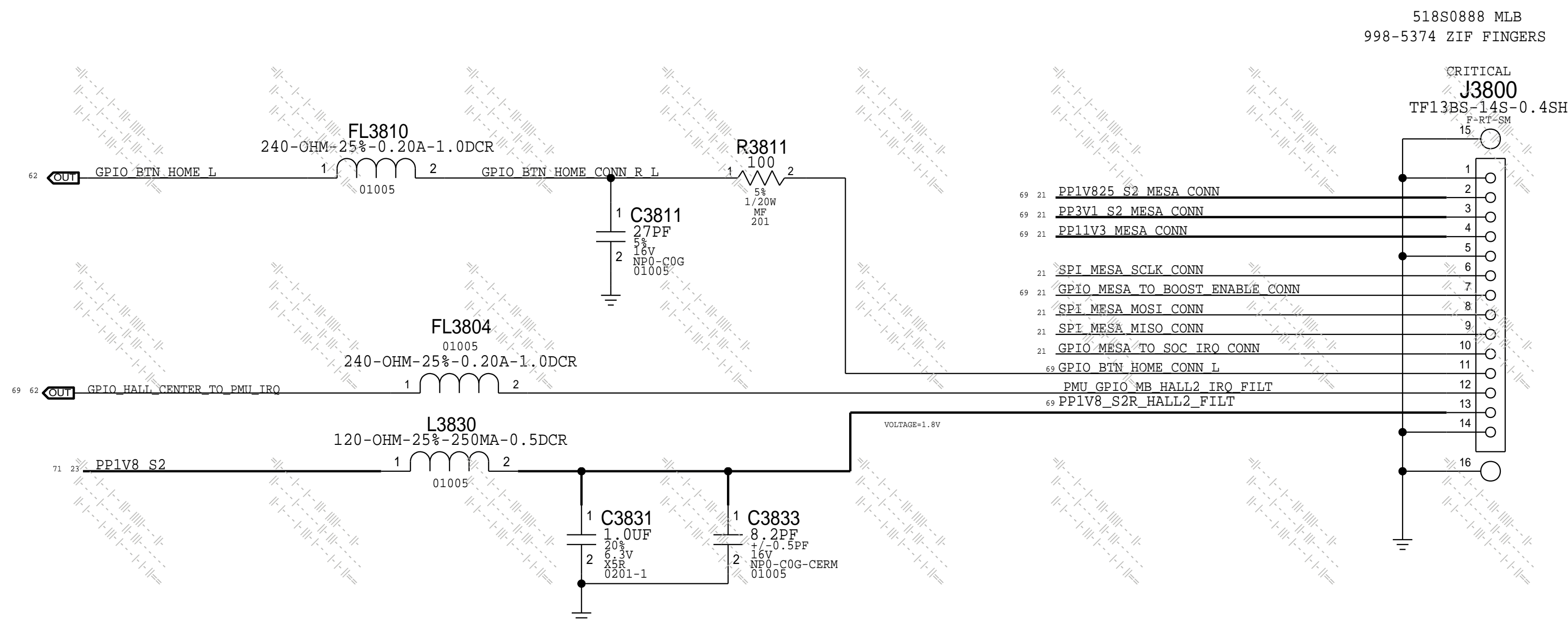


SYNC MASTER=J71S MLB B SYNC DATE=11/06/2016

SYNC_DATE=11/06/2016

PAGE TITLE	IO: FLEX HOTBAR & FILTERS
------------	---------------------------

HALL-SENSOR-HOME-BUTTON-MESA FLEX CONN



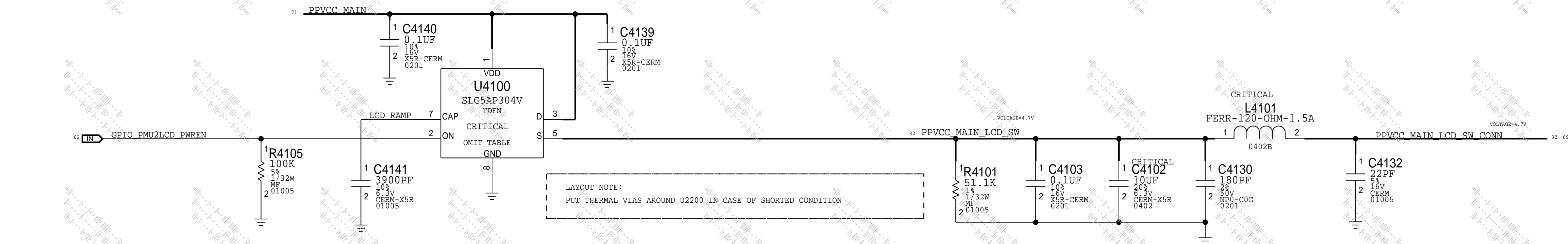
SYNC_MASTER=J718_MLB_B

SYNC_DATE=11/06/2016

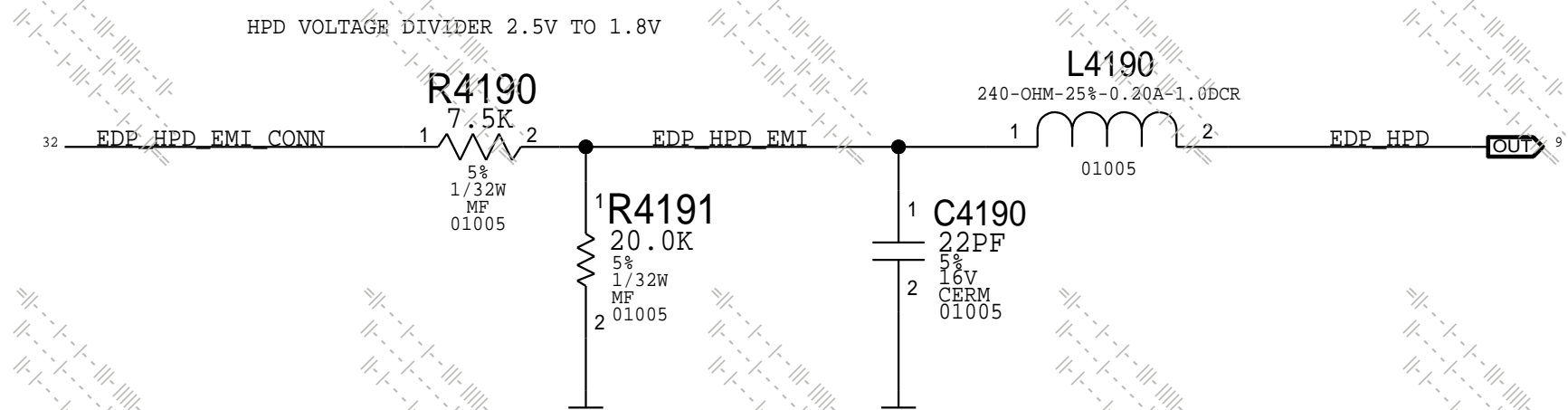
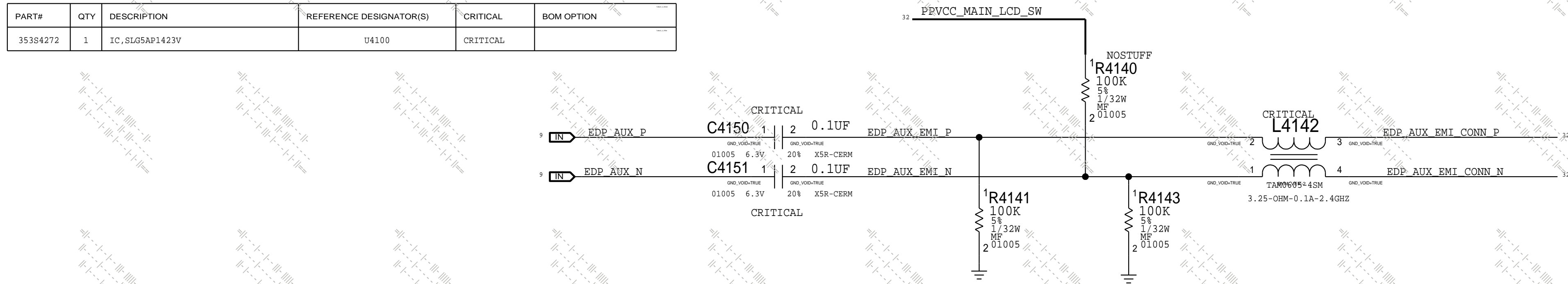
PAGE TITLE

SENSOR-BTN: HALL, HOME & MESA

EDP CONNECTOR SUPPORT

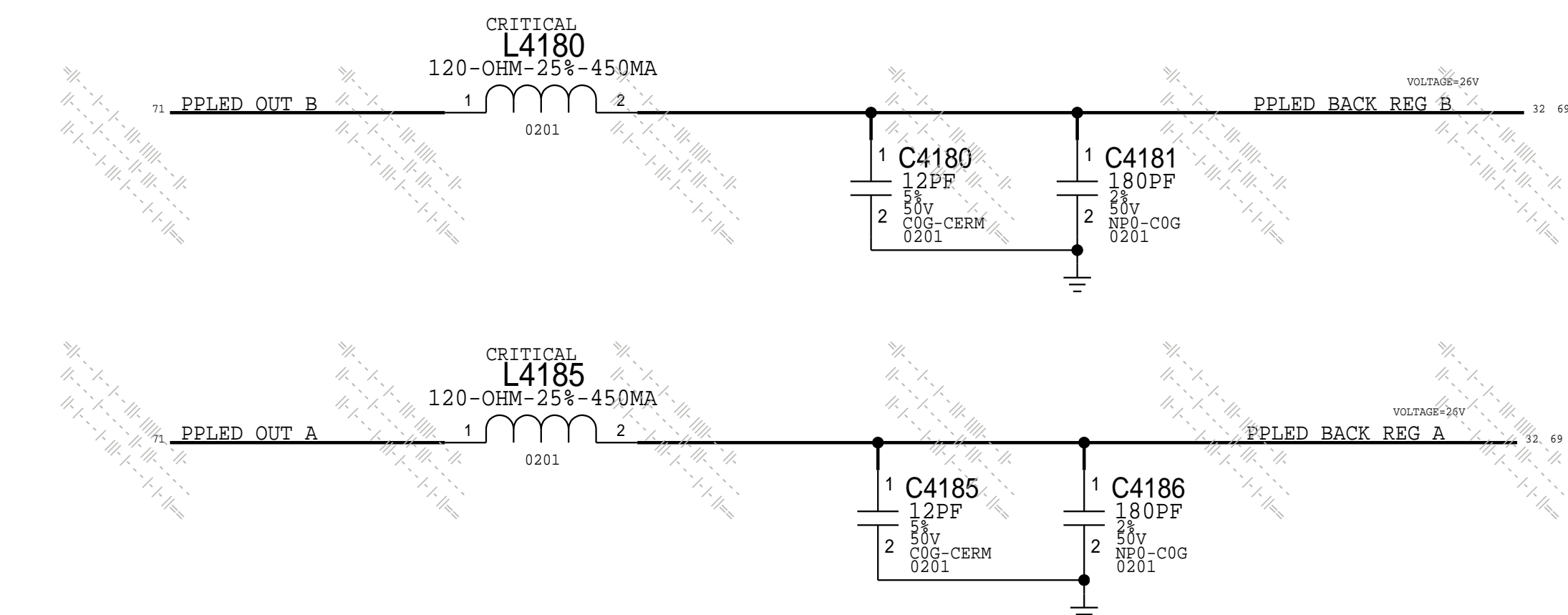
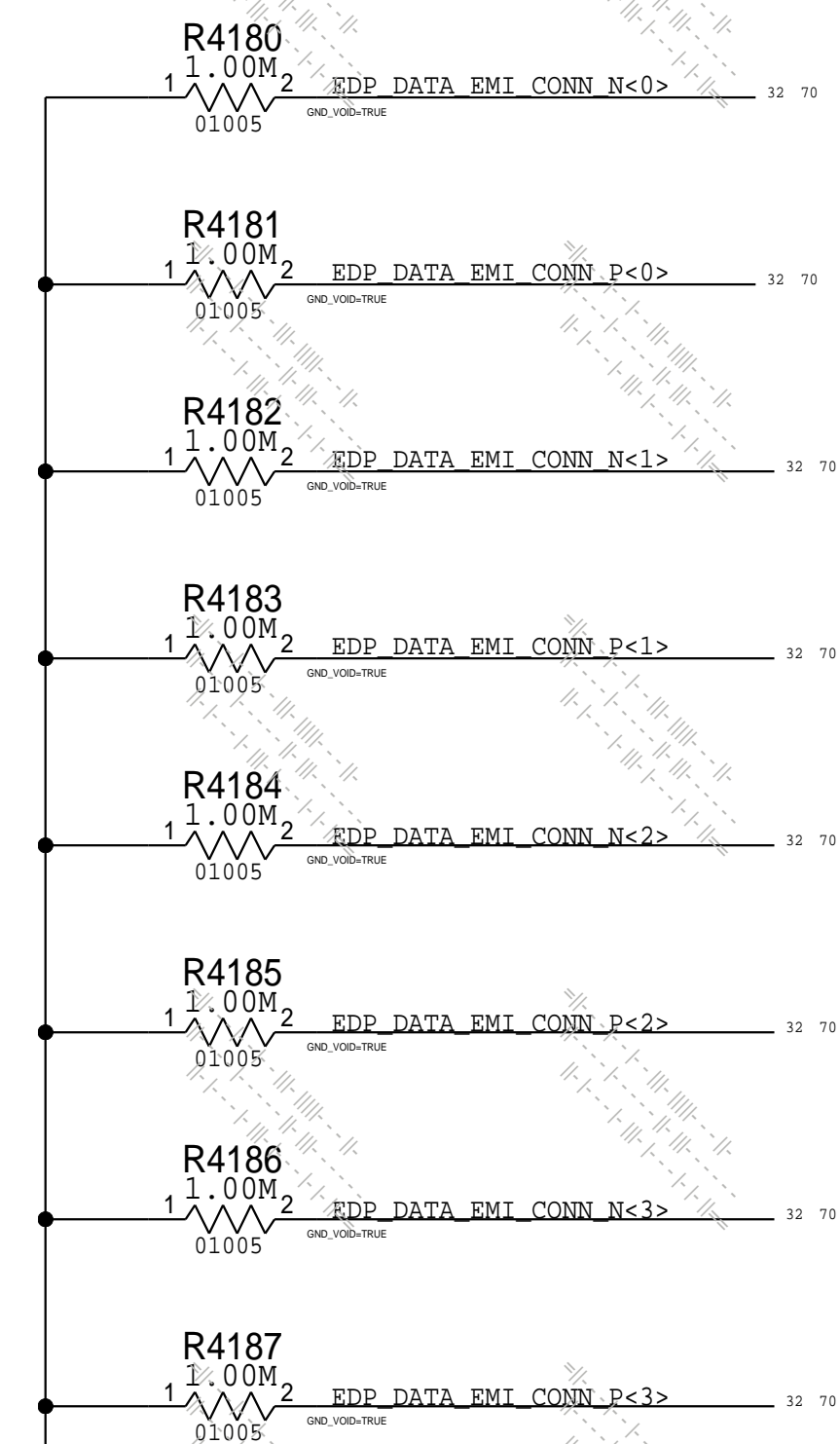
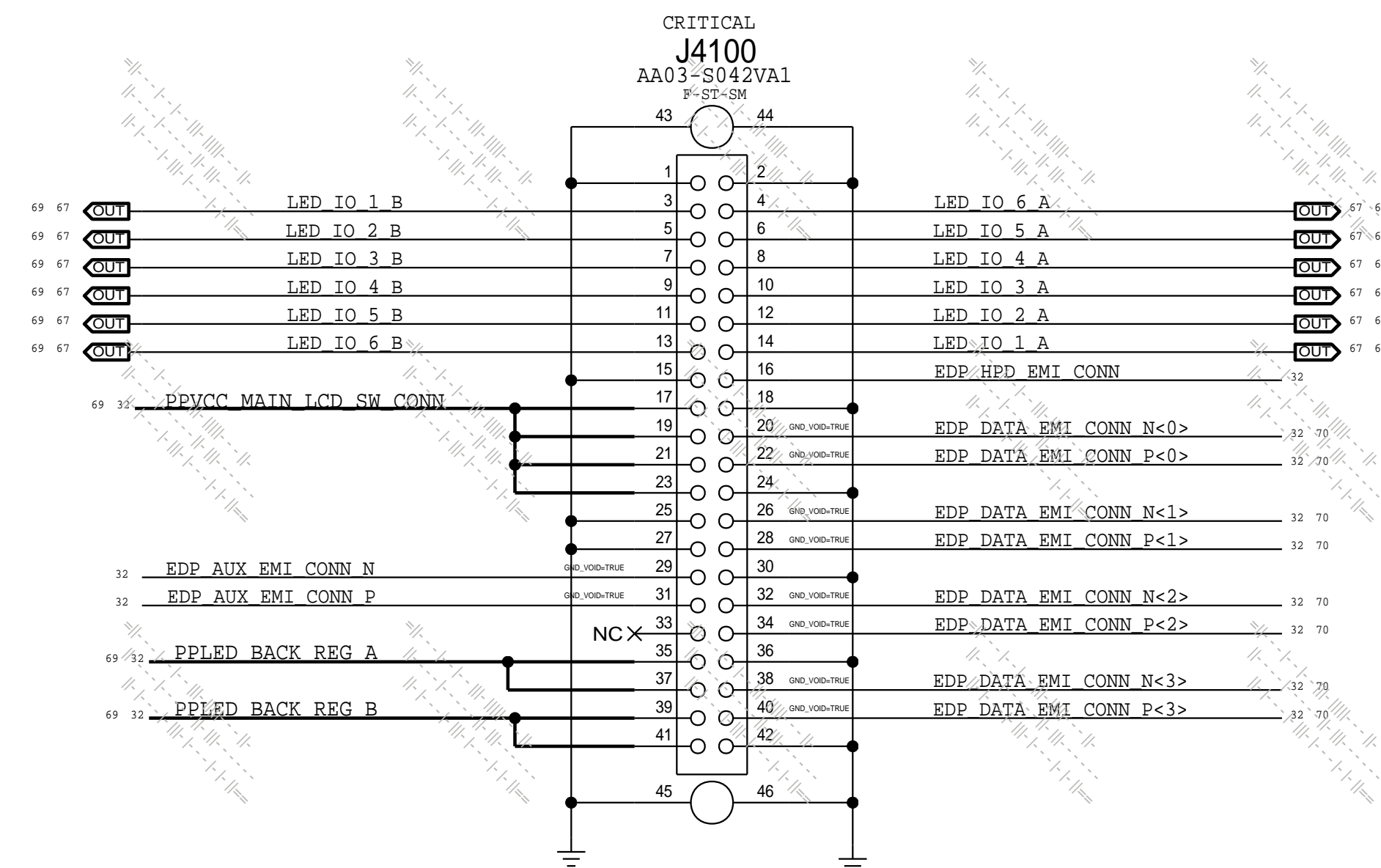


PART#	QTY	DESCRIPTION	REFERENCE DESIGNATOR(S)	CRITICAL	BOM OPTION
35384272	1	IC,SLG5AP1423V	U4100	CRITICAL	



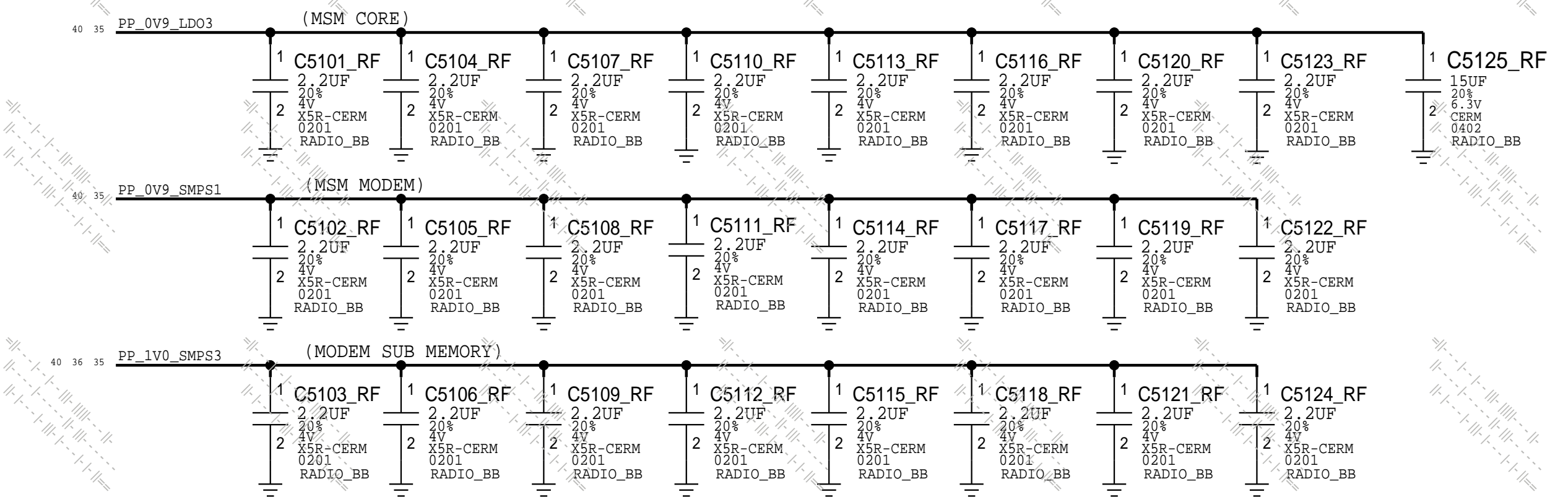
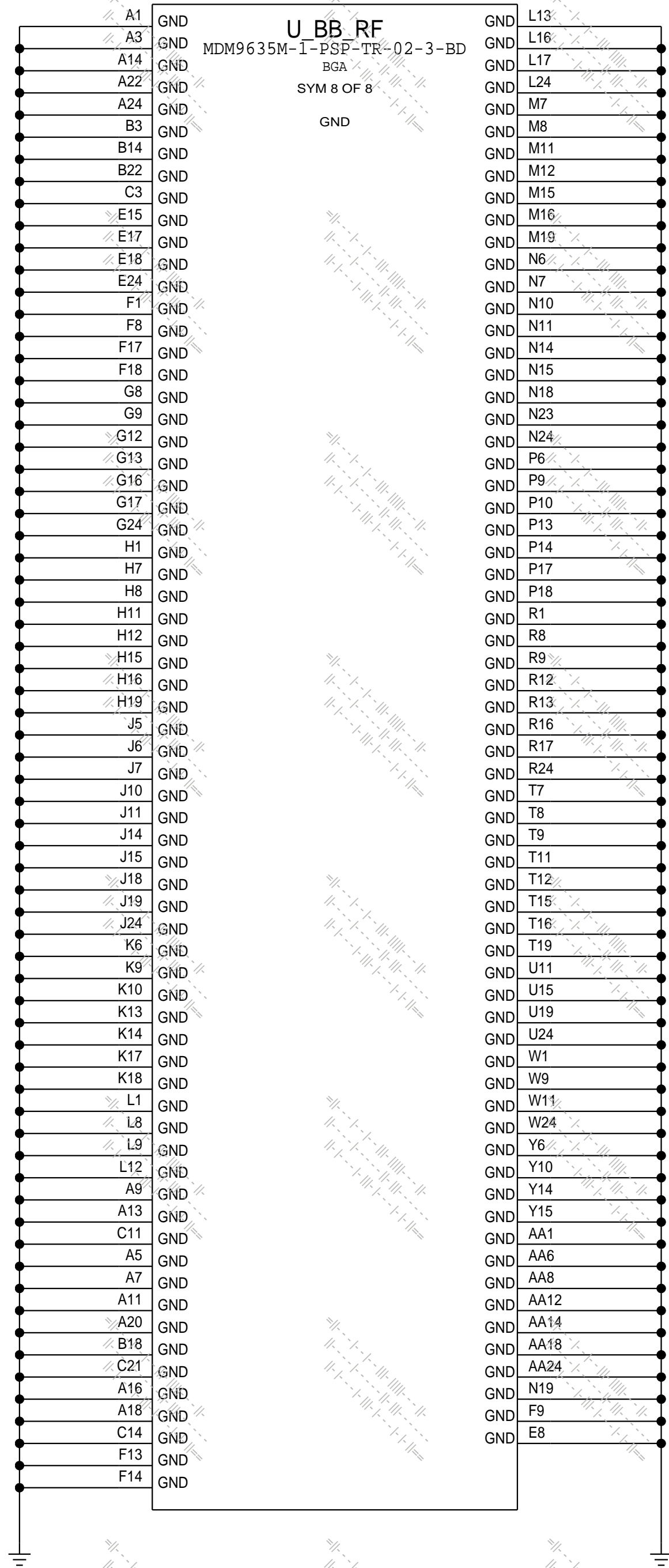
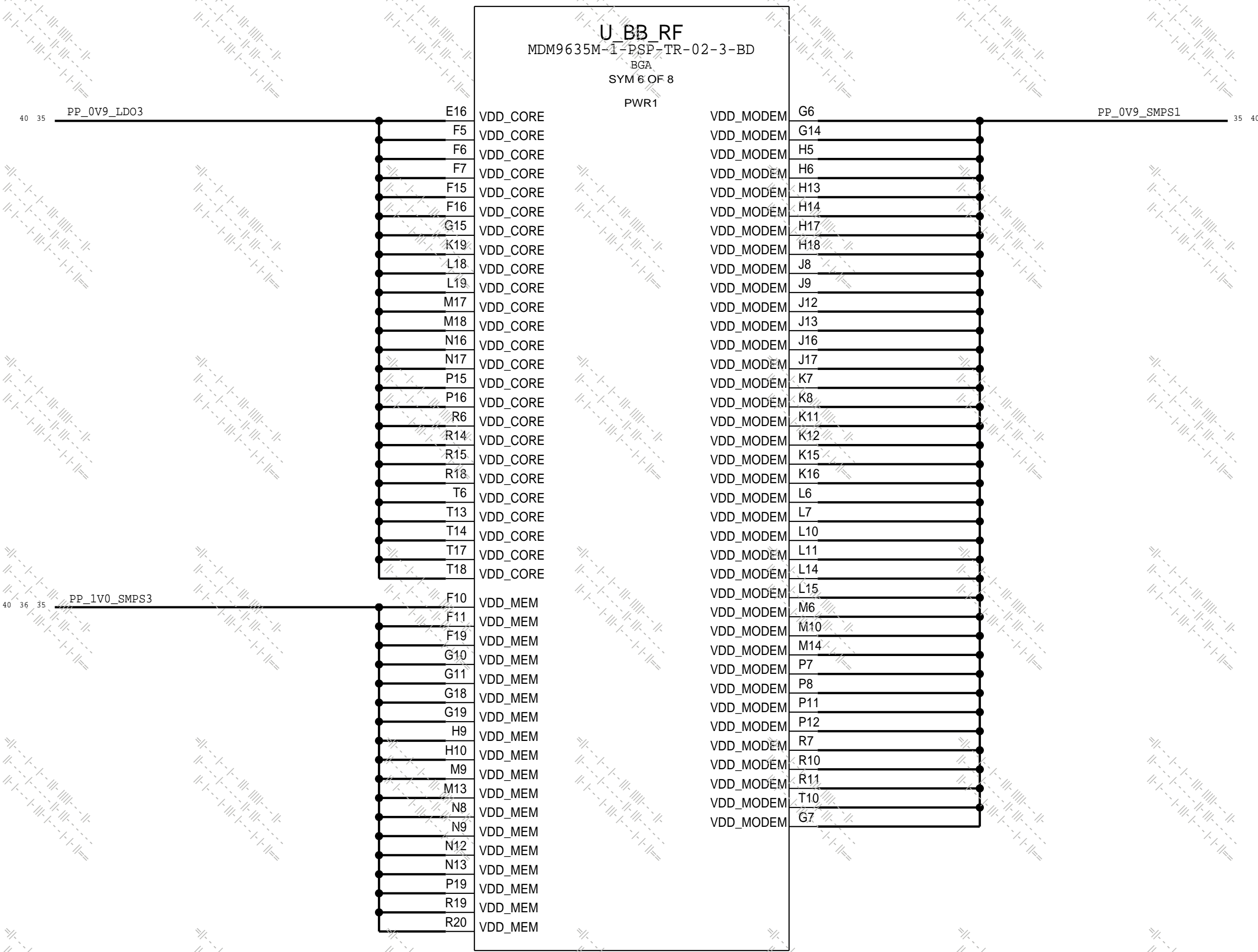
EDP CONNECTOR

PINOUT MATCHES DISPLAY_EDP_FLEX 1.0.0 1/7/13

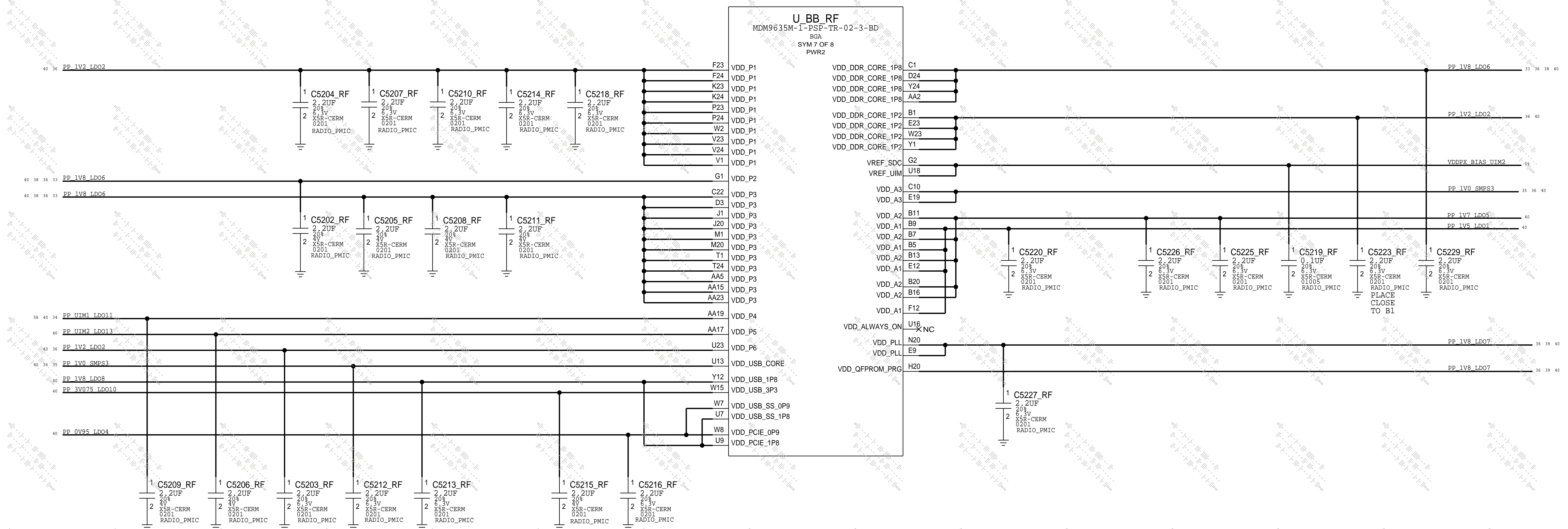


CONFIDENTIAL AND PROPRIETARY APPLE SYSTEM DESIGN. FOR REFERENCE PURPOSE ONLY - NOT A CHANGE REQUEST

BASEBAND: POWER 1



BASEBAND: POWER 2



CONFIDENTIAL AND PROPRIETARY APPLE SYSTEM DESIGN. FOR REFERENCE PURPOSE ONLY - NOT A CHANGE REQUEST

BASEBAND: CONTROL AND INTERFACES

D

C

B

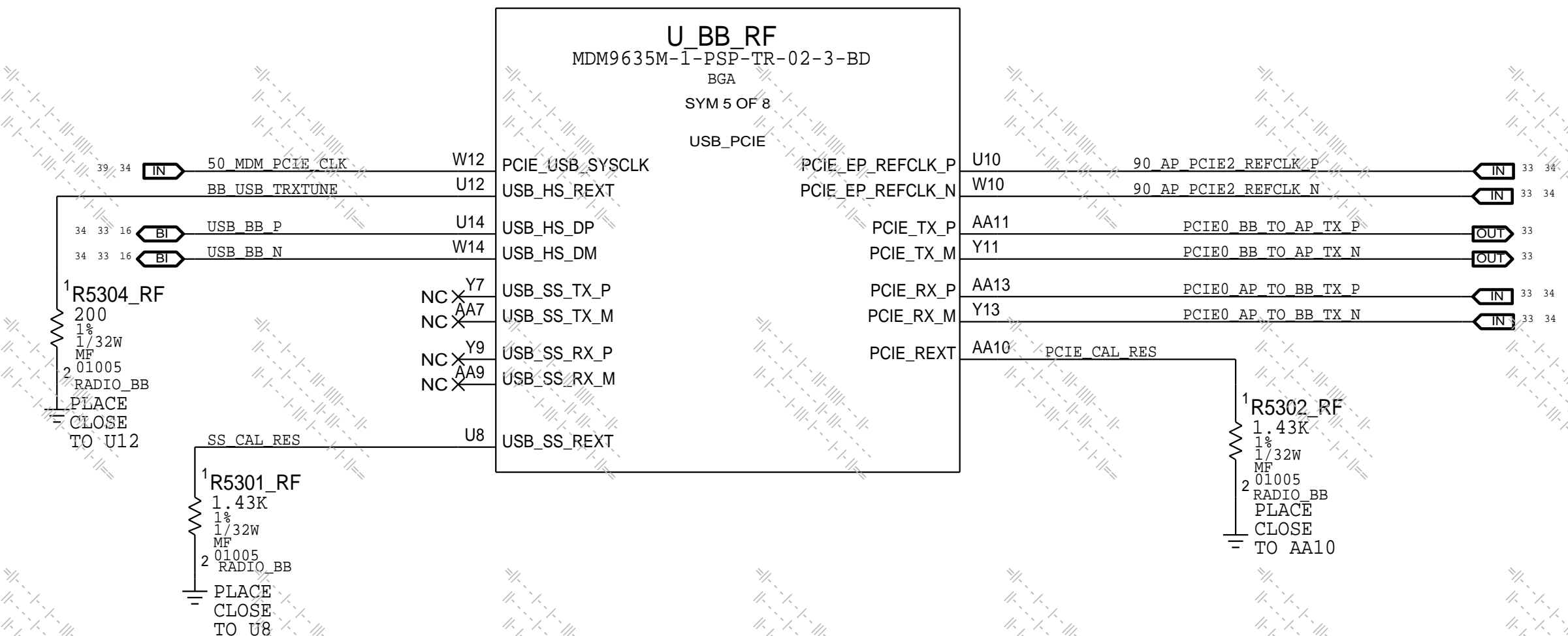
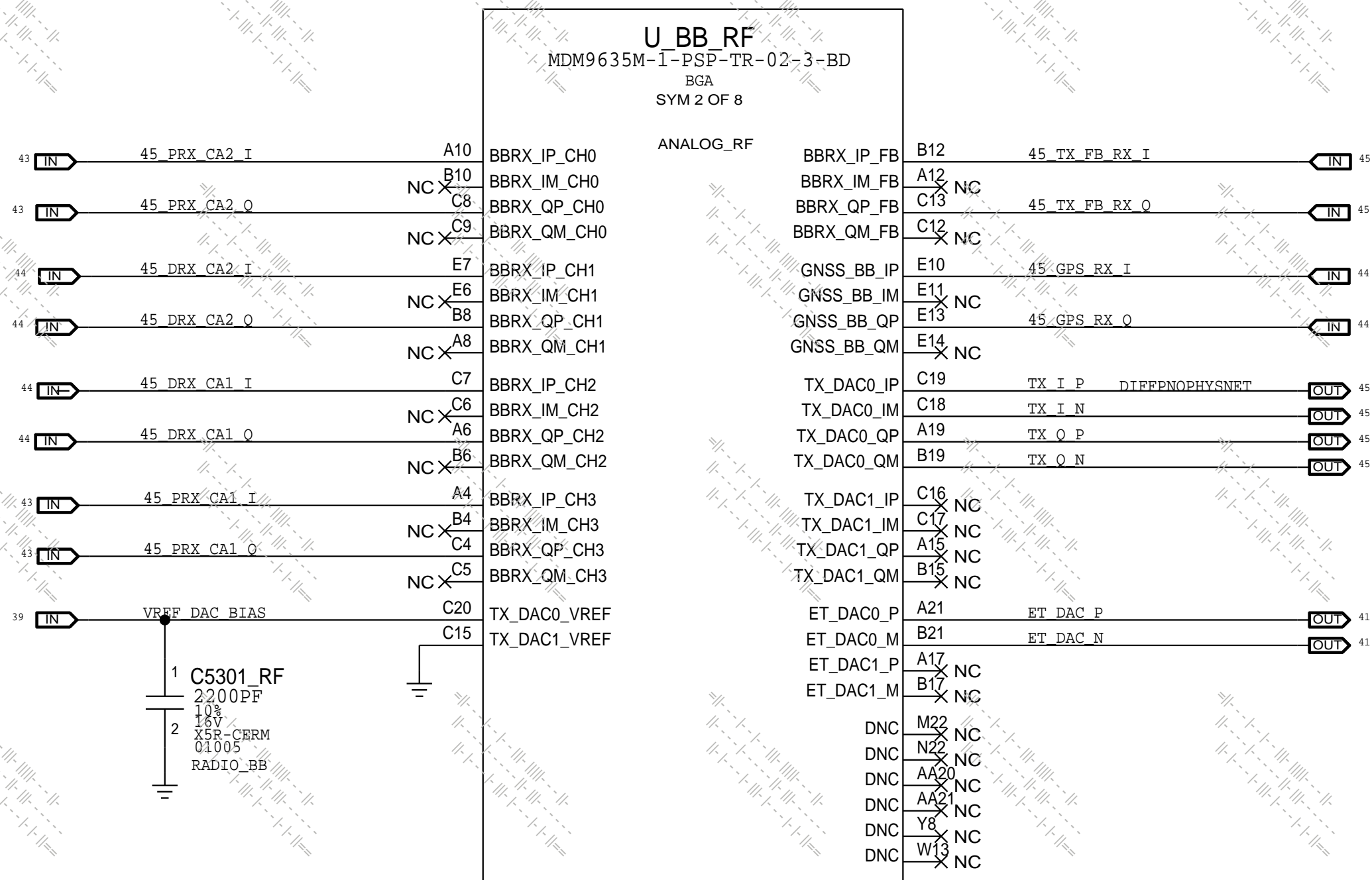
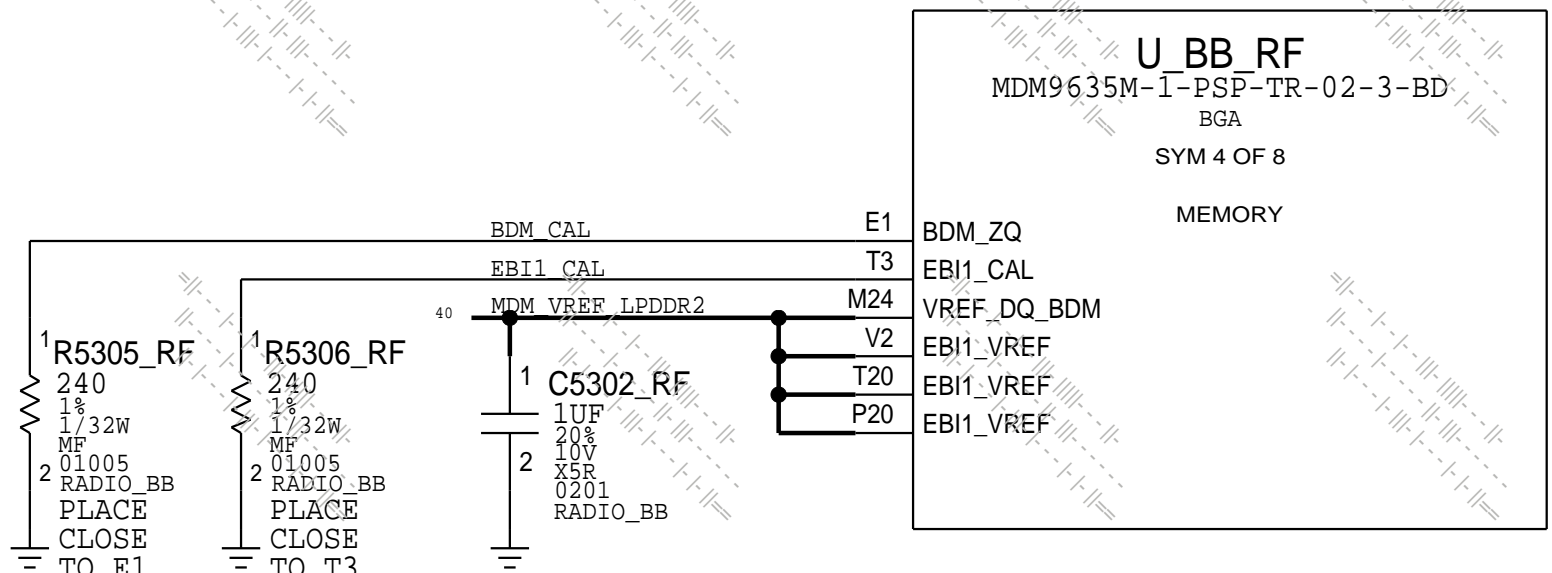
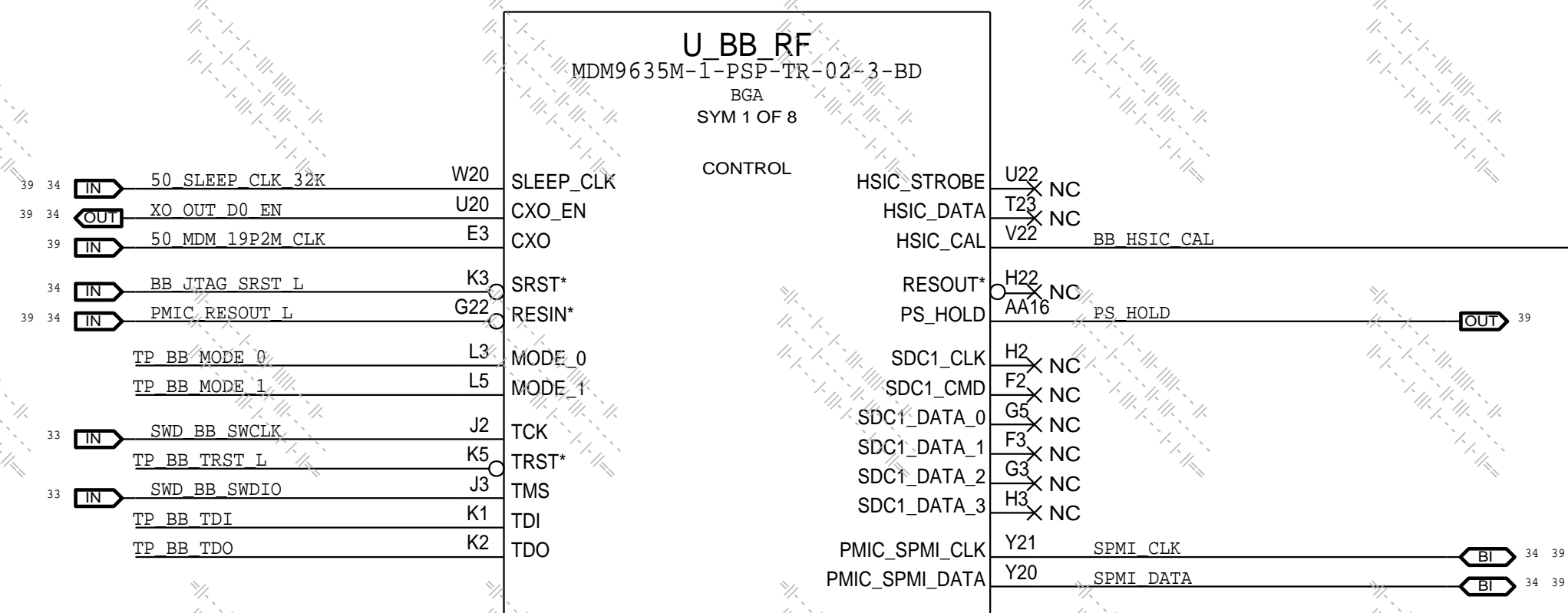
A

D

C

B

A



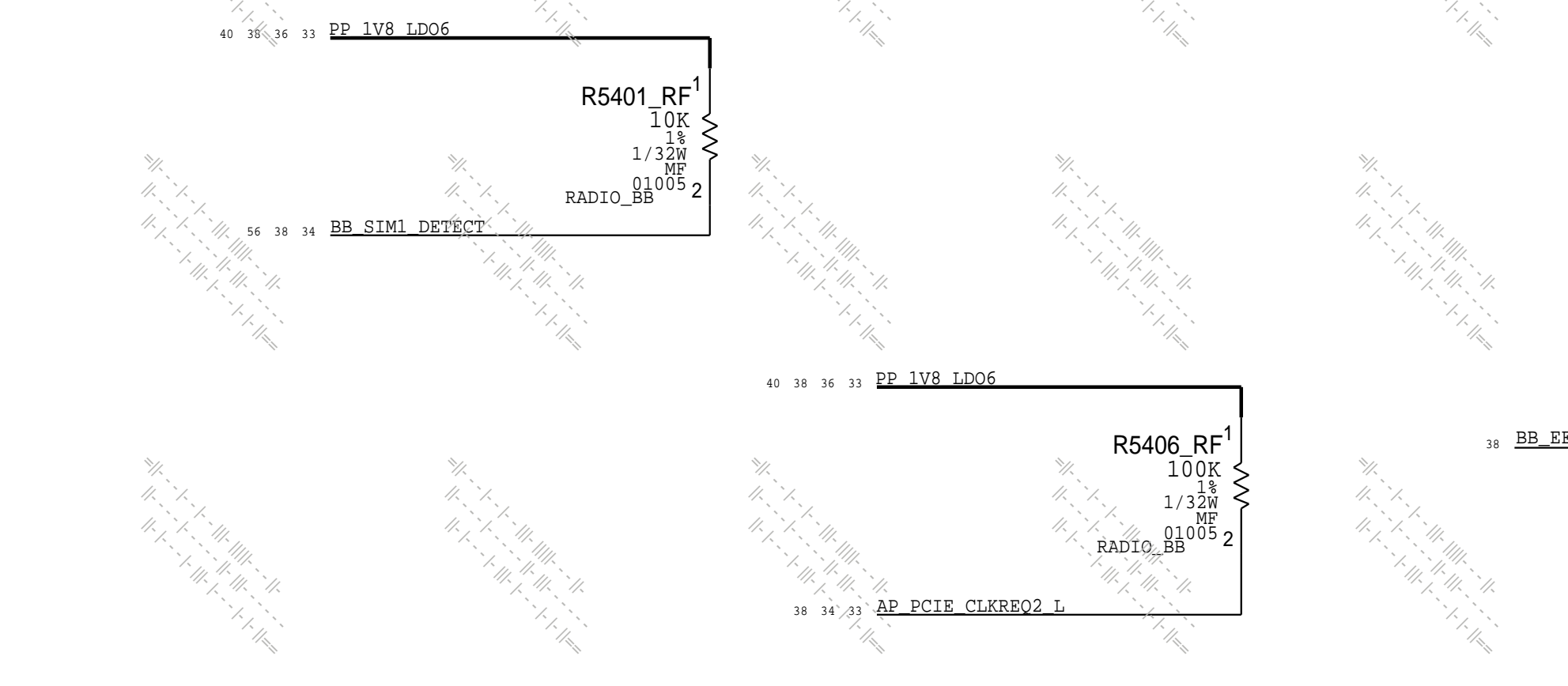
BASEBAND: GPIOs

D

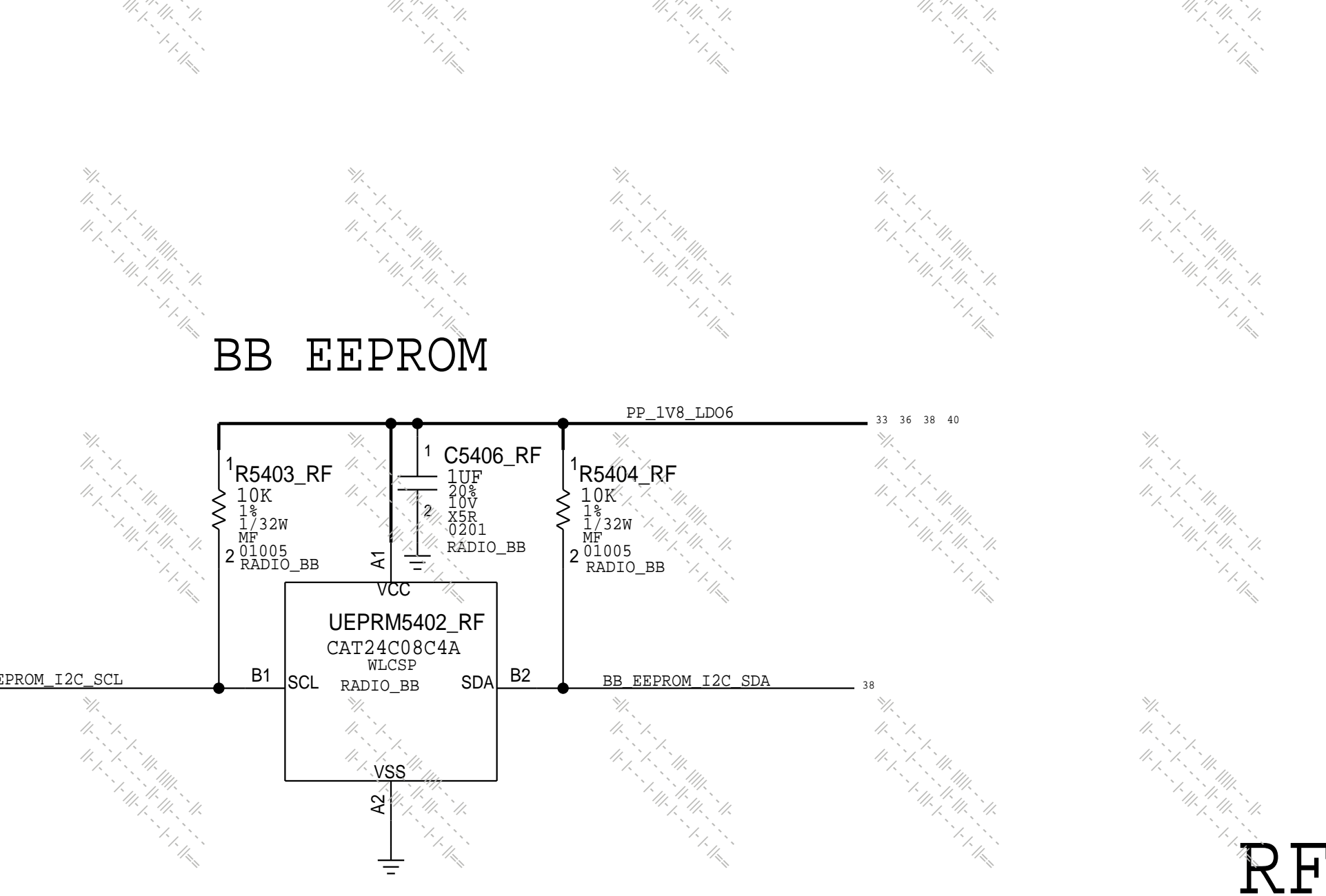
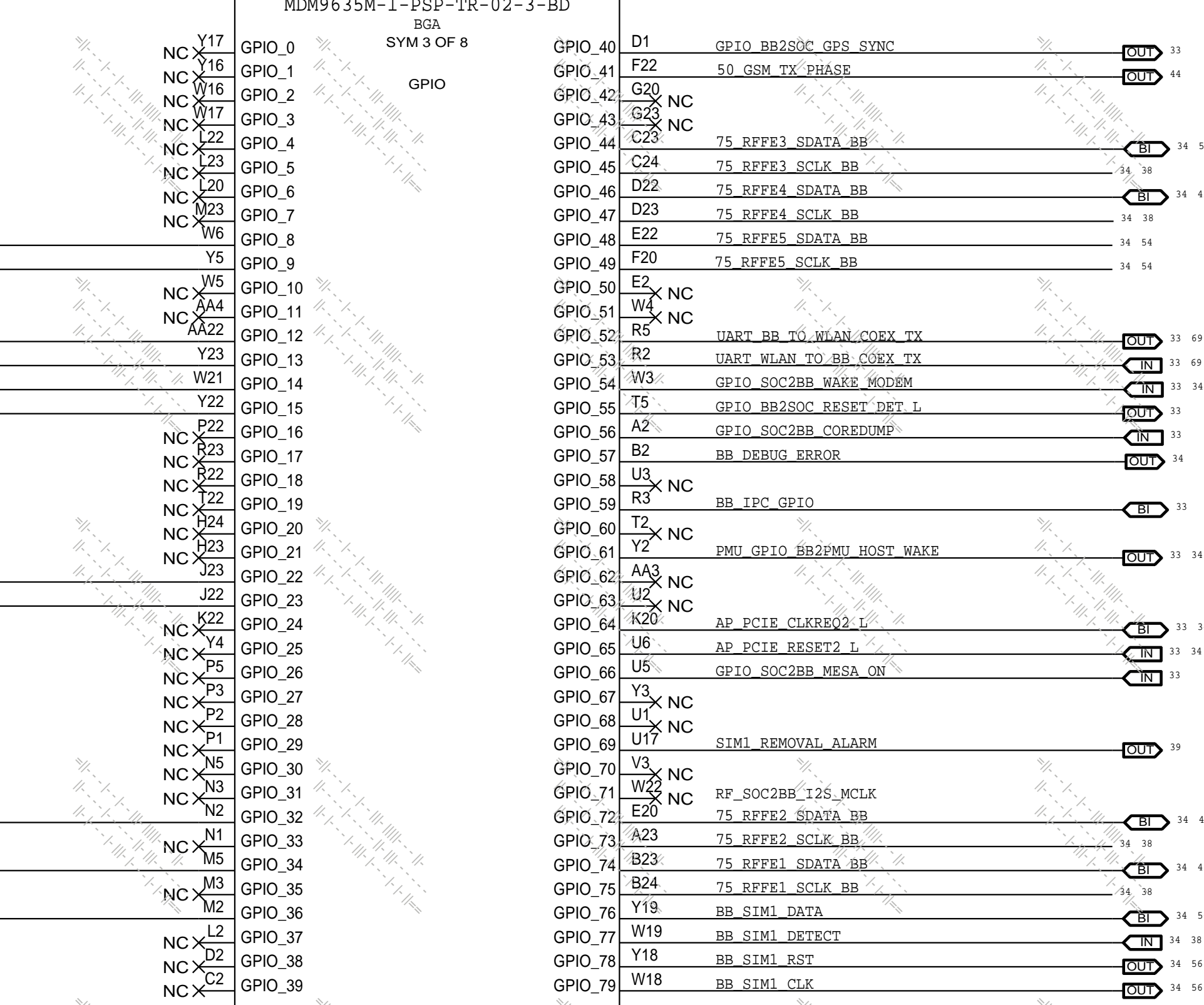
C

B

A



PART NUMBER	ALTERNATE FOR PART NUMBER	BOM OPTION	REF DES	COMMENTS:
335500013	335500894		UEPRM5402_RF	I2C EEPROM



PART NUMBER	ALTERNATE FOR PART NUMBER	BOM OPTION	REF DES	COMMENTS:
335500013	335500894		UEPRM5402_RF	I2C EEPROM

PART NUMBER	ALTERNATE FOR PART NUMBER	BOM OPTION	REF DES	COMMENTS:
335500013	335500894		UEPRM5402_RF	I2C EEPROM

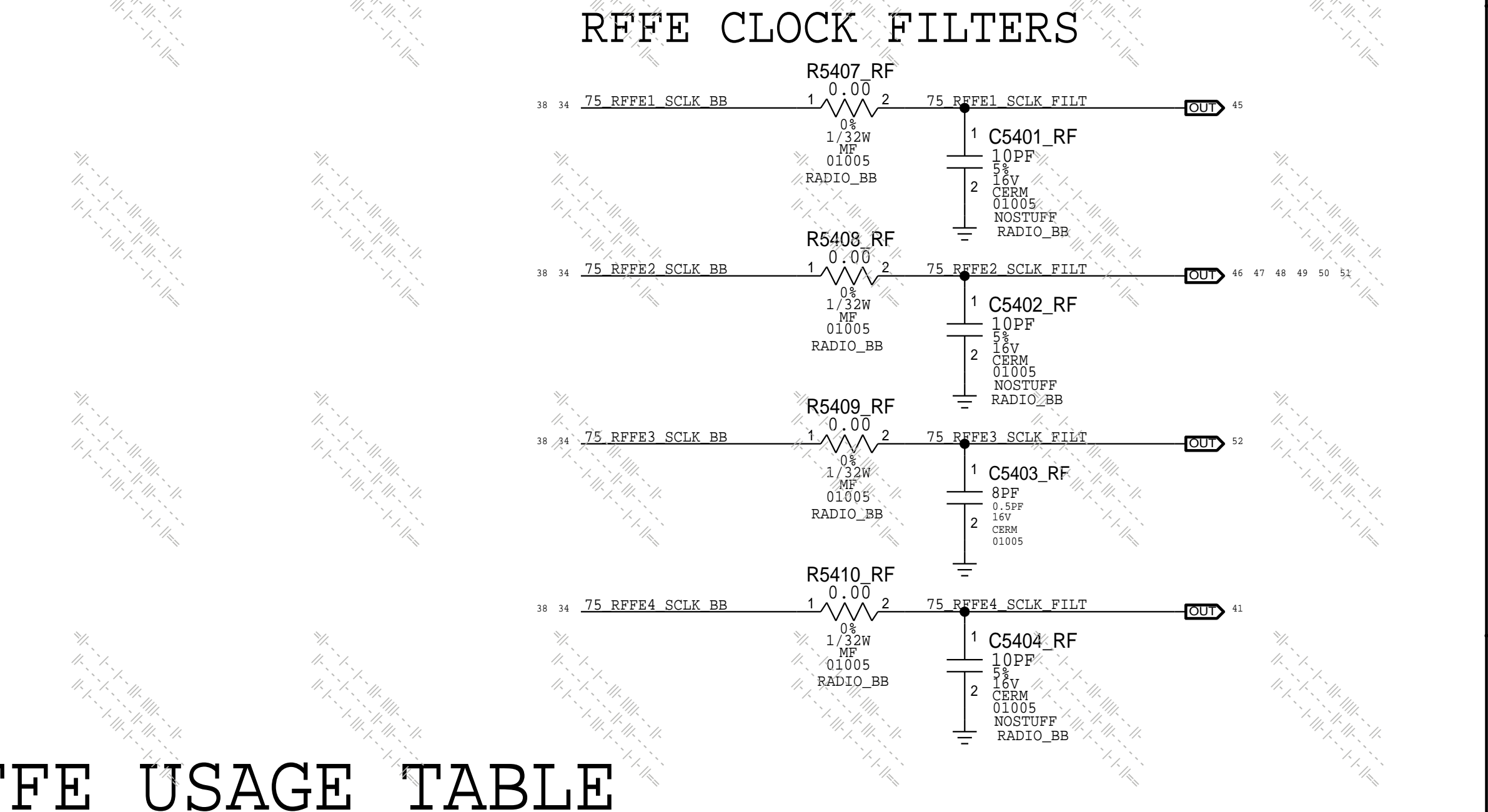
CONFIDENTIAL AND PROPRIETARY APPLE SYSTEM DESIGN. FOR REFERENCE PURPOSE ONLY - NOT A CHANGE REQUEST

D

C

B

A



PART NUMBER	ALTERNATE FOR PART NUMBER	BOM OPTION	REF DES	COMMENTS:
335500013	335500894		UEPRM5402_RF	I2C EEPROM

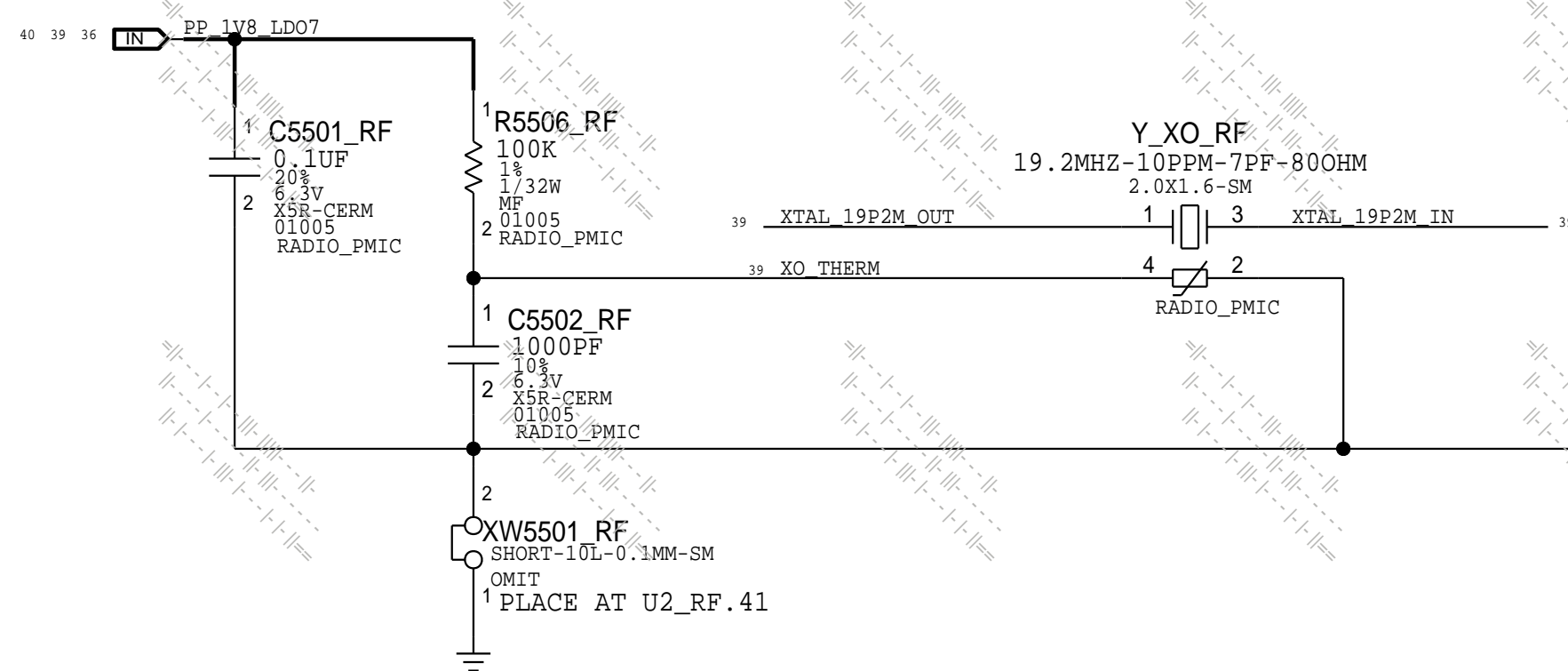
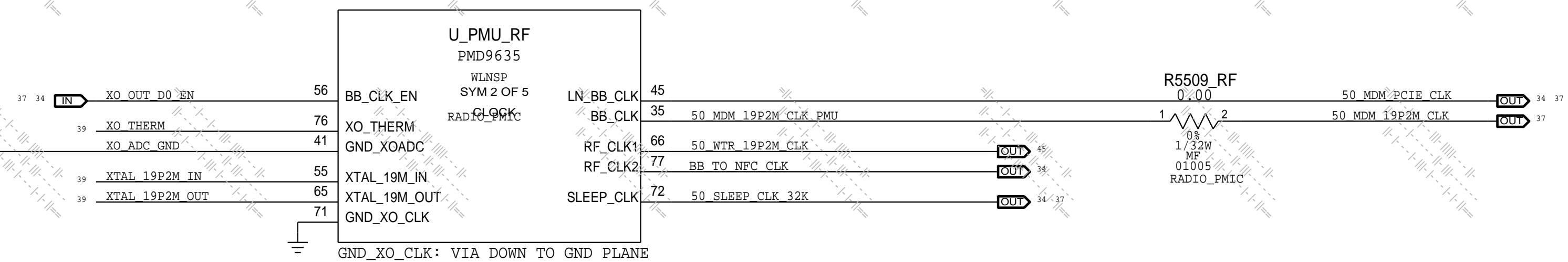
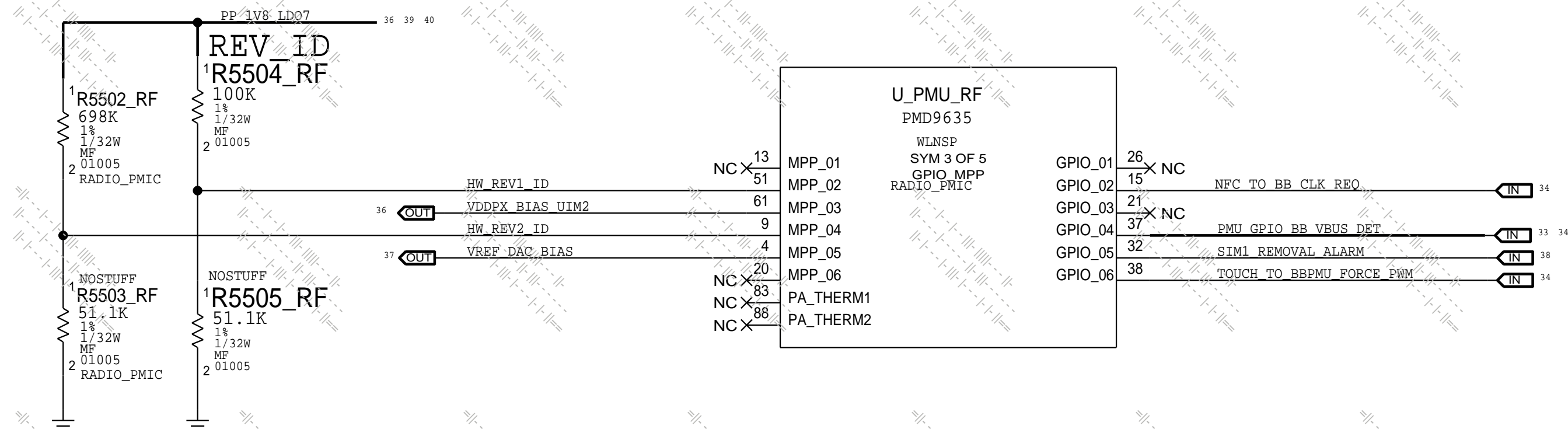
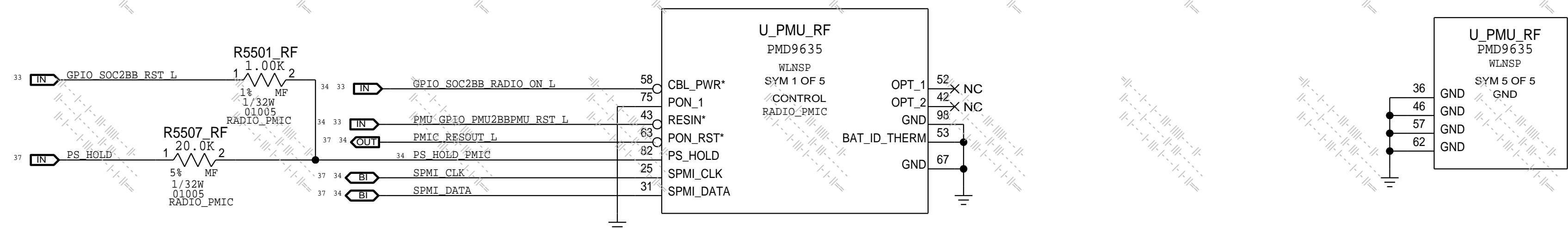
PART NUMBER	ALTERNATE FOR PART NUMBER	BOM OPTION	REF DES	COMMENTS:
335500013	335500894		UEPRM5402_RF	I2C EEPROM

CONFIDENTIAL AND PROPRIETARY APPLE SYSTEM DESIGN. FOR REFERENCE PURPOSE ONLY - NOT A CHANGE REQUEST

PMU: CONTROL AND CLOCKS

HW_REV_ID	R5502	R5503	REVISION
1.80V	698K	-	MLB
0.12V	698K	51.1K	SELF GEN

HW_REV_ID	R5504	R5505	REVISION
0.10V	887K	51.1K	DEV1
0.30V	255K	51.1K	DEV2
0.50V	124K	51.1K	DEV3
0.70V	82.5K	51.1K	DEV4/PROTOMLB1
0.90V	51.1K	51.1K	PROTOMLB2
1.10V	31.6K	51.1K	DEV5/PROTO1
1.20V	50K	100K	PROTO2
1.31V	39K	105K	EVT
1.43V	13.3K	51.1K	EVT ALT
1.55V	8.25K	51.1K	CARRIER BUILD
1.63V	5.23K	51.1K	DVT
1.80V	100K	---	PVT



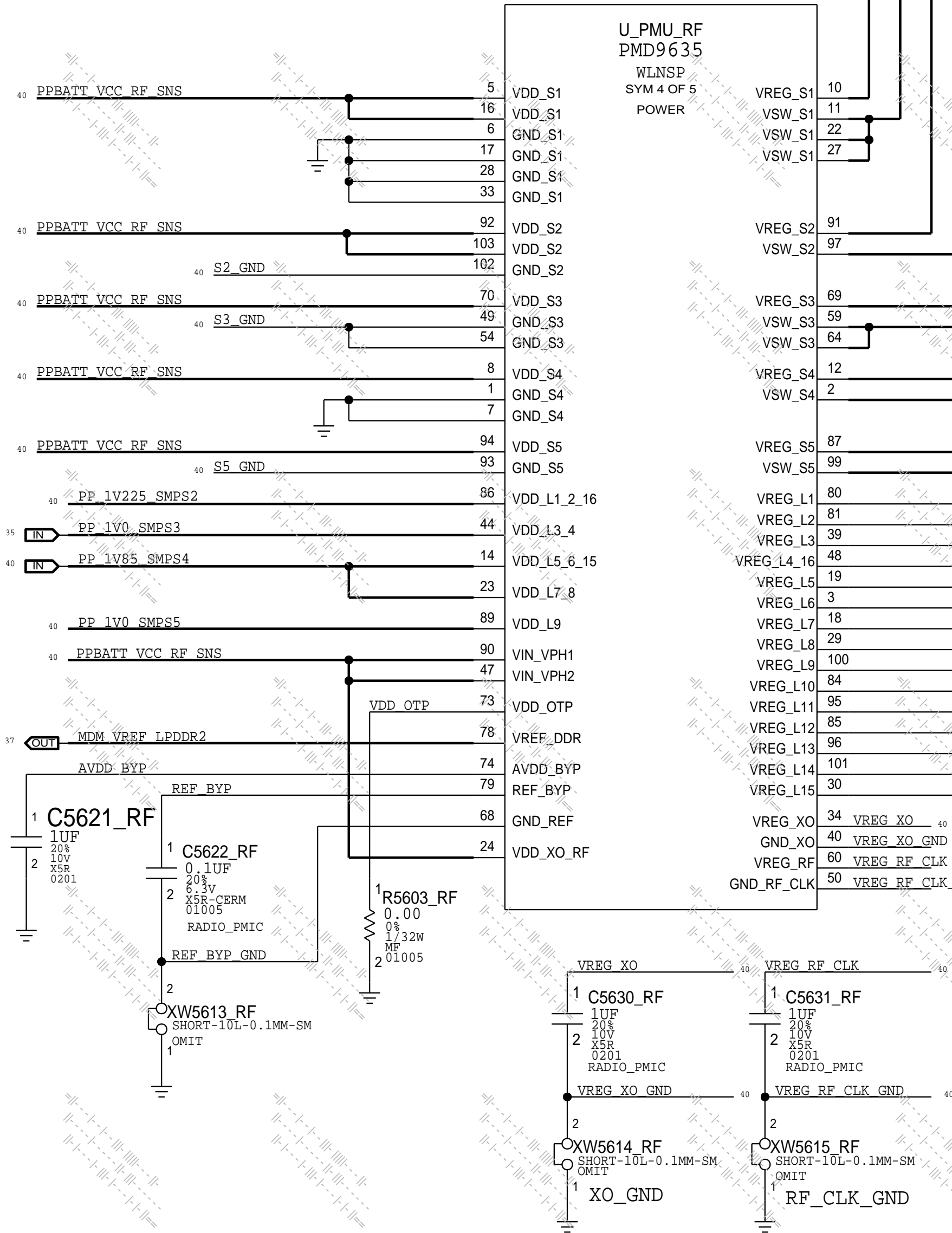
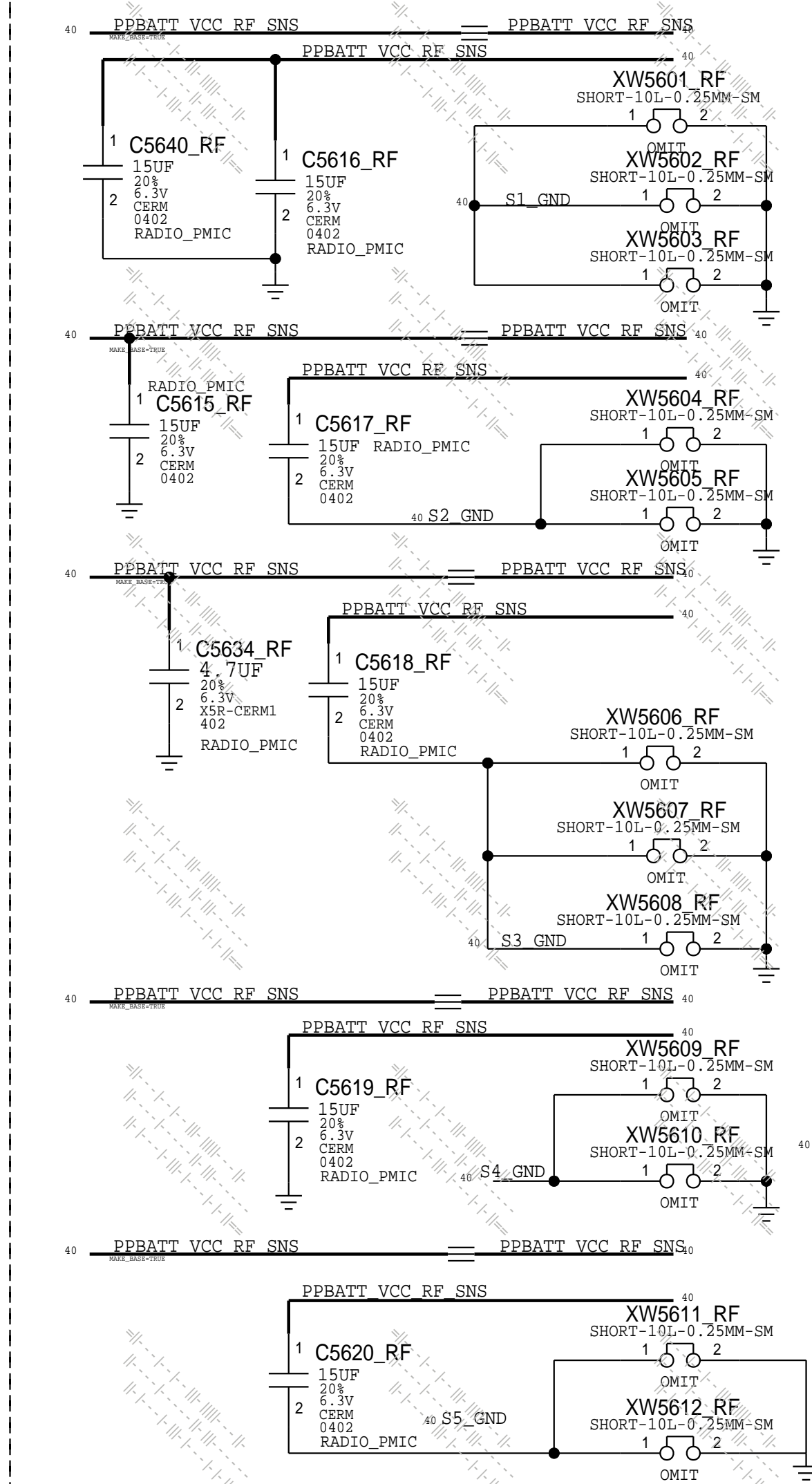
PART NUMBER	ALTERNATE FOR PART NUMBER	BOM OPTION	REF DES	COMMENTS:
197S0565	197S0593		Y_XO_RF	KDS 19.2MHZ XTAL
197S0598	197S0593		Y_XO_RF	AVX 19.2MHZ XTAL

SYNC_MASTER=RADIO_MLB	SYNC_DATE=02/13/2018
PAGE TITLE	

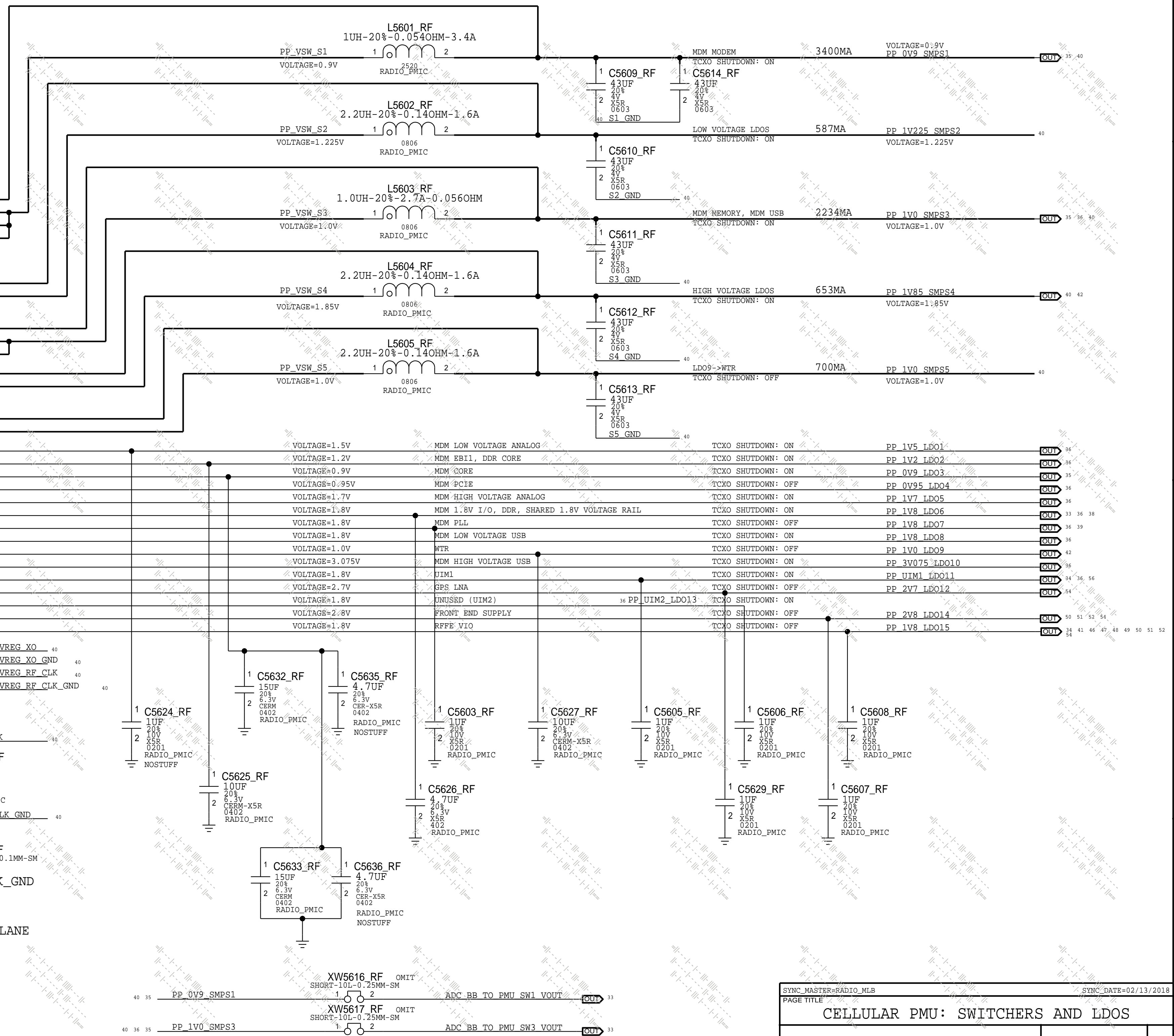
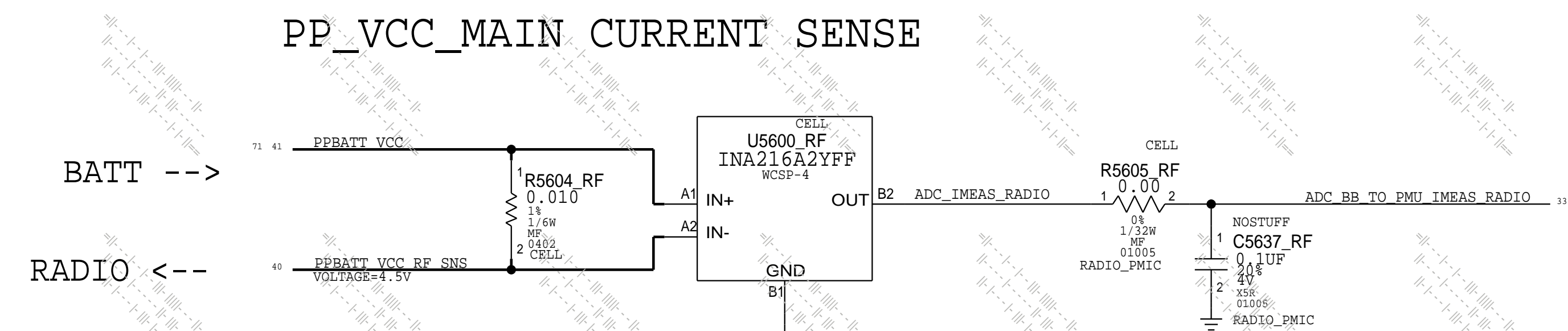
CELLULAR PMU: CONTROL AND CLOCKS

PMU: SWITCHERS AND LDOS

SWITCHERS BULK CAPS

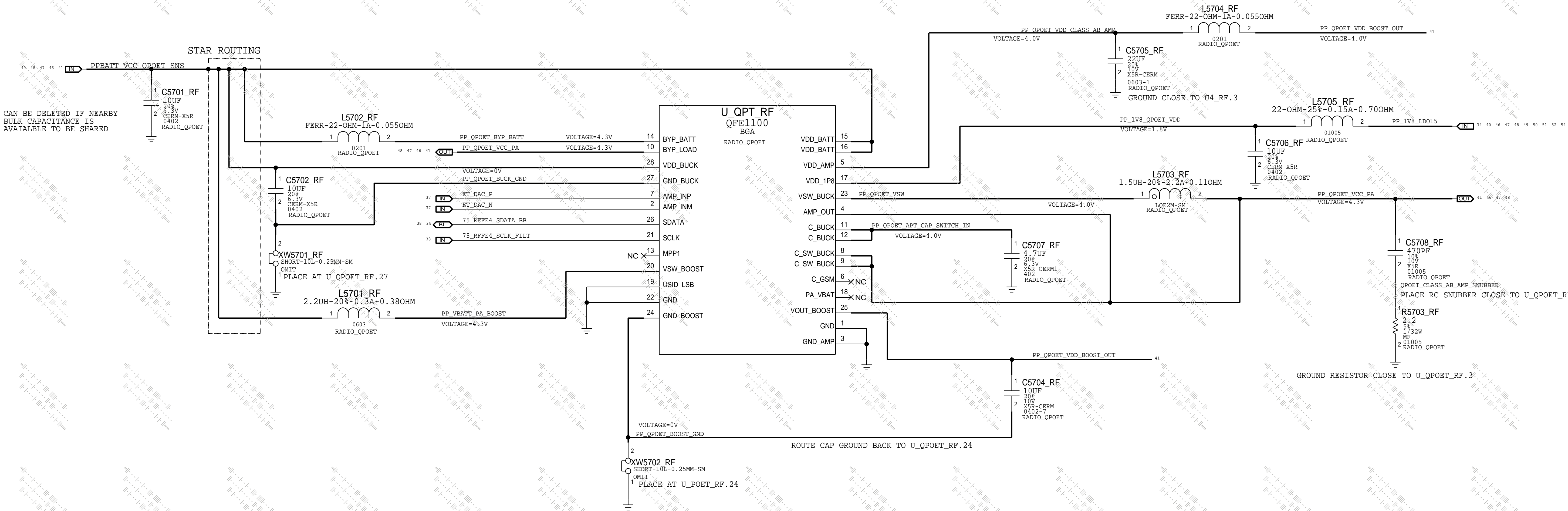


PLACE XW CLOSE TO PMU
VIA XW DOWN TO THE GND PLANE

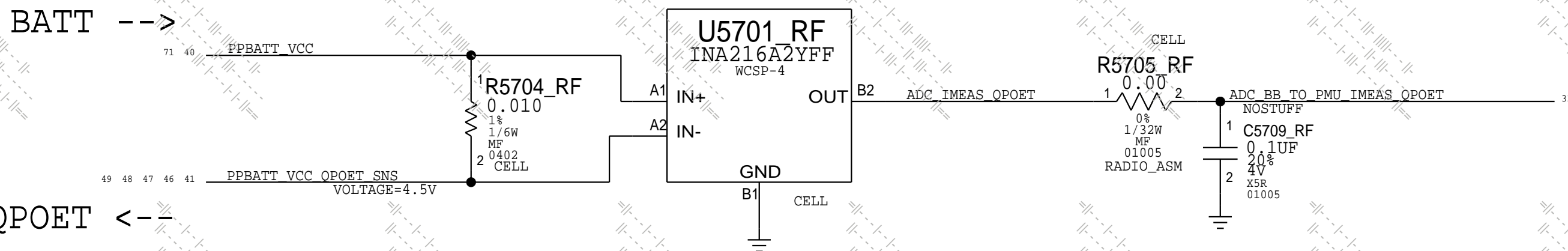


CONFIDENTIAL AND PROPRIETARY APPLE SYSTEM DESIGN. FOR REFERENCE PURPOSE ONLY - NOT A CHANGE REQUEST

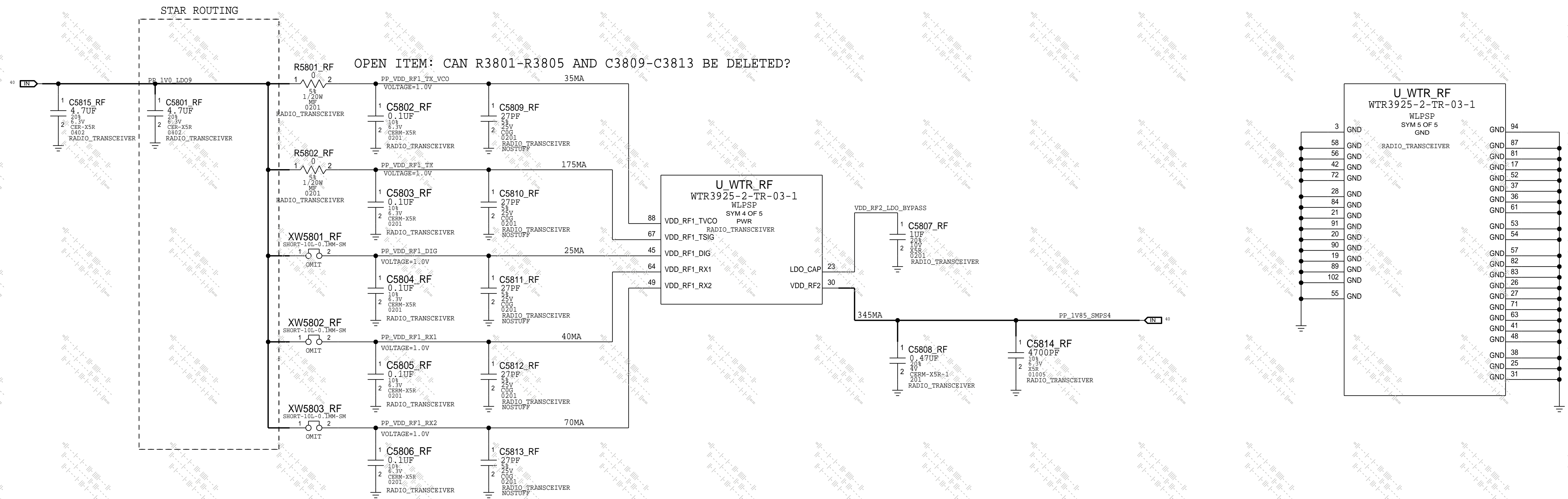
PMU: ET MODULATOR



PPBATT_VCC_RF CURRENT SENSE (QPOET)

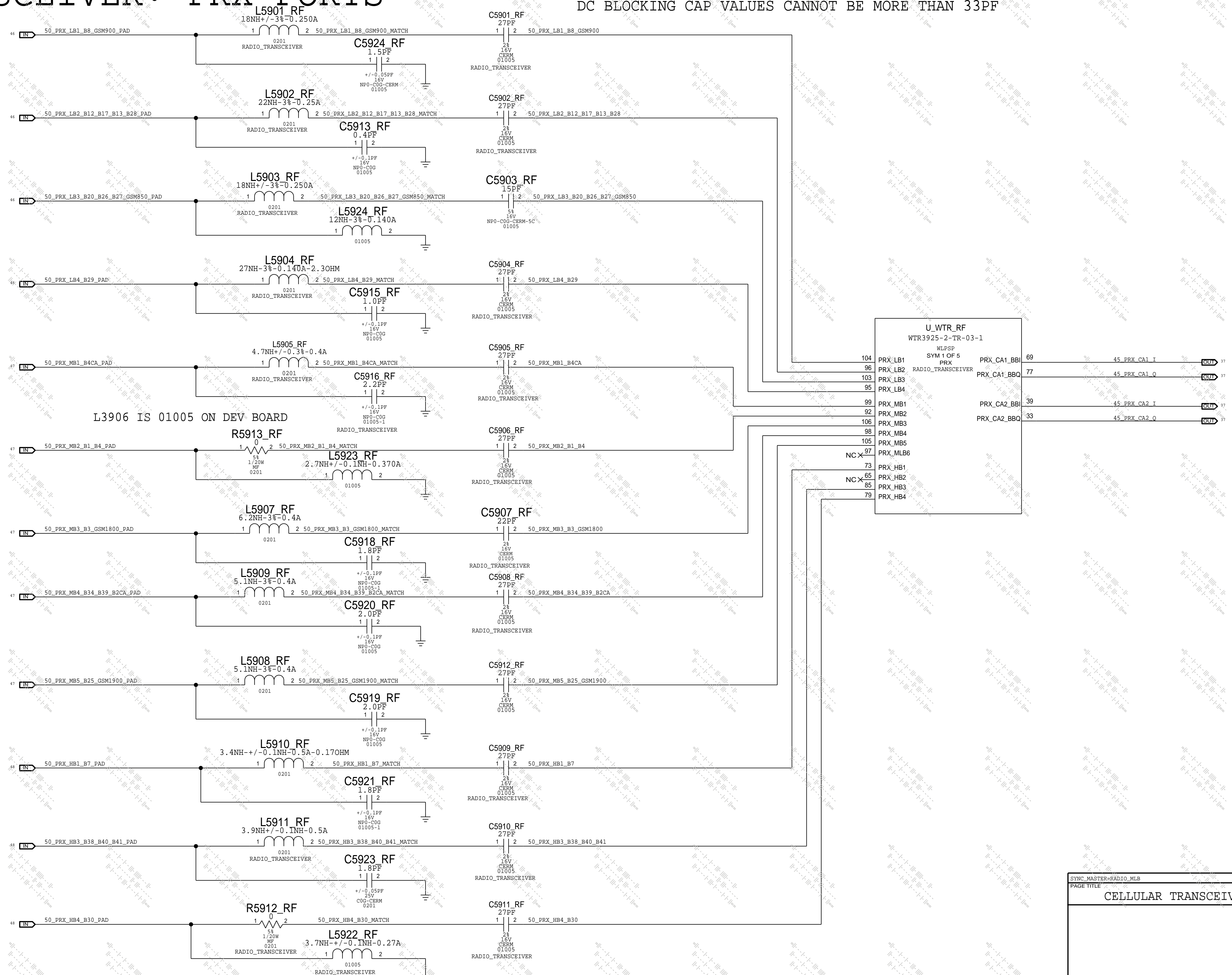


TRANSCEIVER: POWER



TRANSCIVER: PRX PORTS

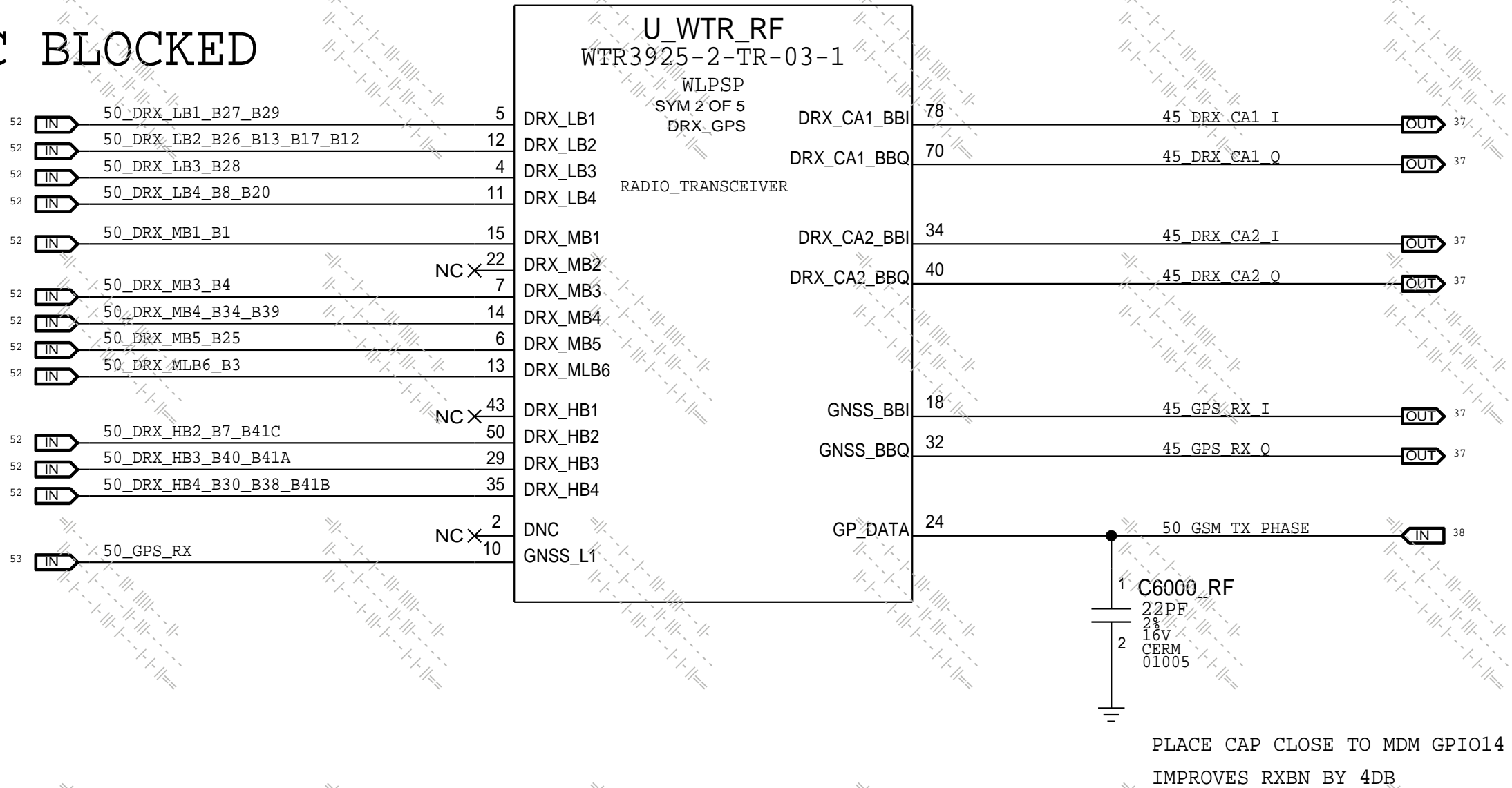
DC BLOCKING CAP VALUES CANNOT BE MORE THAN 33PF



CONFIDENTIAL AND PROPRIETARY APPLE SYSTEM DESIGN. FOR REFERENCE PURPOSE ONLY - NOT A CHANGE REQUEST

TRANSCEIVER: DRX/GPS PORTS

DRX MODULE PORTS ARE DC BLOCKED

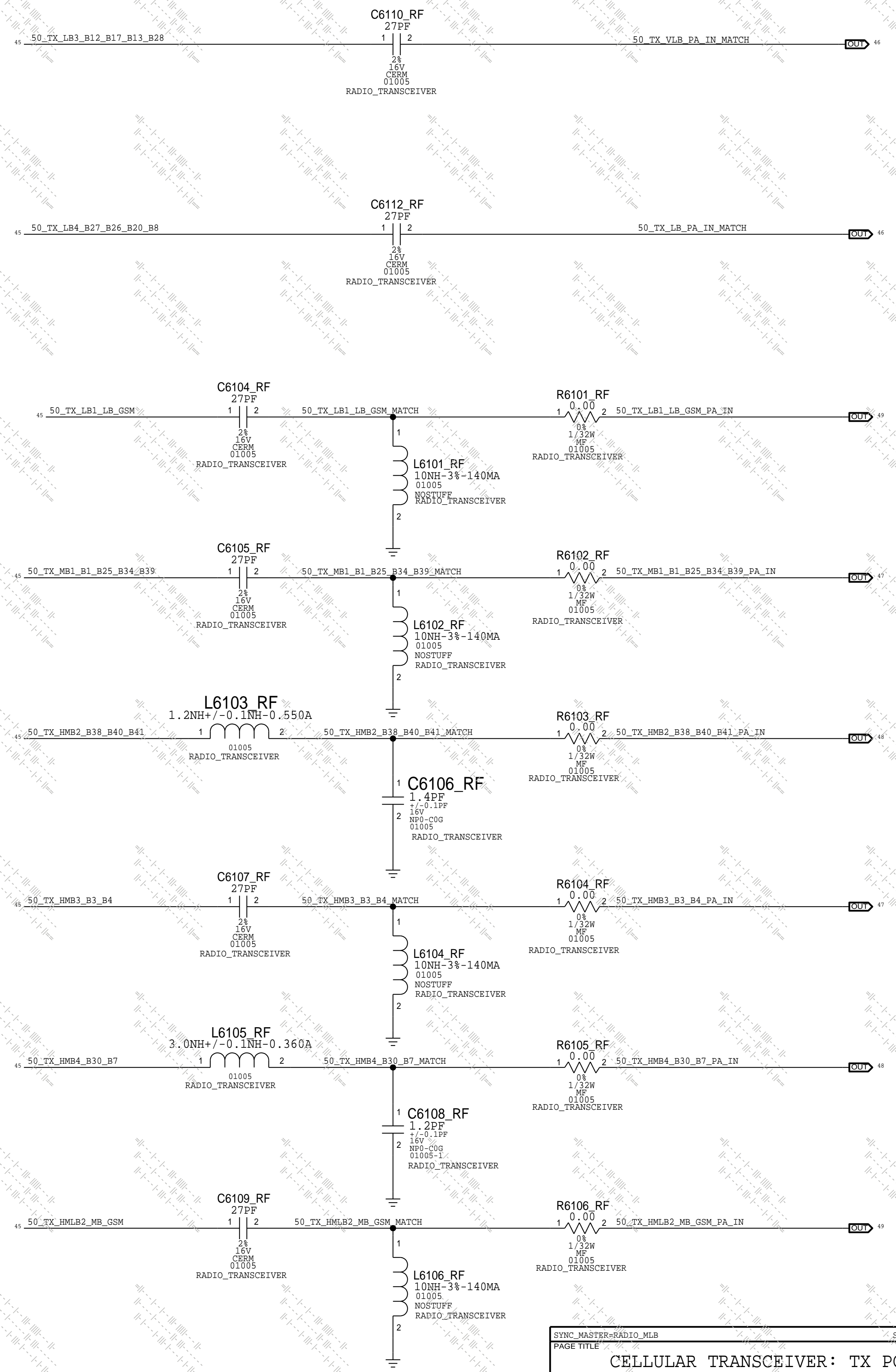
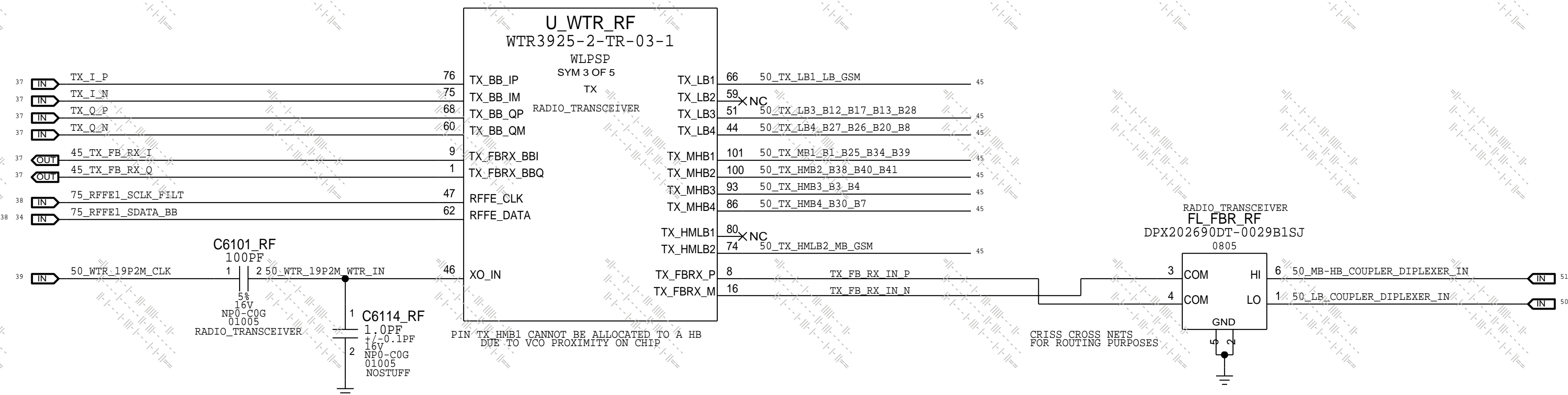


SYNC_MASTER=RADIO_MLB SYNC_DATE=02/13/2018

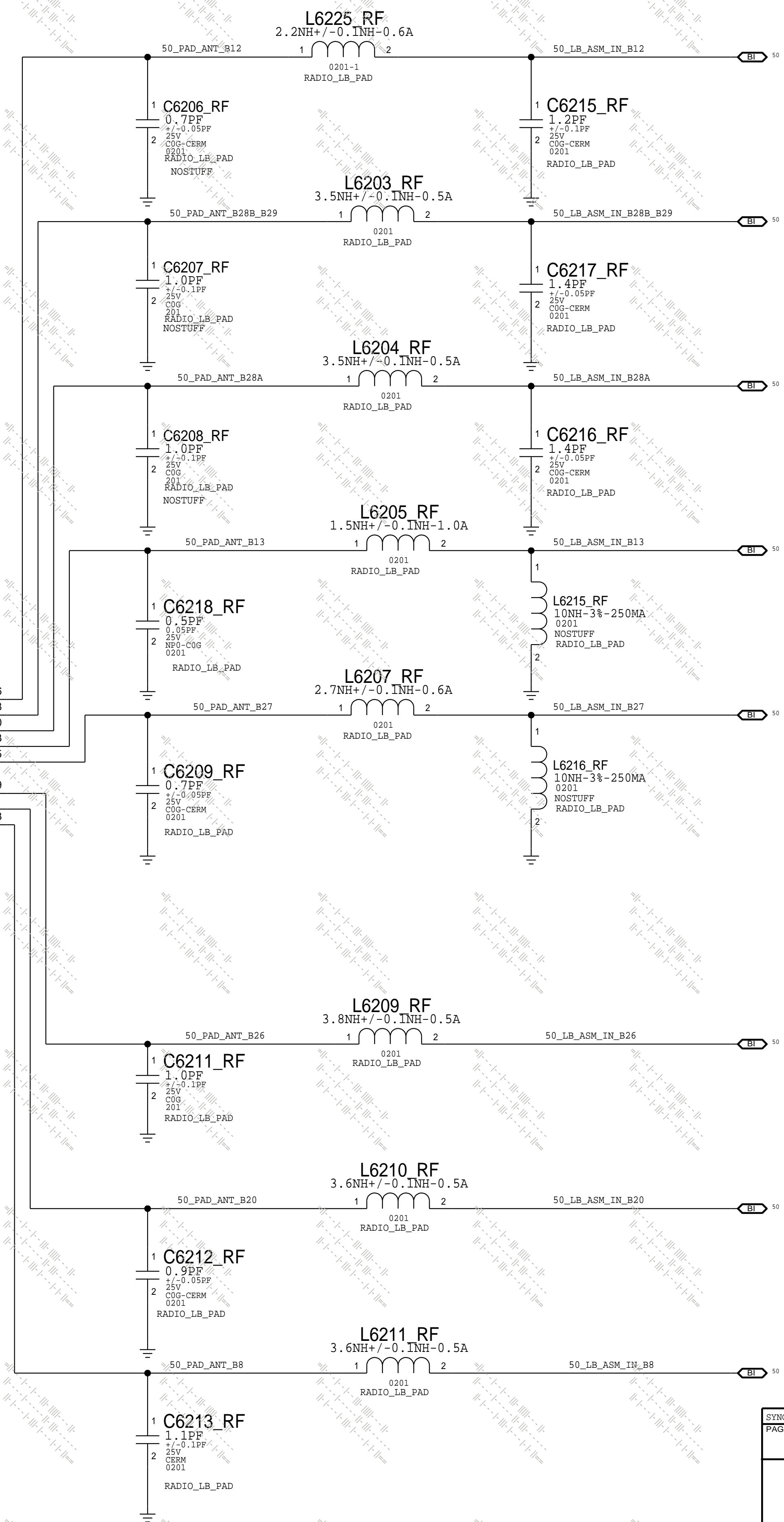
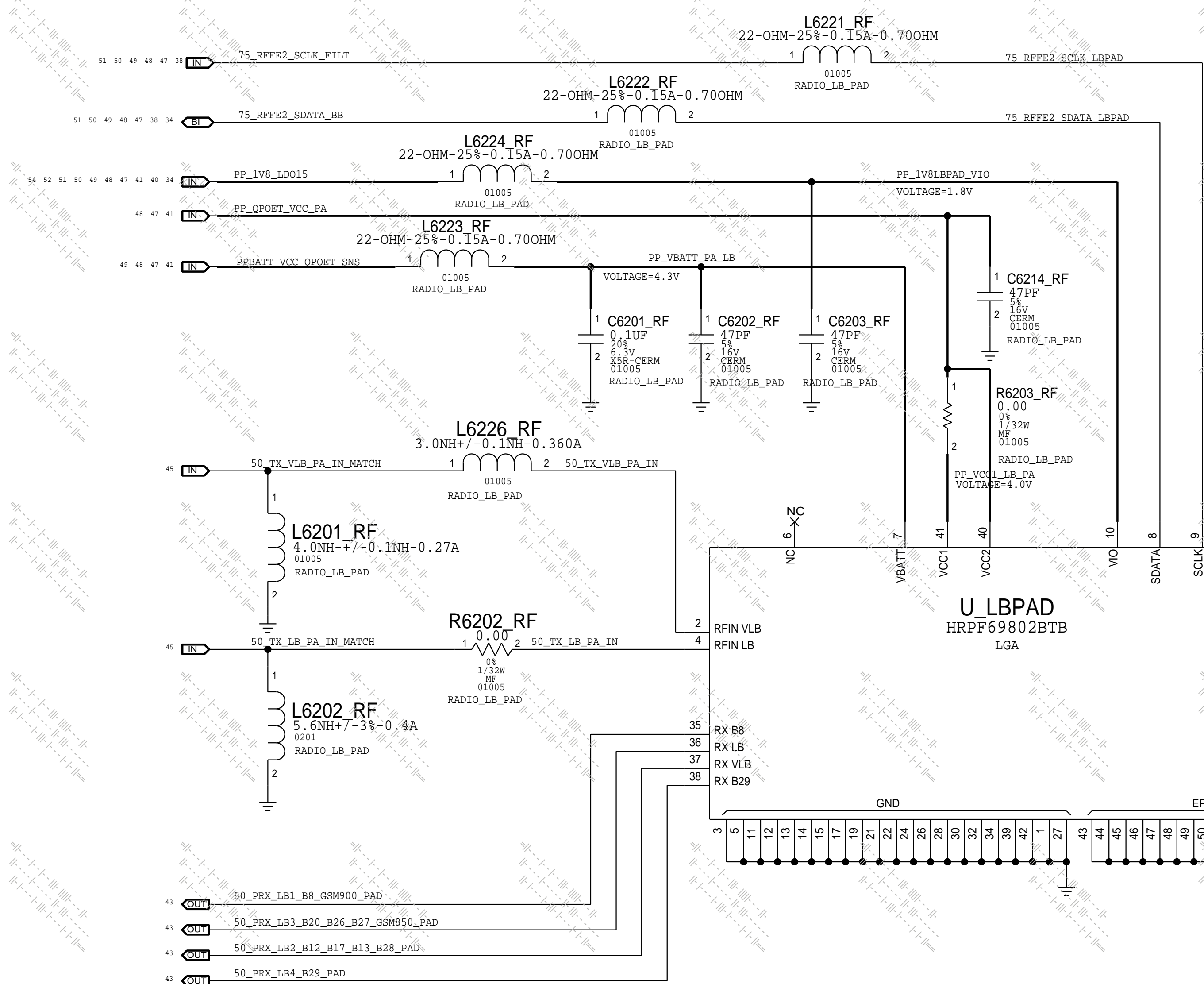
PAGE TITLE

CELLULAR TRANSCEIVER: DRX/GPS PORTS

TRANSCIVER: TX PORTS

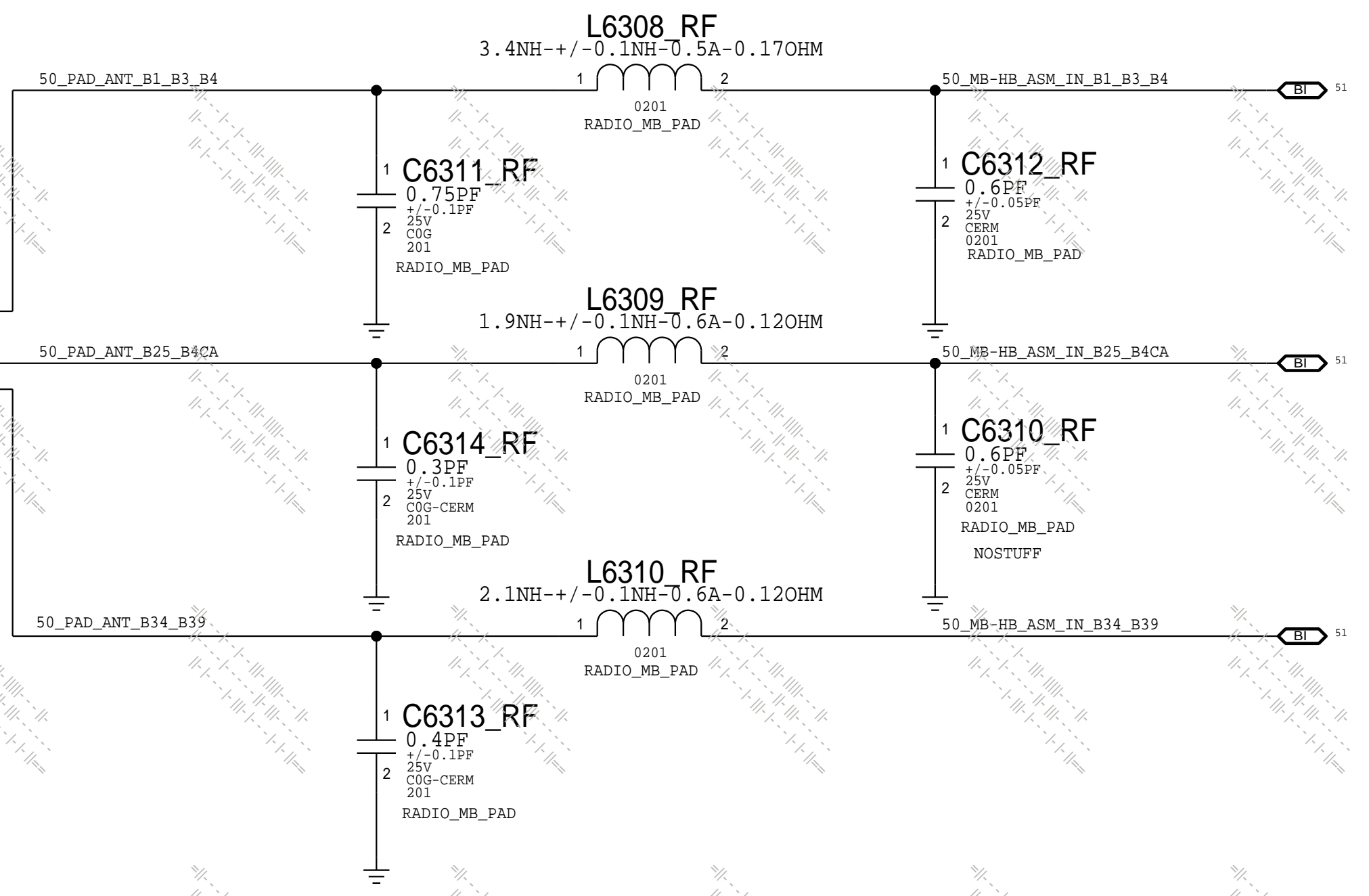
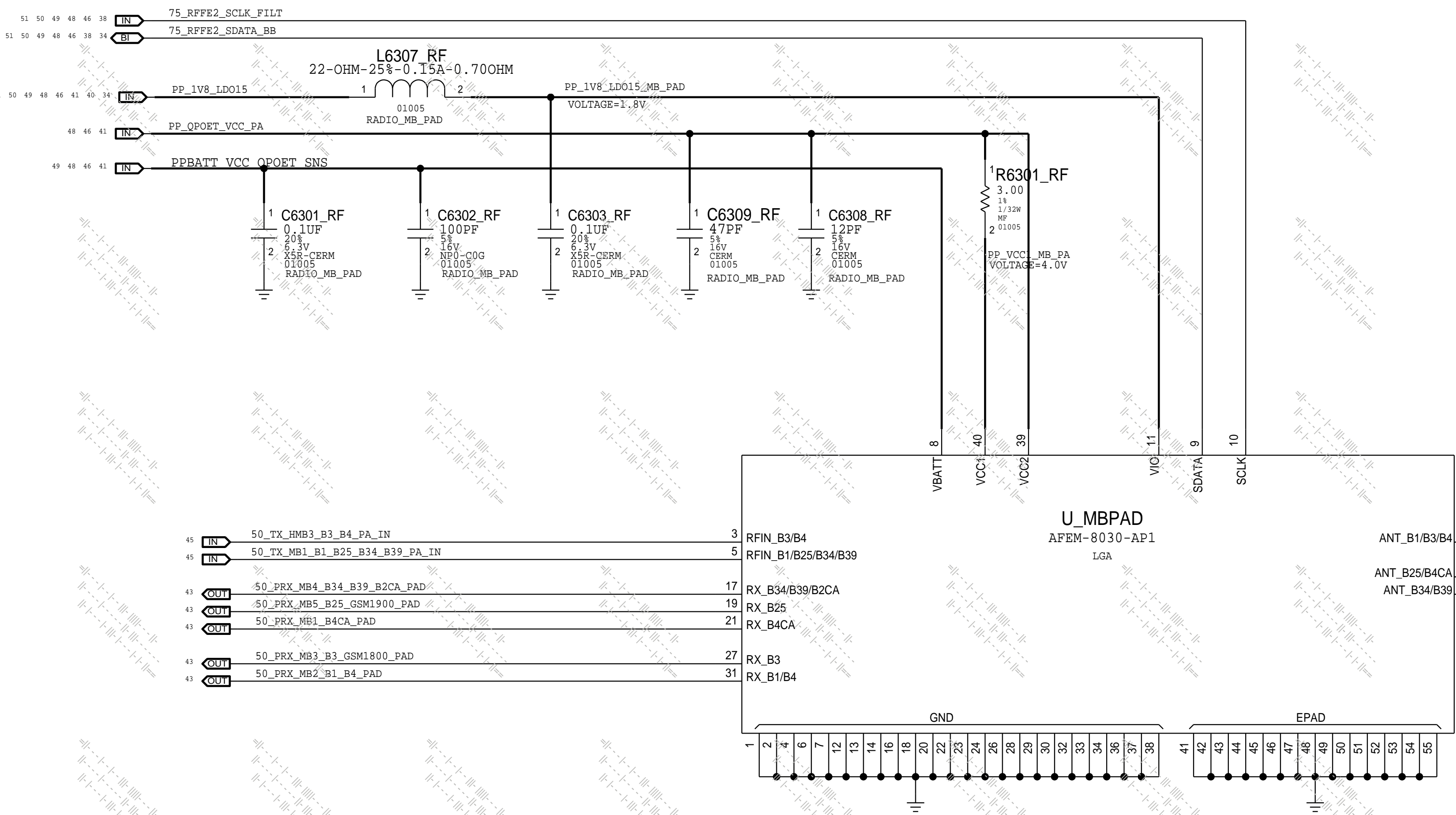


LOW BAND PA+DUPLXERS



SYNC_MASTER=RADIO_MLB	SYNC_DATE=02/13/2018
PAGE TITLE	CELLULAR FRONT END: LB PAD

MID BAND PA+DUPLEXERS

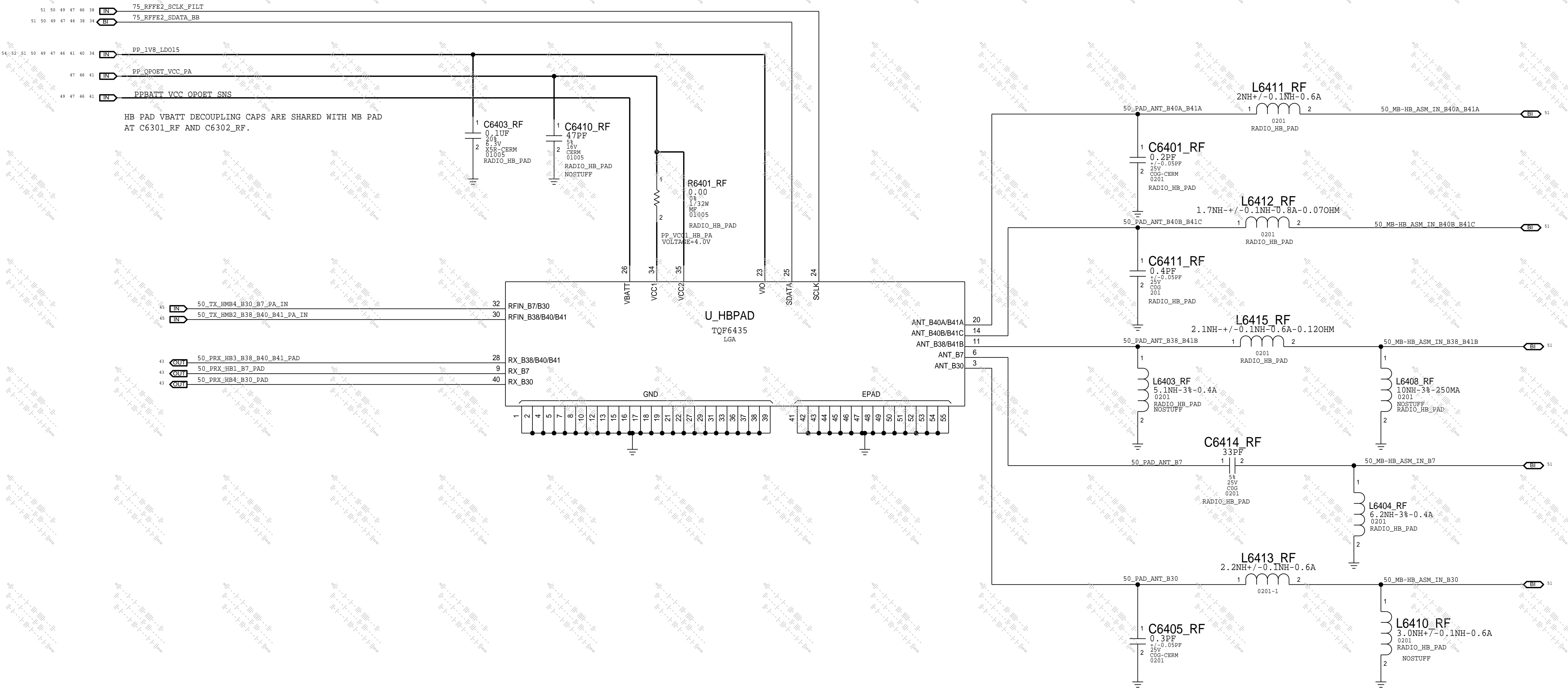


SYNC_MASTER=RADIO_MLB		SYNC_DATE=02/13/2018	
PAGE TITLE			
CELLULAR FRONT END: MB PAD			

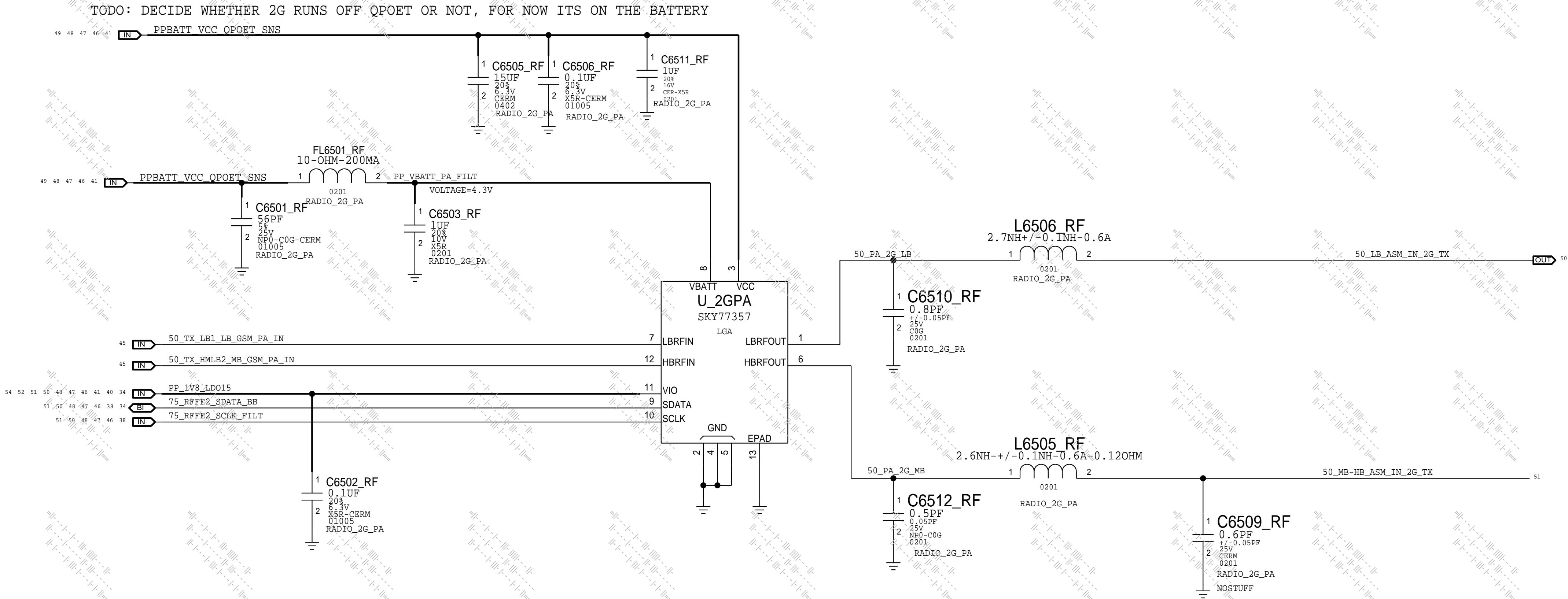
8 7 6 5 4 3 2 1

HIGH BAND PA+DUPLEXERS

D



2G PA



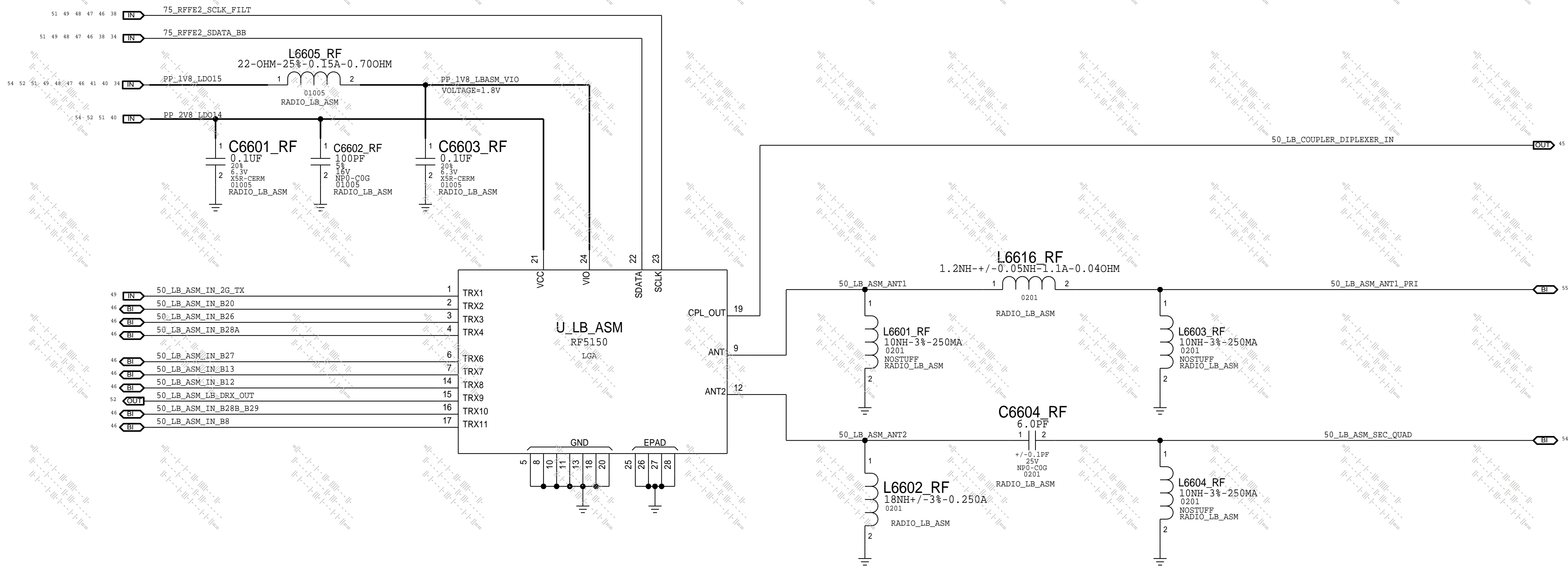
SYNC_MASTER=RADIO_MLB

SYNC_DATE=02/13/2018

PAGE TITLE

CELLULAR FRONT END: 2G PA

LOW BAND ANTENNA SWITCH MODULE



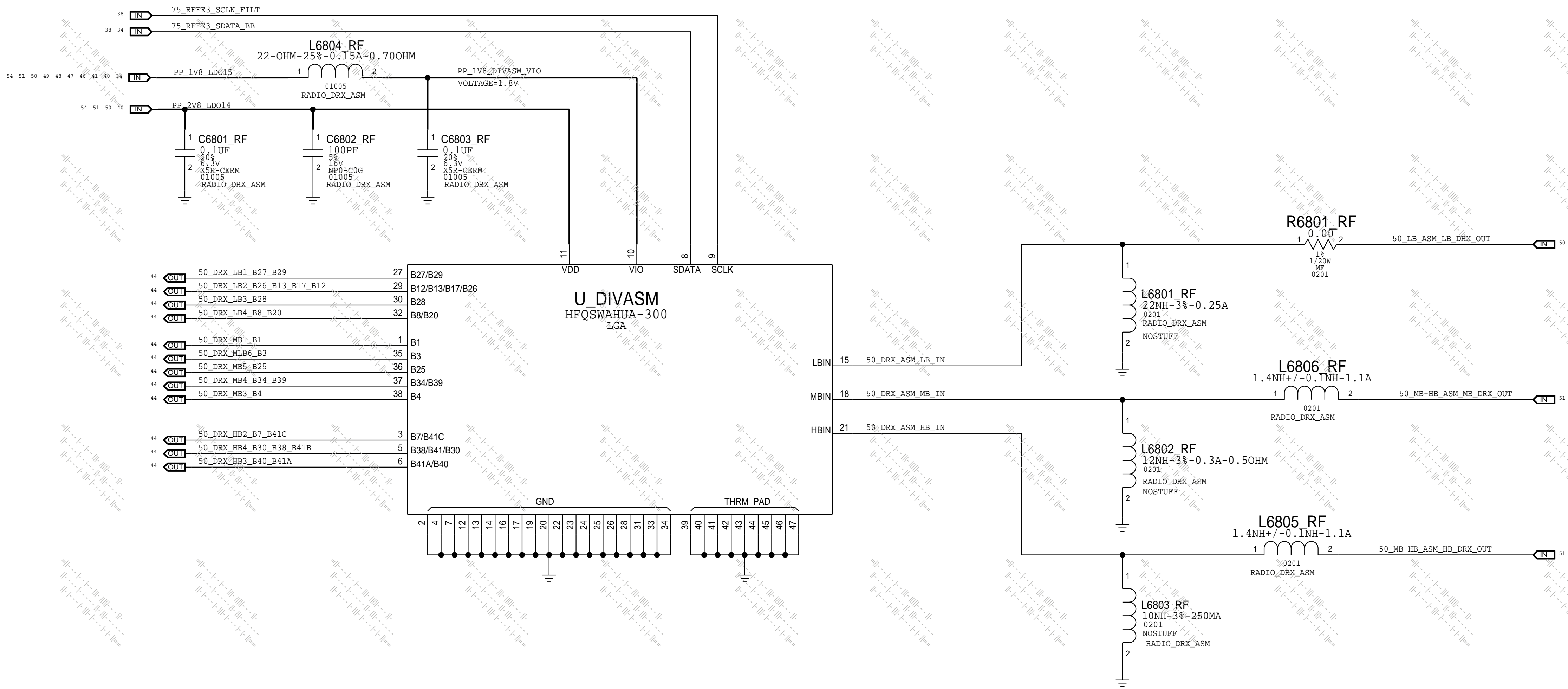
D



B

Δ

DIVERSITY MODULE

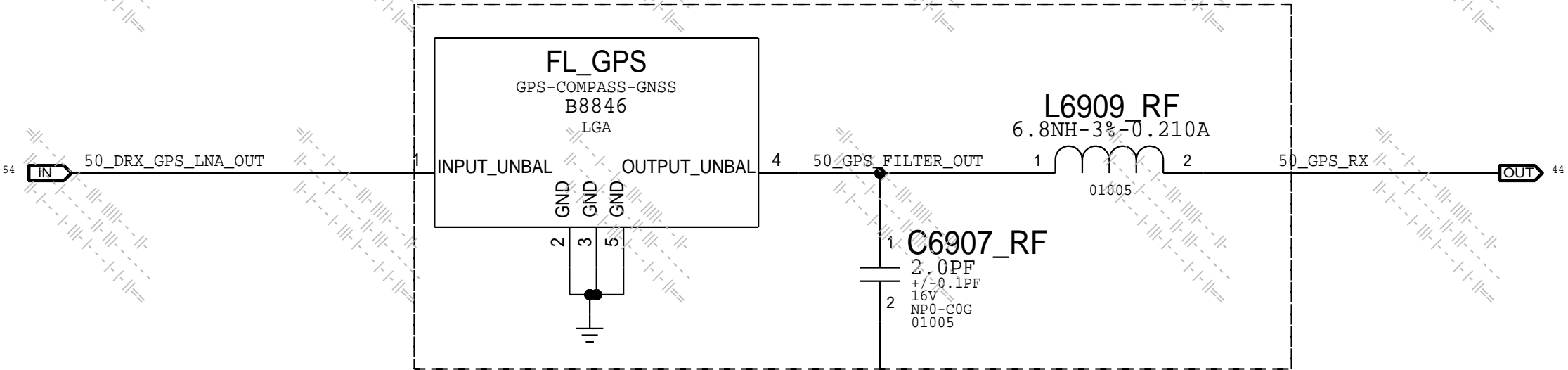


SYNC_MASTER=RADIO_MLB SYNC_DATE=02/13/2018

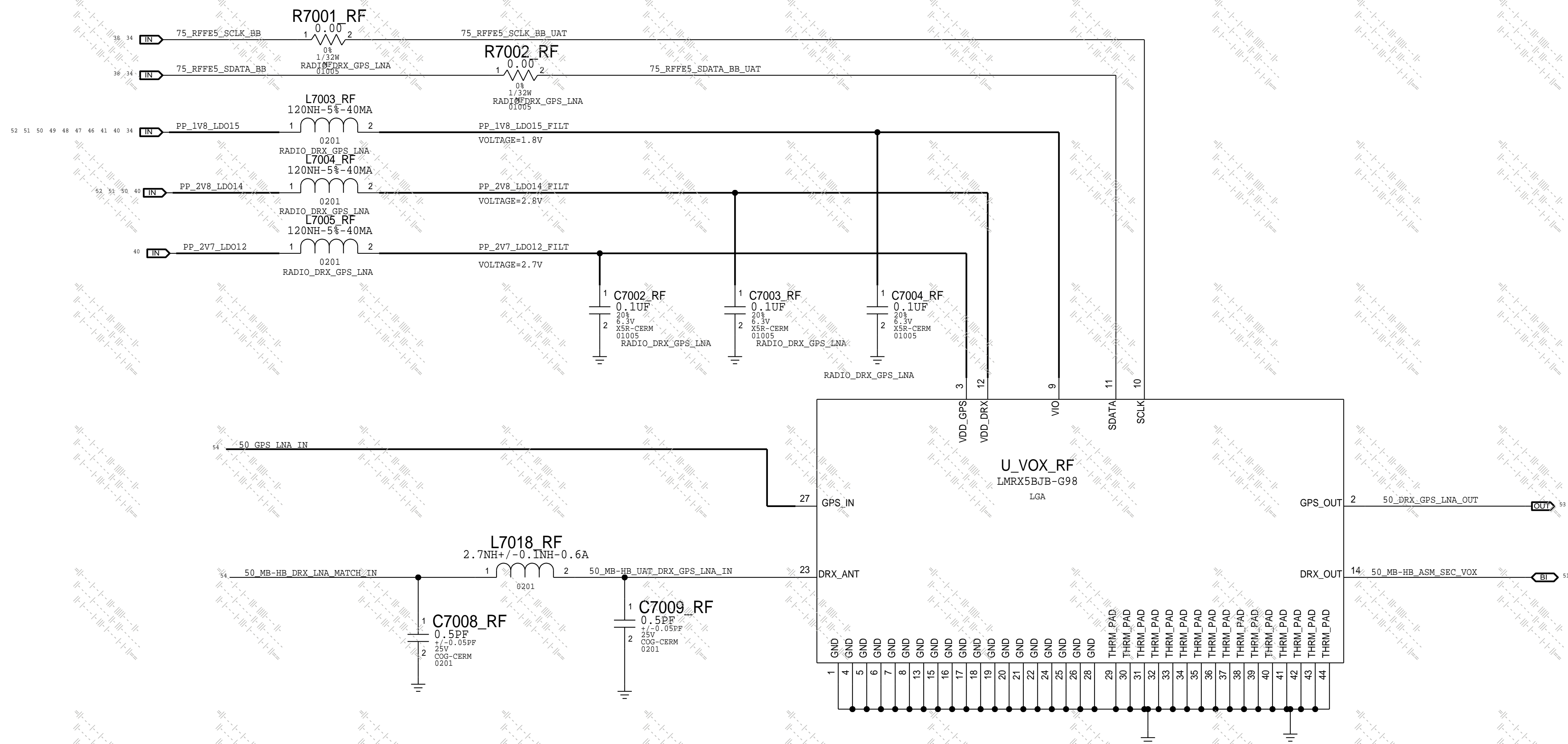
PAGE TITLE CELLULAR FRONT END: DIVERSITY

GPS FILTER

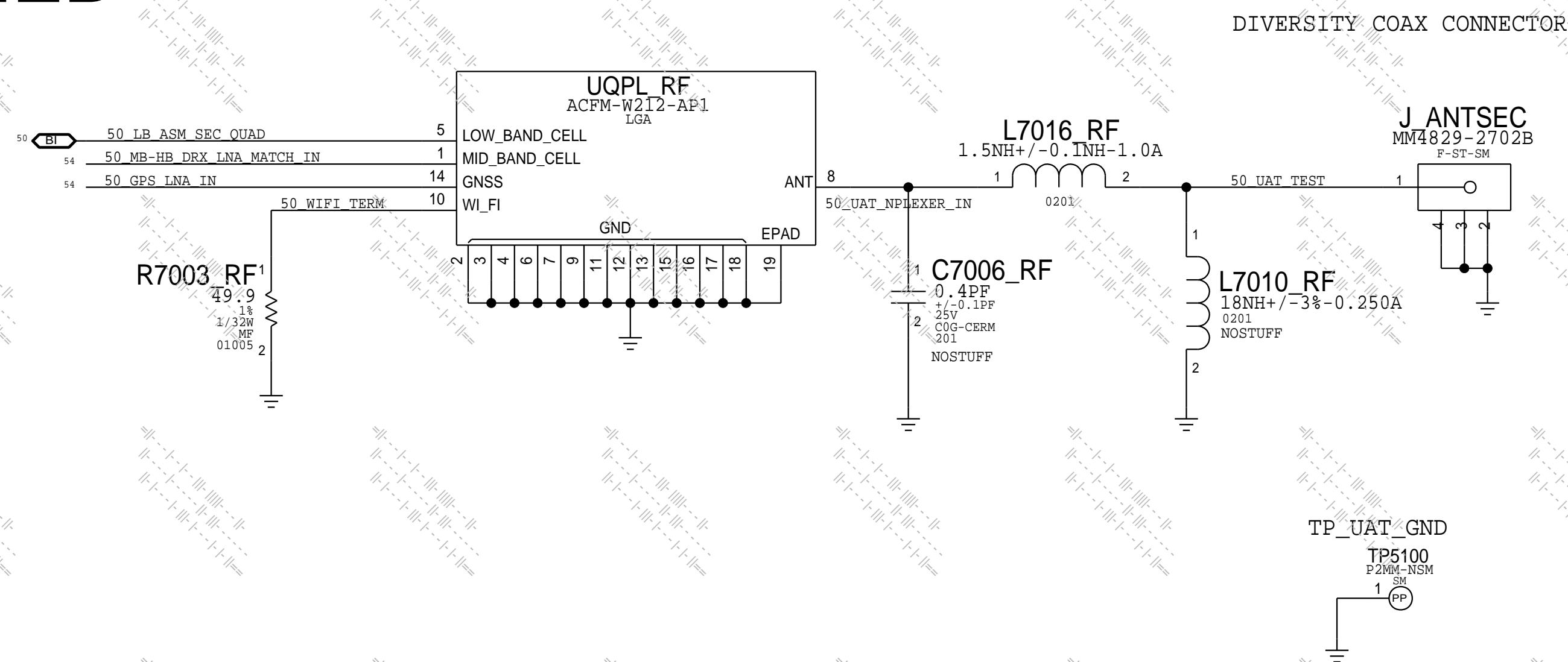
PLACE NEAR U_WTR



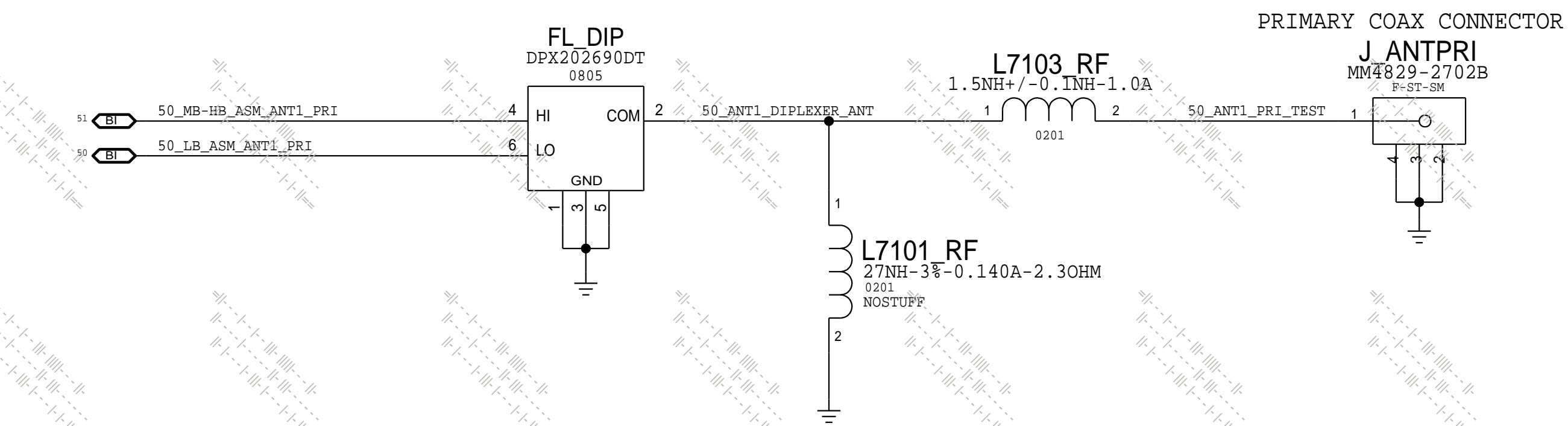
DIVERSITY LNA

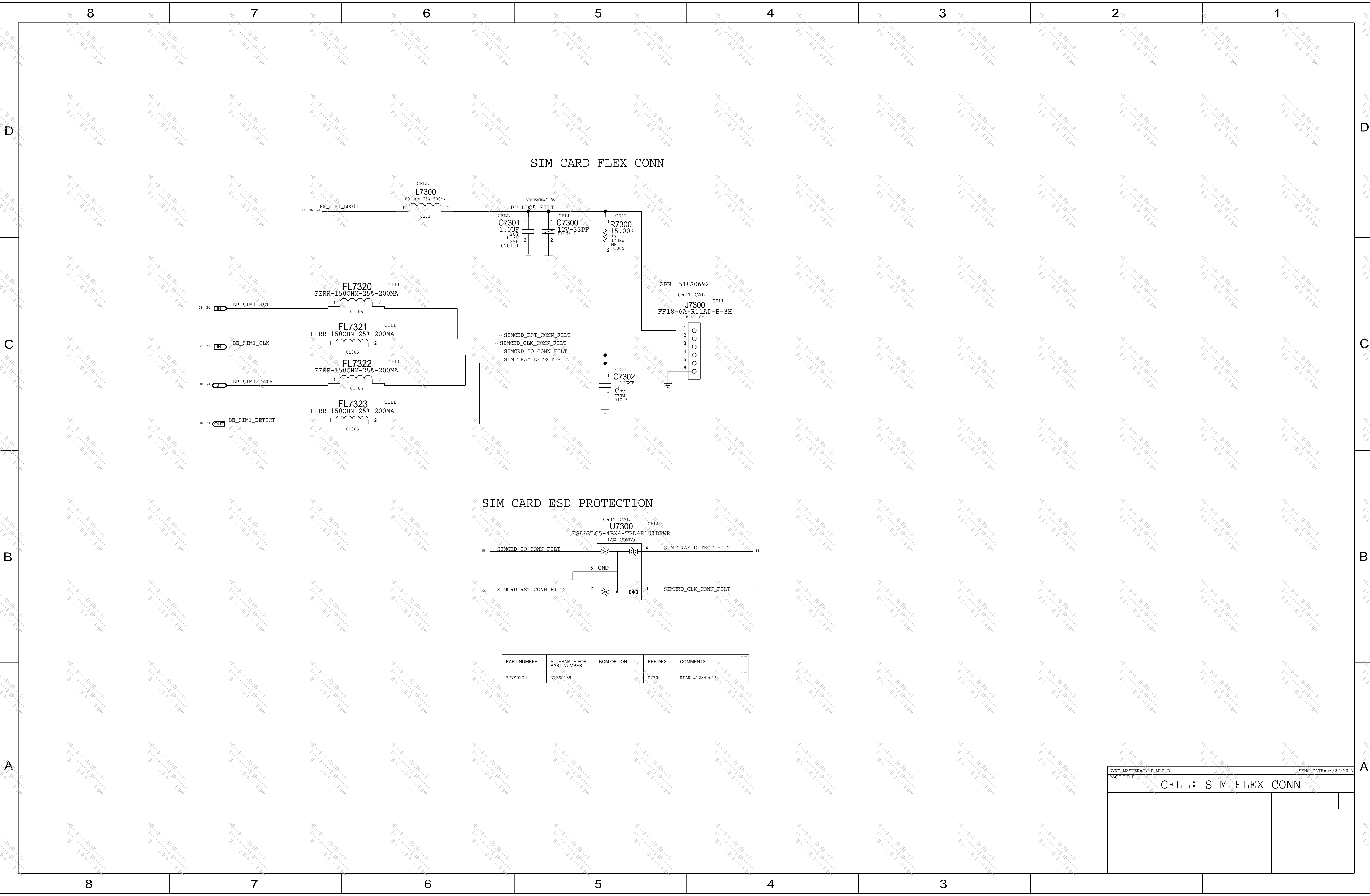


DIVERSITY ANT FEED



ANTENNA FEEDS AND CONNECTORS





STOCKHOLM

SECURE ELEMENT CONTROLLER

PULL DOWN

PROBE POINTS

D



B

B

A

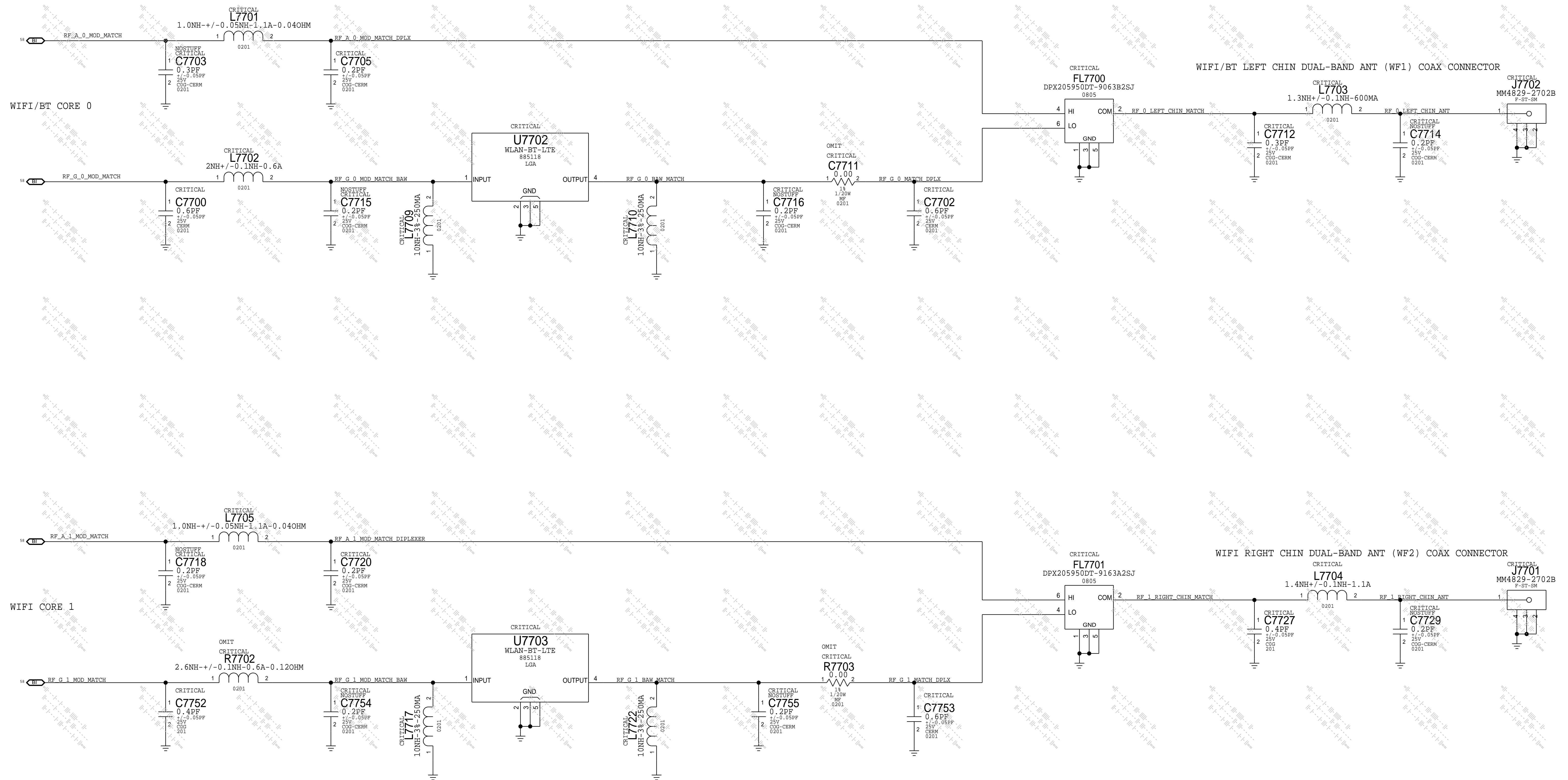
A

A

A

A

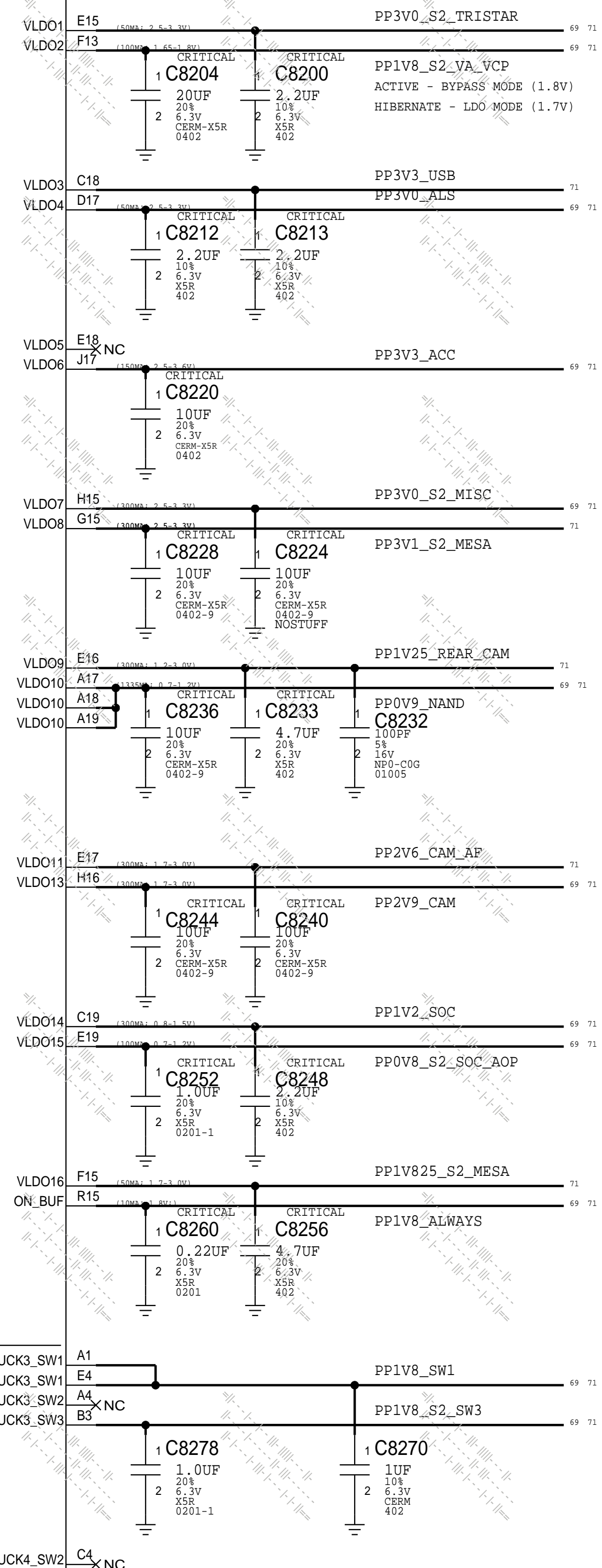
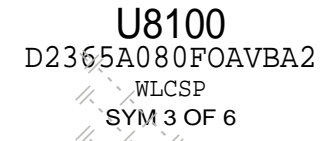
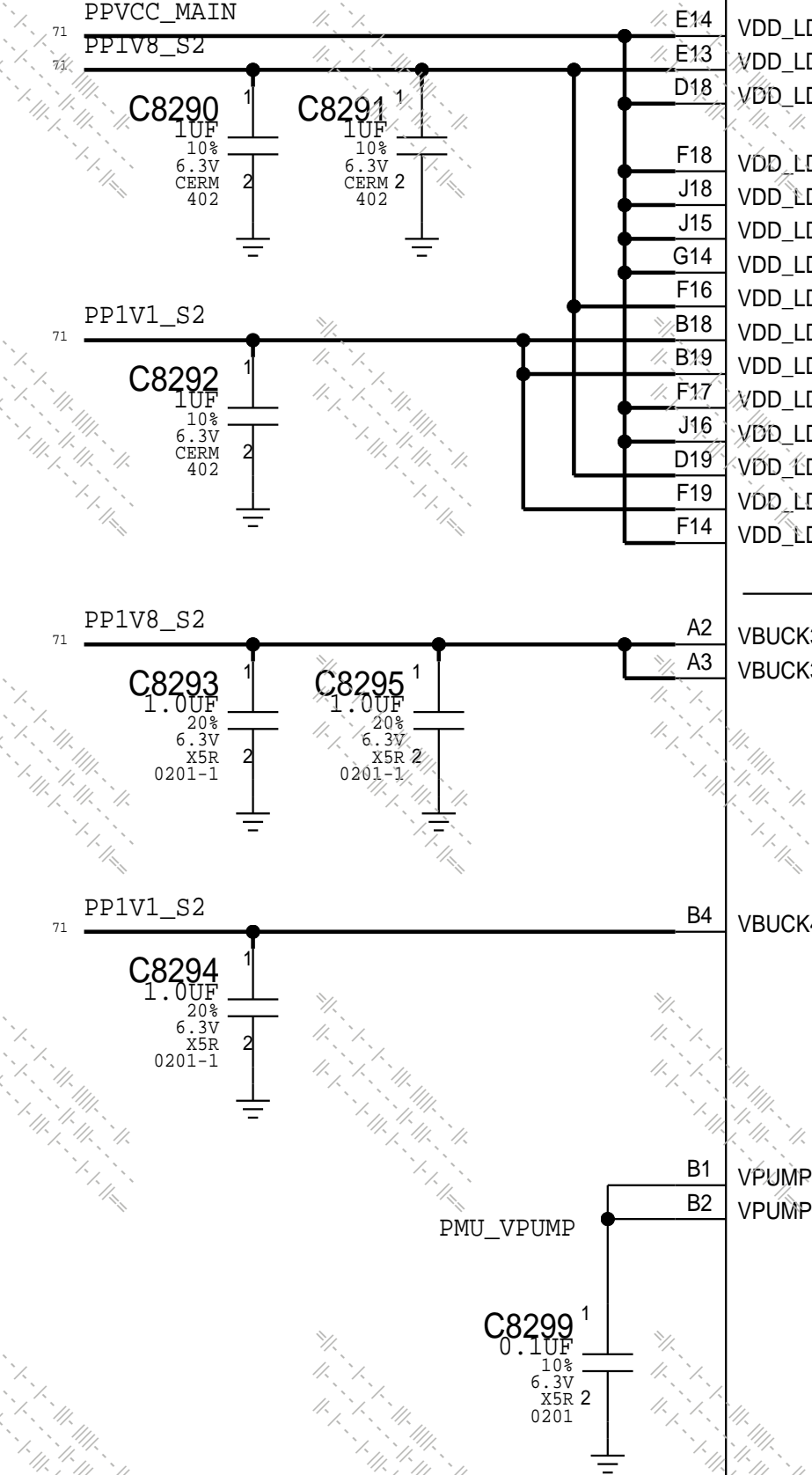
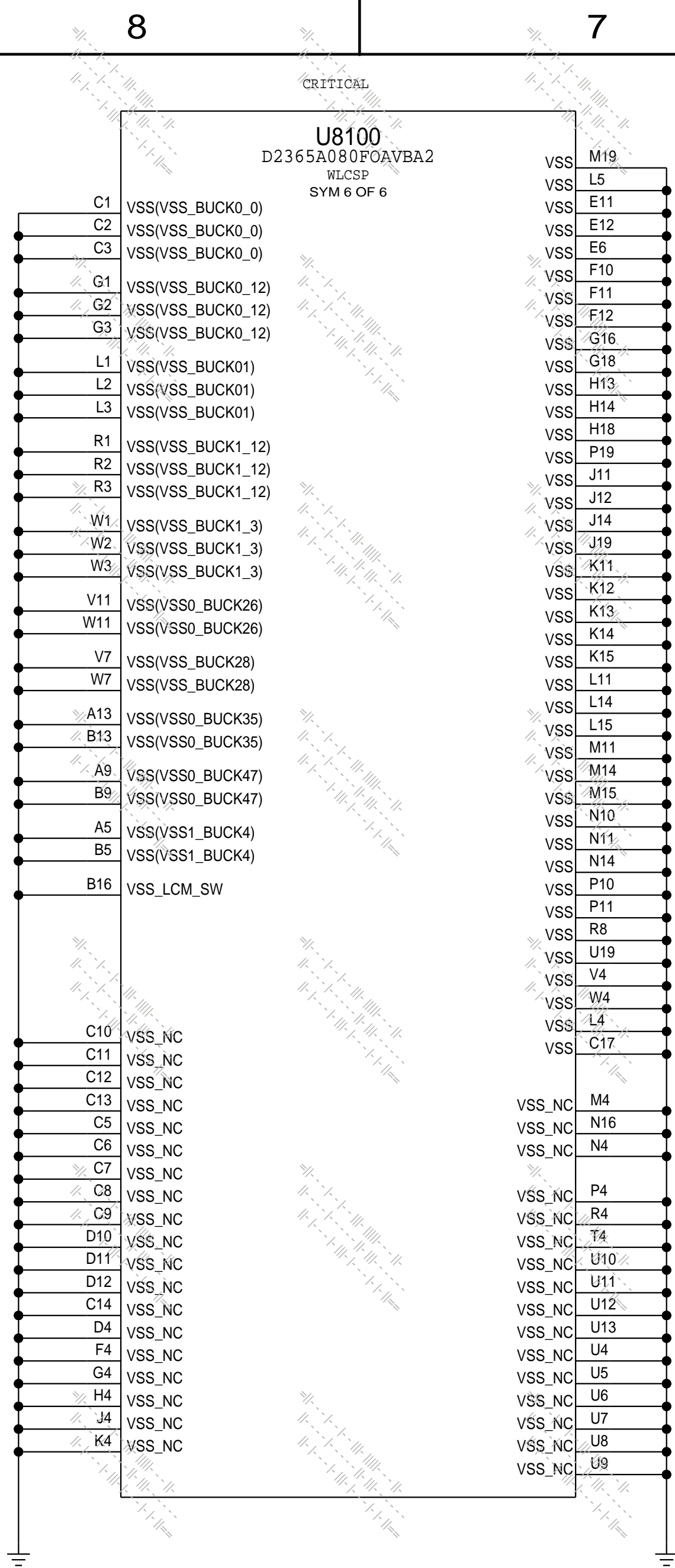
WIFI/BT: J72B (WIFI/BT + CELL) RF FRONT END



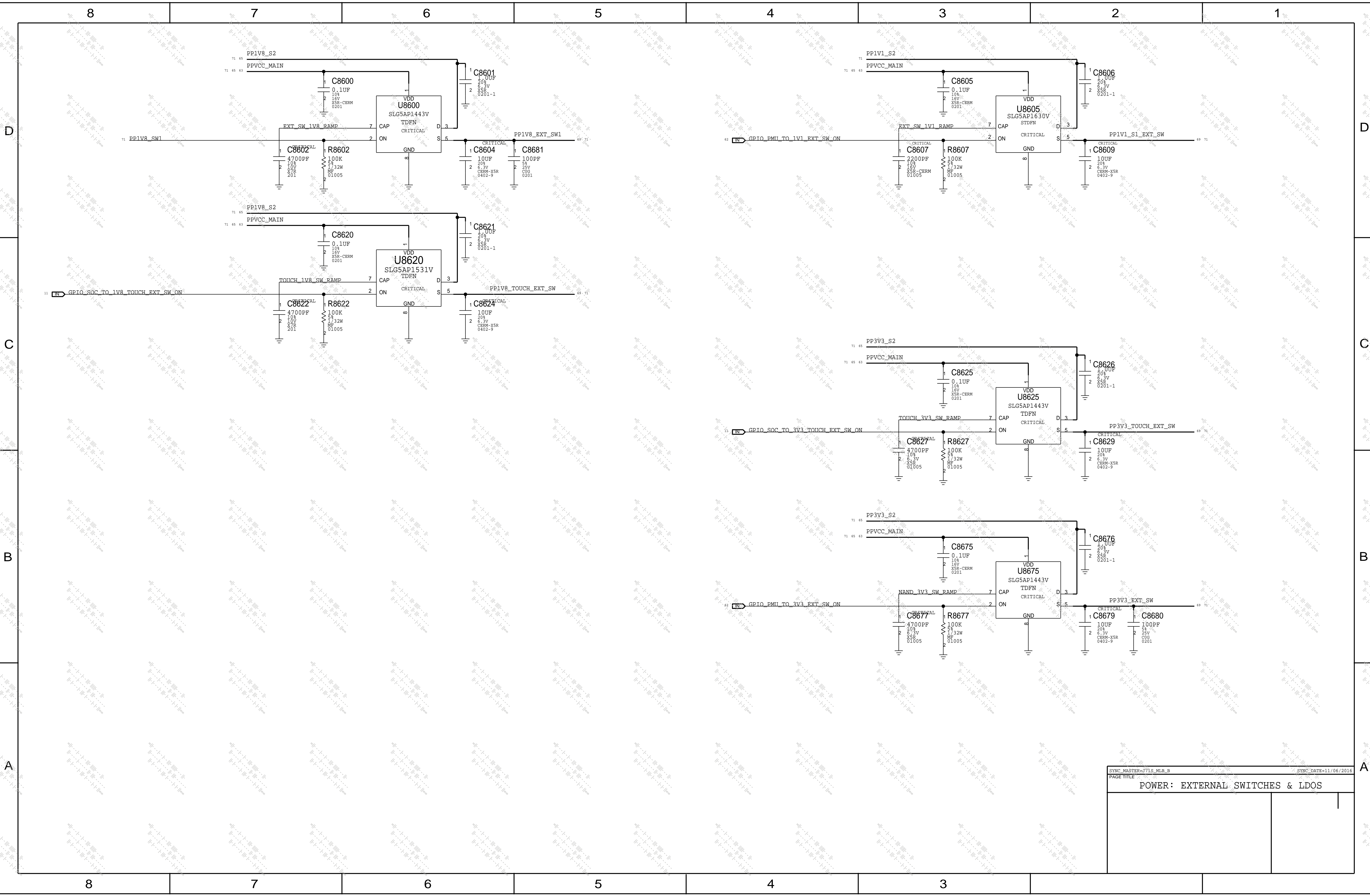
PART#	QTY	DESCRIPTION	REFERENCE DESIGNATOR(S)	CRITICAL	BOM OPTION
152S2002	1	IND, FILM, 2.700K, +/-0.100K, 600MA, 0805, Q, 0201	R7703	CRITICAL	
152S2000	1	IND, FILM, 2.000K, +/-0.100K, 600MA, 0805, Q, 0201	C7711	CRITICAL	
152S00059	1	IND, FILM, 1.000K, +/-0.100K, 1000MA, 0805, Q, 0201	R7702	CRITICAL	

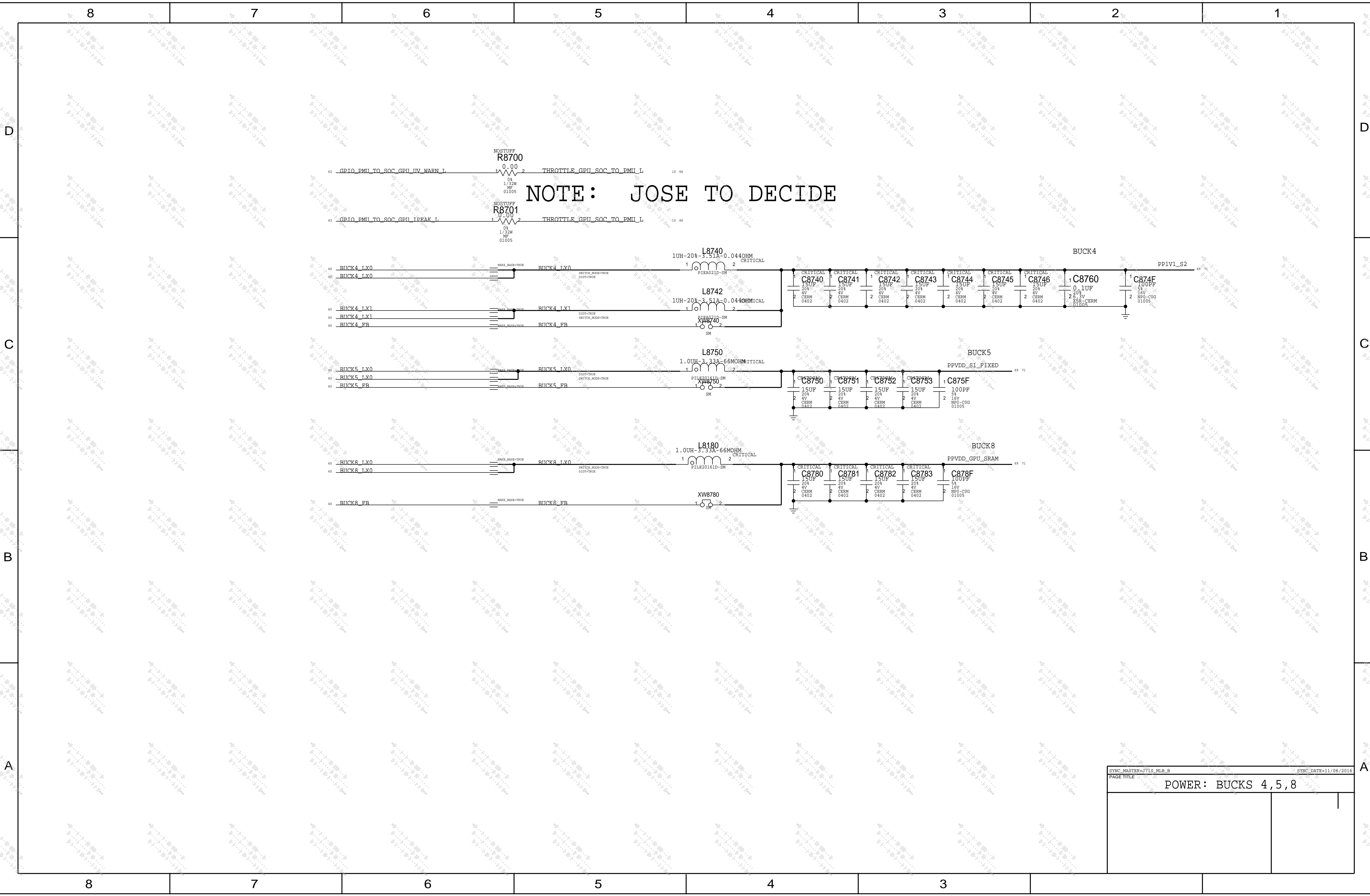
LAST UPDATED: 06/12/2017

WIFI/BT: J72B FRONT END



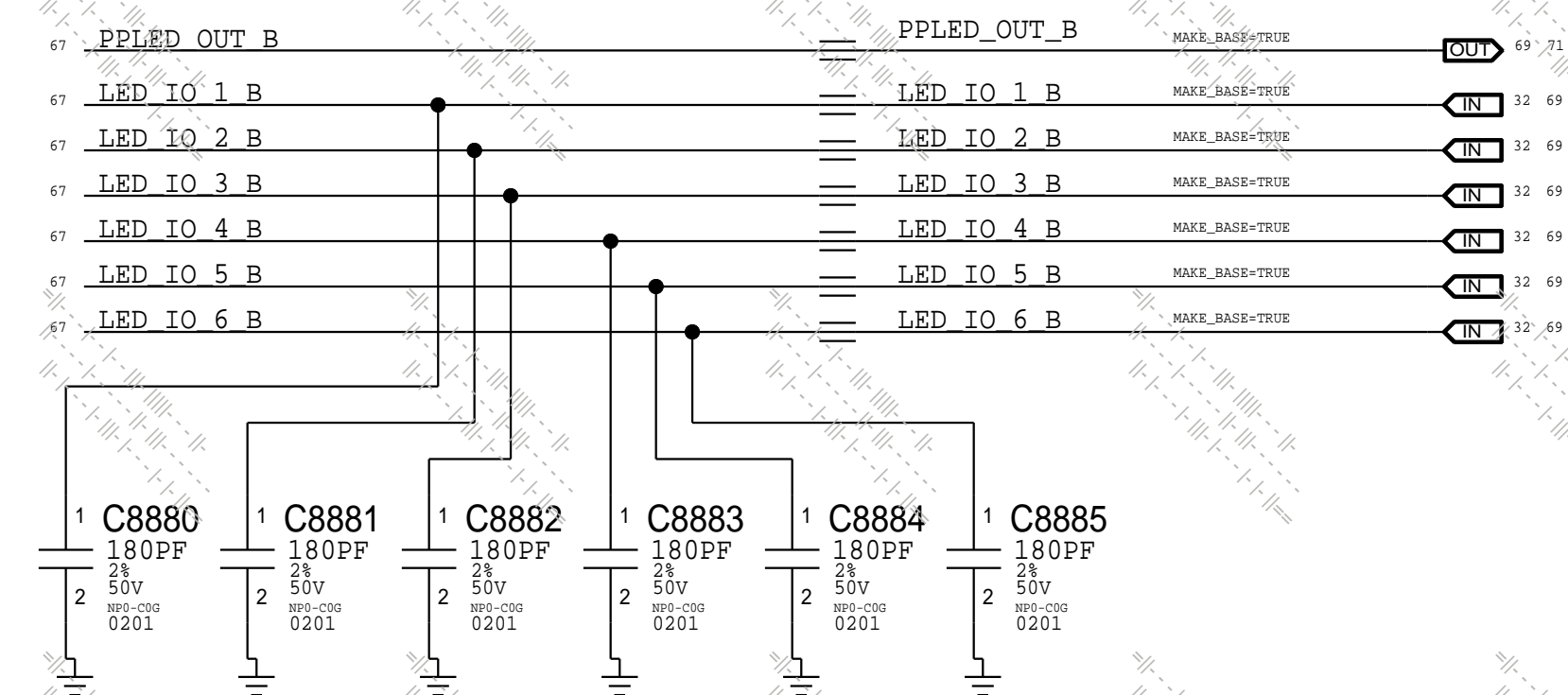
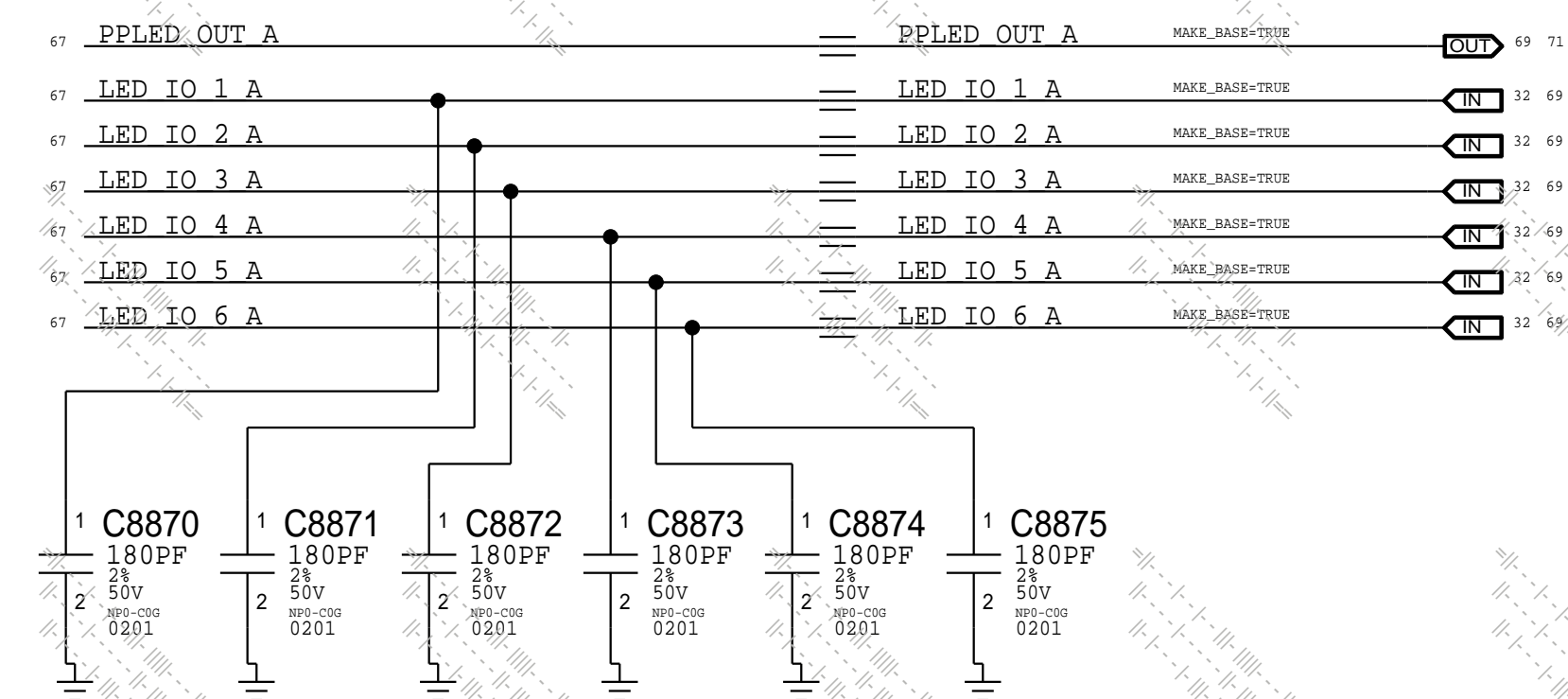
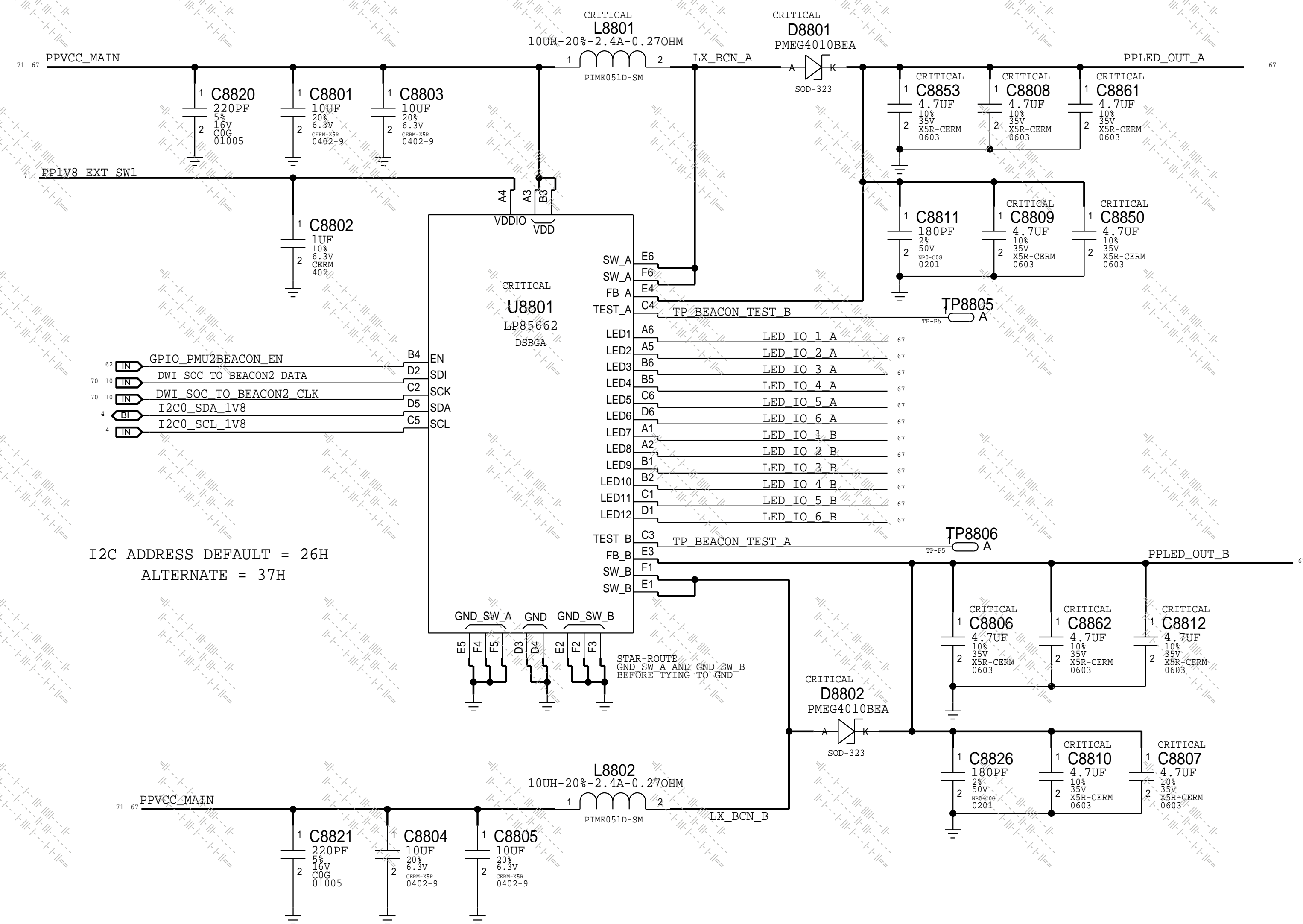
PART NUMBER	ALTERNATE FOR PART NUMBER	BOM OPTION	REF DES	COMMENTS:
138S0703	138S0648		C0233	AND 7 MORE REFDDES





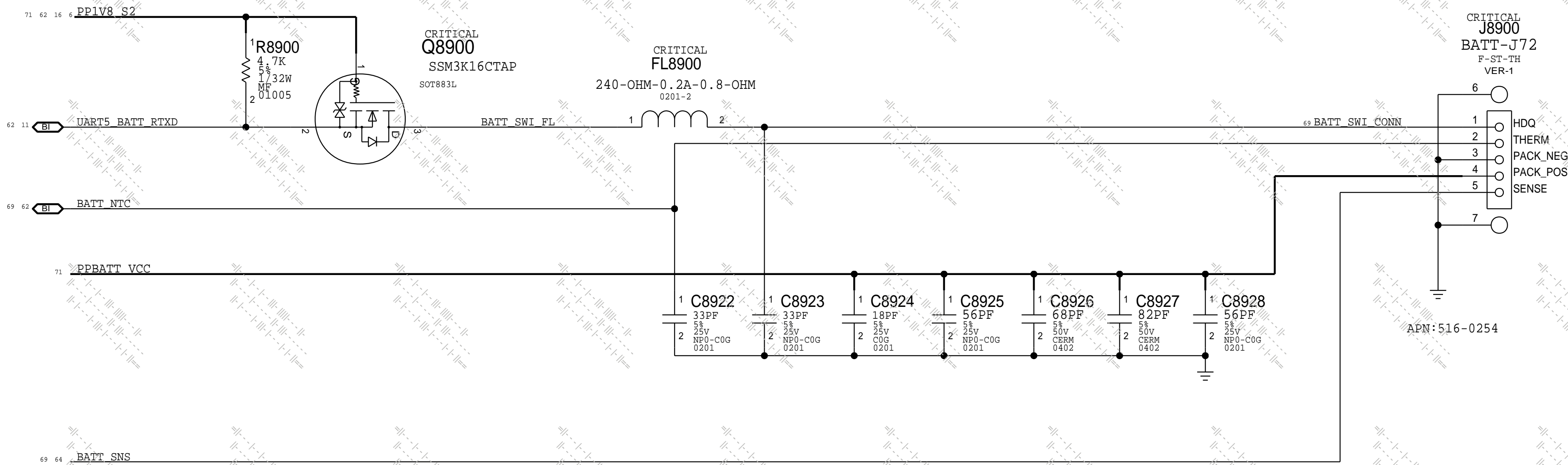
NOTE: JOSE TO DECIDE

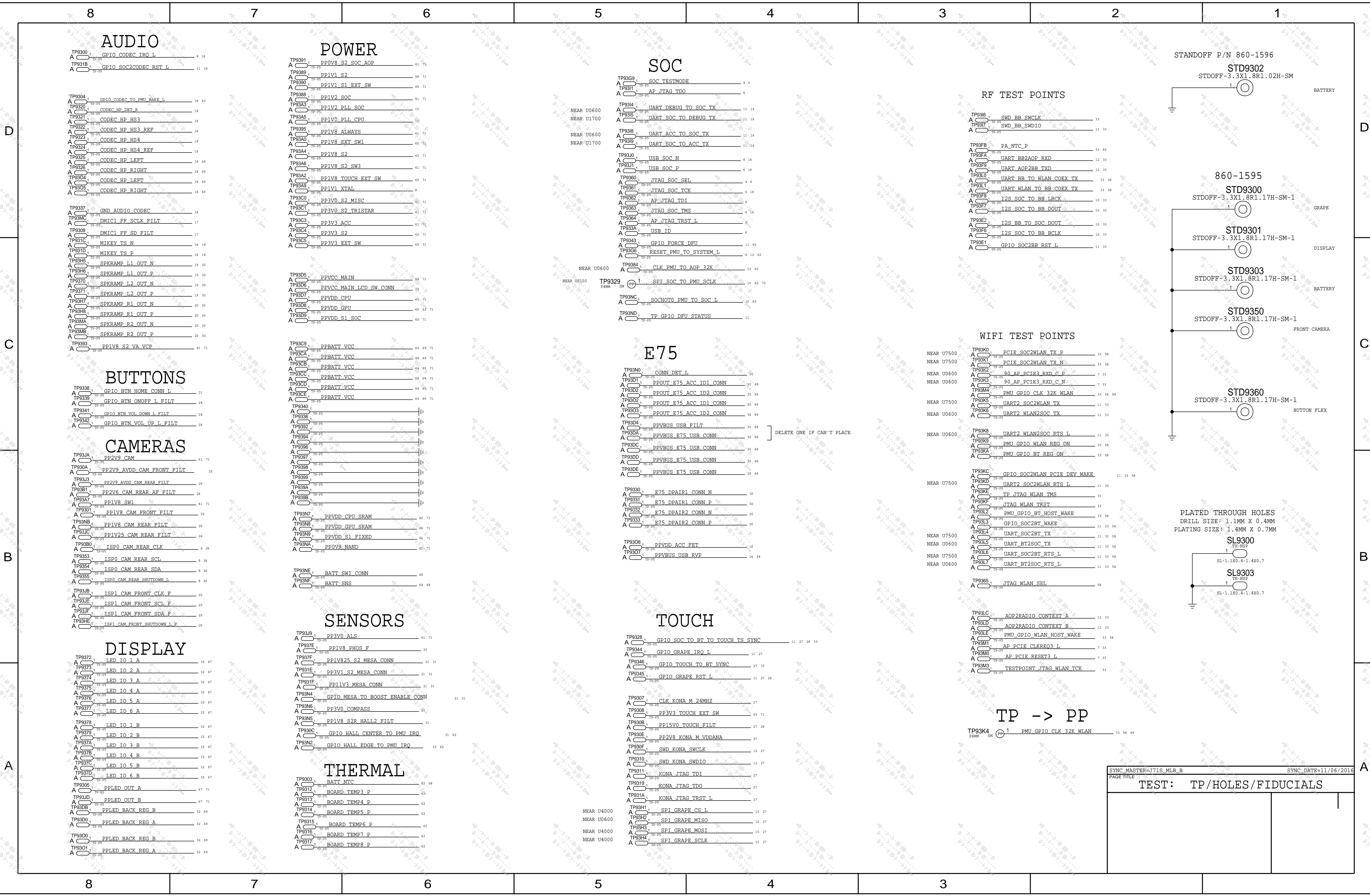
BEACON 2

DIODE ALTERNATE

PART NUMBER	ALTERNATE FOR PART NUMBER	BOM OPTION	REF DES	COMMENTS
-------------	---------------------------	------------	---------	----------

POWER: BATTERY CONNECTOR





AUDIO

TP9300	GPIO CODEC IRO L	8 18
TP931B	GPIO SOC2CODEC RST L	11 18
TP9304	GPIO CODEC TO PMU WAKE L	18 62
TP9320	CODEC HP DET R	18
TP9321	CODEC HP HS3	18
TP9322	CODEC HP HS3 REF	18
TP9323	CODEC HP HS4	18
TP9324	CODEC HP HS4 REF	18
TP9325	CODEC HP LEFT	18 69
TP9326	CODEC HP RIGHT	18 69
TP9304	CODEC HP LEFT	18 69
TP9305	CODEC HP RIGHT	18 69
TP9337	GND AUDIO CODEC	18
TP933C	DMIC1 FF SCLK FILT	17
TP9308	DMIC1 FF SD FILT	17
TP931C	MIKEY TS N	16 18
TP931D	MIKEY TS P	16 18
TP93H5	SPKRAMP L1 OUT N	19 30
TP93H6	SPKRAMP L1 OUT P	19 30
TP9370	SPKRAMP L2 OUT N	19 30
TP9371	SPKRAMP L2 OUT P	19 30
TP93H7	SPKRAMP R1 OUT N	20 30
TP93H8	SPKRAMP R1 OUT P	20 30
TP93MA	SPKRAMP R2 OUT N	20 30
TP93MB	SPKRAMP R2 OUT P	20 30
TP9393	PP1V8 S2 VA VCP	61 71

BUTTONS

TP9338	GPIO BTN HOME CONN L	31
TP9339	GPIO BTN ONOFF L FILT	24
TP9341	GPIO BTN VOL DOWN L FILT	24
TP9342	GPIO BTN VOL UP L FILT	24

CAMERAS

TP931A	PP2V9 CAM	61 71
TP930A	PP2V9 AVDD CAM FRONT FILT	25
TP9313	PP2V9 AVDD CAM REAR FILT	26
TP93B1	PP2V6 CAM REAR AF FILT	26
TP93A	PP1V8 SW1	61 71
TP9301	PP1V8 CAM FRONT FILT	75
TP93N8	PP1V8 CAM REAR FILT	26
TP931C	PP1V25 CAM REAR FILT	26
TP93B0	ISP0 CAM REAR CLK	8 26
TP9353	ISP0 CAM REAR SCL	8 26
TP9354	ISP0 CAM REAR SDA	8 26
TP9355	ISP0 CAM REAR SHUTDOWN L	8 26
TP93JB	ISP1 CAM FRONT CLK F	25
TP93JE	ISP1 CAM FRONT SCL F	25
TP93JF	ISP1 CAM FRONT SDA F	25
TP93HE	ISP1 CAM FRONT SHUTDOWN L F	25

DISPLAY

TP9372	LED IO 1 A	32 67
TP9373	LED IO 2 A	32 67
TP9374	LED IO 3 A	32 67
TP9375	LED IO 4 A	32 67
TP9376	LED IO 5 A	32 67
TP9377	LED IO 6 A	32 67
TP9378	LED IO 1 B	32 67
TP9379	LED IO 2 B	32 67
TP937A	LED IO 3 B	32 67
TP937B	LED IO 4 B	32 67
TP937C	LED IO 5 B	32 67
TP937D	LED IO 6 B	32 67
TP9305	PLED OUT A	67 71
TP931D	PLED OUT B	67 71
TP93DB	PLED BACK REG B	32 69
TP93D0	PLED BACK REG A	32 69
TP9300	PLED BACK REG B	32 69
TP9301	PLED BACK REG A	32 69

POWER

TP9391	PP0V8 S2 SOC AOP	61 71
TP9389	PP1V1 S2	66 71
TP9390	PP1V1 S1 EXT SW	65 71
TP9388	PP1V2 SOC	61 71
TP93A3	PP1V2 PLL SOC	15
TP93A5	PP1V2 PLL CPU	15
TP9395	PP1V8 ALWAYS	61 71
TP93A0	PP1V8 EXT SW1	65 71
TP93A4	PP1V8 S2	60 71
TP93A6	PP1V8 S2 SW3	61 71
TP93A2	PP1V8 TOUCH EXT SW	65 71
TP93A9	PP1V1 XTAL	6
TP93C0	PP3V0 S2 MISC	60 71
TP93C1	PP3V0 S2 TRISTAR	61 71
TP93C3	PP3V3 ACC	61 71
TP93C4	PP3V3 S2	60 71
TP93C5	PP3V3 EXT SW	65 71
TP93D5	PPVCC MAIN	64 71
TP93D6	PPVCC MAIN LCD SW CONN	98
TP93D7	PPVDD CPU	60 71
TP93D8	PPVDD GPU	60 62 71
TP93D9	PPVDD S1 SOC	60 71

TP93C9	PPBATT VCC	64 69 71
TP93CA	PPBATT VCC	64 69 71
TP93CB	PPBATT VCC	64 69 71
TP93CC	PPBATT VCC	64 69 71
TP93CD	PPBATT VCC	64 69 71
TP93CE	PPBATT VCC	64 69 71
TP9340		
TP9336		
TP9332		
TP9334		
TP9336		
TP9337		
TP9398		
TP9399		
TP939A		
TP939B		
TP93N7	PPVDD CPU SRAM	60 71
TP93N8	PPVDD GPU SRAM	66 71
TP93N9	PPVDD S1 FIXED	66 71
TP93NA	PP0V8 NAND	65 71

TP93NE	BATT SWI CONN	68
TP93NF	BATT SNS	64 68

SENSORS

TP9319	PP3V0 ALS	61 71
TP937E	PP1V8 PHOS F	23
TP937F	PP1V825 S2 MESA CONN	21 31
TP931E	PP3V1 S2 MESA CONN	21 31
TP931F	PP1V3 MESA CONN	21 31
TP93N4	GPIO MESA TO BOOST ENABLE CONN	21 31
TP93N6	PP3V0 COMPASS	98
TP93N5	PP1V8 S2R HALL2 FILT	31
TP930C	GPIO HALL CENTER TO PMU IRO	31 62
TP93N2	GPIO HALL EDGE TO PMU IRO	23 62

THERMAL

TP9303	BATT NTC	62 68
TP9312	BOARD TEMP3 P	62
TP9313	BOARD TEMP4 P	62
TP9314	BOARD TEMP5 P	62
TP9315	BOARD TEMP6 P	62
TP9316	BOARD TEMP7 P	62
TP9317	BOARD TEMP8 P	62

SOC

TP93G9	SOC TESTMODE	4 6
TP9311	AP JTAG TDO	6
TP9314	UART DEBUG TO SOC TX	11 16
TP9315	UART SOC TO DEBUG TX	11 16
TP9318	UART ACC TO SOC TX	11 16
TP9319	UART SOC TO ACC TX	11 16
TP93J0	USB SOC N	6 16
TP93J1	USB SOC P	6 16
TP9360	JTAG SOC_SEL	4 6
TP9361	JTAG SOC_TCK	6 16
TP9362	AP JTAG TDI	6 16
TP9363	JTAG SOC_TMS	6 16
TP9364	AP JTAG_TRST_L	6 16
TP933A	USB ID	6
TP9343	GPIO_FORCE_DFU	11 62
TP93G6	RESET_PMU_TO_SYSTEM_L	6 12 62
TP9384	CLK_PMU_TO_AOP_32K	12 62
TP9329	SPI_SOC_TO_PMU_SCLK	10 62 70
TP93NC	SOC_H0T0_PMU_TO_SOC_L	10 62
TP93ND	TP_GPIO_DFU_STATUS	11

E75

TP93N0	CONN_DET_L	30
TP93D1	PPOUT_E75_ACC_ID1_CONN	30 69
TP93D2	PPOUT_E75_ACC_ID2_CONN	30 69
TP93D2	PPOUT_E75_ACC_ID1_CONN	30 69
TP93D4	PPOUT_E75_ACC_ID2_CONN	30 69
TP93DA	PPVBUS_USB_FILT	30 64
TP93DA	PPVBUS_E75_USB_CONN	30 69
TP93DC	PPVBUS_E75_USB_CONN	30 69
TP93DD	PPVBUS_E75_USB_CONN	30 69
TP93DE	PPVBUS_E75_USB_CONN	30 69
TP9330	E75_DPAIR1_CONN_N	30
TP9331	E75_DPAIR1_CONN_P	30
TP9332	E75_DPAIR2_CONN_N	30
TP9333	E75_DPAIR2_CONN_P	30
TP9306	PPVDD_ACC_FET	16
TP9307	PPVBUS_USB_RVP	16 64

TOUCH

TP9328	GPIO_SOC_TO_BT_TO_TOUCH_TS_SYNC	11 27 28 33
TP9344	GPIO_GRAPE_IRQ_L	11 27
TP9346	GPIO_TOUCH_TO_BT_SYNC	27 33
TP9345	GPIO_GRAPE_RST_L	11 27 28
TP9307	CLK_KONA_M_24MHZ	27
TP9308	PP3V3_TOUCH_EXT_SW	65 71
TP930B	PP15V0_TOUCH_FILT	27 28
TP930E	PP2V8_KONA_M_VDDANA	27
TP930C	SWD_KONA_SWCLK	12 27
TP9310	SWD_KONA_SWDIO	12 27
TP9311	KONA_JTAG_TDI	27
TP9319	KONA_JTAG_TDO	27
TP931A	KONA_JTAG_TRST_L	27
TP93H1	SPI_GRAPE_CS_L	10 27
TP93H2	SPI_GRAPE_MISO	10 27
TP93H3	SPI_GRAPE_MOSI	10 27
TP93H4	SPI_GRAPE_SCLK	10 27

RF TEST POINTS

TP9316	SWD_BB_SWCLK	33
TP9317	SWD_BB_SWDIO	12 33
TP93FB	PA_NTC_P	33 62
TP93FA	UART_BB2AOP_RXD	12 33
TP93F9	UART_AOP2BB_TXD	12 33
TP93L0	UART_BB_TO_WLAN_COEX_TX	33 38
TP93L1	UART_WLAN_TO_BB_COEX_TX	33 38
TP93F8	I2S_SOC_TO_BB_LRCK	10 33
TP93F7	I2S_SOC_TO_BB_DOUT	10 33
TP93E2	I2S_BB_TO_SOC_DOUT	10 33
TP93F6	I2S_SOC_TO_BB_BCLK	10 33
TP93E1	GPIO_SOC2BB_RST_L	11 33

WIFI TEST POINTS

NEAR U7500	TP93K0	PCIE_SOC2WLAN_TX_P	33 58
NEAR U7500	TP93K1	PCIE_SOC2WLAN_TX_N	33 58
NEAR U0600	TP93K2	90_AP_PCIE3_RXD_C_P	7 33
NEAR U0600	TP93K3	90_AP_PCIE3_RXD_C_N	7 33
NEAR U7500	TP93K6	PMU_GPIO_CLK_32K_WLAN	33 58 69
NEAR U0600	TP93K5	UART2_SOC2WLAN_TX	11 33
NEAR U0600	TP93K6	UART2_WLAN2SOC_TX	11 33
NEAR U0600	TP93K8	UART2_WLAN2SOC_RTS_L	11 33
NEAR U0600	TP93K9	PMU_GPIO_WLAN_REG_ON	33 58
NEAR U0600	TP93KA	PMU_GPIO_BT_REG_ON	33 58
NEAR U7500	TP93KC	GPIO_SOC2WLAN_PCIE_DEV_WAKE	11 33 58
NEAR U7500	TP93KD	UART2_SOC2WLAN_RTS_L	11 33
NEAR U7500	TP93KE	TP_JTAG_WLAN_TMS	33
NEAR U7500	TP93KF	JTAG_WLAN_TRST	33
NEAR U7500	TP93L2	PMU_GPIO_BT_HOST_WAKE	33 58
NEAR U7500	TP93L3	GPIO_SOC2BT_WAKE	11 33 58
NEAR U7500	TP93L4	UART_SOC2BT_TX	11 33 58
NEAR U0600	TP93L5	UART_BT2SOC_TX	11 33 58
NEAR U7500	TP93L6	UART_SOC2BT_RTS_L	11 33 58
NEAR U0600	TP93L7	UART_BT2SOC_RTS_L	11 33 58
NEAR U7500	TP9365	JTAG_WLAN_SEL	58

TP -> PP

TP93K4	PMU_GPIO_CLK_32K_WLAN	33 58 69
--------	-----------------------	----------

SYNC_MASTER=J718_MLB_B		SYNC_DATE=11/06/2016	
PAGE TITLE		TEST: TP/HOLES/FIDUCIALS	

8

7

6

5

4

3

2

1

EE CHARACTERIZATION PP

NAND

PLACE NEAR U0601	PP9402	1	90_PCIE_AP_TO_NAND_REFCLK_P	5	10
	PP9403	1	90_PCIE_AP_TO_NAND_REFCLK_N	5	10
	PP9434	1	CLK_SOC_TO_NAND_24MHZ	5	10

PMU/BEACON2 SPI/DWI

PLACE NEAR U0100	PP9407	1	SPI_SOC_TO_PMU_DATA	10	62
	PP9408	1	DWI_SOC_TO_BEACON2_CLK	30	67
PLACE NEAR U0801	PP9409	1	DWI_SOC_TO_BEACON2_DATA	10	67
	PP940A	1	SPI_SOC_TO_PMU_SCLK	10	62, 63
PLACE NEAR U0600	PP940B	1	SPI_PMU_TO_SOC_DATA	10	62

	PP9441	1	GPIO_AOP_TO_PMU_SLEEP1_REQUEST	32	62
	PP9442	1	GPIO_PMU_TO_SYS_SLEEP1_READY	12	24, 62
	PP9443	1	GPIO_AOP_TO_PMU_ACTIVE_REQUEST	12	62
	PP9444	1	GPIO_PMU_TO_SYSTEM_ACTIVE_READY	6	12, 46

AUDIO

PLACE NEAR U1900	PP9421	1	I2SD_SOC_TO_BEFIELD_MCK	10	18
PLACE NEAR U1900	PP9422	1	I2SD_SOC_TO_BEFIELD_BCLK	10	18
PLACE NEAR U1900	PP9423	1	I2SD_SOC_TO_BEFIELD_LRCK	10	18
PLACE NEAR U1900	PP9424	1	I2SD_SOC_TO_BEFIELD_DOUT	10	18
PLACE NEAR U0600	PP9425	1	I2SD_BEFIELD_TO_SOC_DOUT	10	18
	PP9426	1	SPI_BEFIELD_SCLK	10	18
PLACE NEAR U1900	PP9427	1	SPI_BEFIELD_MOSI	10	18
PLACE NEAR U0600	PP9428	1	SPI_BEFIELD_MISO	10	18
	PP9460	1	I2S_AOP_TO_CODEC_BCLK	12	18
PLACE NEAR U1900	PP9461	1	I2S_AOP_TO_CODEC_LRCK	12	18
PLACE NEAR U1900	PP9462	1	I2S_AOP_TO_CODEC_DOUT	12	18
PLACE NEAR U0600	PP9463	1	I2S_CODEC_TO_AOP_DOUT	12	18
	PP9464	1	I2S2_SOC_TO_SPKRAMP_BCLK_L1	19	
PLACE NEAR U2040	PP9465	1	I2S2_SOC_TO_SPKRAMP_LRCK_L1	19	
PLACE NEAR U2040	PP9466	1	I2S2_SOC_TO_SPKRAMP_DOUT_L1	19	

SENSORS

PLACE NEAR U2590	PP9429	1	SPI_AOP_SCLK	12	23, 70
PLACE NEAR U2590	PP9430	1	SPI_AOP_MOSI	12	23, 70
PLACE NEAR U2580	PP9431	1	SPI_AOP_SCLK	12	23, 70
PLACE NEAR U2580	PP9432	1	SPI_AOP_MOSI	12	23, 70
PLACE NEAR U0600	PP9433	1	SPI_AOP_MISO	12	23

MESA SPI

PLACE NEAR U0600	PP940C	1	SPI_MESA_MISO	10	21
------------------	--------	---	---------------	----	----

CAMERA - FRONT

	PP940D	1	MIPI0C_CAM_FRONT_CLK_P	8	25, 70
	PP940E	1	MIPI0C_CAM_FRONT_CLK_N	8	25, 70
PLACE NEAR U0600	PP940F	1	MIPI0C_CAM_FRONT_DATA_P<0>	8	25, 70
	PP9410	1	MIPI0C_CAM_FRONT_DATA_N<0>	8	25, 70

CAMERA - REAR

	PP9411	1	MIPI0C_CAM_REAR_CLK_P	8	26, 70
	PP9412	1	MIPI0C_CAM_REAR_CLK_N	8	26, 70
PLACE NEAR U0600	PP9413	1	MIPI0C_CAM_REAR_DATA_P<0>	8	26, 70
	PP9414	1	MIPI0C_CAM_REAR_DATA_N<0>	8	26, 70

WIFI

PLACE NEAR U7500	PP9417	1	90_AP_PCIE3_REFCLK_P	7	33
	PP9418	1	90_AP_PCIE3_REFCLK_N	7	33

SOC

	PP9450	1	ADC_SOC_TO_PMU_VDD_CPU	13	62
	PP9451	1	AP_VSS_CPU_SENSE	13	
	PP9452	1	ADC_SOC_TO_PMU_VDD_GPU	13	62
	PP9453	1	AP_VSS_SENSE	13	
	PP9480	1	PMU_TO_AP_BUF_BTN_HOME_L	11	62
	PP9481	1	PMU_TO_AP_BUF_BTN_ONOFF_L	11	62

TOUCH

	PP9454	1	TP_KONA_S_UART_RX	28	
	PP9455	1	TP_KONA_S_UART_TX	28	
	PP9456	1	TP_KONA_IPC_EVENT_0	28	
	PP9457	1	TP_KONA_IPC_EVENT_1	28	
	PP9458	1	TP_KONA_IPC_EVENT_2	28	
	PP9459	1	TP_KONA_IPC_EVENT_3	28	
	PP945A	1	TP_KONA_IPC_EVENT_4	28	
	PP945B	1	TP_KONA_IPC_EVENT_5	28	
	PP945C	1	KONA_S_TO_KONA_M_RESET_DET_L	27	28
	PP945D	1	KMSI_MISO	27	28
	PP945E	1	KMSI_MOSI	27	28
	PP945F	1	KMSI_STRB_IN	27	28
	PP9470	1	KMSI_STRB_OUT	27	28
	PP9471	1	PSE_SYNC	27	28

HIGH SPEED, NO TEST

MIPI0C_CAM_REAR_CLK_P	NO_TEST=1	8	26	70
MIPI0C_CAM_REAR_CLK_N	NO_TEST=1	8	26	70
MIPI0C_CAM_REAR_DATA_P<0...3>	NO_TEST=TRUE	8	26	70
MIPI0C_CAM_REAR_DATA_N<0...3>	NO_TEST=TRUE	8	26	70
MIPI0C_CAM_REAR_CLK_FILT_P	NO_TEST=1	8	26	70
MIPI0C_CAM_REAR_CLK_FILT_N	NO_TEST=1	8	26	70
MIPI0C_CAM_REAR_DATA_FILT_P<0...3>	NO_TEST=TRUE	8	26	70
MIPI0C_CAM_REAR_DATA_FILT_N<0...3>	NO_TEST=TRUE	8	26	70
MIPI0C_CAM_FRONT_CLK_P	NO_TEST=1	8	25	70
MIPI0C_CAM_FRONT_CLK_N	NO_TEST=1	8	25	70
MIPI0C_CAM_FRONT_DATA_P<0>	NO_TEST=1	8	25	70
MIPI0C_CAM_FRONT_DATA_N<0>	NO_TEST=1	8	25	70
MIPI0C_CAM_FRONT_CLK_FILT_P	NO_TEST=1	8	25	70
MIPI0C_CAM_FRONT_CLK_FILT_N	NO_TEST=1	8	25	70
MIPI0C_CAM_FRONT_DATA_FILT_P<0>	NO_TEST=1	8	25	70
MIPI0C_CAM_FRONT_DATA_FILT_N<0>	NO_TEST=1	8	25	70
EDP_DATA_P<0...3>	NO_TEST=TRUE	9	32	
EDP_DATA_N<0...3>	NO_TEST=TRUE	9	32	
EDP_DATA_EMI_P<0...3>	NO_TEST=TRUE	9	32	
EDP_DATA_EMI_N<0...3>	NO_TEST=TRUE	9	32	
EDP_DATA_EMI_CONN_P<0...3>	NO_TEST=TRUE	9	32	
EDP_DATA_EMI_CONN_N<0...3>	NO_TEST=TRUE	9	32	

8

7

6

5

4

3

SYNC_MASTER=J718_MLB_B

SYNC_DATE=11/06/2016

PAGE TITLE

TEST: EE TP/PP

POWER CONNECTIONS

