

5

4

3

2

1

D

D

C

C

B

B

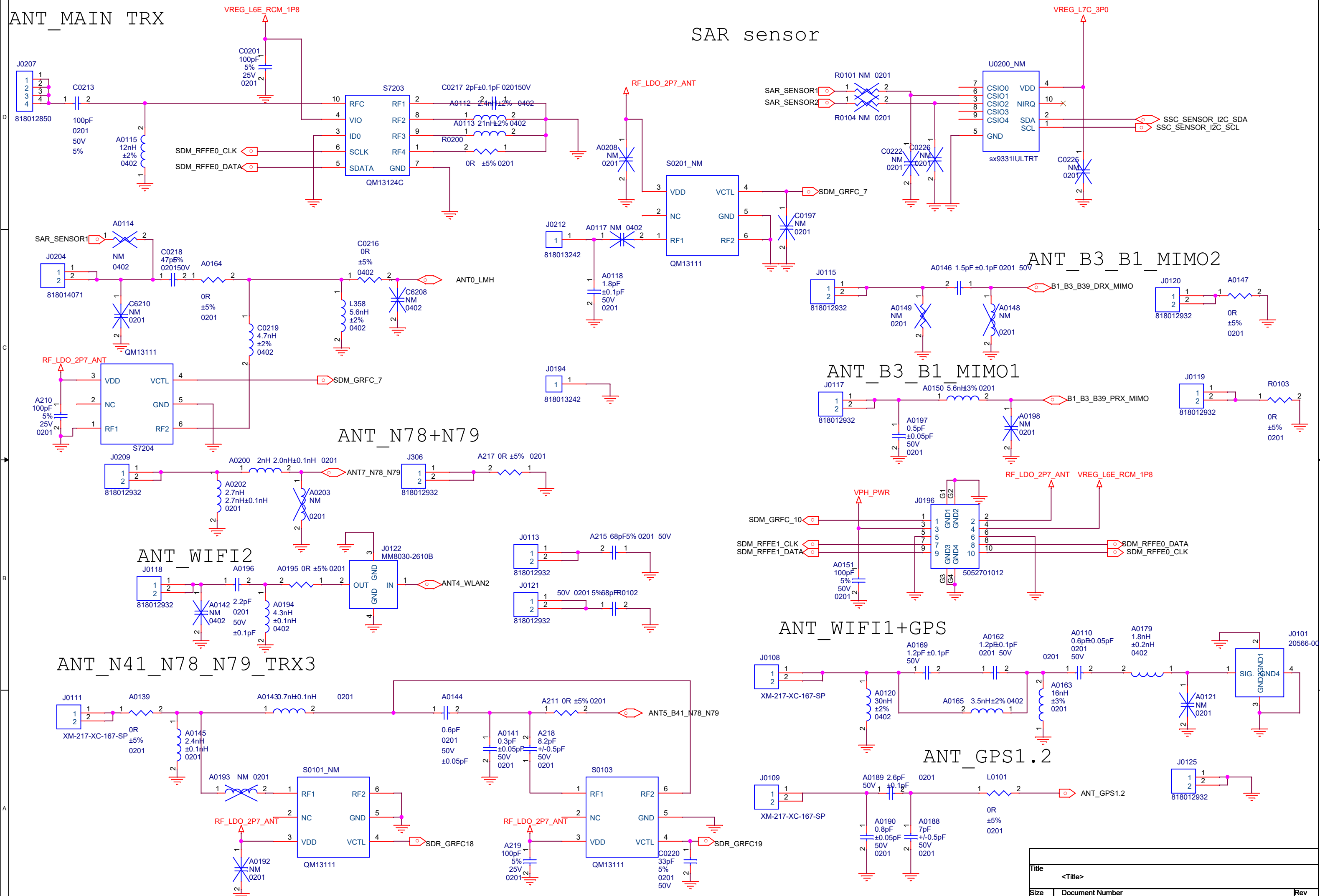
A

A

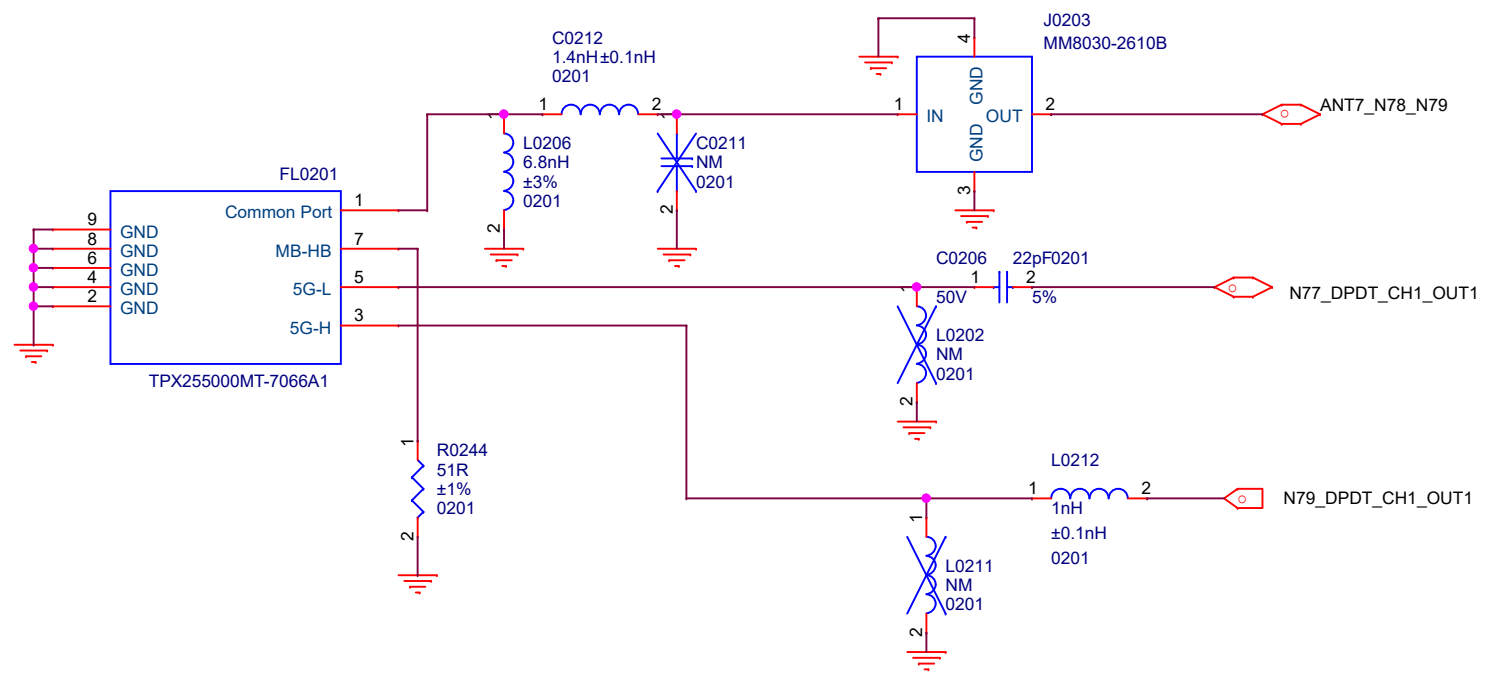
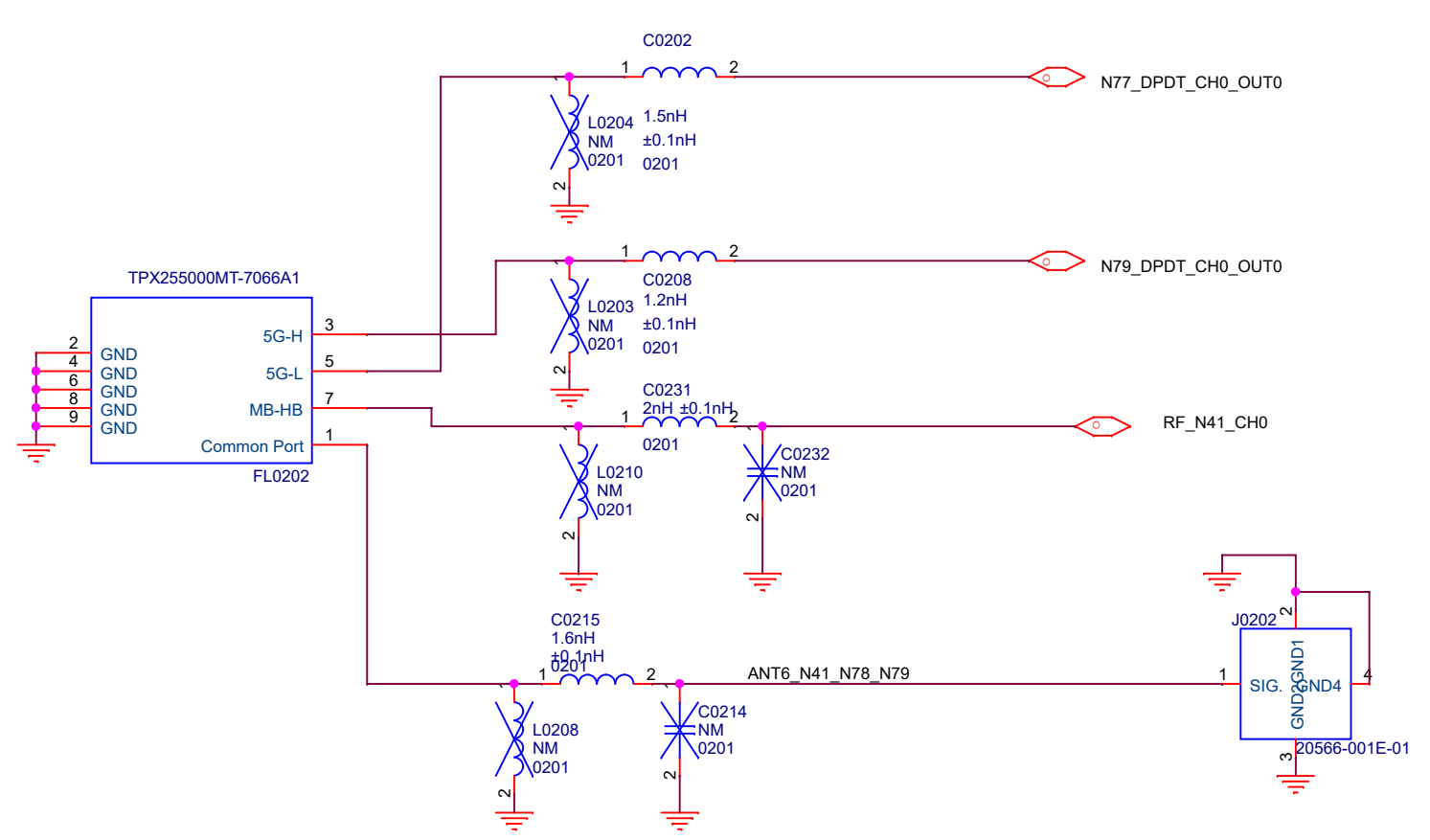
Title		
<Title>		
Size	Document Number	Rev
A3	<Doc>	<RevC
Date:	Friday, November 29, 2019	Sheet 1 of 74

ANT_MAIN TRX

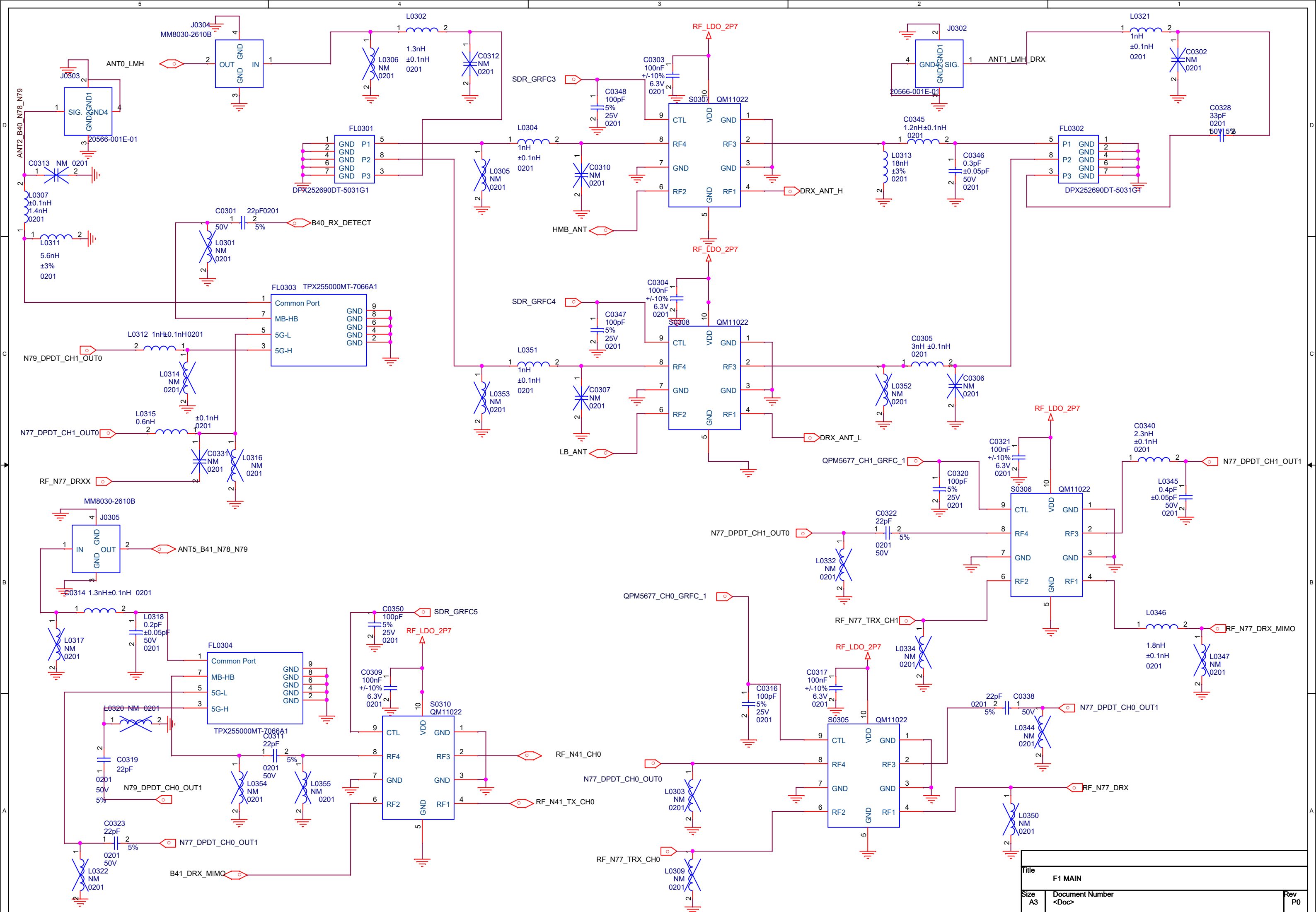
SAR sensor



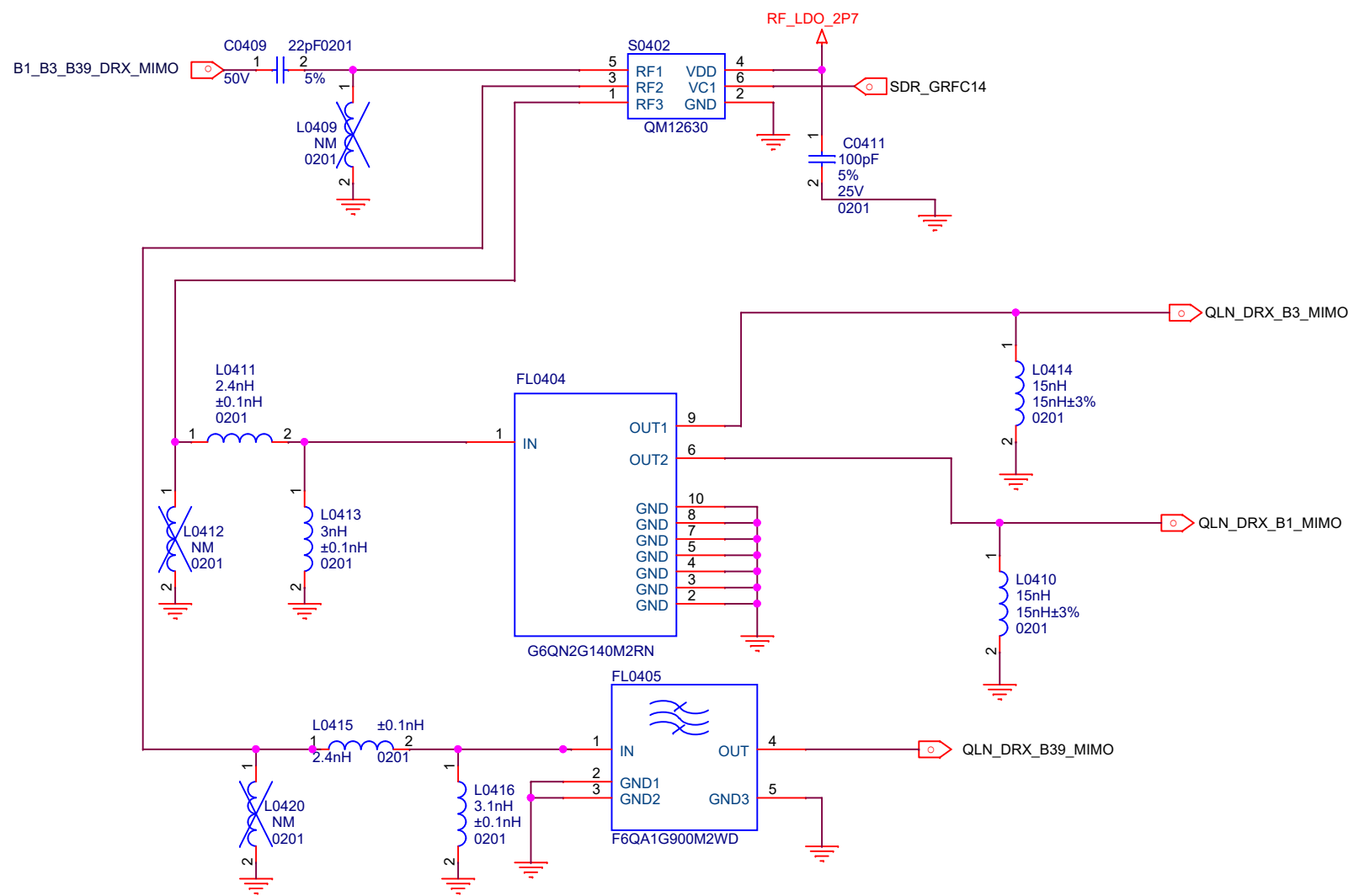
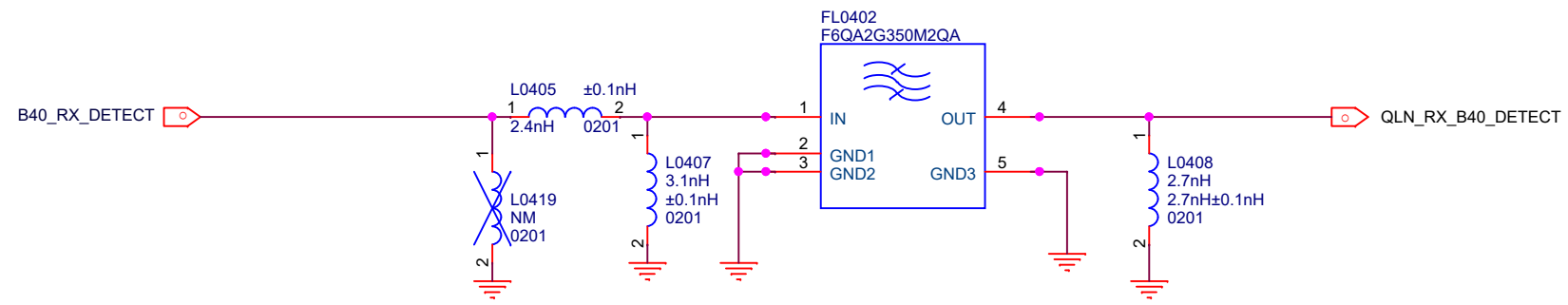
Title		<Title>
Size	Document Number	Rev
A3	<Doc>	<RevC>
Date:	Friday, November 29, 2019	Sheet 2 of 74



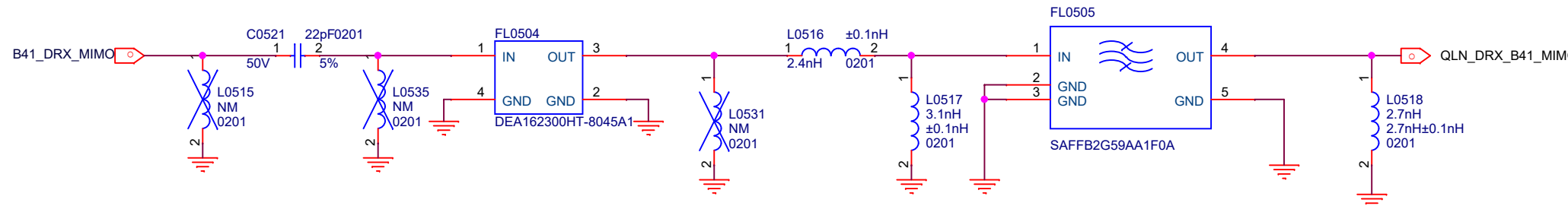
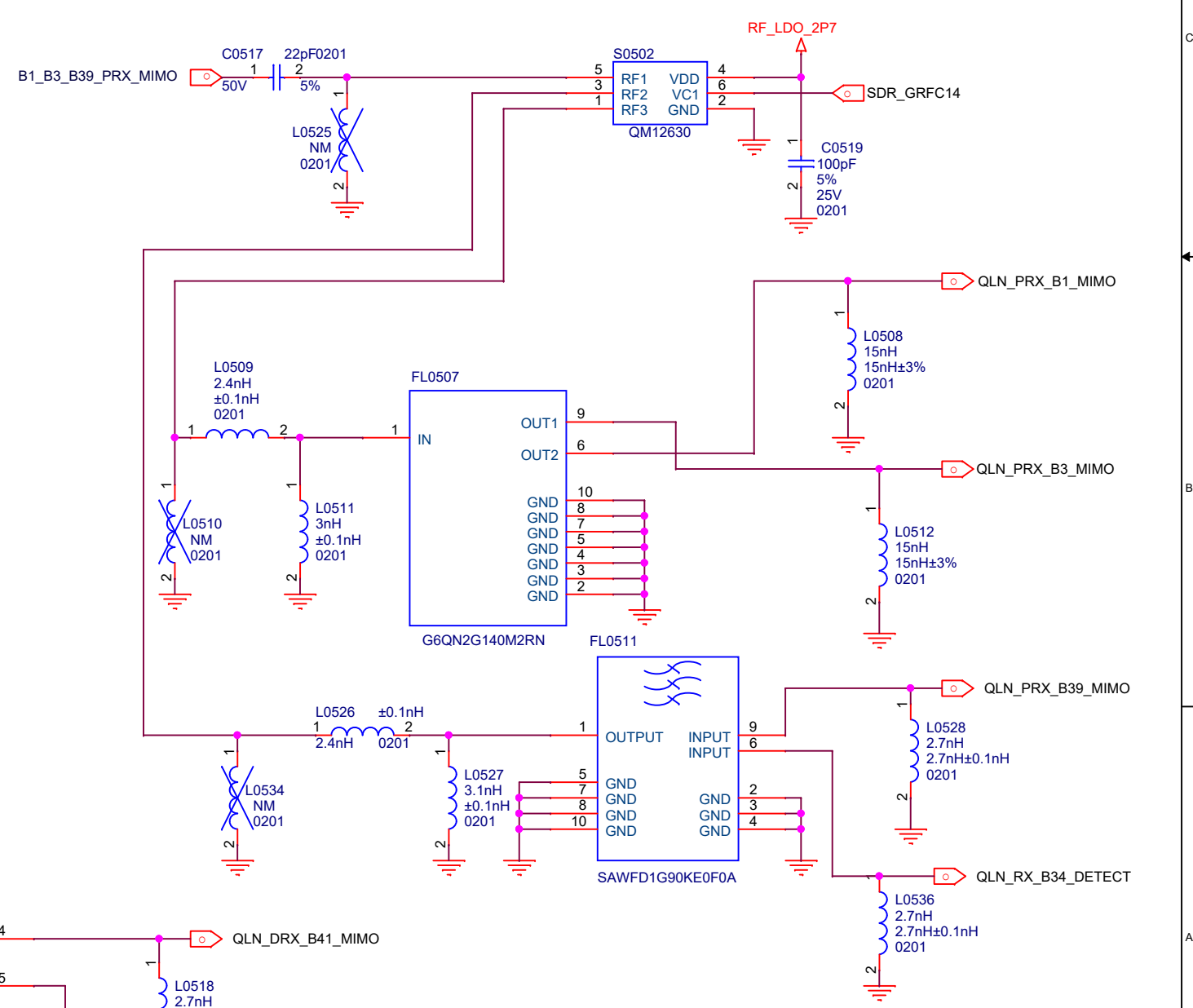
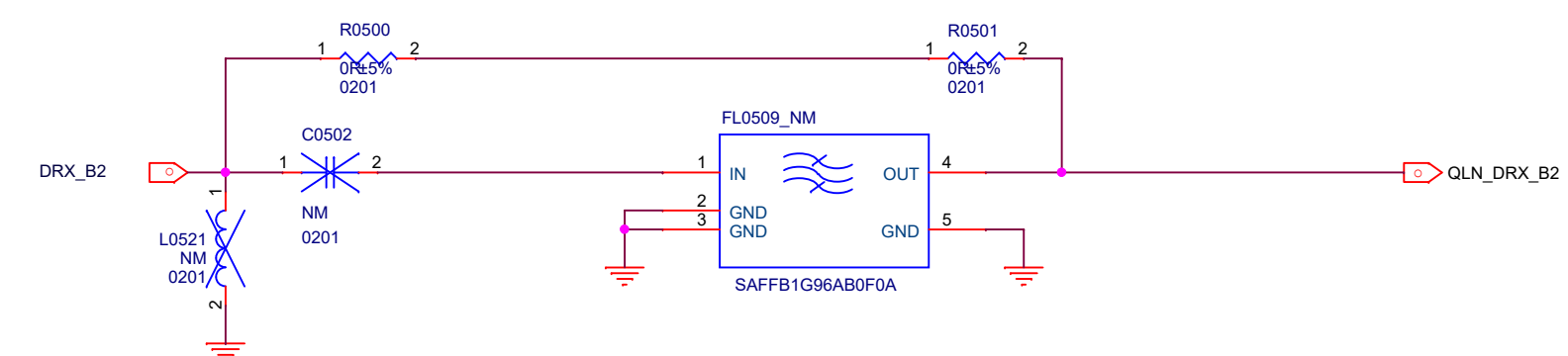
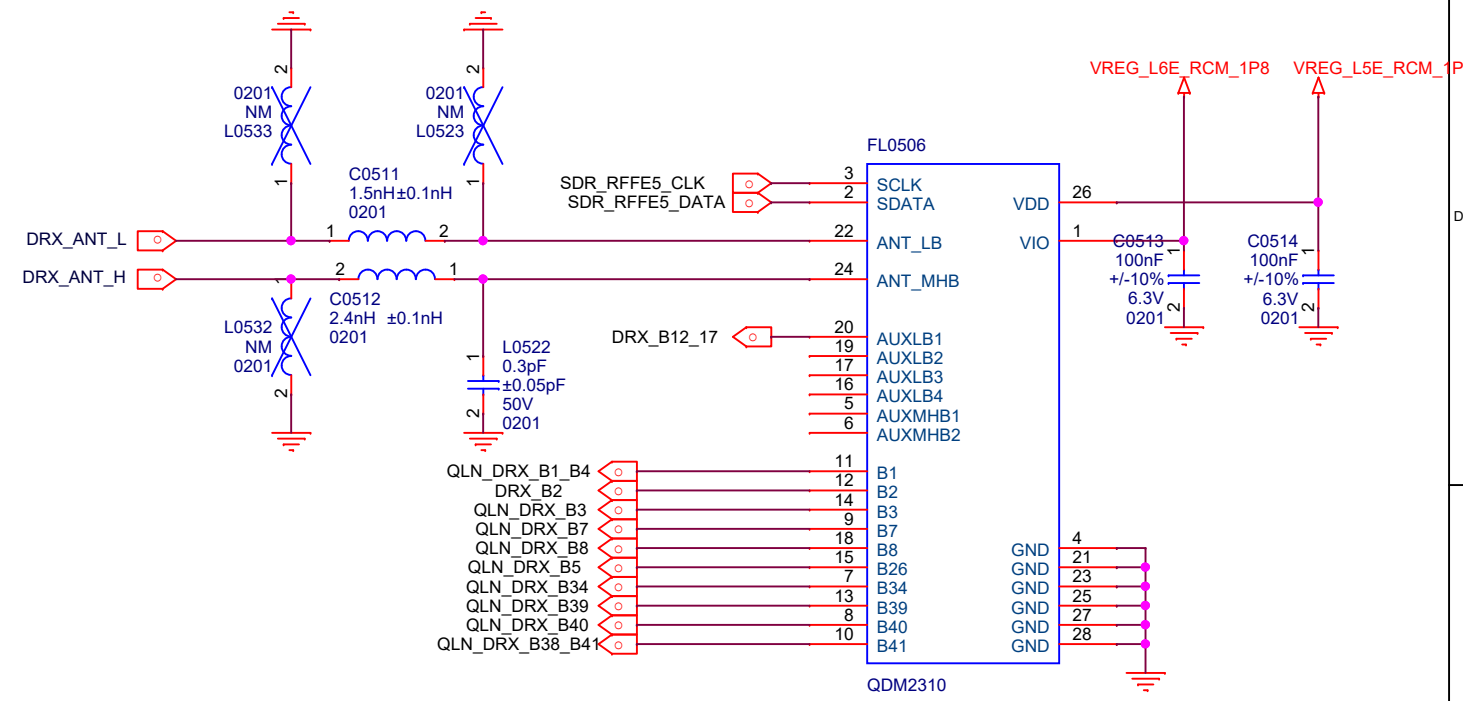
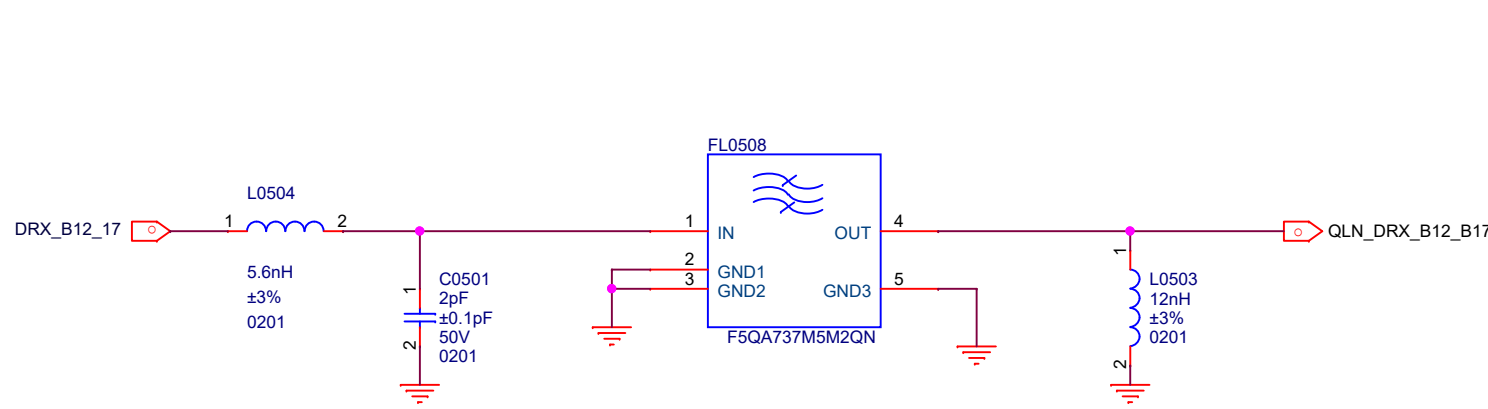
Title		F1 MAIN
Size	Document Number	Rev
A3	<Doc>	P0
Date:	Friday, November 29, 2019	Sheet 3 of 72



Title			F1 MAIN
Size	Document Number	Rev	
A3	<Doc>	P0	
Date:	Friday, November 29, 2019	Sheet	4 of 72

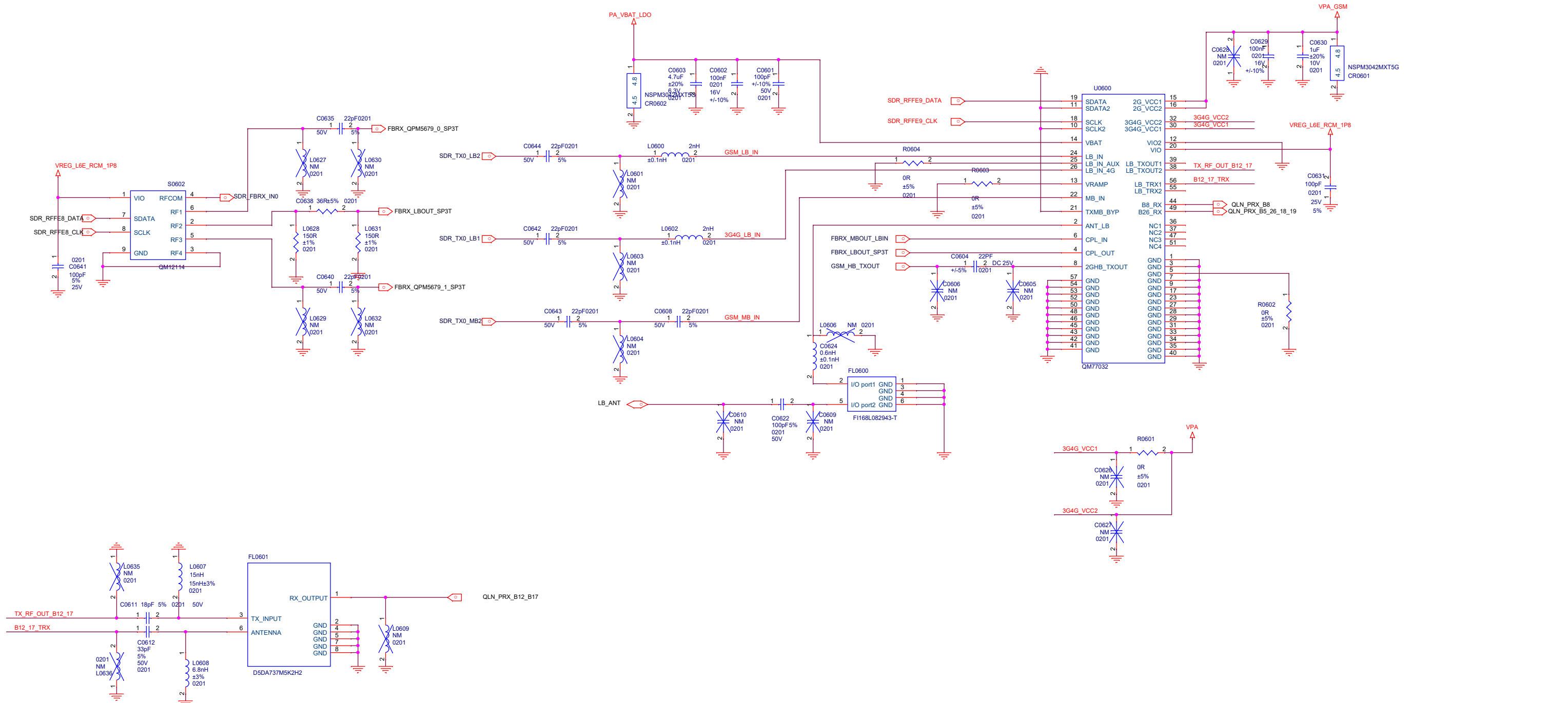


Title		
F1 MAIN		
Size	Document Number	Rev
A3	<Doc>	P0
Date:	Friday, November 29, 2019	Sheet 5 of 72

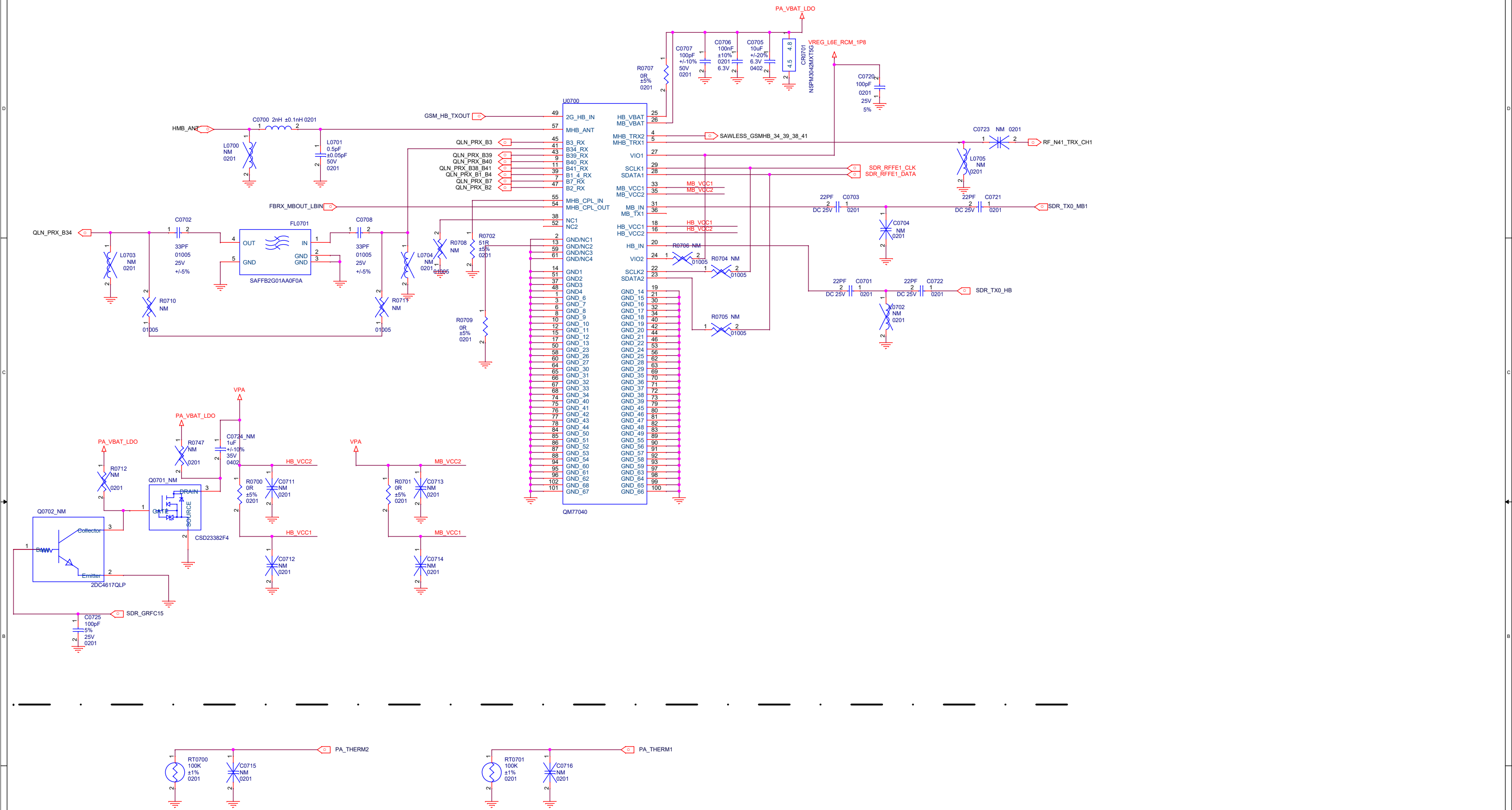


Title		
F1 MAIN		
Size	Document Number	P0
A3	<Doc>	
Date:	Friday, November 29, 2019	Sheet 6 of 72

LB S-PAD



MHB S-PAD



5

4

3

2

1

D

D

C

C

B

B

A

Title	
F1 MAIN	
Size	Document Number
A3	Reserved(for PA)
Date:	Friday, November 29, 2019
Sheet	9 of 72

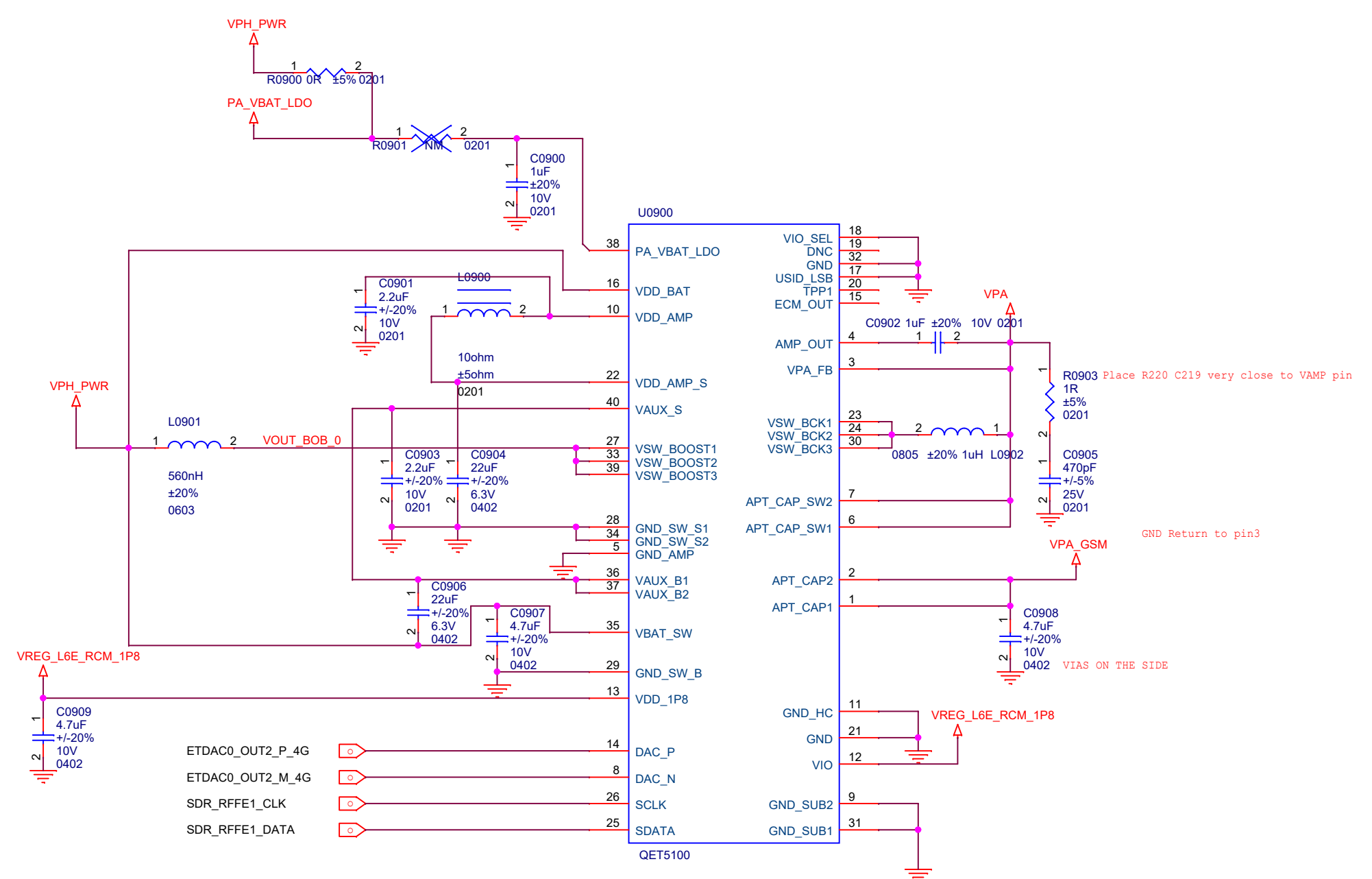
5

4

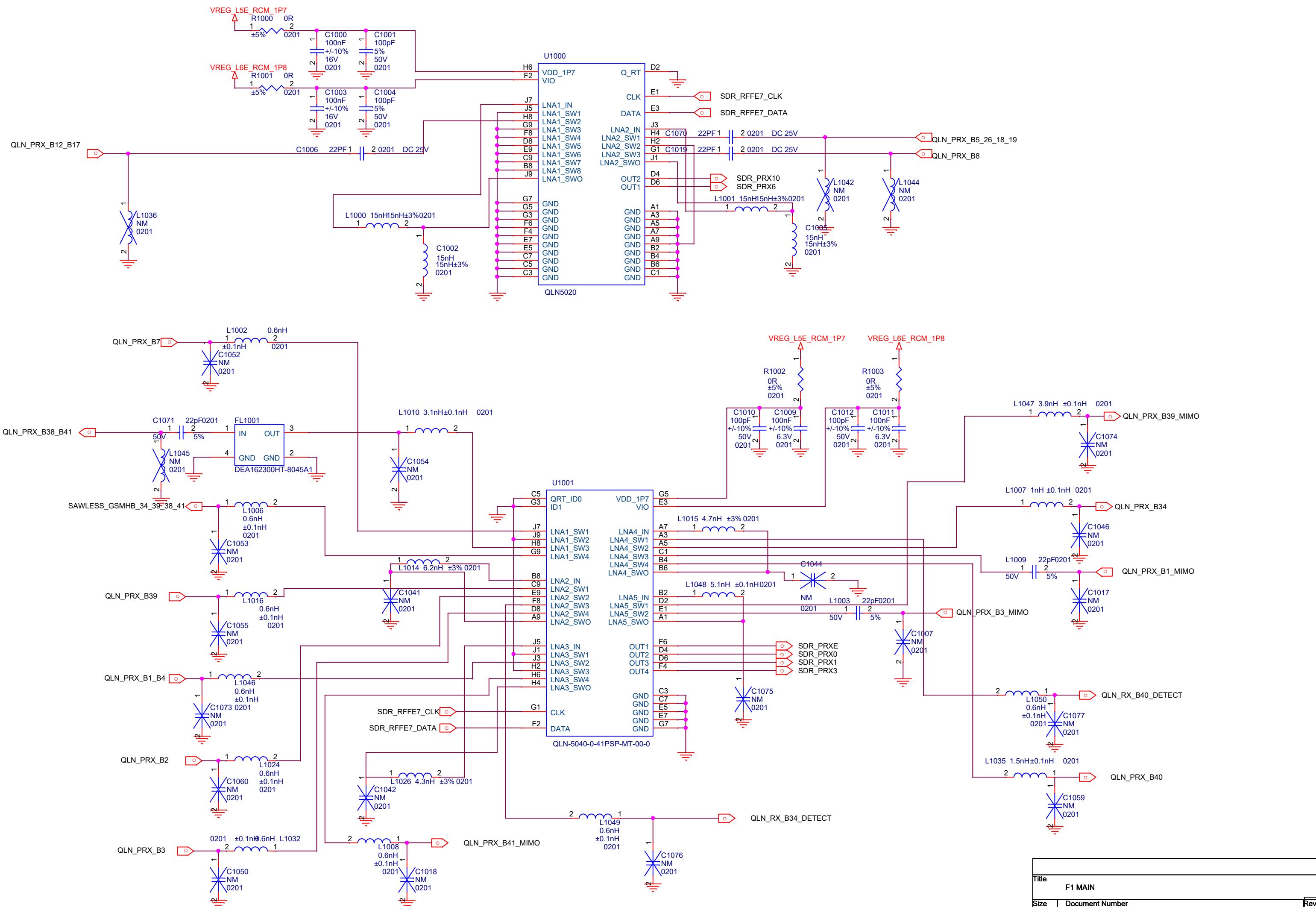
3

2

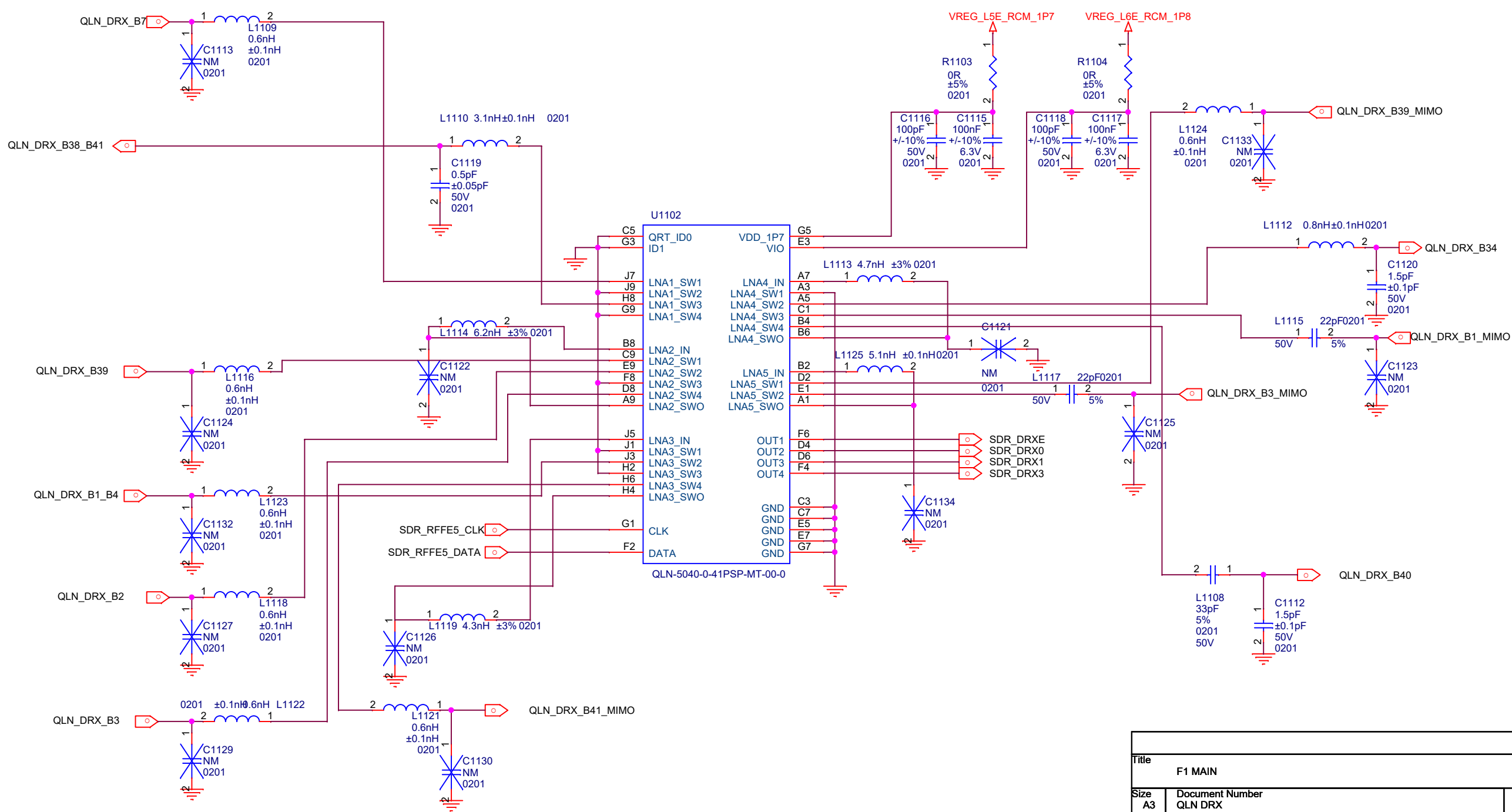
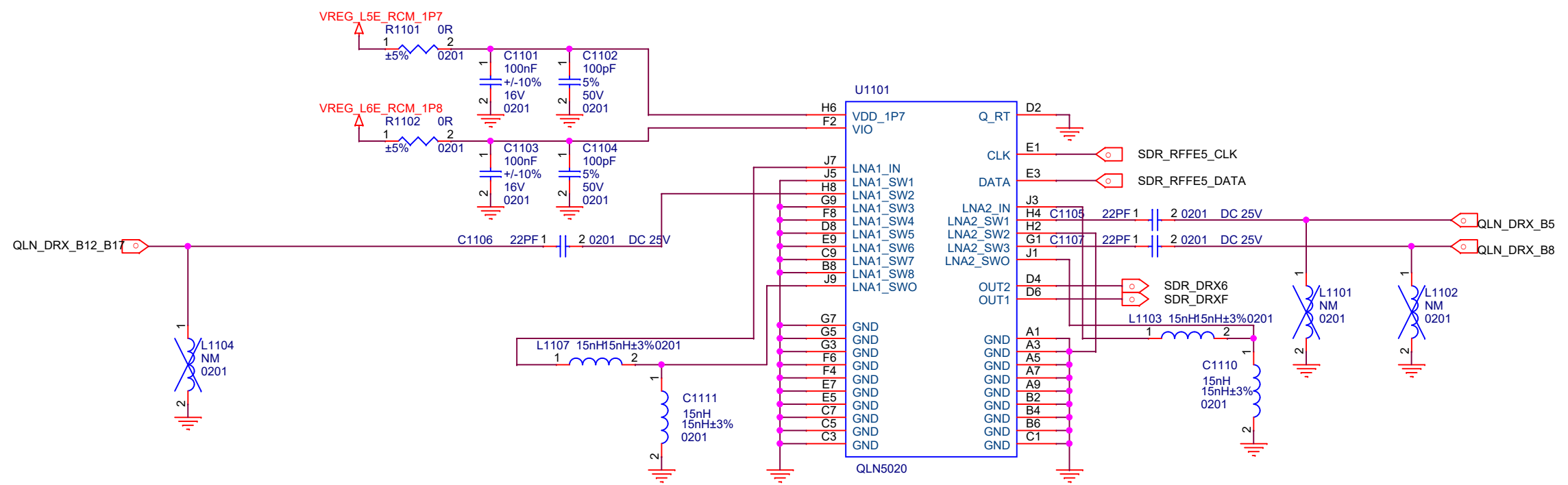
1



- ETDAC0_OUT2_P_4G
- ETDAC0_OUT2_M_4G
- SDR_RFFE1_CLK
- SDR_RFFE1_DATA



Title			F1 MAIN
Size	Document Number	Rev	
A3	QLN PRX	P0	
Date:	Friday, November 29, 2019	Sheet	11 of 72



Title		F1 MAIN
Size	Document Number	QLN DRX
A3	QLN DRX	
Date:	Friday, November 29, 2019	Sheet

5

4

3

2

1

D

D

C

C

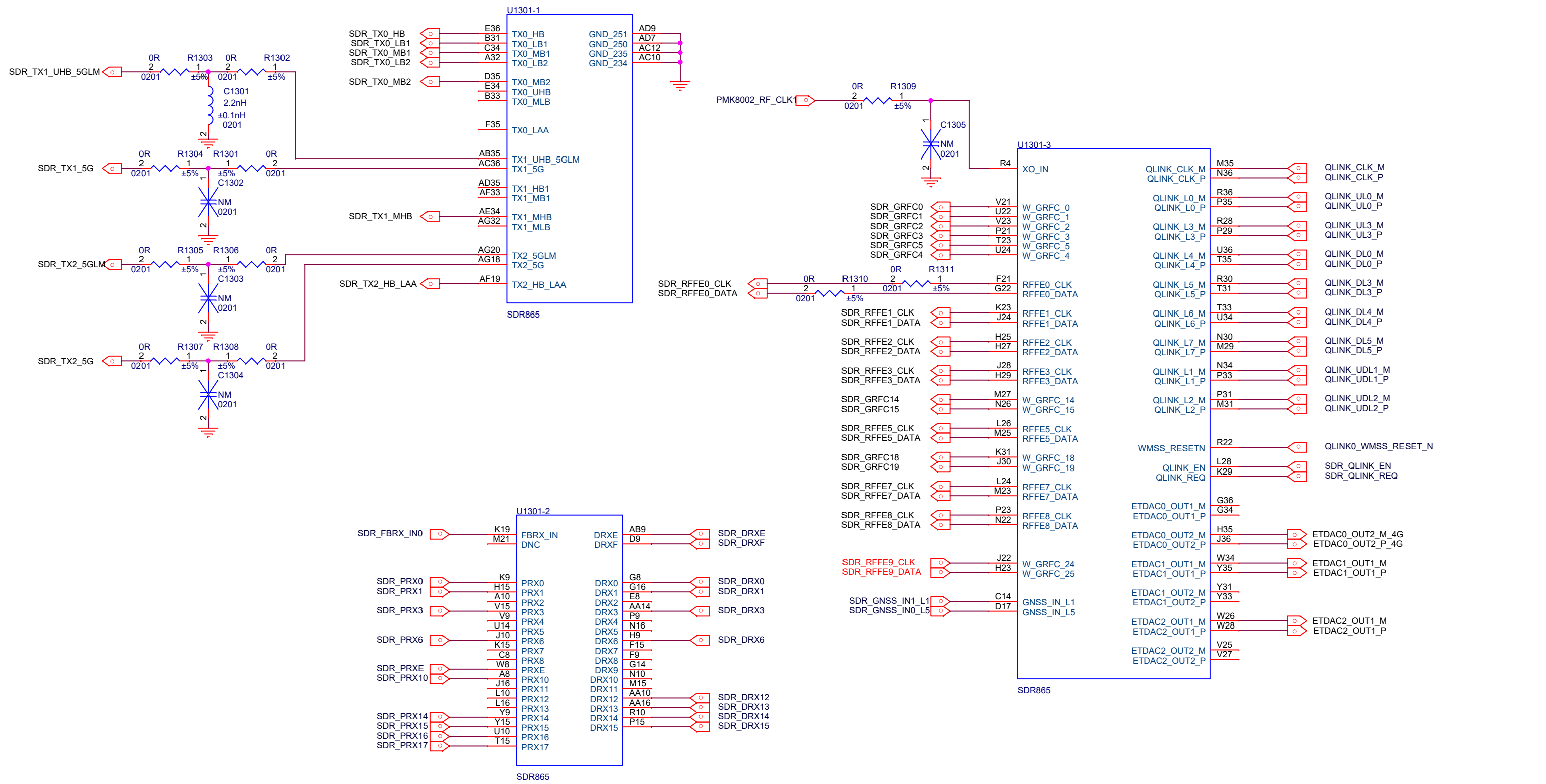
B

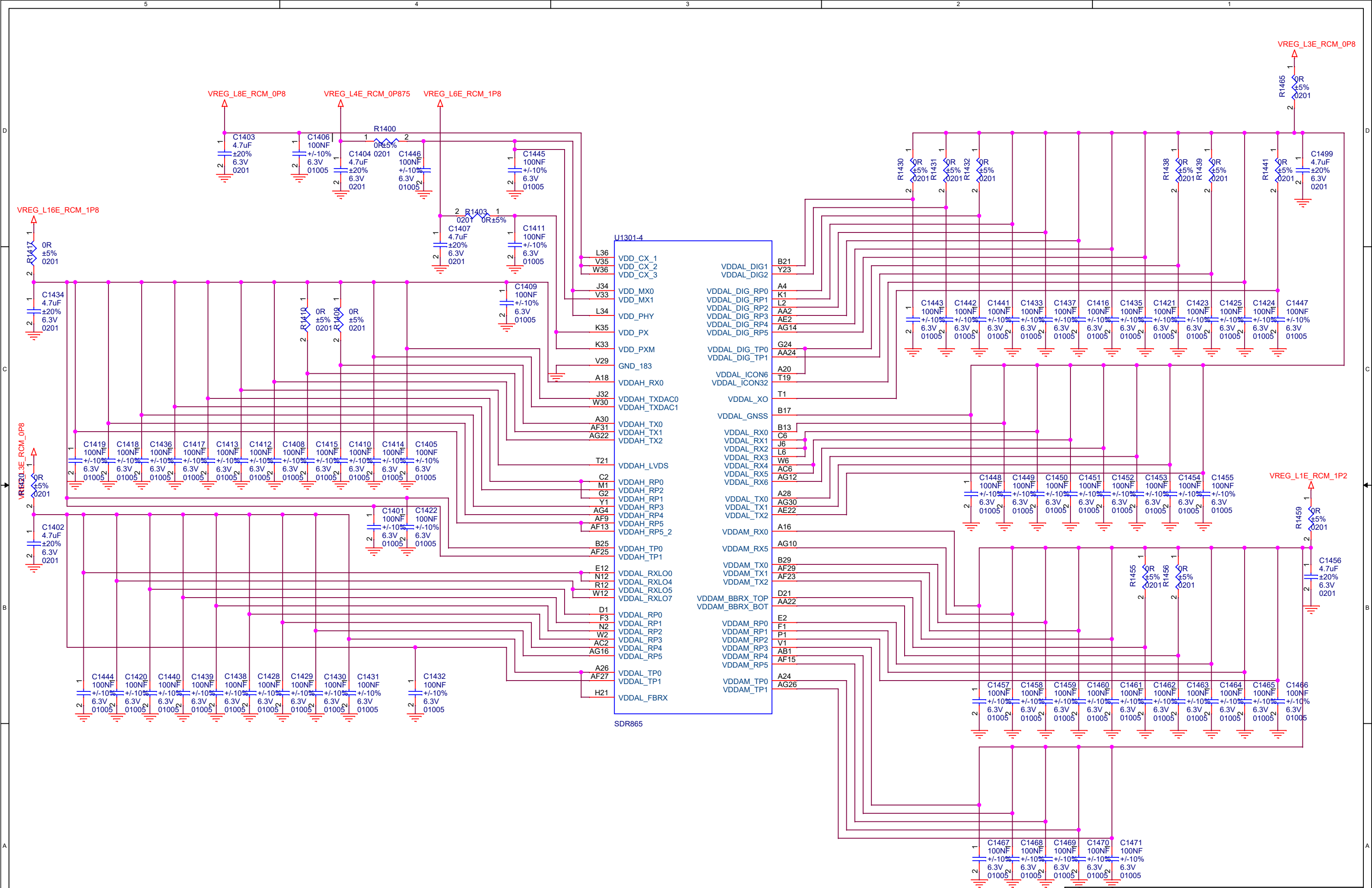
B

A

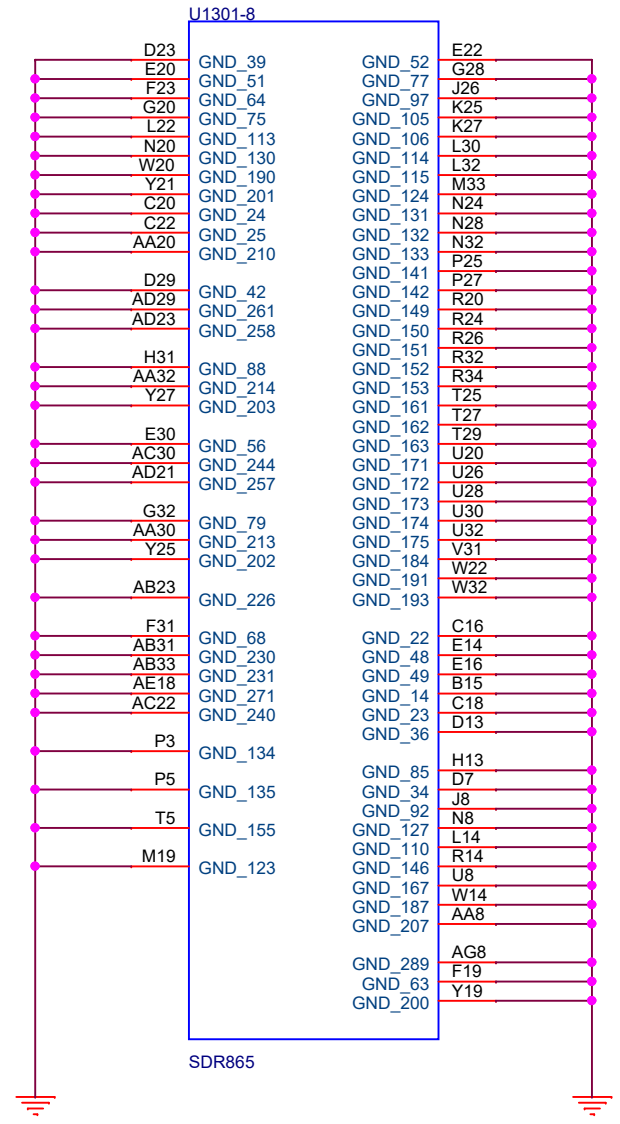
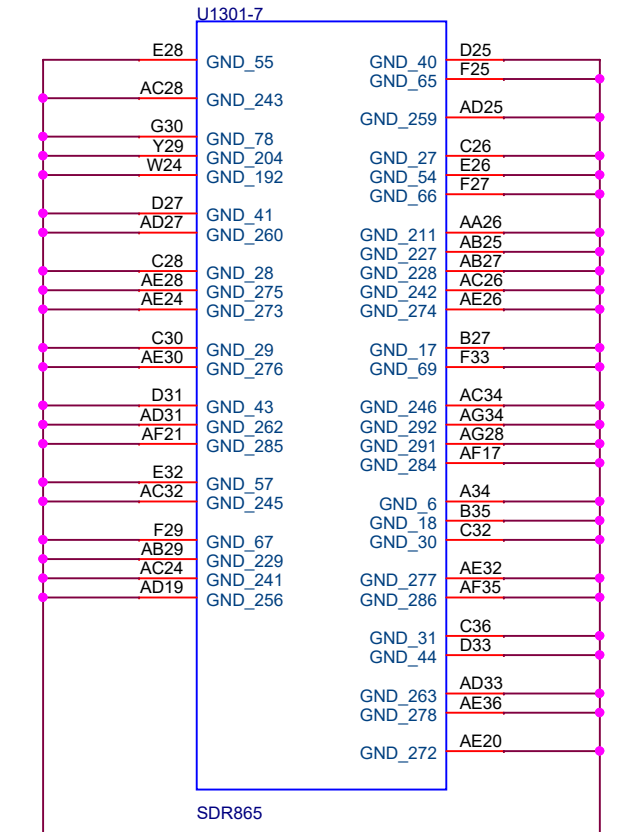
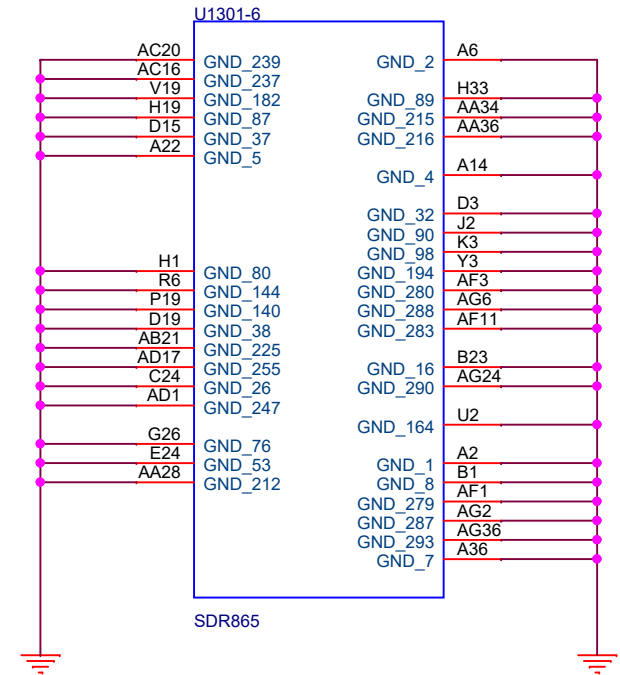
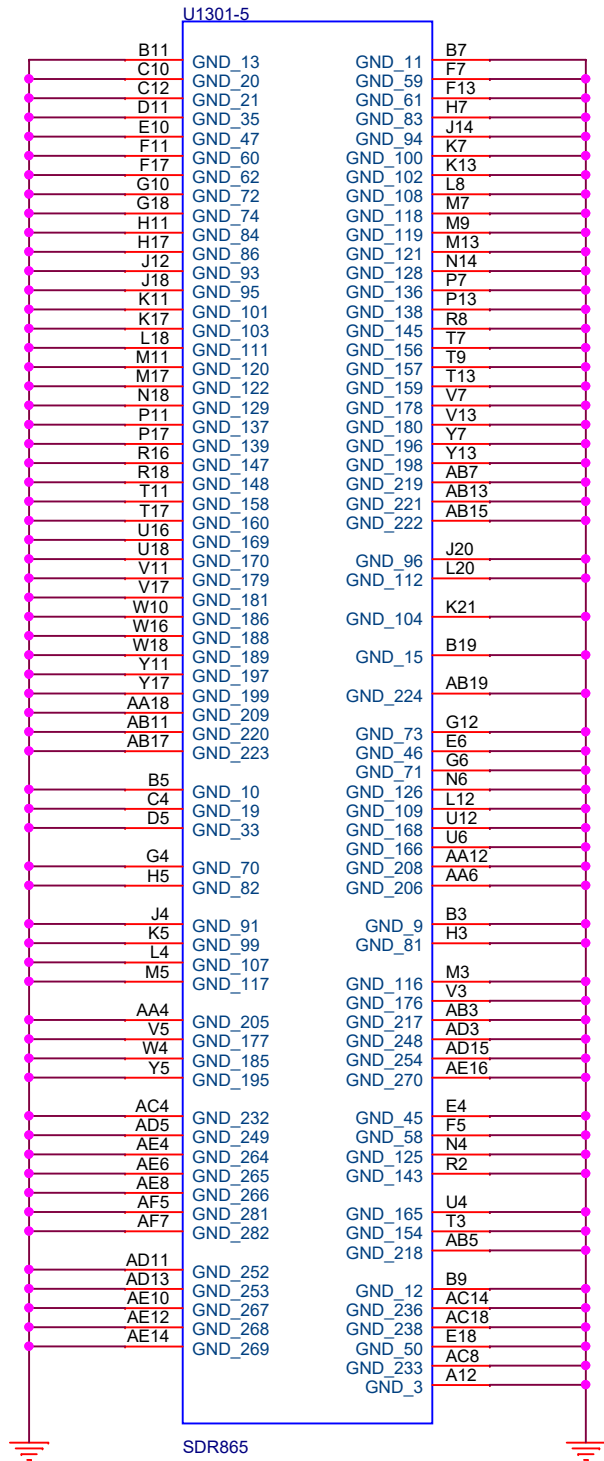
A

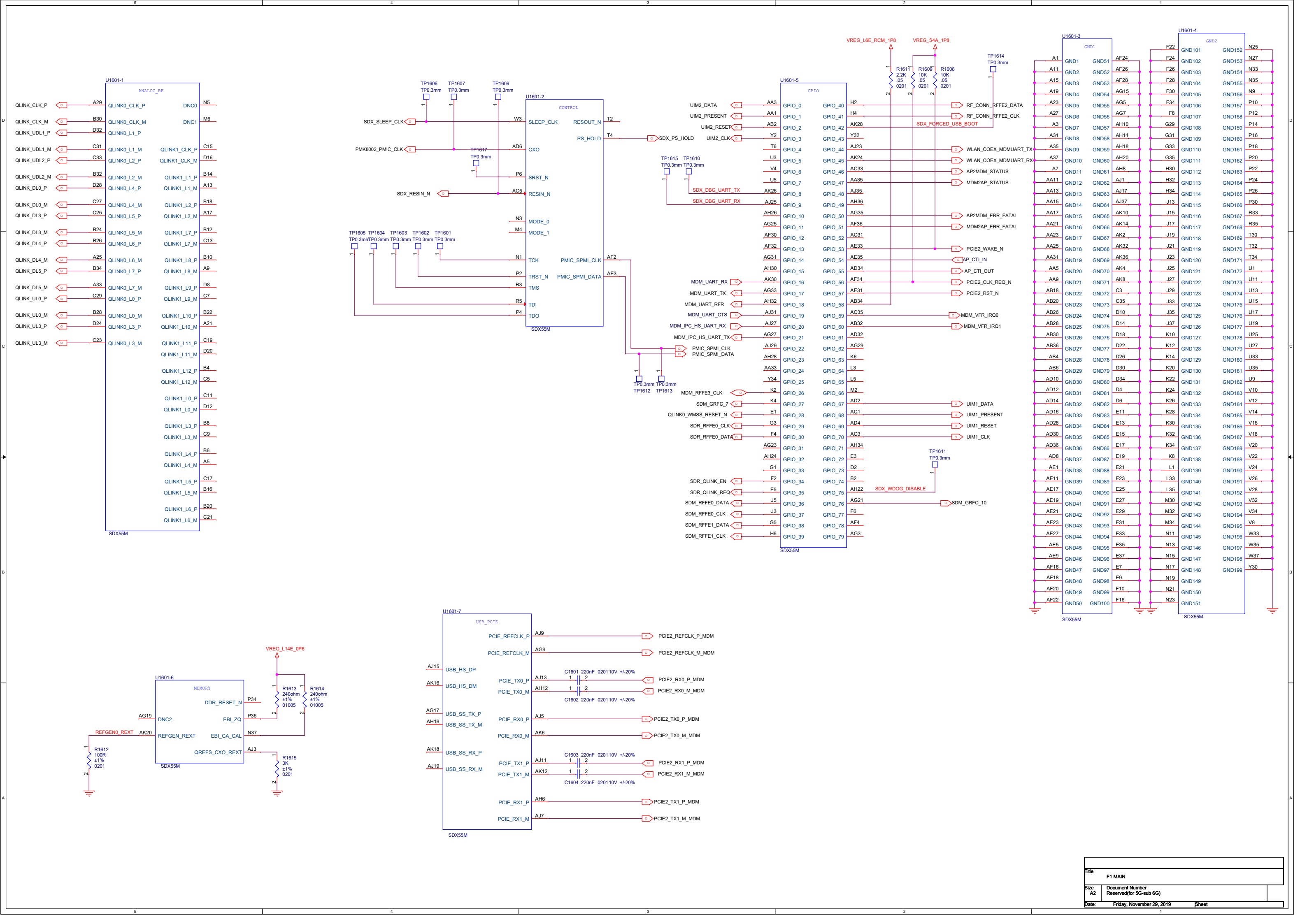
Title	
F1 MAIN	
Size	Document Number
A3	Reserved(for LNA)
Date:	Friday, November 29, 2019
Sheet	1

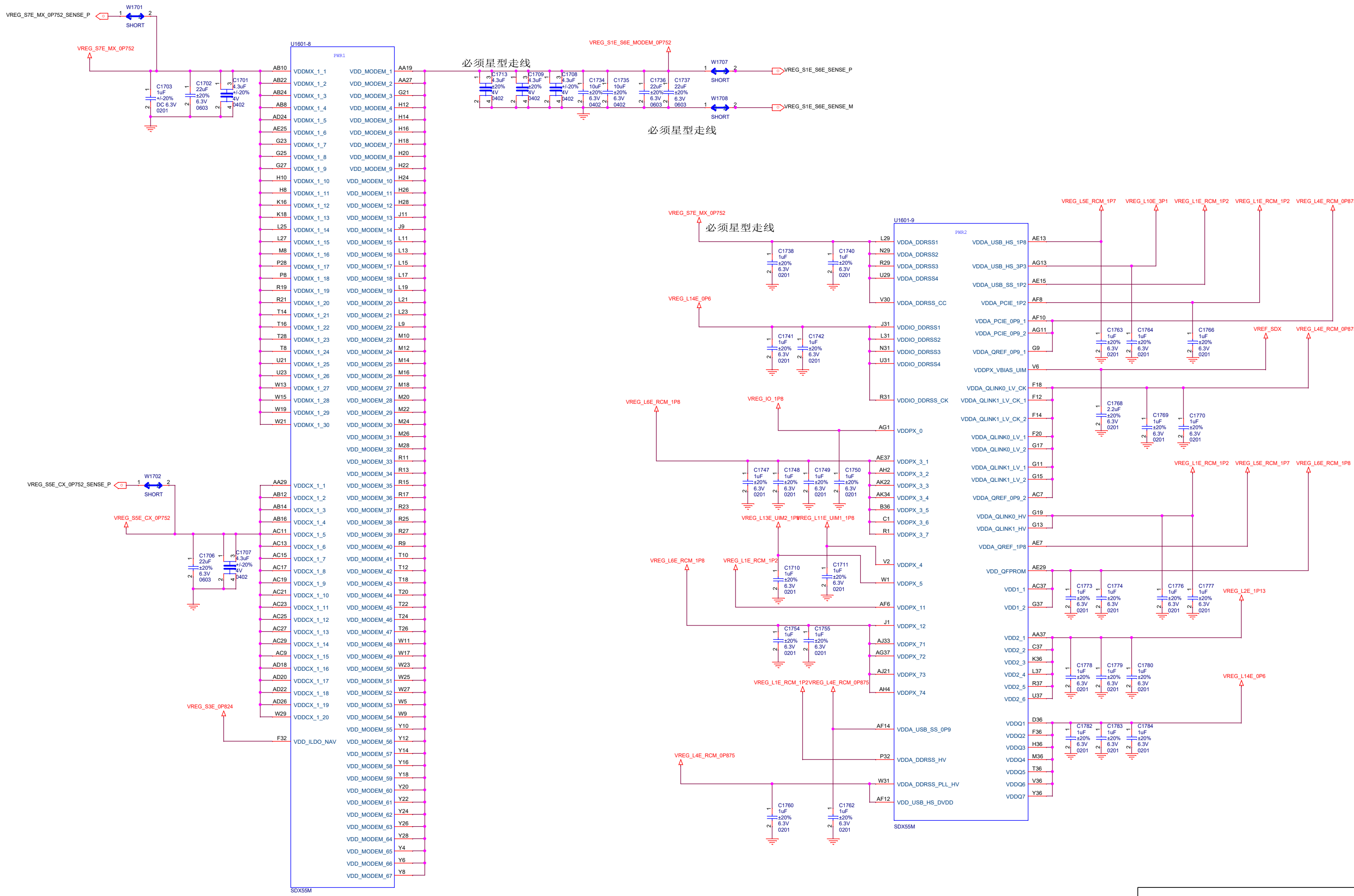




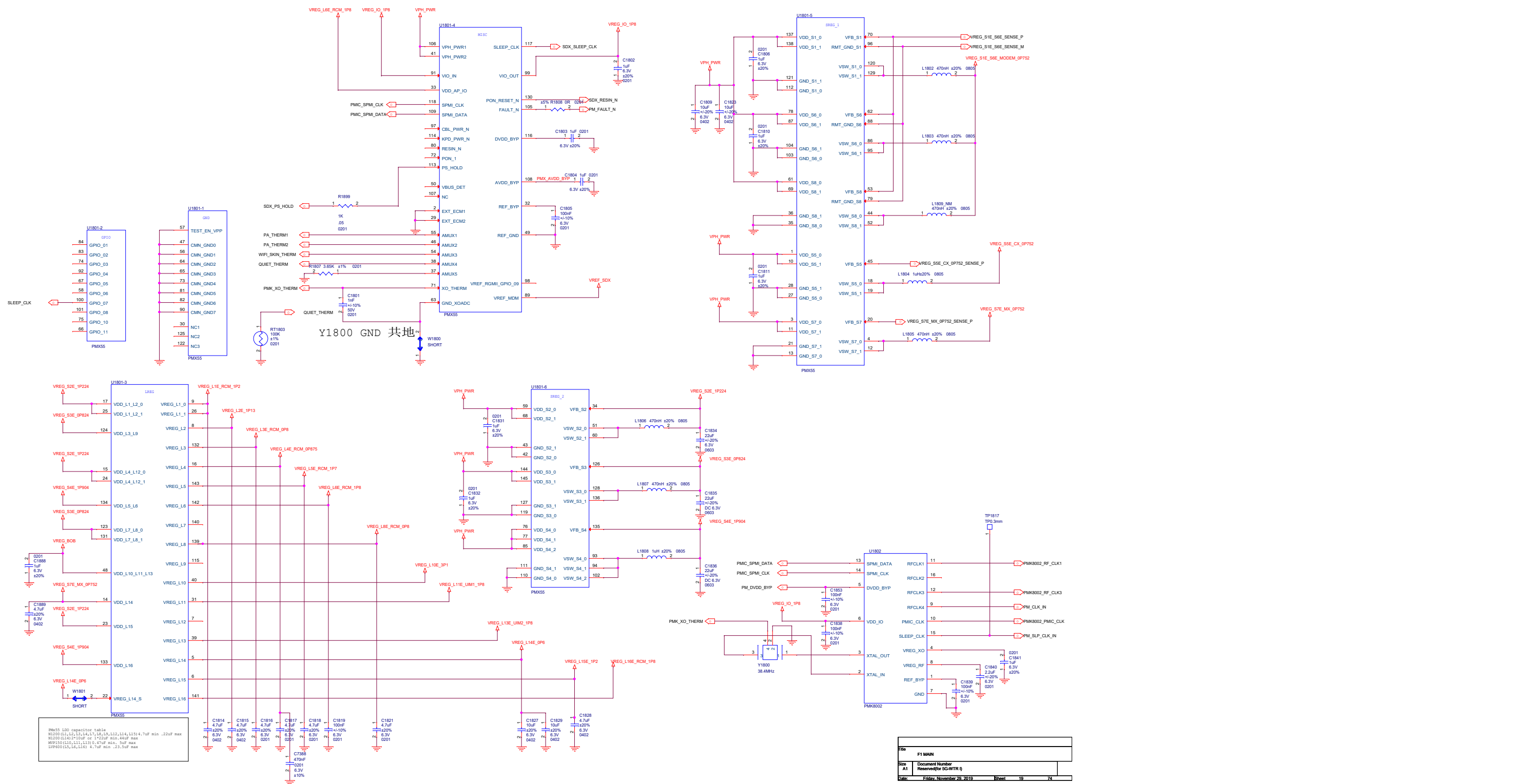
Title		F1 MAIN	
Size	A3	Document Number	WTR PWR
Date:	Friday, November 29, 2019	Sheet	15
			74





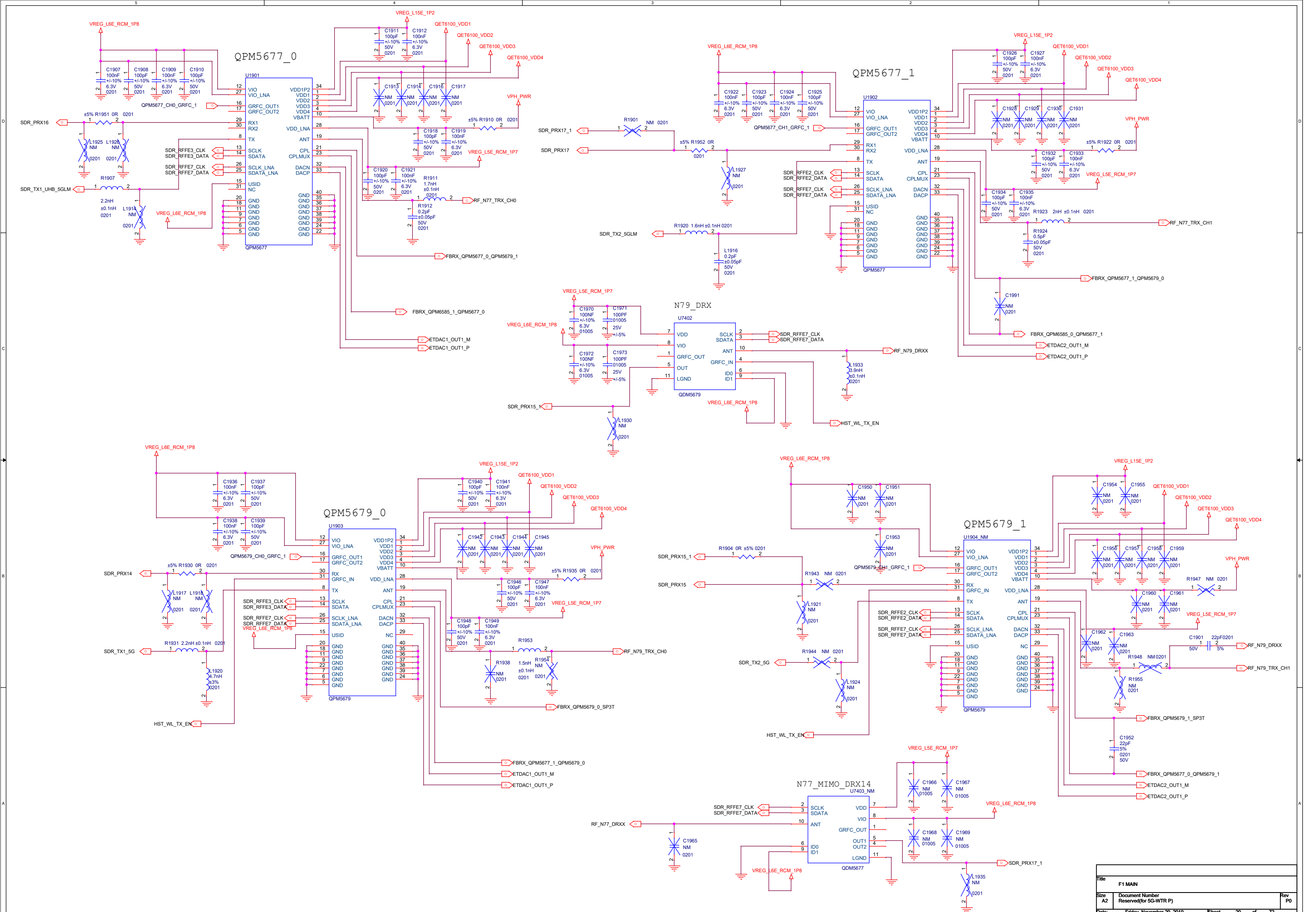


Title	F1 MAIN
Size	Document Number Reserved(for MM Wave)
Date:	Friday, November 29, 2019

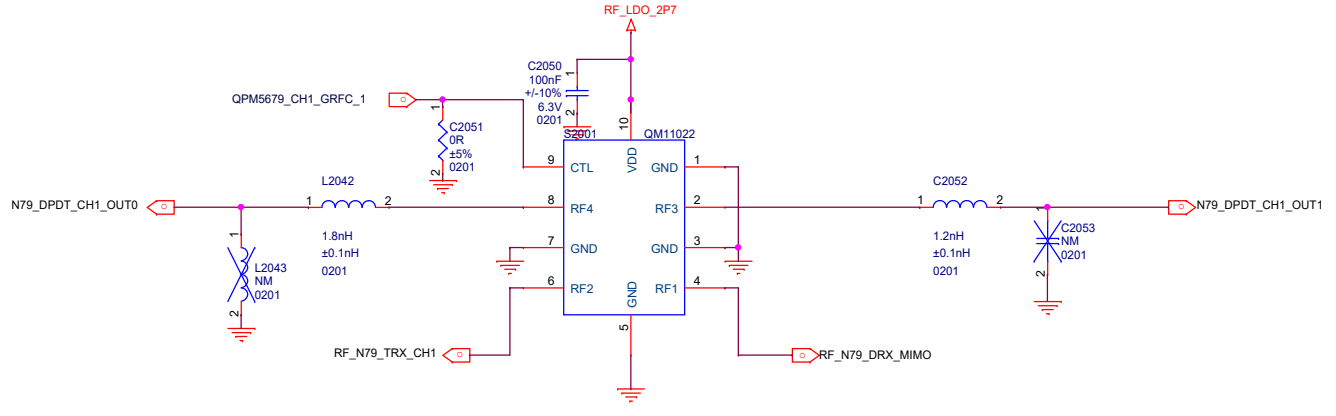
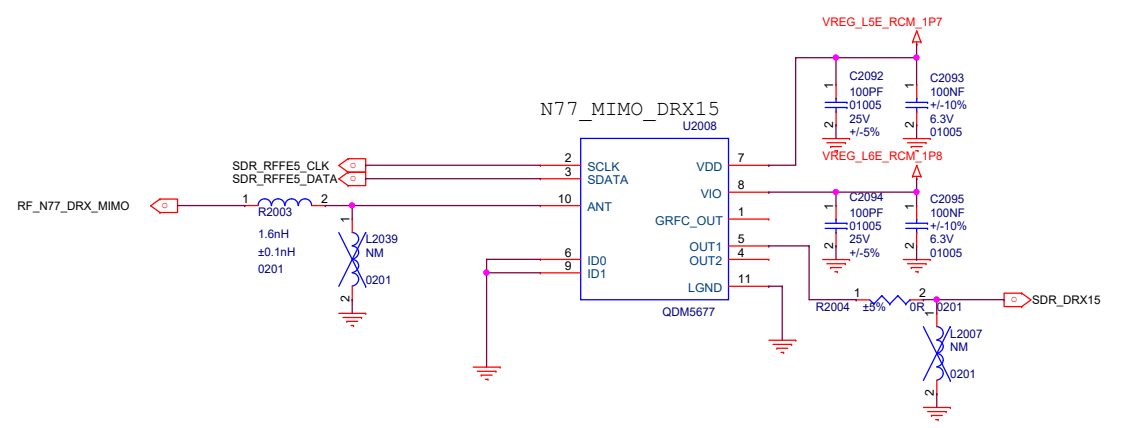
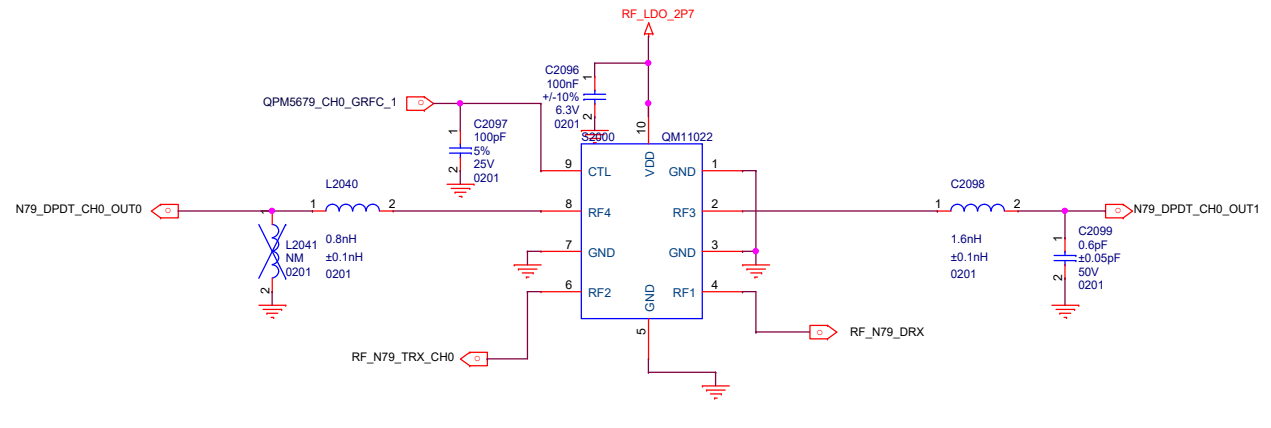
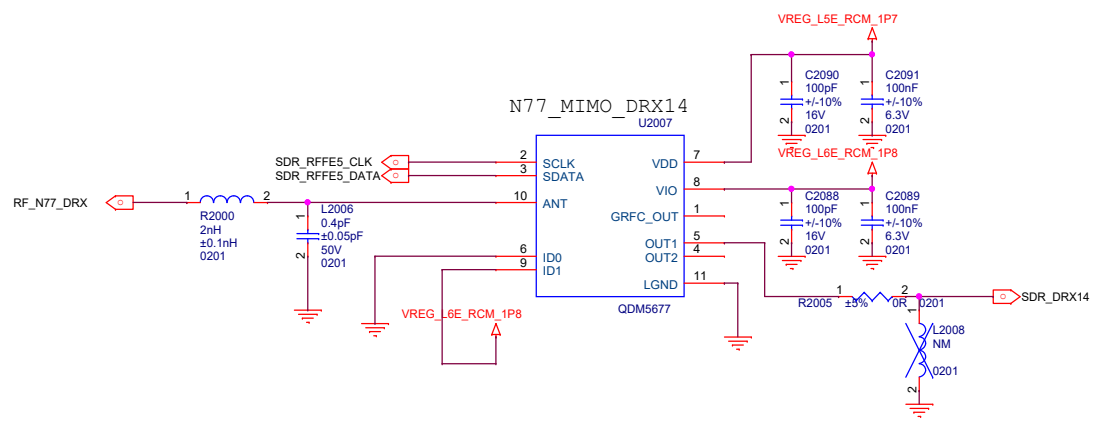
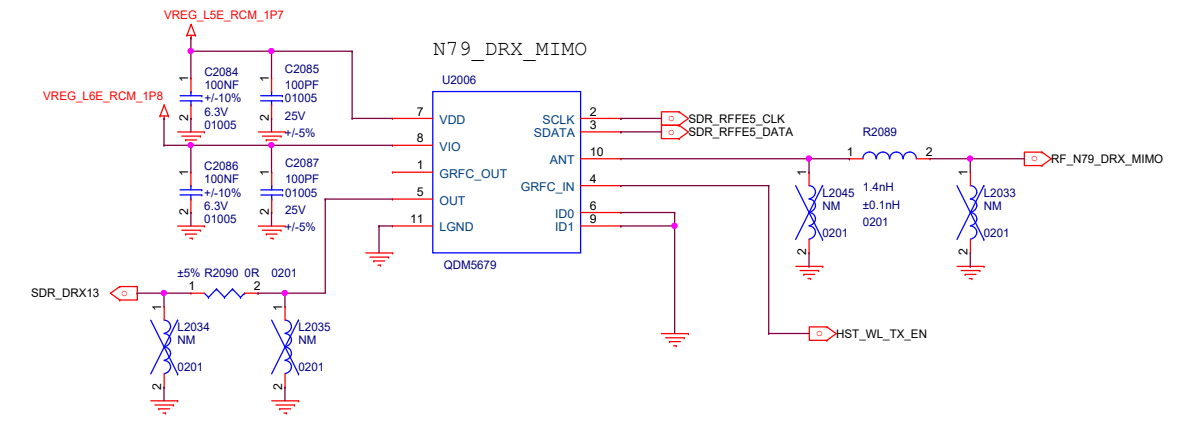
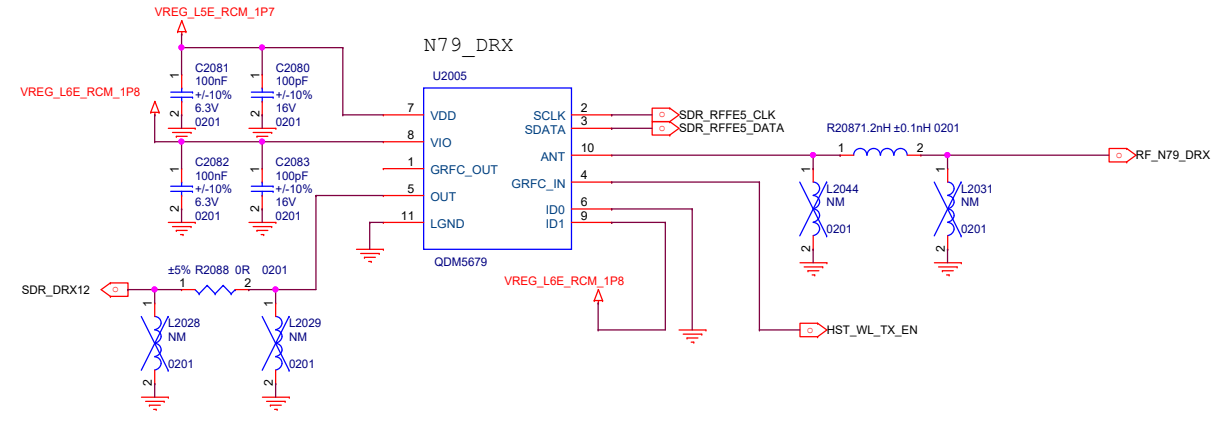
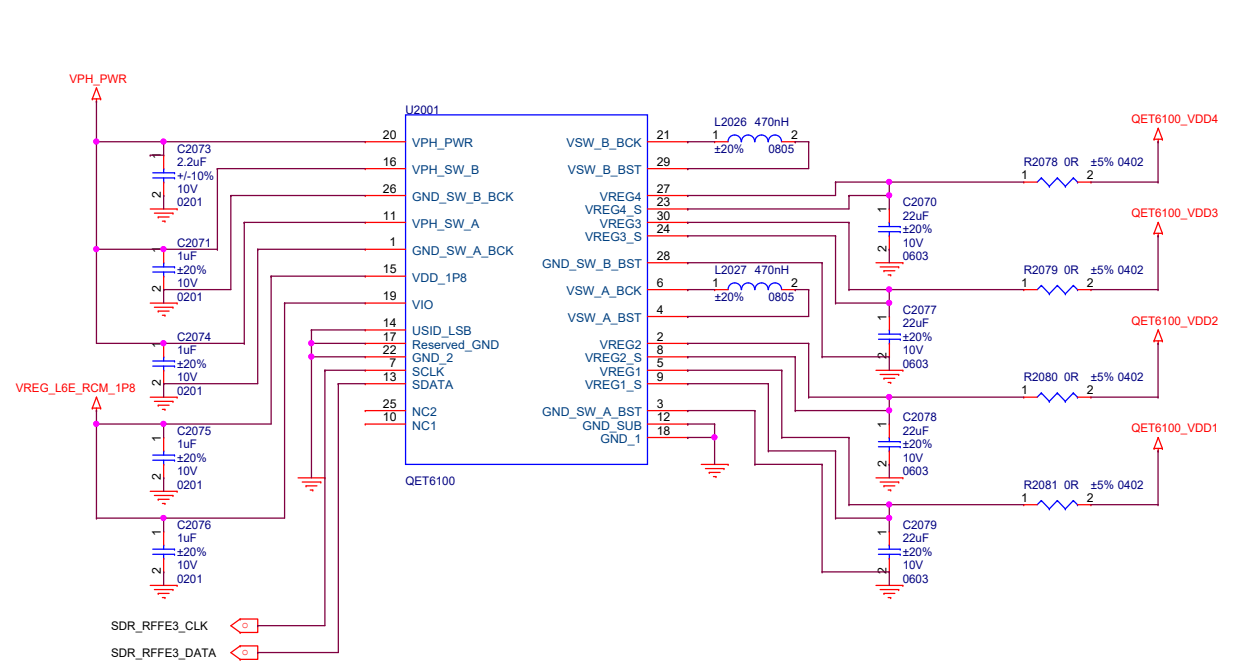


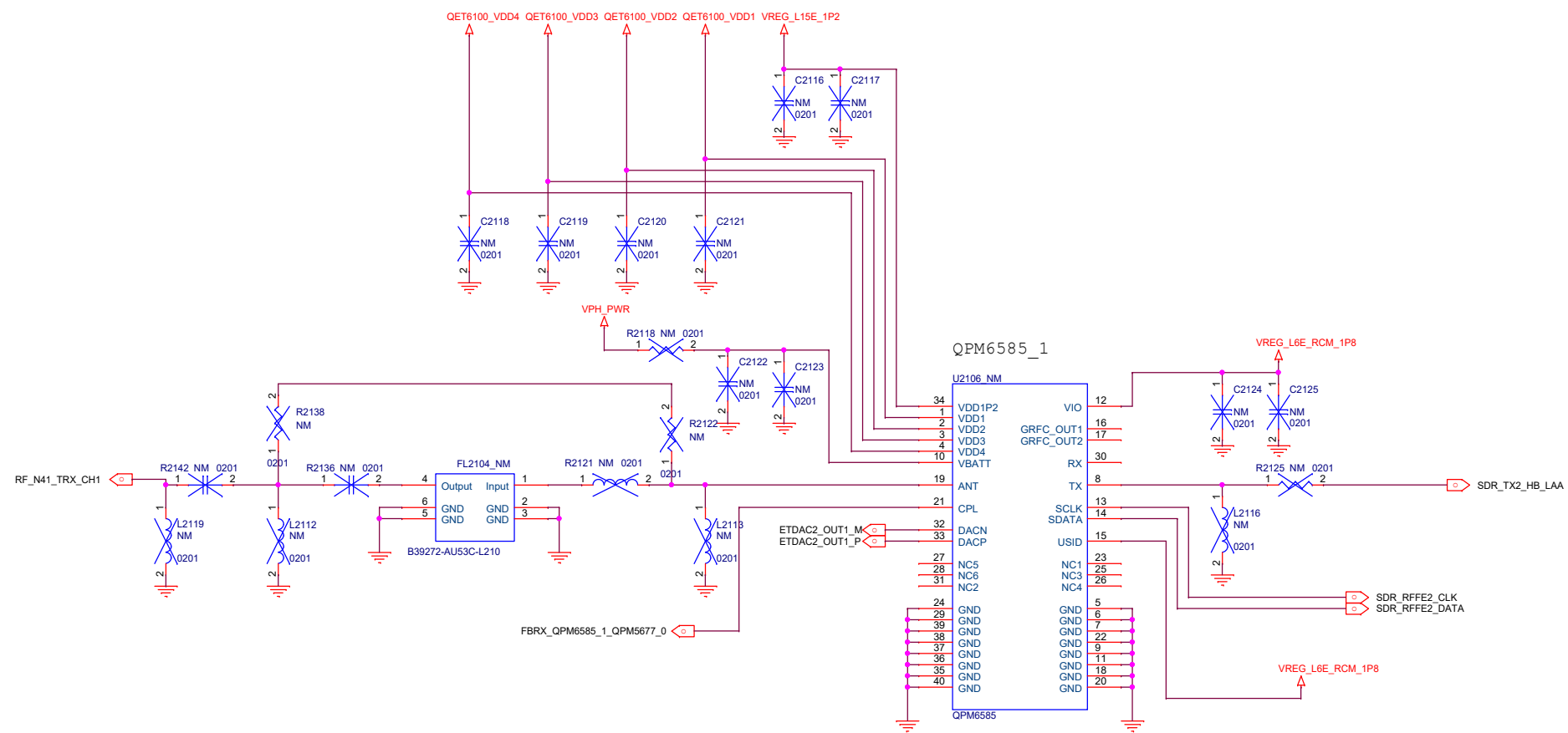
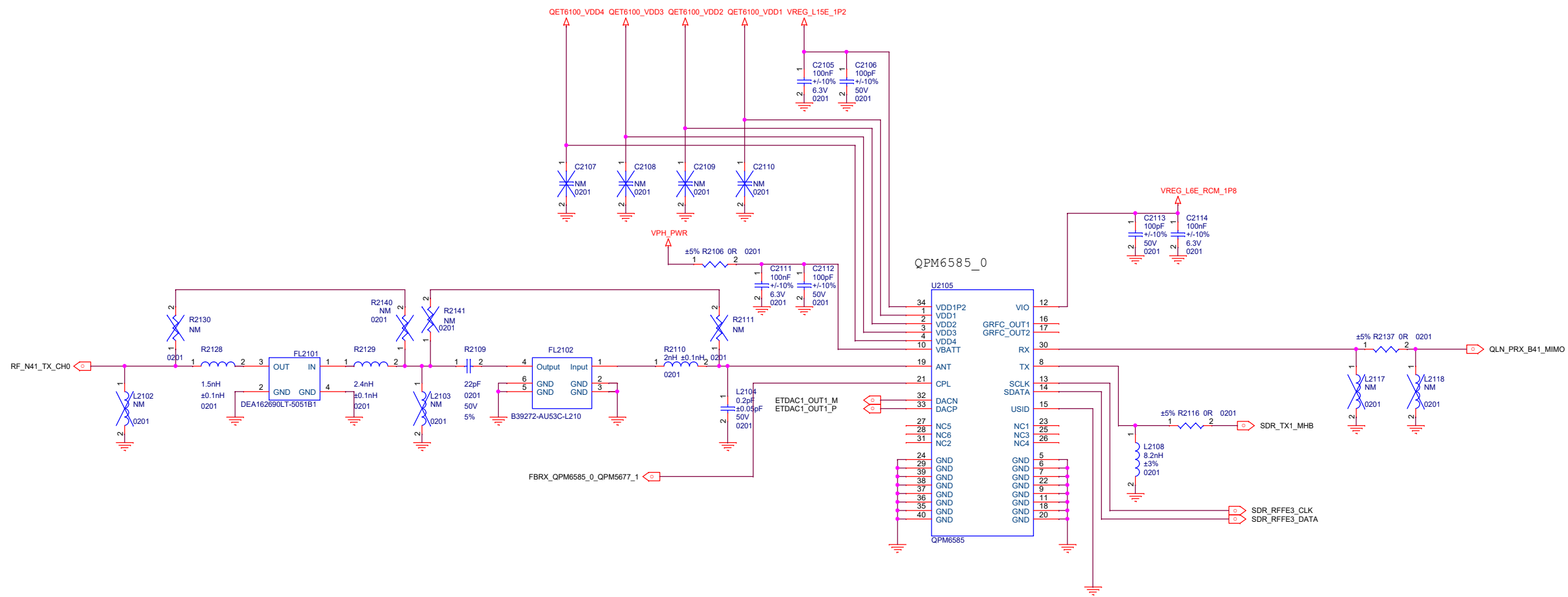
R6x55 100 capacitor table
 R1200 (11,12,13,14,17,18,19,112,114,115) 4.7uF min .22uF max
 R1201 (110,111,112,113) 0.47uF min .22uF max
 R1202 (110,111,112,113) 0.47uF min .22uF max
 R1203 (110,111,112,113) 0.47uF min .22uF max

Rev	F1 MAIN
Size	A1
Date	Friday, November 28, 2019
Sheet	19
Total	74



Title			F1 MAIN
Size	Document Number	Reserved(for 5G-WTR P)	
A2			Rev P0
Date:	Friday, November 29, 2019	Sheet	20 of 72





5

4

3

2

1

D

D

C

C

B

B

A

Title	
F1 MAIN	
Size	Document Number
A3	Reserved(for PA)
Date:	Friday, November 29, 2019
Sheet	1

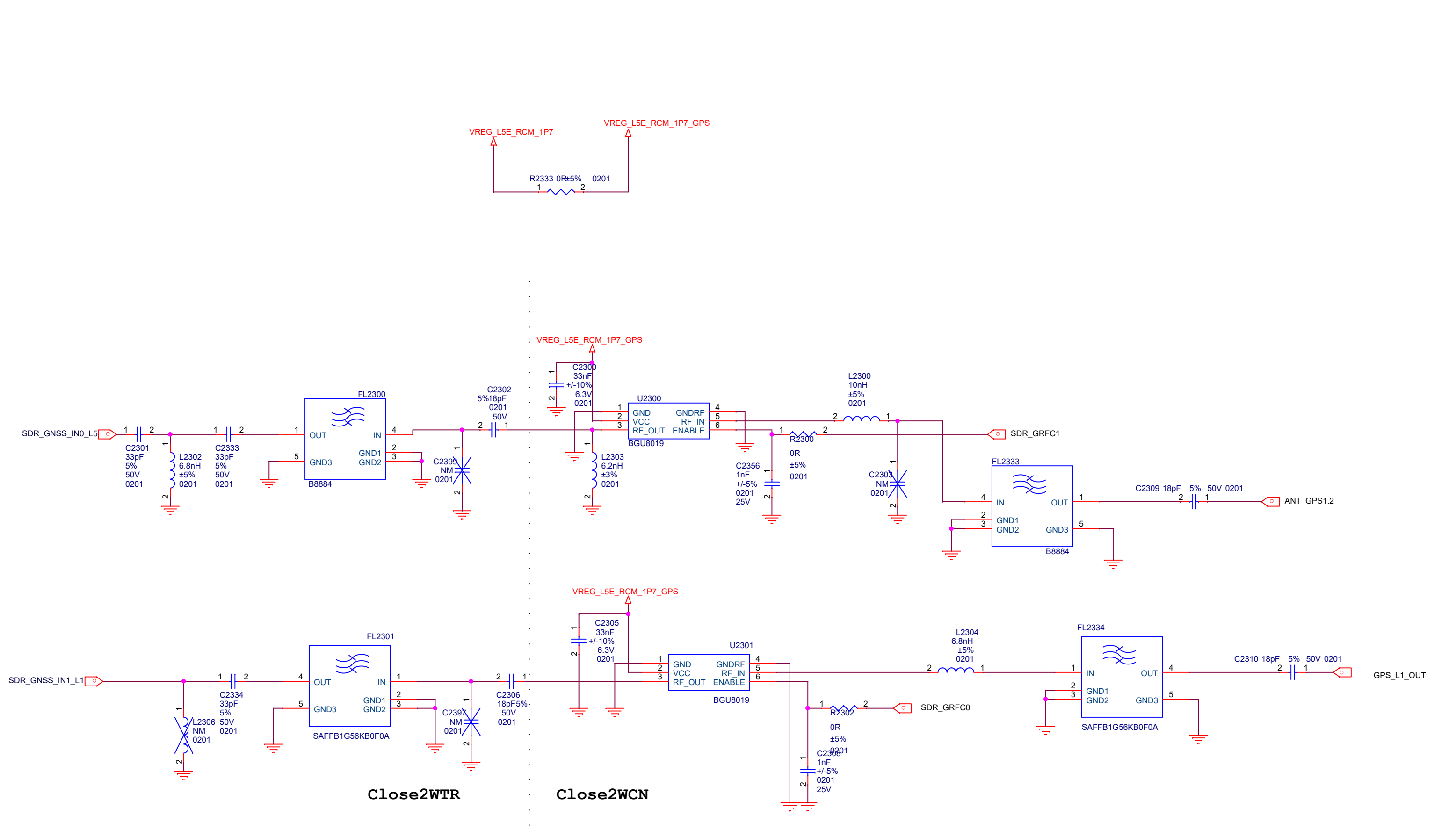
5

4

3

2

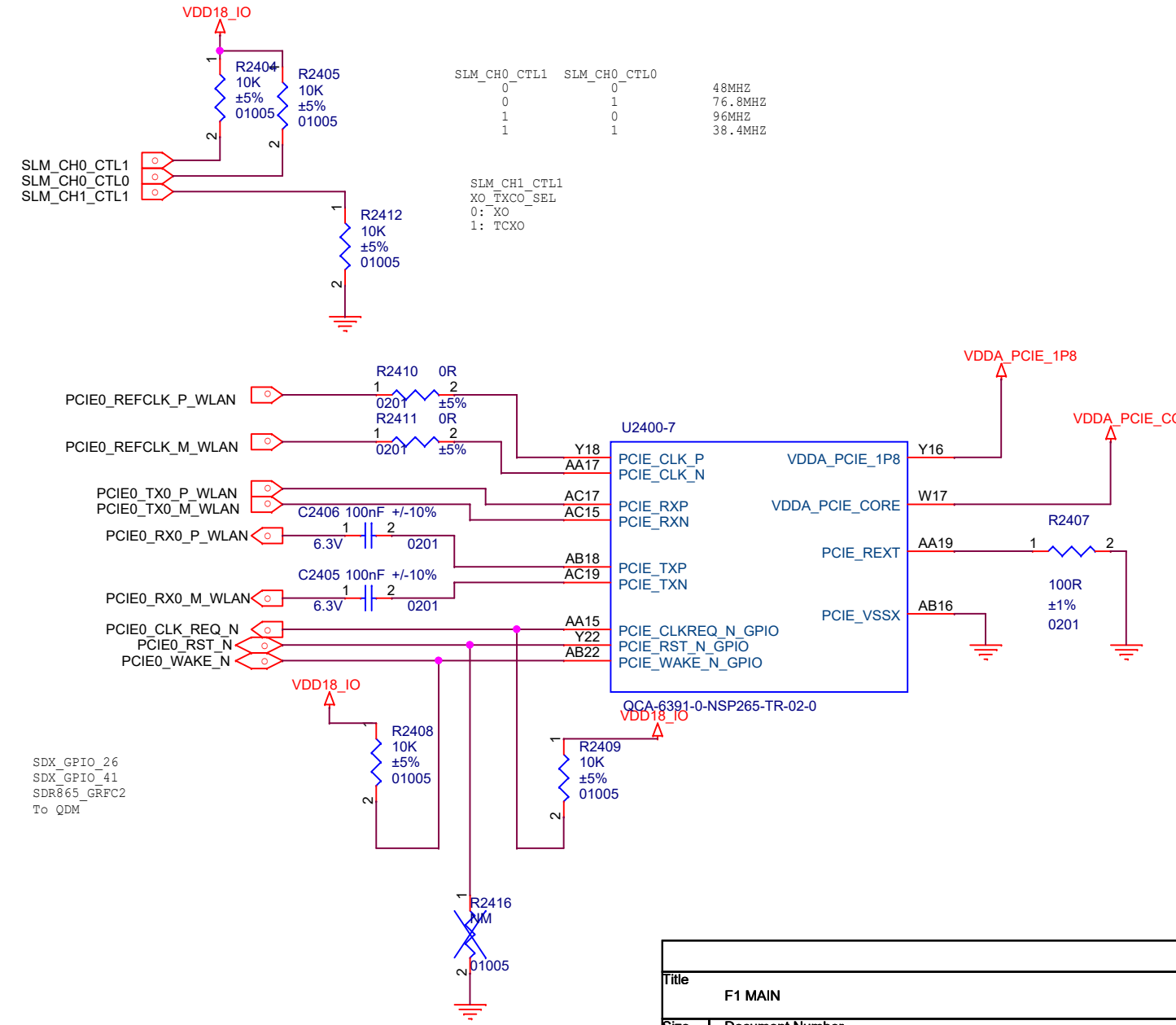
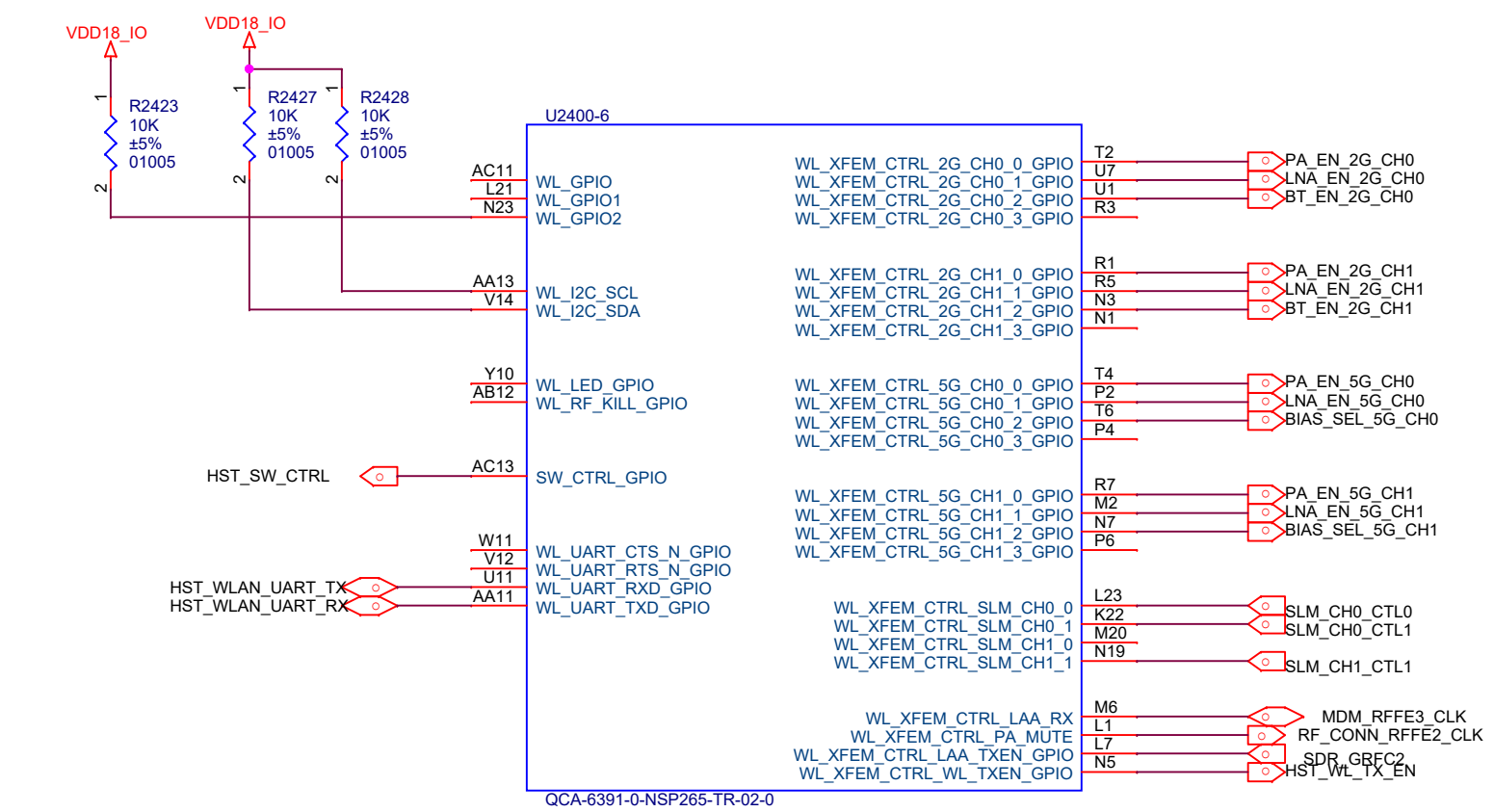
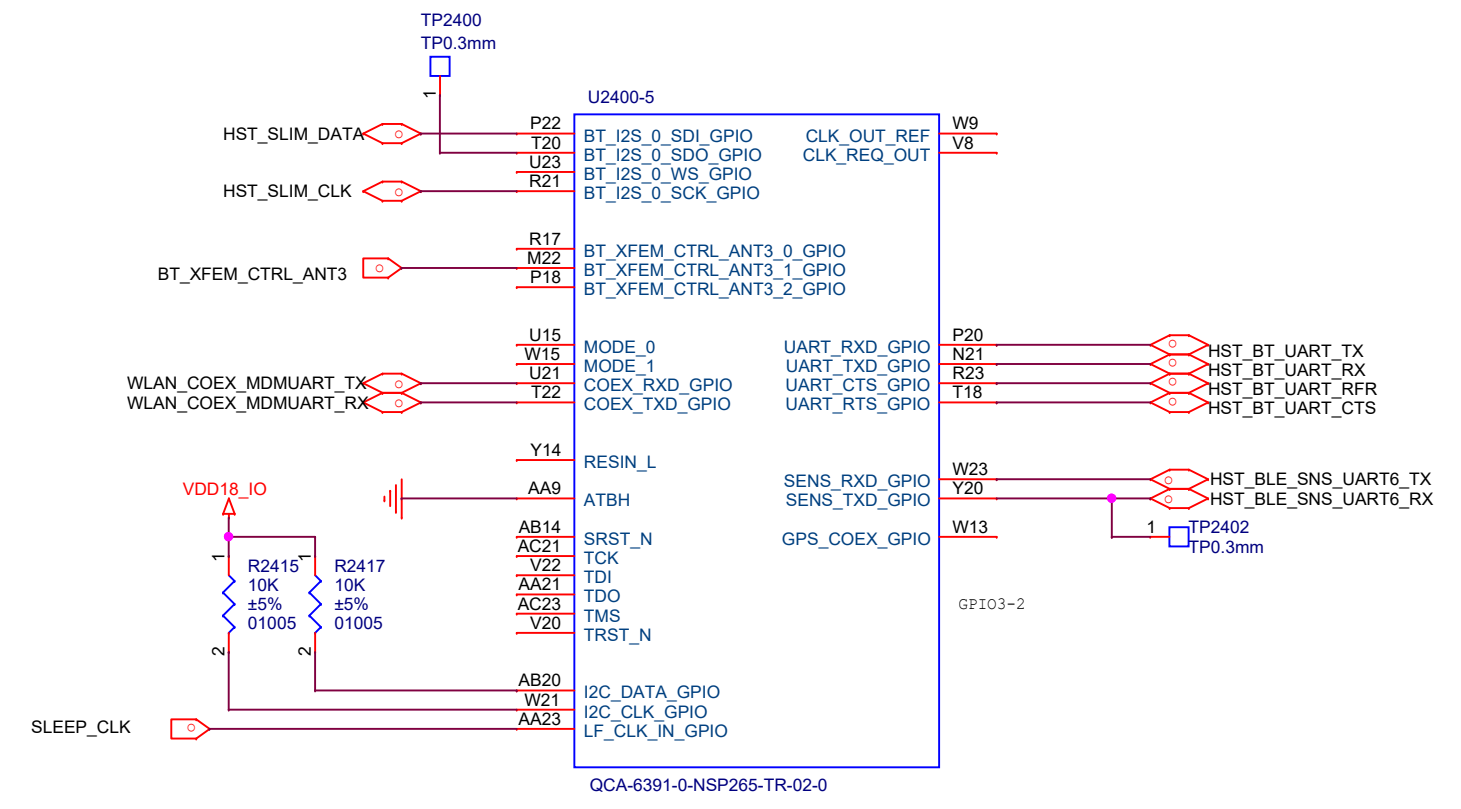
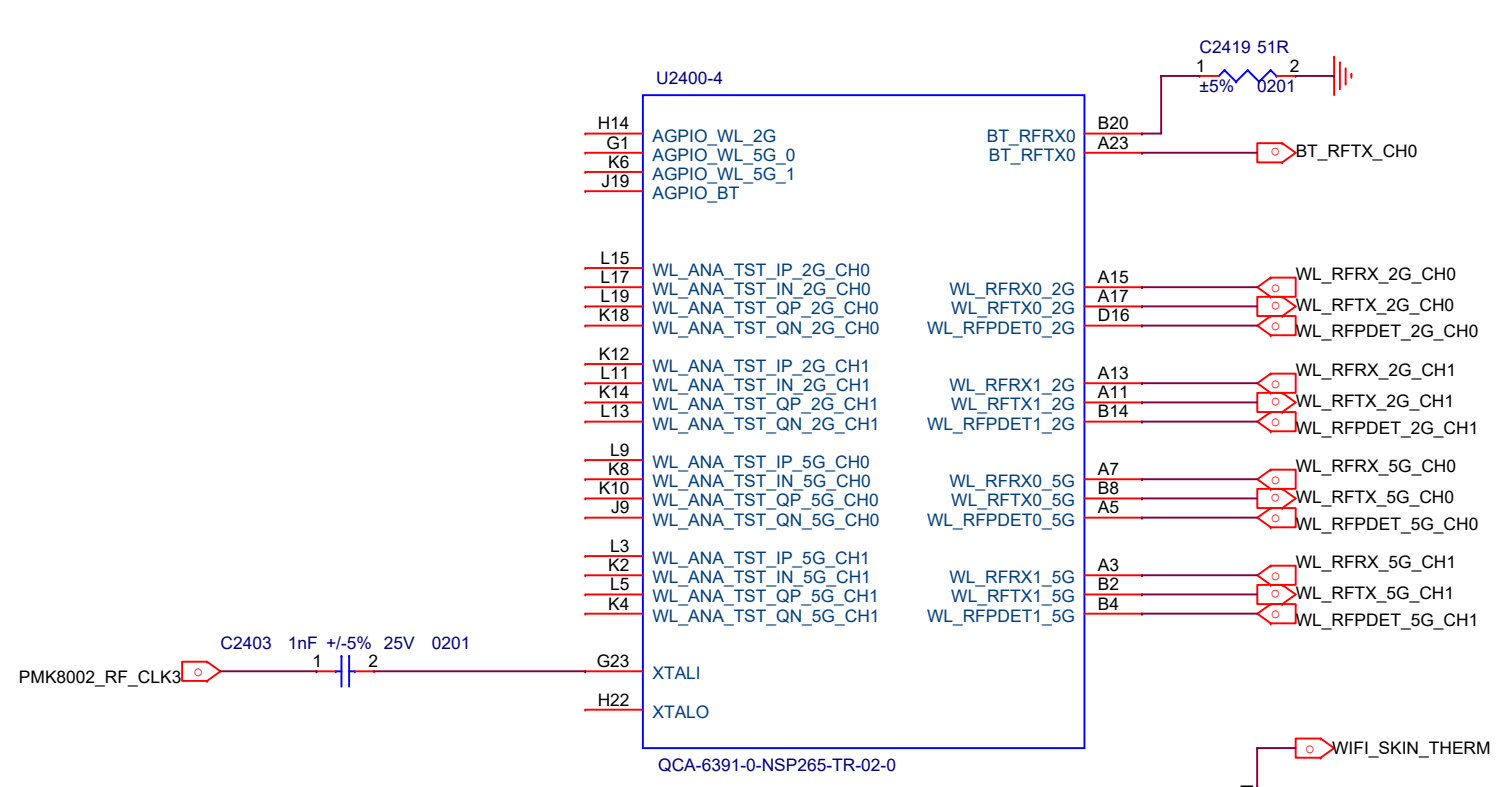
1



Close2WTR

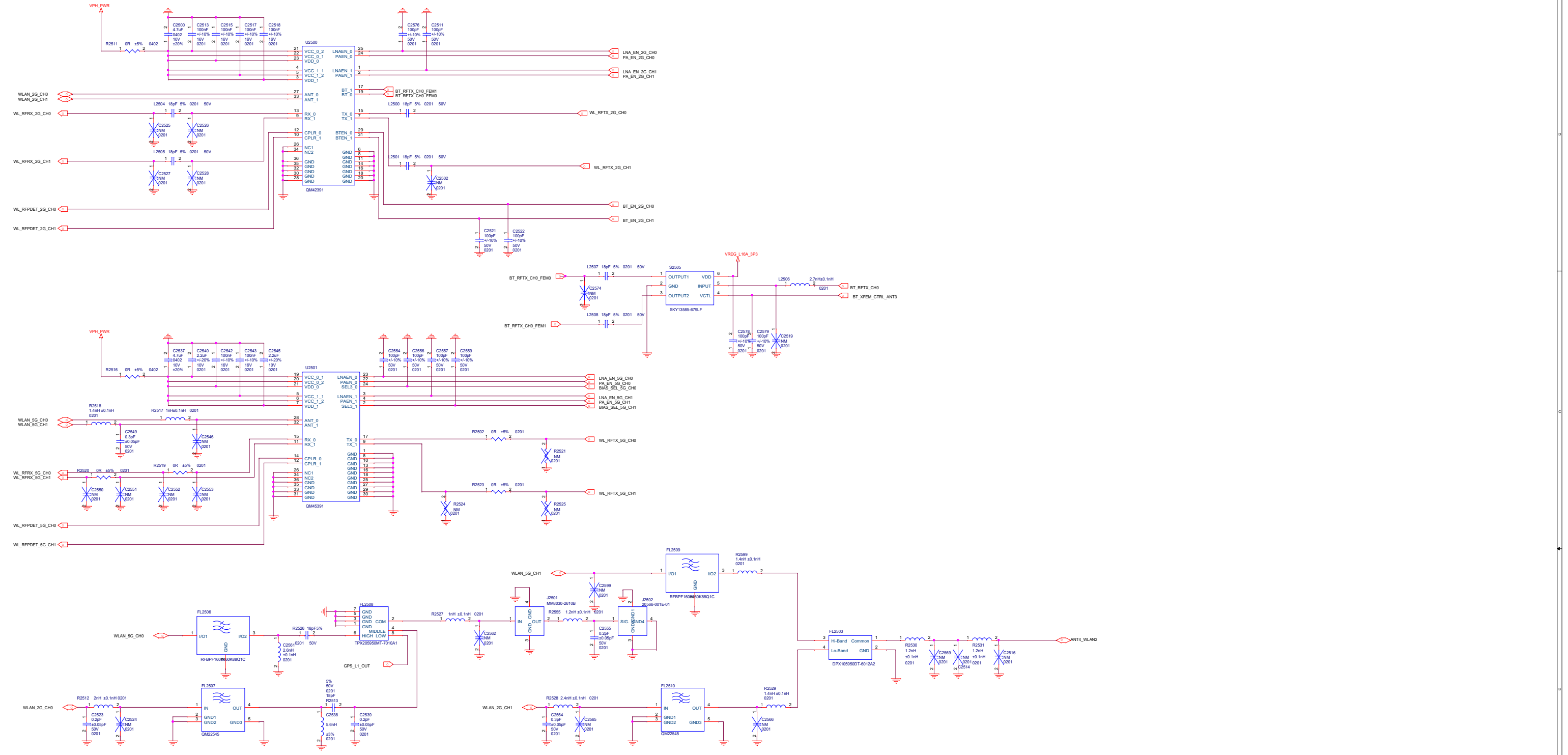
Close2WCN

Title		F1 MAIN	
Size	A3	Document Number	GPS
Date:	Friday, November 29, 2019	Sheet	24 of 74

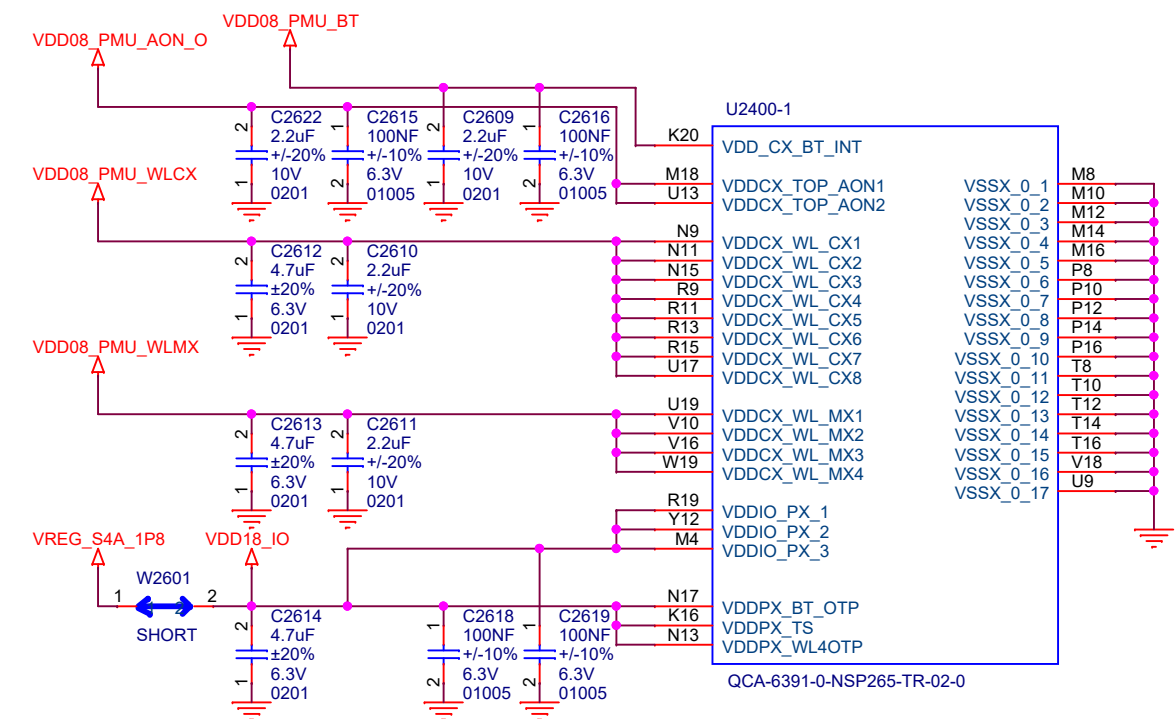
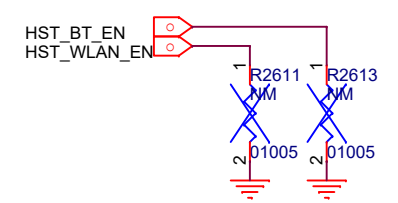
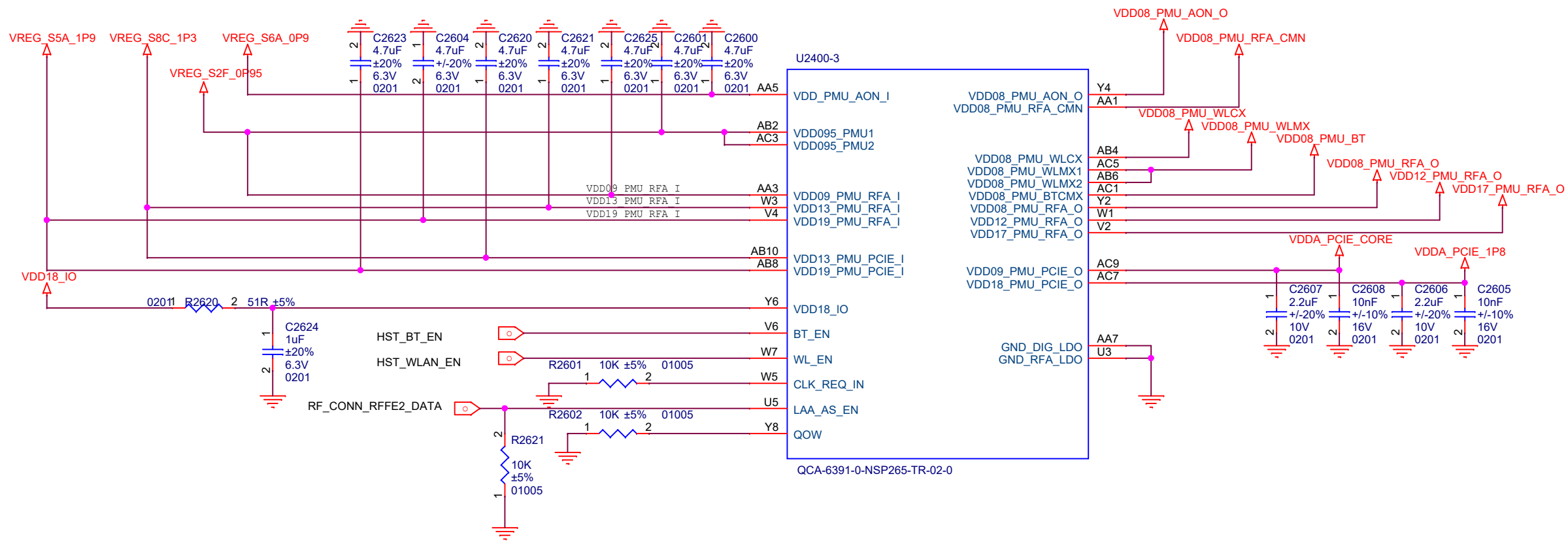


SLM_CH0_CTL1	SLM_CH0_CTL0	Frequency
0	0	48MHZ
0	1	76.8MHZ
1	0	96MHZ
1	1	38.4MHZ

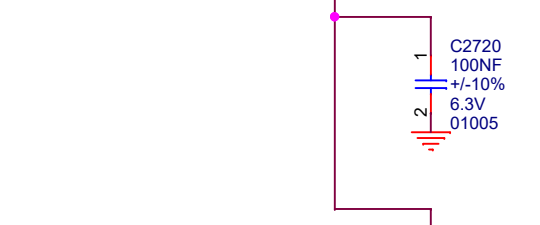
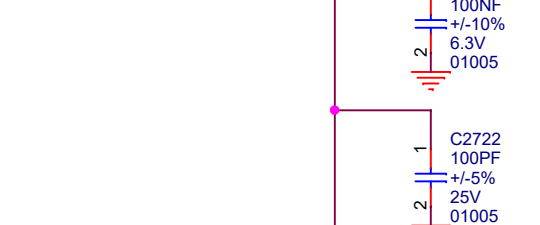
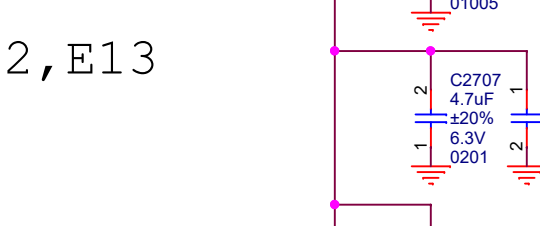
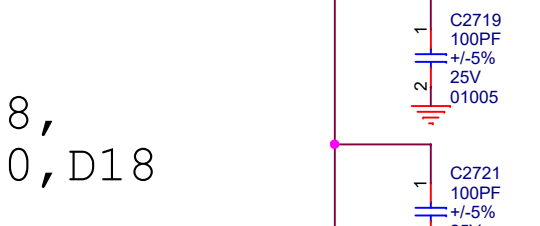
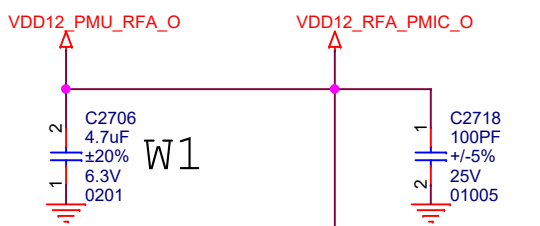
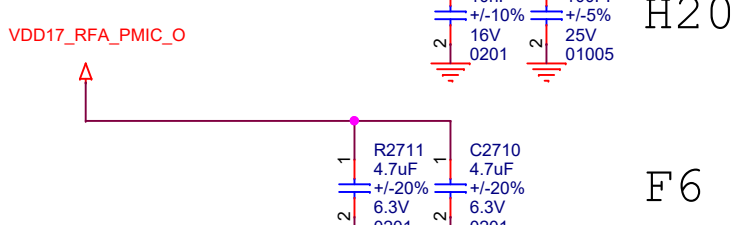
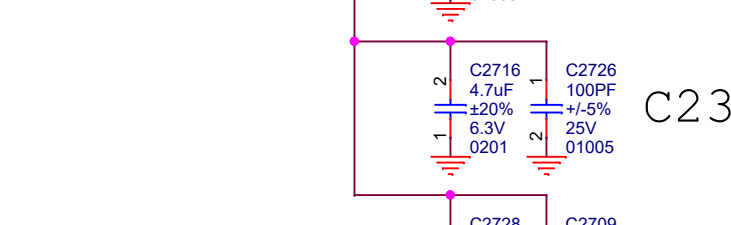
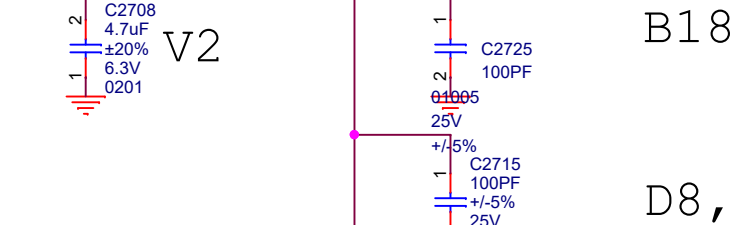
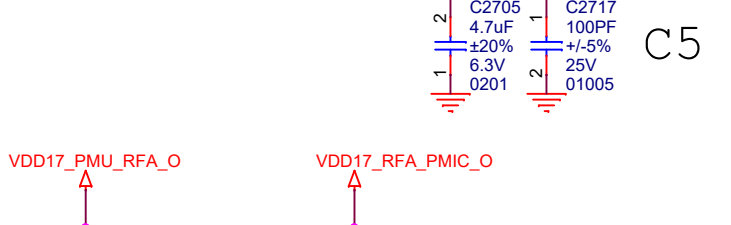
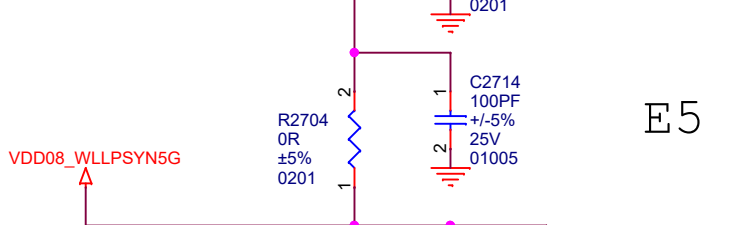
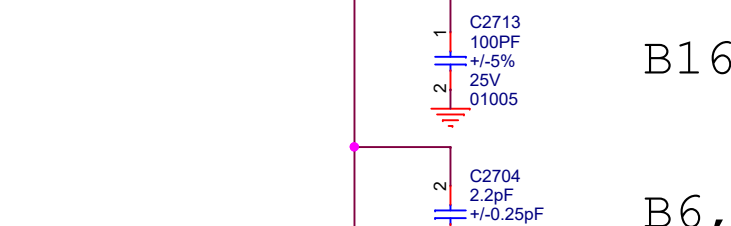
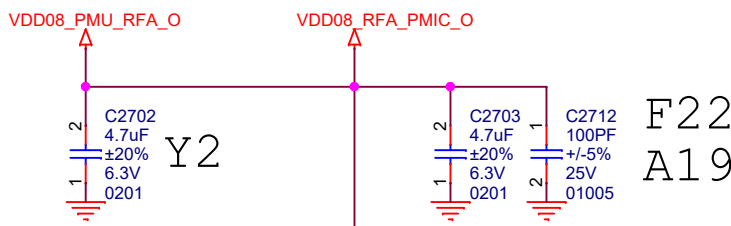
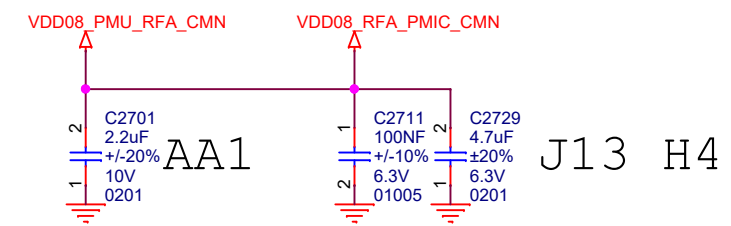
SLM_CH1_CTL1	XO_TXCO_SEL
0	XO
1	TCXO



Rev	F1 MAN
Sw	Document Number
Alt	Reserved for Traceback
Date	Friday, November 20, 2015
Sheet	Sheet



Title		F1 MAIN
Size	Document Number	WIFI Decoupling
A3		
Date:	Friday, November 29, 2019	Sheet 27 of 74



J11, H16, H12

H8, H2

F16, F12, E15

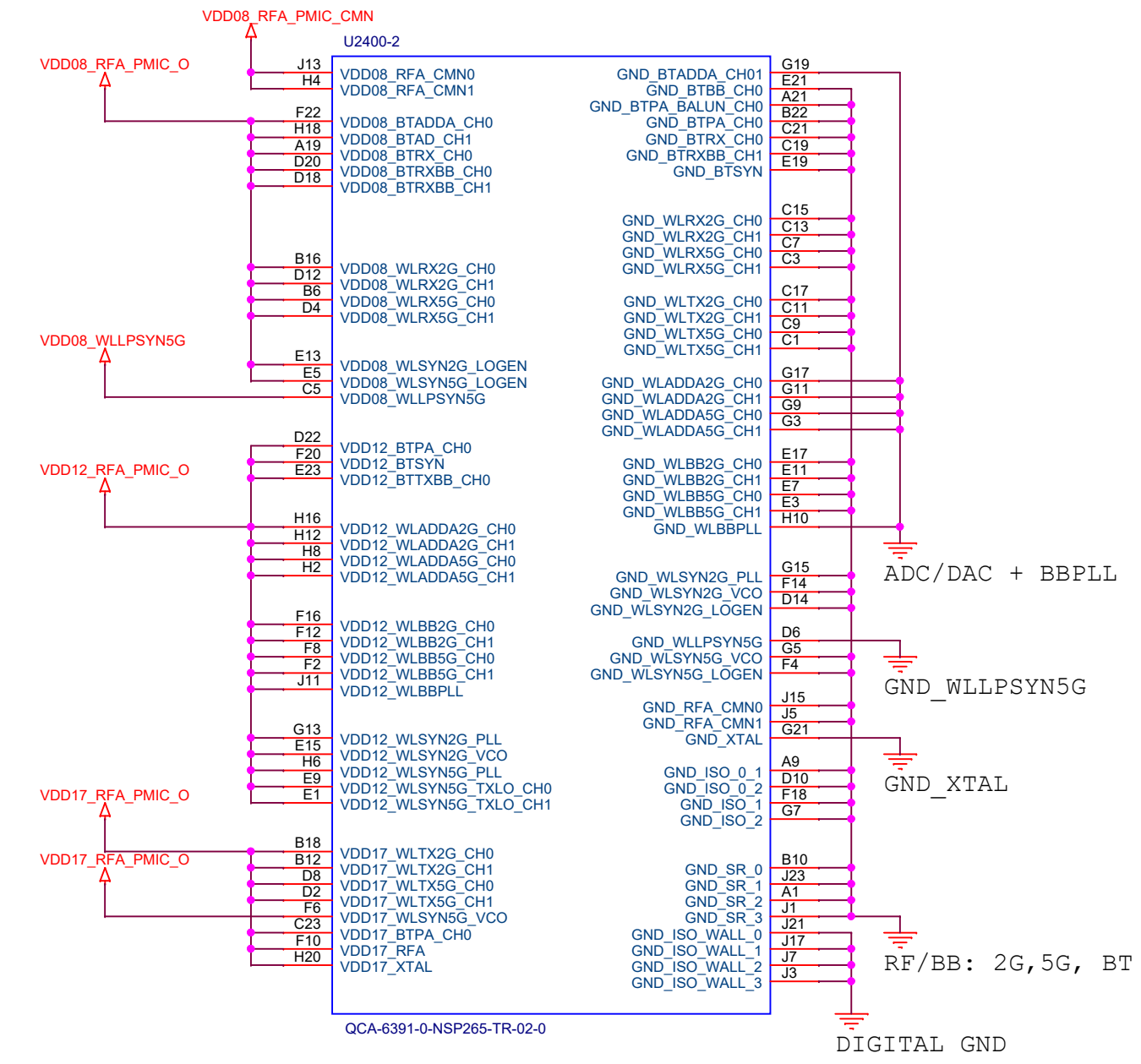
F8, F2, E9, E1, H6

D22

F20

E23

G13



Title		F1 MAIN	
Size	A3	Document Number	Reserved(for 11ad/11ax)
Date:	Friday, November 29, 2019	Sheet	28 of 74

5

4

3

2

1

D

D

C

C

B

B

A

Title	
F1 MAIN	
Size	Document Number
A3	WIFI FEM
Date:	Friday, November 29, 2019
Sheet	29
	74

5

4

3

2

1

5

4

3

2

1

D

D

C

C

B

B

A

A

Title	
F1 MAIN	
Size	Document Number
A3	Reserved(for Digital FM)
Date:	Friday, November 29, 2019
Sheet	30 of 74

5

4

3

2

1

5

4

3

2

1

D

D

C

C

B

B

A

Title	
F1 MAIN	
Size	Document Number
A3	Reserved(for Analog FM)
Date:	Friday, November 29, 2019
Sheet	31
	74

5

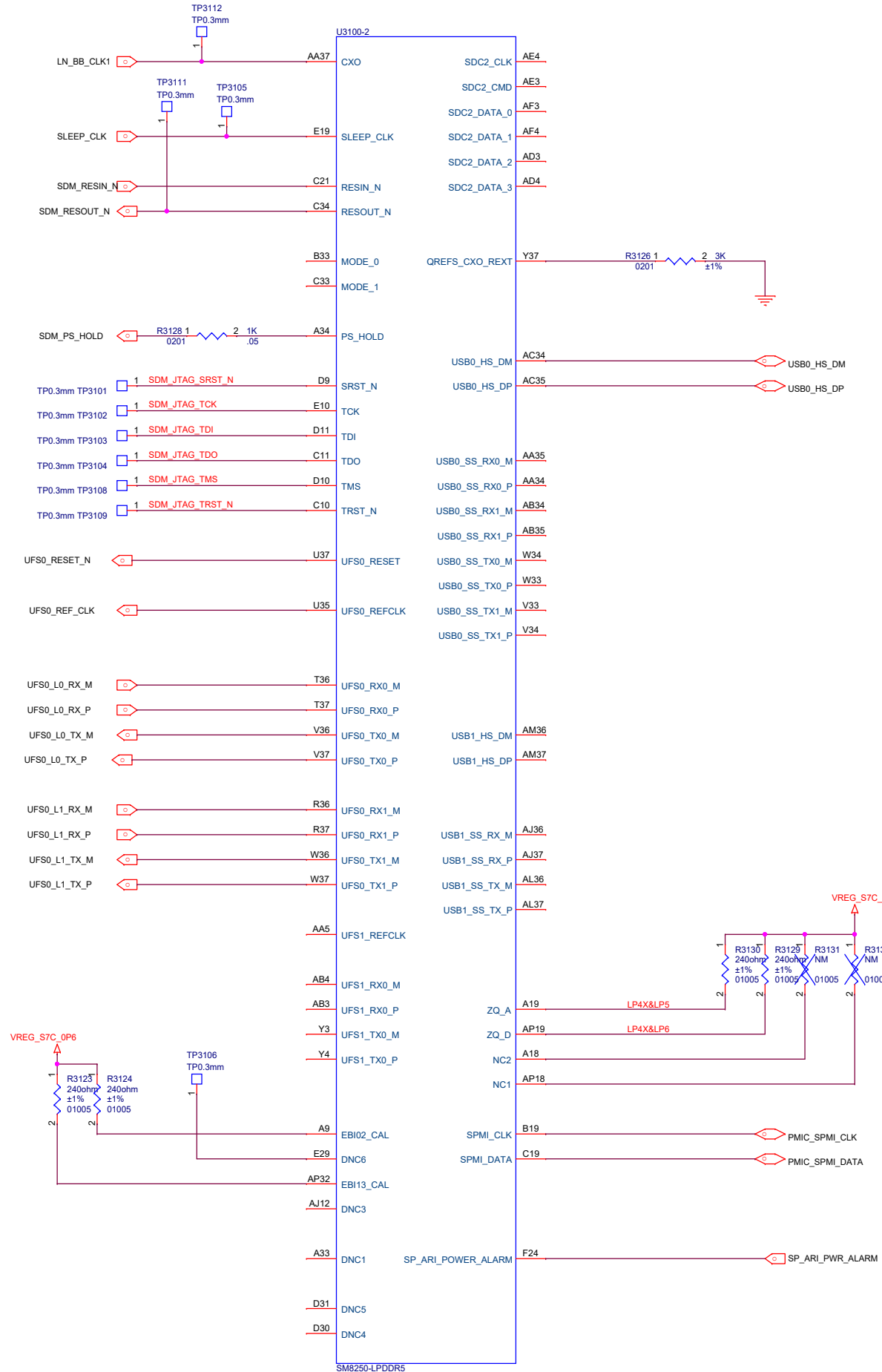
4

3

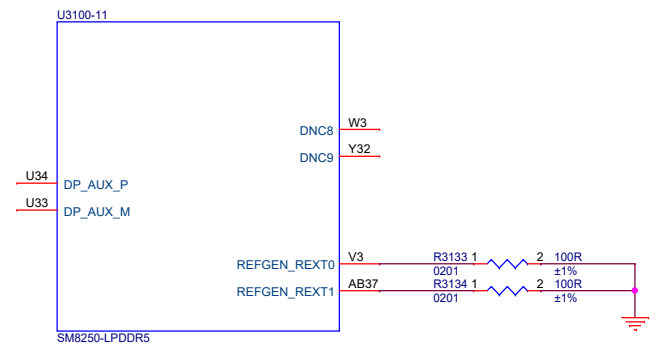
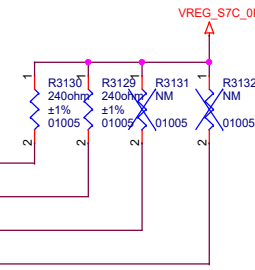
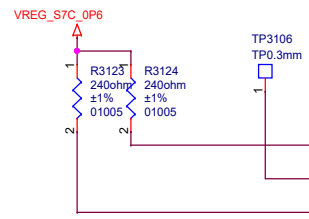
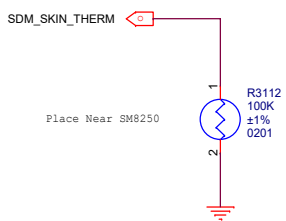
2

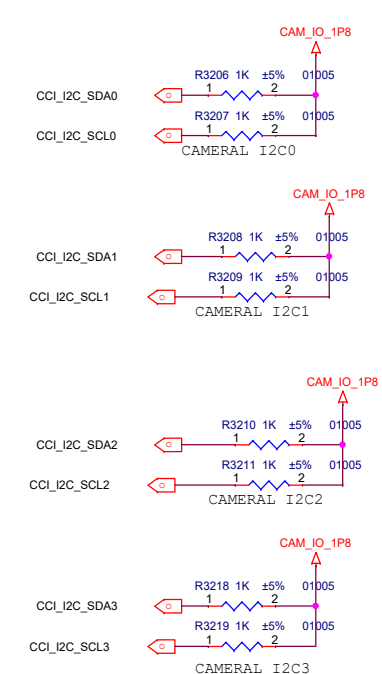
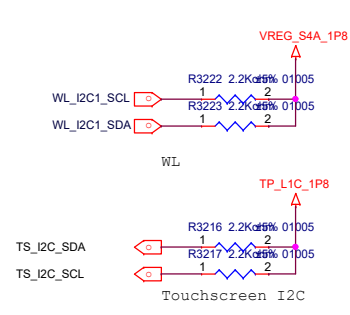
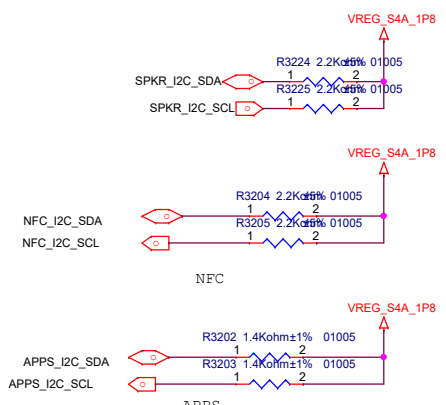
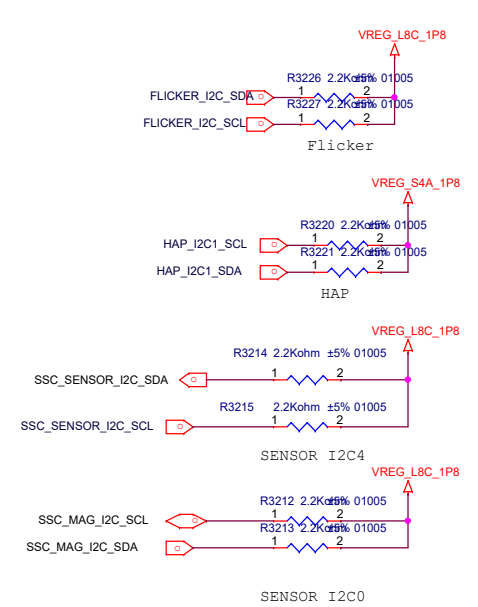
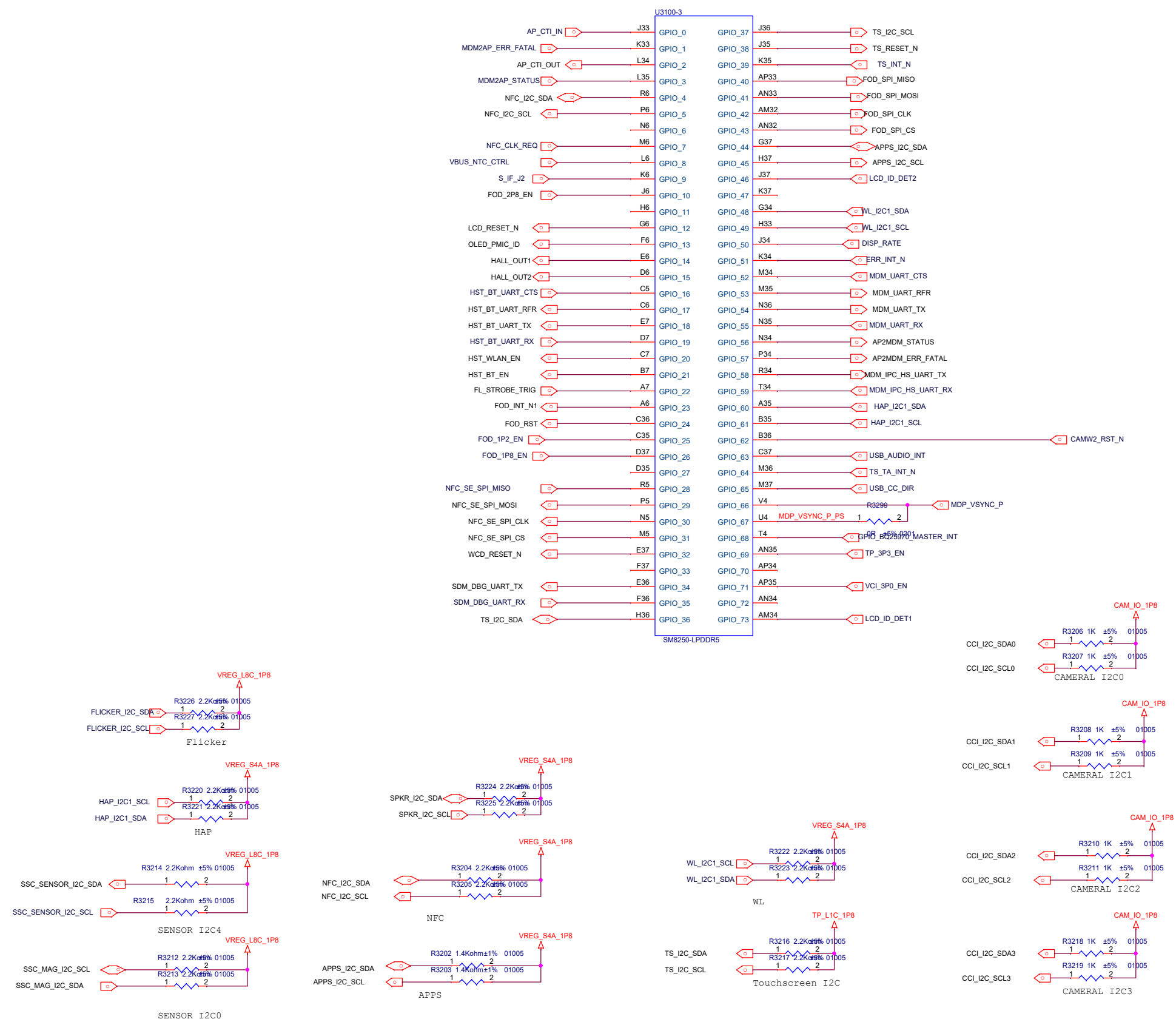
1

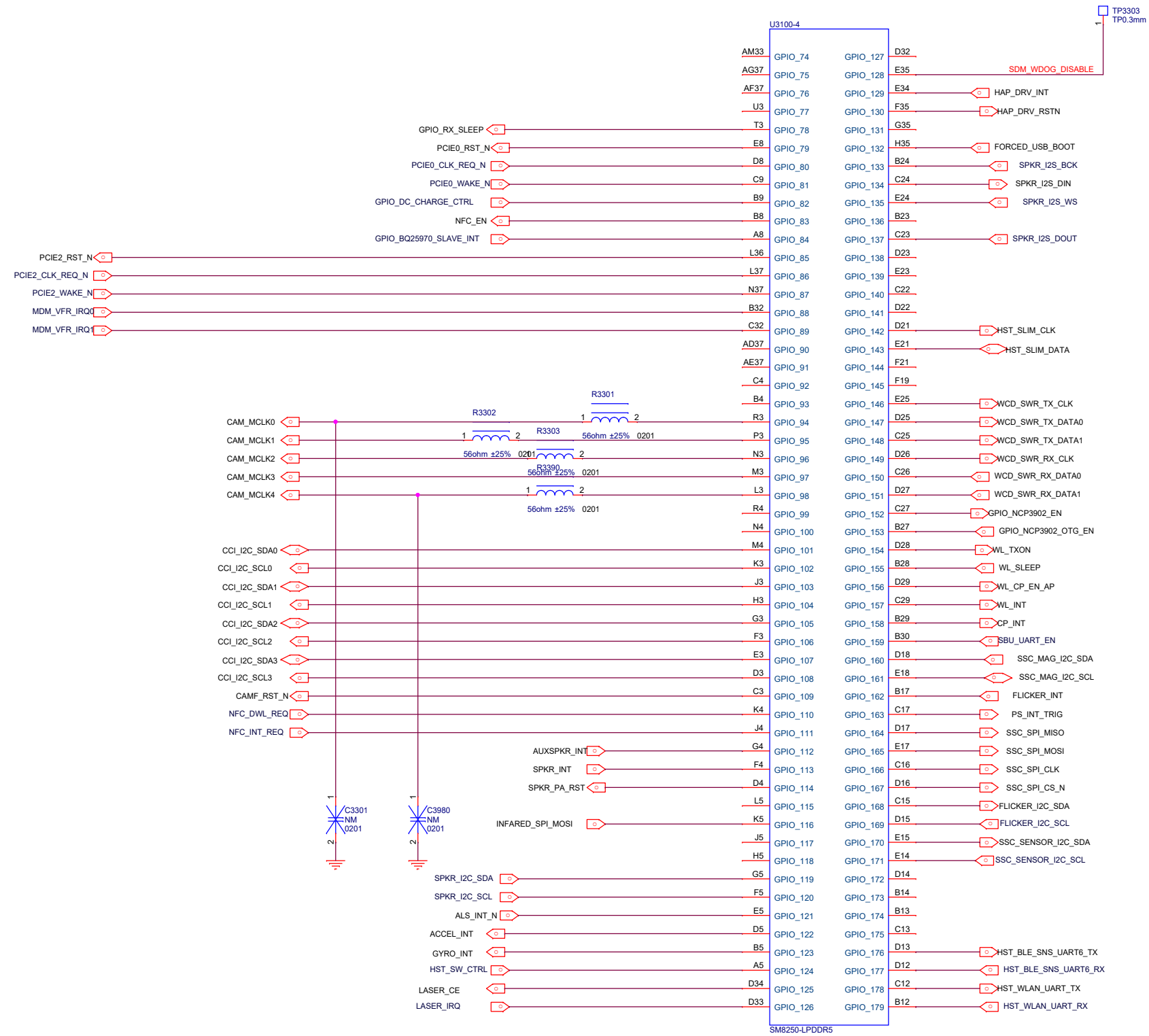
We use current SM8250 symbol as LP5 PKG, and it can be compatible with LP4x PKG

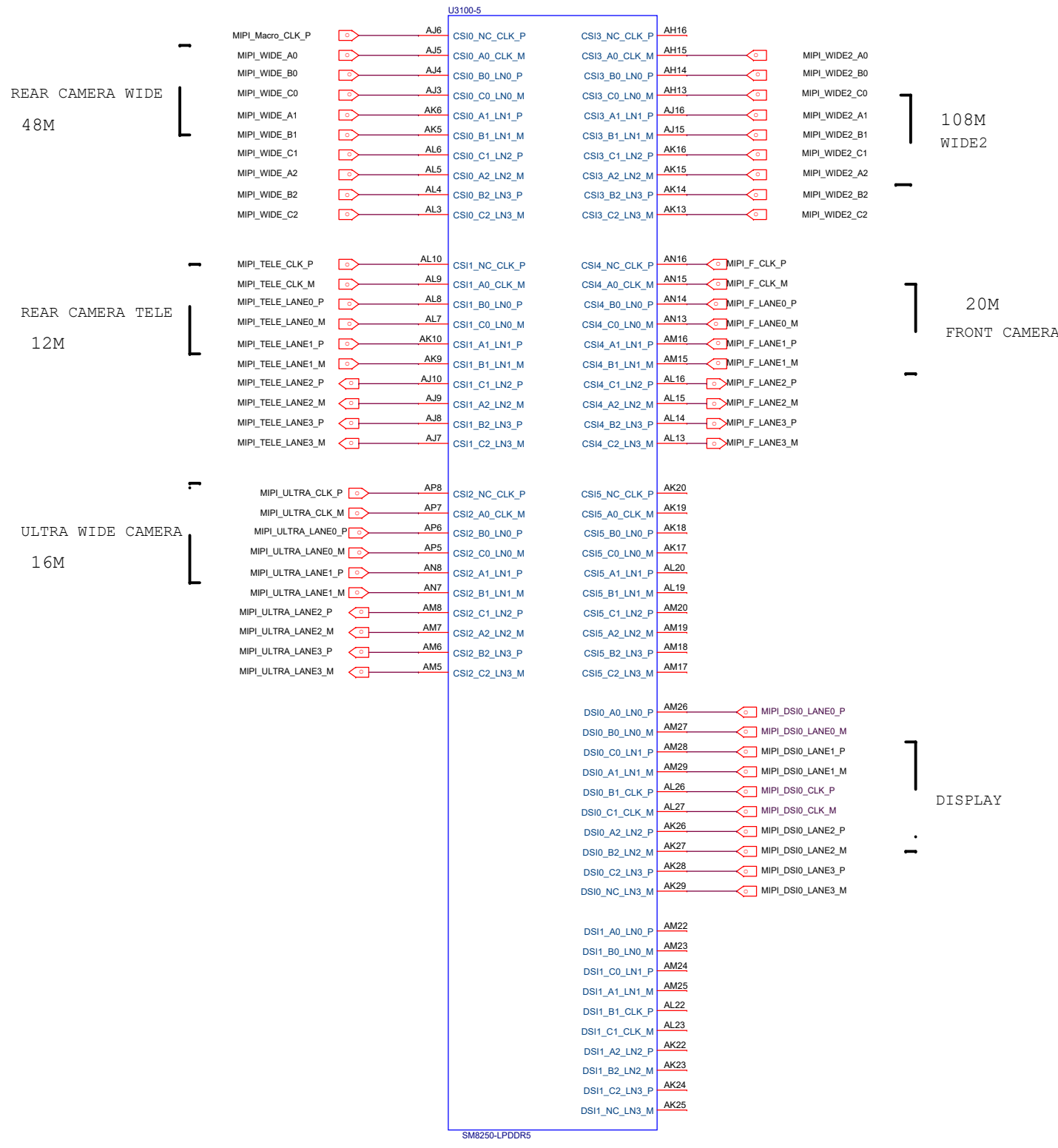


Place all ZQ resistors close to SDM
 SM8250 LP5: DNI R3131/R3132, and mount R3129/R3130
 SM8250 LP4: Mount R3129/R3130/R3131/R3132









5

4

3

2

1

D

D

C

C

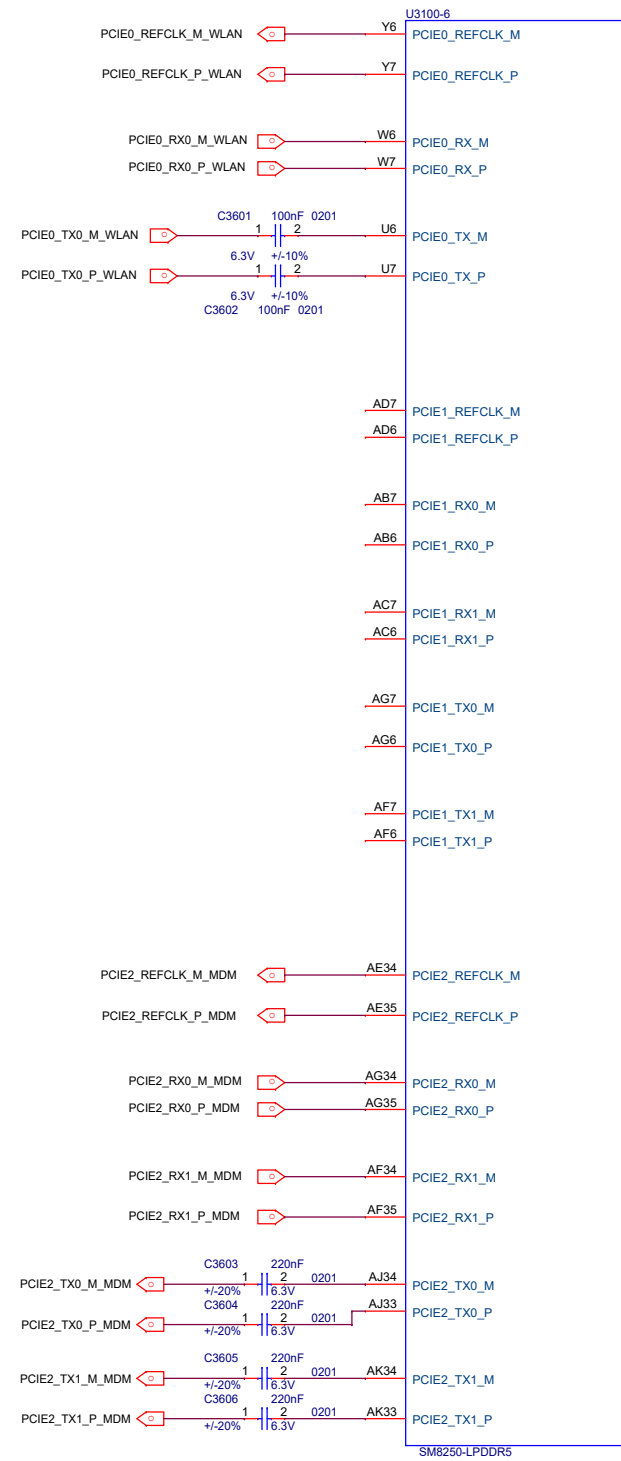
B

B

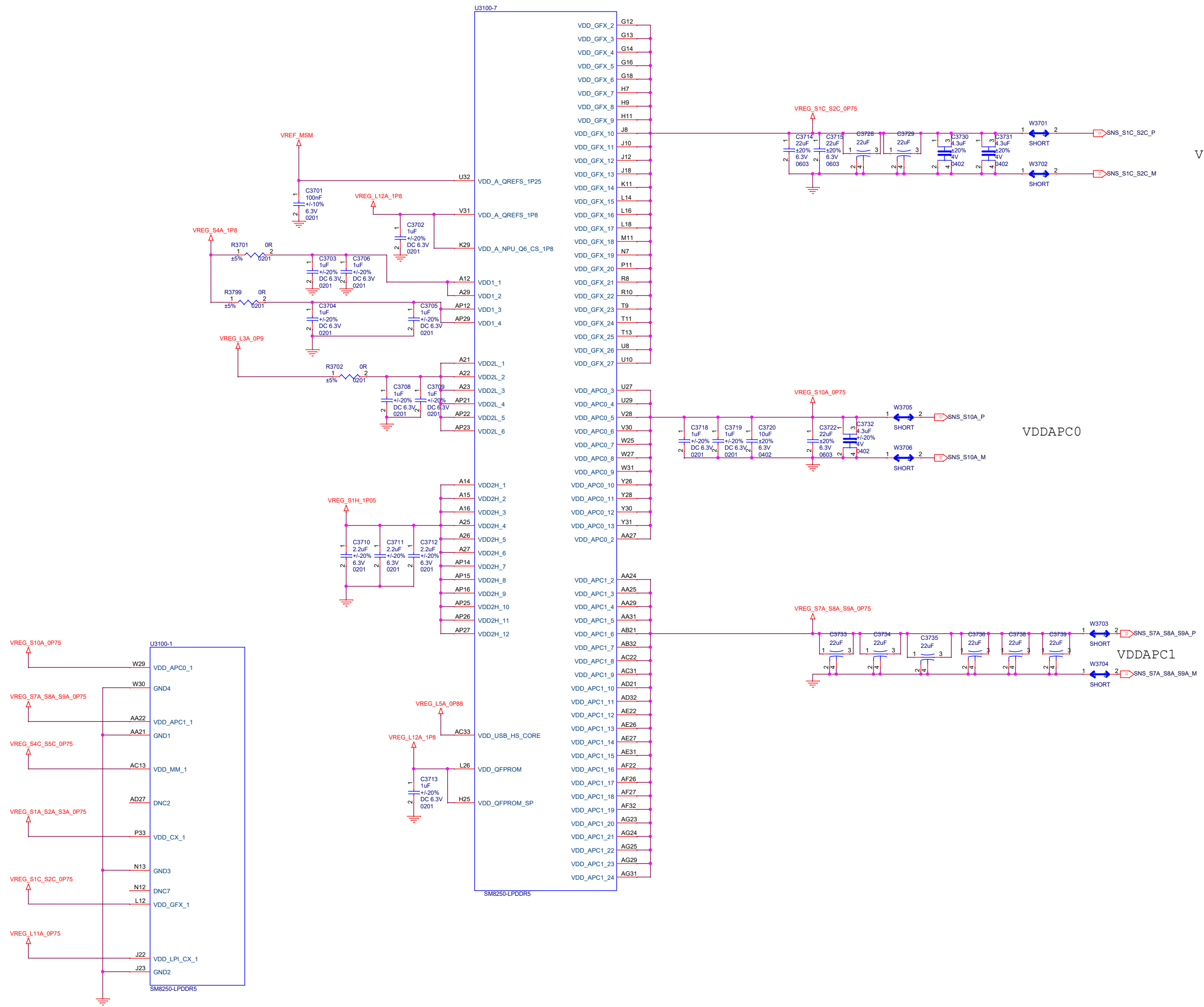
A

A

Title	
F1 MAIN	
Size	Document Number
A3	Reserved(for MIPI)
Date:	Friday, November 29, 2019
Sheet	36
	74



Title		F1 MAIN
Size	Document Number	SDM855 RF INTF
Date:	Friday, November 29, 2019	Sheet



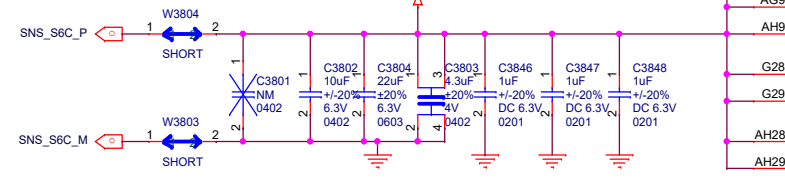
VDDGFX

VDDAPC0

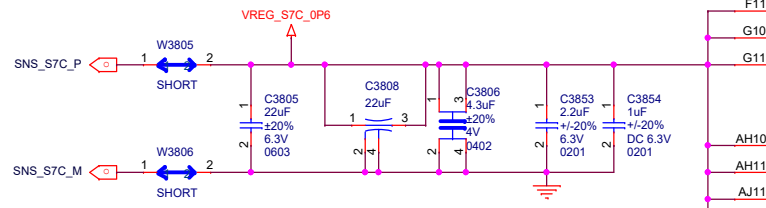
VDDAPC1

Title	F1 MAIN
Size	A2
Document Number	SDM855 PWR1
Date:	Friday, November 29, 2019
Sheet	1

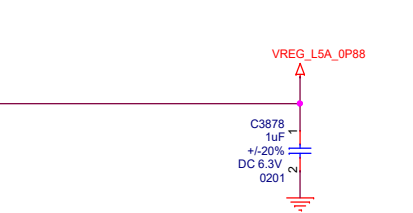
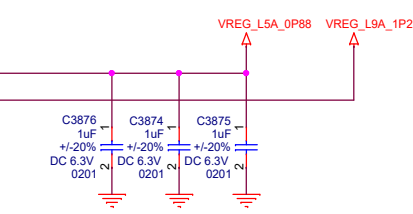
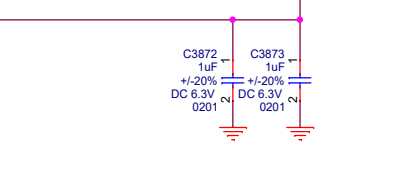
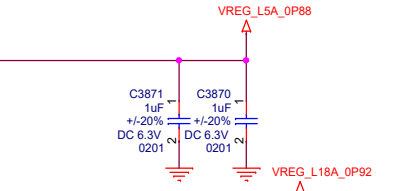
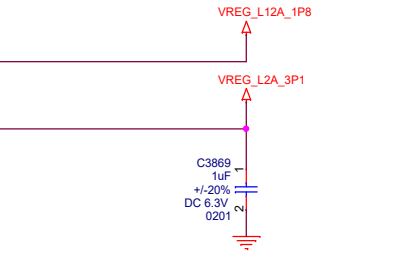
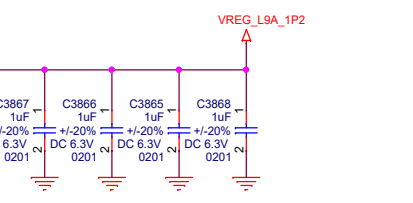
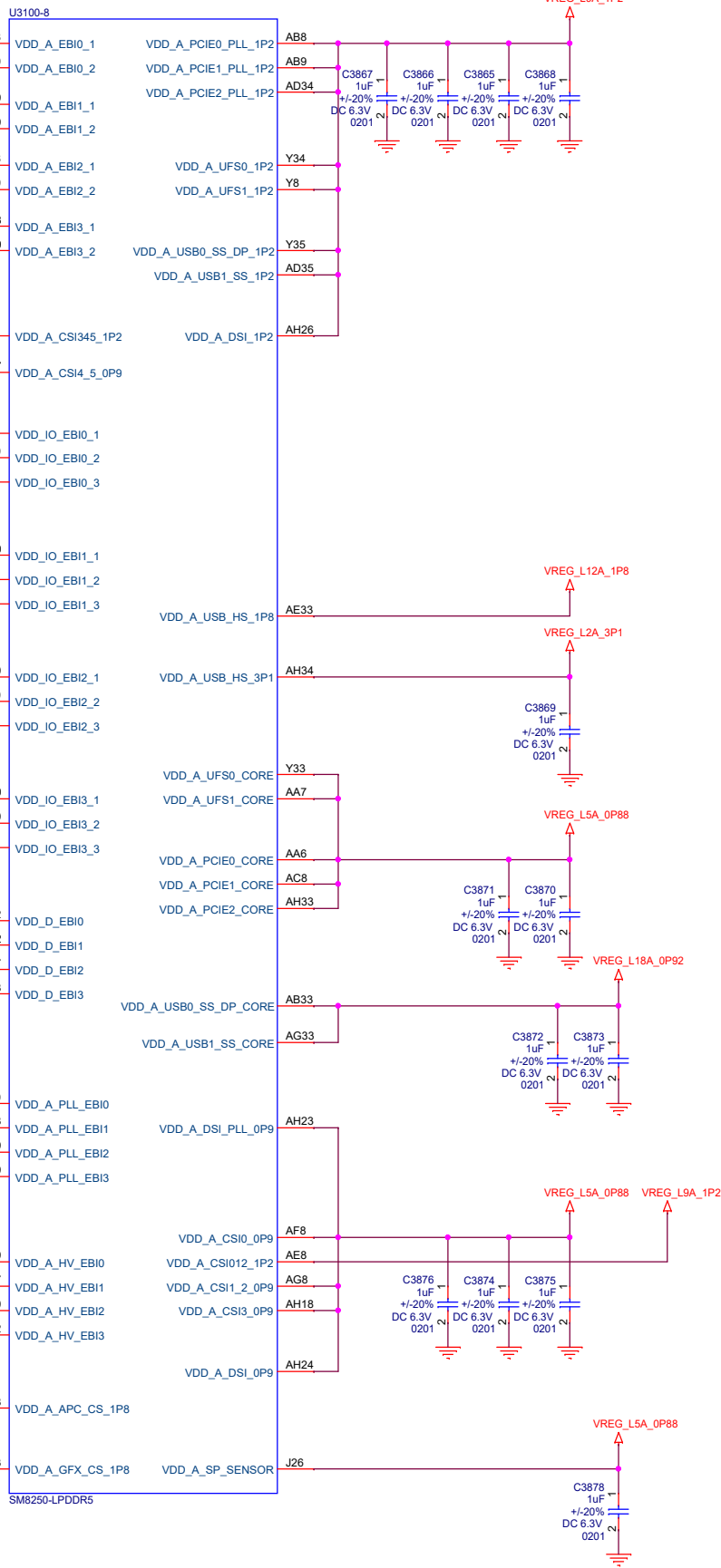
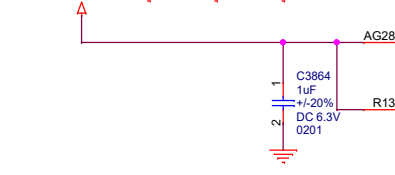
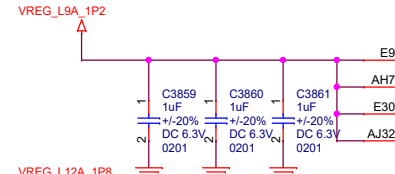
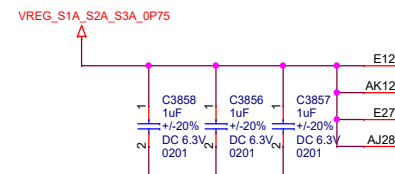
VDDA

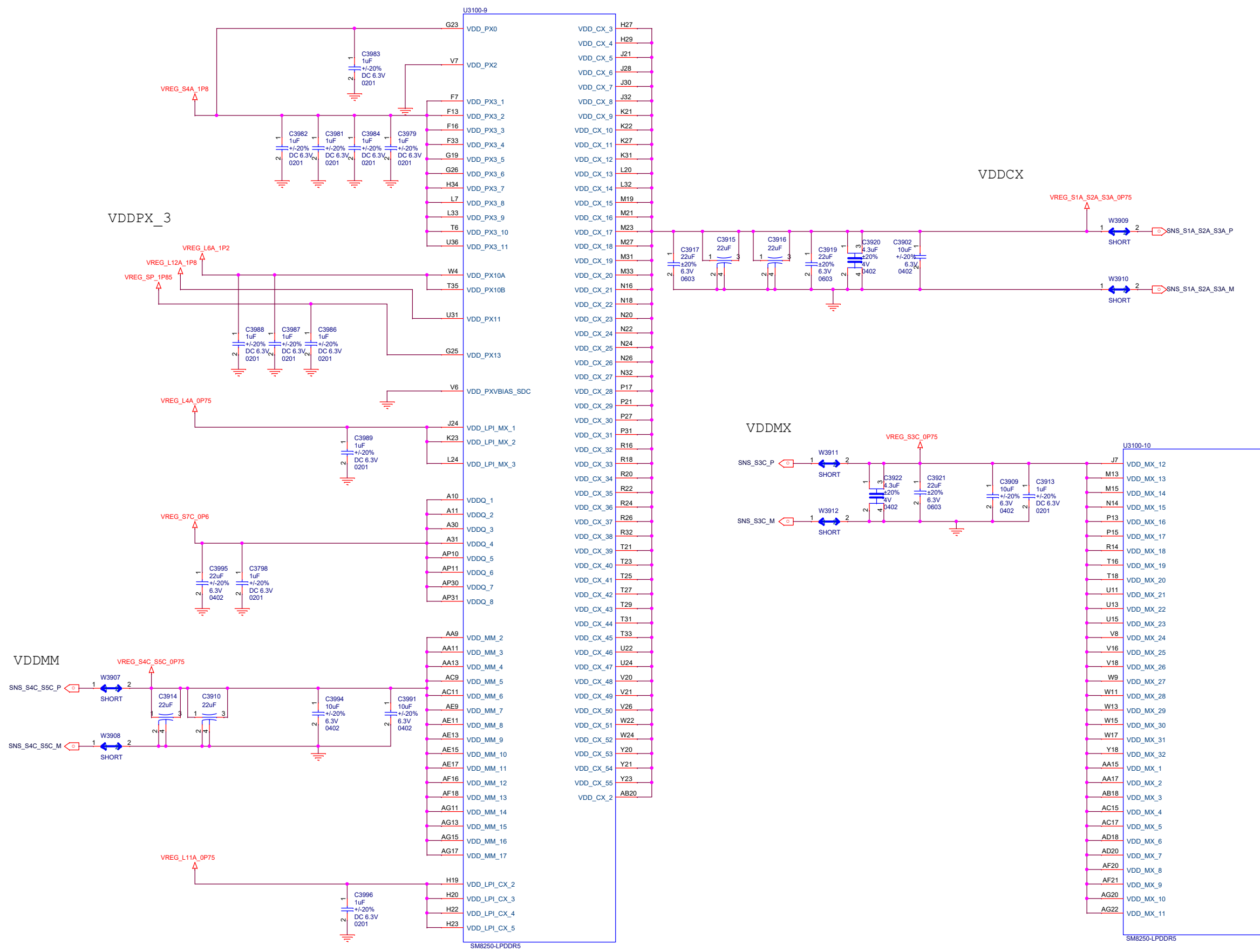


VDDQ/VDDIO_EBI



Share caps with VDDCX





5

4

3

2

1

D

D

C

C

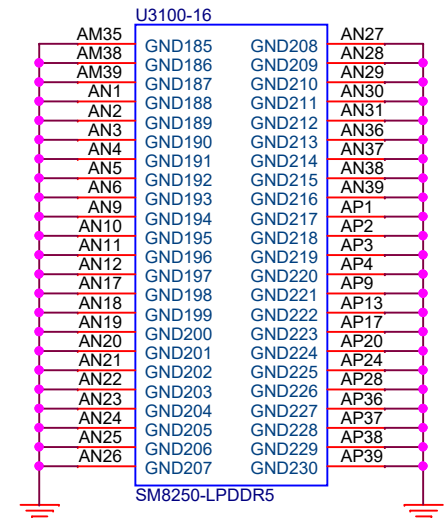
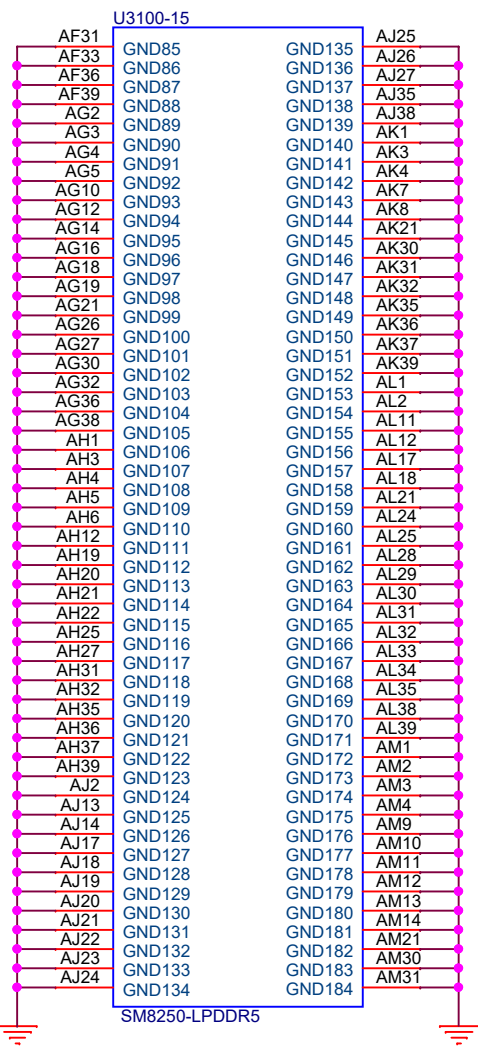
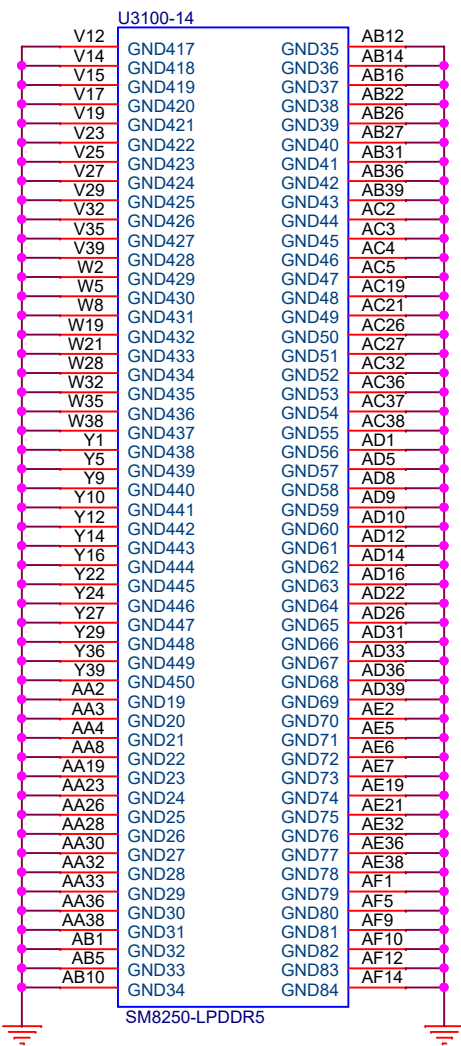
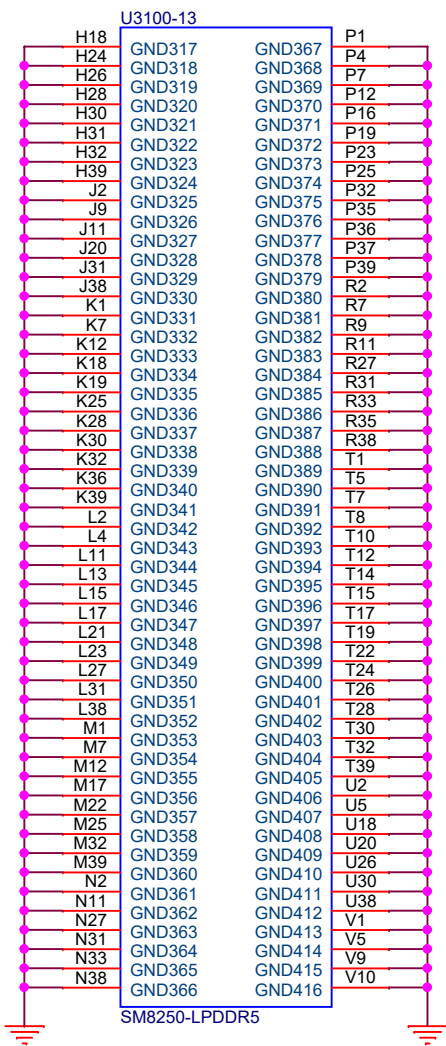
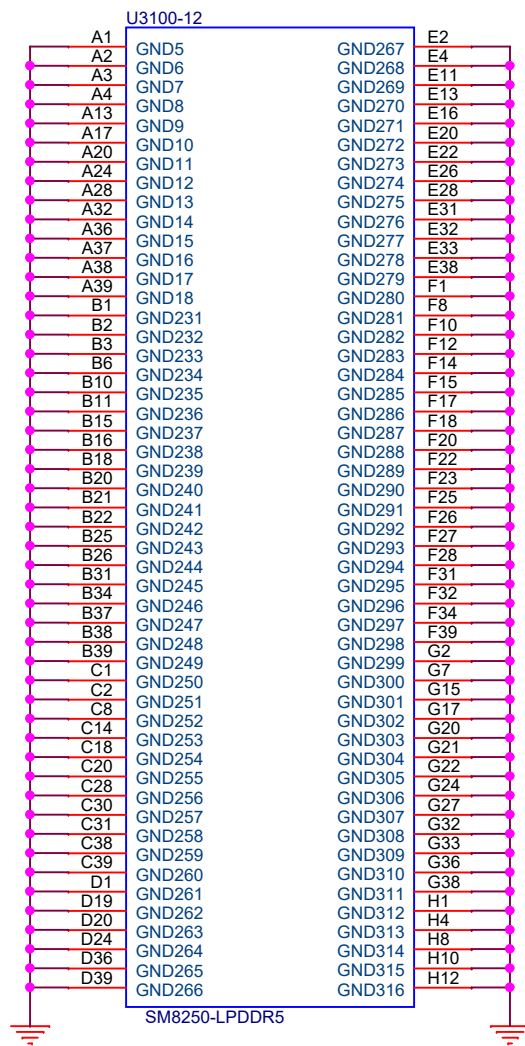
B

B

A

A

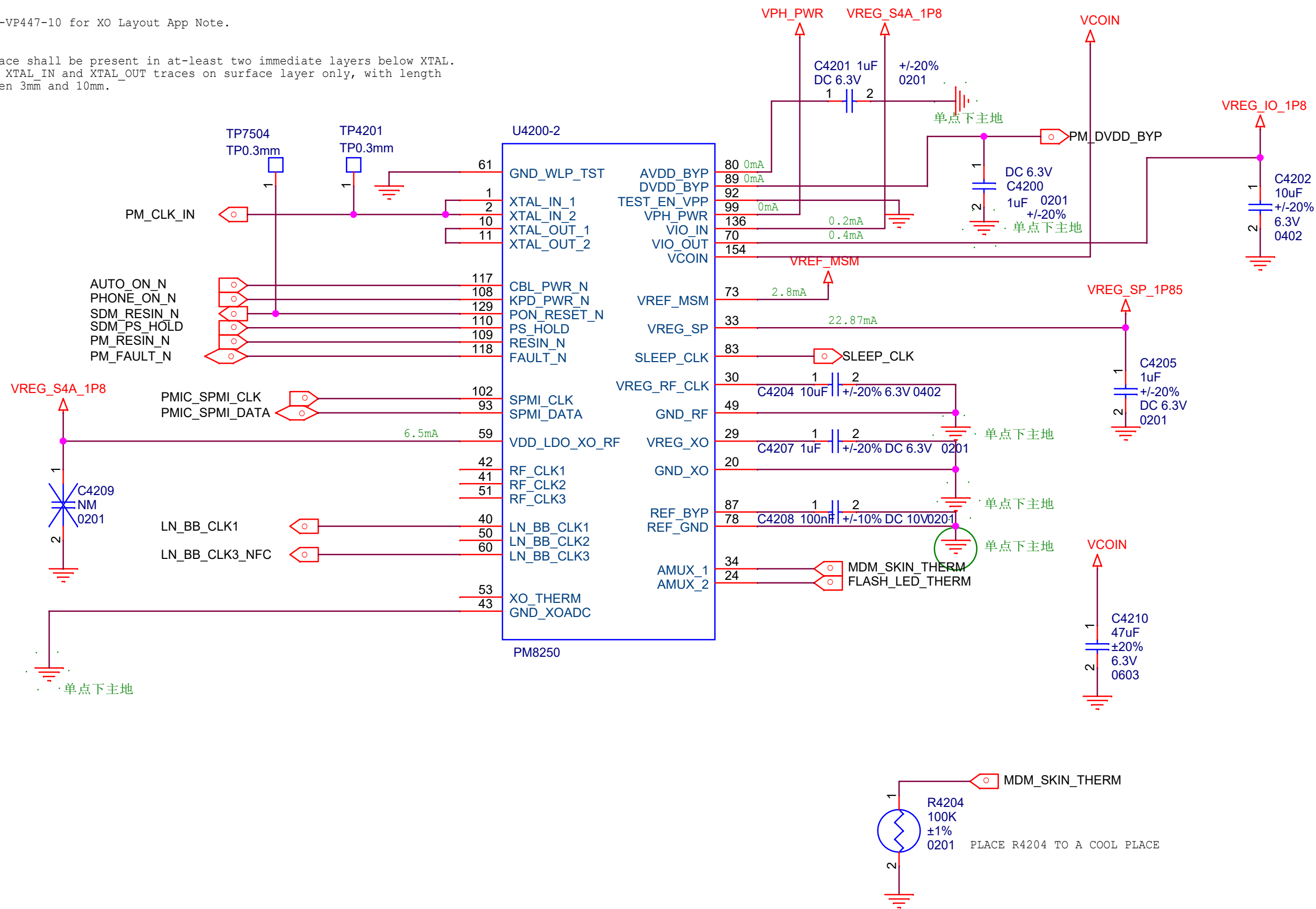
Title	
F1 MAIN	
Size	Document Number
A3	SDM855 PWR4
Date:	Friday, November 29, 2019
Sheet	41
	74



Note: Refer to 80-VP447-10 for XO Layout App Note.

Layout Note:

No trace shall be present in at-least two immediate layers below XTAL.
Route XTAL_IN and XTAL_OUT traces on surface layer only, with length between 3mm and 10mm.



Title		F1 MAIN	
Size	A4	Document Number	PM855 XO&CTRL
Date:	Friday, November 29, 2019	Sheet	43 / 74

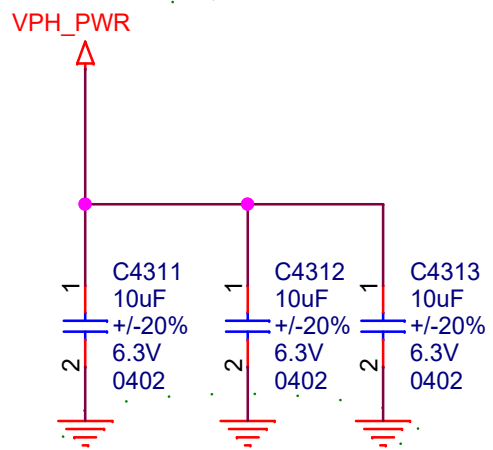
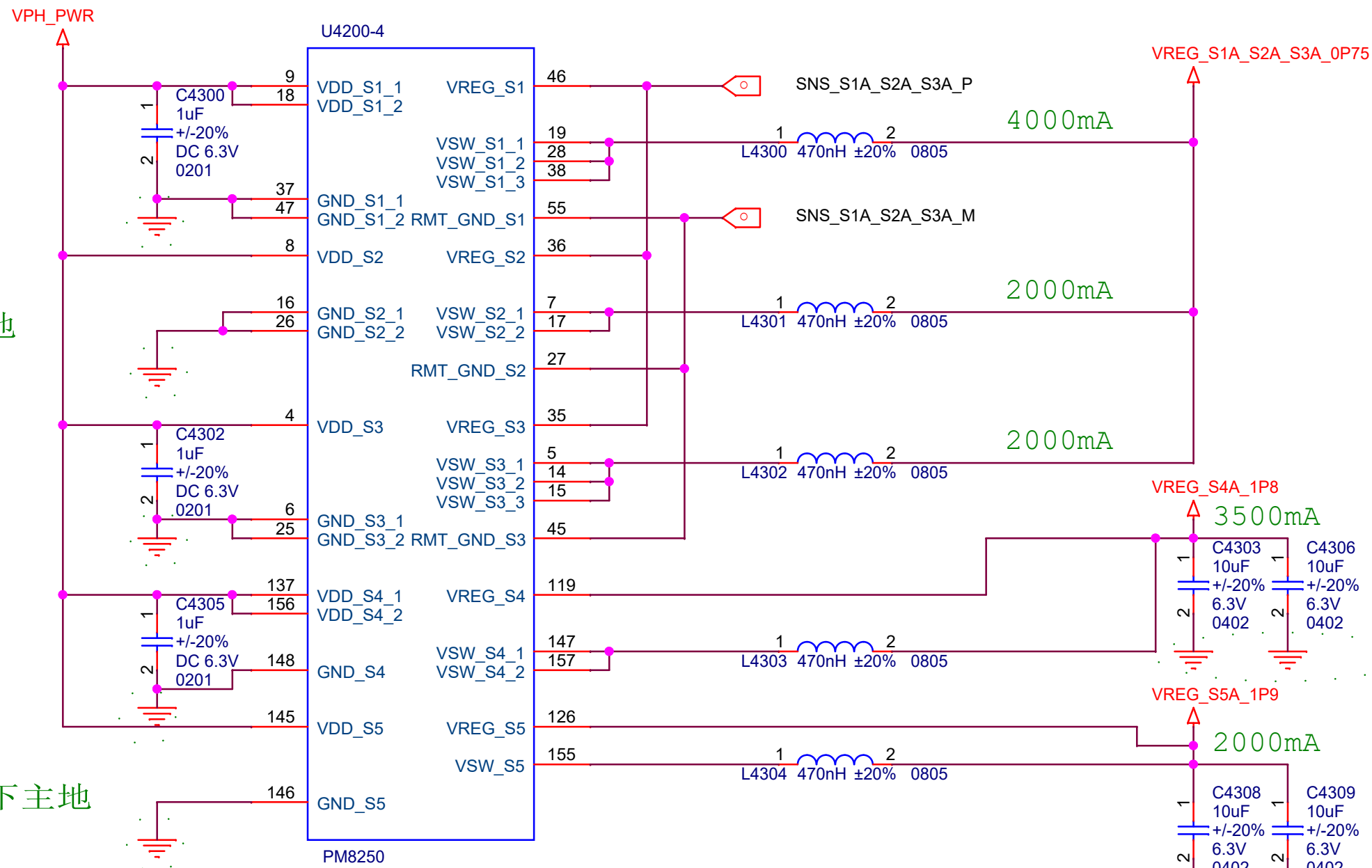
电容下主地

电容下主地

电容下主地

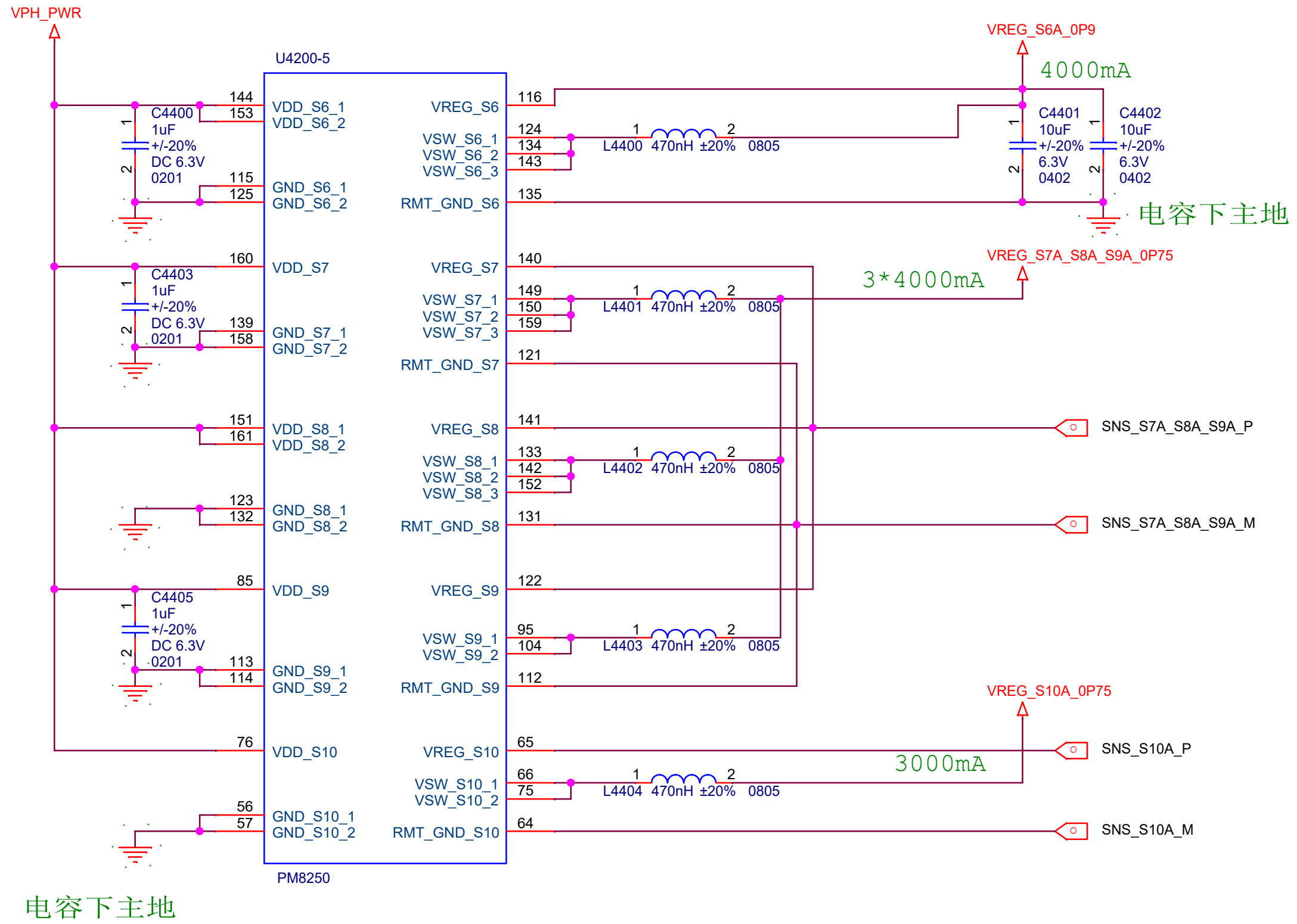
电容下主地

电容下主地



Title		F1 MAIN	
Size	A4	Document Number	PM855 BUCK CONVERTER1
Date:	Friday, November 29, 2019	Sheet	44

电容下主地



电容下主地

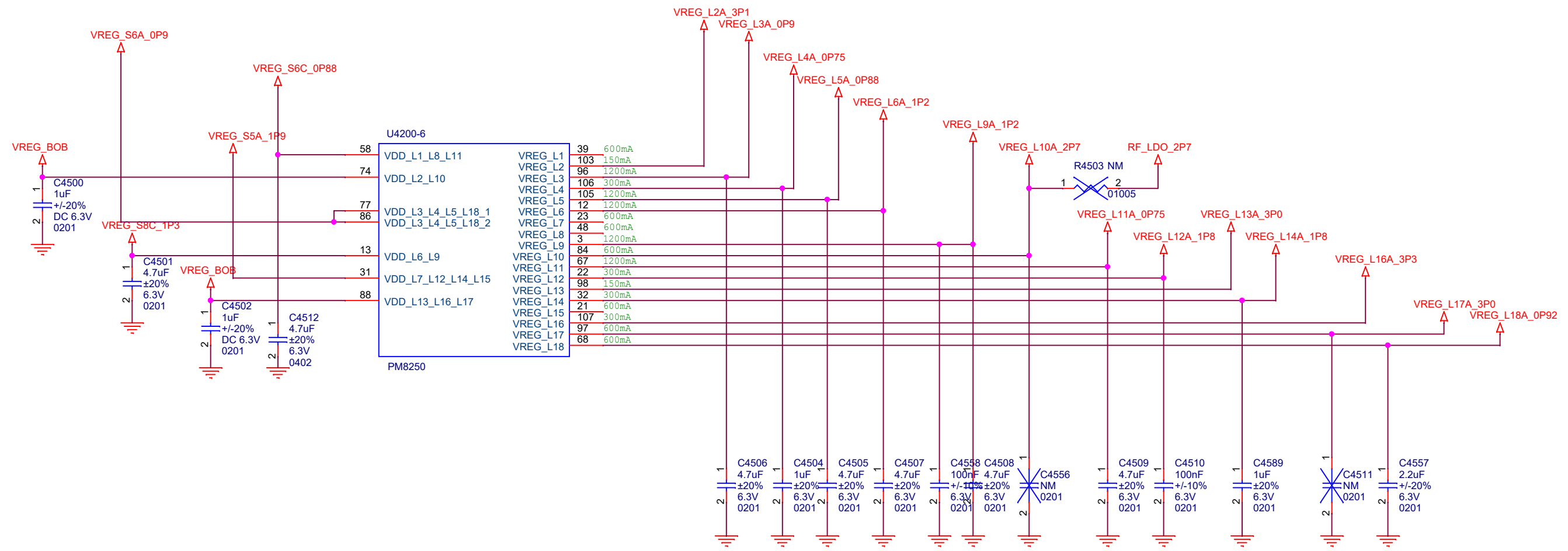
电容下主地

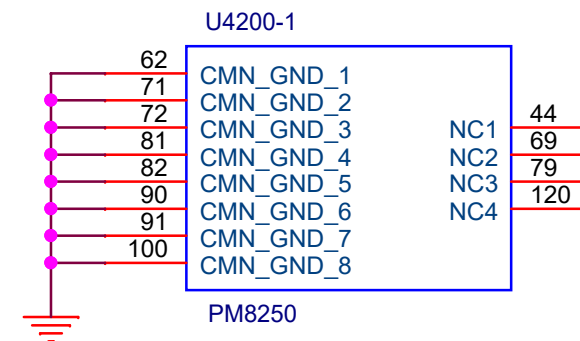
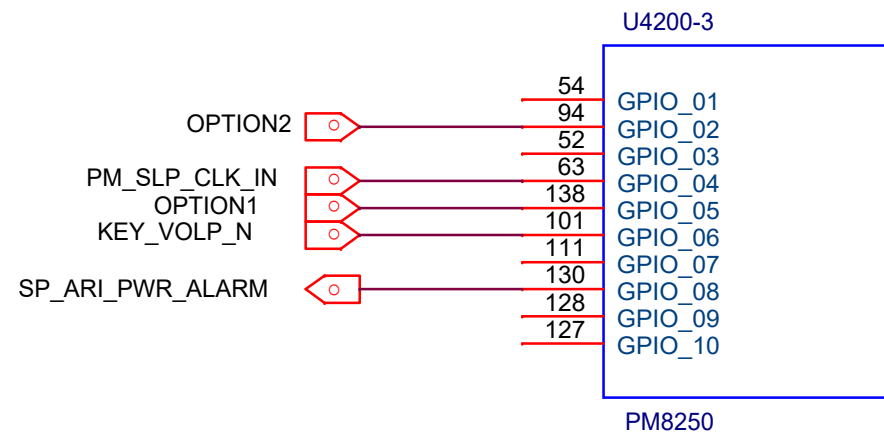
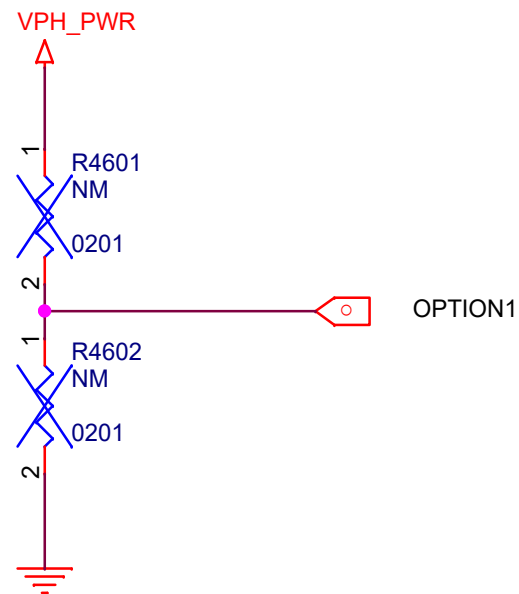
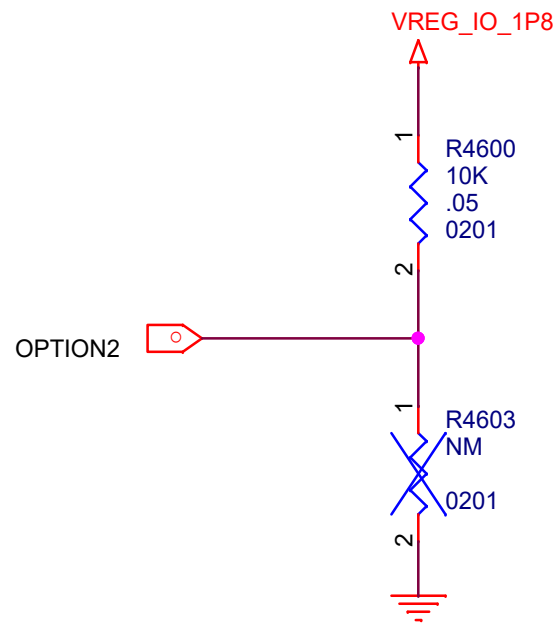
3000mA

3*4000mA

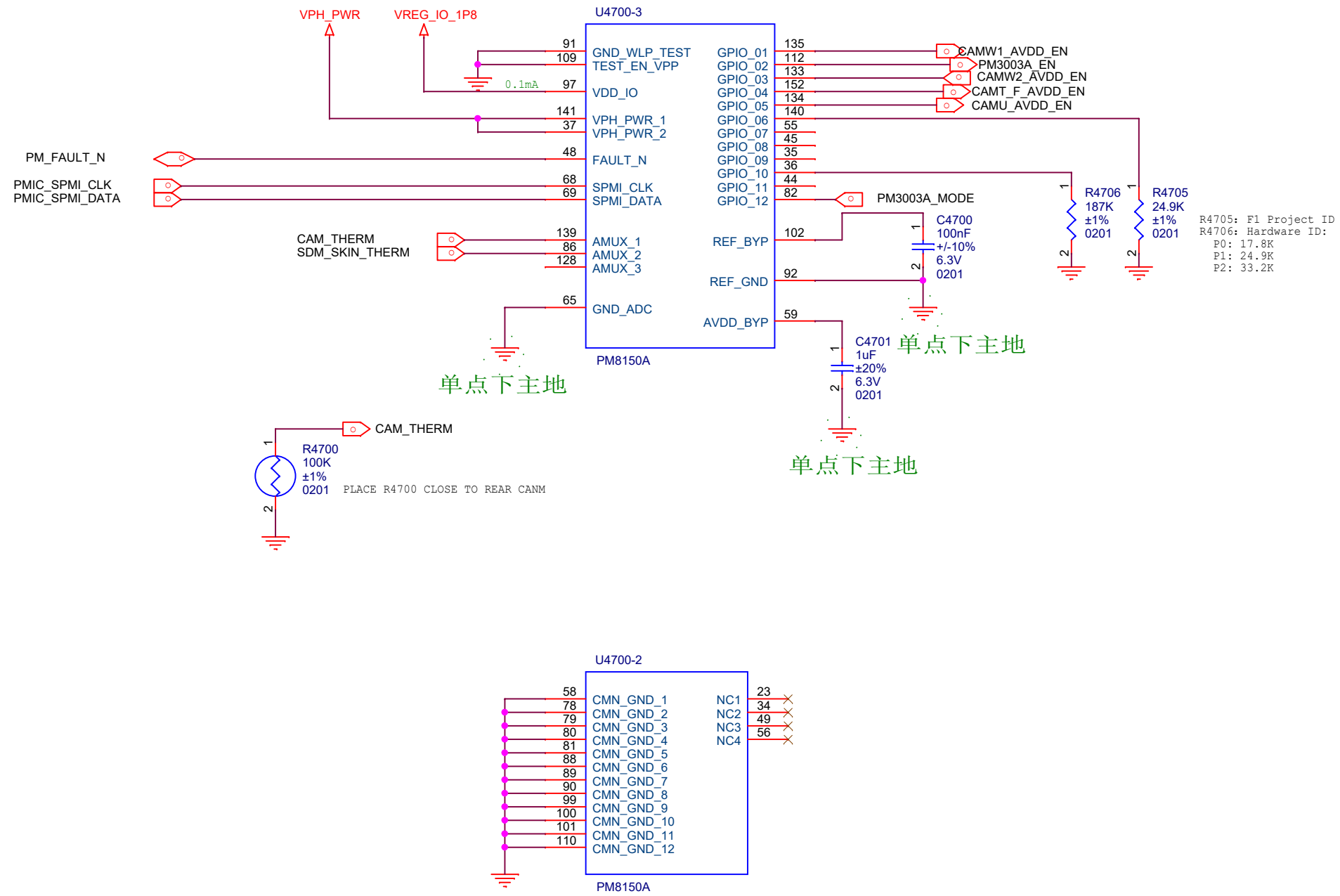
4000mA

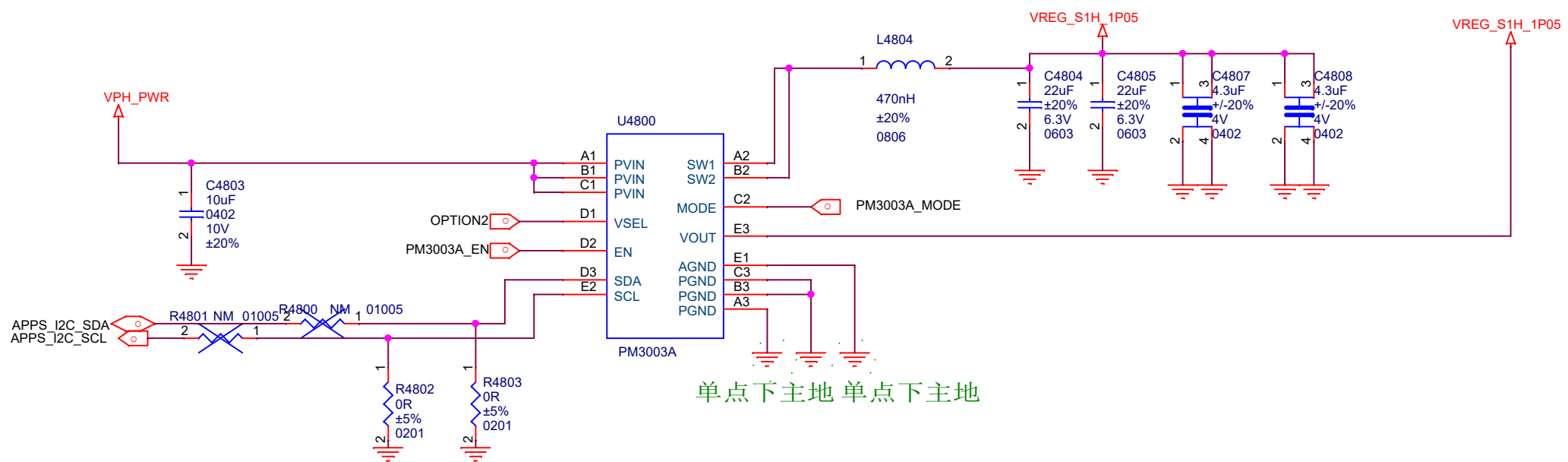
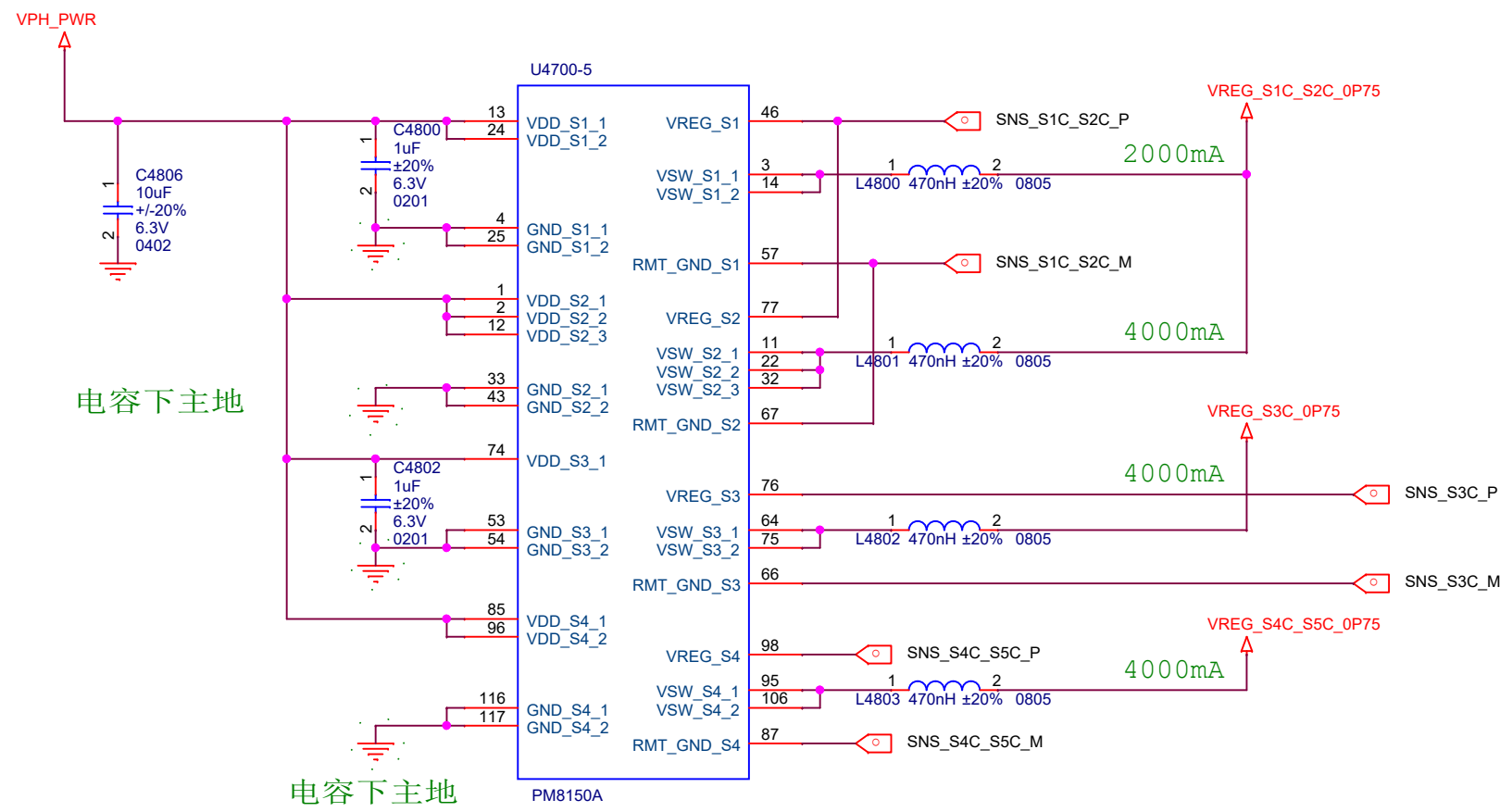
Title		F1 MAIN	
Size	A4	Document Number	PM855 BUCK CONVERTER2
Date:	Friday, November 29, 2019	Sheet	



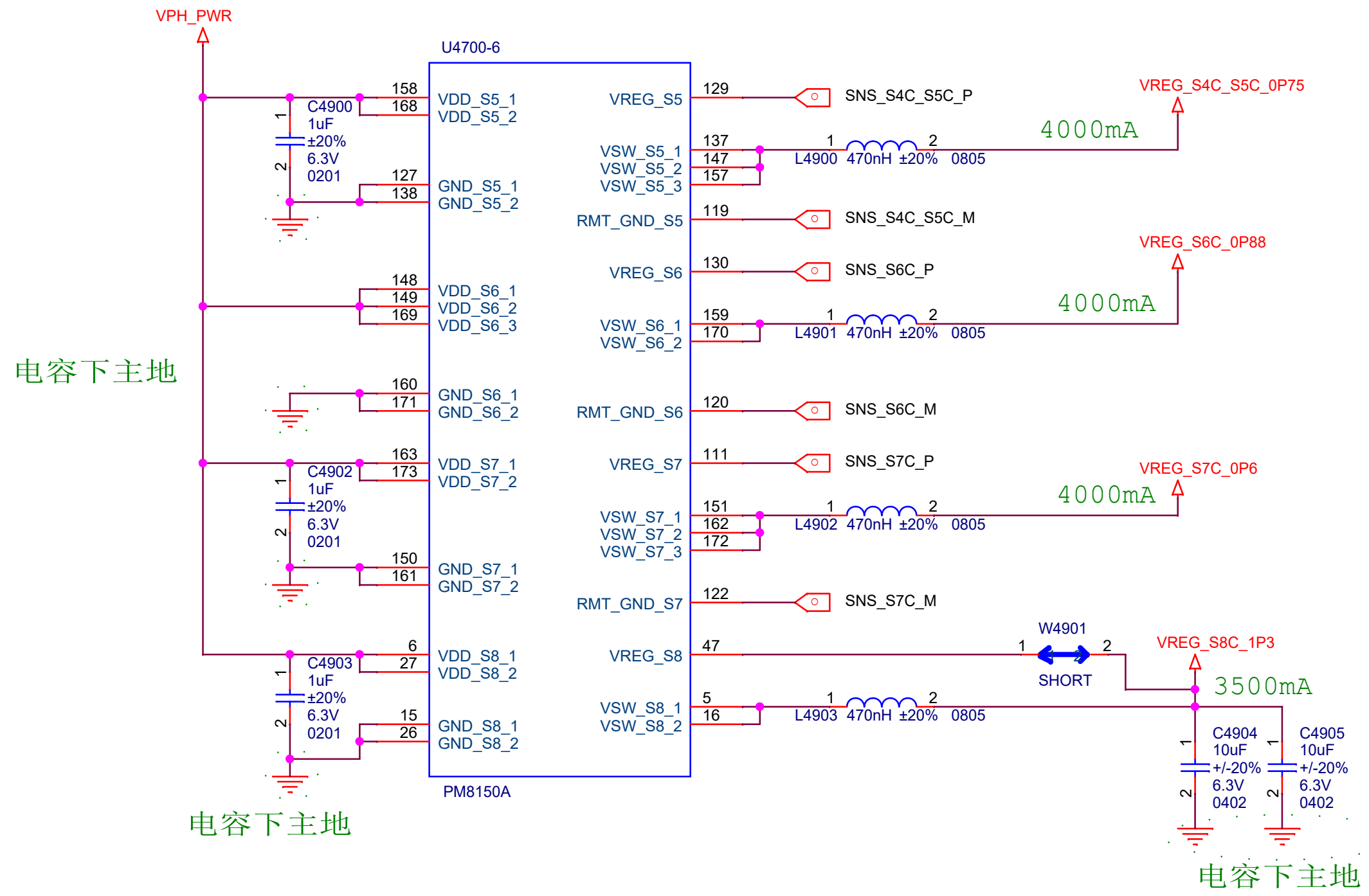


Title		F1 MAIN	
Size	A4	Document Number	PM855 GPIO&GND
Date:	Friday, November 29, 2019	Sheet	47 74

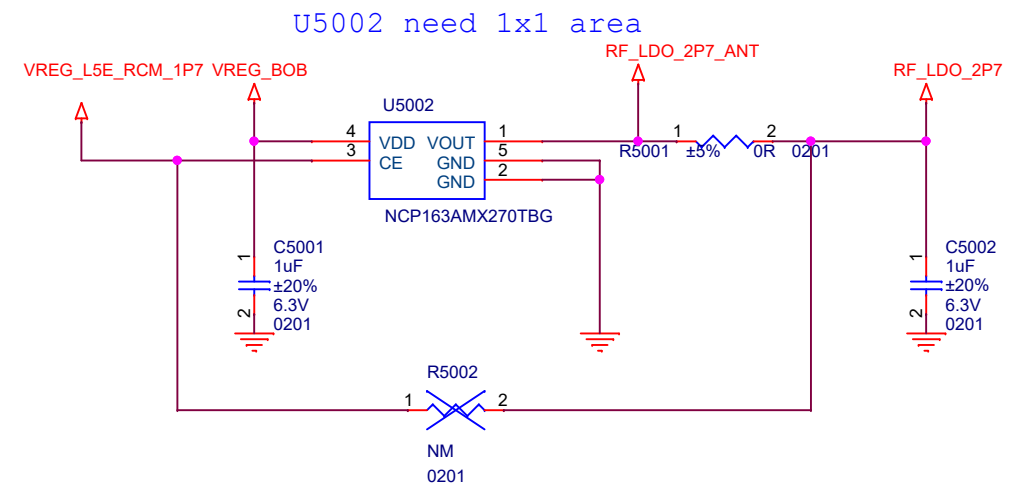
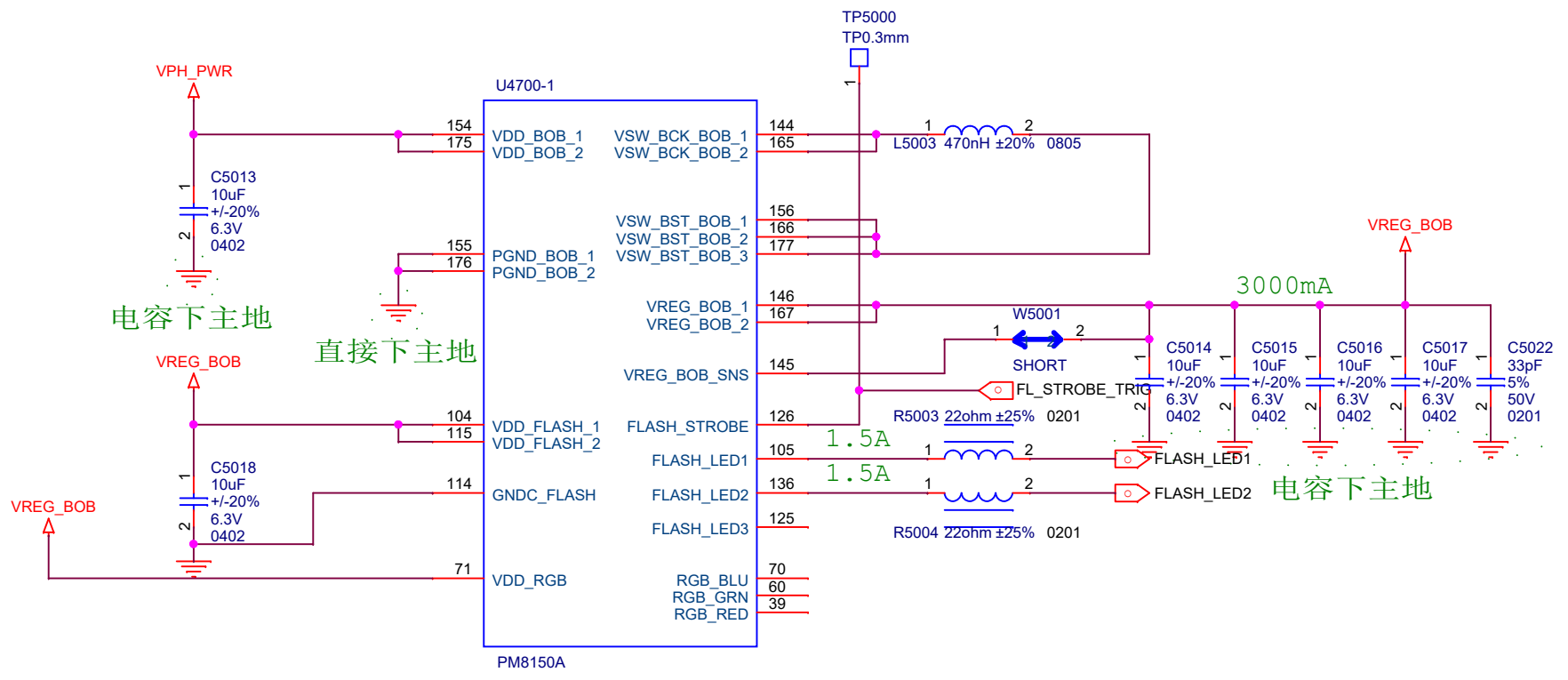
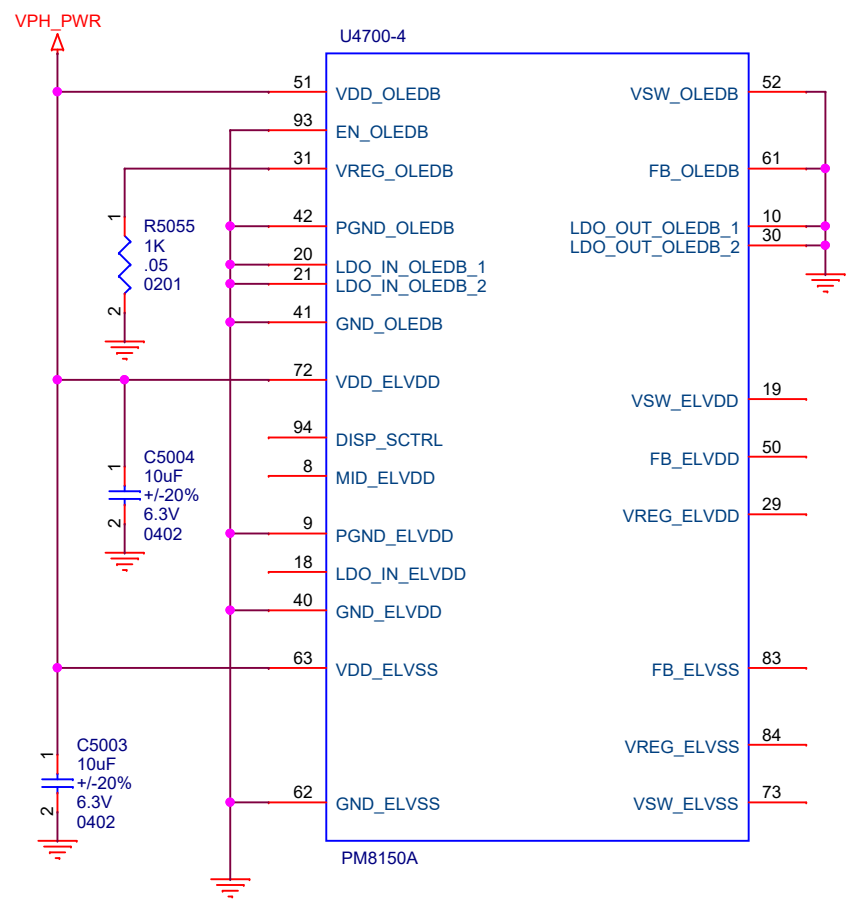




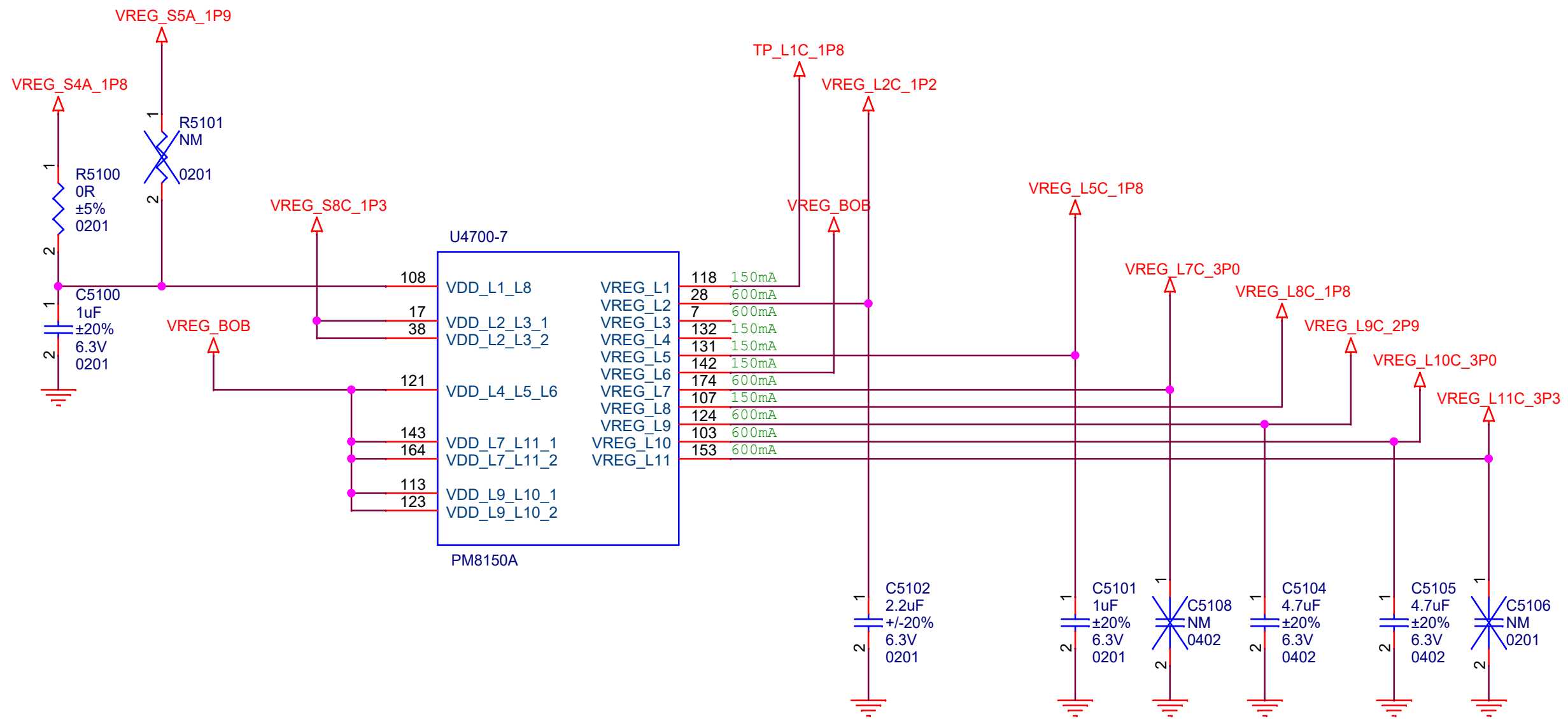
Title		F1 MAIN	
Size	A3	Document Number	PM855A BUCK CONVERTER1
Date:	Friday, November 29, 2019	Sheet	49
			74



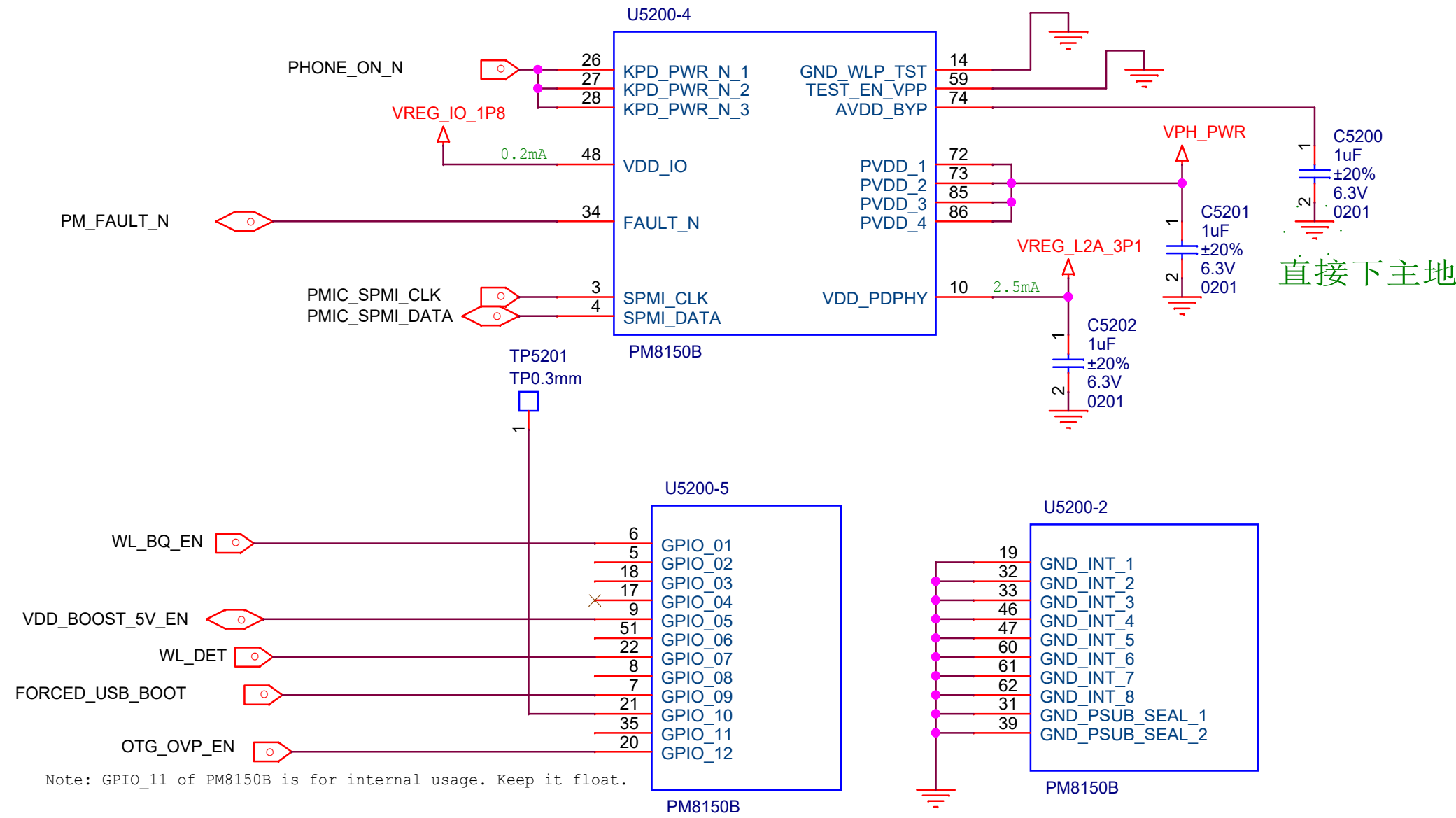
Title		F1 MAIN	
Size	A4	Document Number	PM855A BUCK CONVERTER2
Date:	Friday, November 29, 2019	Sheet	1



Title		F1 MAIN
Size	Document Number	PM855A AMOLED&BOB&FLASH
A3	Date:	Friday, November 29, 2019
Sheet		1



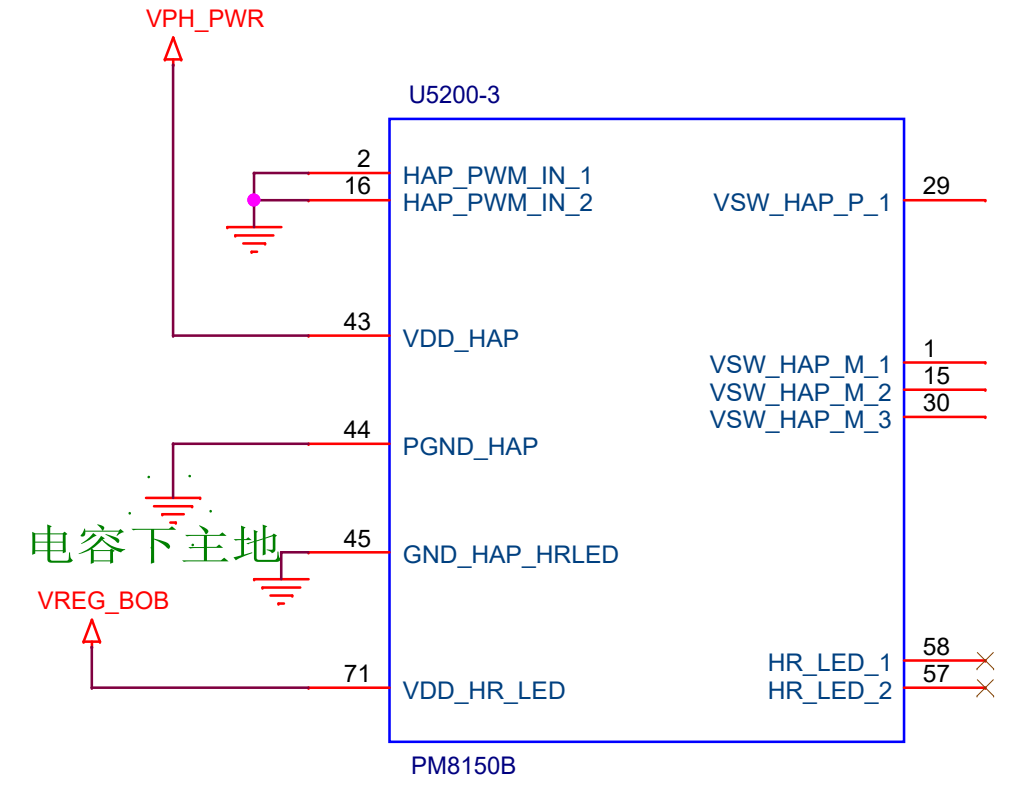
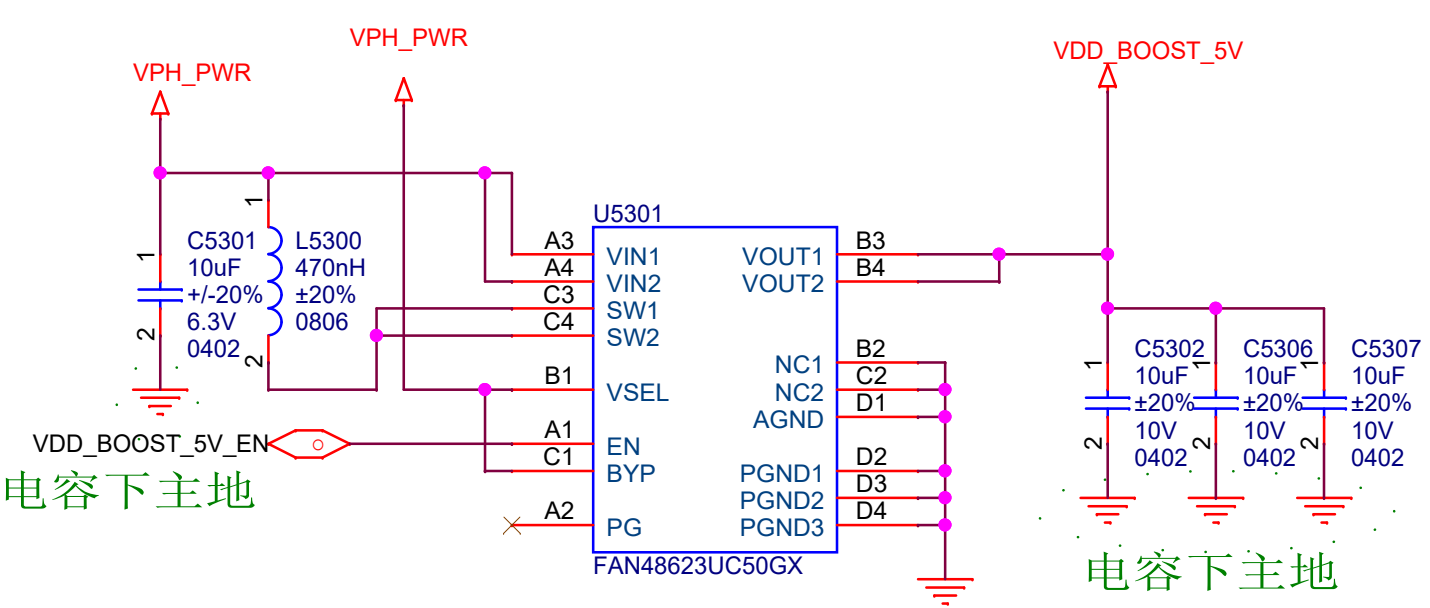
Title		F1 MAIN	
Size	A4	Document Number	PM855A LDOs
Date:	Friday, November 29, 2019	Sheet	52 of 74



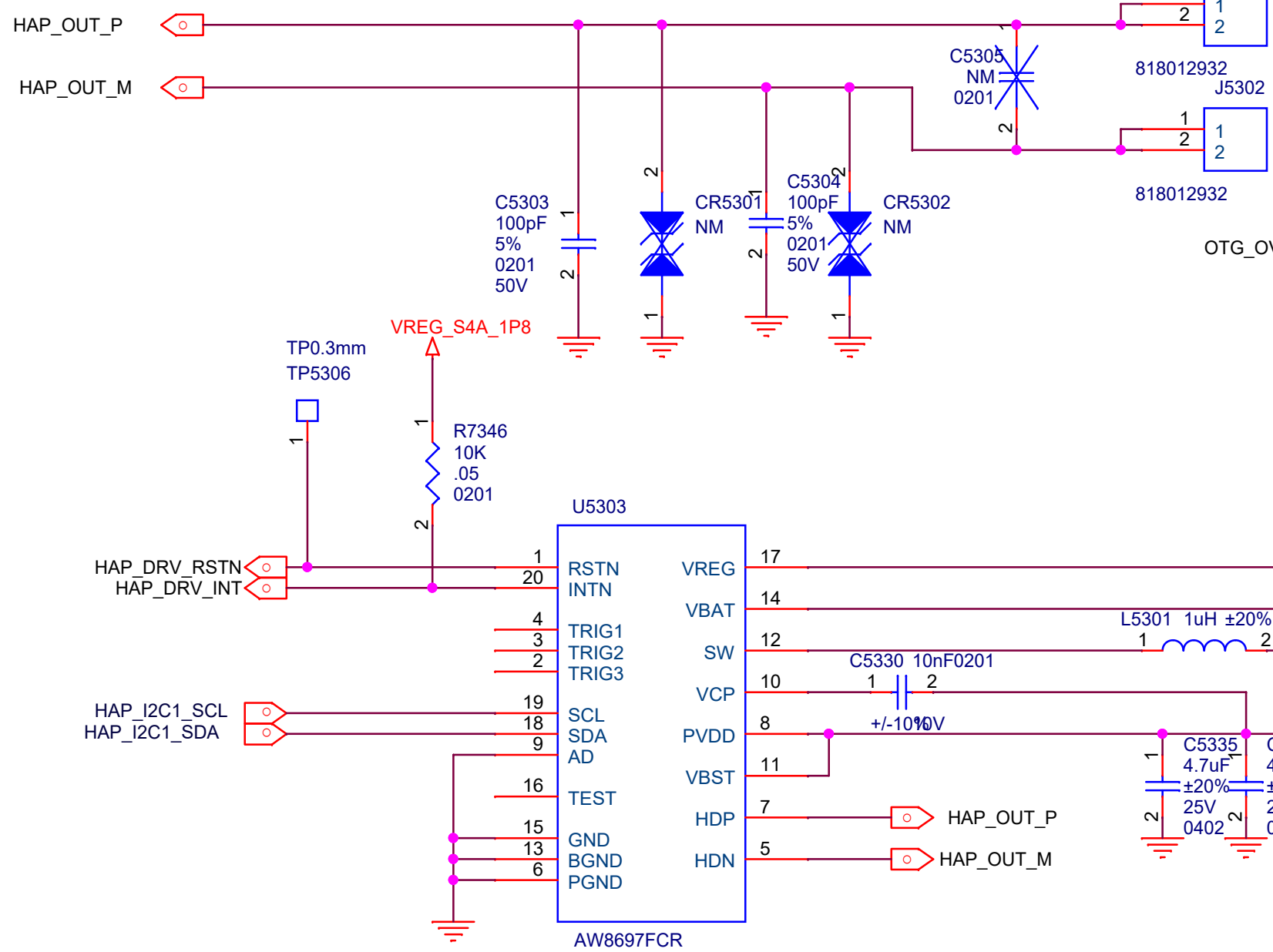
Note: GPIO_11 of PM8150B is for internal usage. Keep it float.

Note: GPIO_04 and GPIO_11 of PM8150B are for internal usage. Keep them float.
 Keep GPIO_03 of PM8150B float. Don't use it for other purpose.
 GPIO_06 of PM8150B is dedicated for SMB_STAT. Don't use it for other purpose.

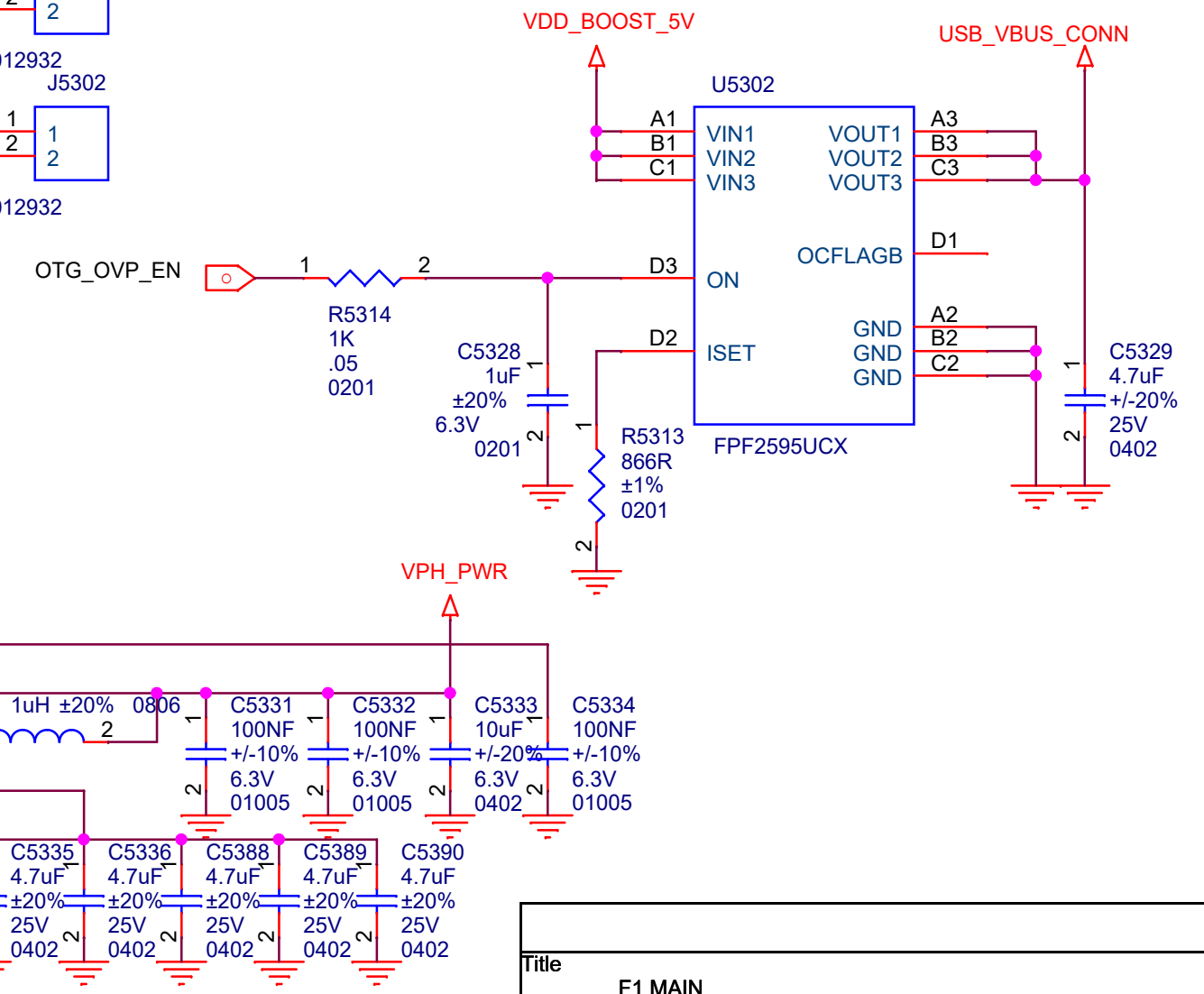
Title		F1 MAIN	
Size	A4	Document Number	PM855B CTRL&GND
Date:	Friday, November 29, 2019	Sheet	53 of 74



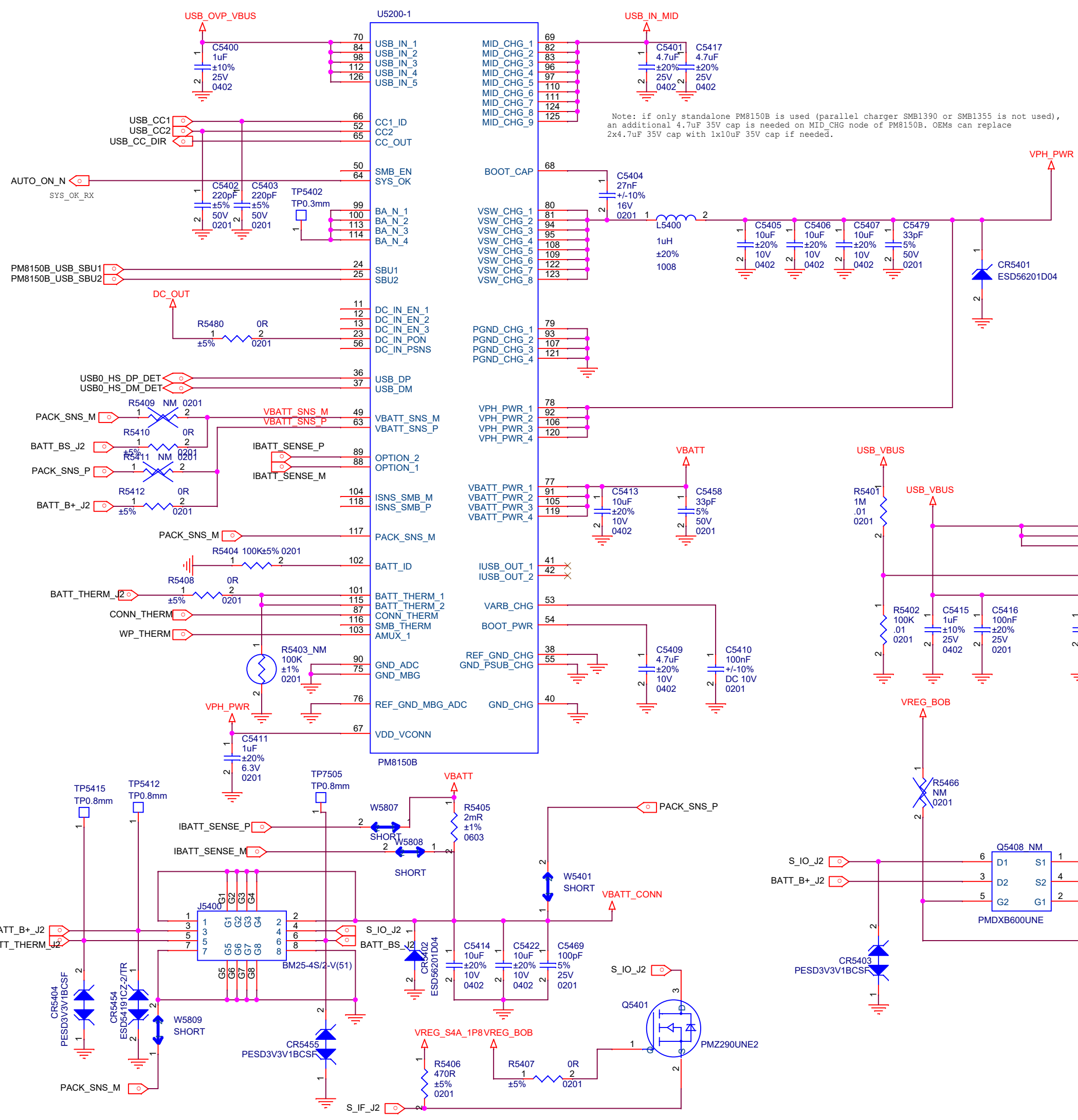
HAPTICS



OTG



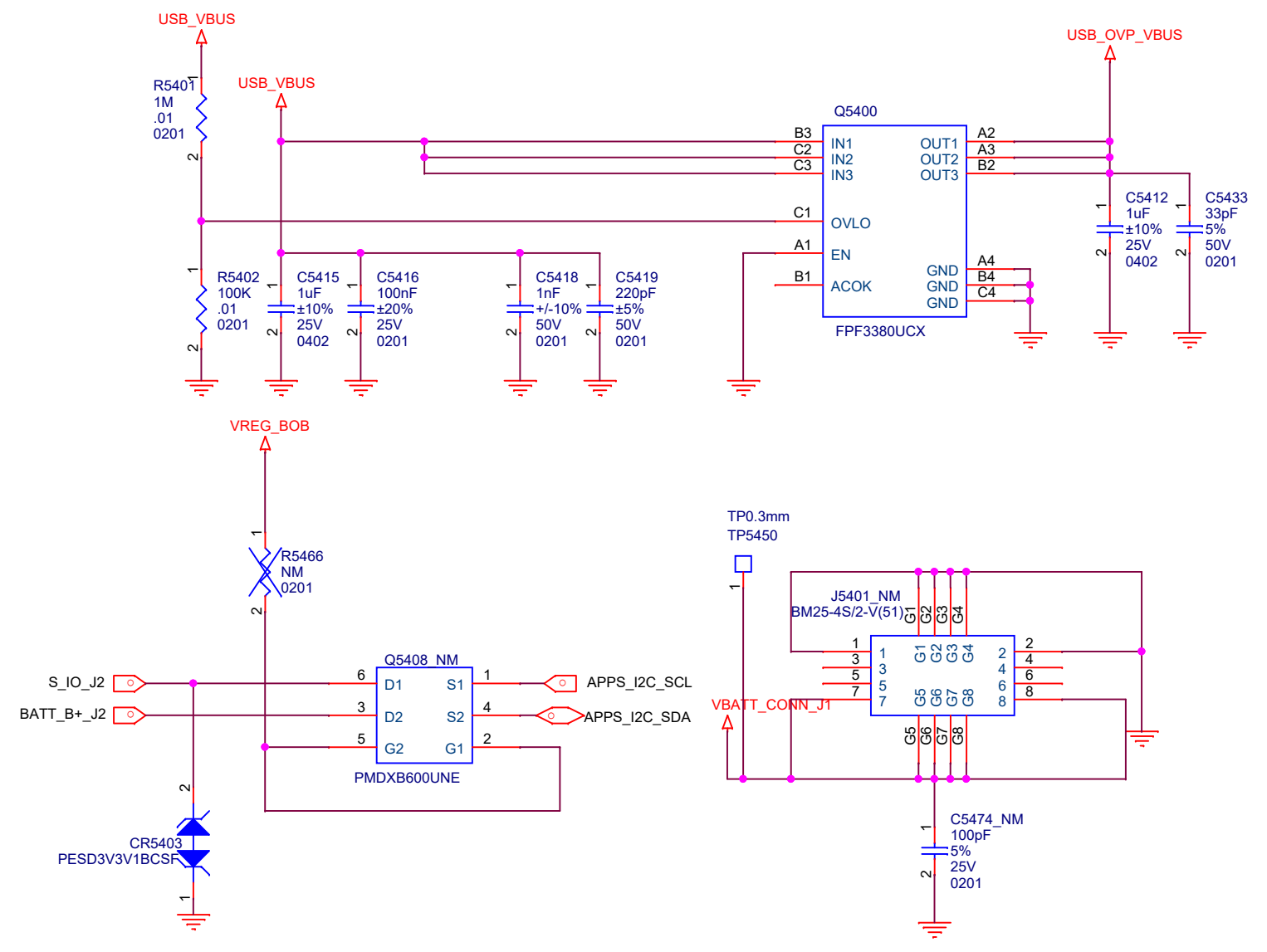
Title		F1 MAIN	
Size	A4	Document Number	PM855B HAPTIC
Date:	Friday, November 29, 2019	Sheet	54 / 74



Note: if only standalone PM8150B is used (parallel charger SMB1390 or SMB1355 is not used), an additional 4.7uF 35V cap is needed on MID_CHG node of PM8150B. OEMs can replace 2x4.7uF 35V cap with 1x10uF 35V cap if needed.

- J1方案BOM:
- R5409不贴
 - R5411不贴
 - R5403不贴
 - R5466不贴
 - Q5408不贴
 - J5401不贴
- J2方案BOM:

J1:此页BOM不做更改;



Title		F1 MAIN	
Size	A3	Document Number	PM855B Charger
Date:	Friday, November 29, 2019	Sheet	55
			74

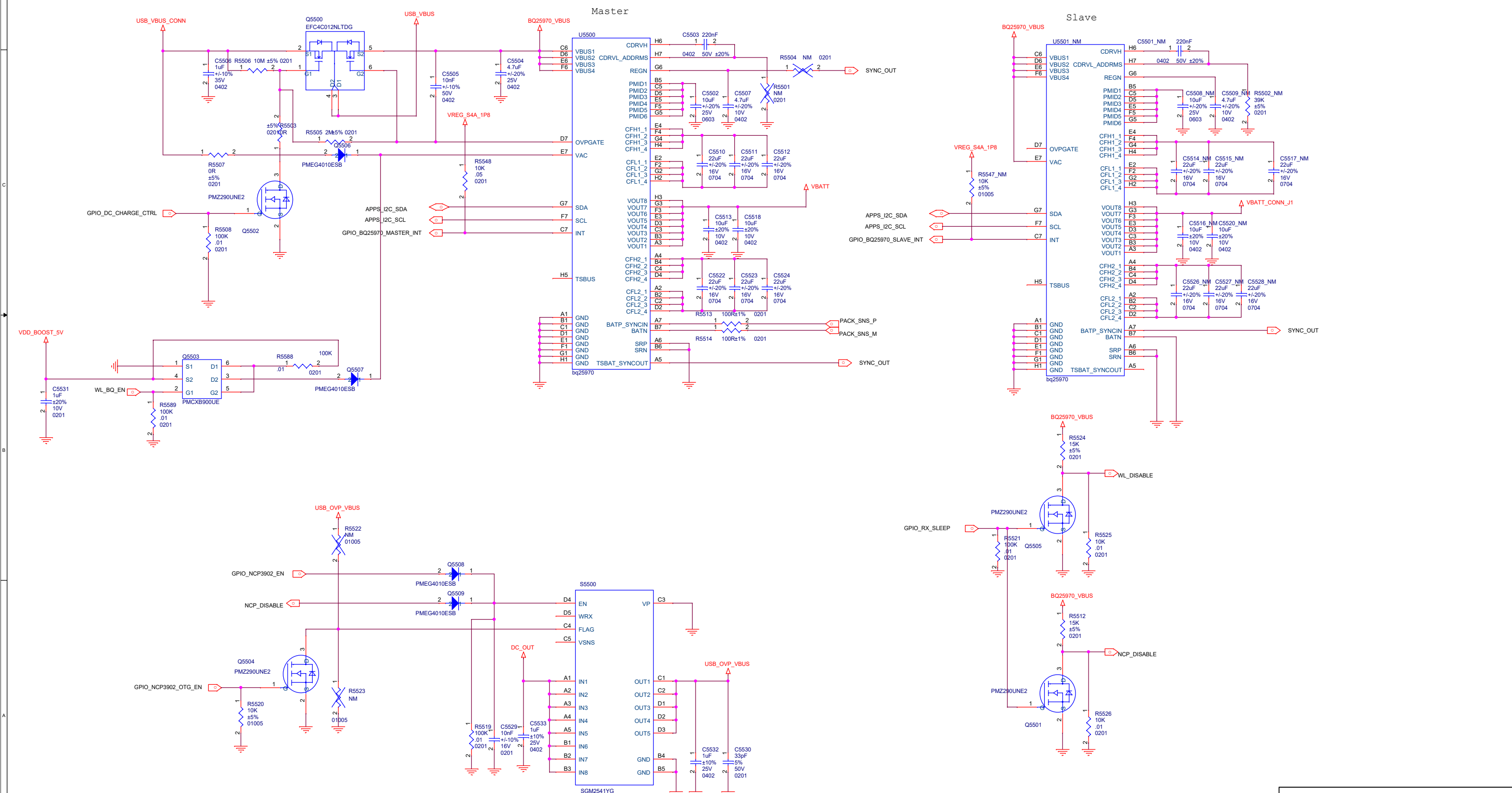
J1:此页BOM不做更改;

J2:R5501不贴

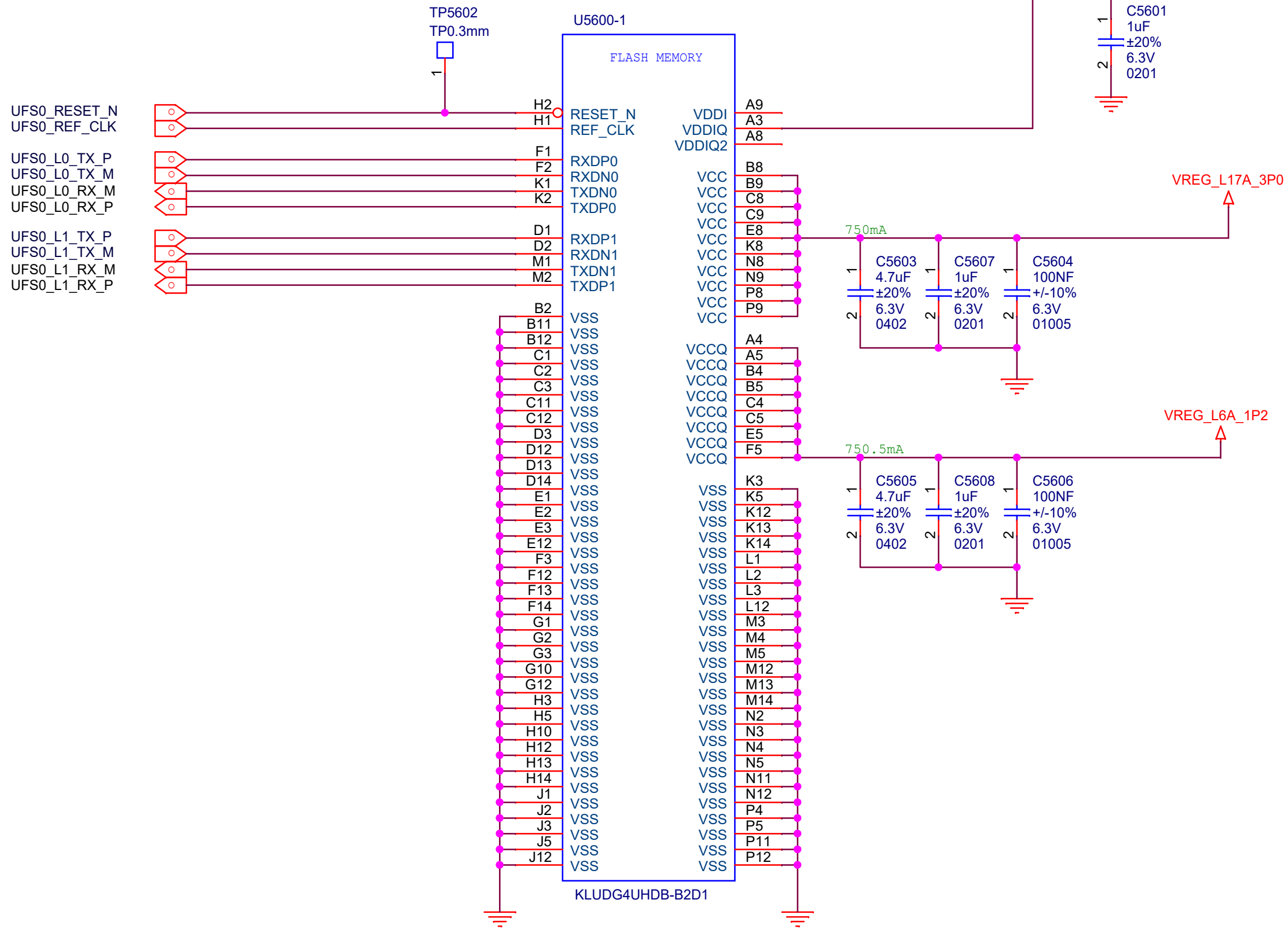
R5504不贴

R5515贴0欧姆电阻

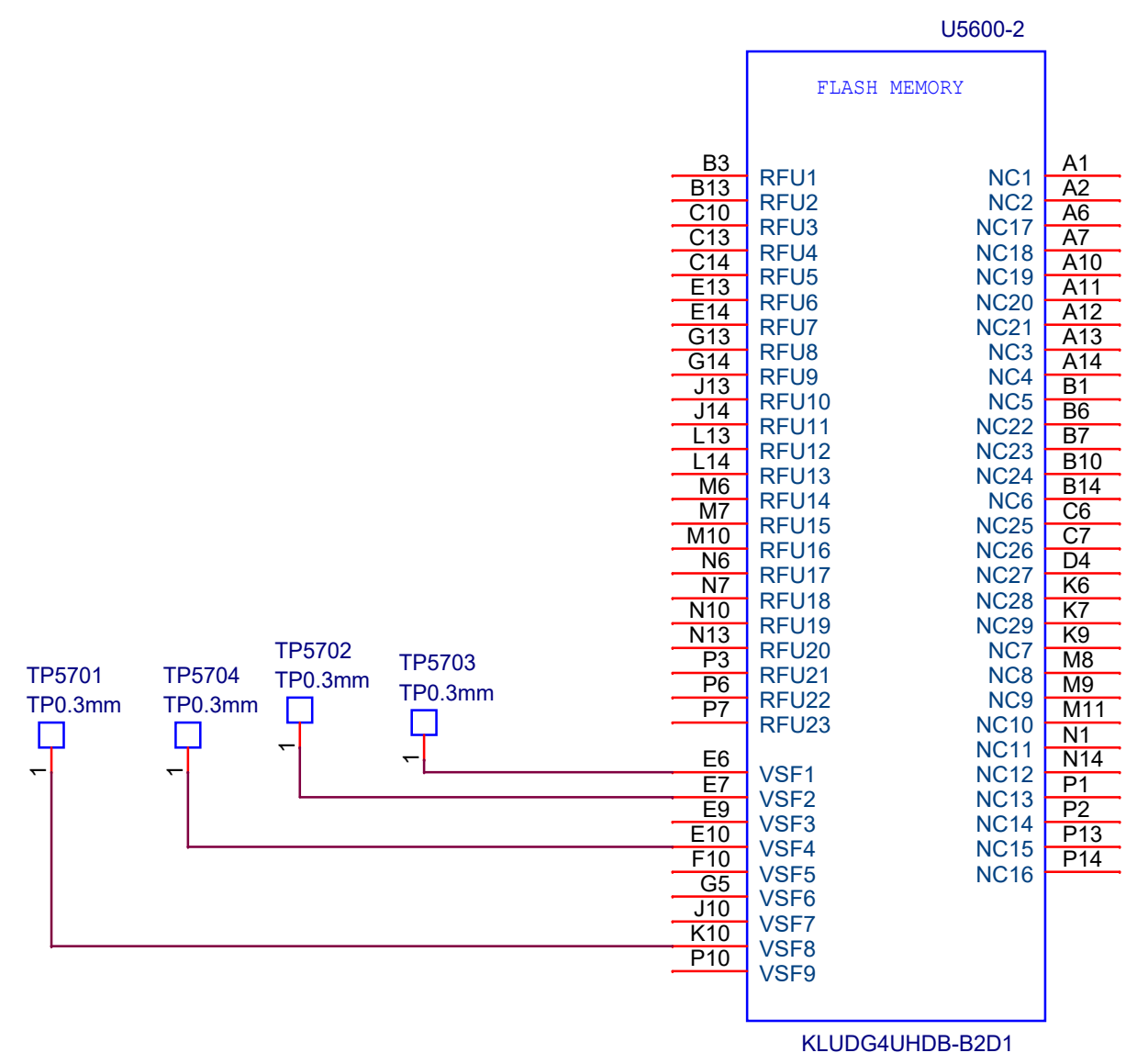
Slave charger的BOM全部不贴



Title	F1 MAIN
Size	A2
Document Number	IR LED
Date:	Friday, November 29, 2019
Sheet	

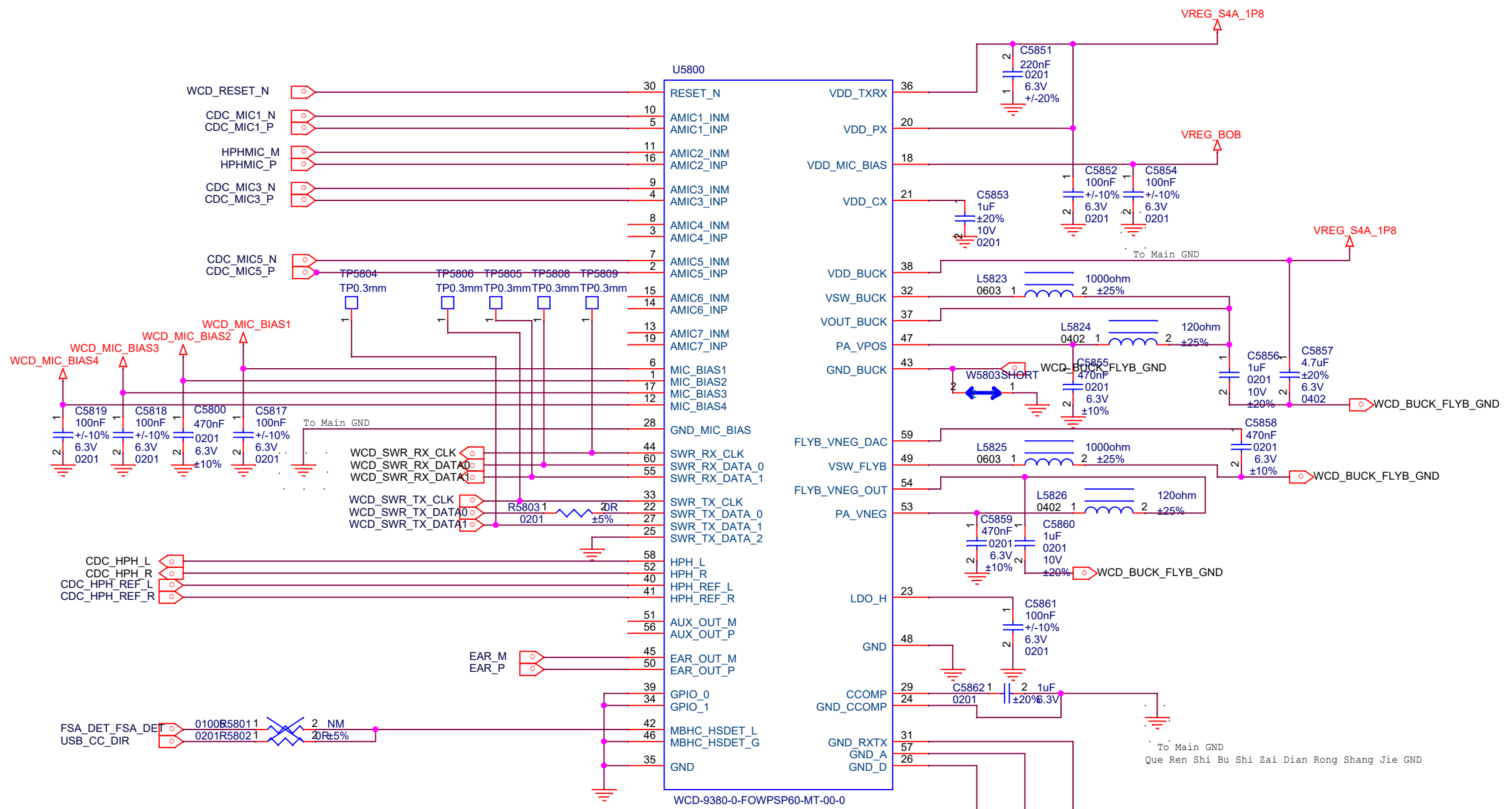


Title		F1 MAIN	
Size	A4	Document Number	MEMORY
Date:	Friday, November 29, 2019	Sheet	57 74



KLUDG4UHDB-B2D1

Title		F1 MAIN	
Size	A4	Document Number	MEMORY-2
Date:	Friday, November 29, 2019	Sheet	58 74



NOTE 1: ROUTE AN ISOLATED GROUND TRACE FROM CCOMP_REF TO THE CAP GROUND, THEN VIA TO THE MAIN GROUND PLANE
 NOTE 2: PLACE VDD_BUCK CAP AS CLOSE TO CHIP EDGE AS POSSIBLE AND MINIMIZE LOOP INDUCTANCE
 NOTE 3: USE SHORT AND WIDE TRACES FOR BUCK AND FLYBACK RELATED NETS
 NOTE 4: ANALOG MIC INPUTS SHOULD BE ISOLATED WITH GROUND FROM NOISY OR SWITCHING SIGNALS AND SUPPLIES

Title		F1 MAIN
Size	Document Number	WCD9340-1
A3		
Date:	Friday, November 29, 2019	Sheet

5

4

3

2

1

D

D

C

C

B

B

A

A

Title	
F1 MAIN	
Size	Document Number
A3	WCD9340-2
Date:	Friday, November 29, 2019
Sheet	

5

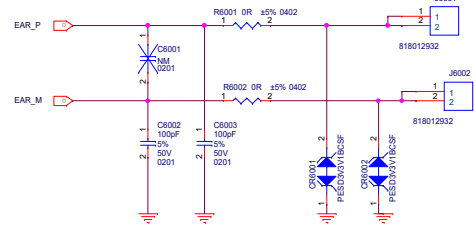
4

3

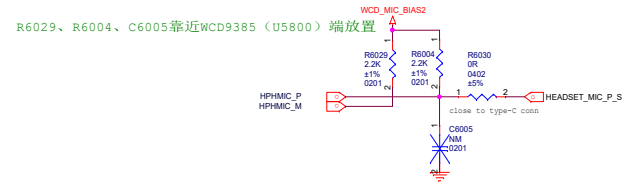
2

1

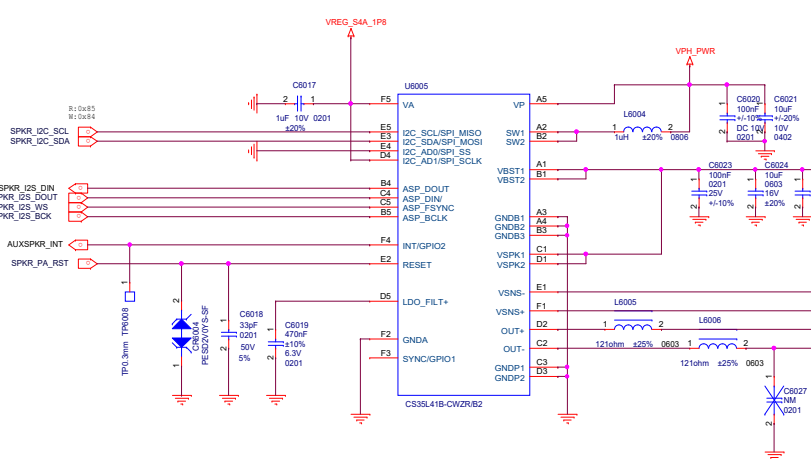
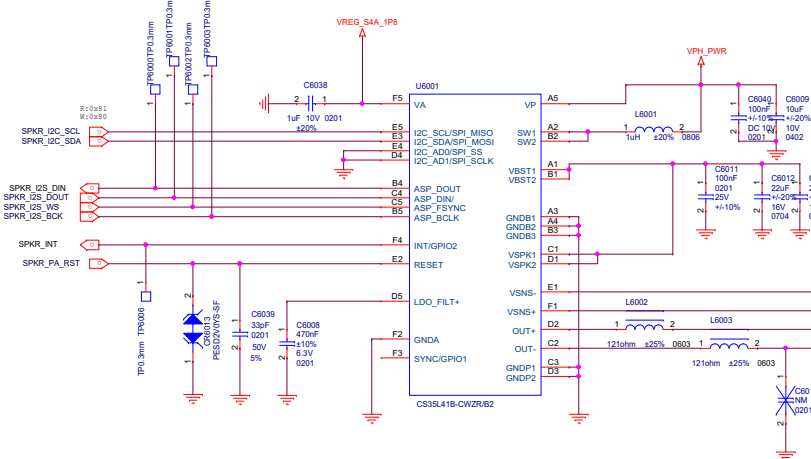
RECEIVER



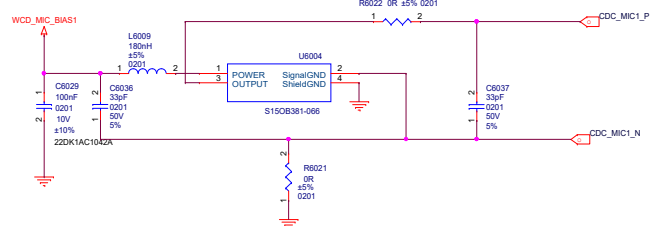
HEADSET



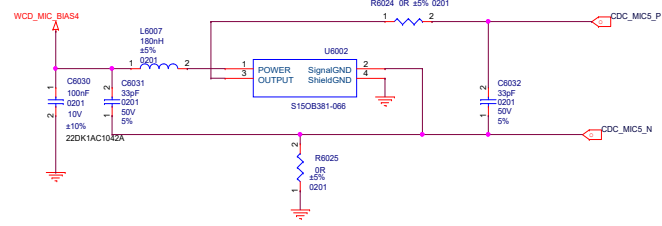
SPKR PA



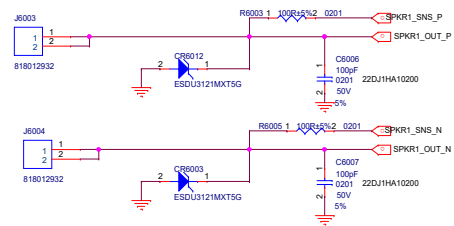
MAIN MIC



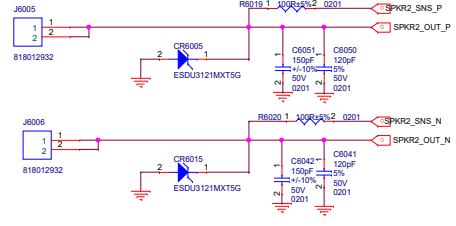
AUX MIC



SPK1

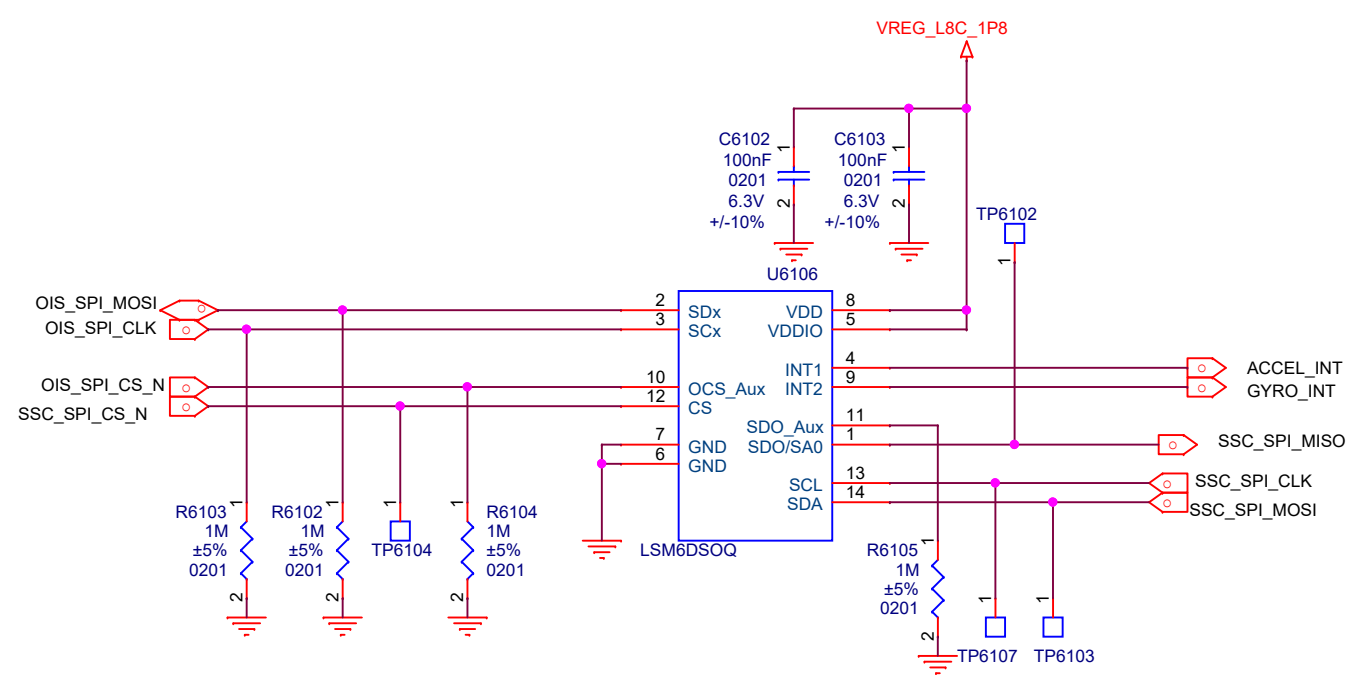


SPK2

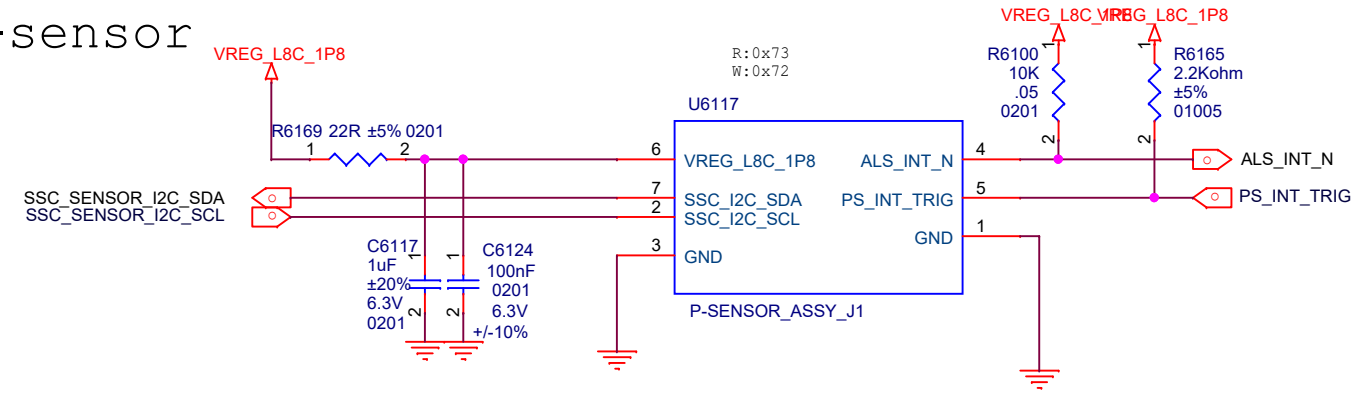


RGB DRIVER

A+G

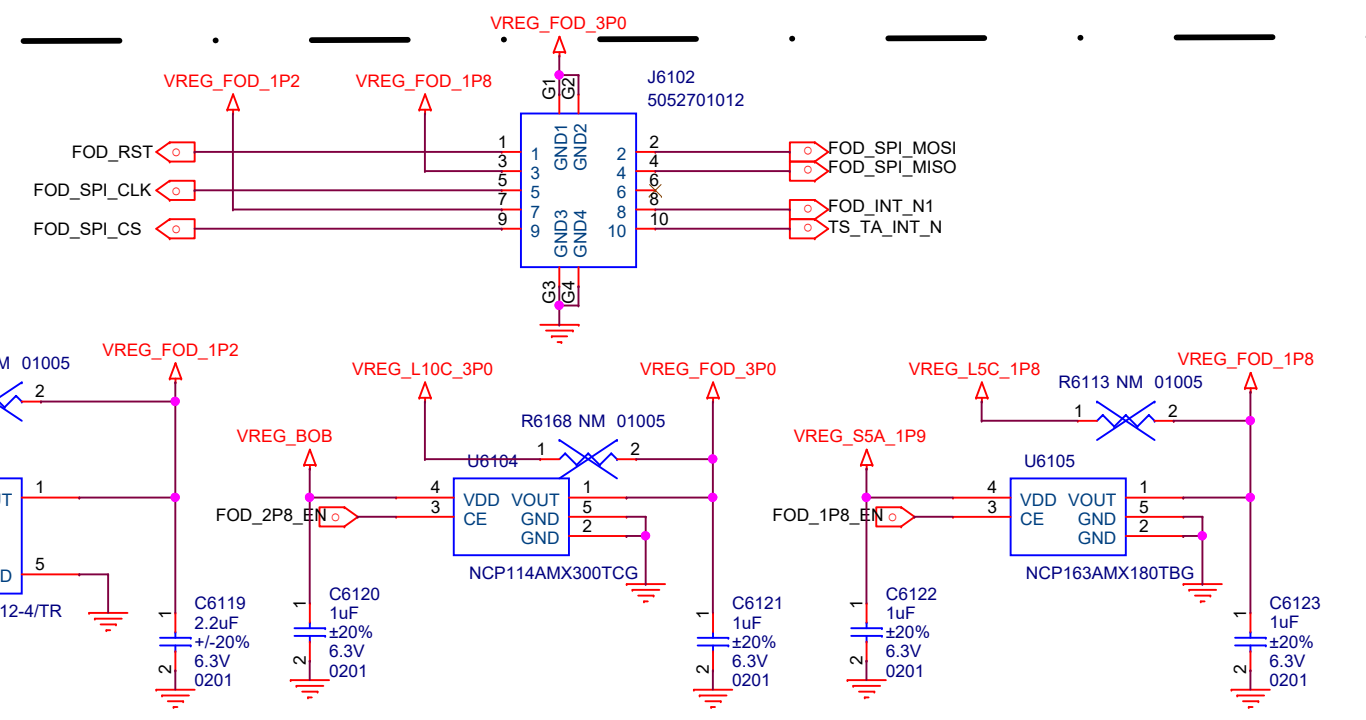
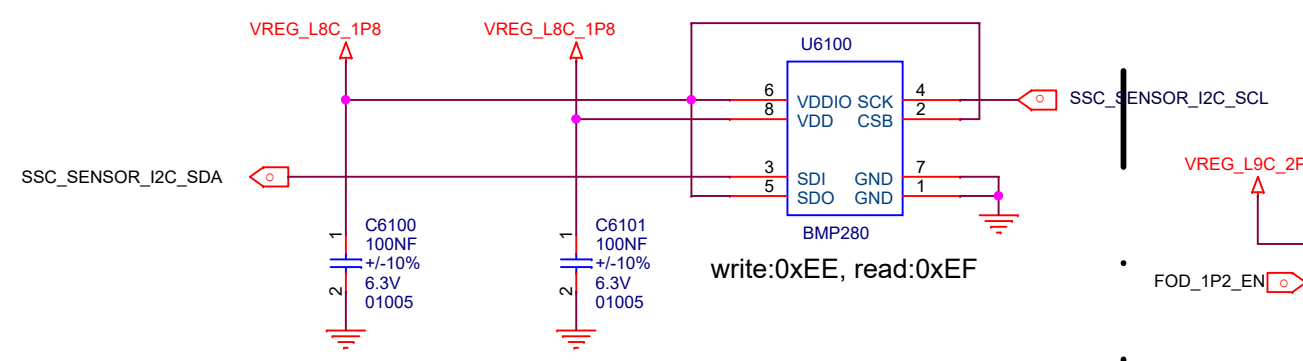


L-sensor

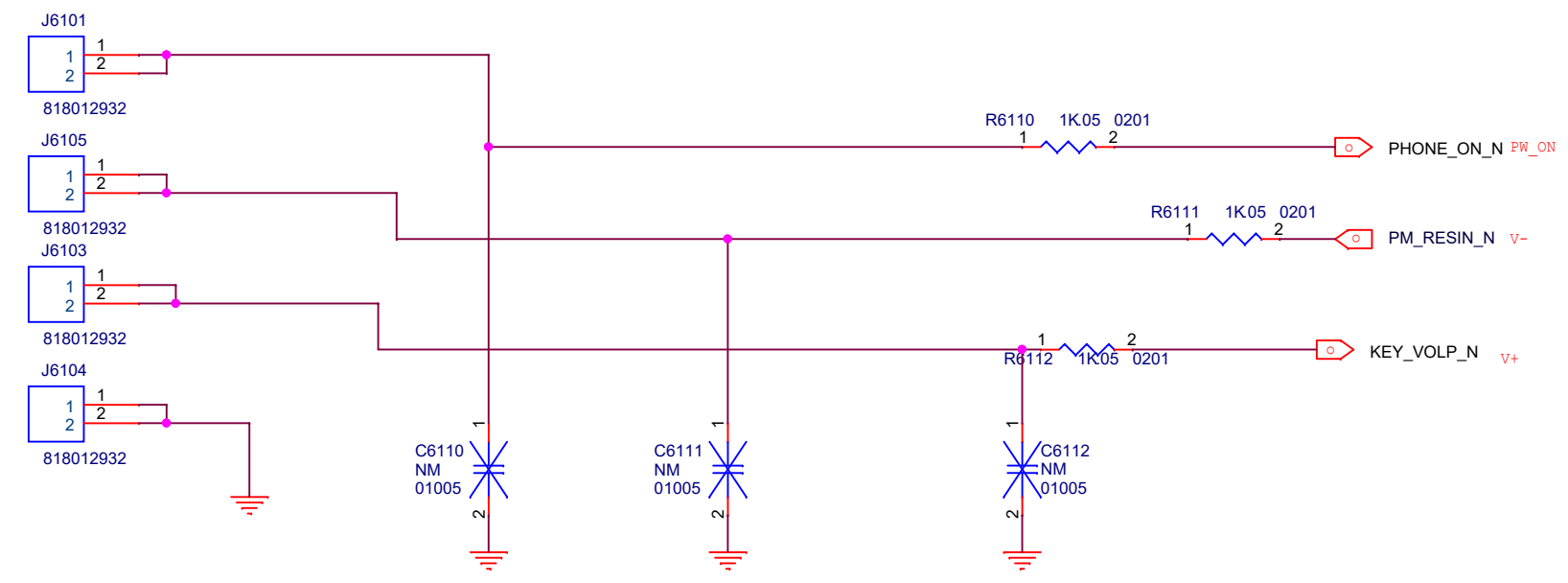


PRESSURE

FOD

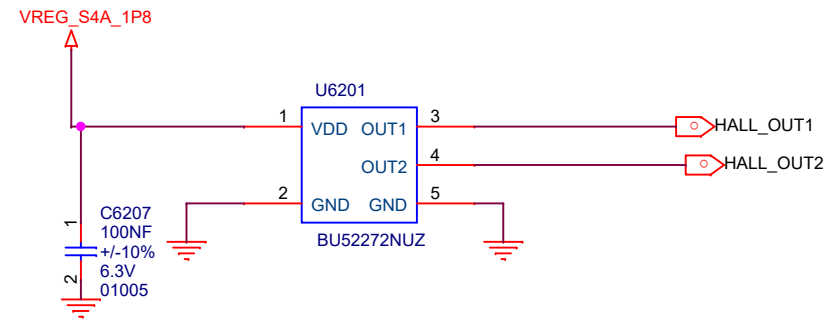


Sidekey

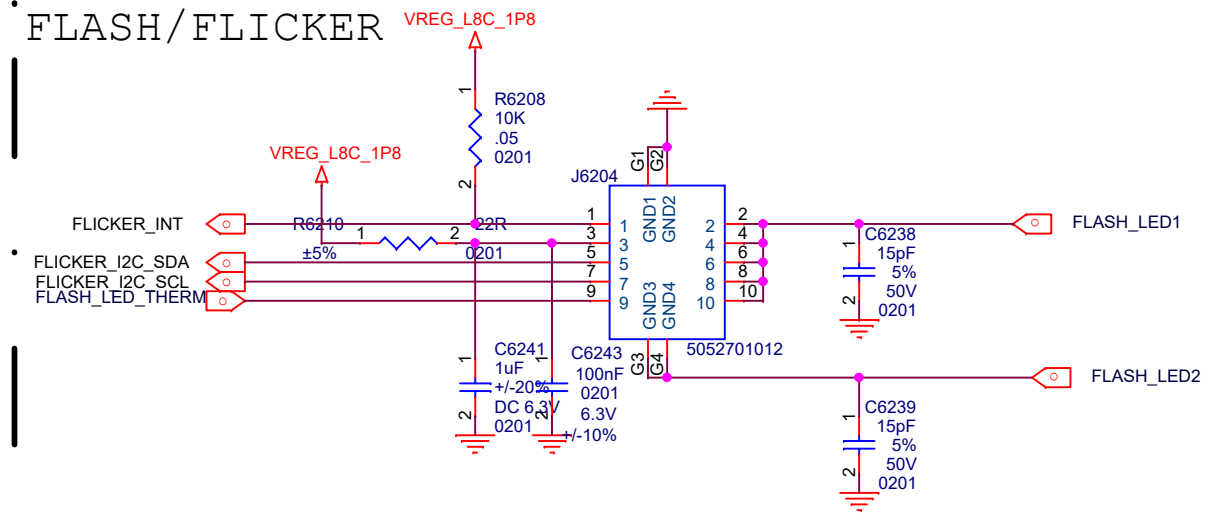


Title		F1 MAIN	
Size	A3	Document Number	SENSOR
Date:	Friday, November 29, 2019	Sheet	62
			74

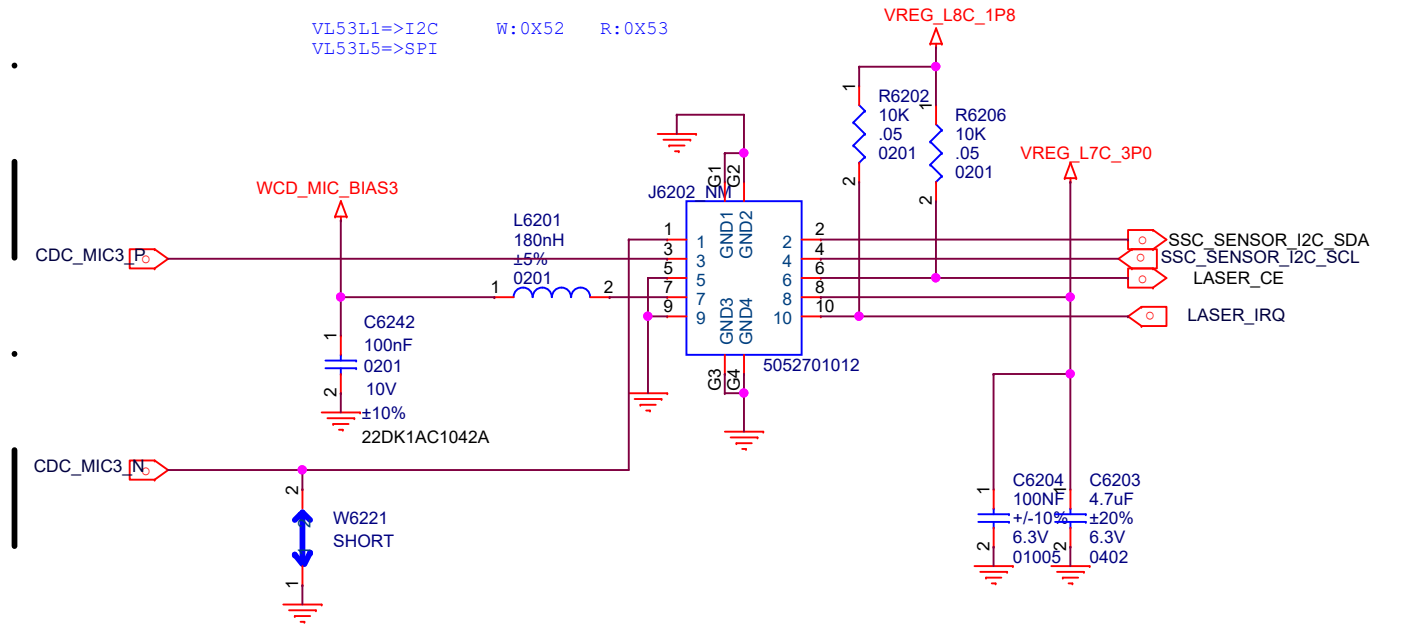
HALL



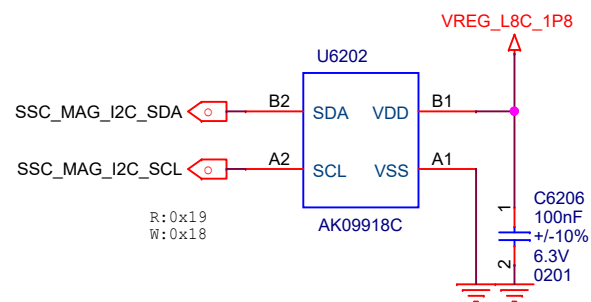
FLASH/FLICKER



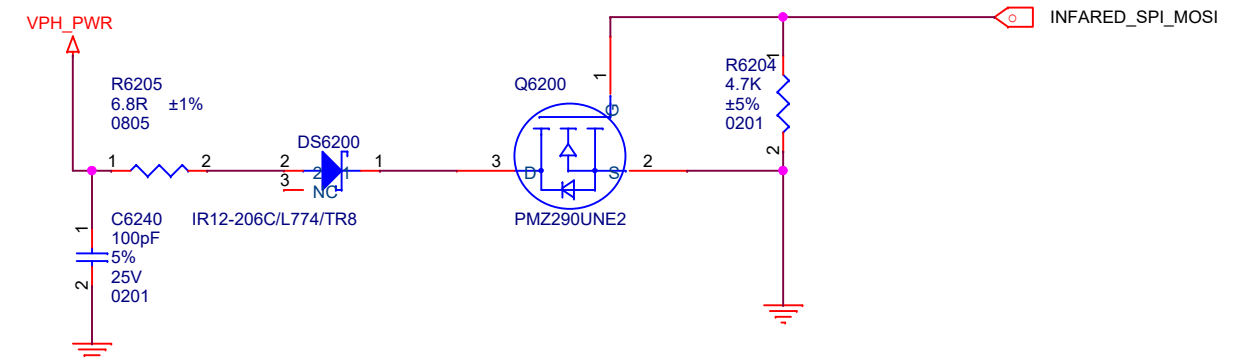
TOF



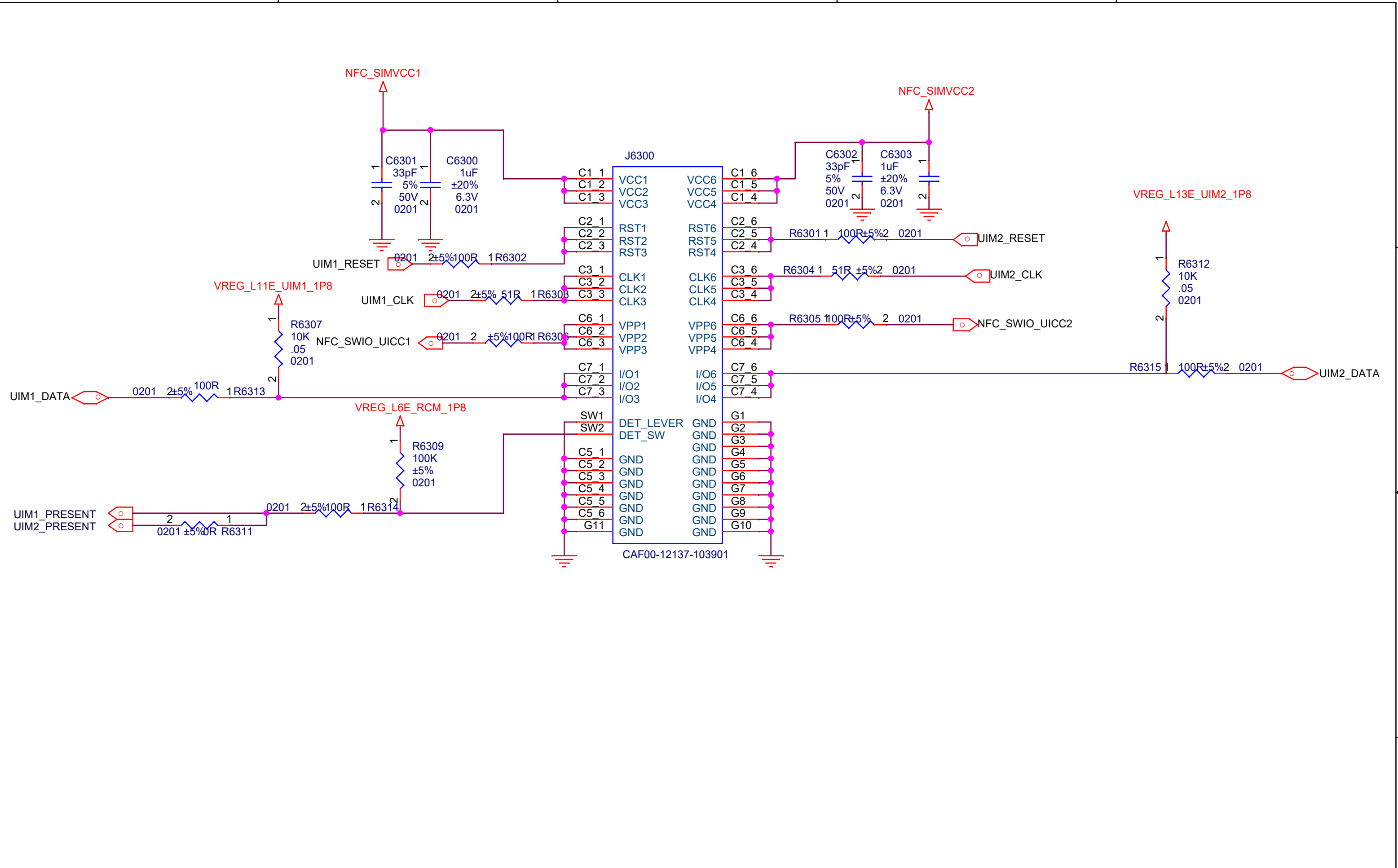
COMPASS



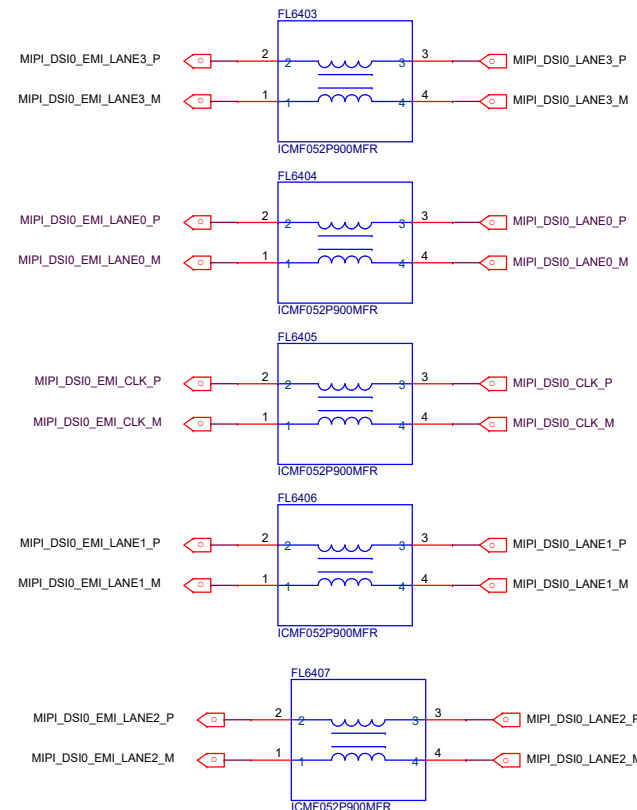
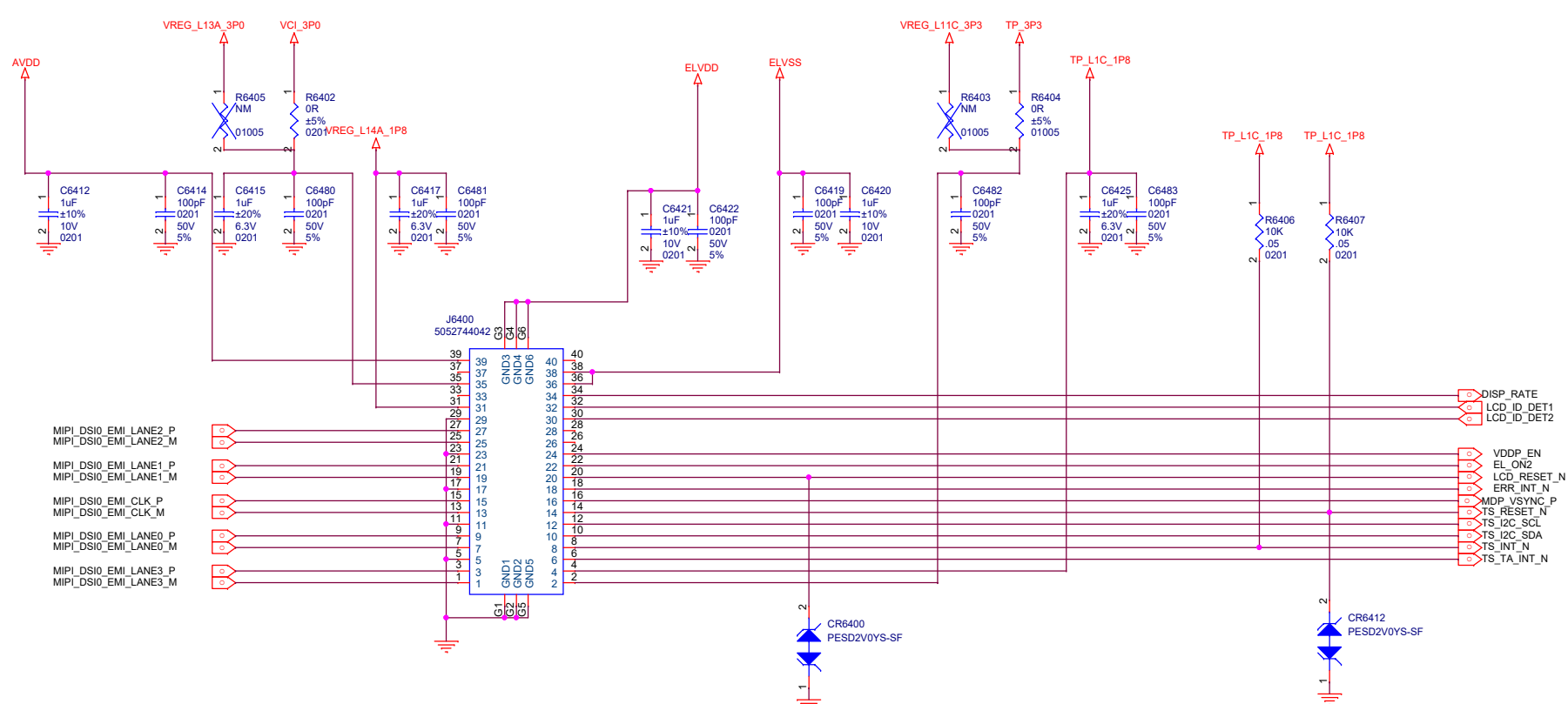
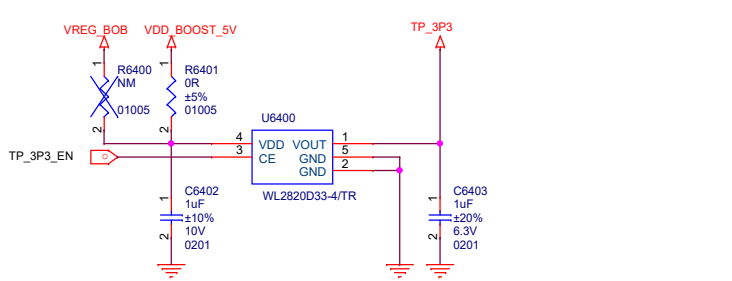
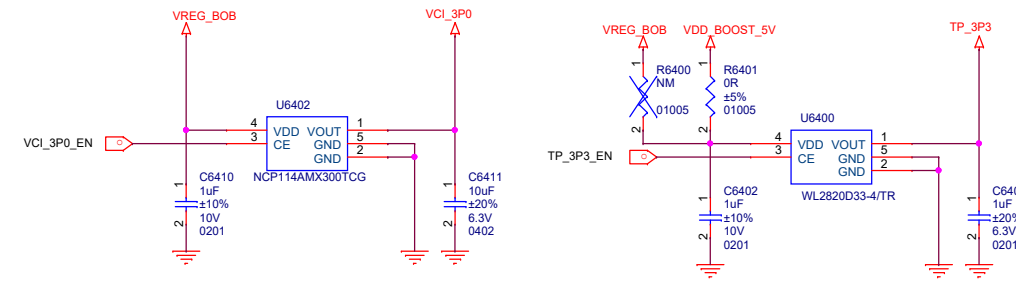
INFRARED

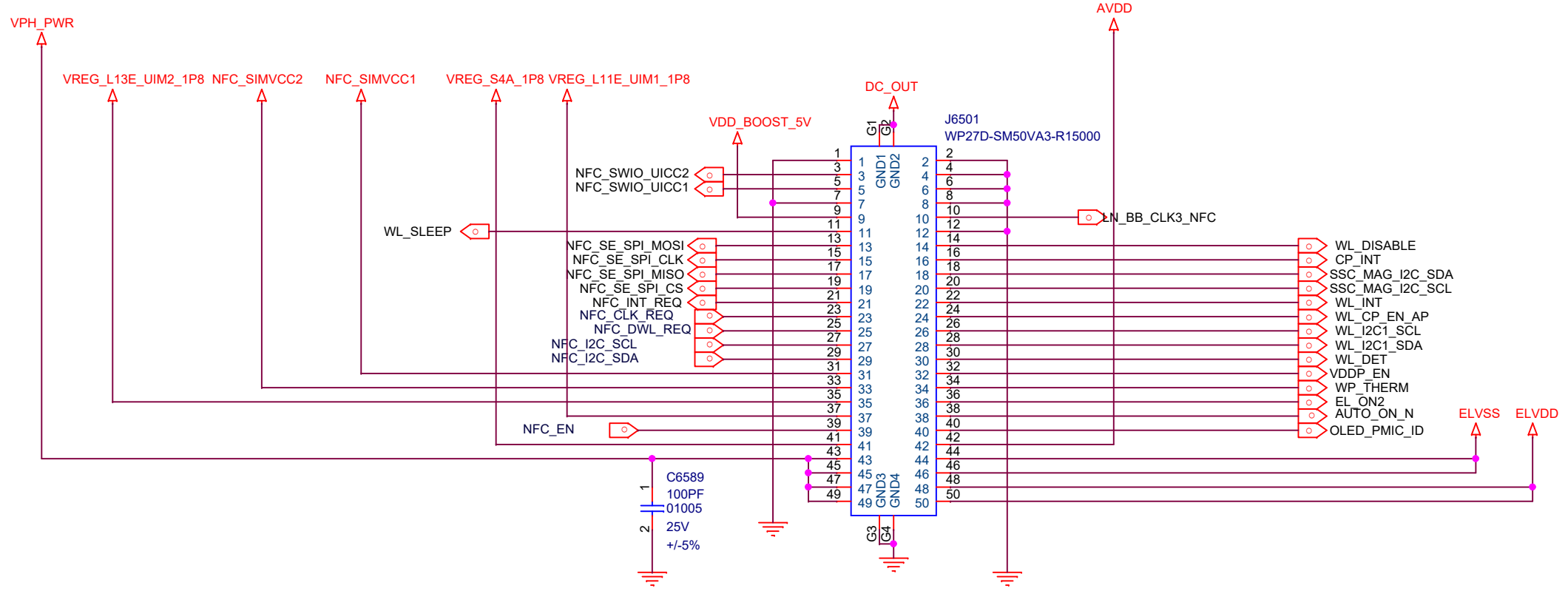


Title		F1 MAIN	
Size	A3	Document Number	SENSOR-2
Date:	Friday, November 29, 2019	Sheet	63
			74

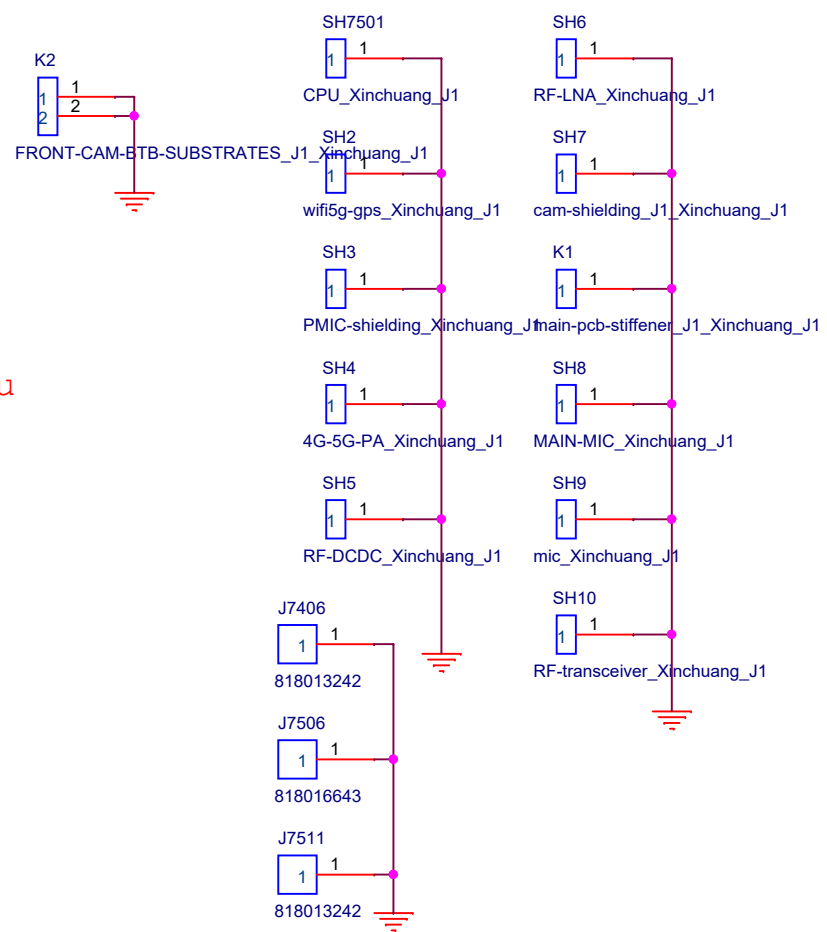
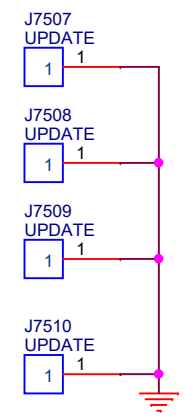


Title		F1 MAIN	
Size	A4	Document Number	SIM
Date:	Friday, November 29, 2019	Sheet	64 / 74



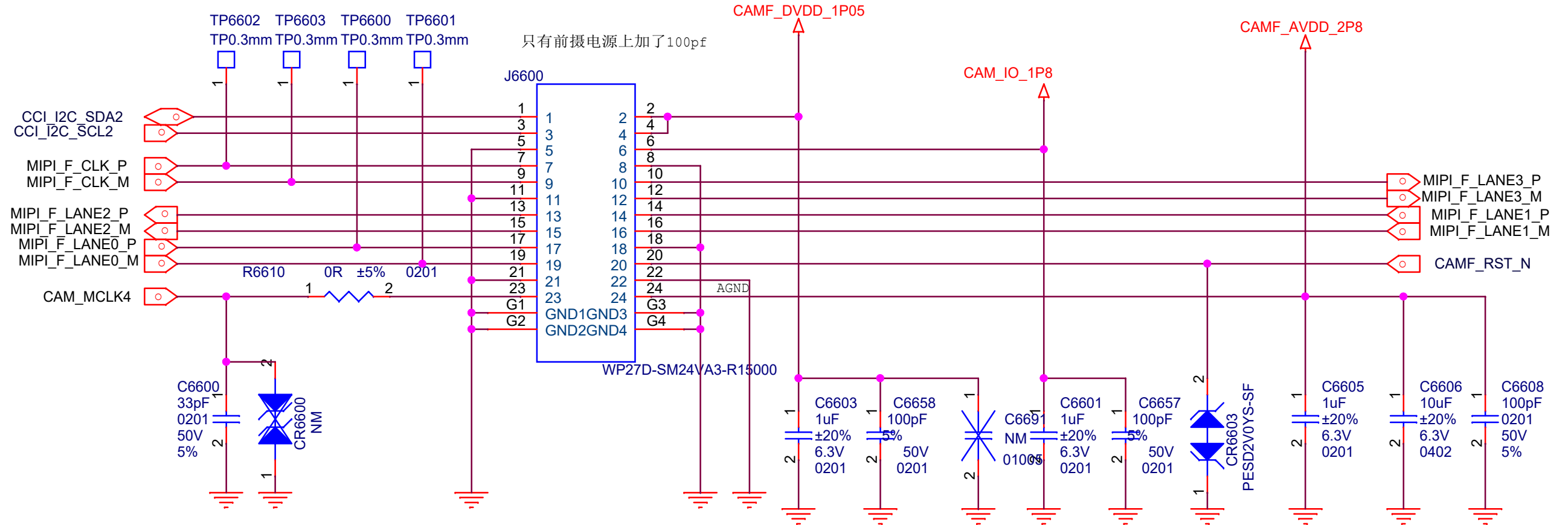


JiDeGengXinKu

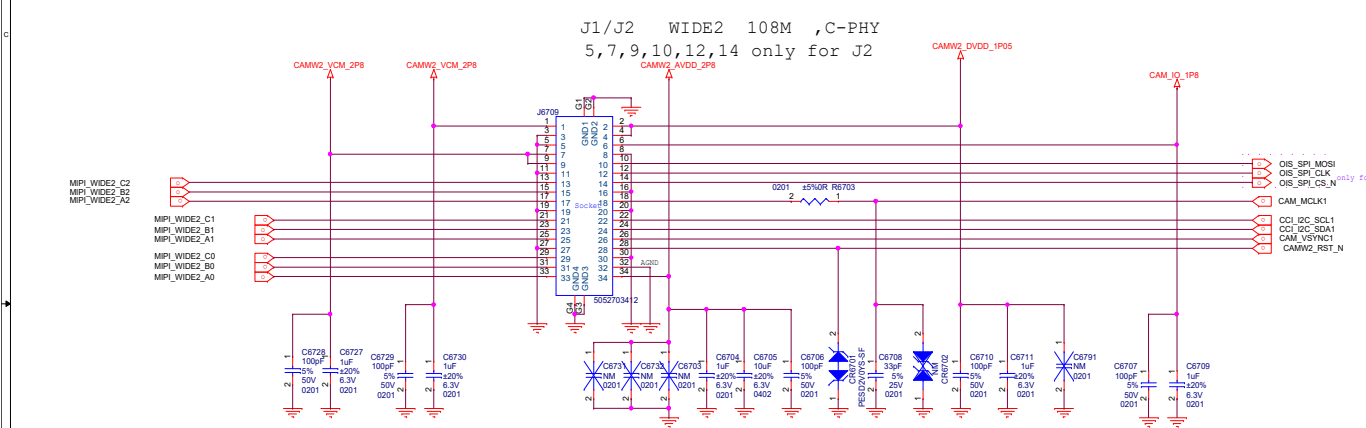
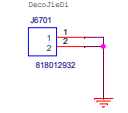
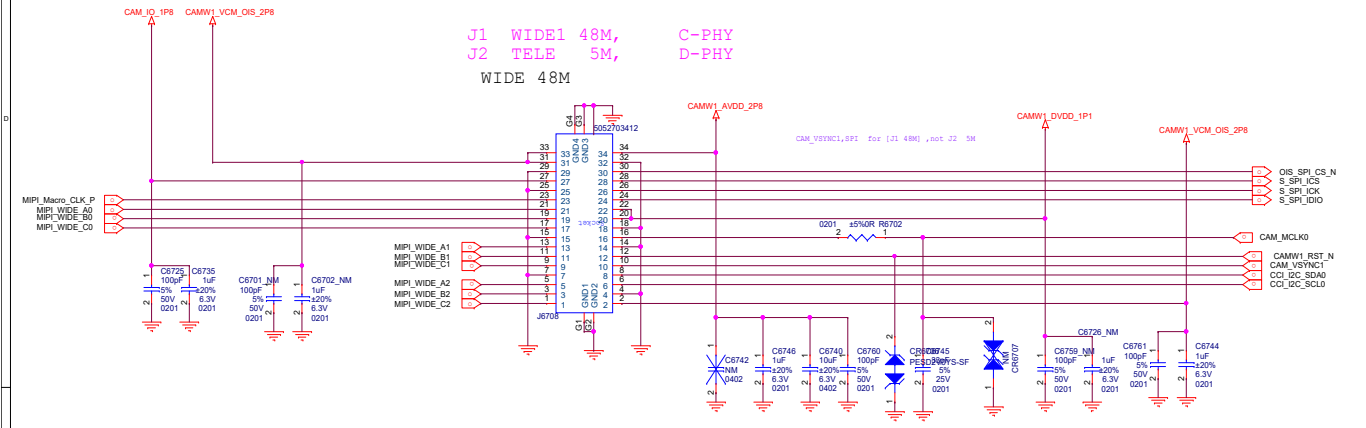


Title		
E1 USB SUB		
Size	Document Number	Rev
A3	BTB	P0
Date:	Friday, November 29, 2019	Sheet 66 of 74

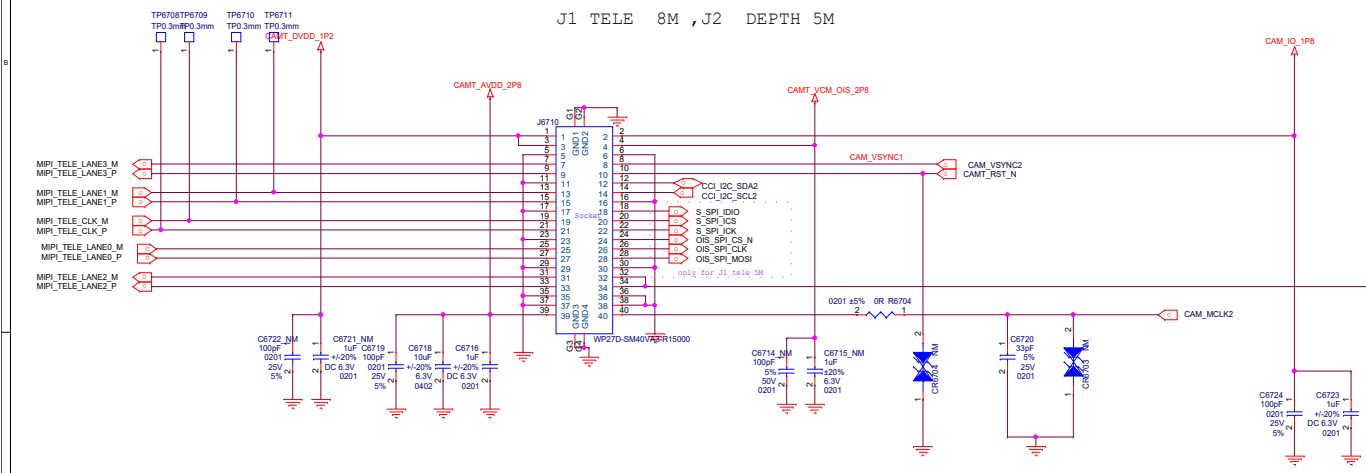
J1/J2 front 20M CAMERA

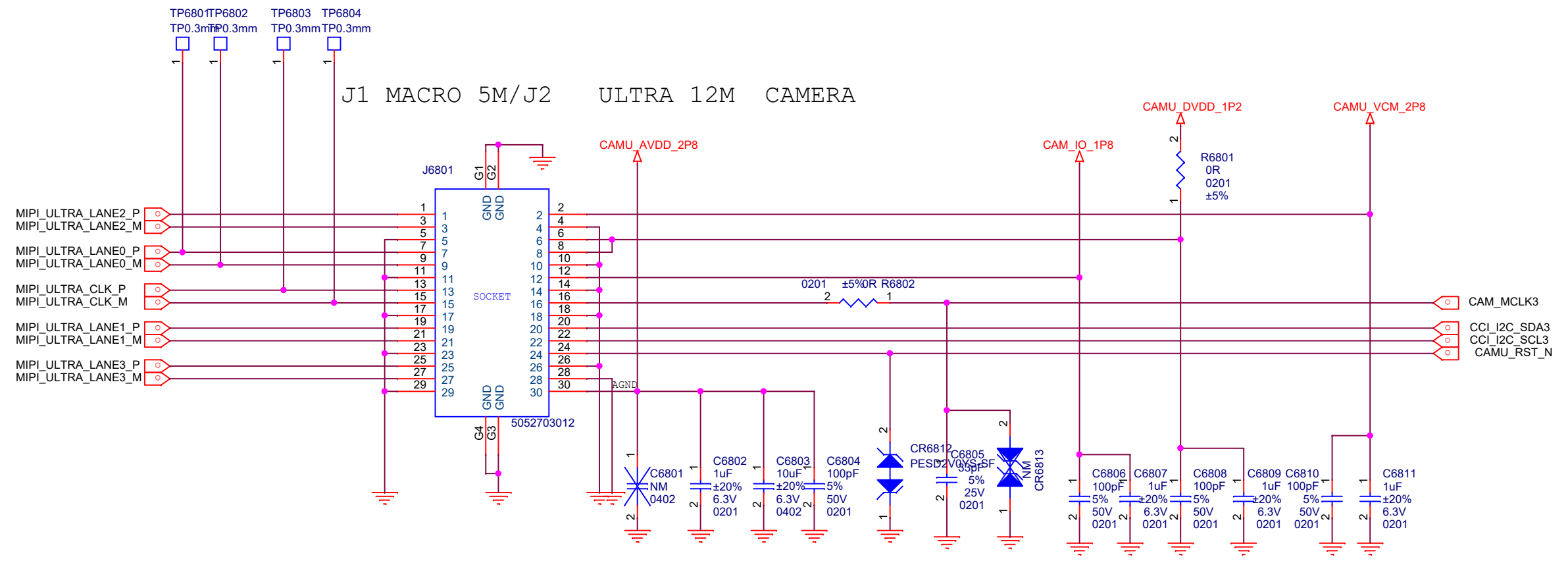


Title		F1 MAIN	
Size	A4	Document Number	Reserved(for Analog FM)
Date:	Friday, November 29, 2019	Sheet	67 74



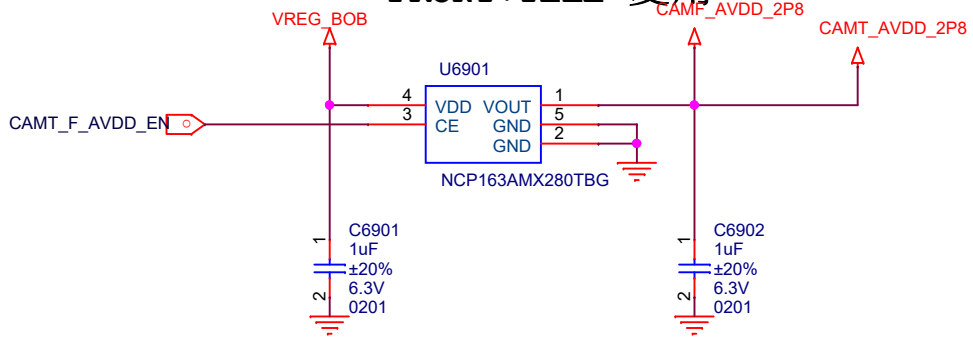
CAM	J1	J2	备注
Front_20M_24pin	相同		
J1(4x 8M)_J2(Depth 5M)_40pin	有 AF+OIS	2 Lan	J2 无 AF +OIS, C6712, C6713, C6714, C6715, J1 only, J2 NM
J1(Ultra108M)_J2(Wide108M)_34pin	有 AF_Cphy	有 AF+OIS, Cphy	J1 无 OIS, C6727, C6728 J2 only, J1 NM
J1(Wide 48M)_J2(Tele 5M)_34pin	有 AF+OIS, Cphy	有 AF_Dphy 2Lan	J2 无 OIS, C6701, C6702 J1 only, J2 NM
J1(Macro5M)_J2(Ultra 16M)_30pin	有 AF_Dphy 2Lan	有 AF	



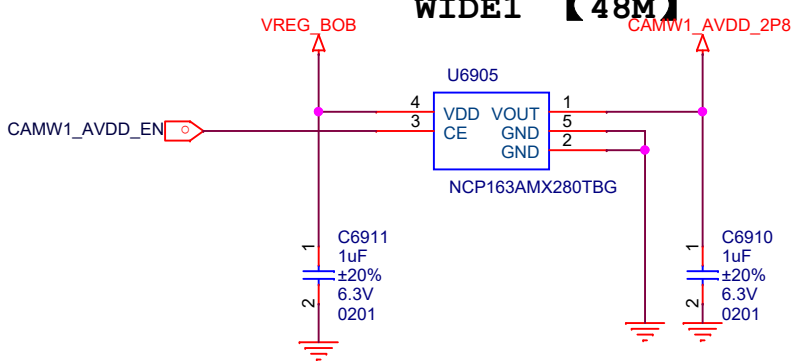


Title		F1 MAIN	
Size	A3	Document Number	ULTRA CAMERA
Date:	Friday, November 29, 2019	Sheet	69 74

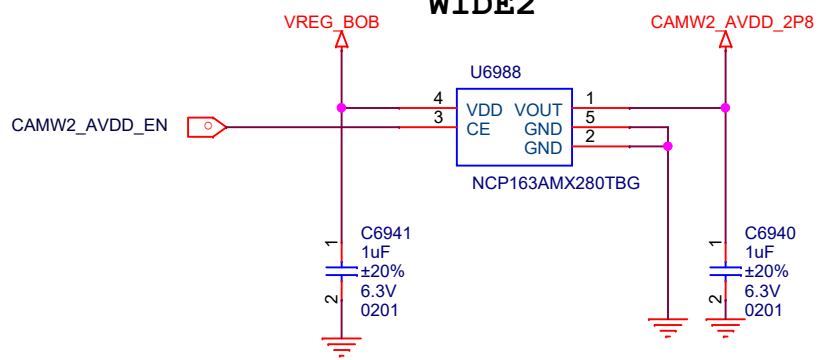
FRONT+TELE 复用 tele 和 front 复用



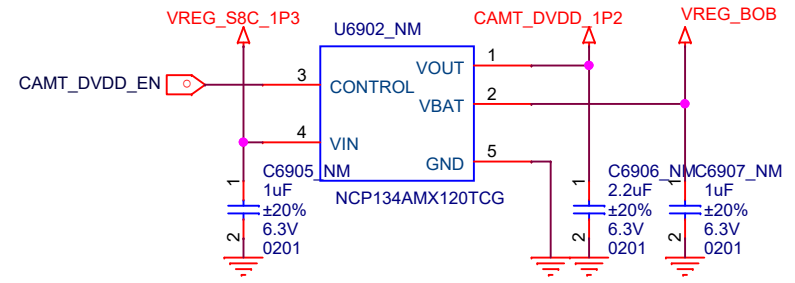
WIDE1 【48M】



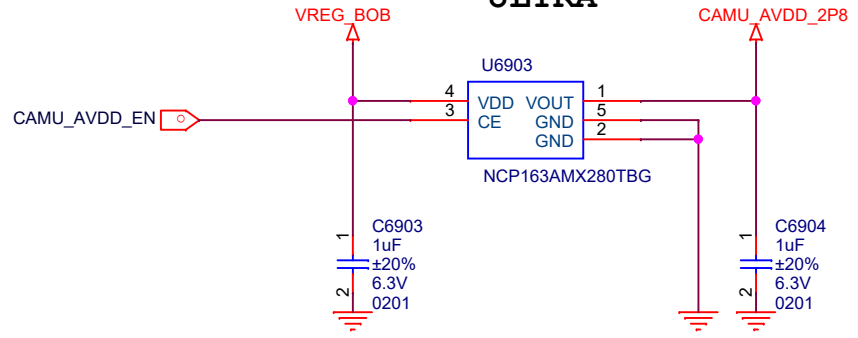
WIDE2



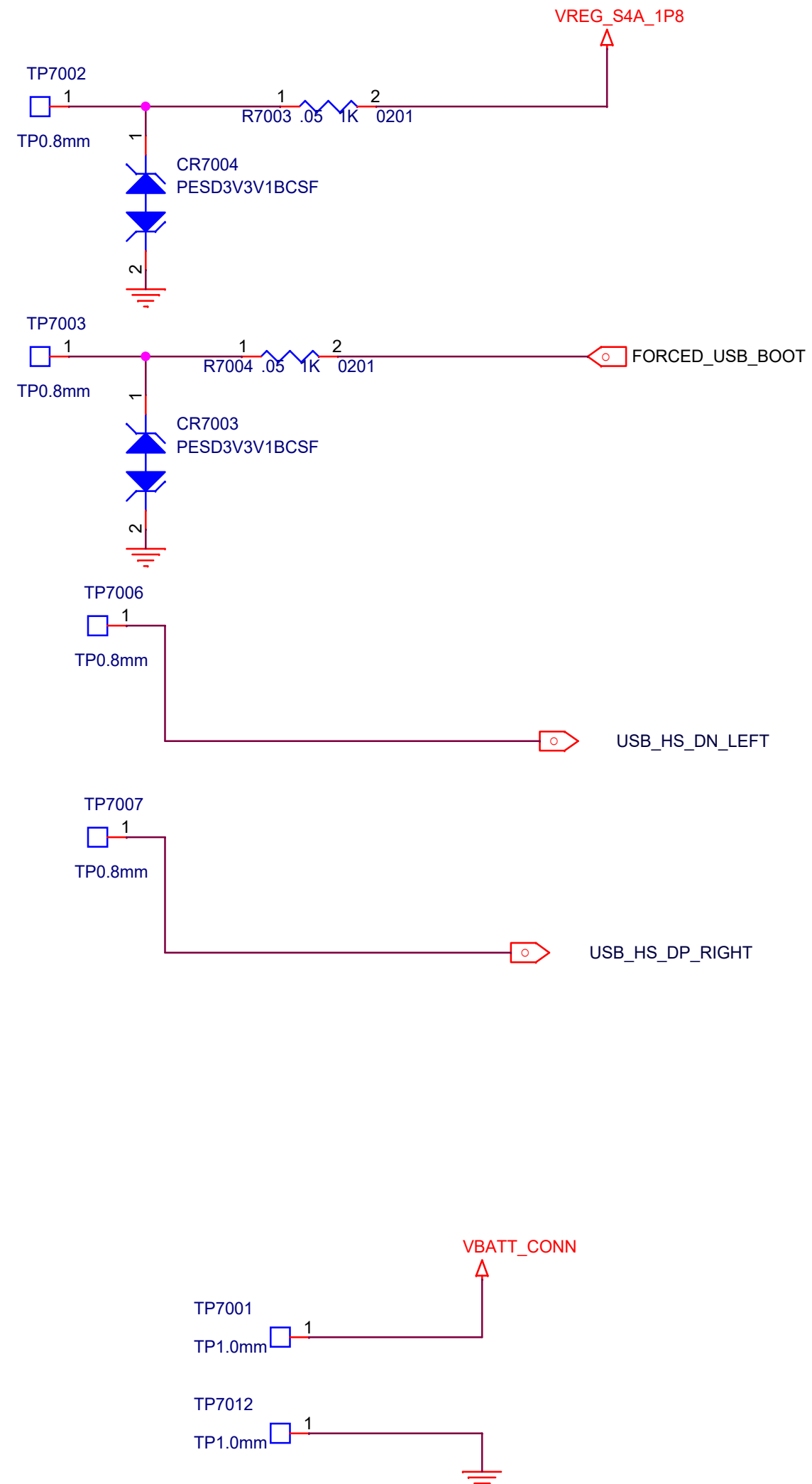
TELE



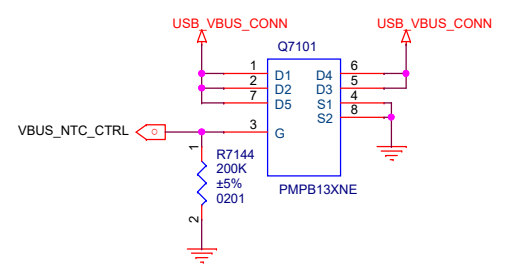
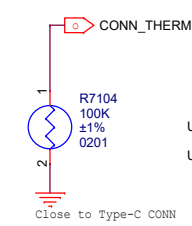
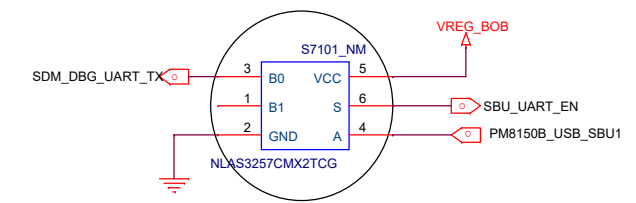
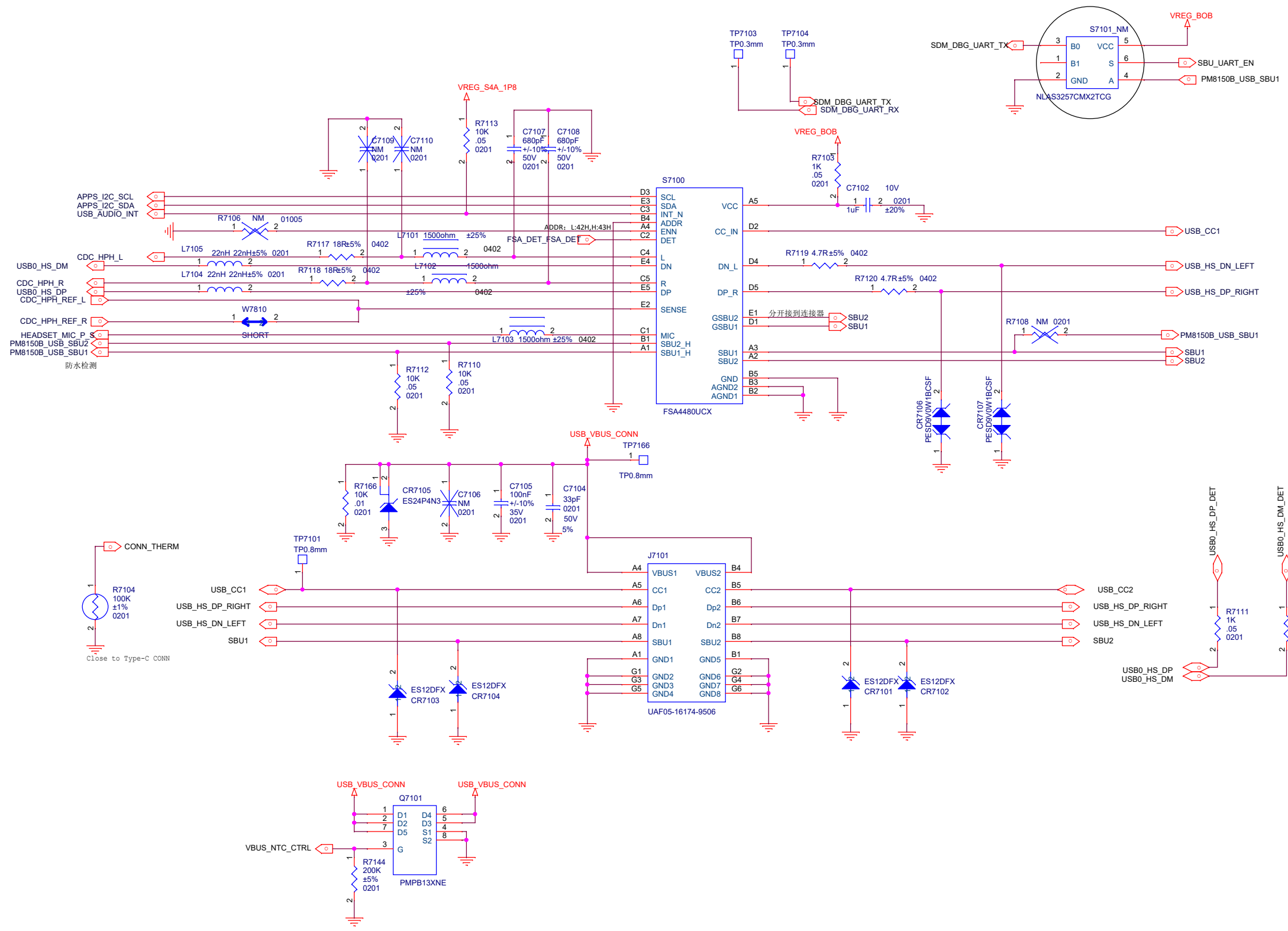
ULTRA

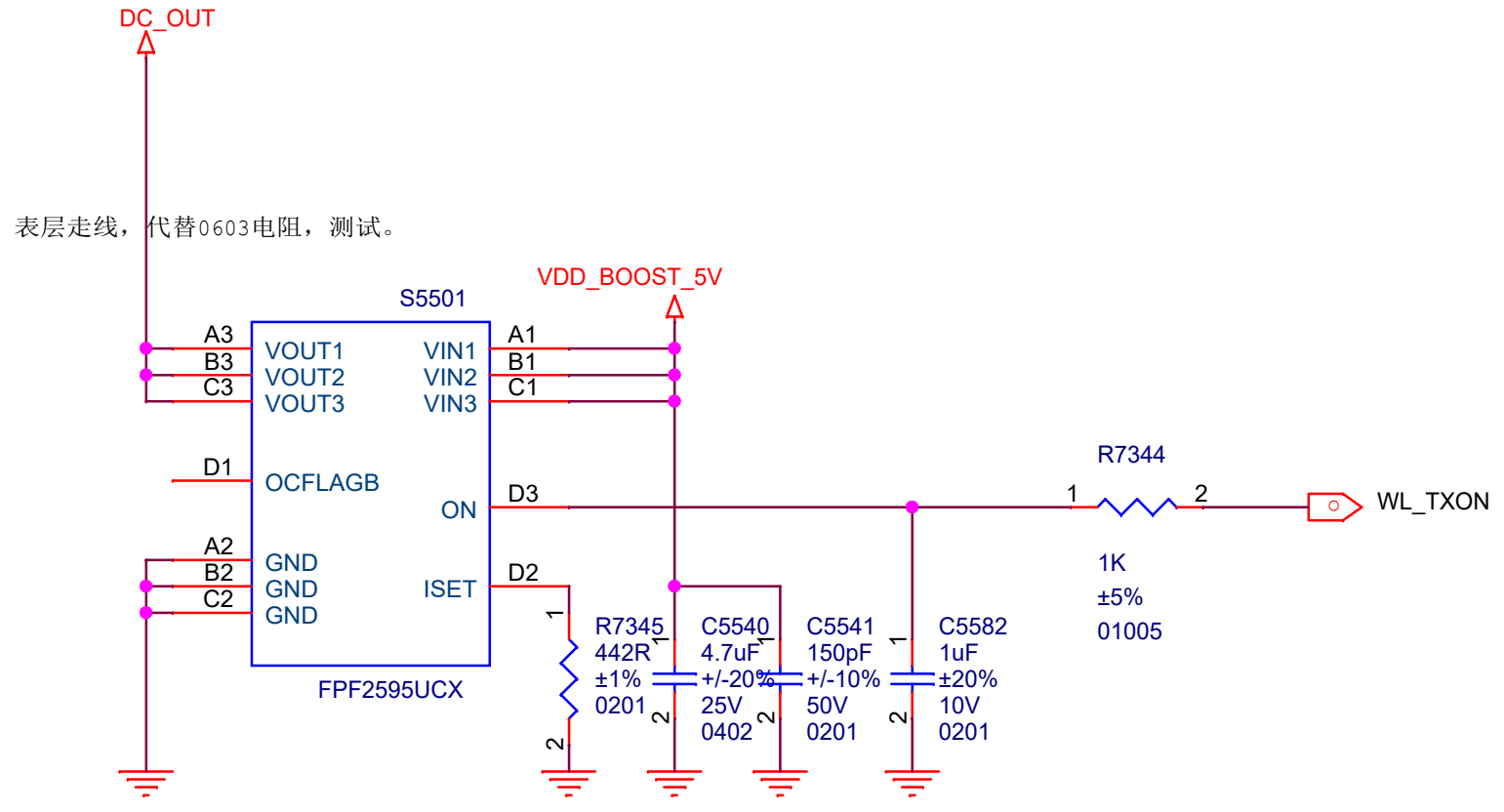


Title		F1 MAIN	
Size	A3	Document Number	CAMERA LDOs
Date:	Friday, November 29, 2019	Sheet	70



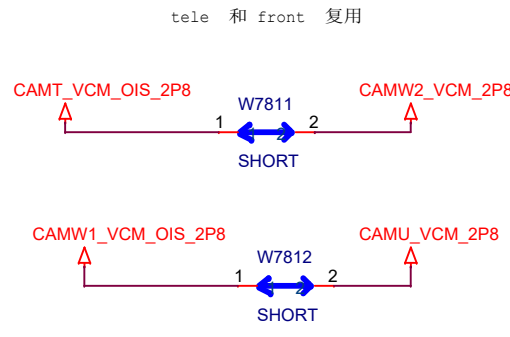
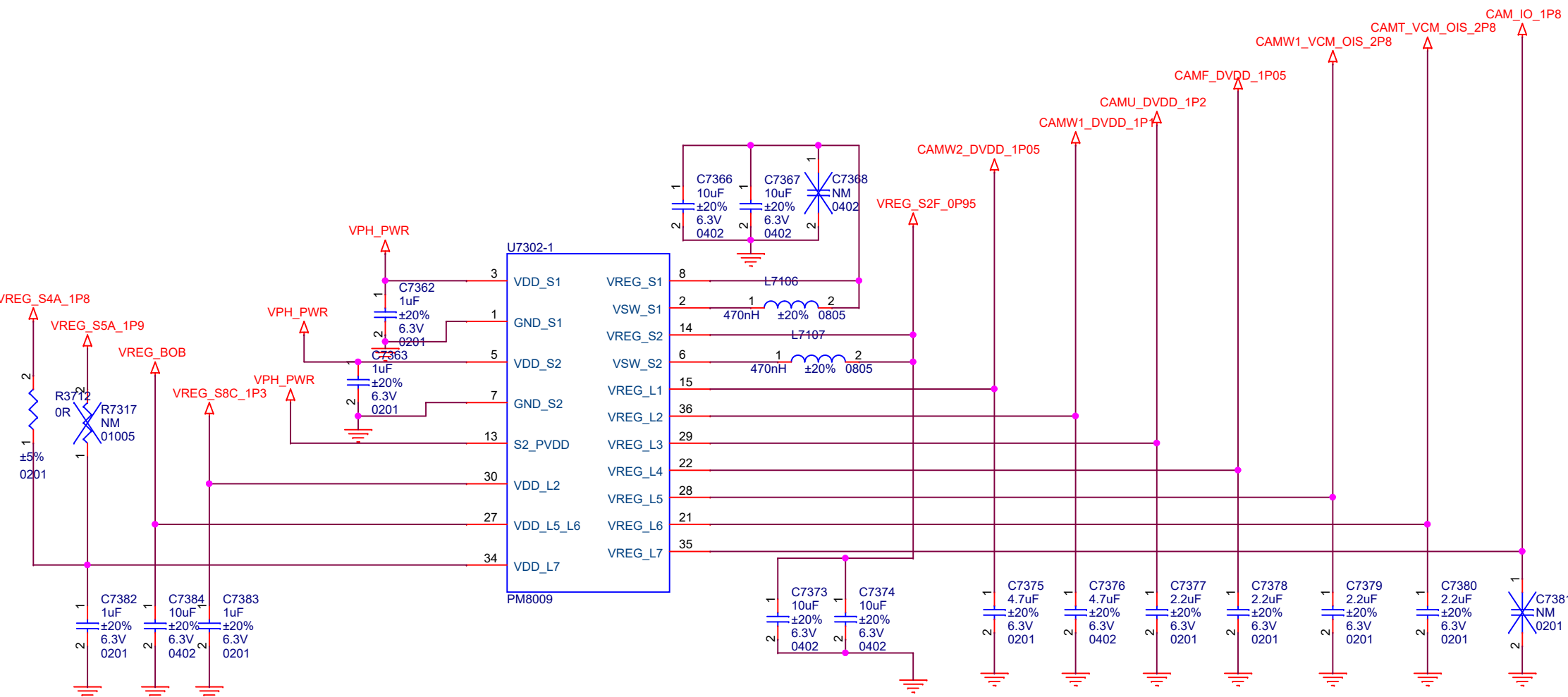
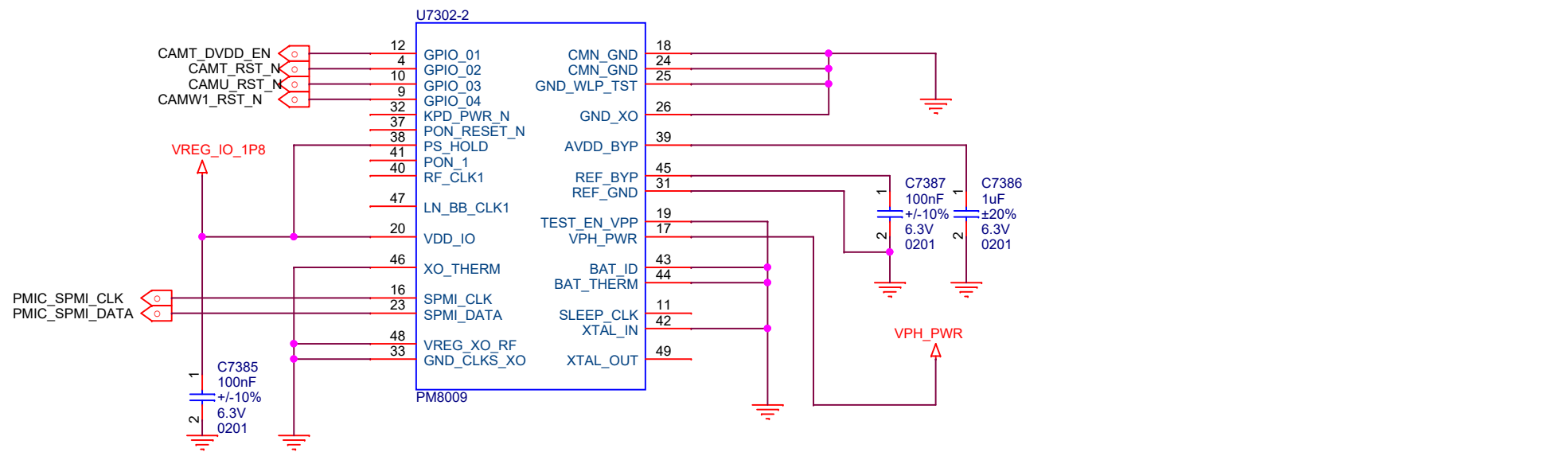
Title		F1 MAIN	
Size	A4	Document Number	IR LED
Date:	Friday, November 29, 2019	Sheet	1





RsetΩ	Min. Current mA	Typ Current mA	Max. Current mA
415	2250	2500	2750
460	2025	2250	2475
520	1800	2000	2200

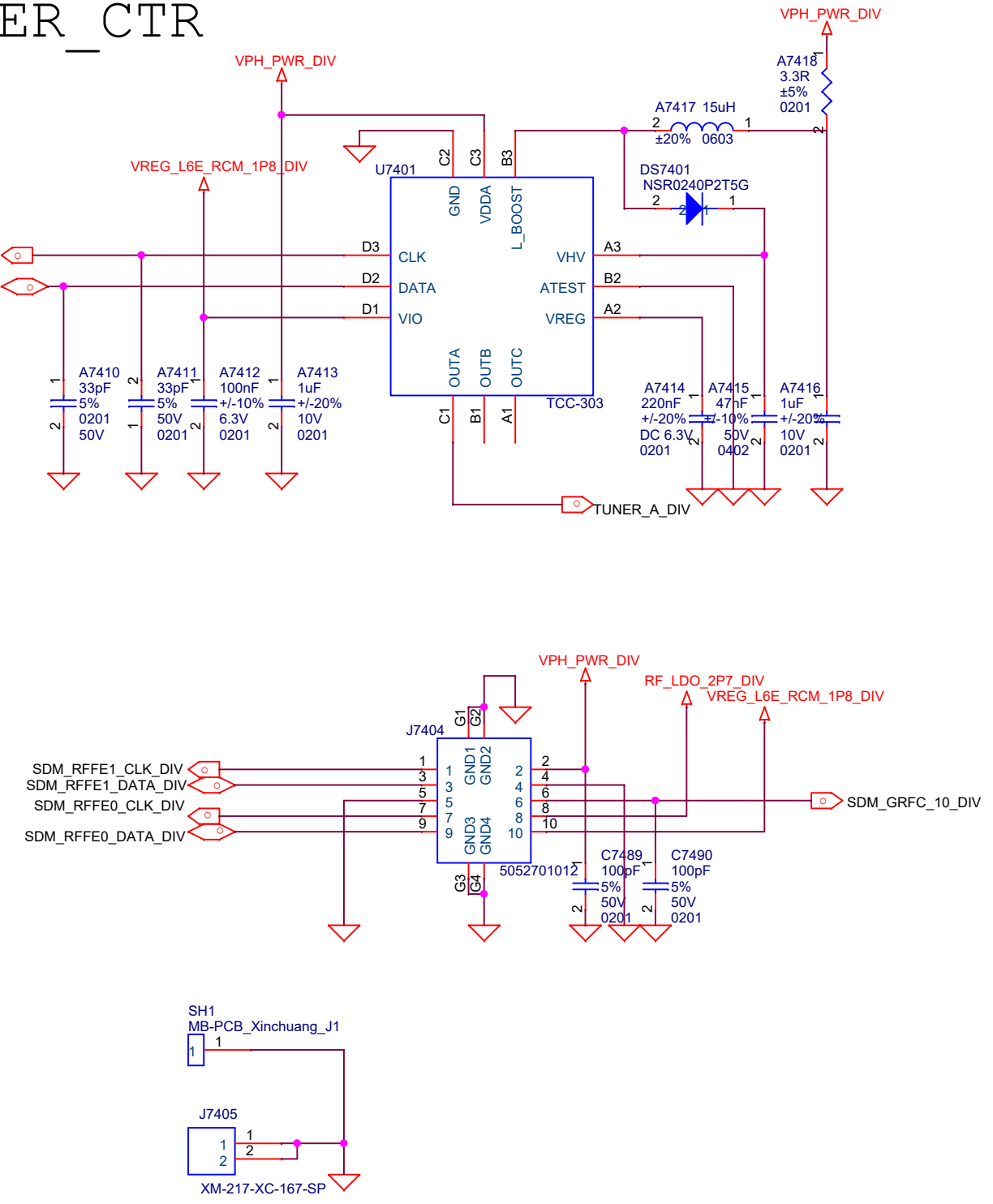
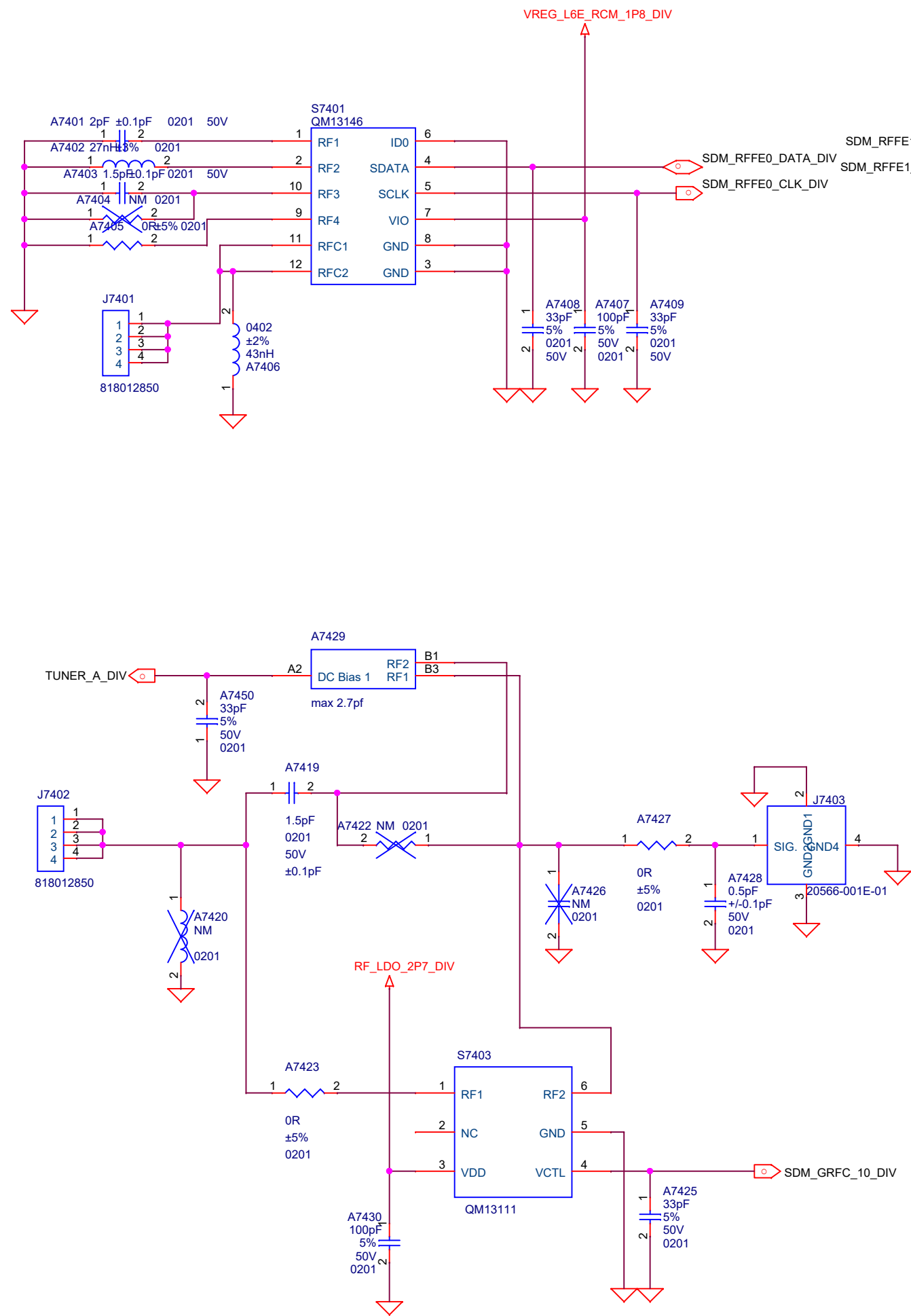
Title		F1 MAIN	
Size	A4	Document Number	SMB1390&WL POWER
Date:	Friday, November 29, 2019	Sheet	



Title		F1 MAIN
Size	Document Number	CAMERA LDOs
A3	Date:	Friday, November 29, 2019

DRX_ANT

TUNER_CTR



Title		
F11 SUB		
Size	Document Number	Rev
A3	<Doc>	P0A
Date:	Friday, November 29, 2019	Sheet 75 of 75