

SAMSUNG CONFIDENTIAL
THIS DOCUMENT CONTAINS CONFIDENTIAL
PROPRIETARY INFORMATION THAT IS
SAMSUNG ELECTRONICS CO.'S PROPERTY.
DO NOT DISCLOSE TO OR DUPLICATE FOR OTHERS
EXCEPT AS AUTHORIZED BY SAMSUNG.

SM-S9210 REV0.6

S_AP PCB part

SM-S9210 Common

2023. 10. 06

TG	System		Power Audio		RF			Visual (CAM)	Visual (Disp.) Visual (Sensor)	HW Structure
Ref#.	11nnn	12nnn	13nnn	14nnn	15nnn	16nnn	17nnn	18nnn	19nnn	10nnn
Contents	AP IO AP Power decap	AP Associated UFS memory Motor Driver JTAG Key FPCB PCB ID	Core PMIC group	Audio AMP Charger NFC+SIM MFC	RF Ant.			CAM PMIC Wide CAM Tele 3x CAM Tele 10x CAM MCU	ALS	Interposer Shieldcan Bosshole
sheet	sheet1	sheet2	sheet3	sheet4	sheet5	sheet6	sheet7	sheet8	sheet9	sheet10

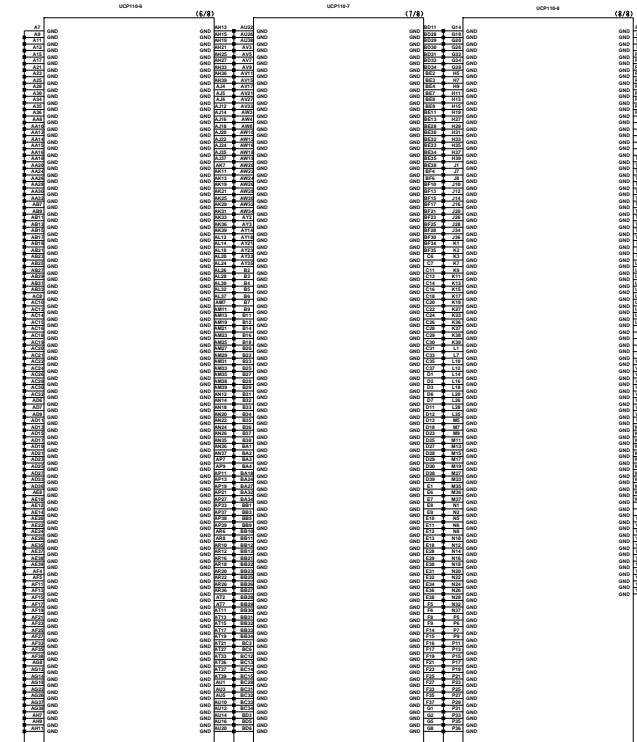
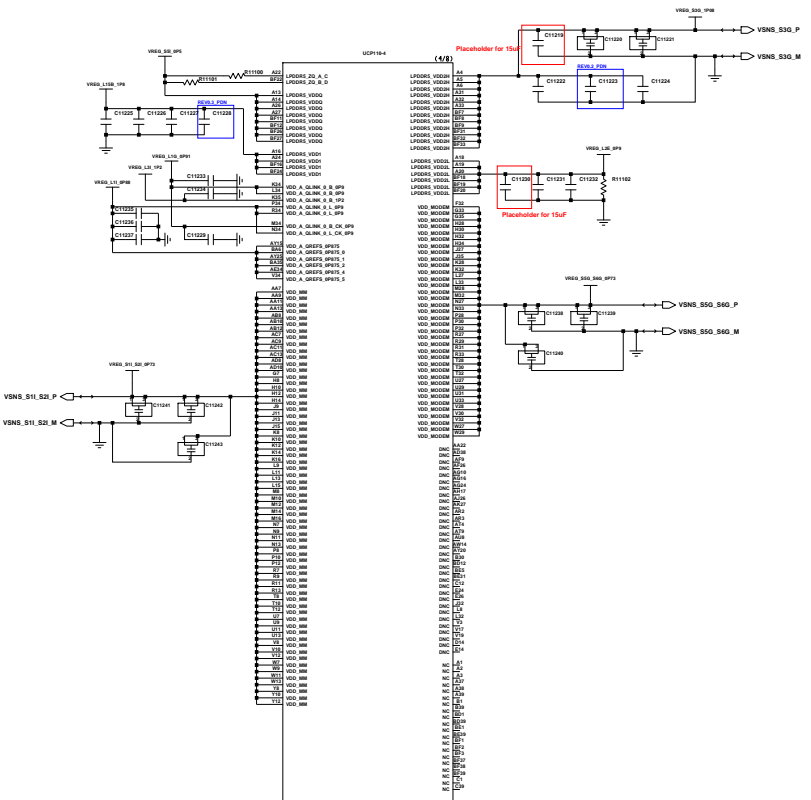
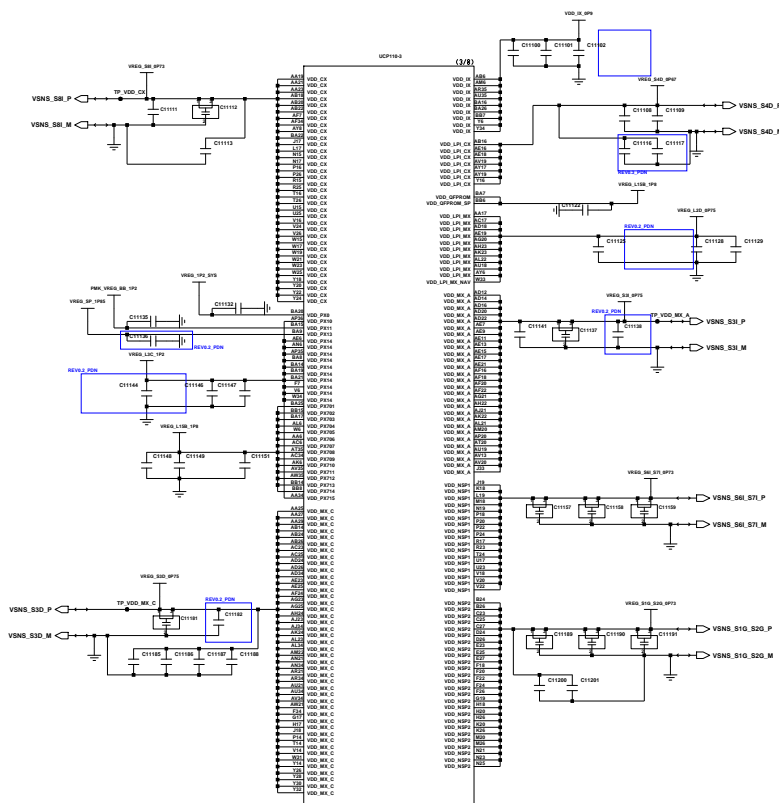
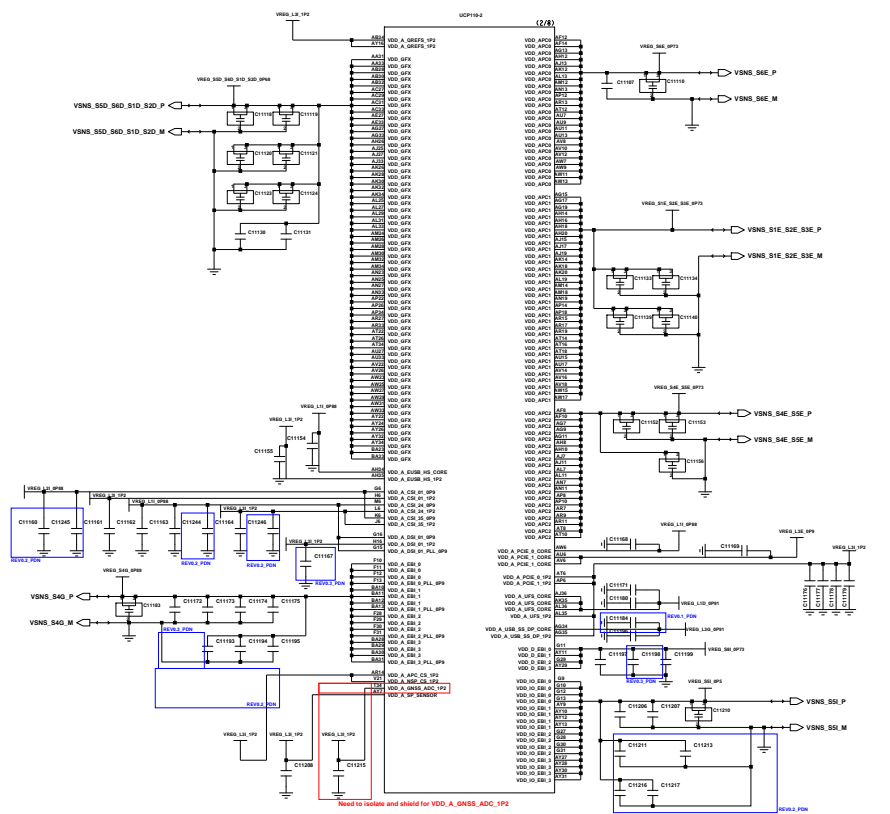
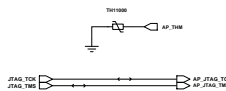
Engineer: SEC
Drawn by: SEC
RAD CHK:
DOC CTRL CHK:
MFG ENGR CHK:

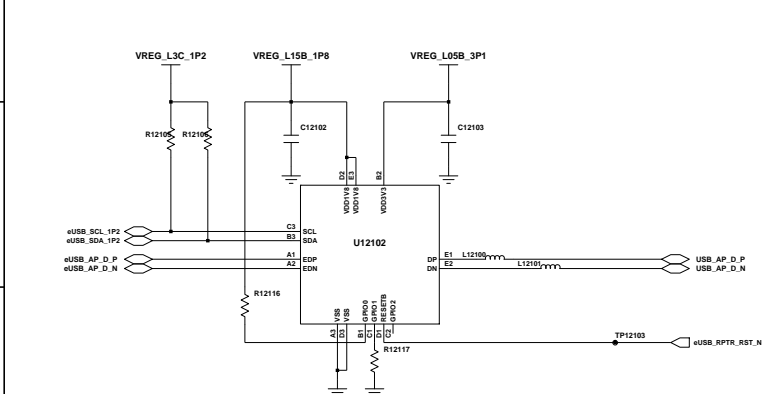
TITLE:
Size:

Changed by: szstDate Changed:Time Changed:GA CHK:REVDrawing Number:Page:6

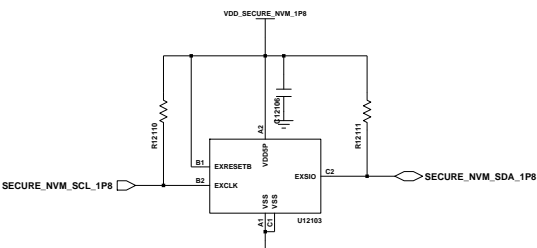
SM8650

(POWER decap, GND)

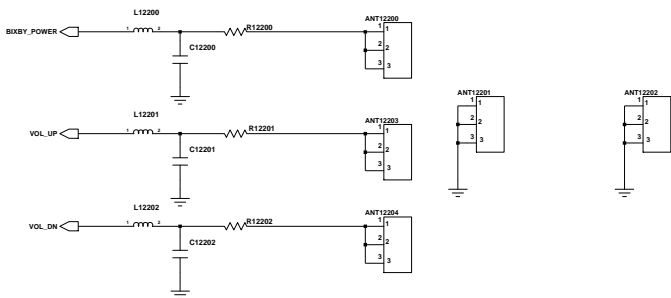




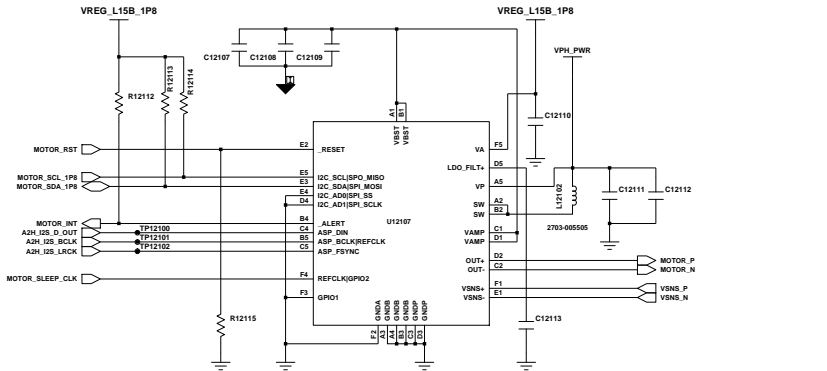
eUSB REPEATER
NEW ITEM



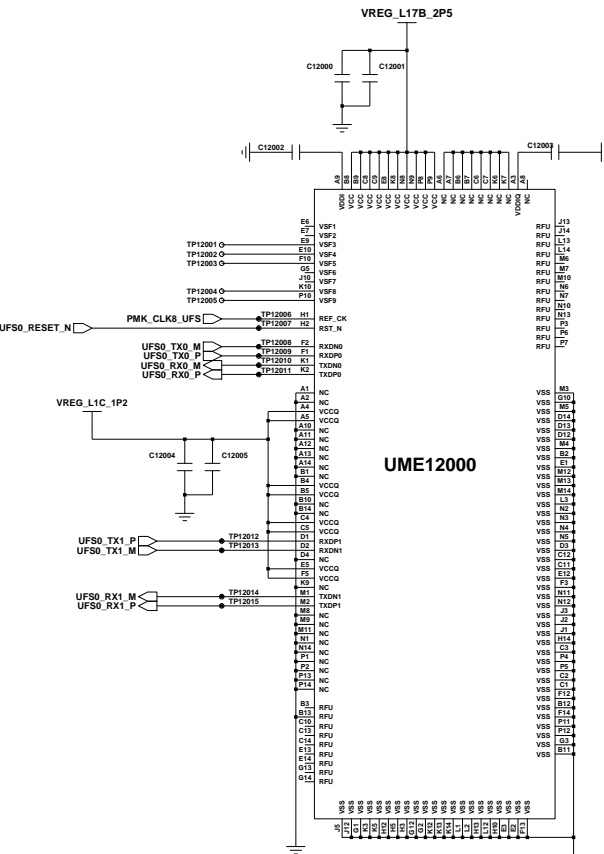
SECURE NVM
NEW ITEM



Vol + Power key

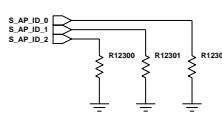


MOTOR DRV IC

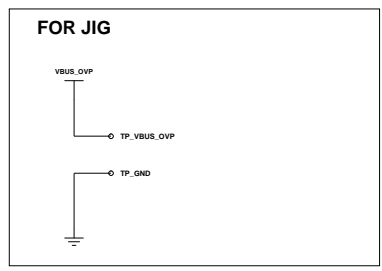


UFS 3.1 128
UFS 4.0 256

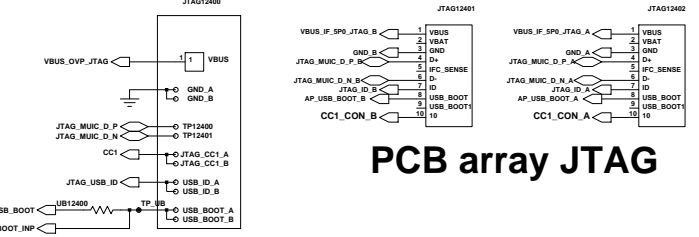
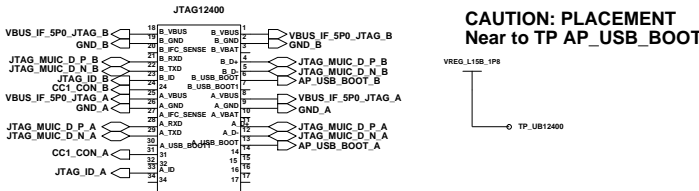
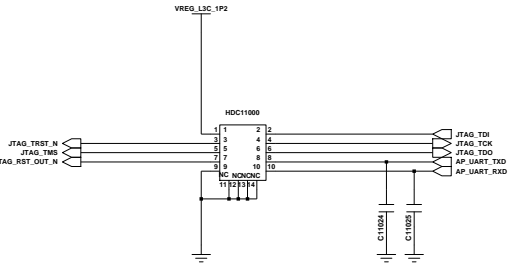
S_AP_ID



S_AP PBA table			
ID	ID_2	ID_1	ID_0
0	L	L	L
1	L	L	H
2	L	H	L
3	L	H	H
4	H	L	L
5	H	L	H
6	H	H	L
7	H	H	H

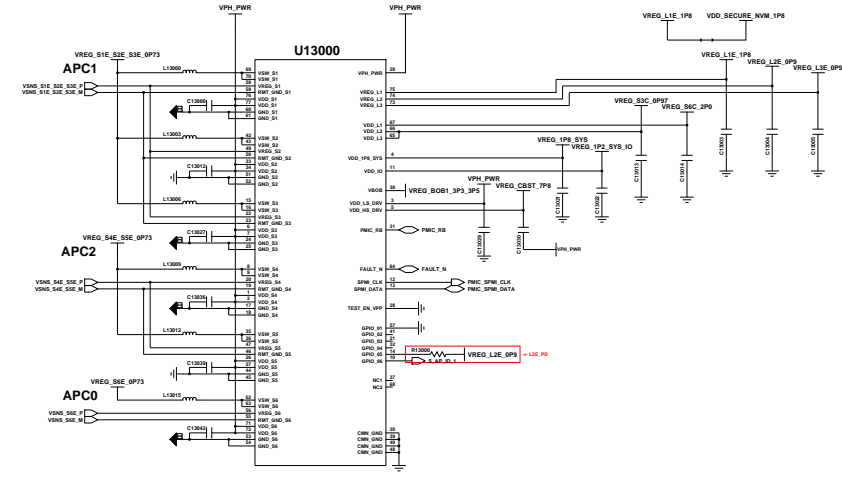


AP JTAG CONNECTOR



PCB array JTAG

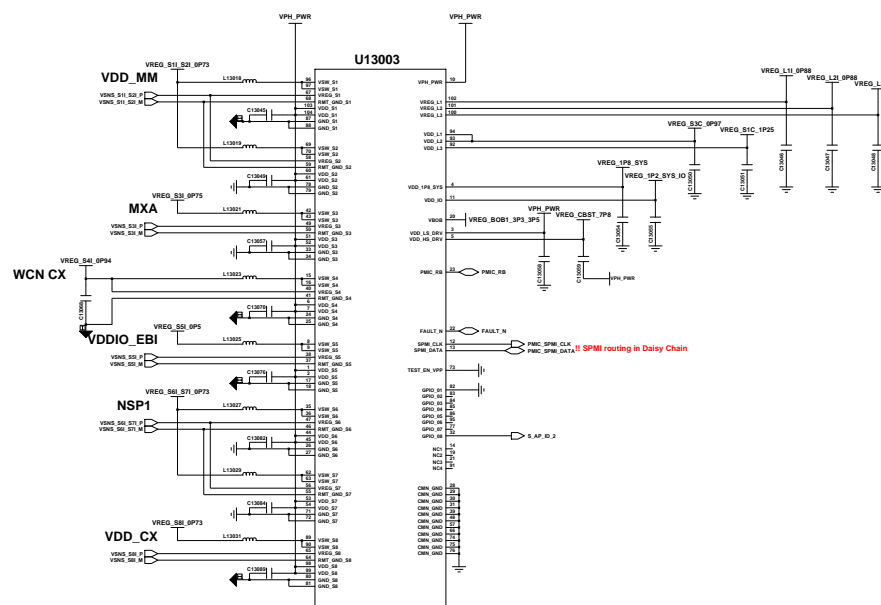
Ref#. 12nnn

[illegible]

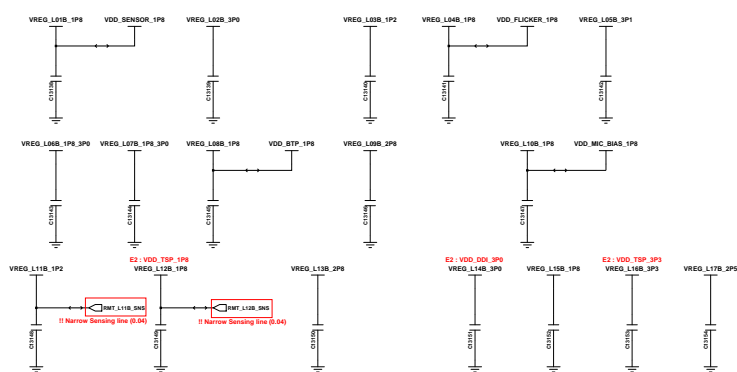
PM8550VS_D

PM8550VS_E

Extra Bulk cap



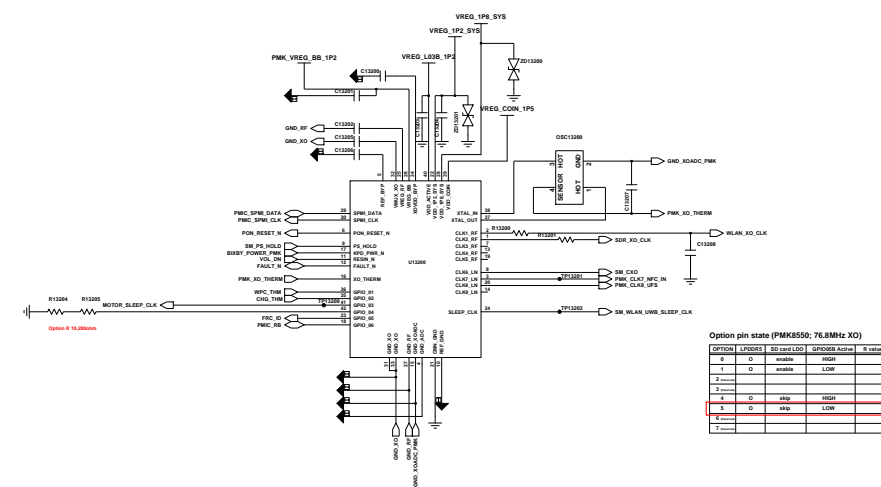
PM8550



PM8550 LDO OUT CAP

PM8550VE_I

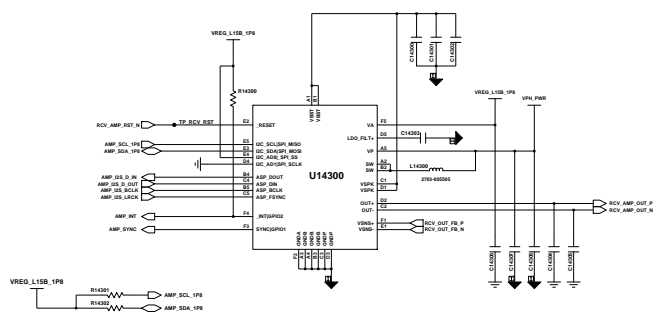
PMK8650



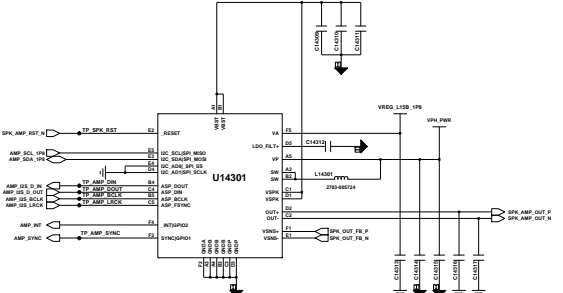
PMK8650

OPTION	LPODRS	SD card LDO	GPIO05B Active	R value
0	<input type="radio"/>	enable	HIGH	
1	<input type="radio"/>	enable	LOW	
2	<input type="radio"/>			
3	<input type="radio"/>			
4	<input type="radio"/>	skip	HIGH	
5	<input type="radio"/>	skip	LOW	
6	<input type="radio"/>			
7	<input type="radio"/>			

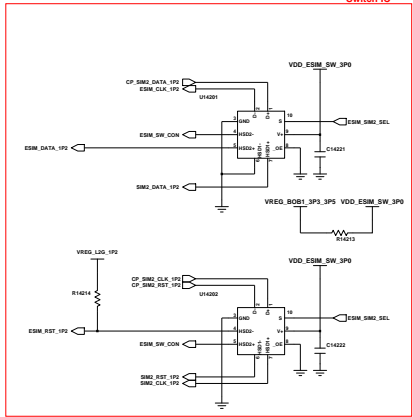
RCV AMP



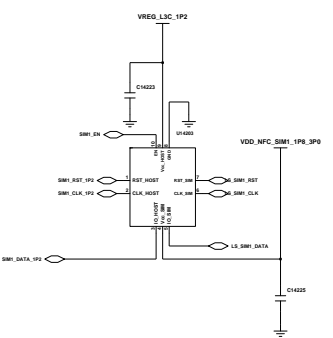
SPK AMP



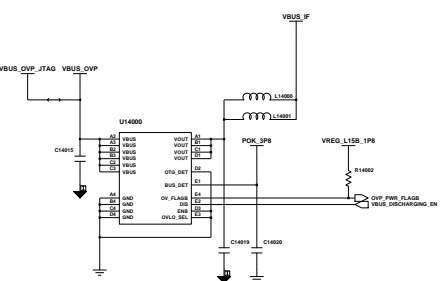
NFC



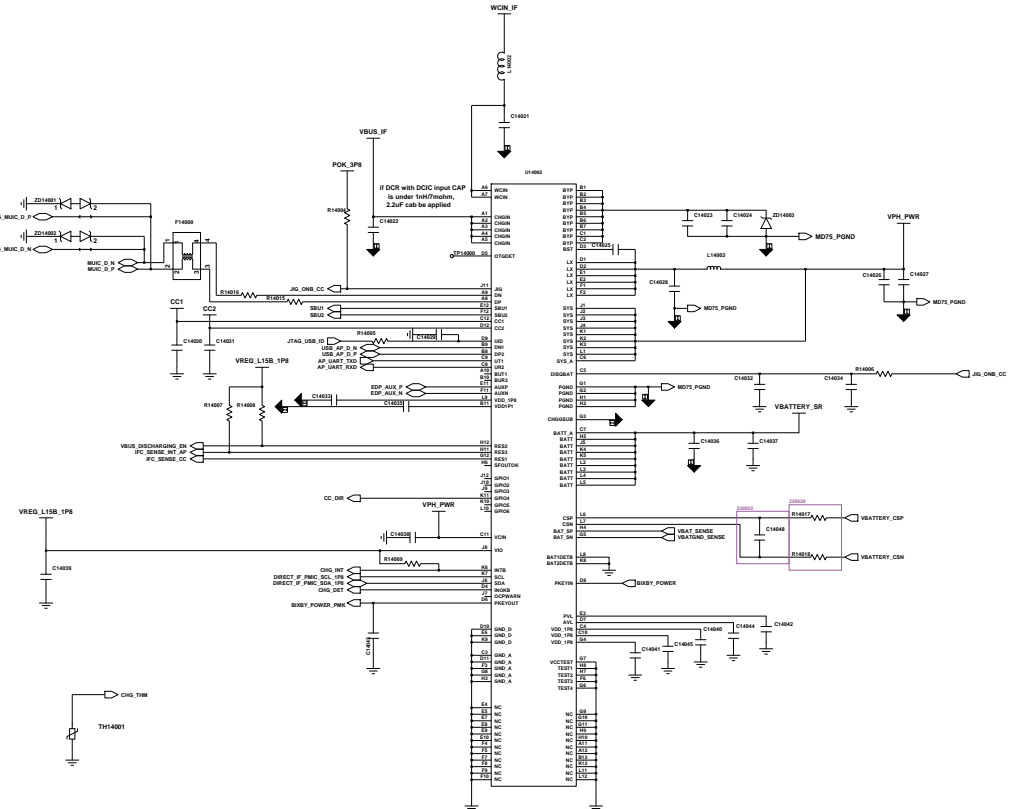
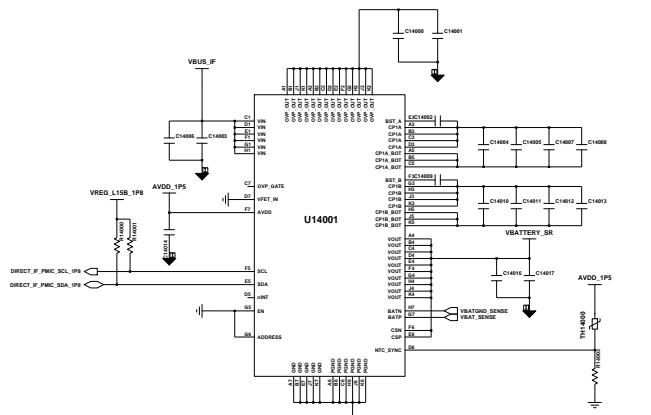
SIM Level Shifter



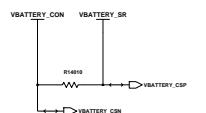
OVP LS



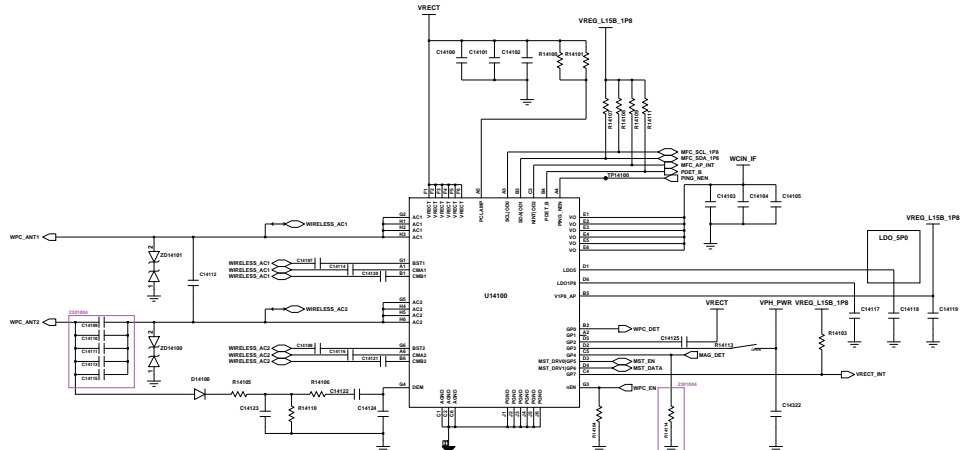
Direct Charging



Battery Sensing



IF PMIC

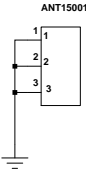


MFC

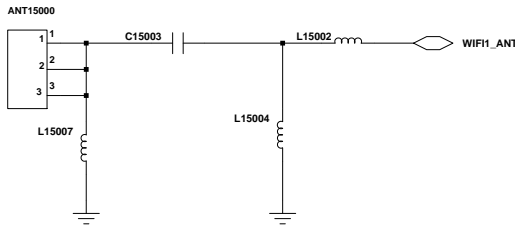
Ref#. 14nnn

SAMSUNG CONFIDENTIAL
THIS DOCUMENT CONTAINS CONFIDENTIAL
PROPRIETARY INFORMATION THAT IS
SAMSUNG ELECTRONICS CO.'S PROPERTY.
DO NOT DISCLOSE TO OR DUPLICATE FOR OTHERS
EXCEPT AS AUTHORIZED BY SAMSUNG.

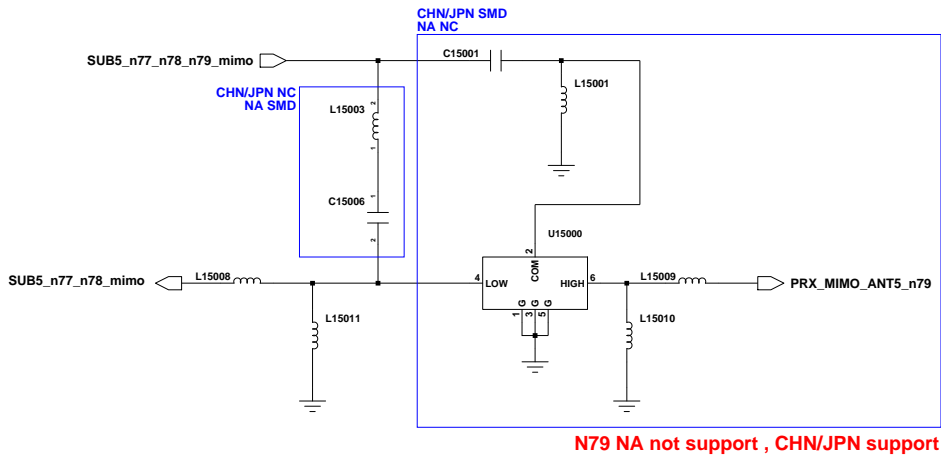
SUB6 WIFI2_2.4G



CCP

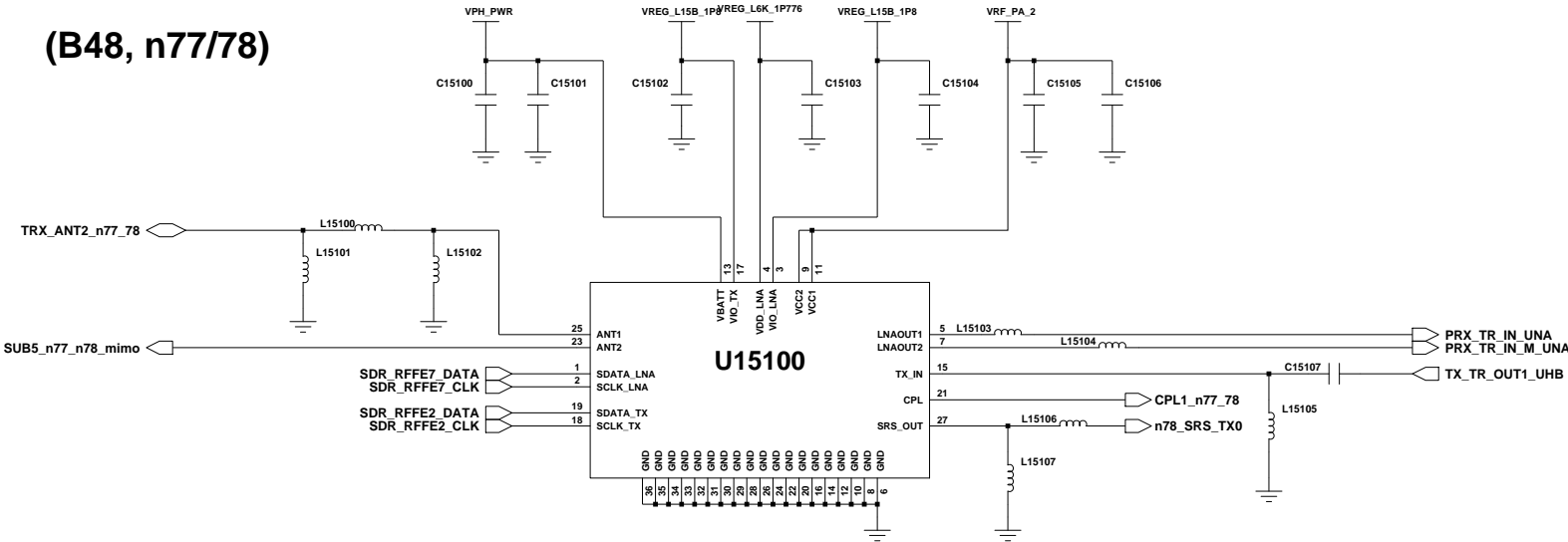


SUB5 (n79_UWB)

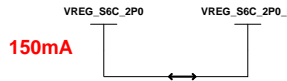
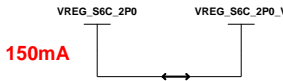
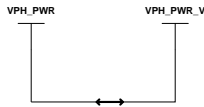
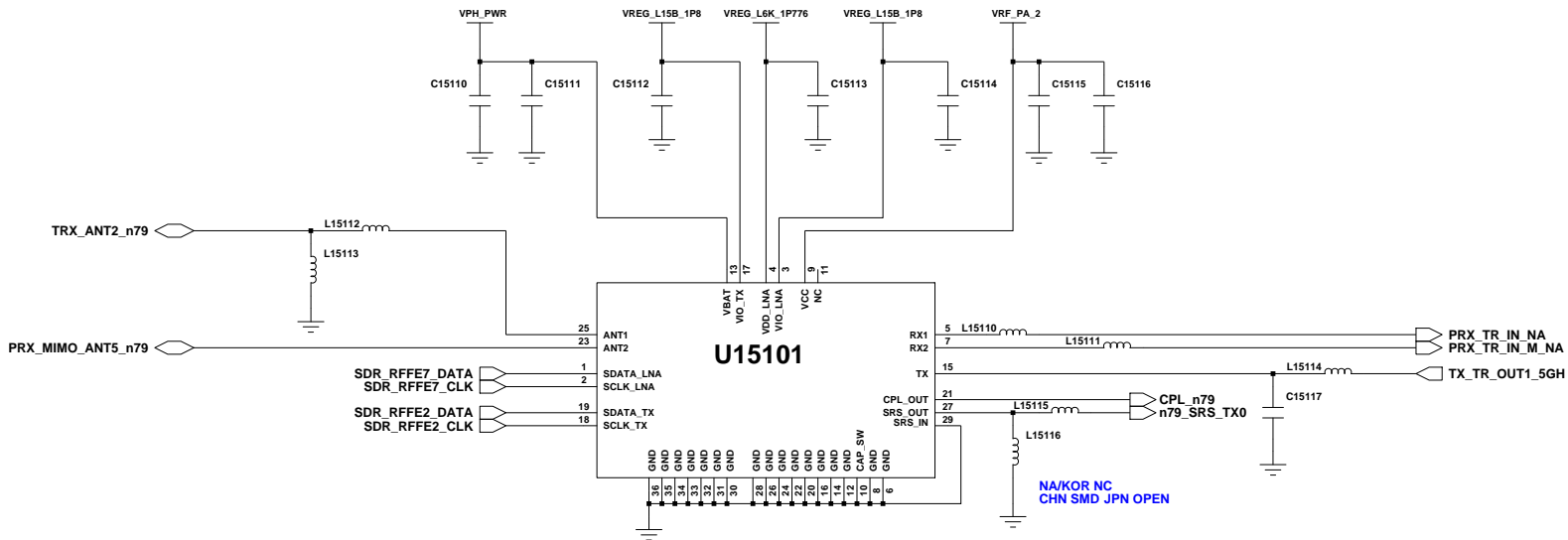


N79 NA not support , CHN/JPN support

UHB (B48, n77/78)



UHB (n79) NA/KOR NC CHN/JPN SMD



mmW module power cap

Ref#. 15nnn

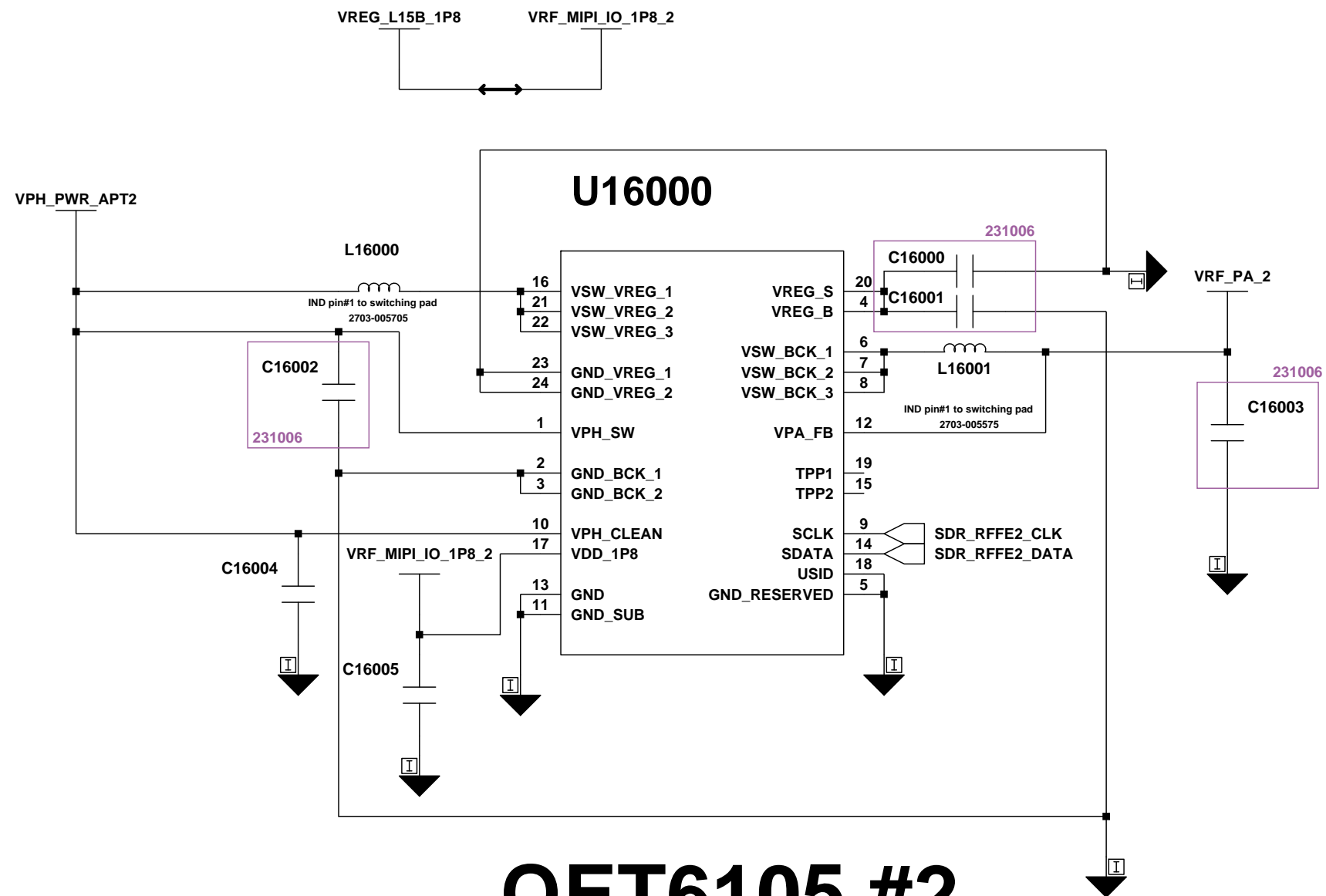
Engineer: SEC	SAMSUNG ELECTRONICS		
Drawn by: SEC			
R&D CHK:	TITLE:	Size:	
DOC CTRL CHK:	RF (1/3)		12 1 8 A
MFG ENGR CHK:	REV:	Drawing Number:	Page:
QA CHK:			14

Changed by: jyz.cho Date Changed: Wednesday, January 11, 2023 Time Changed: 5:41:28 pm

SAMSUNG CONFIDENTIAL

THIS DOCUMENT CONTAINS CONFIDENTIAL
PROPRIETARY INFORMATION THAT IS
SAMSUNG ELECTRONICS CO'S PROPERTY.
DO NOT DISCLOSE TO OR DUPLICATE FOR OTHERS
EXCEPT AS AUTHORIZED BY SAMSUNG.

A



QET6105 #2

REF#. 16nnn

Engineer: SEC	SAMSUNG ELECTRONICS		
Drawn by: SEC			
R&D CHK:	TITLE: RF (2/3) 6 1 4 A TL		Size:
DOC CTRL CHK:			
MFG CTRL CHK:			
QA CHK:			
REV:	Drawing Number:		Page: 15

1	2	3	4	5	6	7	8	9	10	11	12
<div><div>SAMSUNG CONFIDENTIAL THIS DOCUMENT CONTAINS CONFIDENTIAL PROPRIETARY INFORMATION THAT IS SAMSUNG ELECTRONICS CO.'S PROPERTY. DO NOT DISCLOSE TO OR DUPLICATE FOR OTHERS EXCEPT AS AUTHORIZED BY SAMSUNG.</div></div>											
A											A
B											B
C											C
D											D
E											E
F											F
G											G
H											H
1	2	3	4	5	6	7	8	9	10	11	12

Ref#. 17nnn

Engineer: SEC	<div>SAMSUNG ELECTRONICS</div>	
Drawn by: SEC		
R&D CHK:		
DOC CTRL CHK:		
MFG ENGR CHK:	TITLE: <div>RF (3/3)</div>	
QA CHK:		
REV:	Drawing Number:	Page: 16

1	2	3	4	5	6	7	8	9	10	11	12													
<div><div>SAMSUNG CONFIDENTIAL THIS DOCUMENT CONTAINS CONFIDENTIAL PROPRIETARY INFORMATION THAT IS SAMSUNG ELECTRONICS CO'S PROPERTY. DO NOT DISCLOSE TO OR DUPLICATE FOR OTHERS EXCEPT AS AUTHORIZED BY SAMSUNG.</div></div>																								
A											A													
B											B													
C											C													
D											D													
E											E													
F											F													
G											G													
H											H													
								<div><div>Ref#. 19nnn</div><div><table><tr><td>Engineer: SEC</td><td colspan="2" rowspan="4"><div>SAMSUNG ELECTRONICS</div></td></tr><tr><td>Drawn by: SEC</td></tr><tr><td>R&D CHK:</td></tr><tr><td>DOC CTRL CHK:</td></tr><tr><td>MFG ENGR CHK:</td><td colspan="2" rowspan="2"><div>Visual (disp.)</div></td></tr><tr><td>QA CHK:</td></tr><tr><td>REV</td><td>Drawing Number:</td><td>Page: 18</td></tr></table></div></div>				Engineer: SEC	<div>SAMSUNG ELECTRONICS</div>		Drawn by: SEC	R&D CHK:	DOC CTRL CHK:	MFG ENGR CHK:	<div>Visual (disp.)</div>		QA CHK:	REV	Drawing Number:	Page: 18
Engineer: SEC	<div>SAMSUNG ELECTRONICS</div>																							
Drawn by: SEC																								
R&D CHK:																								
DOC CTRL CHK:																								
MFG ENGR CHK:	<div>Visual (disp.)</div>																							
QA CHK:																								
REV	Drawing Number:	Page: 18																						
1	2	3	4	5	6	7	8	9	10	11	12													

CON10000

INP 100



- ①
- ①
- ①

C

11

SM-S9210 Common

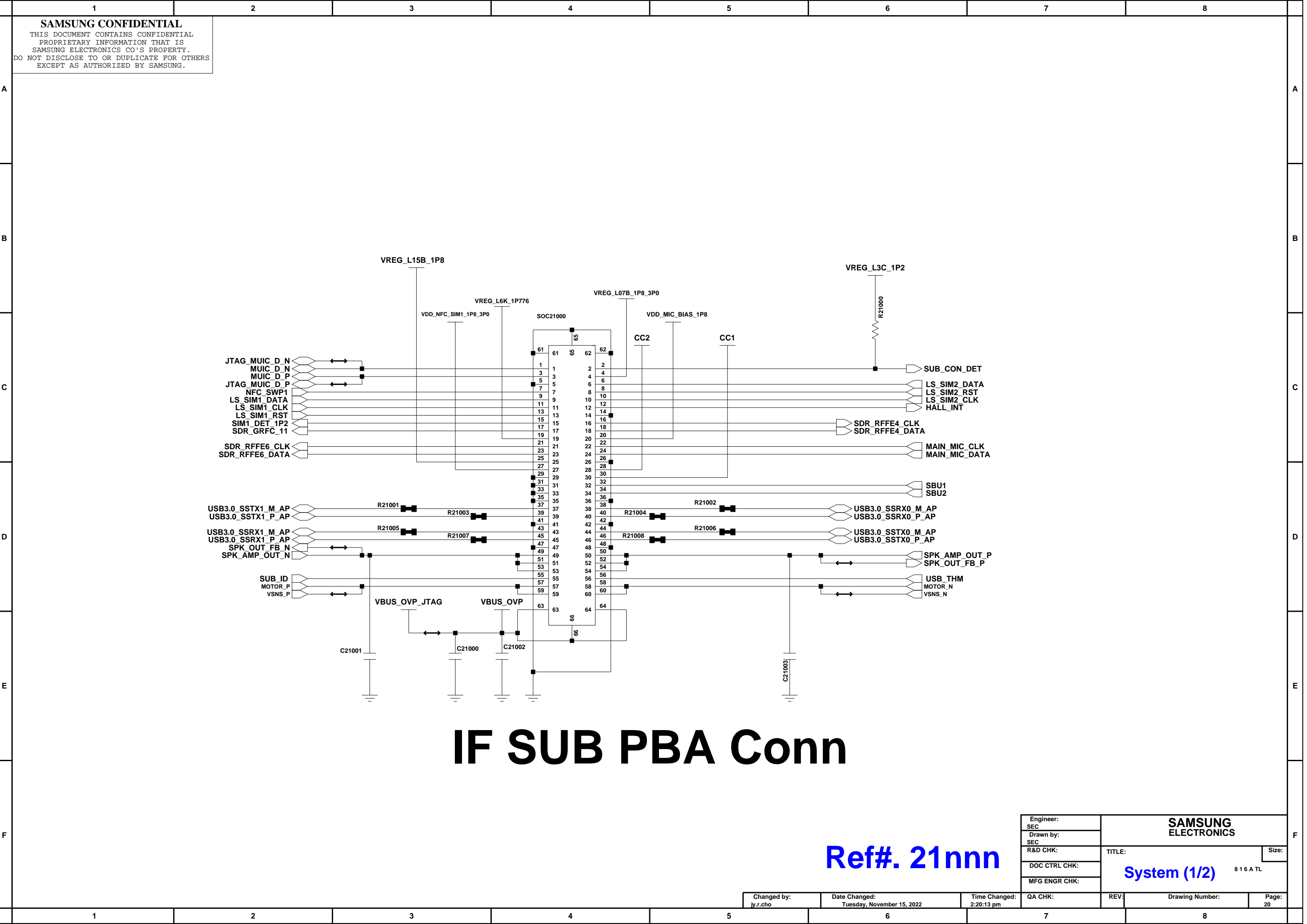
SM-S9210 REV0.6A

SM-S9210 Common

M_RF PCB part

2023.10.19

TG	System		Power Audio		RF			Visual (CAM)	Visual (Disp.) Visual (Sensor)	HW Structure
Ref#.	21nnn	22nnn	23nnn	24nnn	25nnn	26nnn	27nnn	28nnn	29nnn	20nnn
Contents	IF Sub PBA	PCB ID JTAG	BATT conn.	Audio AMP	ANT	LPAMID	BT/WiFi	Flash	Sensor	Interposer
			DCM leakage	2nd/3rd MIC	mmW ANT	TRCV	GPS	Display PMIC	Shieldcan	
			WPC conn.	RCV cont.	LFEM	RF PMIC	UWB	Display conn.		
						QET				
sheet	sheet21	sheet22	sheet23	sheet24	sheet25	sheet26	sheet27	sheet28	sheet29	sheet20



Engineer:
SEC

Drawn by:
SEC

R&D CHK:

DOC CTRL CHK:

MFG ENGR CHK:

QA CHK:

REV:

Changed by:
jy.r.cho

Date Changed:
Tuesday, November 15, 2022

Time Changed:
2:20:13 pm

8 1 6 A TL

Page:
20

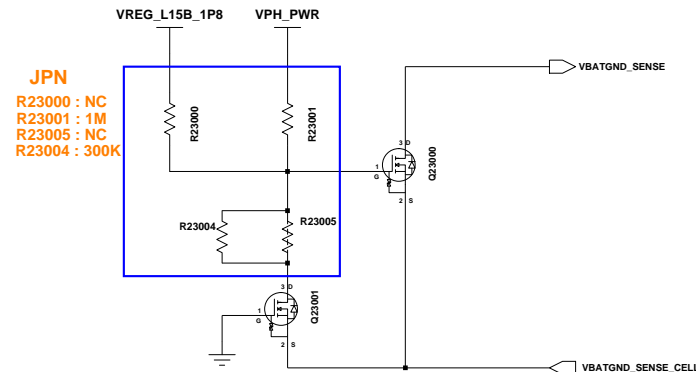
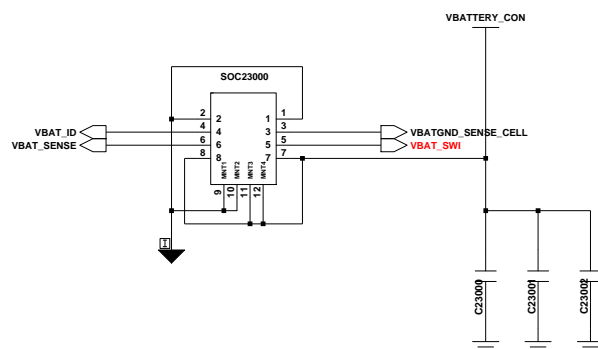
Drawing Number:

Size:

TITLE:

System (1/2)

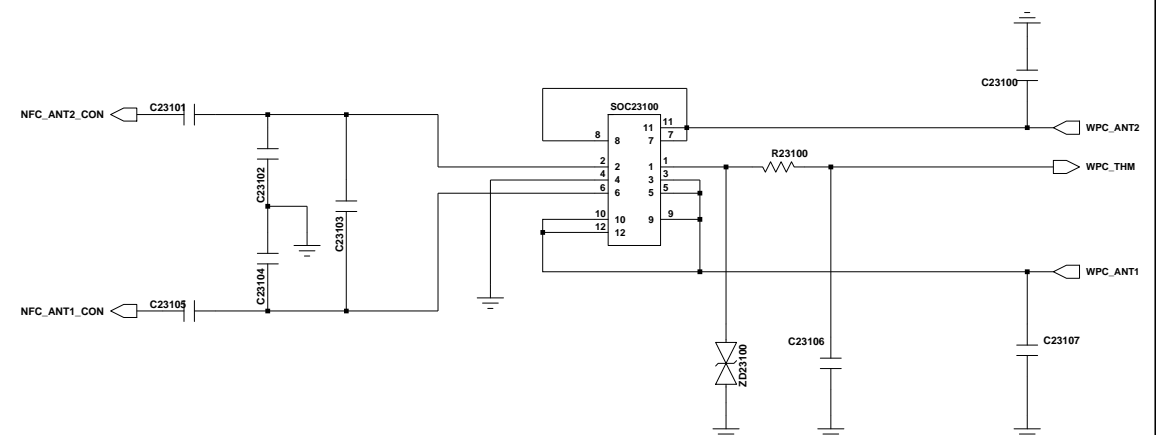
SAMSUNG ELECTRONICS



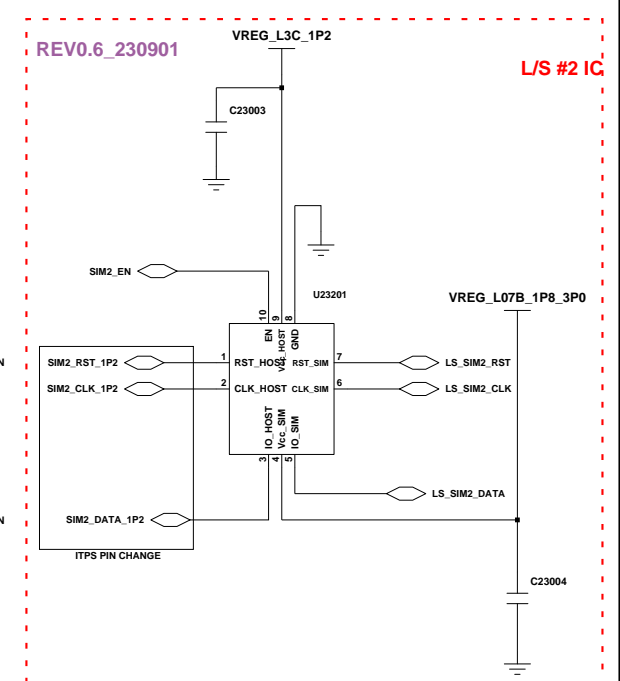
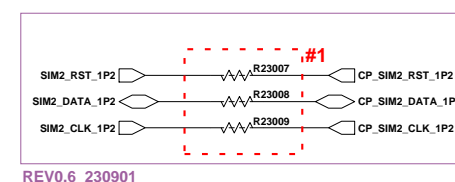
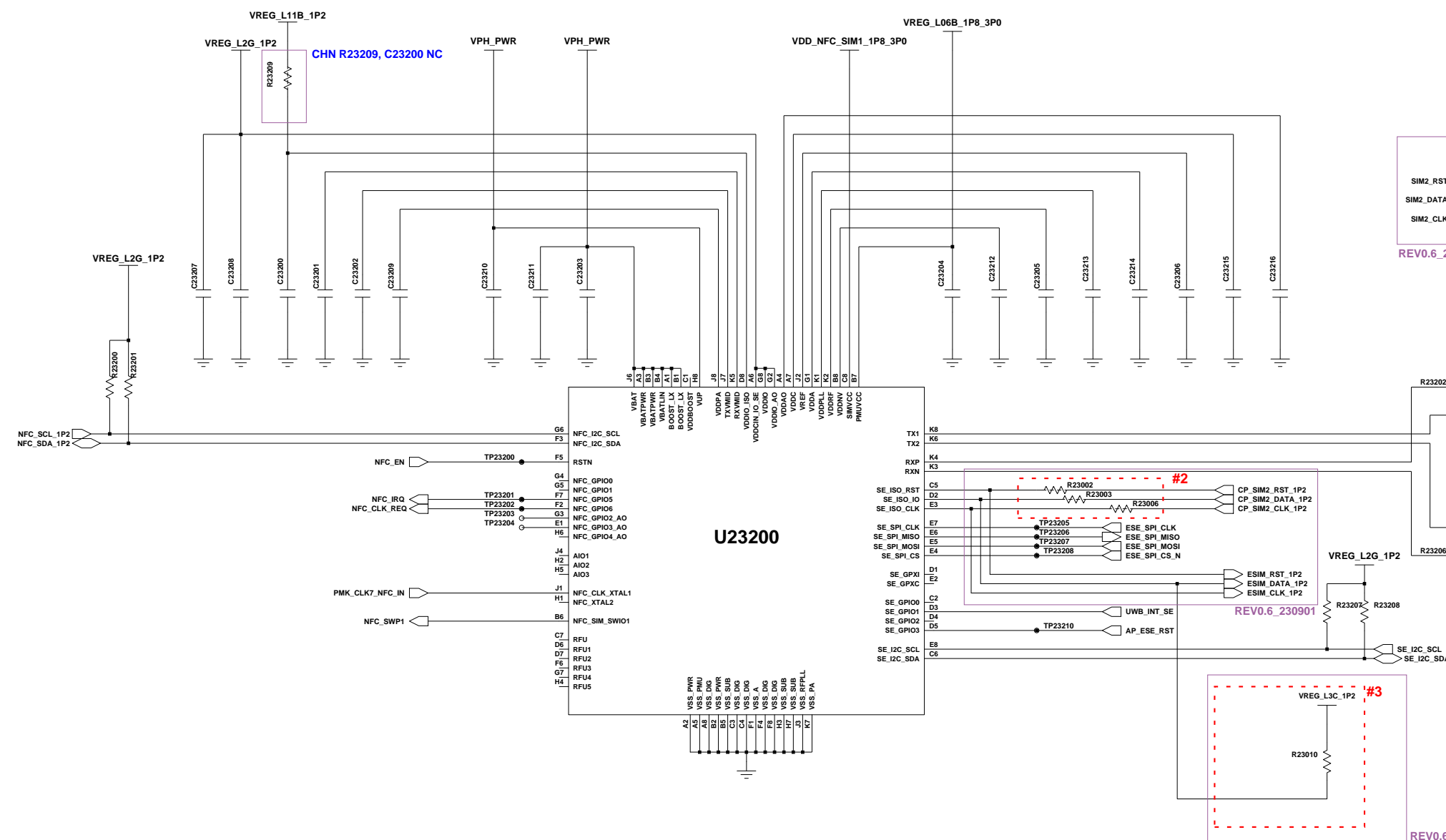
Battery Connector

		NFC IC	#1	#2	#3	L/S #2 IC	
NA/CAN	Nano + eSIM	SN300U	OPEN	SHORT	20K	NC	NA : Bootstrap
CHN	2-Nano	SN300T	SHORT	OPEN	OPEN	SMD	
JPN	Nano + eSIM	SN300P	OPEN	SHORT	20K	NC	

NFC



W/C CONNECTOR




SIM Level Shifter

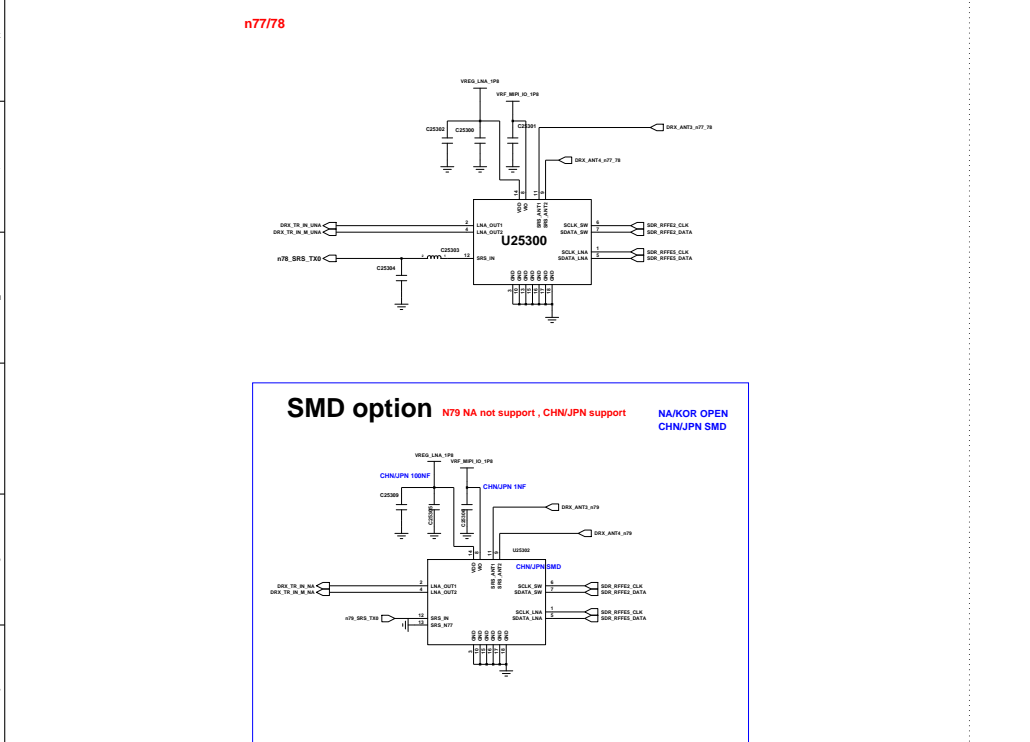
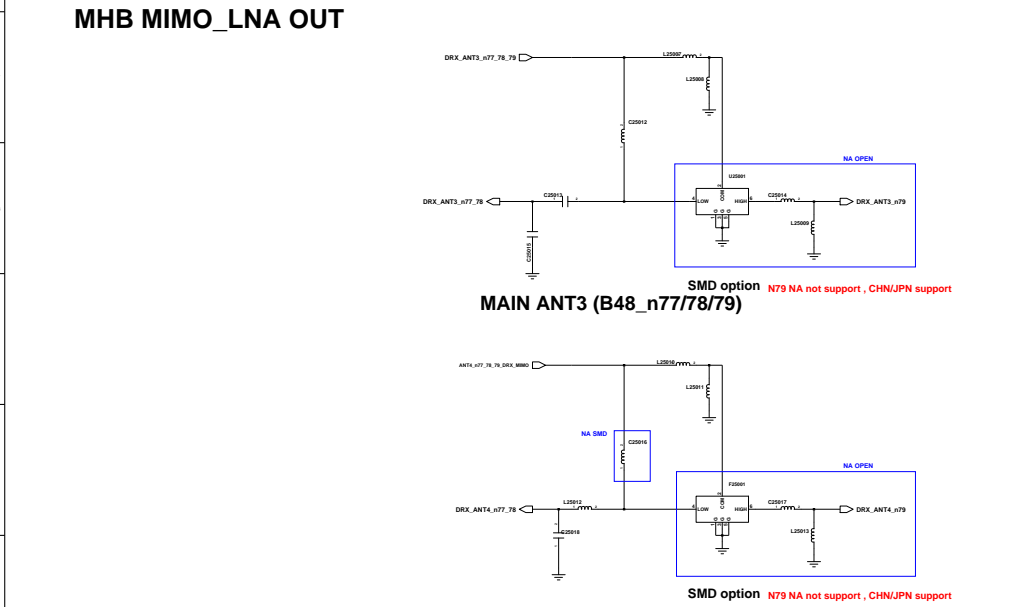
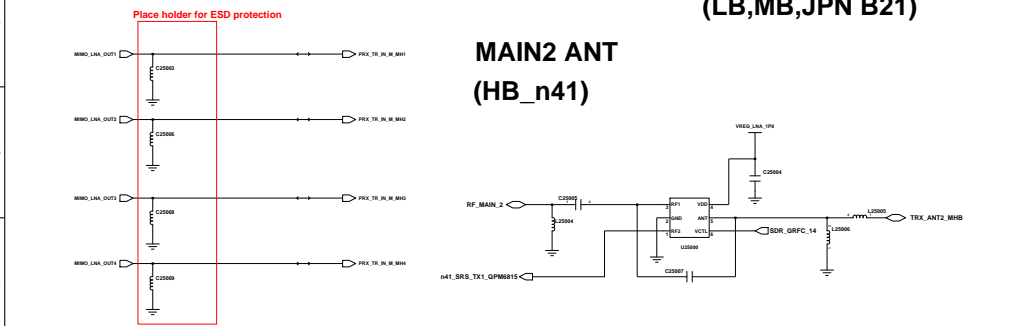
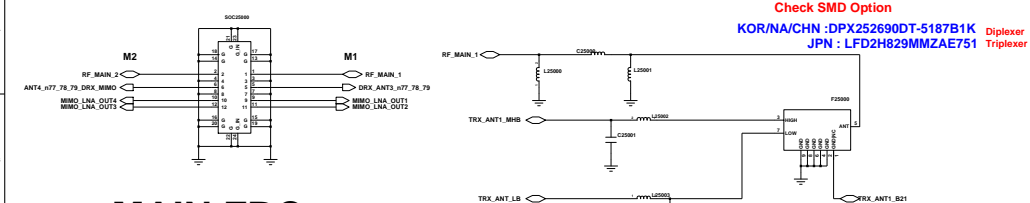
THIS DOCUMENT CONTAINS CONFIDENTIAL
PROPRIETARY INFORMATION THAT IS
SAMSUNG ELECTRONICS CO'S PROPERTY.
DO NOT DISCLOSE TO OR DUPLICATE FOR OTHERS
EXCEPT AS AUTHORIZED BY SAMSUNG.



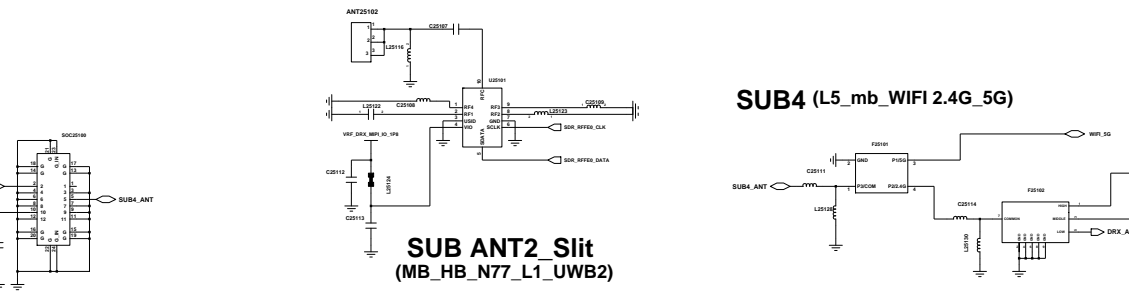
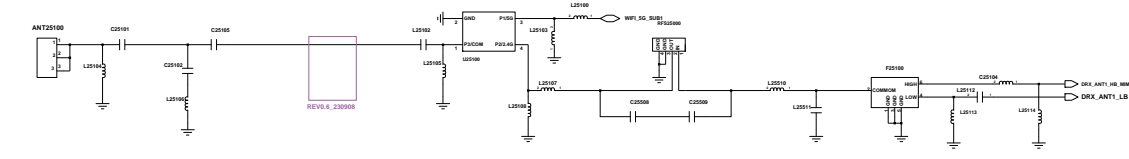
RCV Conn.

Ref#. 24nnn

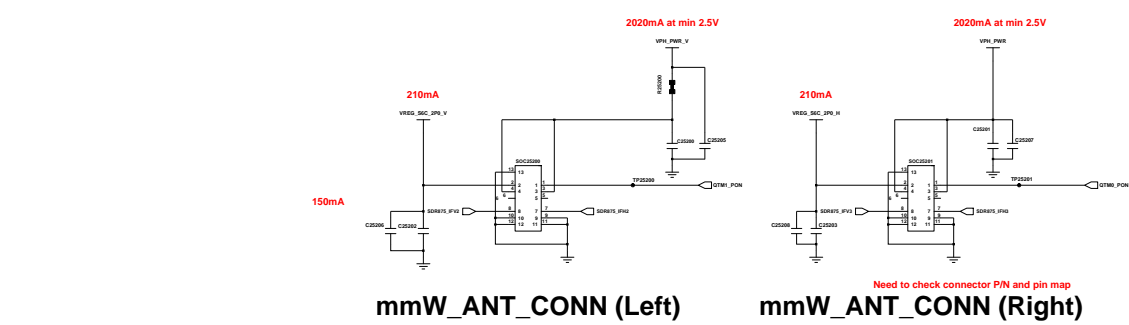
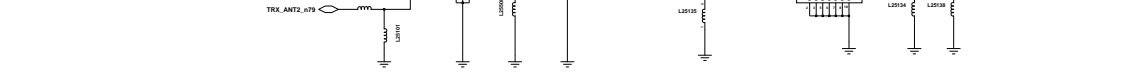
Engineer: SEC	<div style="text-align: center;">  </div>		
Drawn by: SEC			
R&D CHK:	TITLE:	Size:	
DOC CYTL CHK:	Power, Audio (2/2) 8 1 6 A TL		
MFG ENGR CHK:			
QA CHK:	REV:	Drawing Number:	Page: 23



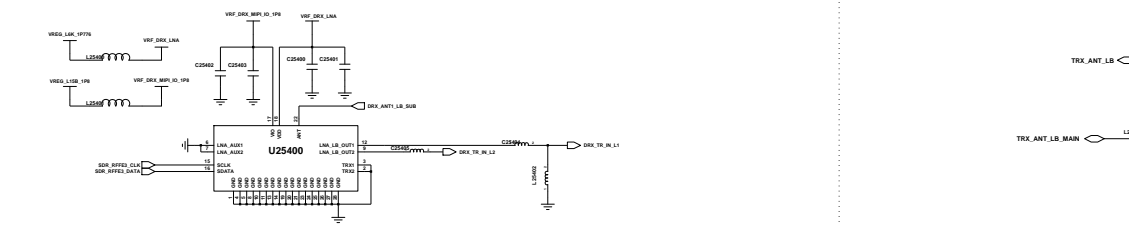
DRX_ANT



TOP FRC

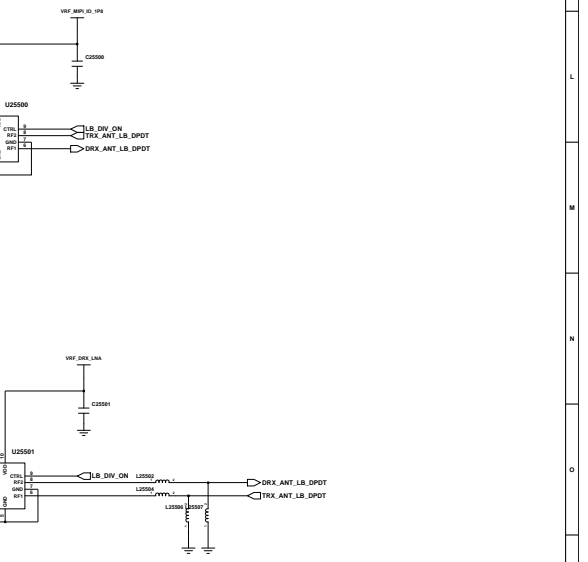
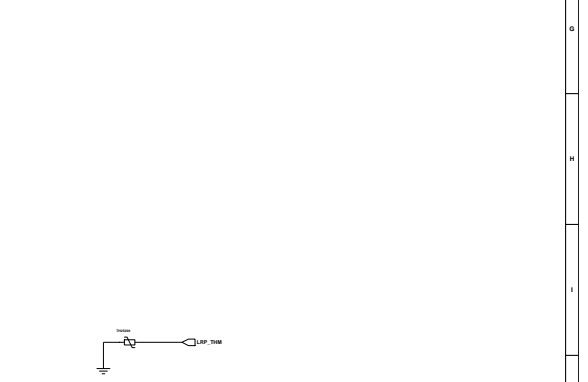
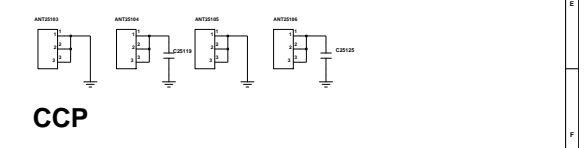
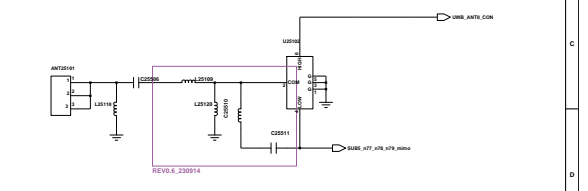


DRX_LB (B5/8/12/13/14/17/18/19/20/26/28/29/71_BC0/10_G850/900)

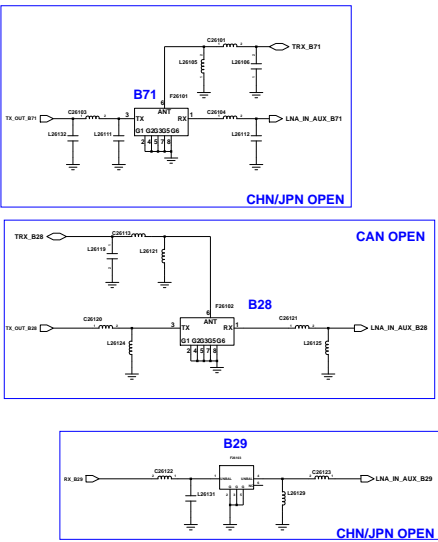


SUB3 (N79)

SUB5 (n79_UWB)



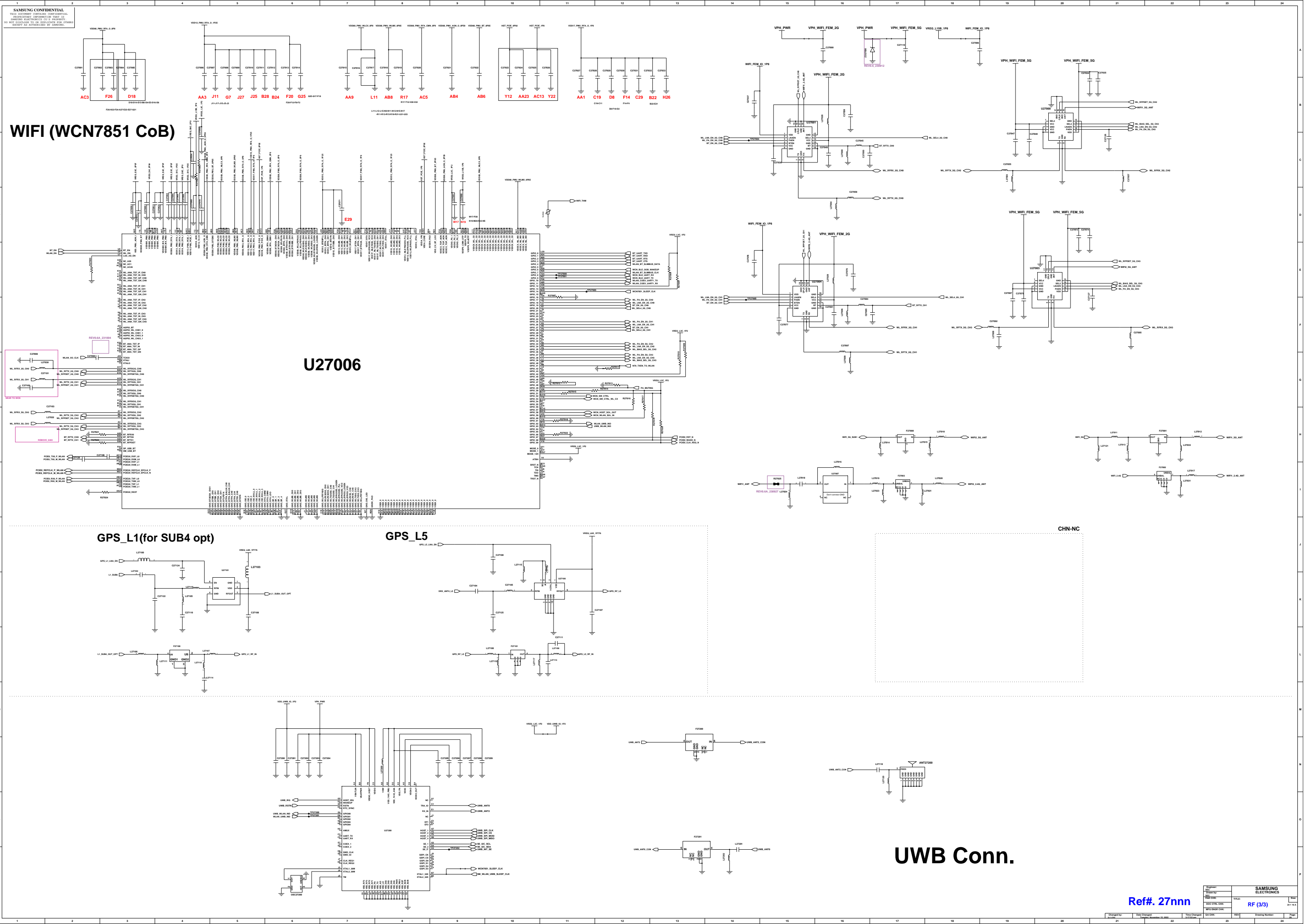
Ref#. 25nnn

[illegible][illegible]

The image shows a detailed PCB layout for the ADXL345 breakout board. The top layer (top half) features the ADXL345 chip, a 3.3V regulator, and various passive components. The bottom layer (bottom half) shows the power and ground planes, with labels for various pins and components. A warning note is present: "Warning : Trace from output cap Do not bind with pin 22".

The schematic diagram illustrates the U26401 board layout. Key components and their connections include:

- U26401**: The central microcontroller unit, with pins connected to various components.
- L35601**: A component connected to the U26401 and the REV.GA.231006 board.
- C24601**: A capacitor connected to the U26401 and the REV.GA.231006 board.
- REV.GA.231006**: A board component connected to the U26401 and the L35601.
- U26401 Pin Connections**:
 - Pin 1: VDD_1V8
 - Pin 2: VDD_1V8
 - Pin 3: VDD_1V8
 - Pin 4: VDD_1V8
 - Pin 5: VDD_1V8
 - Pin 6: VDD_1V8
 - Pin 7: VDD_1V8
 - Pin 8: VDD_1V8
 - Pin 9: VDD_1V8
 - Pin 10: VDD_1V8
 - Pin 11: VDD_1V8
 - Pin 12: VDD_1V8
 - Pin 13: VDD_1V8
 - Pin 14: VDD_1V8
 - Pin 15: VDD_1V8
 - Pin 16: VDD_1V8
 - Pin 17: VDD_1V8
 - Pin 18: VDD_1V8
 - Pin 19: VDD_1V8
 - Pin 20: VDD_1V8
 - Pin 21: VDD_1V8
 - Pin 22: VDD_1V8
 - Pin 23: VDD_1V8
 - Pin 24: VDD_1V8
 - Pin 25: VDD_1V8
 - Pin 26: VDD_1V8
 - Pin 27: VDD_1V8
 - Pin 28: VDD_1V8
 - Pin 29: VDD_1V8
 - Pin 30: VDD_1V8
 - Pin 31: VDD_1V8
 - Pin 32: VDD_1V8
 - Pin 33: VDD_1V8
 - Pin 34: VDD_1V8
 - Pin 35: VDD_1V8
 - Pin 36: VDD_1V8
 - Pin 37: VDD_1V8
 - Pin 38: VDD_1V8
 - Pin 39: VDD_1V8
 - Pin 40: VDD_1V8
 - Pin 41: VDD_1V8
 - Pin 42: VDD_1V8
 - Pin 43: VDD_1V8
 - Pin 44: VDD_1V8
 - Pin 45: VDD_1V8
 - Pin 46: VDD_1V8
 - Pin 47: VDD_1V8
 - Pin 48: VDD_1V8
 - Pin 49: VDD_1V8
 - Pin 50: VDD_1V8
 - Pin 51: VDD_1V8
 - Pin 52: VDD_1V8
 - Pin 53: VDD_1V8
 - Pin 54: VDD_1V8
 - Pin 55: VDD_1V8
 - Pin 56: VDD_1V8
 - Pin 57: VDD_1V8
 - Pin 58: VDD_1V8
 - Pin 59: VDD_1V8
 - Pin 60: VDD_1V8
 - Pin 61: VDD_1V8
 - Pin 62: VDD_1V8
 - Pin 63: VDD_1V8
 - Pin 64: VDD_1V8
 - Pin 65: VDD_1V8
 - Pin 66: VDD_1V8
 - Pin 67: VDD_1V8
 - Pin 68: VDD_1V8
 - Pin 69: VDD_1V8
 - Pin 70: VDD_1V8
 - Pin 71: VDD_1V8
 - Pin 72: VDD_1V8
 - Pin 73: VDD_1V8
 - Pin 74: VDD_1V8
 - Pin 75: VDD_1V8
 - Pin 76: VDD_1V8
 - Pin 77: VDD_1V8
 - Pin 78: VDD_1V8
 - Pin 79: VDD_1V8
 - Pin 80: VDD_1V8
 - Pin 81: VDD_1V8
 - Pin 82: VDD_1V8
 - Pin 83: VDD_1V8
 - Pin 84: VDD_1V8
 - Pin 85: VDD_1V8
 - Pin 86: VDD_1V8
 - Pin 87: VDD_1V8
 - Pin 88: VDD_1V8
 - Pin 89: VDD_1V8
 - Pin 90: VDD_1V8
 - Pin 91: VDD_1V8
 - Pin 92: VDD_1V8
 - Pin 93: VDD_1V8
 - Pin 94: VDD_1V8
 - Pin 95: VDD_1V8
 - Pin 96: VDD_1V8
 - Pin 97: VDD_1V8
 - Pin 98: VDD_1V8
 - Pin 99: VDD_1V8
 - Pin 100: VDD_1V8

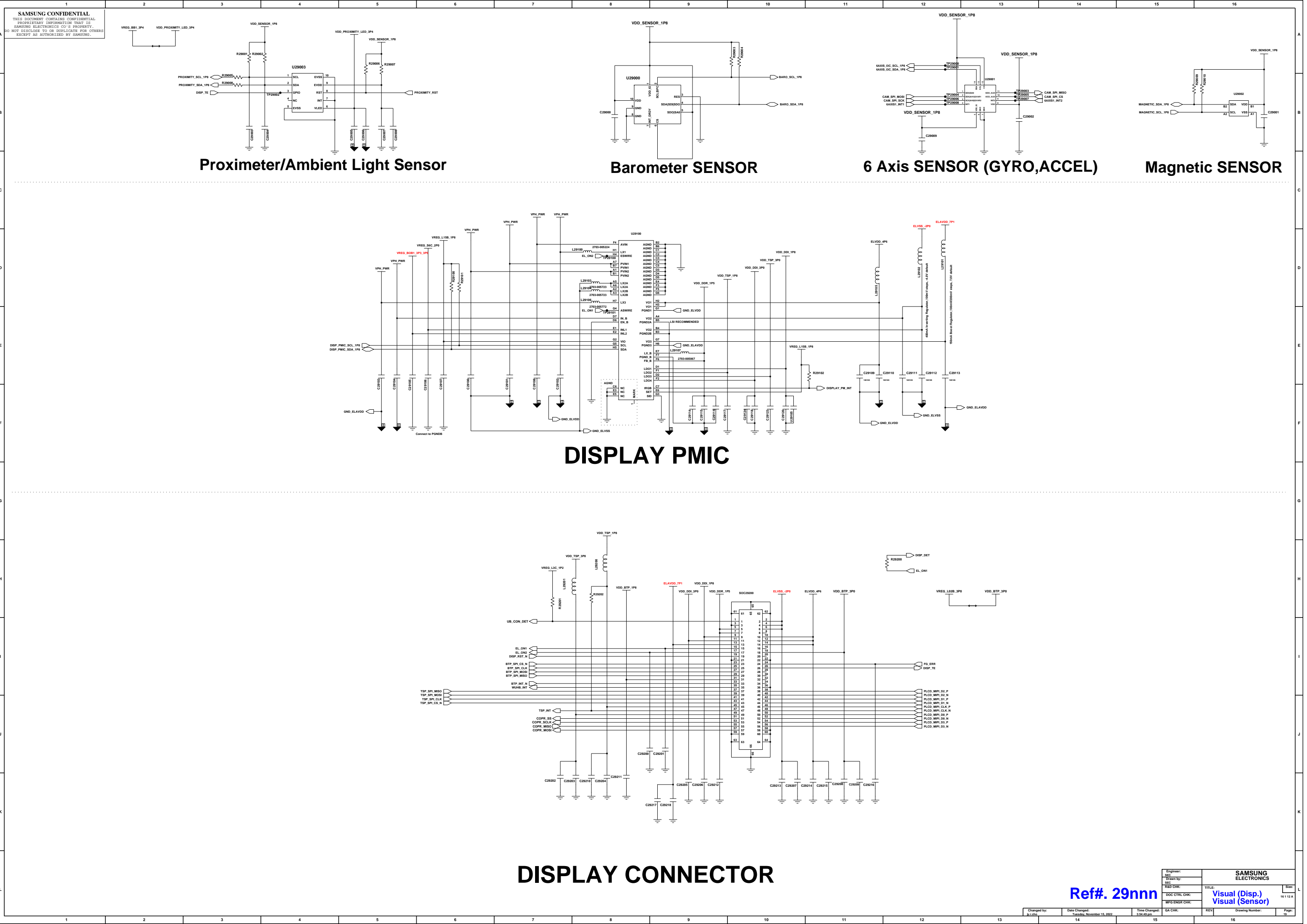


WIFI (WCN7851 CoB)

U27006

UWB Conn.

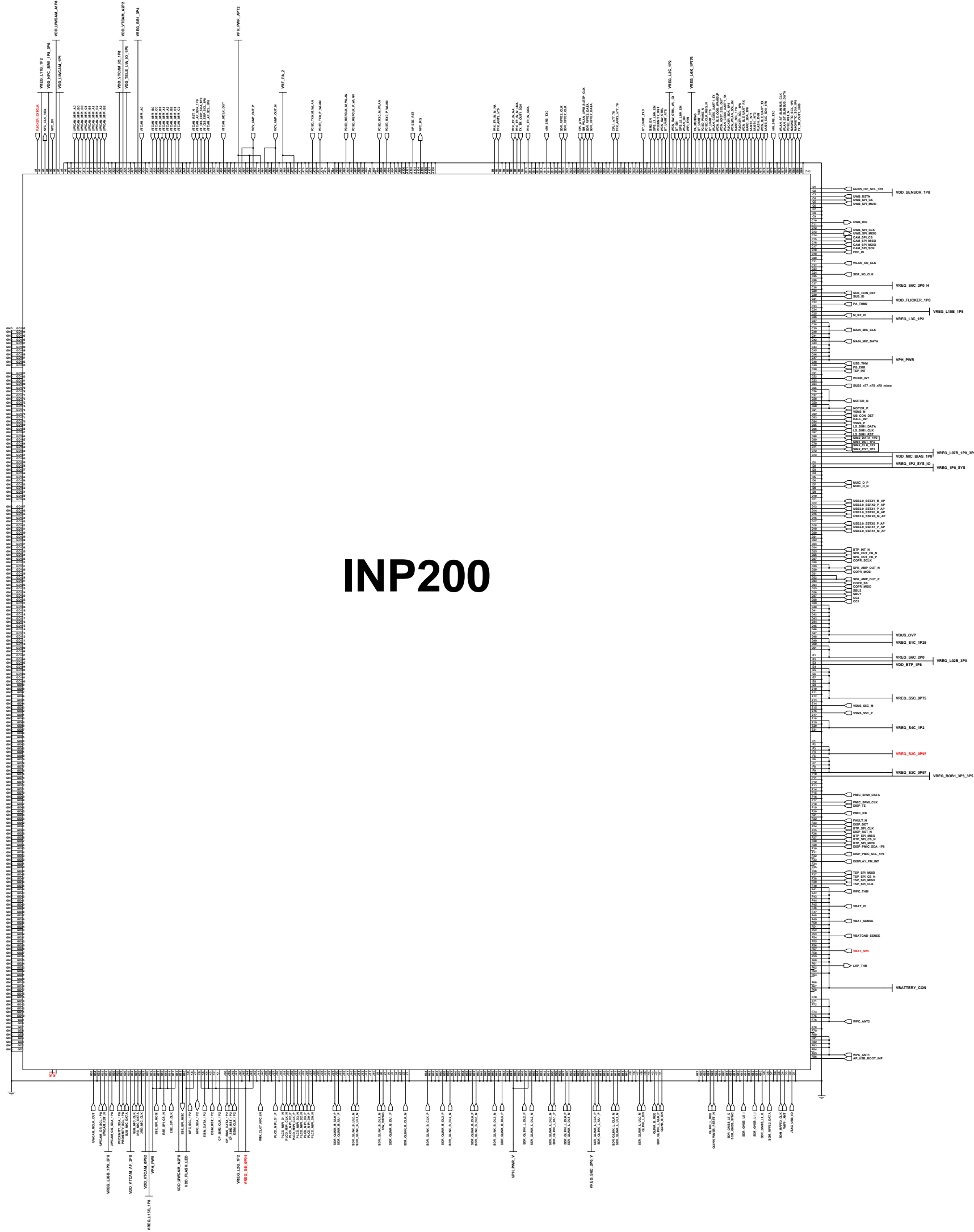
Ref#. 27nnn



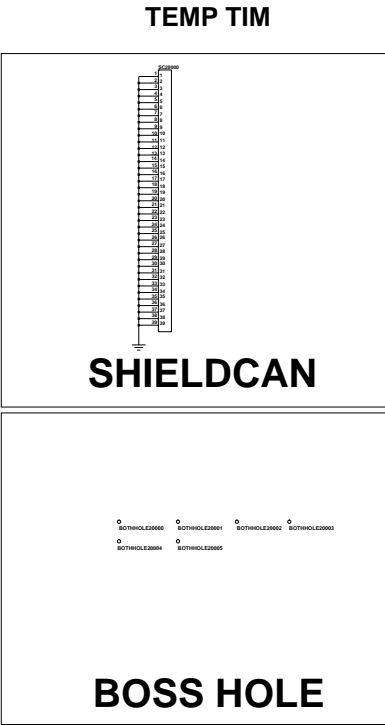
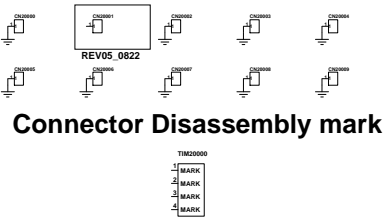
Ref#. 29nnn

Engineer: SBC	SAMSUNG ELECTRONICS	Size: 16.112 A
Drawn By: SBC	TITLE: Visual (Disp.) Visual (Sensor)	
RAD CHK: SBC	DOC CTRL CHK:	
MFG ENGR CHK:	REV:	Drawing Number: 19
GA CHK:		Page: 19

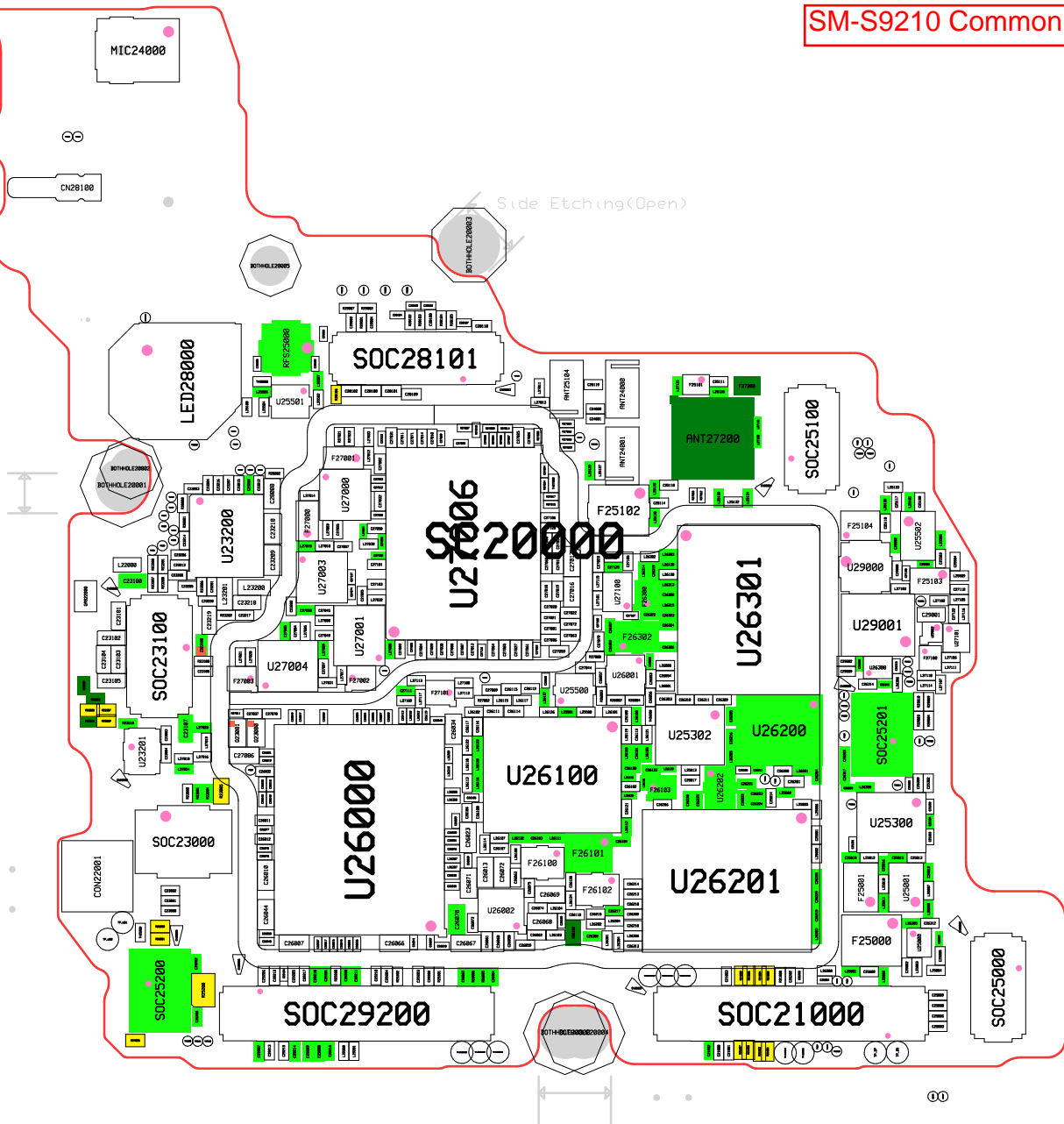
Changed by: j.r.dho Date Changed: Tuesday, November 15, 2022 Time Changed: 3:54:49 pm



INP200

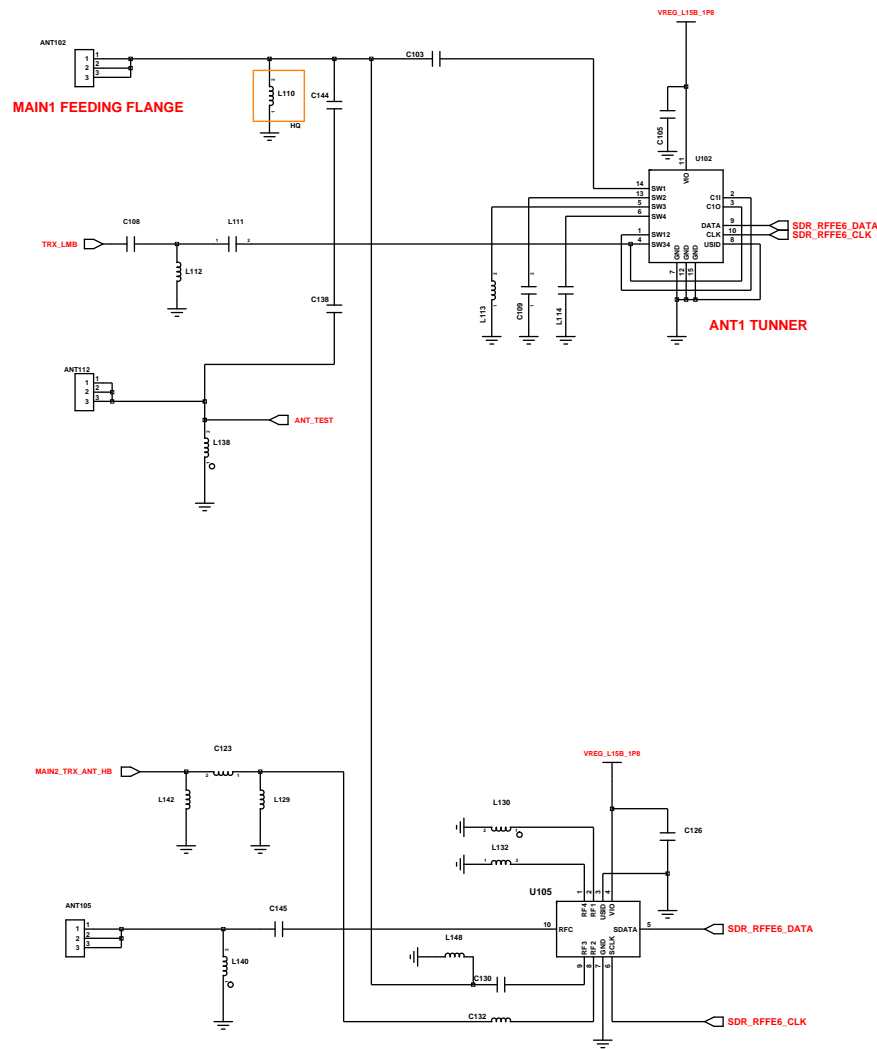


Ref#. 20nnn

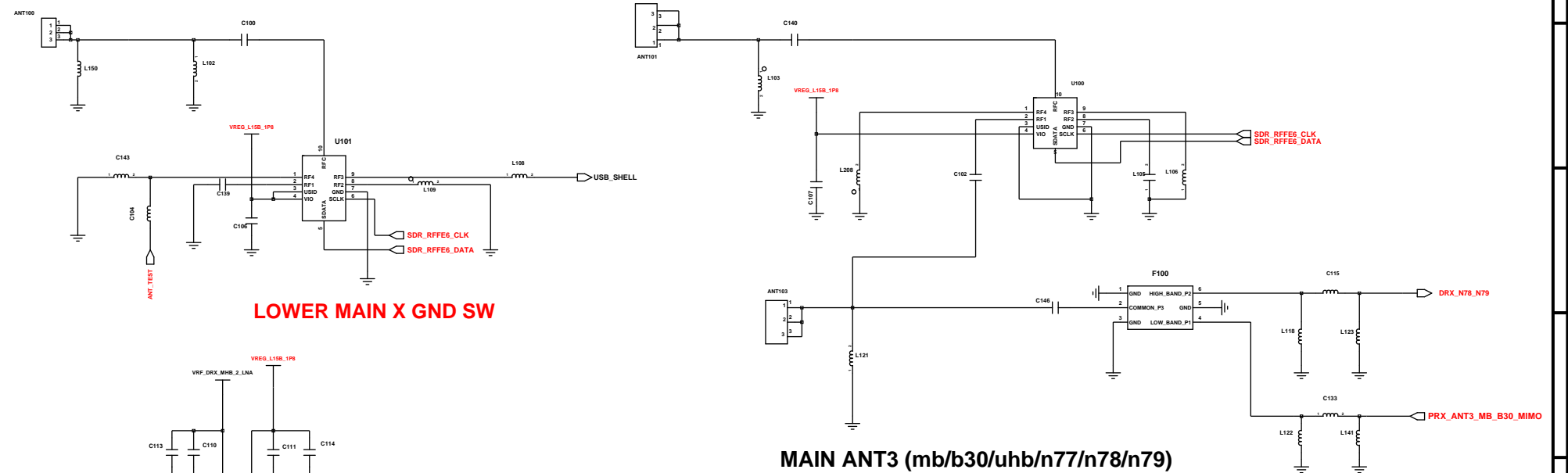


1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	
<div>SAMSUNG CONFIDENTIAL THIS DOCUMENT CONTAINS CONFIDENTIAL PROPRIETARY INFORMATION THAT IS SAMSUNG ELECTRONICS CO.'S PROPERTY. DO NOT DISCLOSE TO OR DUPLICATE FOR OTHERS EXCEPT AS AUTHORIZED BY SAMSUNG.</div>																A
<div>SM-S9210 IFSUB PBA REV0.7</div>																B
<div>sheet01 : ANT</div> <div>sheet02 : LOGIC</div> <div>2023 . 09.20</div>																C
																D
																E
																F
																G
																H
																I
																J
																K
																L
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	

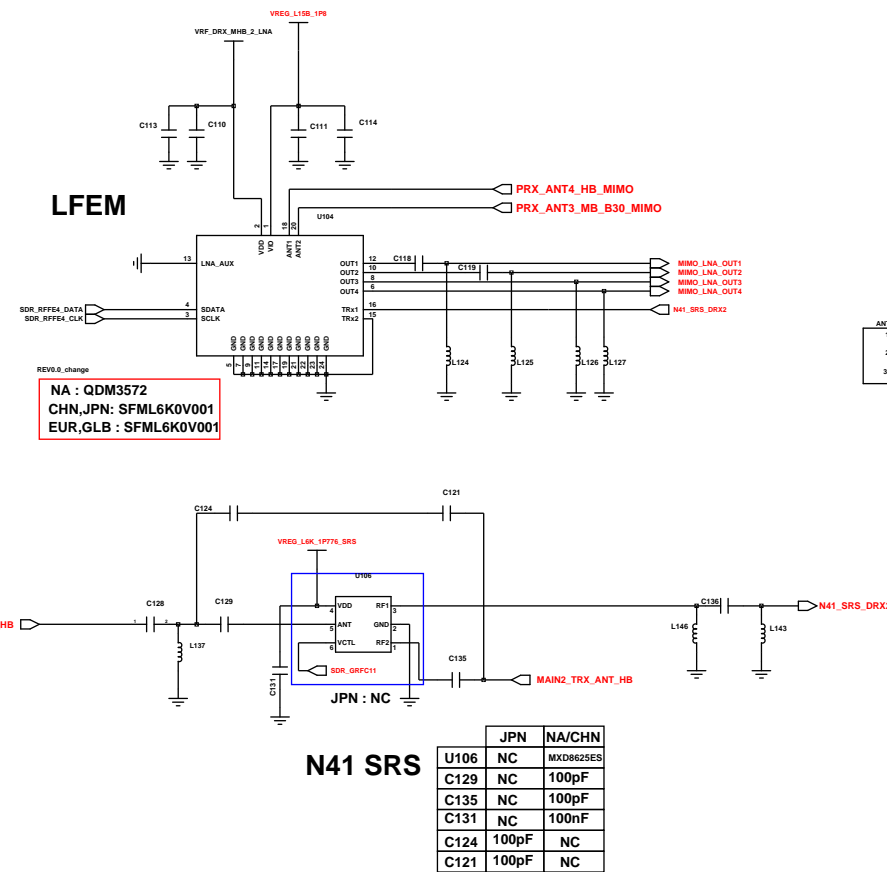
**(GSM LB/MB, B1/2/3/4/5/8/12/13/17/18/19/20/25/26/28,
TDD 34/39)**



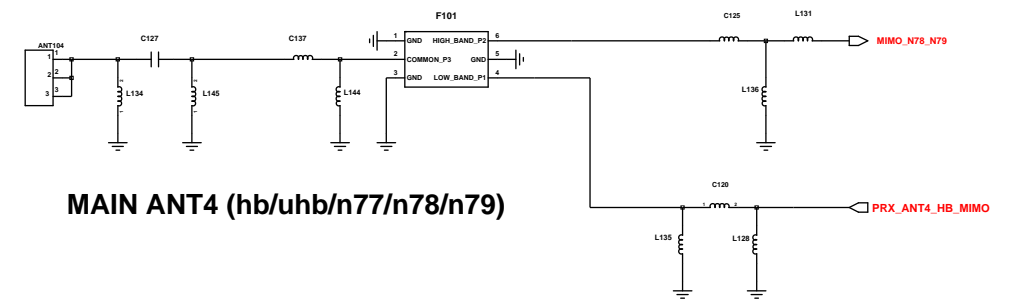
MAIN ANT2(HB/n77/n78)



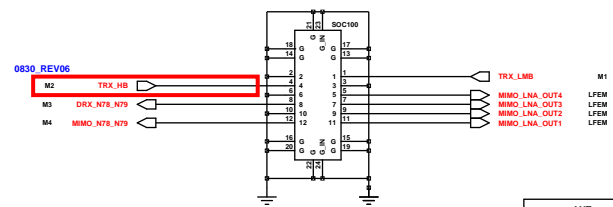
MAIN ANT3 (mb/b30/uhb/n77/n78/n79)



MAIN ANT4 (hb/uhb/n77/n78/n79)

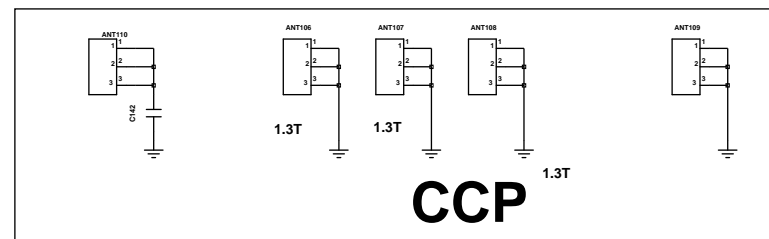


FRC CON



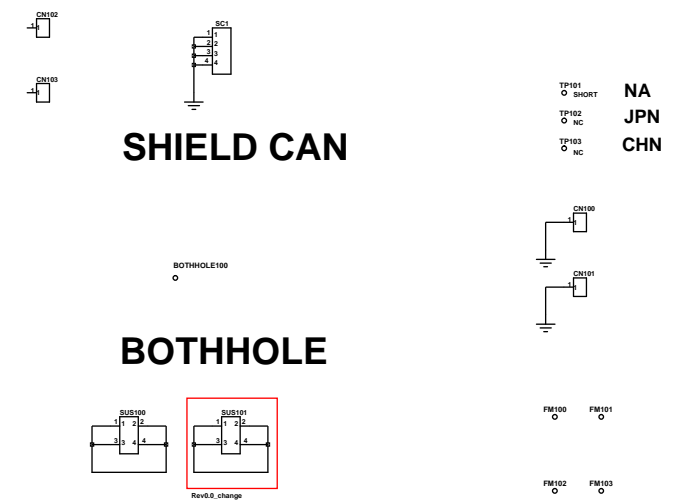
RF Connector

ANT	Band
M1 (Metal)	LB/MB
M2 (Metal)	HB/ n77/n78/n79
M3 (Metal)	mb/uhb/n77/n78/n79
M4 (SPK sus)	hb/uhb/n77/n78/n79



CCP

etc.



SHIELD CAN

BOTHHOLE

SCREW SUS

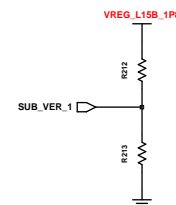
INSIK MARK



The schematic diagram illustrates the internal circuitry of the SIM200 and SIM201 components. The SIM200 section on the left shows a network of logic gates and signal paths. It includes inputs for VCC, RST, CLK, and GND, and outputs for LS_SIM2_RST, LS_SIM2_CLK, and LS_SIM2_DATA. A 0510 resistor is shown in the circuit, and a label '0510 Added' is present. The SIM201 section on the right shows a similar network of logic gates and signal paths. It includes inputs for VCC, RST, CLK, and GND, and outputs for LS_SIM1_RST, LS_SIM1_CLK, and LS_SIM1_DATA. A 0510 resistor is also shown in this section, with a label '0510 Added'.

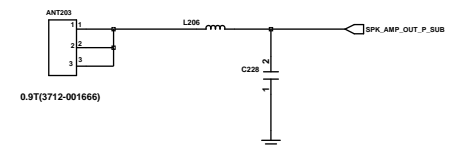
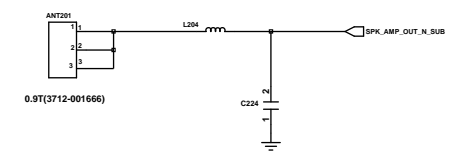
Stacked Dual SIM SOCKET

BtoB CON



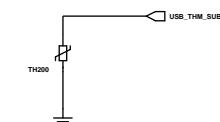
ADC RANGE	TYPICAL VALUE	ID	EXT_PU	EXT_PD	DM1
0 ~ 300	0	8	NC	332K, 1%	EUR_Sub6 Global_Sub6
301 ~ 600	480	0	332K, 1%	120K, 1%	NA_mmW NA_CAN_Sub6
601 ~ 900	720	4	270K, 1%	180K, 1%	CHN_Sub6
901 ~ 1200	1080	5	180K, 1%	270K, 1%	KOR_Sub6_RC
1201 ~ 1400	1320	6	120K, 1%	332K, 1%	JPN_mmW
1401 ~ 1530	1480	7	100K, 1%	470K, 1%	Global_Sub6_R

AUDIO

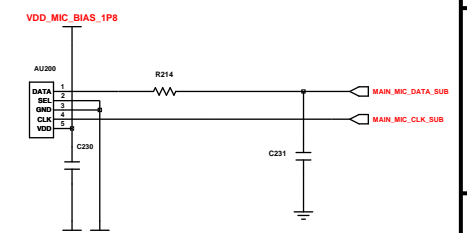


MOTOR conn.

SPK CONTACT



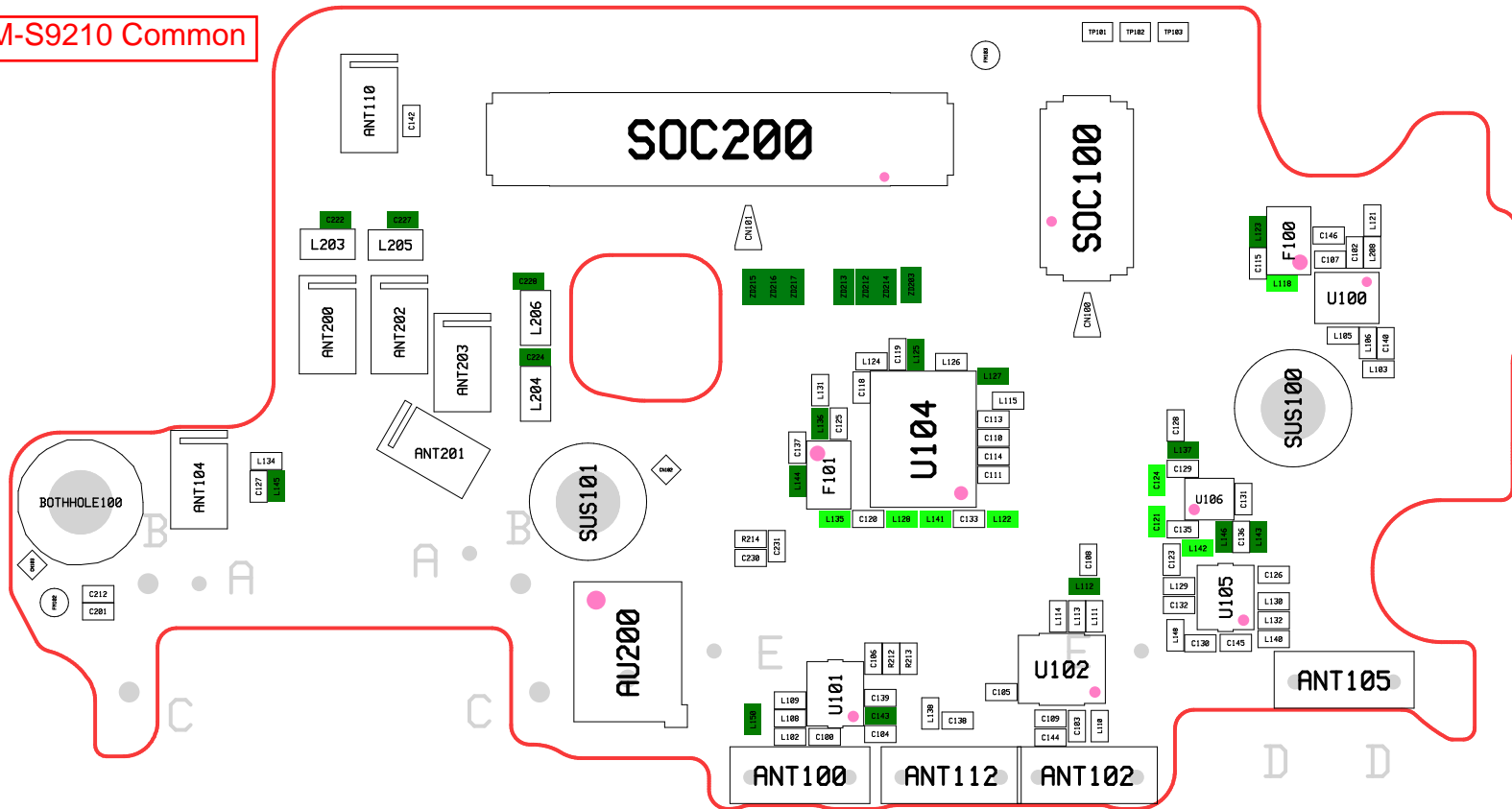
USB/BATTERY THERMISTOR



MAIN MIC

SUB PCB IF CONNECTOR

SM-S9210 Common



SM-S9210 Common

