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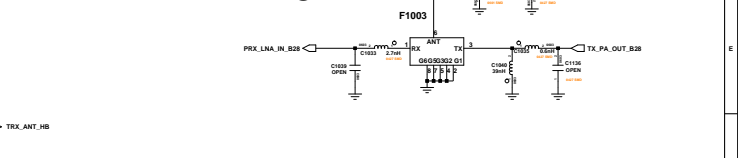
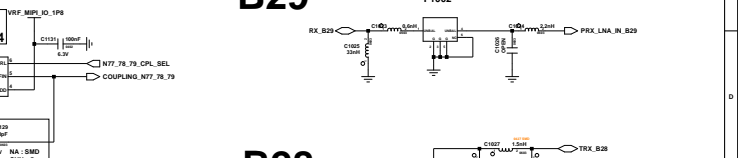
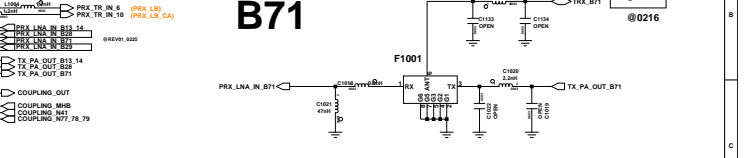
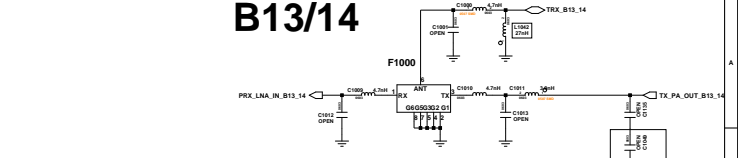
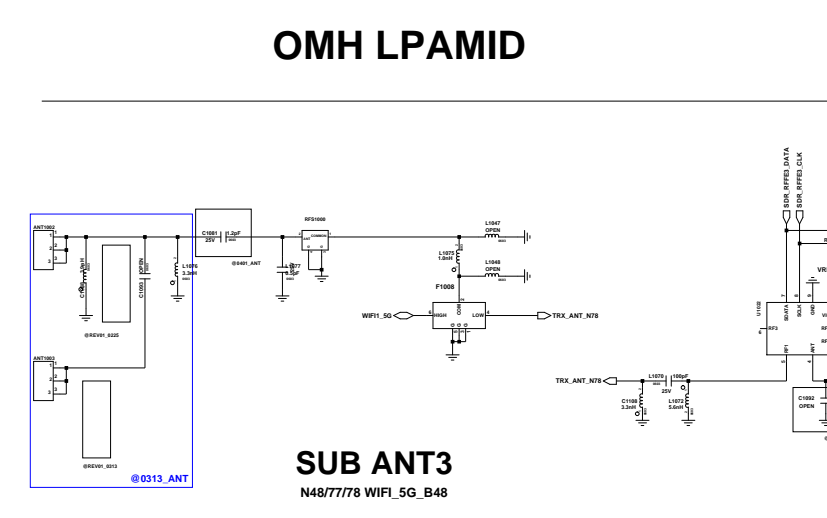
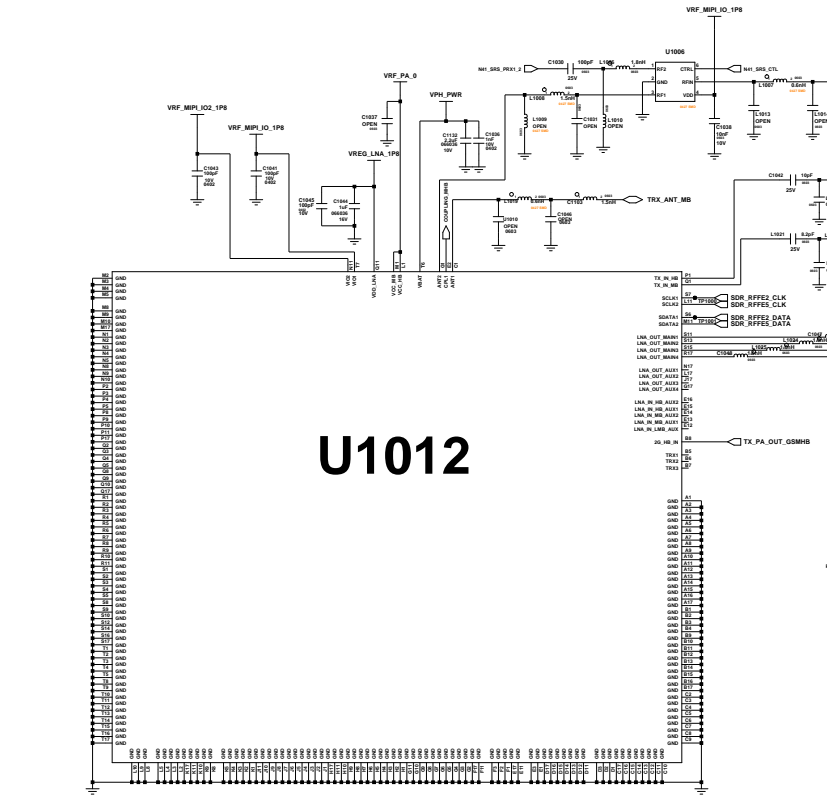
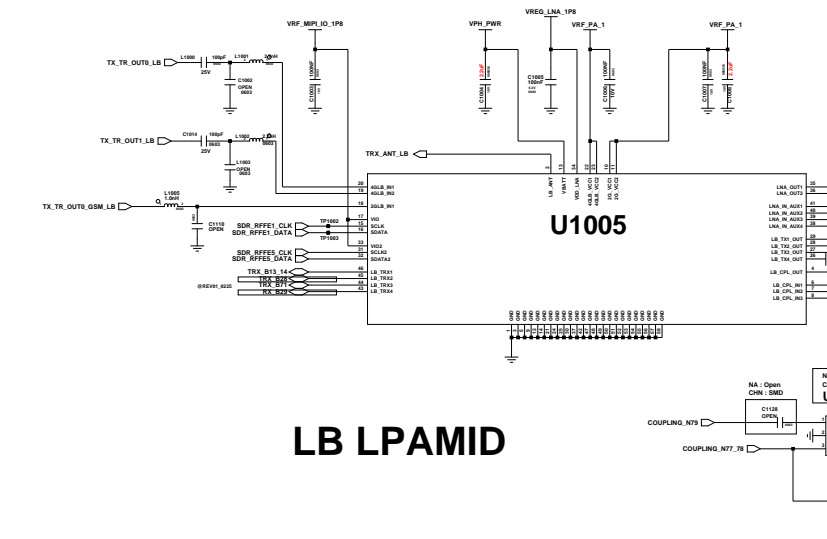
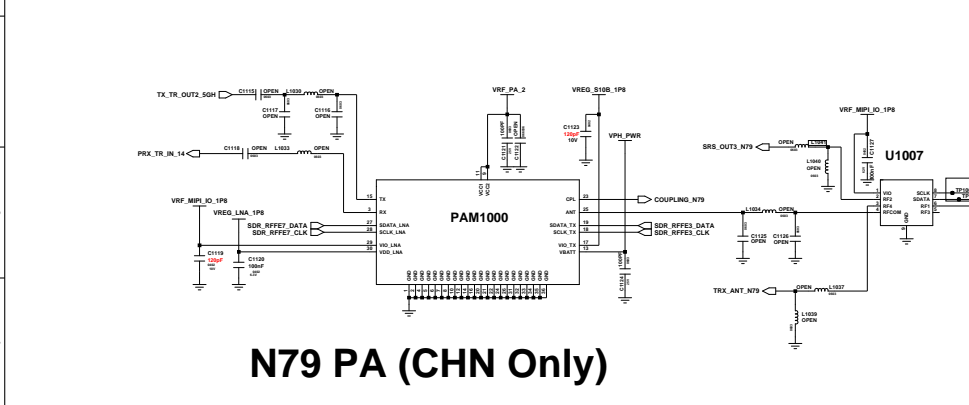
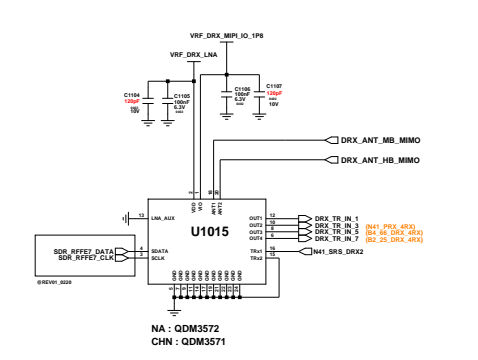
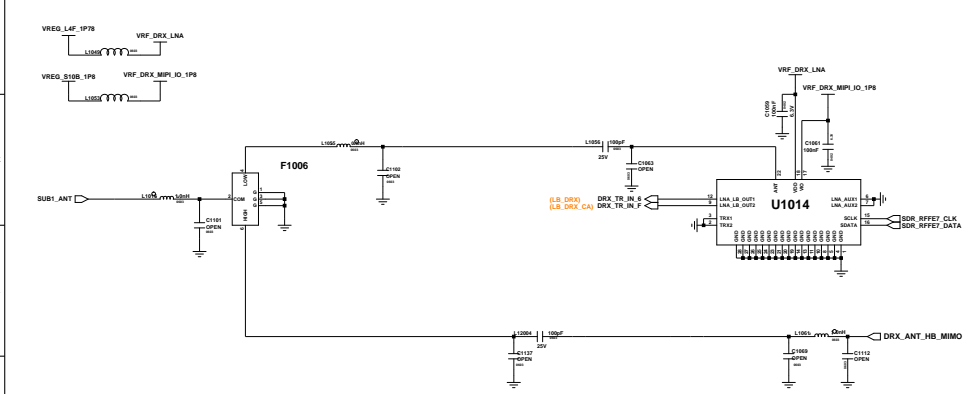
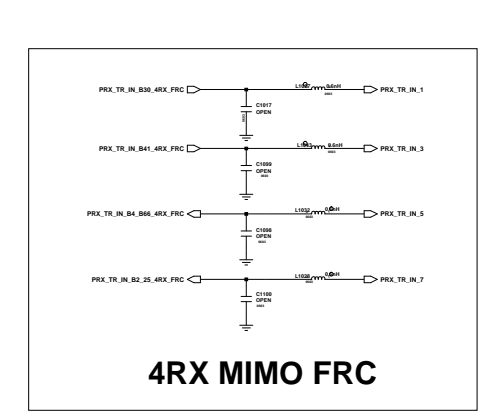
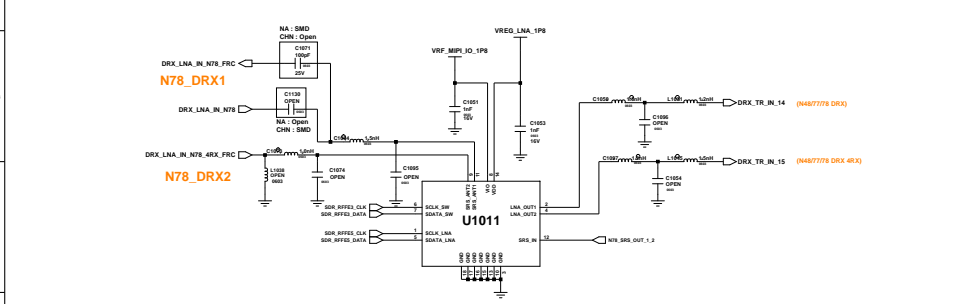
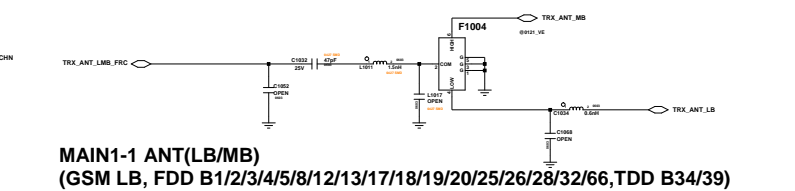
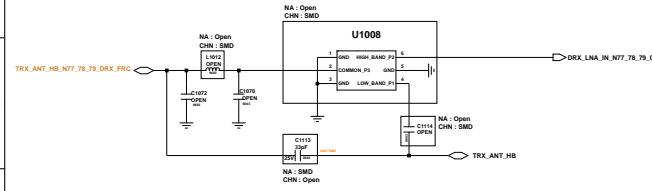
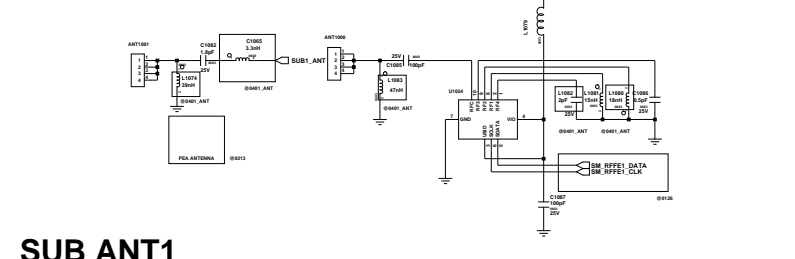
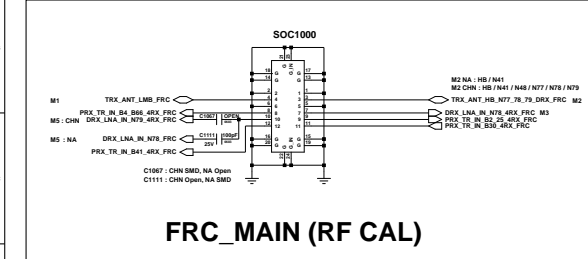
# SM-G990U\_REV04A

SM-G990U Common

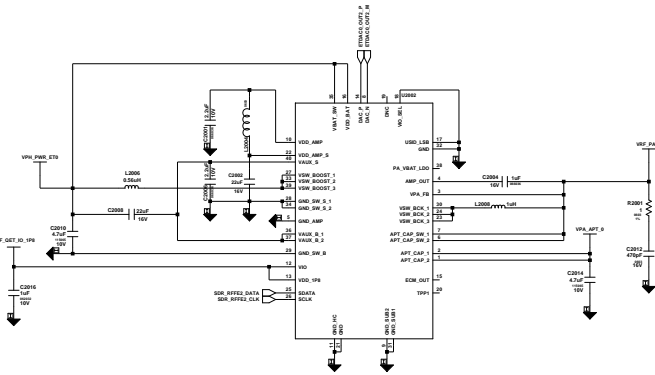
2021. 05. 24

- sheet01 : RF (1/2)
- sheet02 : RF (2/2)
- sheet03 : TRANSCEIVER, WIFI
- sheet04 : MFC, SENSORS, MOTOR
- sheet05 : ModAP(SM8350) & System Clock
- sheet06 : ModAP(SM8350) Power Decoupling Capacitor
- sheet07 : Power Management IC(ModAP / Peri) & Charging
- sheet08 : AUDIO
- sheet09 : CAMERA
- sheet10 : DISPLAY
- sheet11 : CONNECTORS, ETC
- sheet12 : mmW, RF PMIC

Engineer:			
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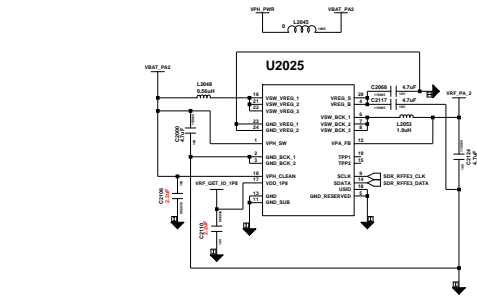
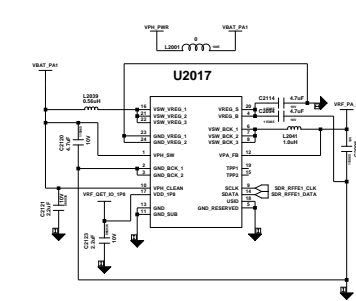


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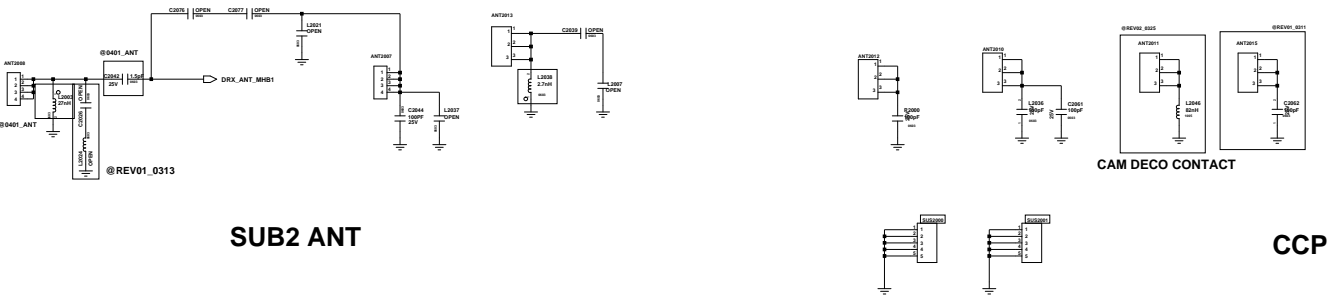


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ET #2 3G/LTE/NR LB(LB LPAMID)



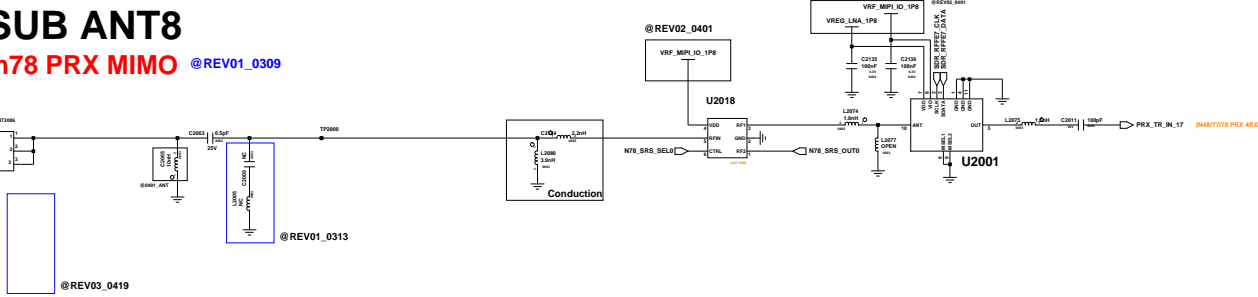
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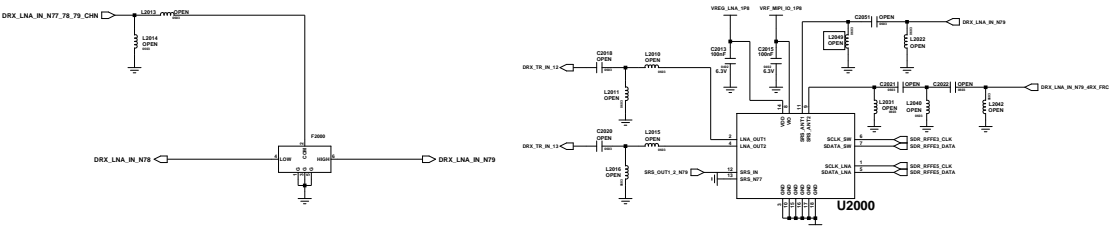
SUB2 ANT

# SUB ANT8

n78 PRX MIMO @REV01\_0309

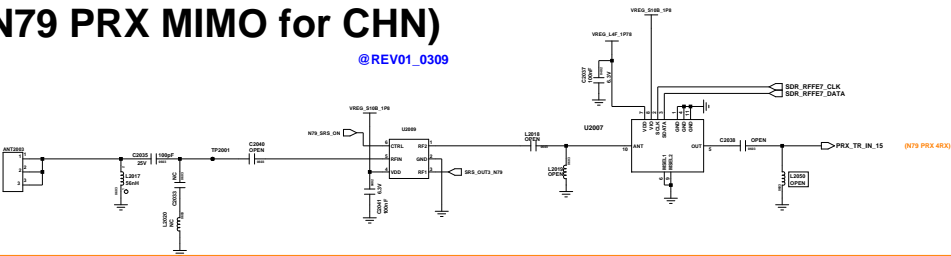


# N79 DRX1/2 LFEM for CHN (NA : Open)



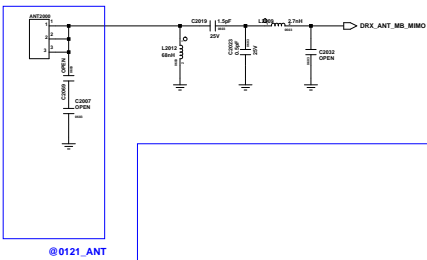
# SUB ANT5 (N79 PRX MIMO for CHN)

@REV01\_0309



# SUB ANT6

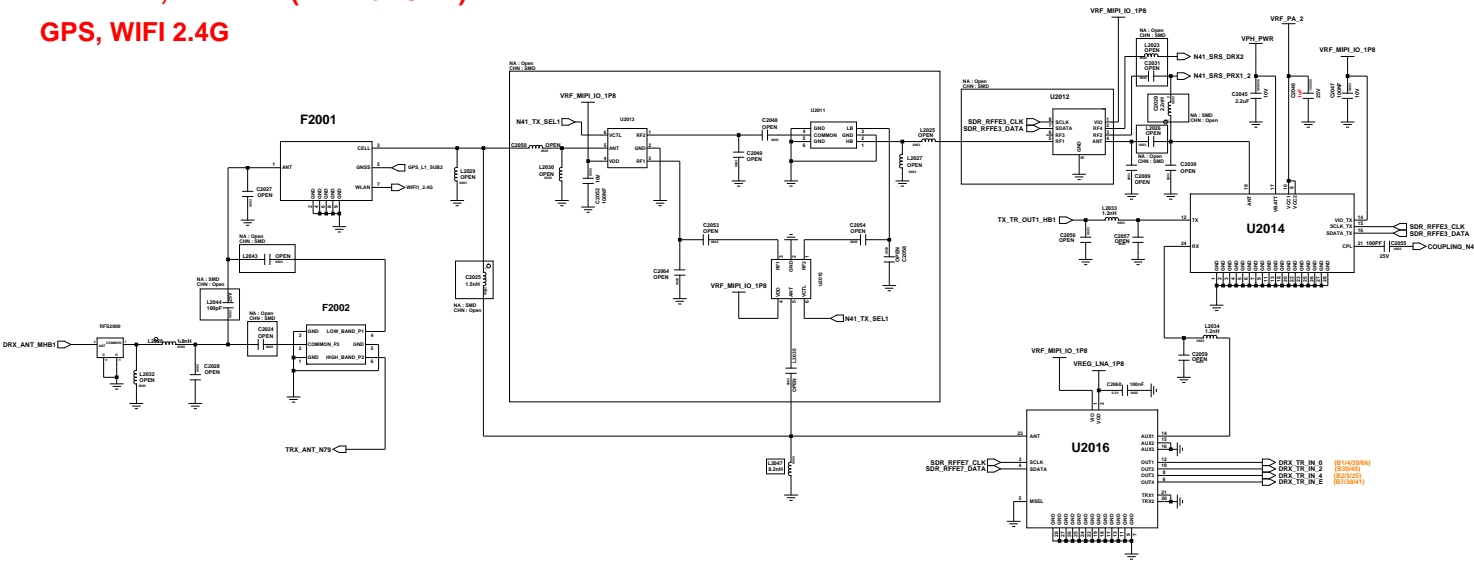
B2/4 DRX MIMO

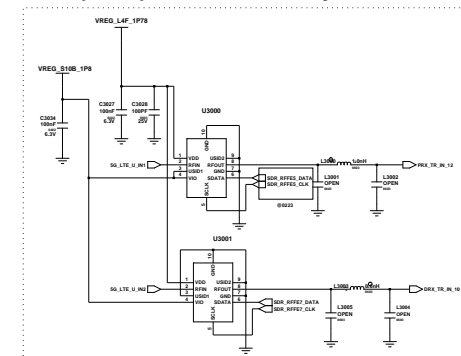
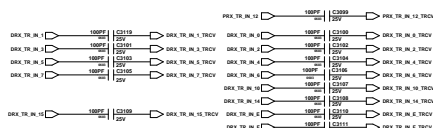
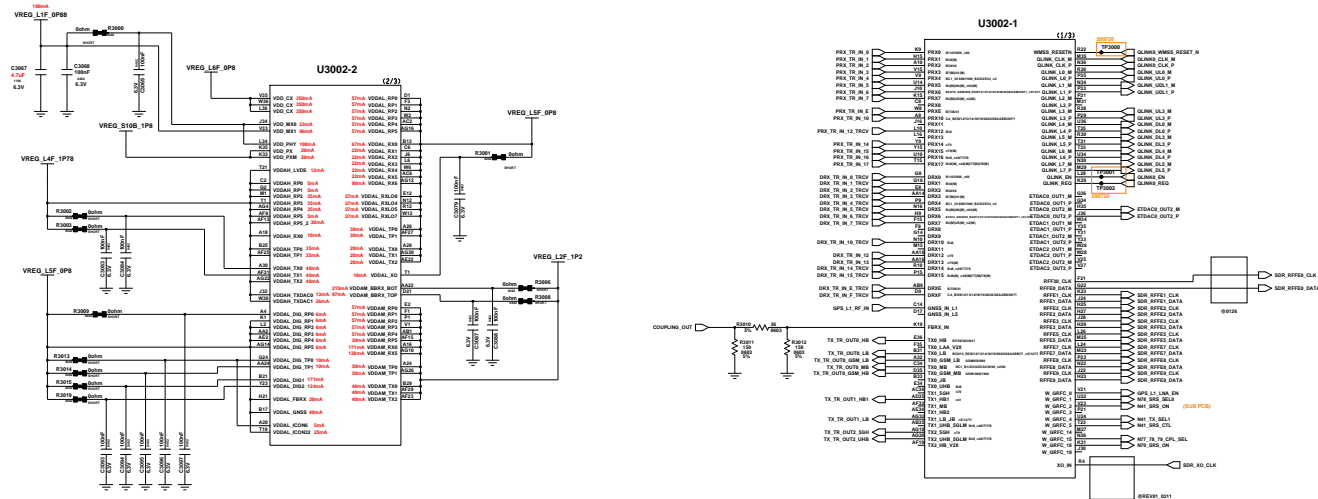


# SUB ANT7

# SUB ANT2

MHB DRX, n41 DRX (TRX for CHN)  
GPS, WIFI 2.4G

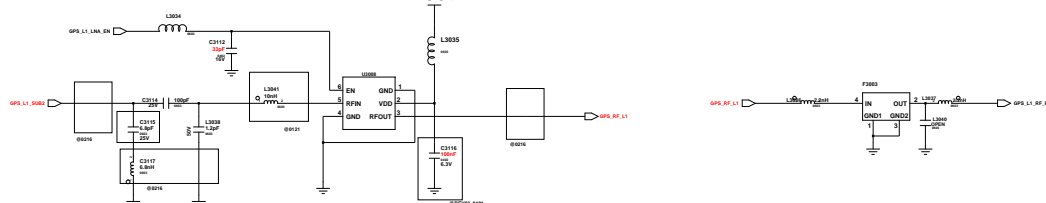


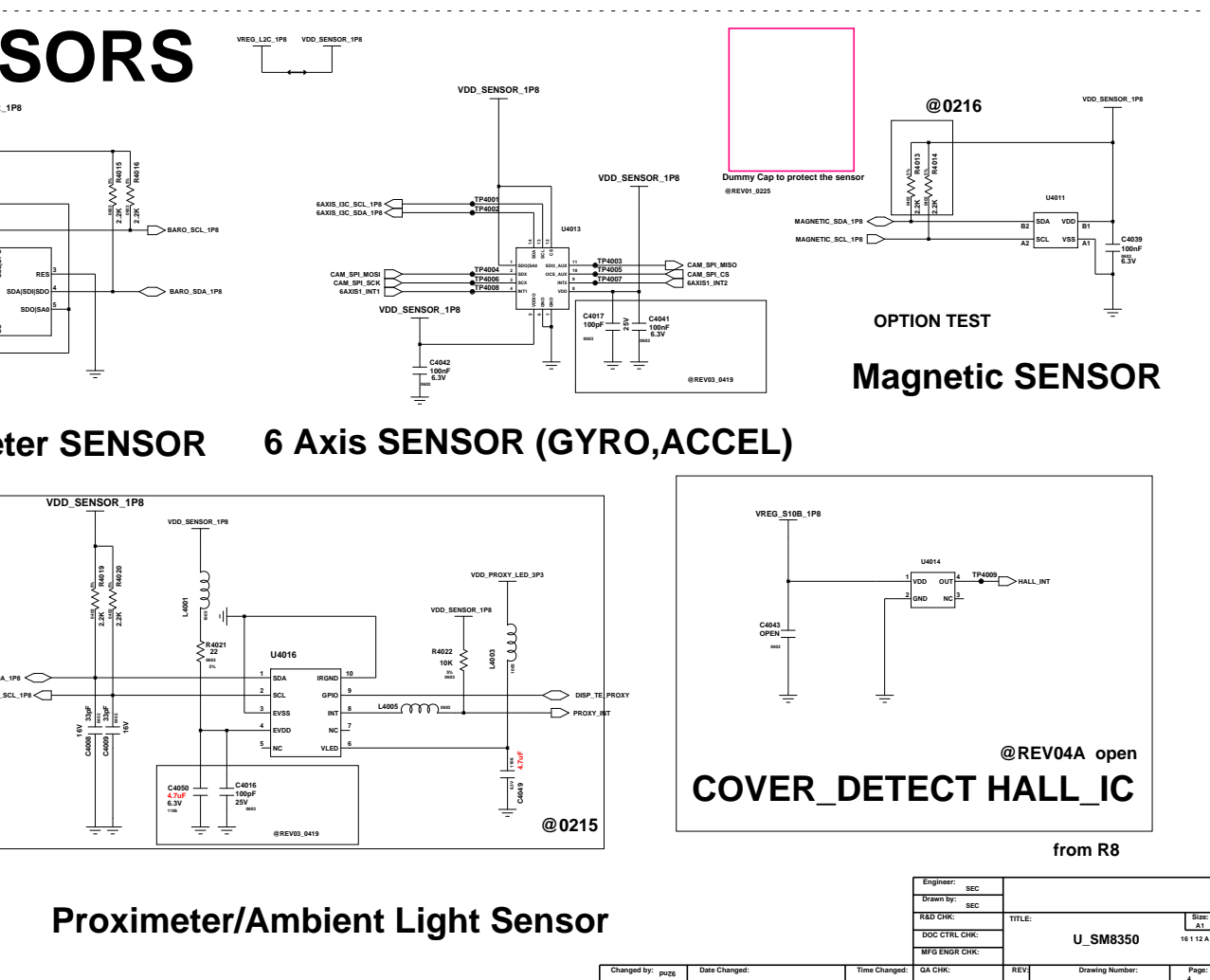
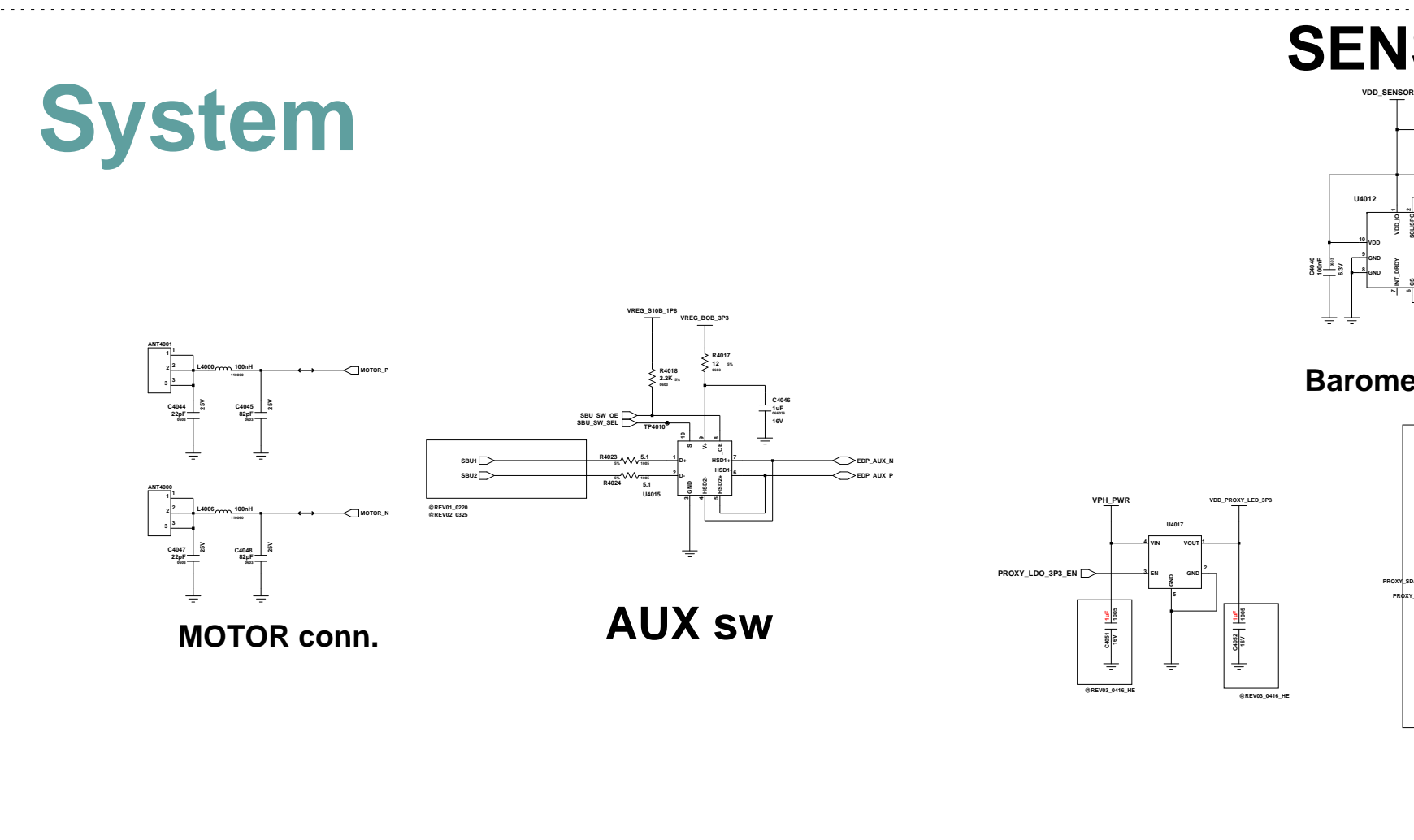


**SUB4**  
(WiFi2 2.4G, 5G MIMO)

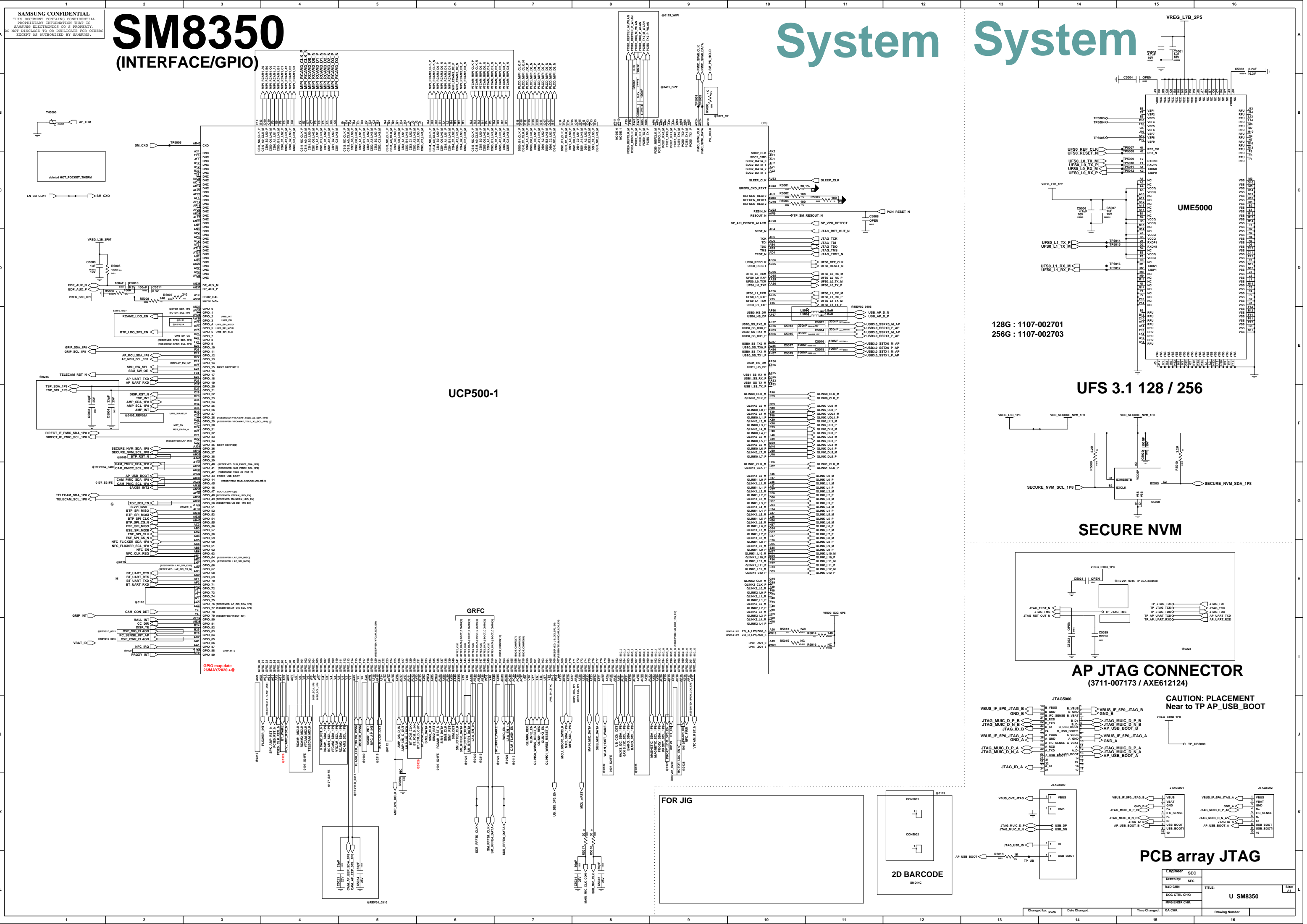


from G991U

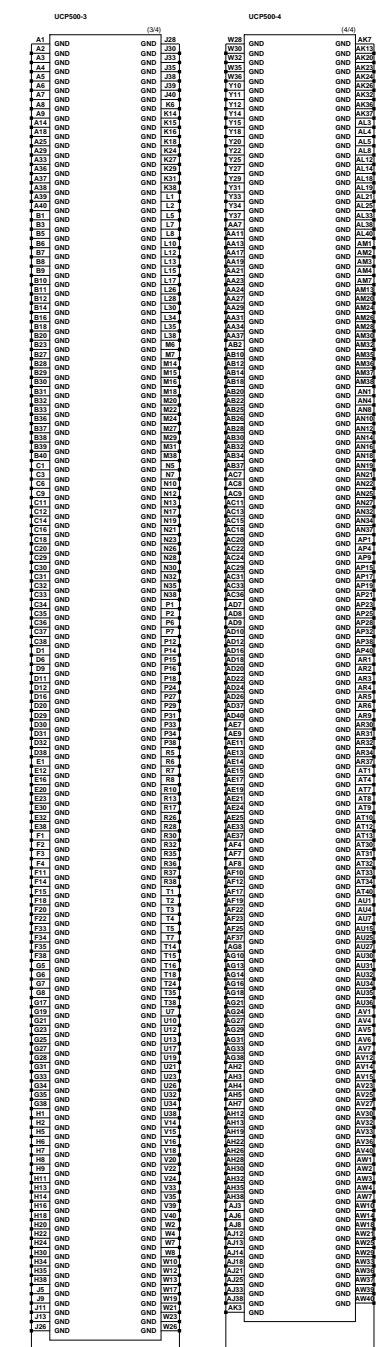








# Power



**DDR/UFS**

**NA (U)**

**CAN (W)**

**6G/128G**

**6G/256G**

**8G/128G**

**8G/256G**

**16G/128G**

**16G/256G**

U7002

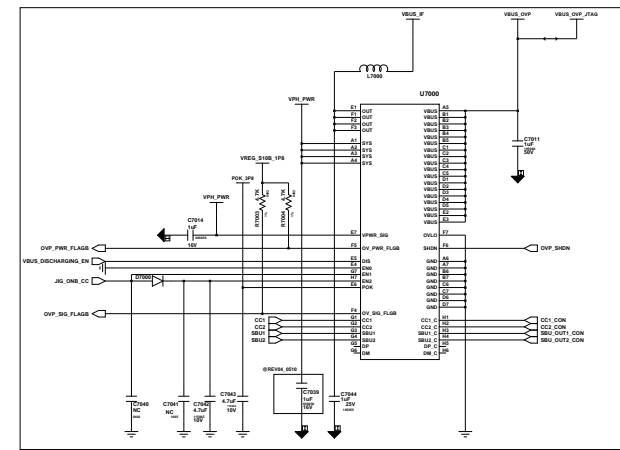
REV5.001

!! HW workaround for PM8350 ES1 leakage issue !!

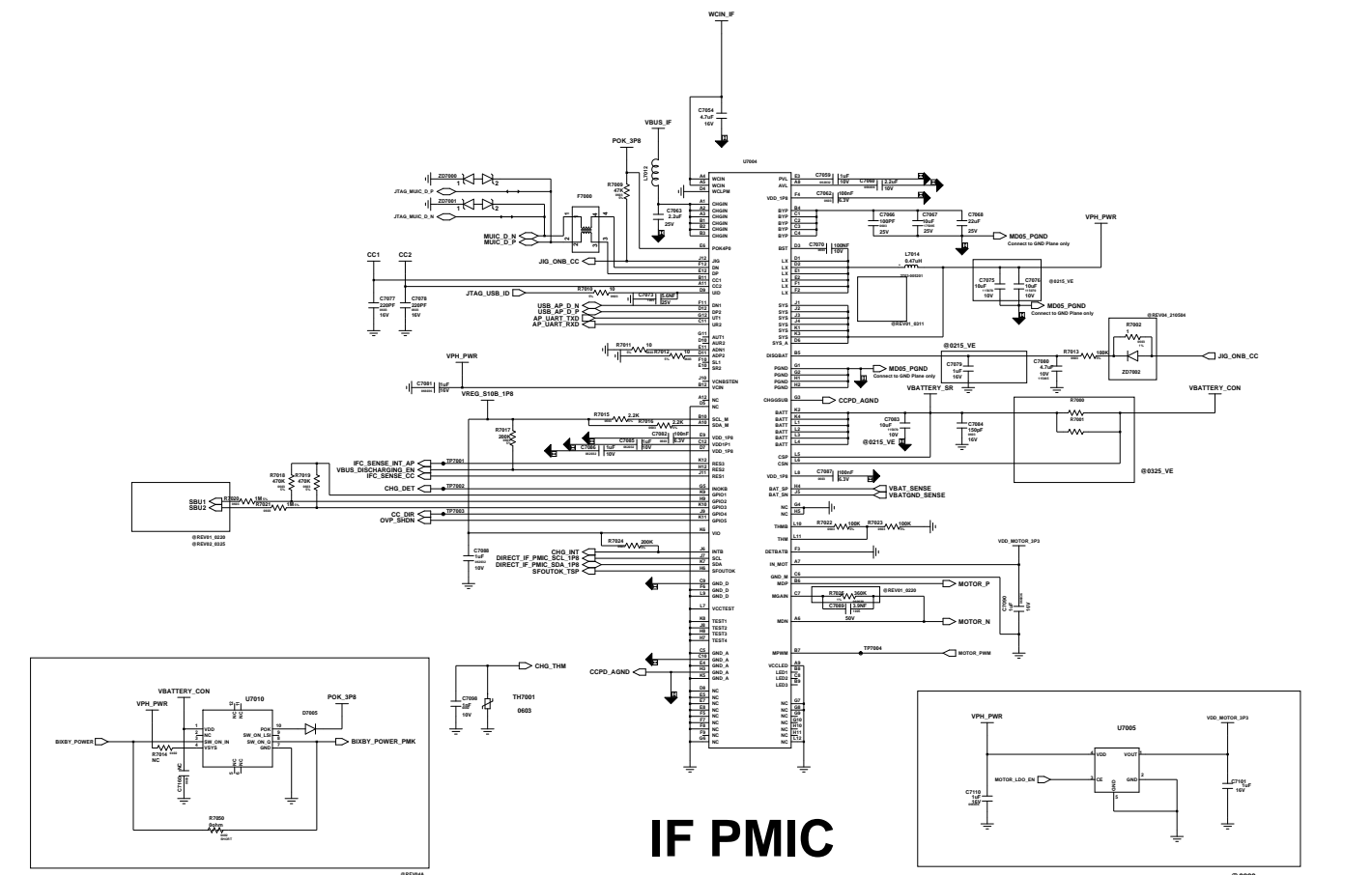
**!! HW workaround for PM8350 ES1 leakage issue !!**  
This components can be removed with EA2.0 or later PMICs

[illegible]

The schematic diagram illustrates the ATmega328P microcontroller circuit. The ATmega328P chip is shown with its pins connected to various components. The VCC pin (pin 7) is connected to a +5V supply. The GND pin (pin 14) is connected to ground. The RESET pin (pin 9) is connected to a pull-up resistor connected to +5V. The SPI pins (MOSI 11, MISO 12, SS 10, SCK 13) are connected to an SPI flash memory (25Q64). The I2C pins (SDA 20, SCL 21) are connected to an I2C EEPROM (24C02). A 1MHz crystal oscillator (XTAL1 8, XTAL2 9) with two 30pF capacitors is connected to the XTAL pins. The ATmega328P is labeled 'ATmega328P-8U2' and 'ATmega328P-8U2'.

[illegible]

## Direct Charging

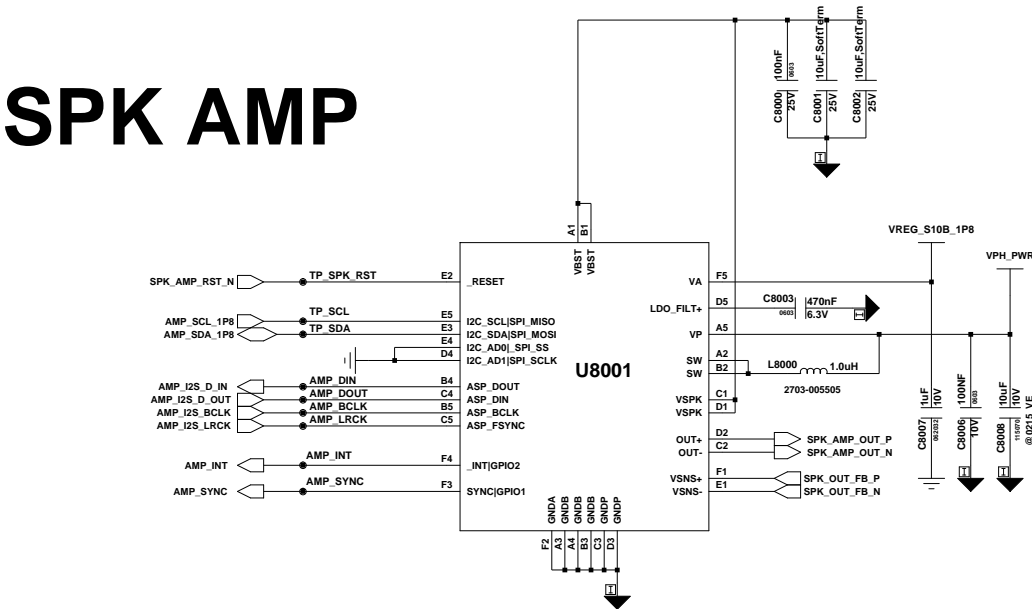


## IF PMIC

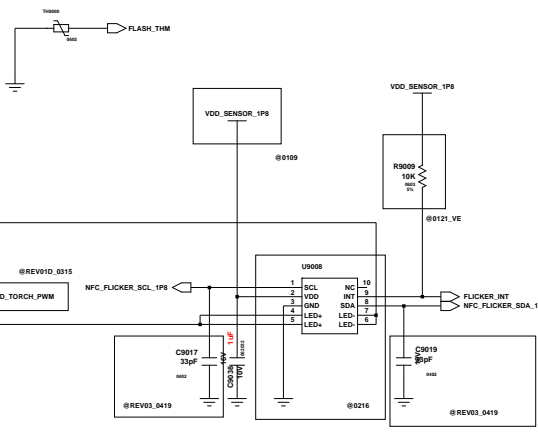
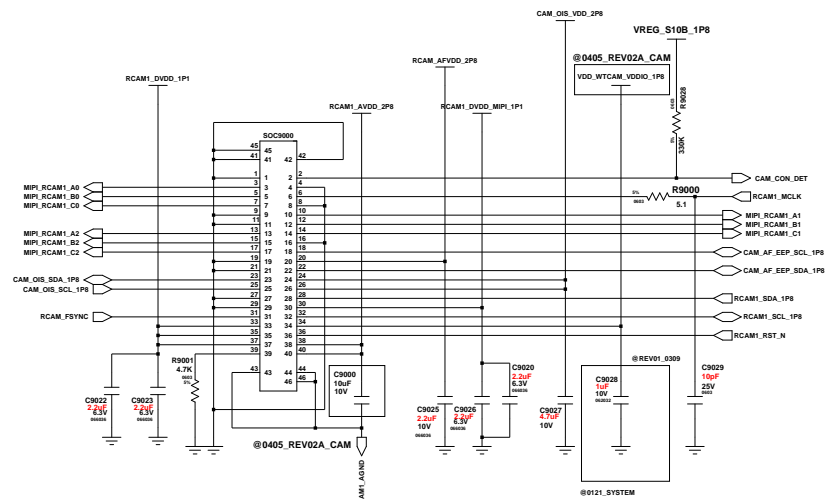


# AUDIO PART

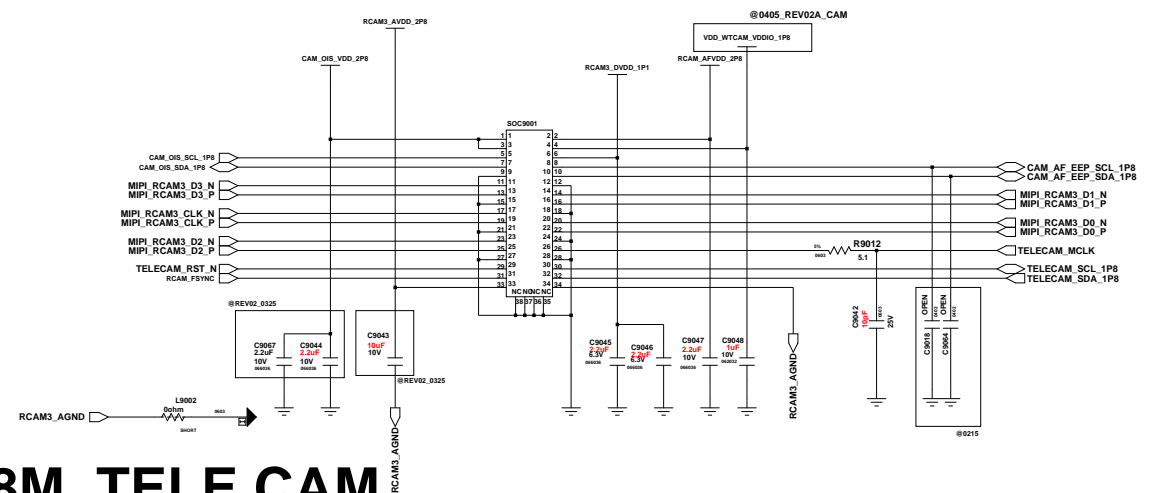
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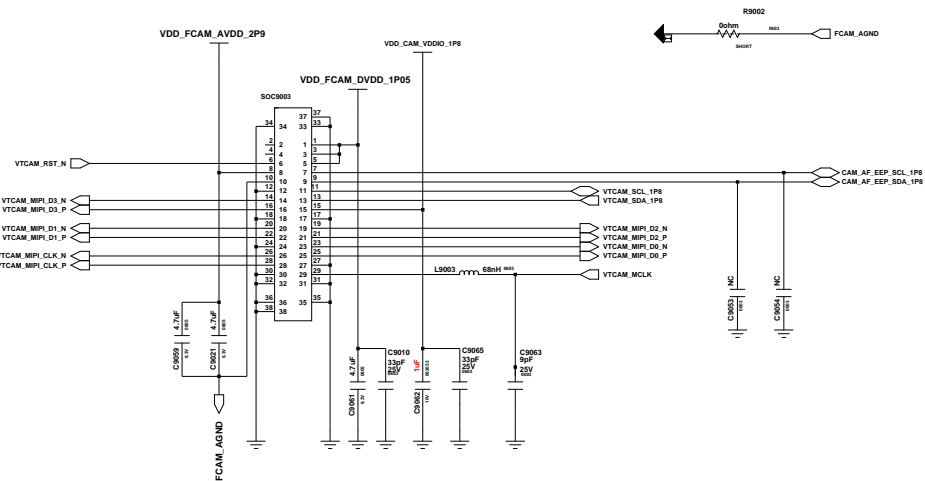
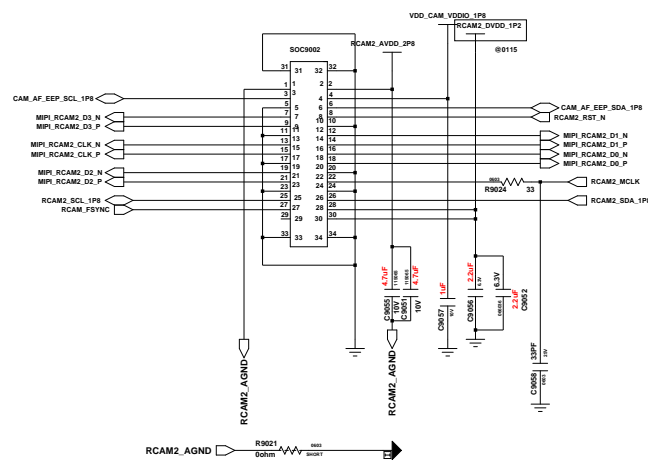
## from R1



# 8M TELE CAM

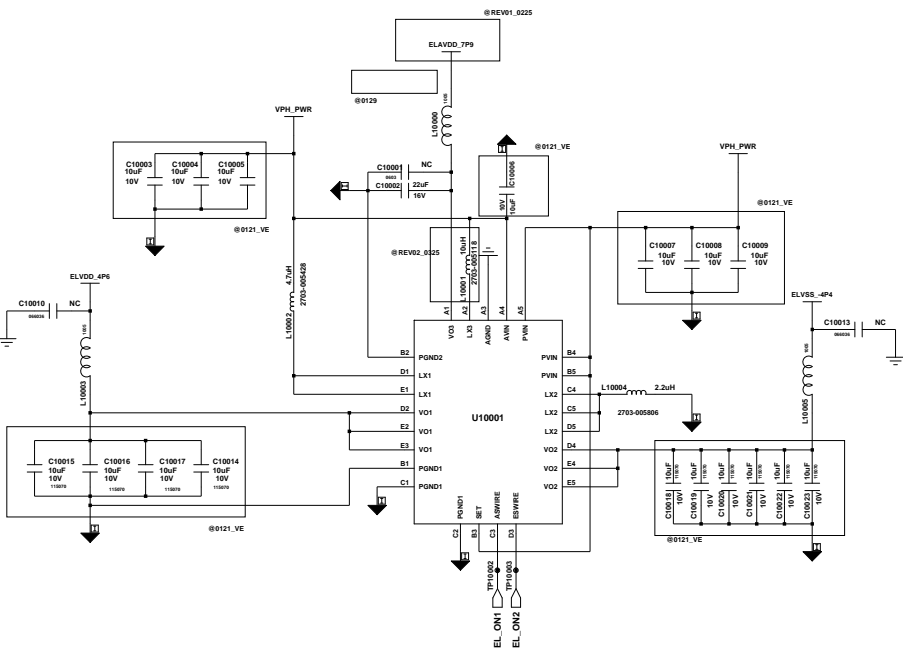


## 12M SUPER WIDE CAM

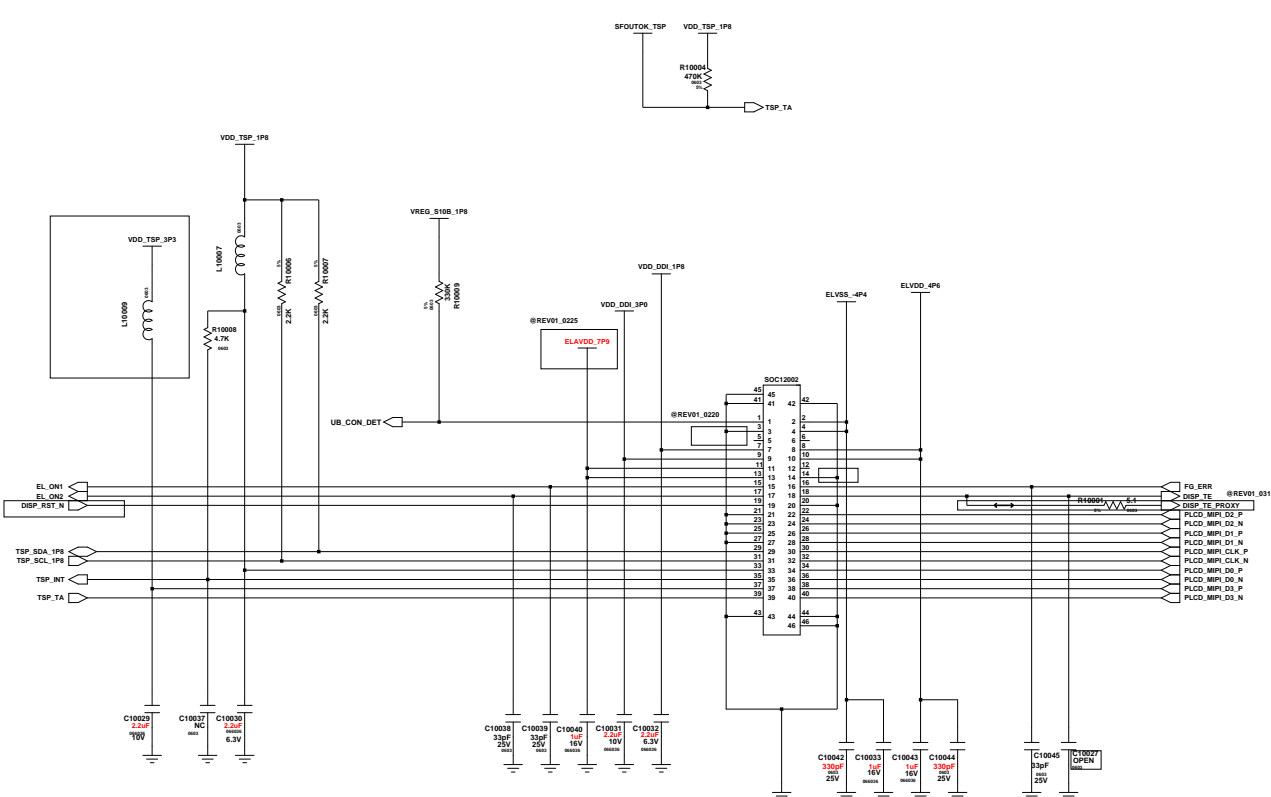
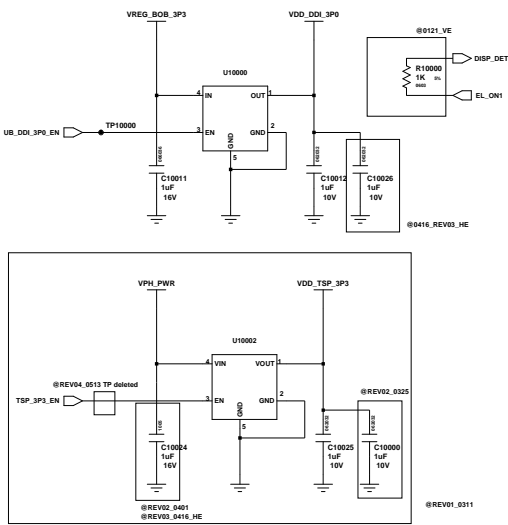


Size:	A1
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# DISPLAY



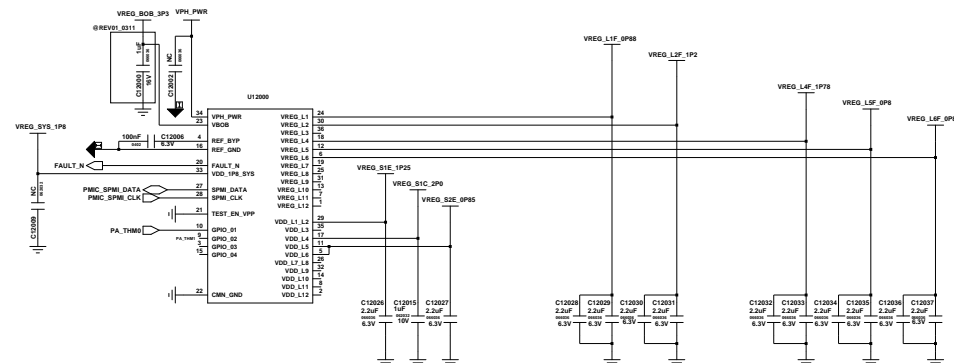
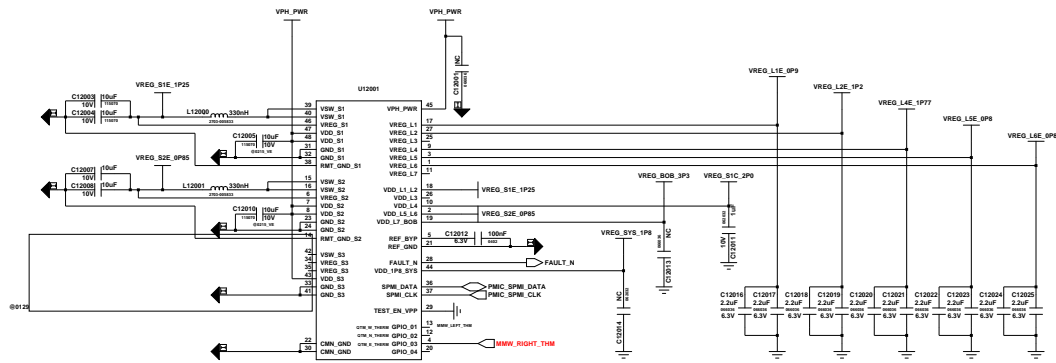
## DISPLAY PMIC



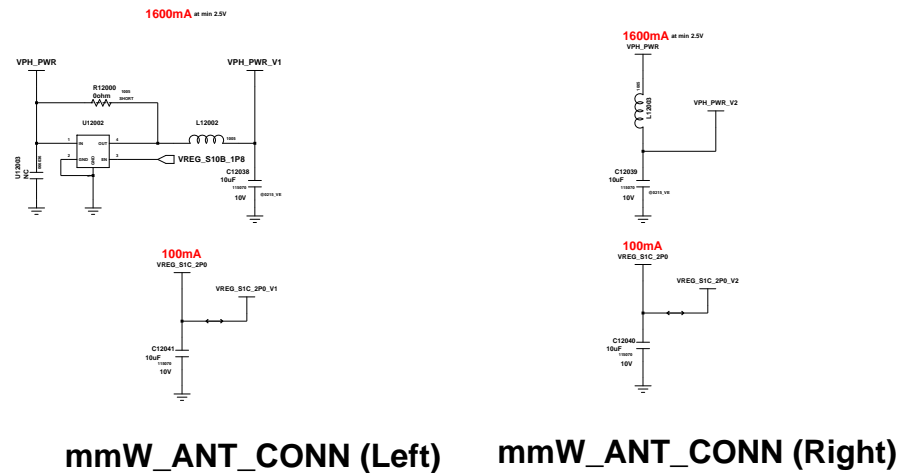
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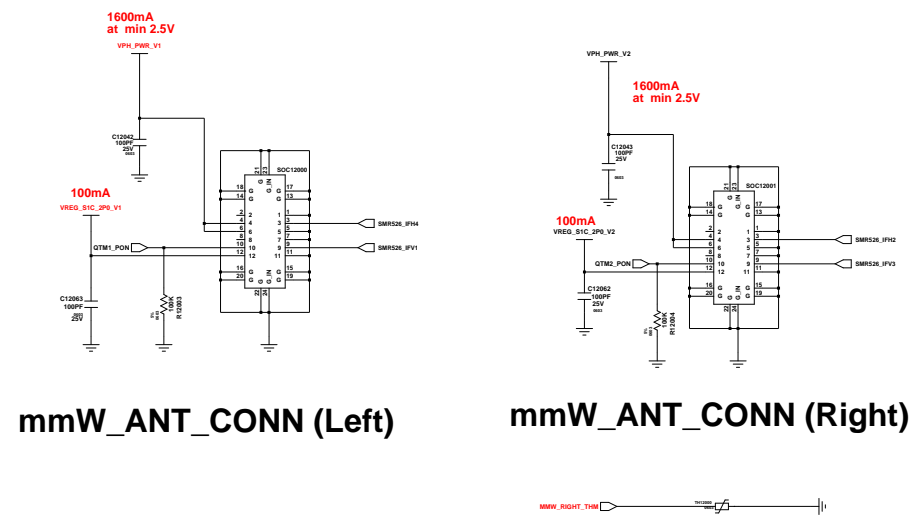
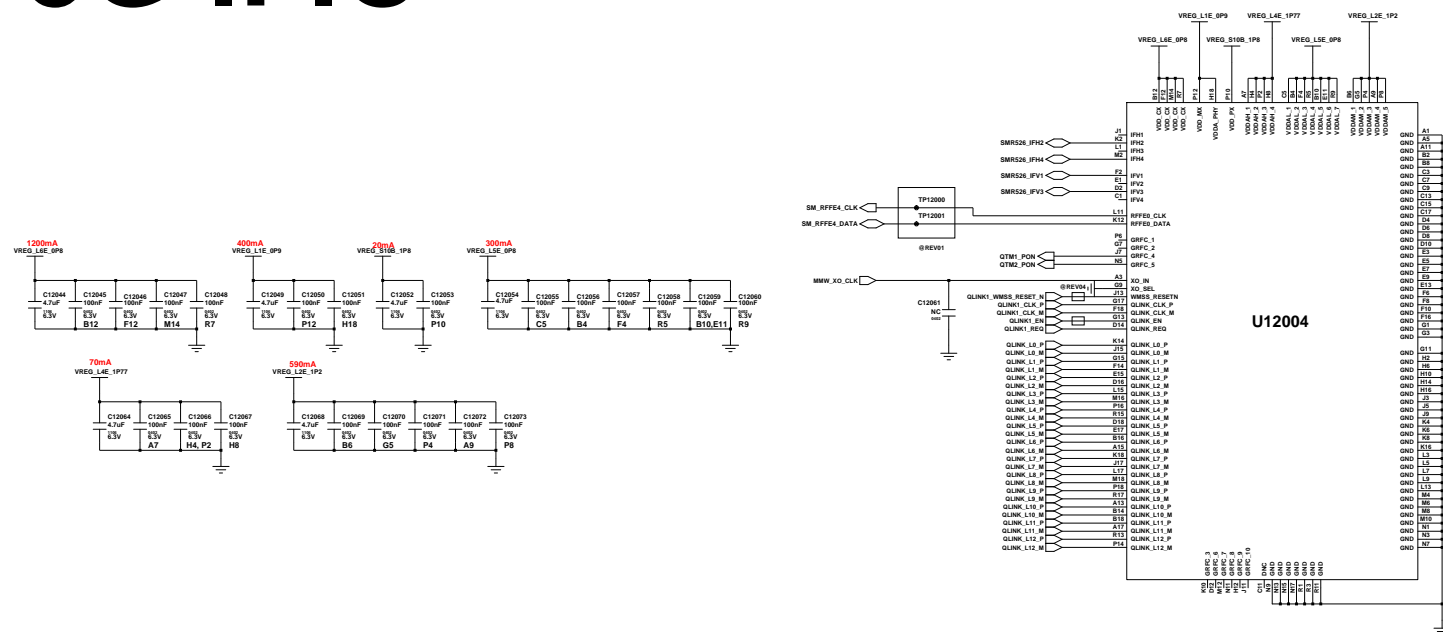
# RF PMIC



# PMR735B



# 5G IFIC



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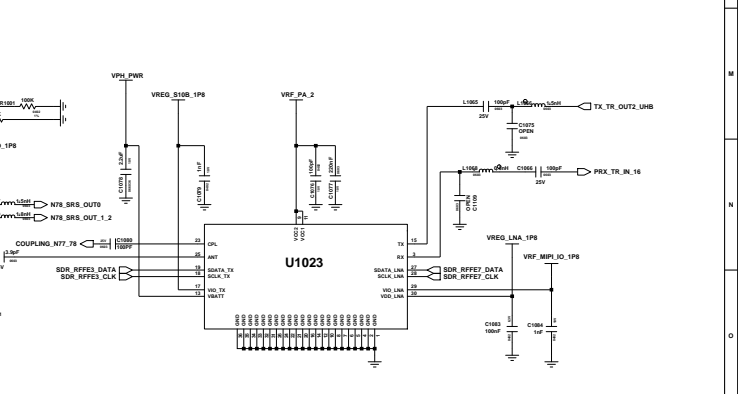
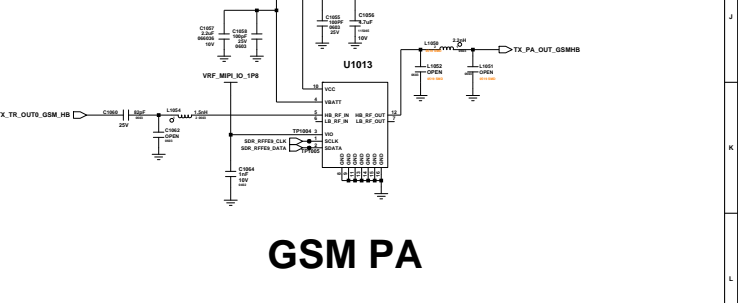
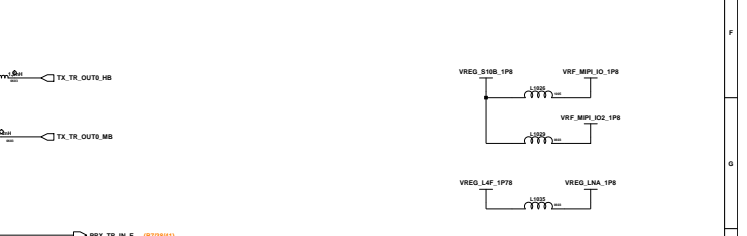
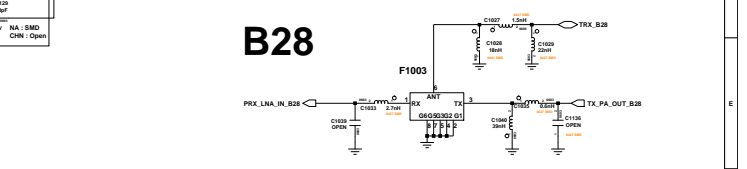
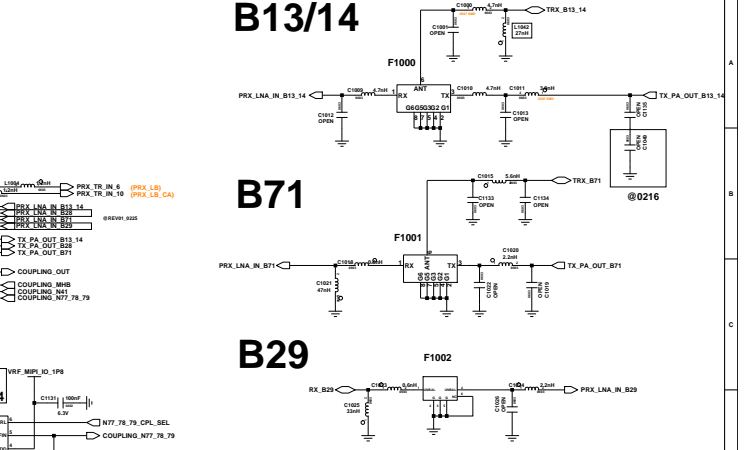
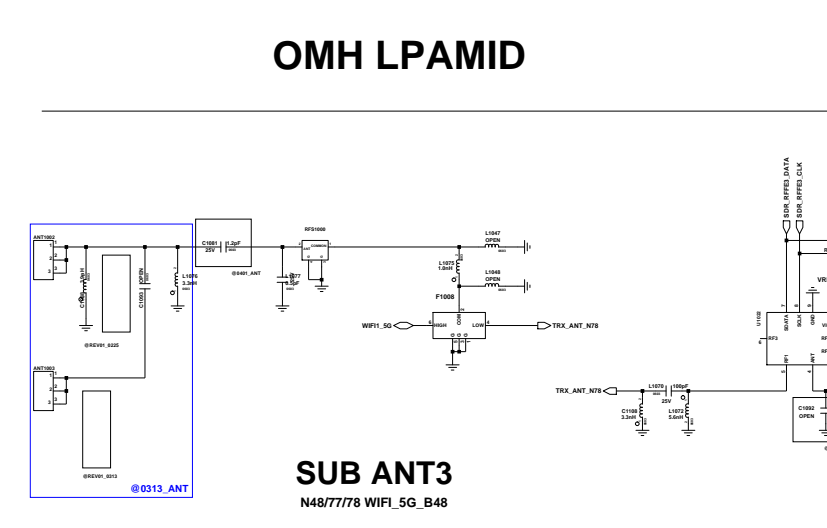
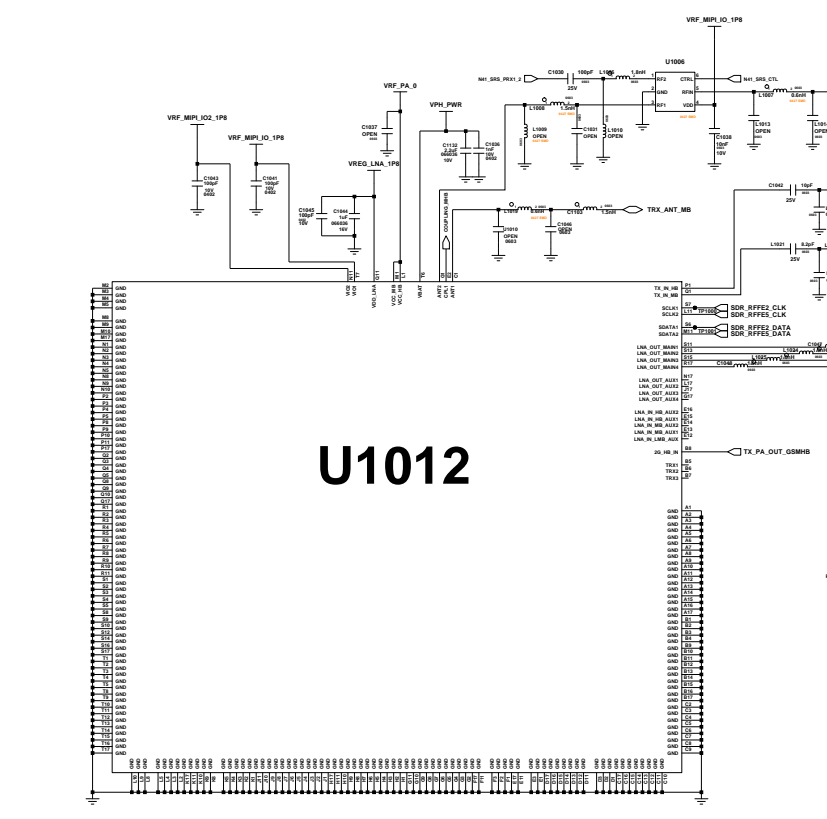
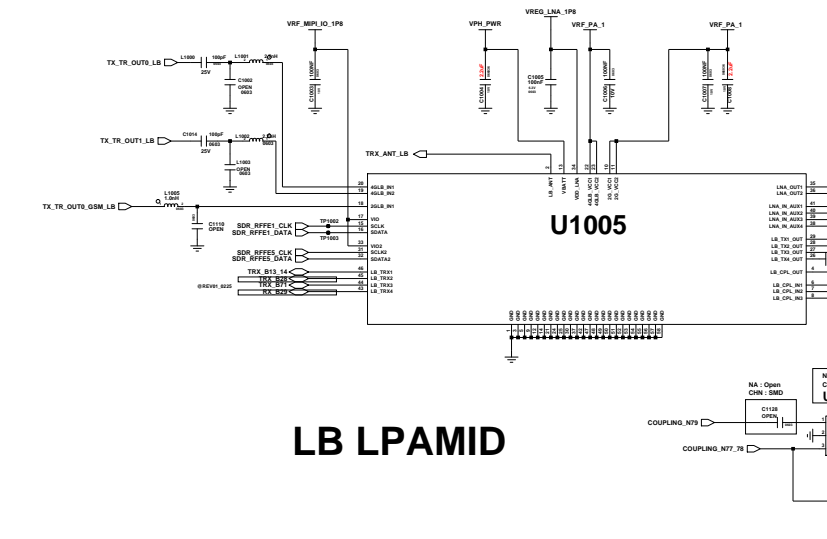
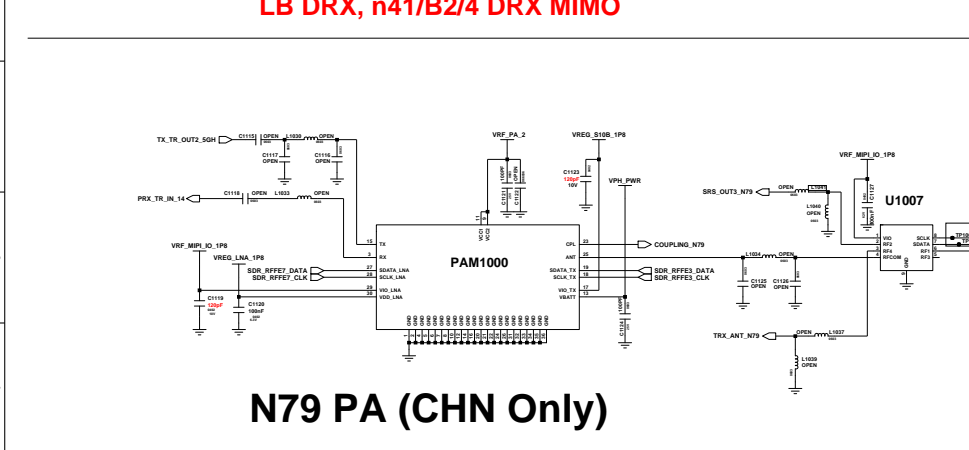
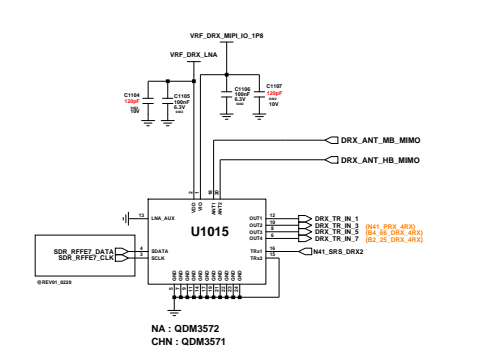
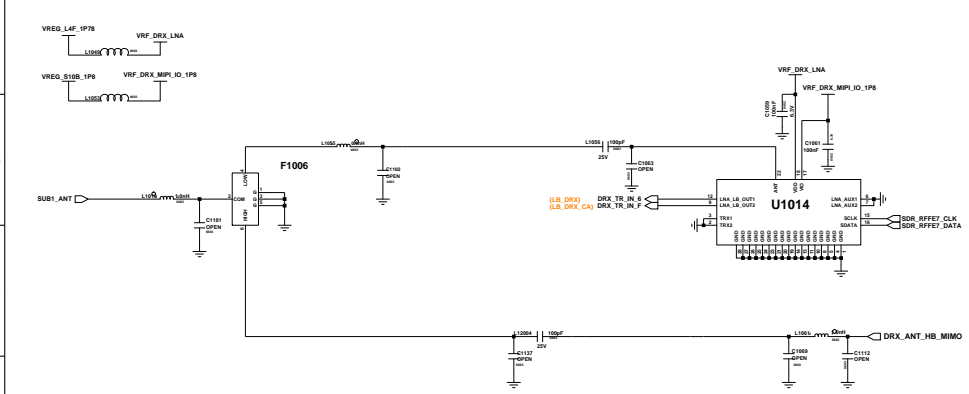
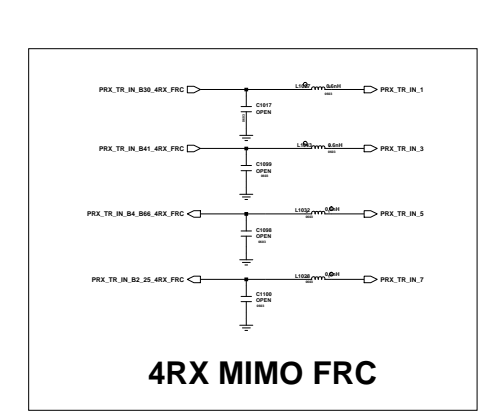
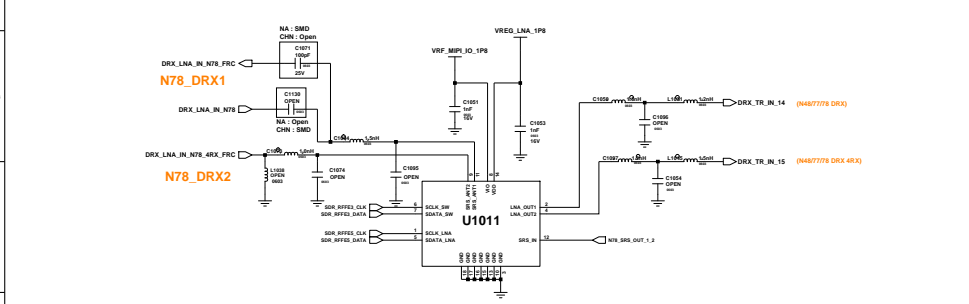
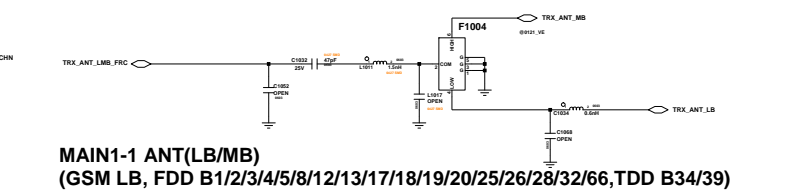
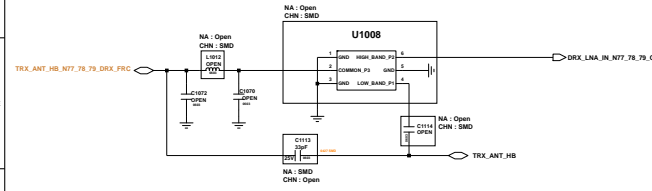
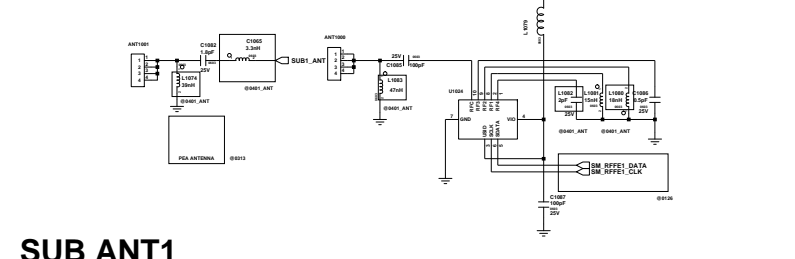
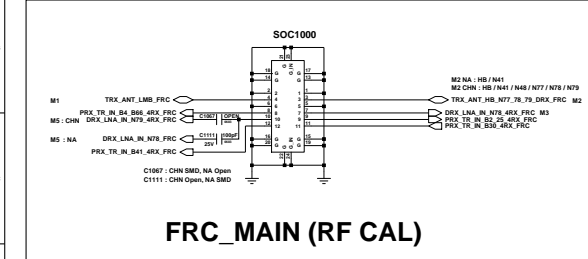
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A	<div><div>SAMSUNG CONFIDENTIAL THIS DOCUMENT CONTAINS CONFIDENTIAL PROPRIETARY INFORMATION THAT IS SAMSUNG ELECTRONICS CO.'S PROPERTY. DO NOT DISCLOSE TO OR DUPLICATE FOR OTHERS EXCEPT AS AUTHORIZED BY SAMSUNG.</div></div>															
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# SM-G990U\_REV04B

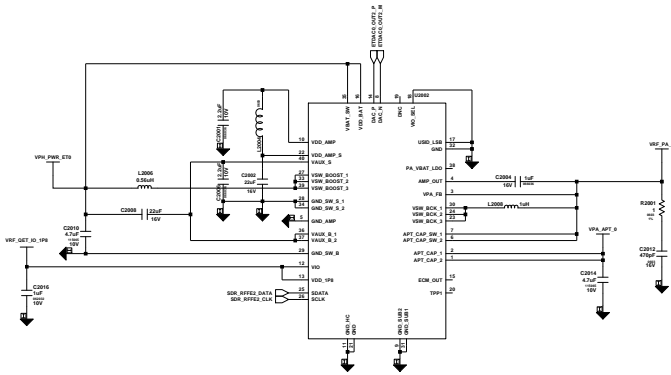
2021. 06. 04 SMD

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- sheet04 : MFC, SENSORS, MOTOR
- sheet05 : ModAP(SM8350) & System Clock
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- sheet08 : AUDIO
- sheet09 : CAMERA
- sheet10 : DISPLAY
- sheet11 : CONNECTORS, ETC
- sheet12 : mmW, RF PMIC

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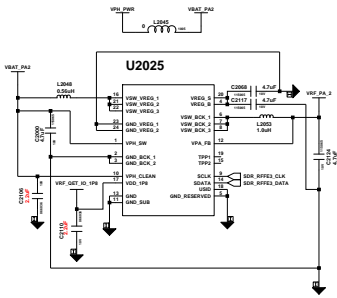


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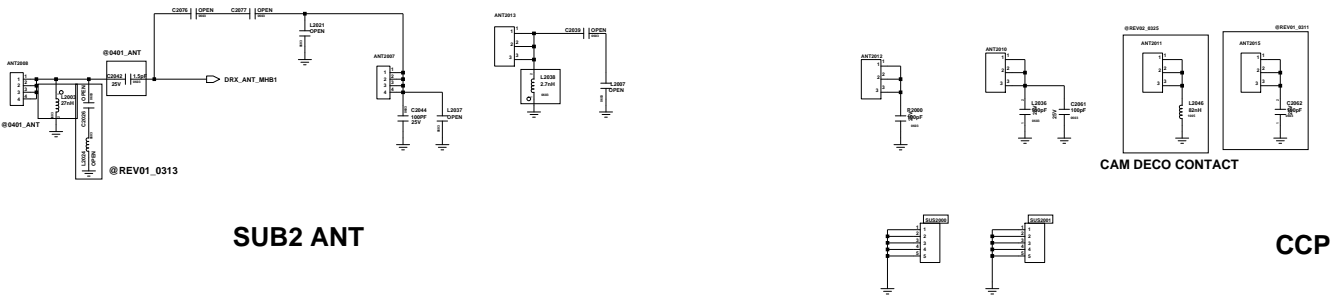


ET#1 2G/3G/LTE/NR MHB(2G,OMH LPAMID)

ET #2 3G/LTE/NR LB(LB LPAMID)



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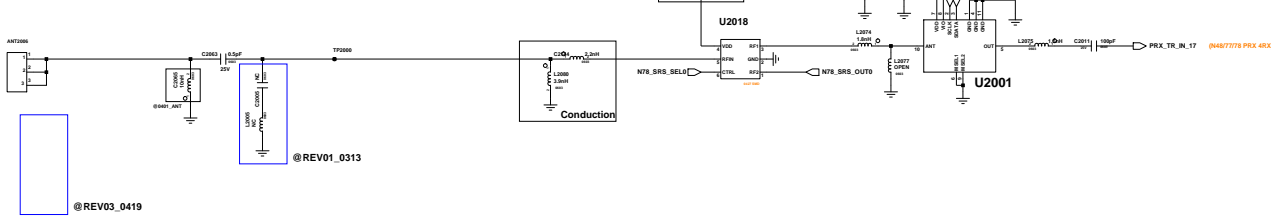


SUB2 ANT

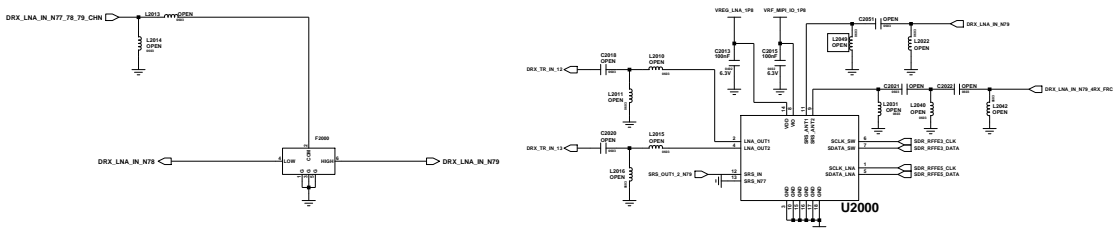
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## SUB ANT8

n78 PRX MIMO @REV01\_0309

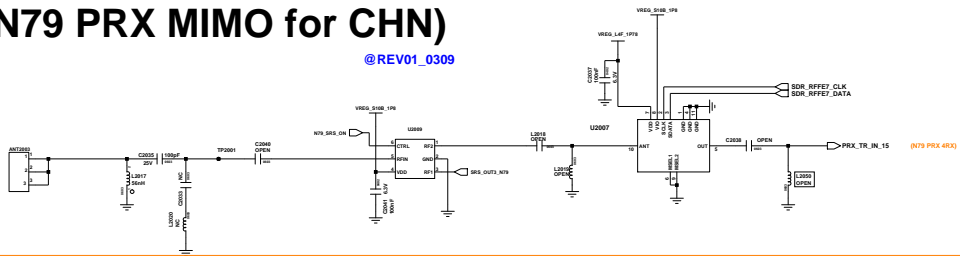


## N79 DRX1/2 LFEM for CHN (NA : Open)



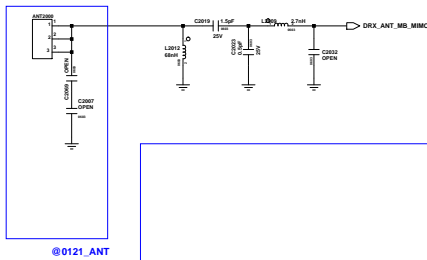
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@REV01\_0309



## SUB ANT6

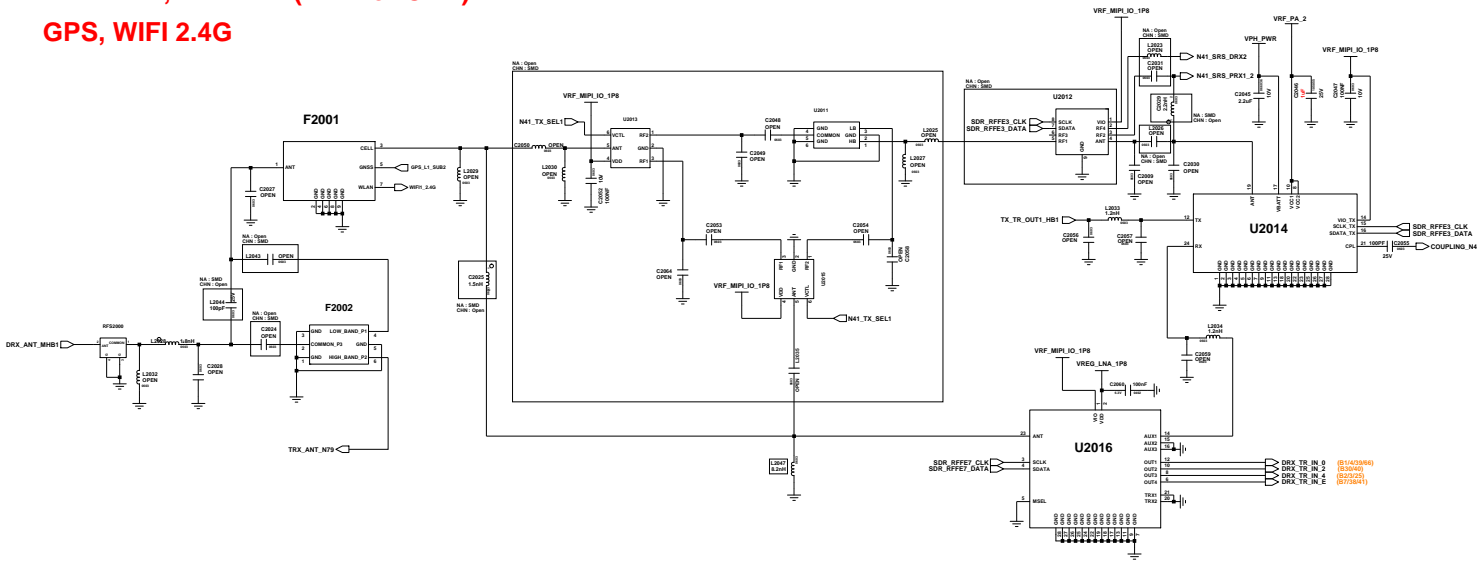
B2/4 DRX MIMO



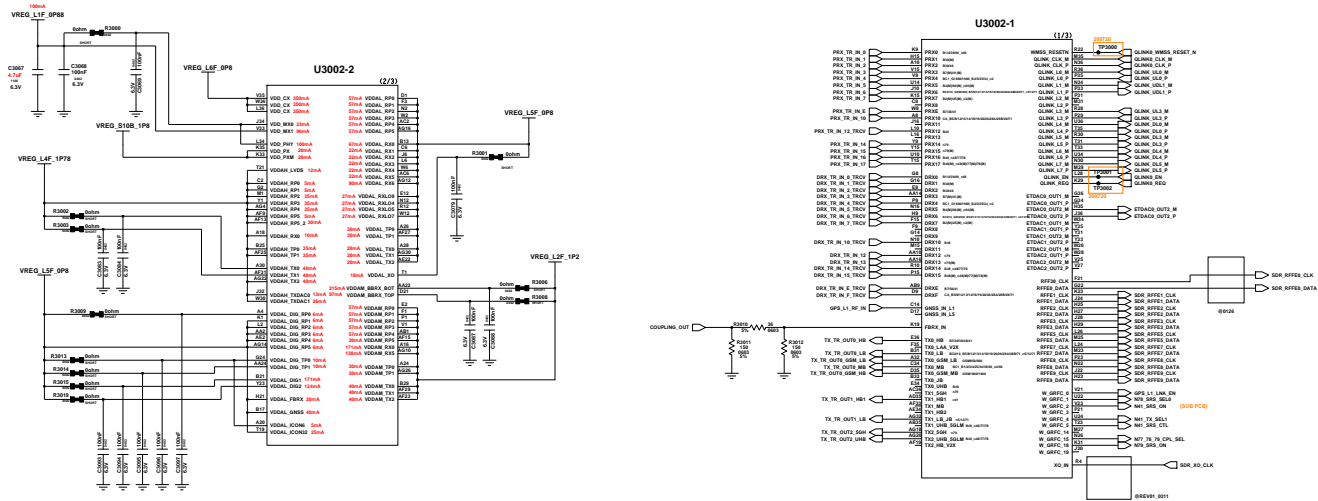
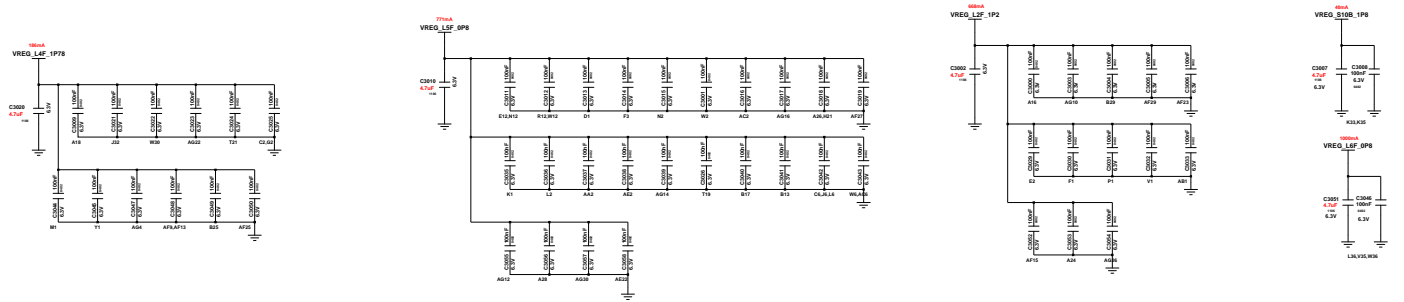
## SUB ANT7

## SUB ANT2

MHB DRX, n41 DRX (TRX for CHN)  
GPS, WIFI 2.4G

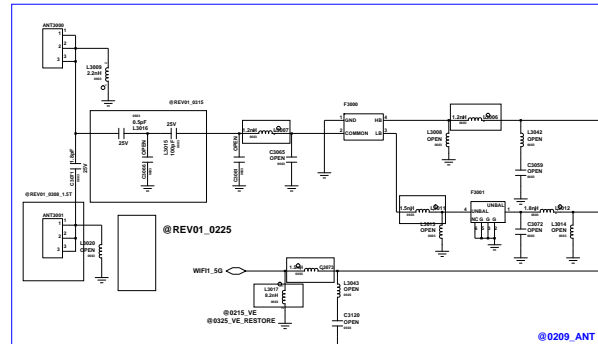


# TRANSCEIVER(SDR868)

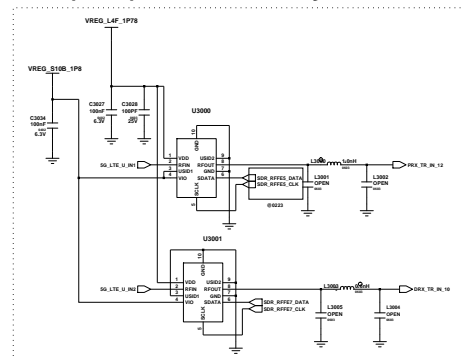


## Connectivity

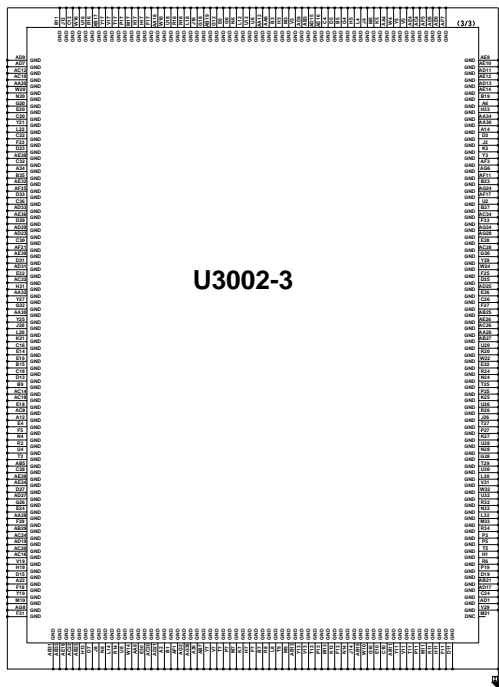
### SUB4 (Wi-Fi 2.4G, 5G MIMO)



### B46 (LAA) LNA : NA Only

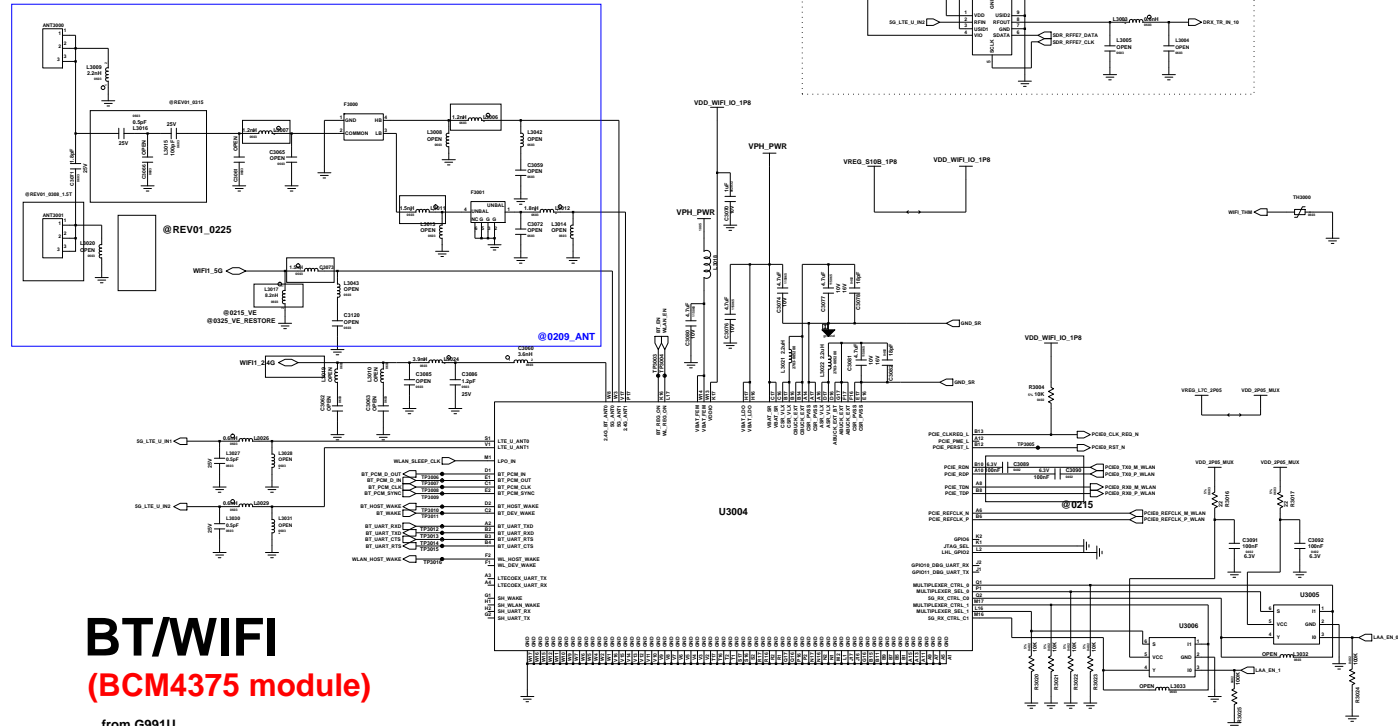


### U3002-3

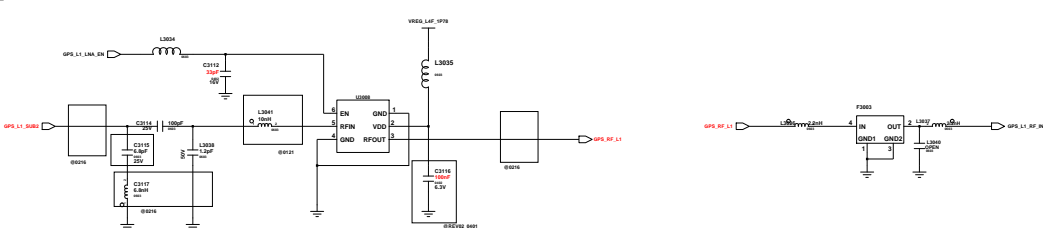


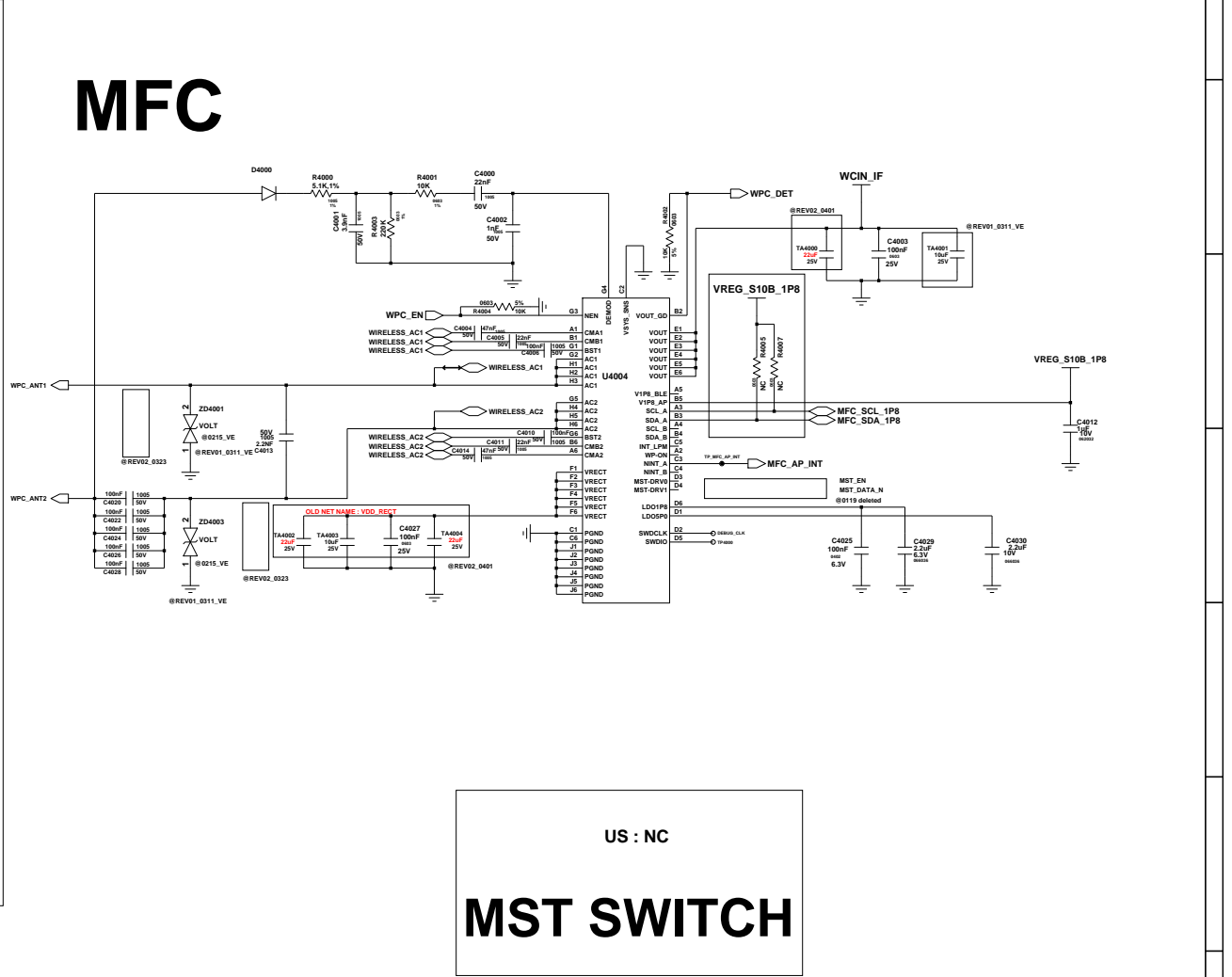
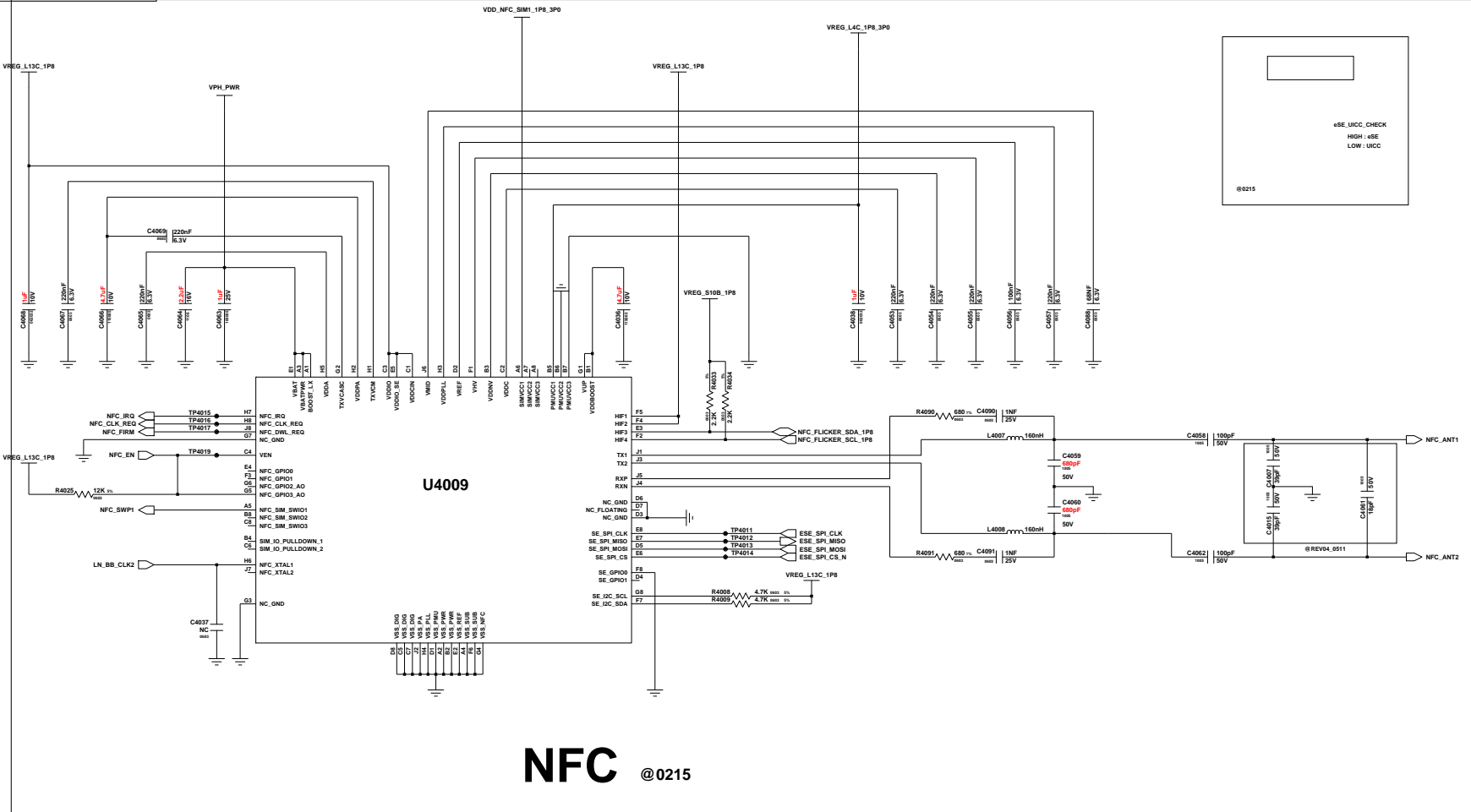
## BT/WIFI (BCM4375 module)

from G991U

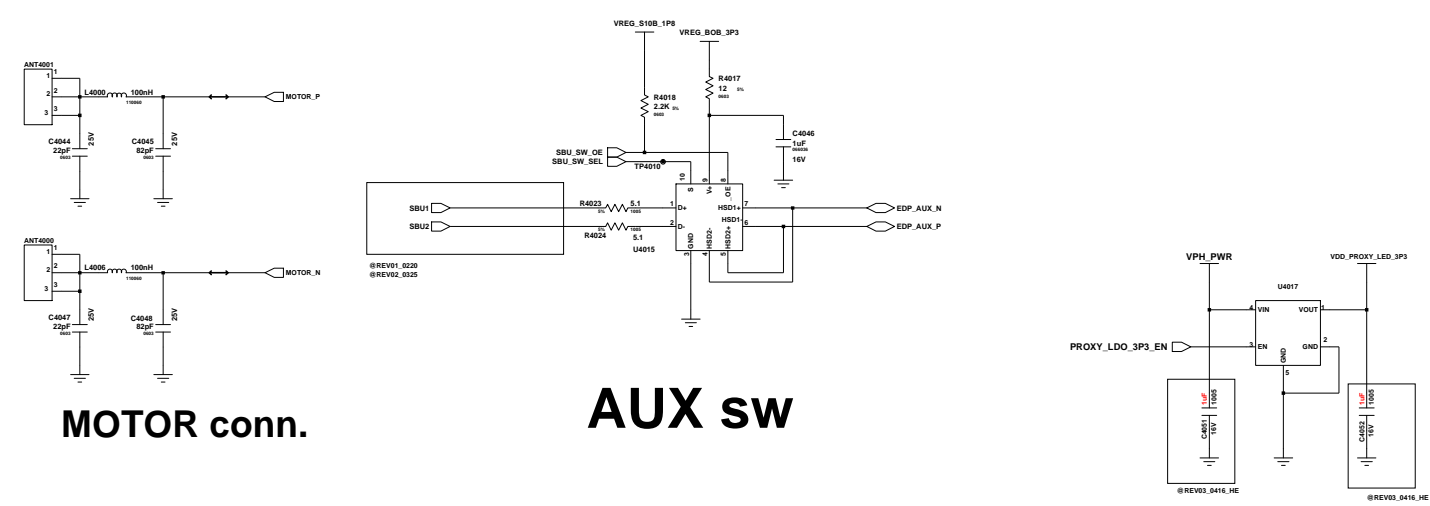


### GPS\_L1\_SUB2

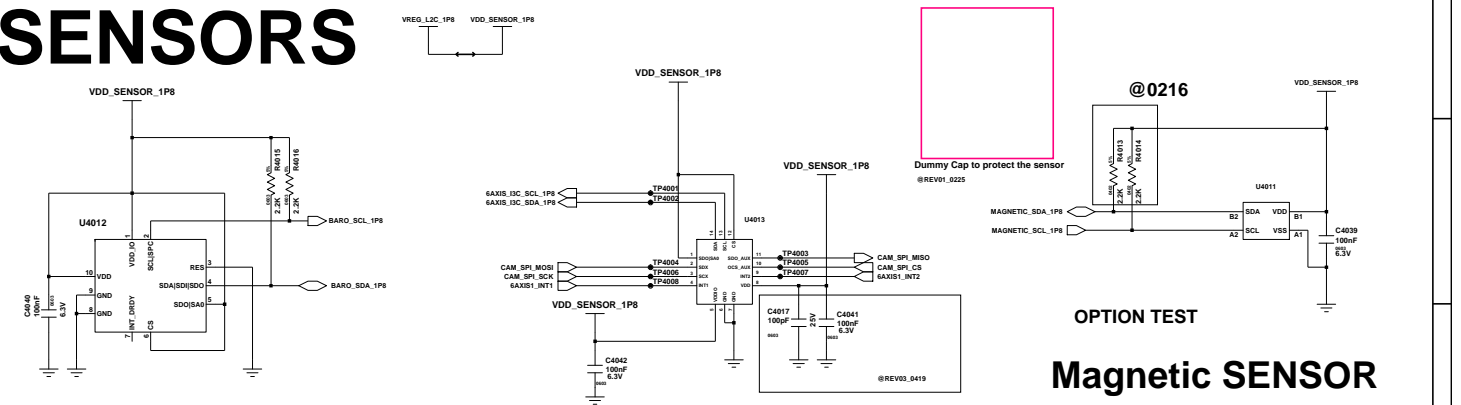




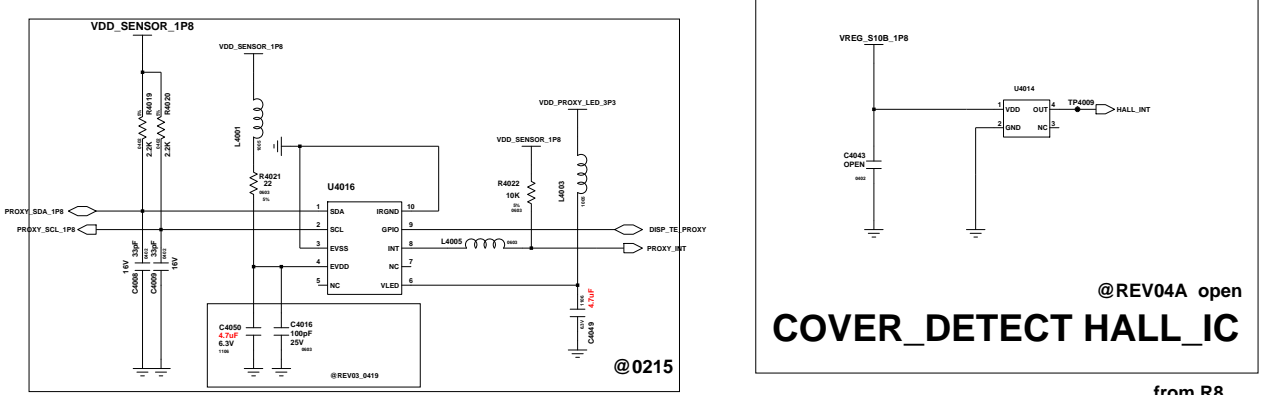
# System



## SENSORS



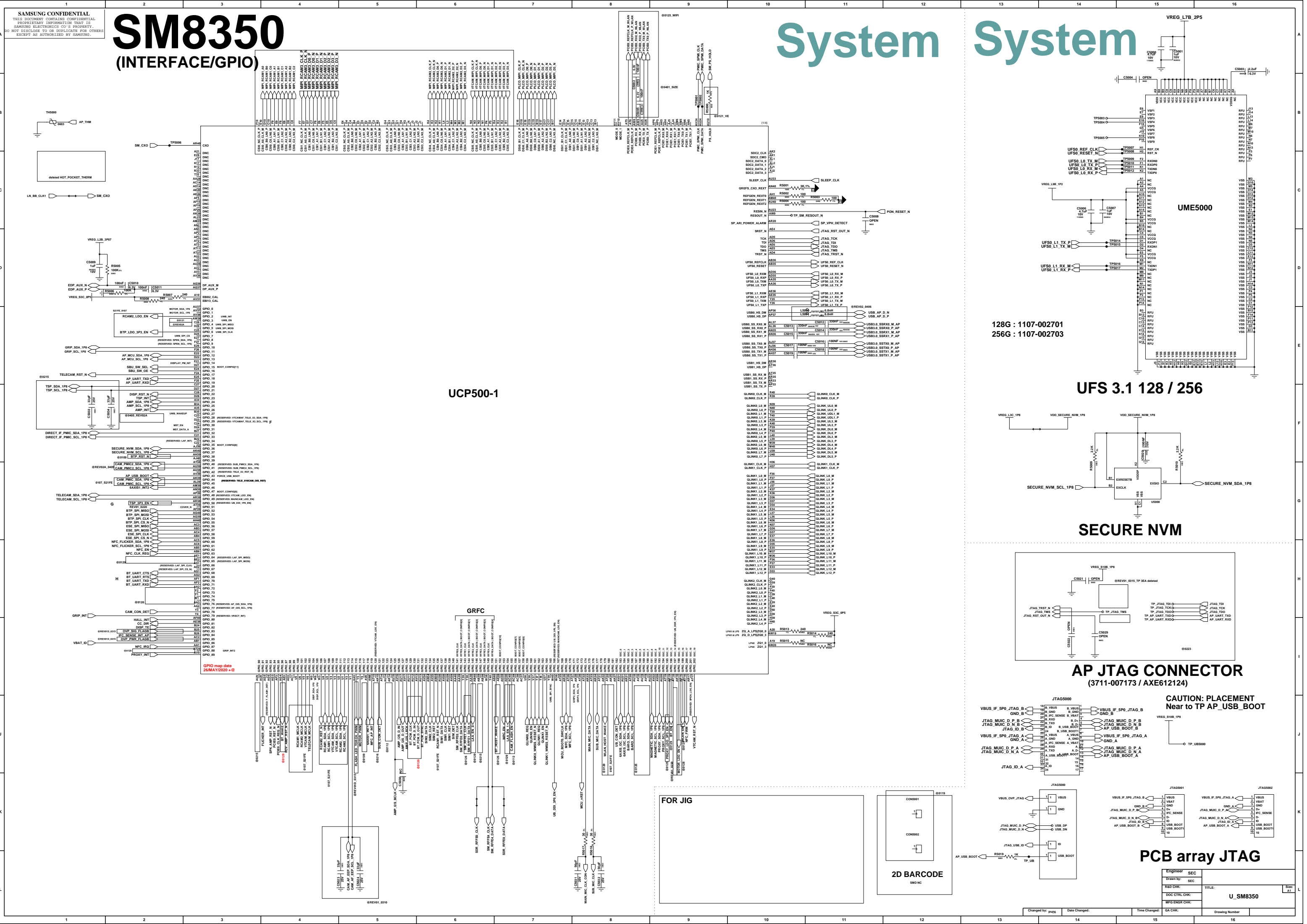
**Barometer SENSOR      6 Axis SENSOR (GYRO,ACCEL)**



## Proximeter/Ambient Light Sensor

Engineer:	SEC	<div style="border: 1px solid black; width: 100px; height: 100px; margin: 0 auto;"></div>	<div style="border: 1px solid black; width: 100px; height: 100px; margin: 0 auto;"></div>
Drawn by:	SEC		
R&D CHK:			
DOC CTRL CHK:			
MFG ENGR CHK:		TITLE:	Size: A1
			16:112 A
GA CHK:	REV	Drawing Number:	Page:



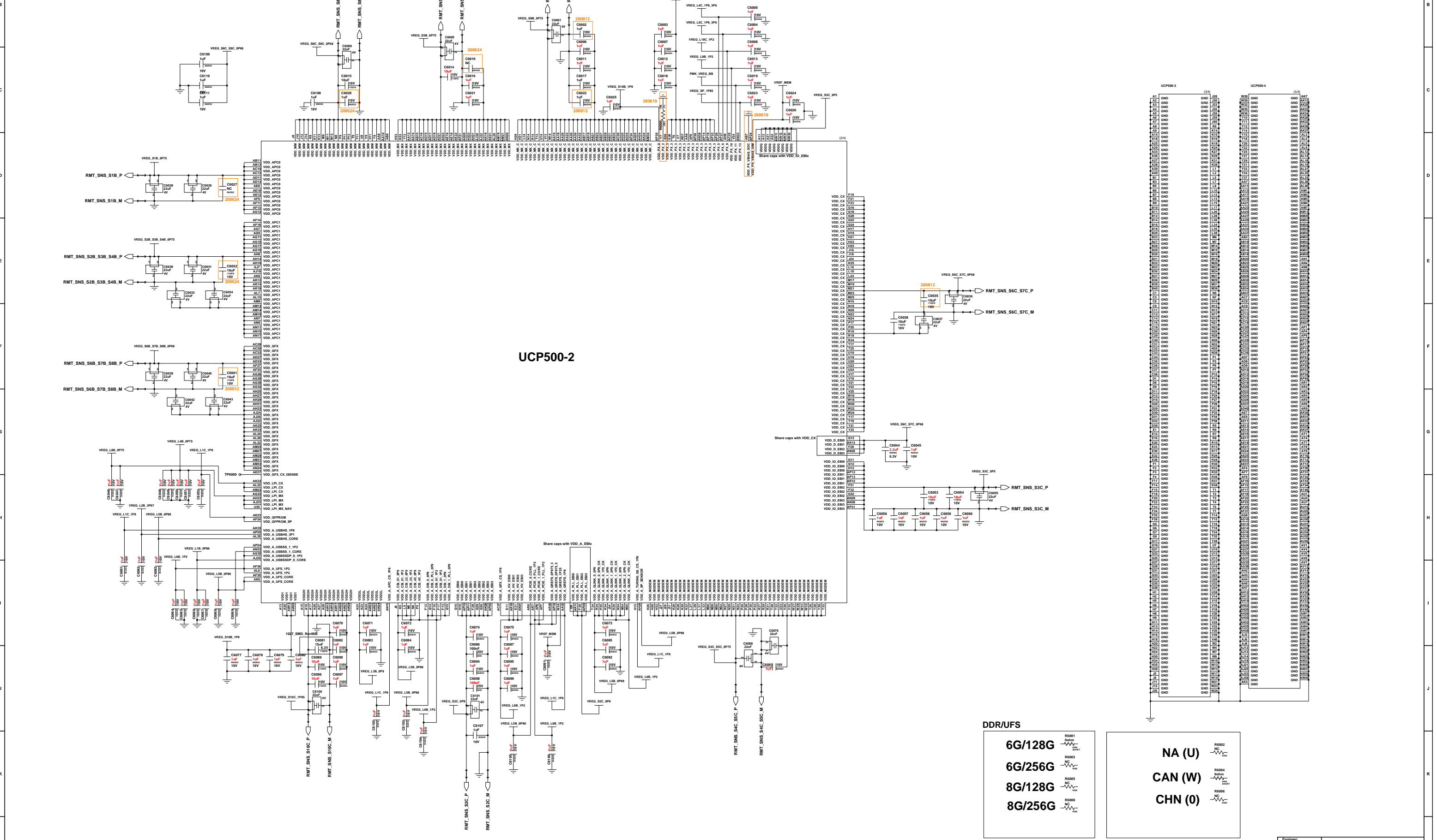


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# SM8350

(POWER, GND)

# Power

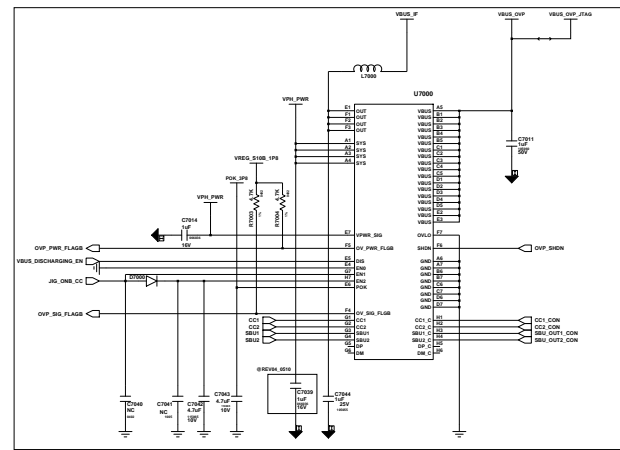


DDR/UFS

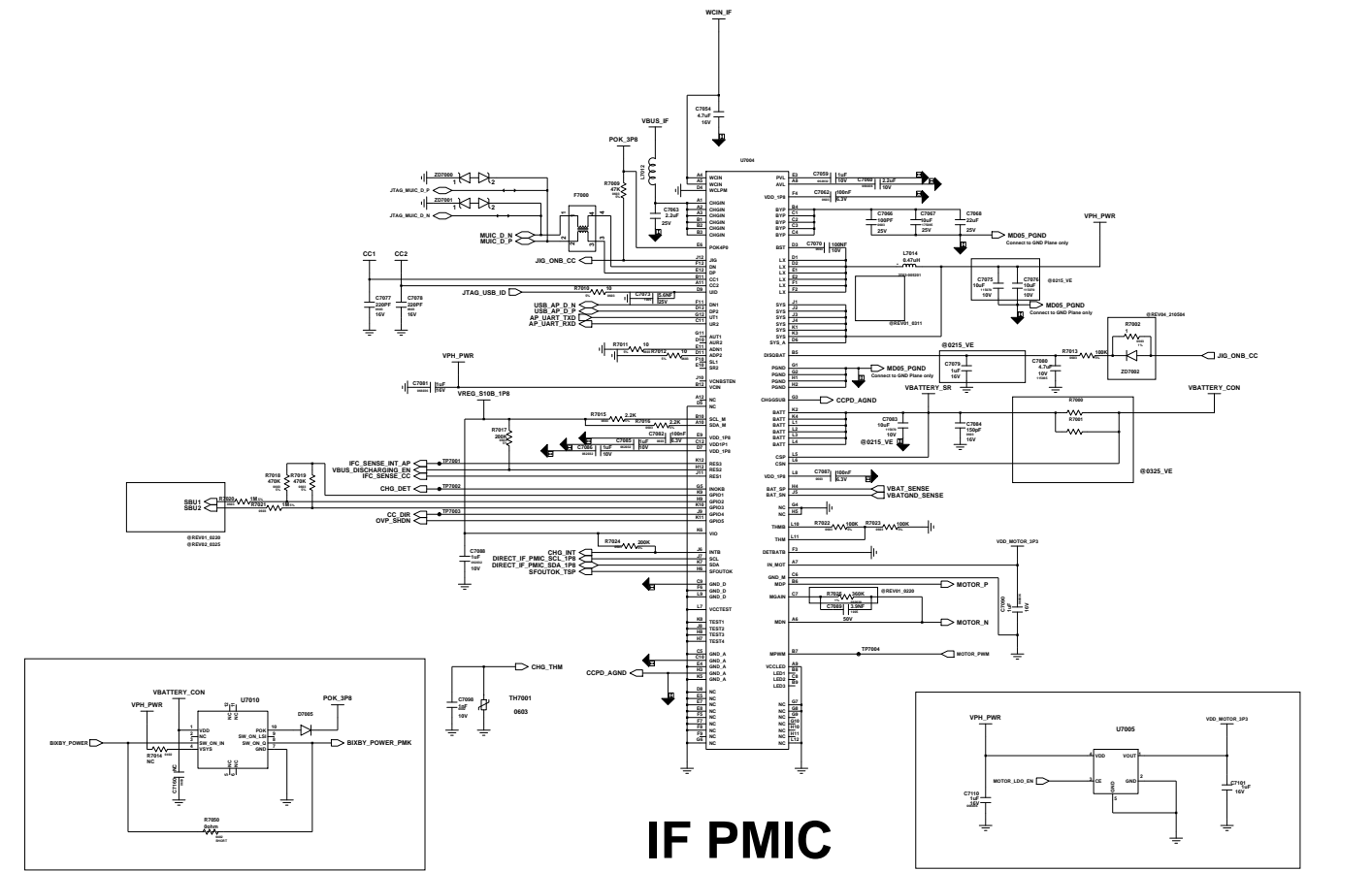
6G/128G	R6001
6G/256G	R6002
8G/128G	R6003
8G/256G	R6004

NA (U)	R6002
CAN (W)	R6004
CHN (O)	R6006

**!! HW workaround for PM8350 ES1 leakage issue !!**  
This components can be removed with EA2.0 or later PMICs

[illegible][illegible][illegible]

## Direct Charging

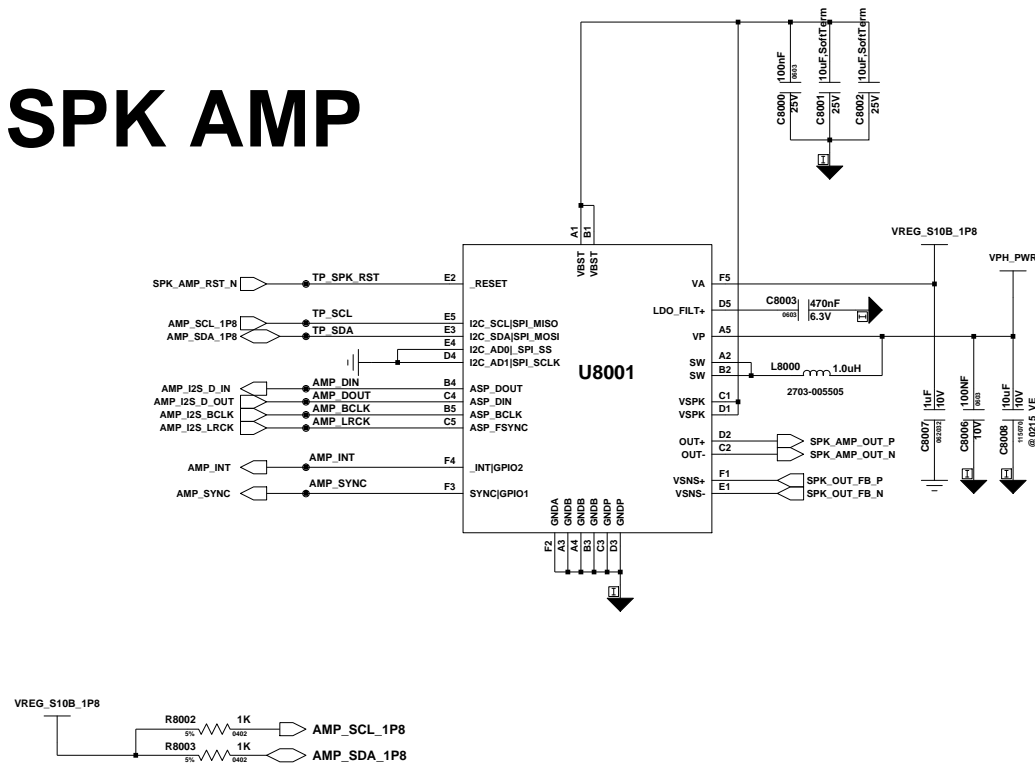


## IF PMIC

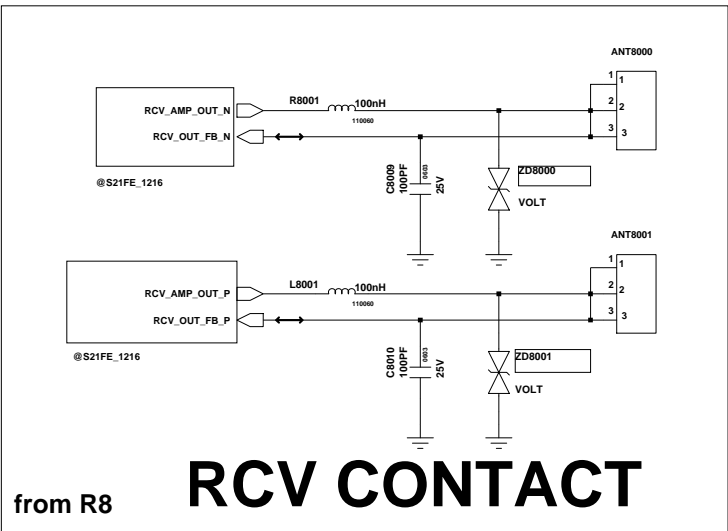
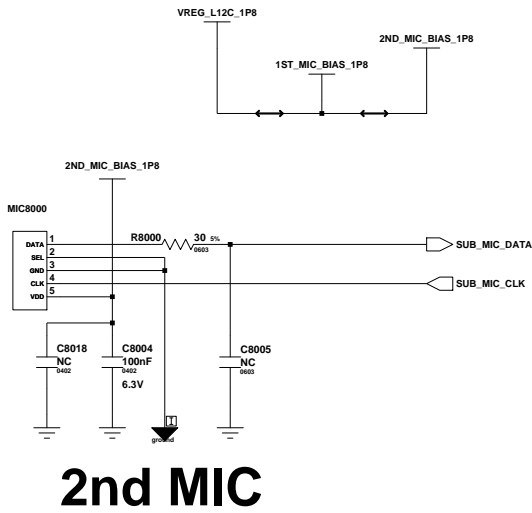
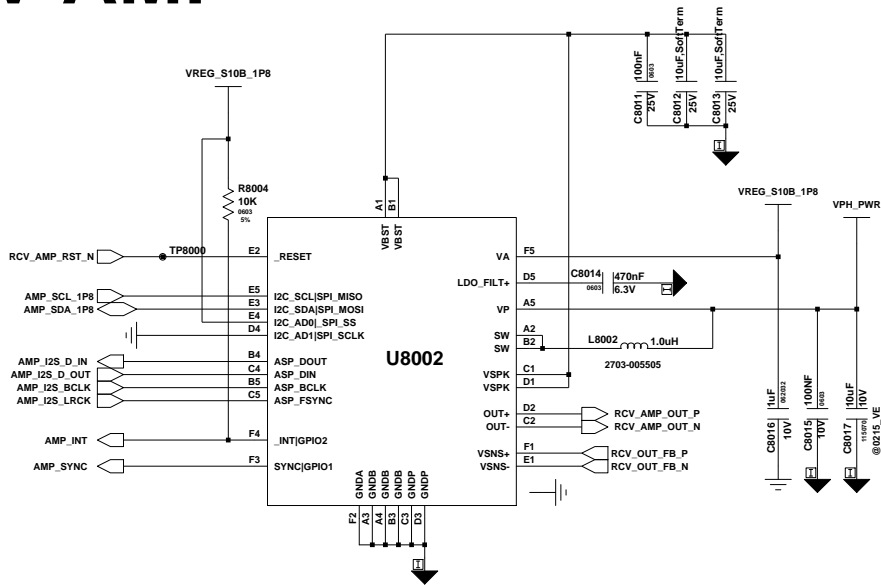
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# AUDIO PART

## SPK AMP

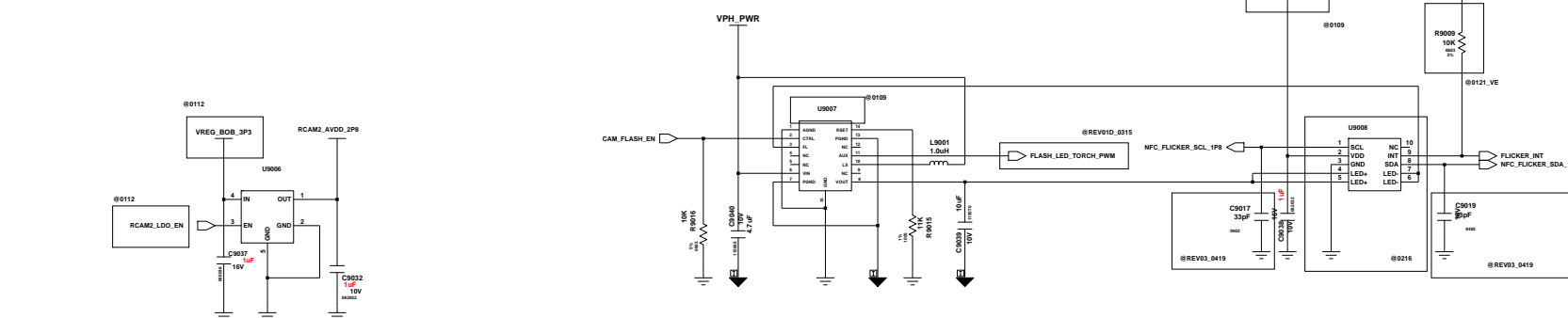
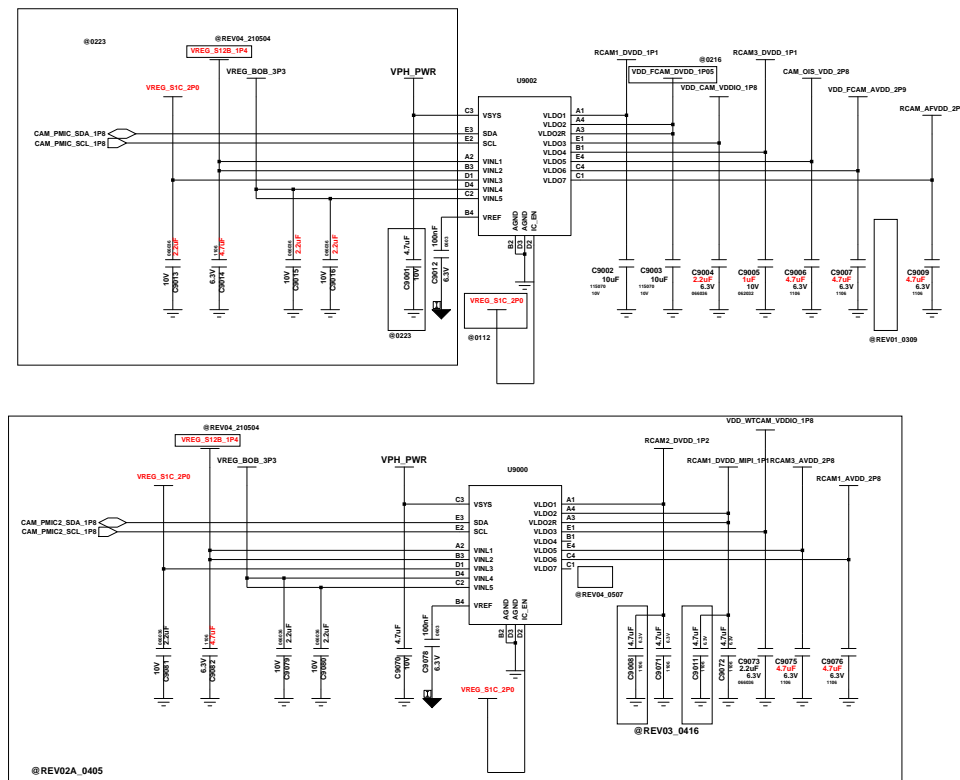


## RCV AMP

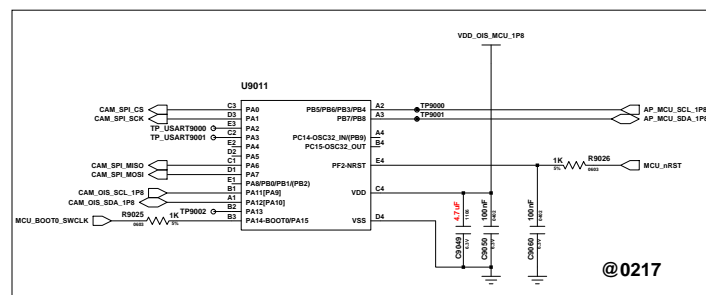


Engineer:	SEC	SAMSUNG ELECTRONICS	
Drawn by:	SEC		
R&D CHK:		TITLE:	Size: A2
DOC CTRL CHK:		U_SM8350	12 1 8 A
MFG ENGR CHK:		REV:	Page: 8

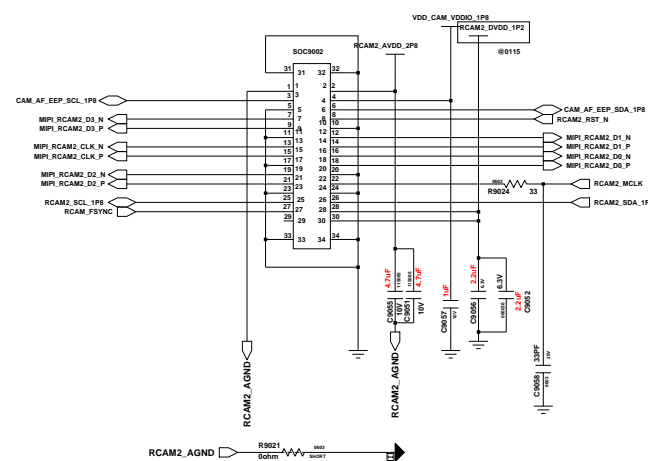
# CAM\_POWER



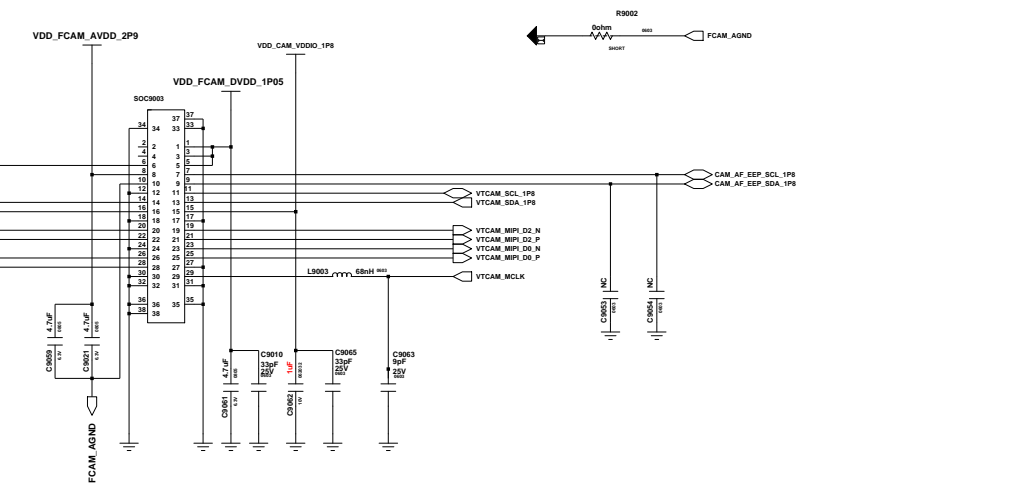
## CAMERA Flash Driver



## CAM MCU



## 12M SUPER WIDE CAM

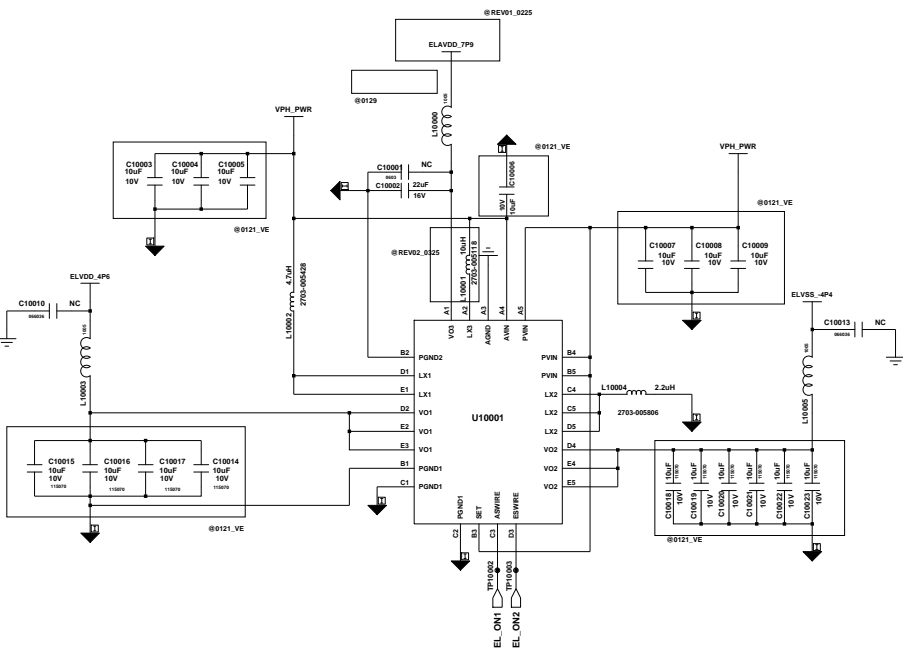


# FRONT\_32M CAMERA (32PIN) @REV04A

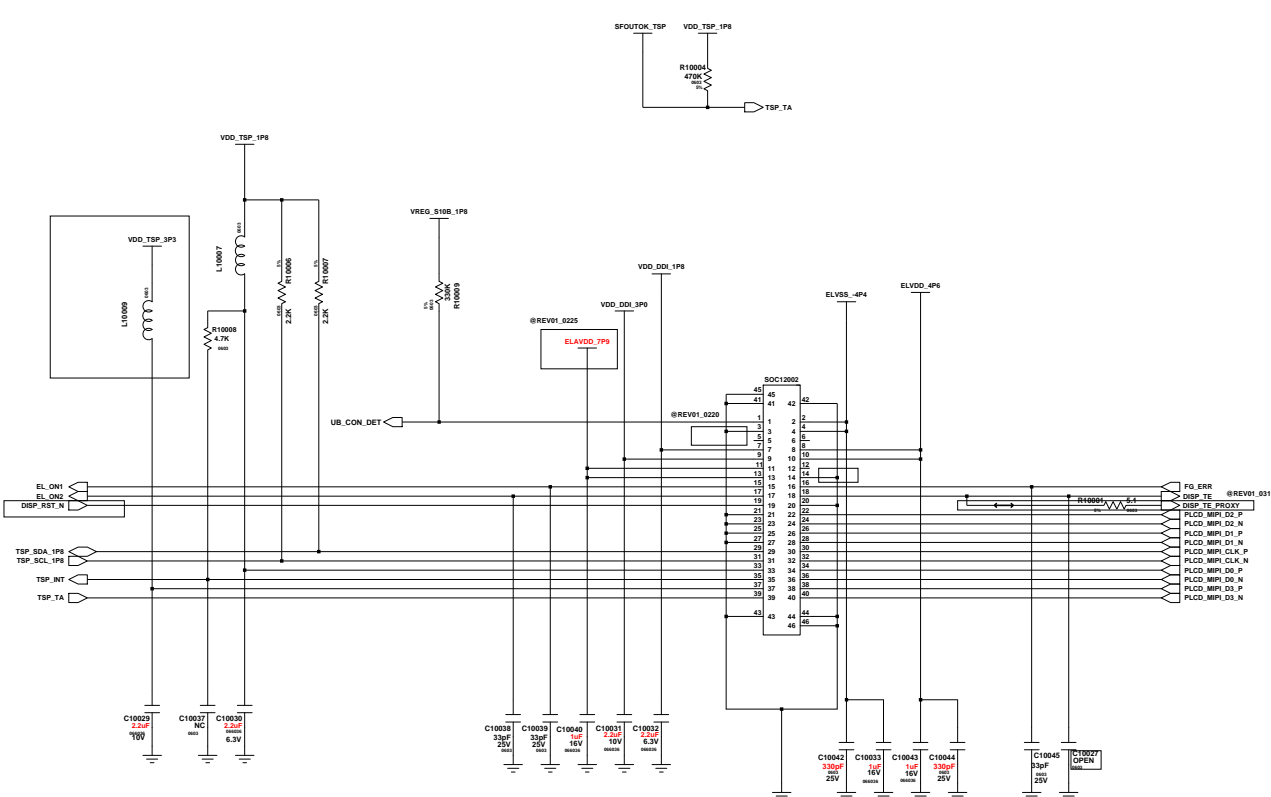
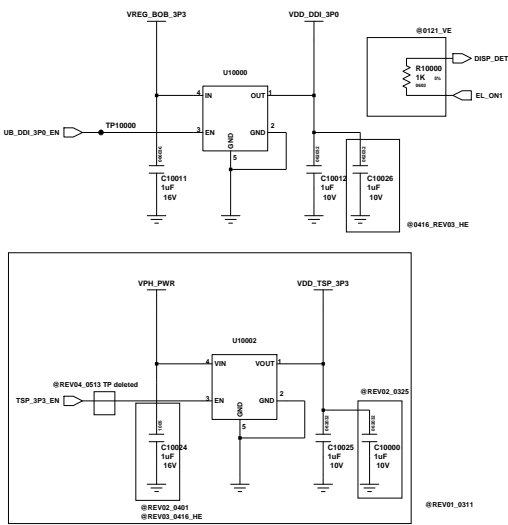
Engineer: SEC	<div style="display: flex; justify-content: space-between; align-items: center;"> <div style="border: 1px solid black; padding: 5px;">TITLE:</div> <div style="border: 1px solid black; padding: 5px;">Size A1</div> </div> <div style="text-align: center; font-size: 2em; font-weight: bold; margin-top: 10px;">SM-G780F</div>		
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R&D CHK:			
DOC CTRL CHK:			
MGF ENGR CHK:			
QA CHK:	REV:	Drawing Number:	Page:



# DISPLAY



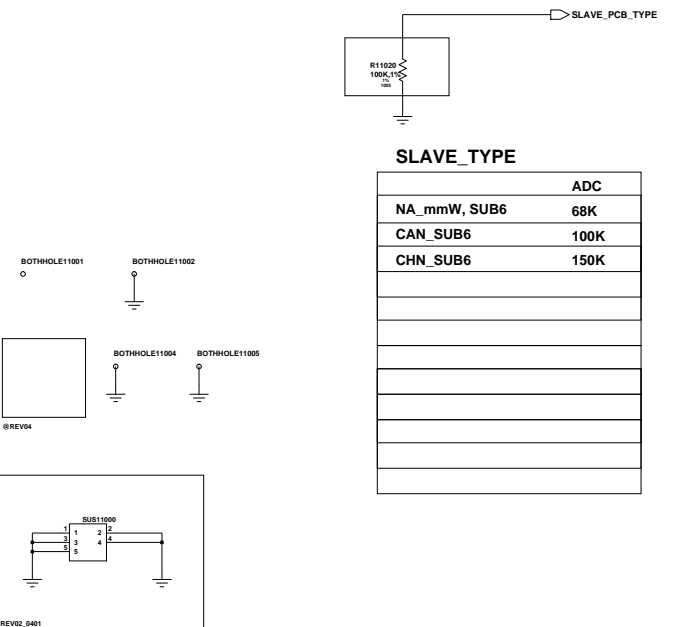
## DISPLAY PMIC



## DISPLAY CONNECTOR

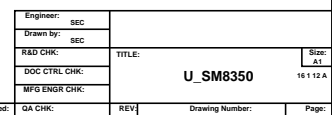


## BOSS HOLE & SHIELD CAN

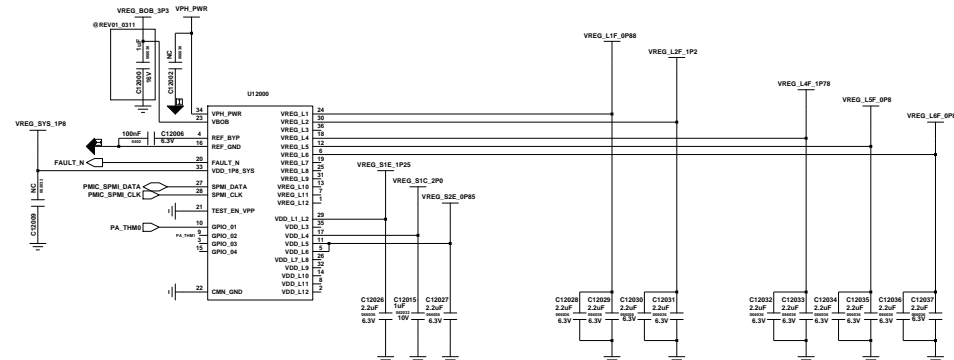
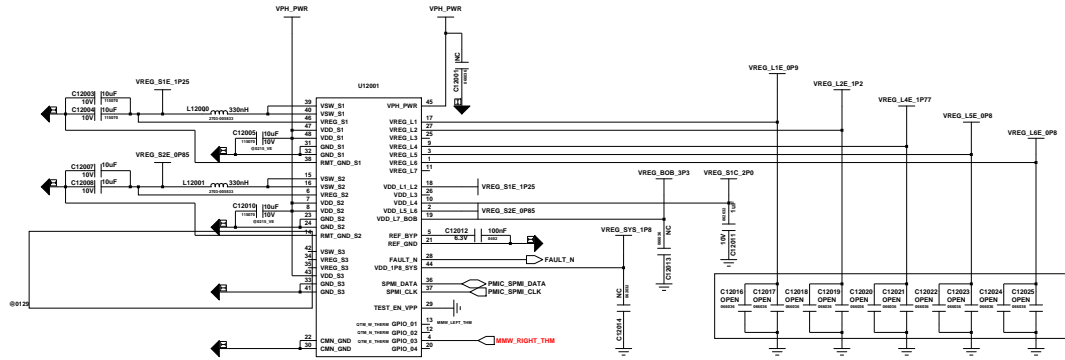


**@0115**

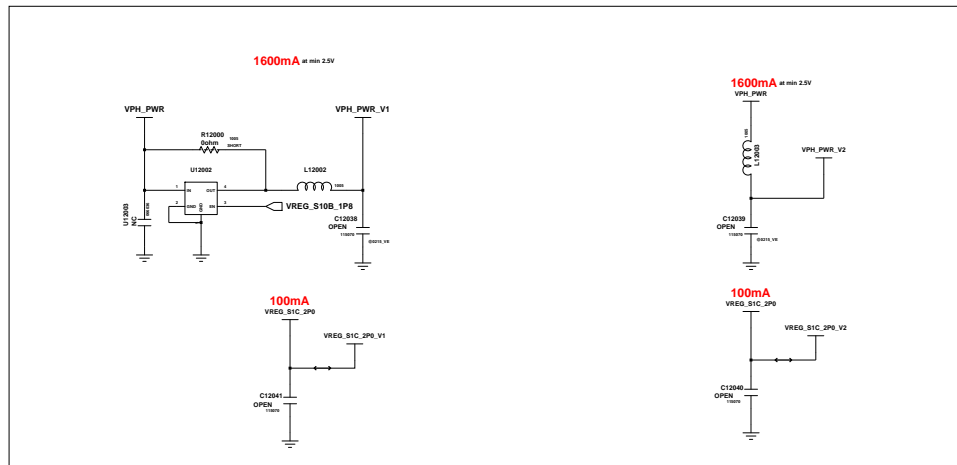
**CHECK PIN MAP**



# RF PMIC

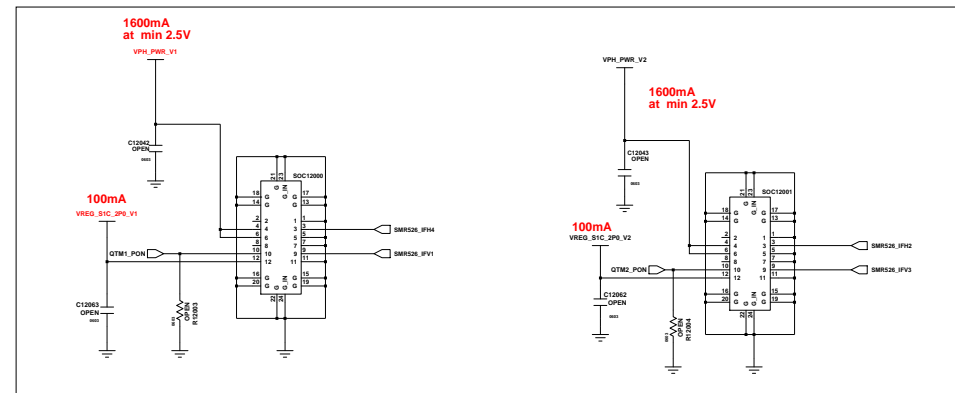
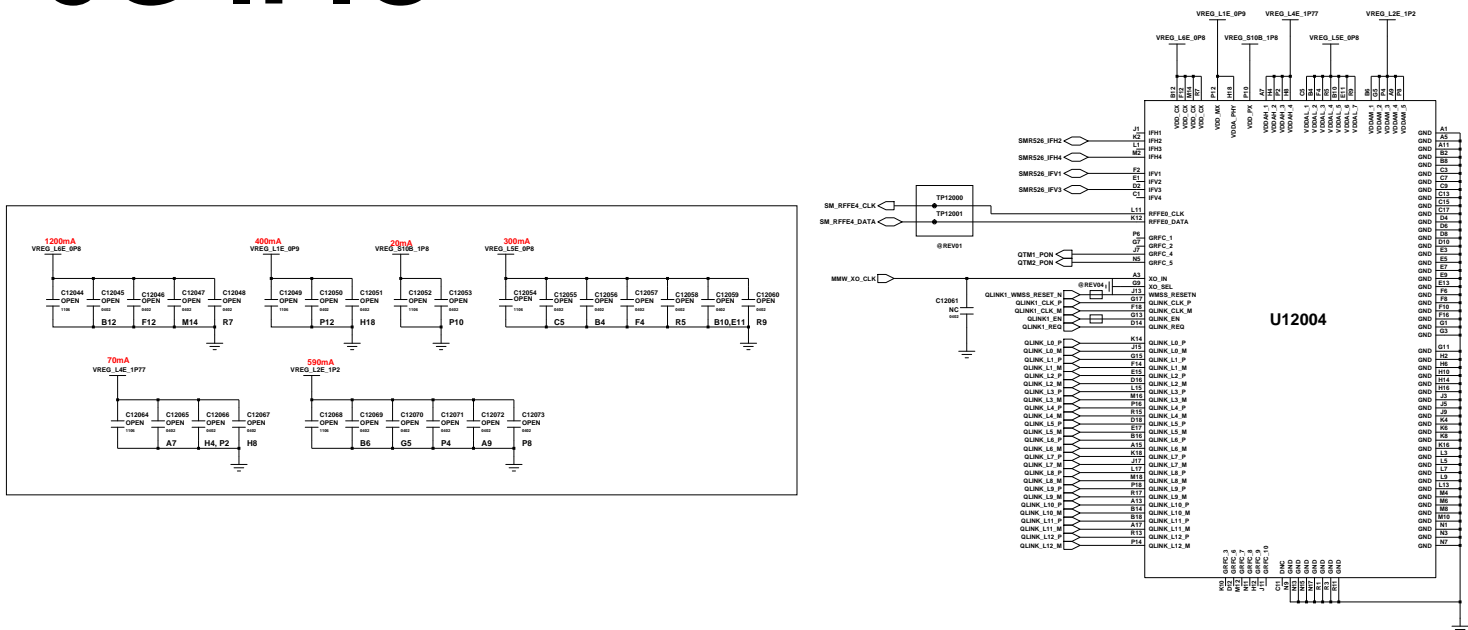


# PMR735B



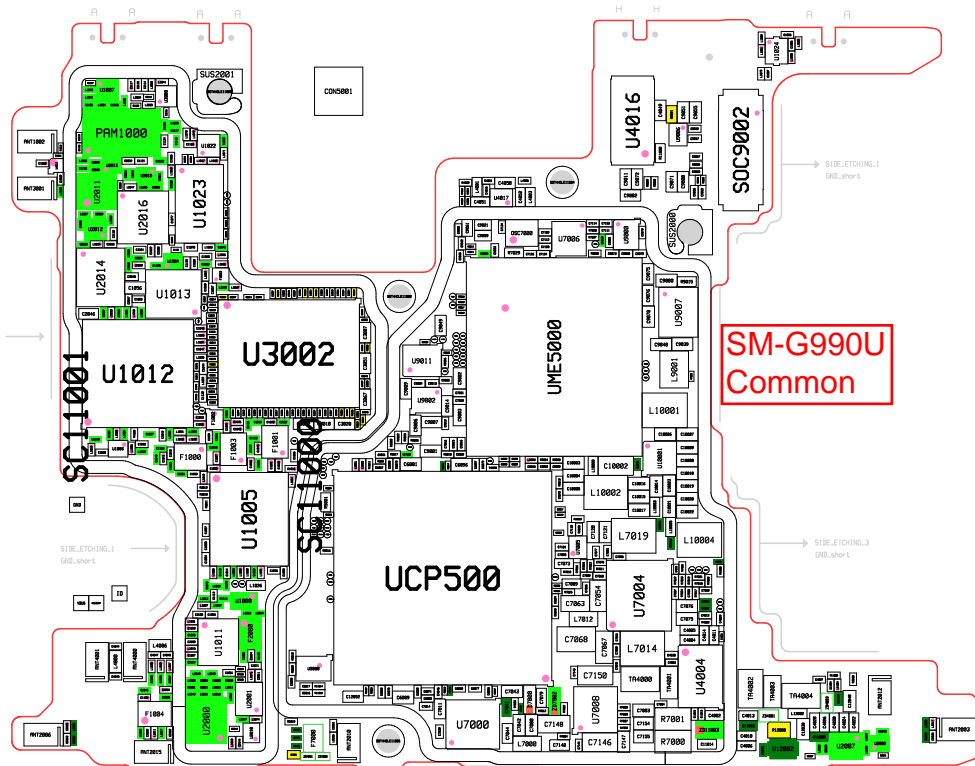
mmW\_ANT\_CONN (Left) mmW\_ANT\_CONN (Right)

# 5G IFIC



mmW\_ANT\_CONN (Left) mmW\_ANT\_CONN (Right)

Engineer:	SEC	SAMSUNG ELECTRONICS	
Drawn by:	SEC		
R&D CHK:		TITLE:  <b>U_SM8350</b>	Size: E
DOC CTRL CHK:			
MFG ENGR CHK:			
QA CHK:			
Changed by:	puz6	REV:	
Date Changed:		Drawing Number:	
Time Changed:		Page:	13



# SM-G990U Common

L\_3M1HOT3\_3B12  
2 ports\_DIO

L\_3M1HOT3\_3B12  
2 ports\_DIO

L\_3M1HOT3\_3B12  
2 ports\_DIO

L\_3M1HOT3\_3B12  
2 ports\_DIO

①

②