

# SM-G991U\_M\_REV0.6

2020. 10.14

- sheet01 : RF (1/1)**
- sheet02 : RF (2/2)**
- sheet03 : BT/WIFI**
- sheet04 : SENSORS, NFC, MFC**
- sheet05 : SM8350, UFS, JTAG**
- sheet06 : SM8350 POWER/GND**
- sheet07 : PM8350, PM8350C, PMK8350, IF PMIC, OVP**
- sheet08 : AUDIO**
- sheet09 : CAMERA**
- sheet10 : Display**
- sheet11 : PMR735A, PMR735B, SMR526**
- sheet12 :**
- sheet13 : INTERPOSER**

Engineer:	
Drawn by:	
REQ CHK:	
DOC CTRL CHK:	
MPG ENGR CHK:	

## on SLAVE PCB

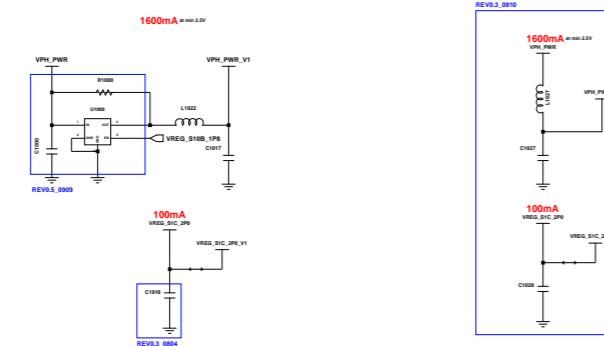
MAIN1 ANT  
(LB,MB,JPN B21)

MAIN2 ANT

**MAIN3 ANT**  
**( PRX HB MIMO , PRX n79 MIMO )**

MAIN4 ANT  
( PRX MB MIMO , PRX n77/n78 MIMO )

# Radiation



MAIN FRC

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

**LB LPAMID**  
**(B5/8/12/13/14/17/20/26/28/29/71, G850/900, BC0/10)**

# on SLAVE PCB

**OMH LPAMID**  
**(B1/2/3/4/7/25/30/34/38/39/40/41/66, G1800/1900, BC1)**

## on SLAVE PCB

SMD option ( B21 )

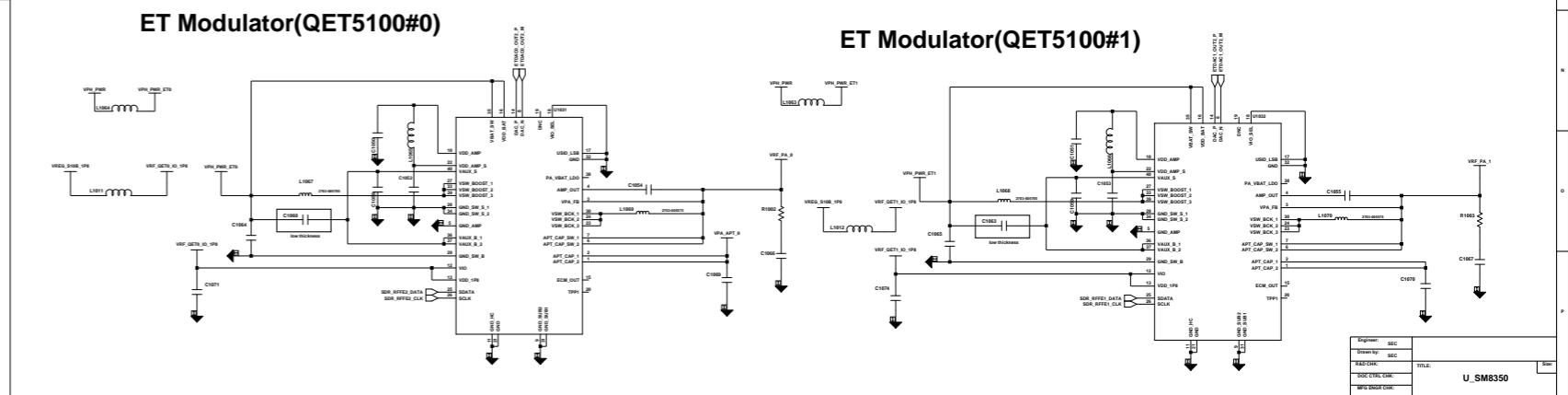
UHB  
(B48, n77/78/79)

## on SLAVE PCB

2G\_PA

## on SLAVE PCB

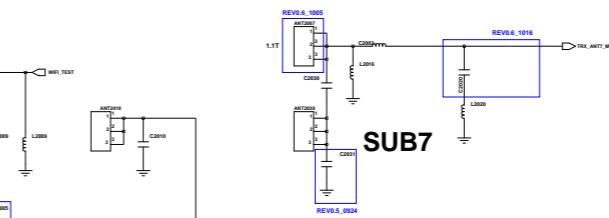
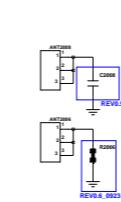
# Conduction



# TRANSCEIVER(SDR865)

## DRX\_ANT Radiation

**SUB ANT1**  
(LB,MB,HB)



on SLAVE PCB

**SUB4**  
(GPS L1, N77, N78)

L202

1.5T

C106

REV0.5\_004

REV0.5\_003

REV0.5\_002

REV0.5\_001

REV0.5\_000

REV0.5\_005

REV0.5\_016

REV0.5\_009

REV0.5\_008

REV0.5\_007

REV0.5\_006

REV0.5\_005

REV0.5\_015

REV0.5\_014

REV0.5\_013

REV0.5\_012

REV0.5\_011

REV0.5\_010

REV0.5\_009

REV0.5\_008

REV0.5\_007

REV0.5\_006

REV0.5\_005

REV0.5\_004

REV0.5\_003

REV0.5\_002

REV0.5\_001

REV0.5\_000

REV0.5\_005

REV0.5\_016

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REV0.5\_008

REV0.5\_007

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REV0.5\_005

REV0.5\_004

REV0.5\_003

REV0.5\_002

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REV0.5\_004

REV0.5\_003

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REV0.5\_009

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REV0.5\_006

REV0.5\_005

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REV0.5\_003

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REV0.5\_000

REV0.5\_005

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REV0.5\_008

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REV0.5\_009

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REV0.5\_006

REV0.5\_005

REV0.5\_004

REV0.5\_003

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REV0.5\_000

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REV0.5\_016

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REV0.5\_014

REV0.5\_013

REV0.5\_012

REV0.5\_011

REV0.5\_010

REV0.5\_009

REV0.5\_008

REV0.5\_007

REV0.5\_006

REV0.5\_005

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REV0.5\_003

REV0.5\_002

REV0.5\_001

REV0.5\_000

REV0.5\_005

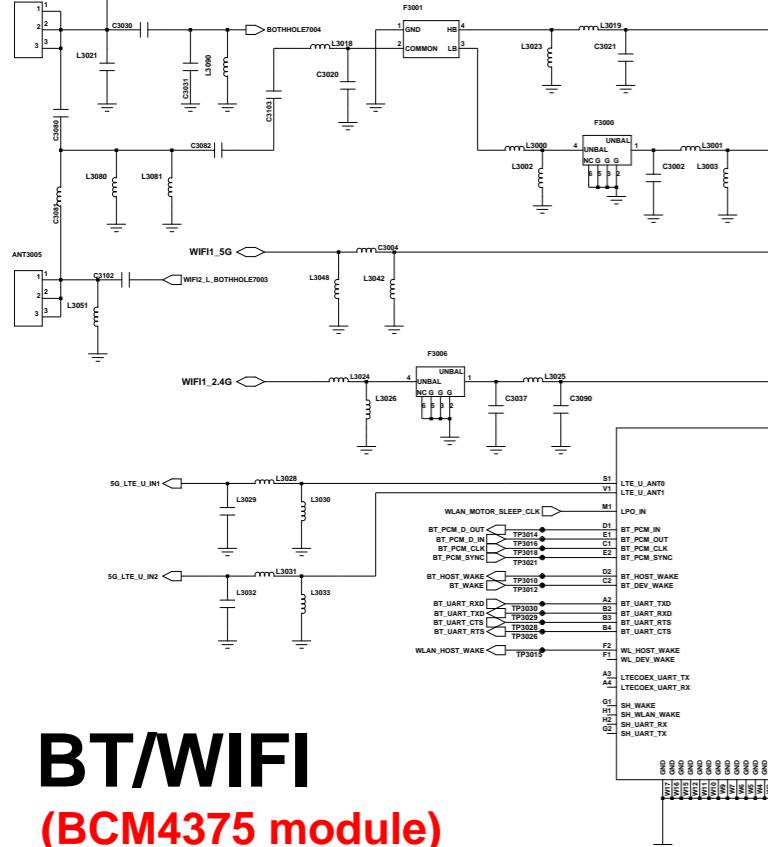
REV0.5\_016

REV0.5\_009

REV0.5\_008

# Connectivity

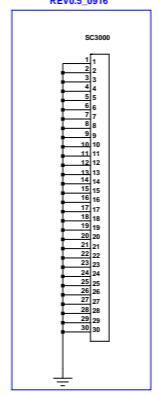
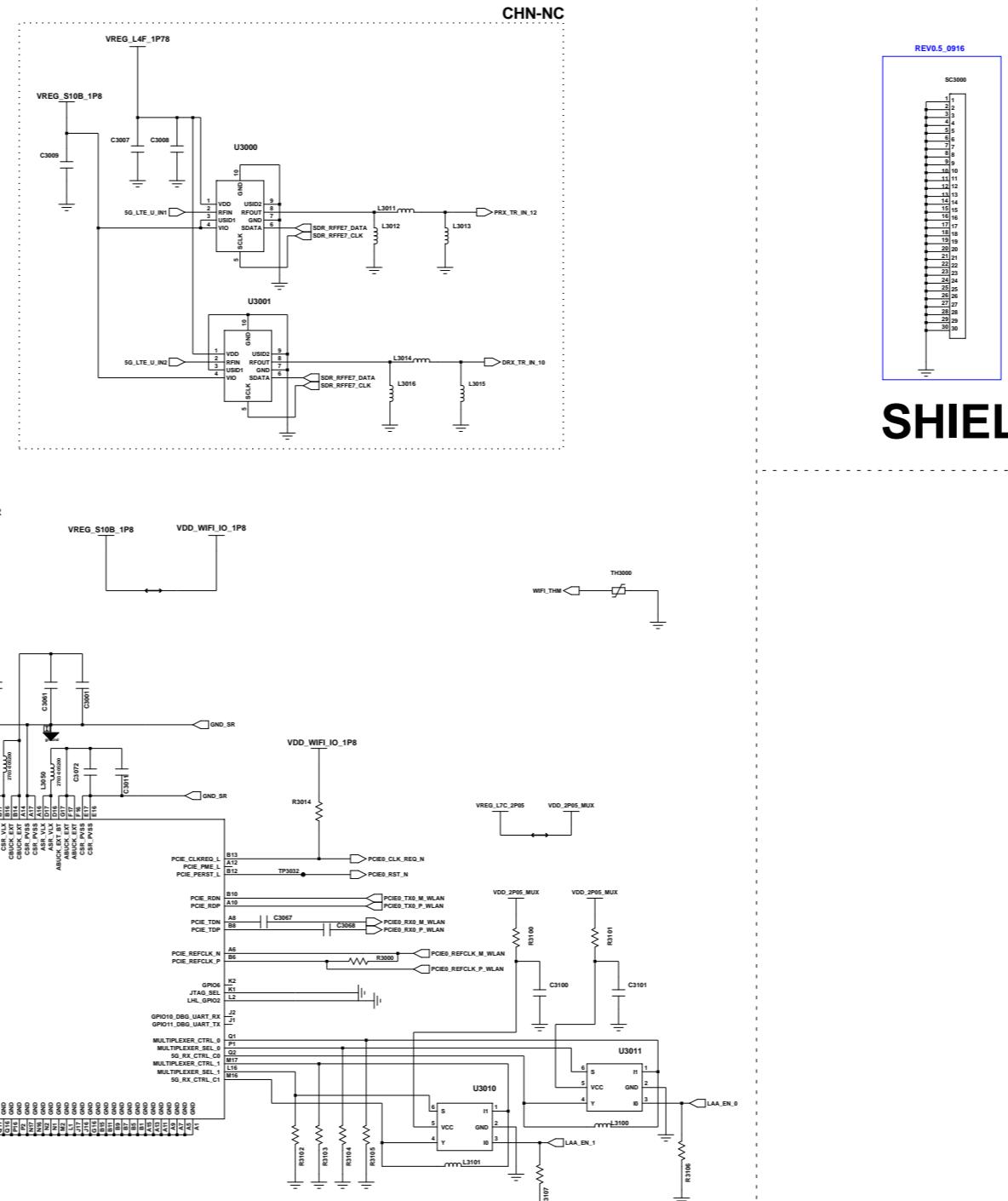
## SUB5 (WiFi2 2.4G, 5G)



**BT/WIFI  
(BCM4375 module)**

on SLAVE PCB

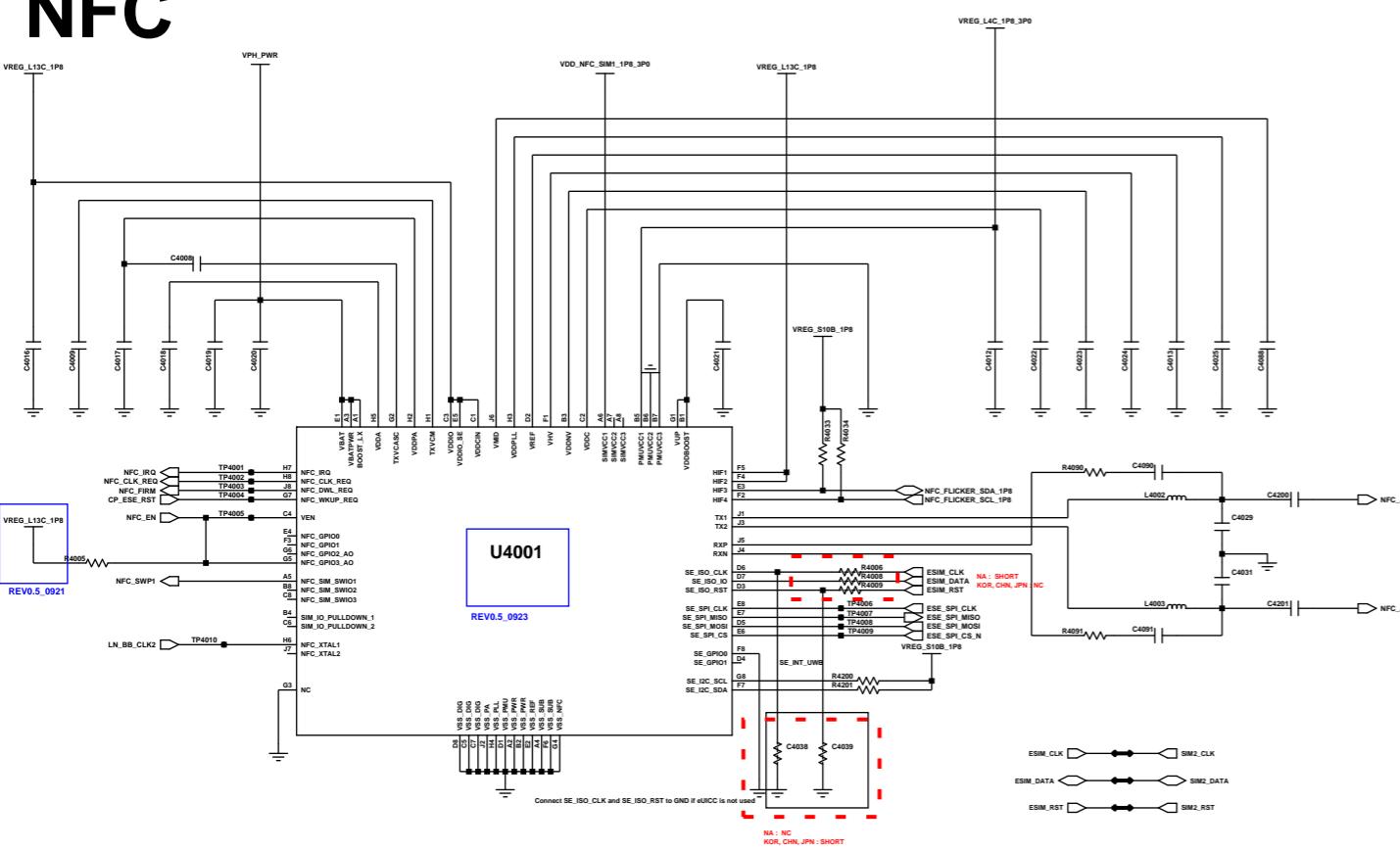
Upper Ant. (TBD)



**SHIELDCAN**

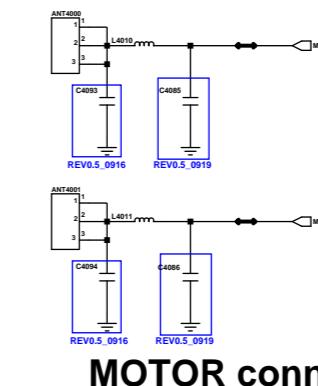
# Power

## NFC



# System

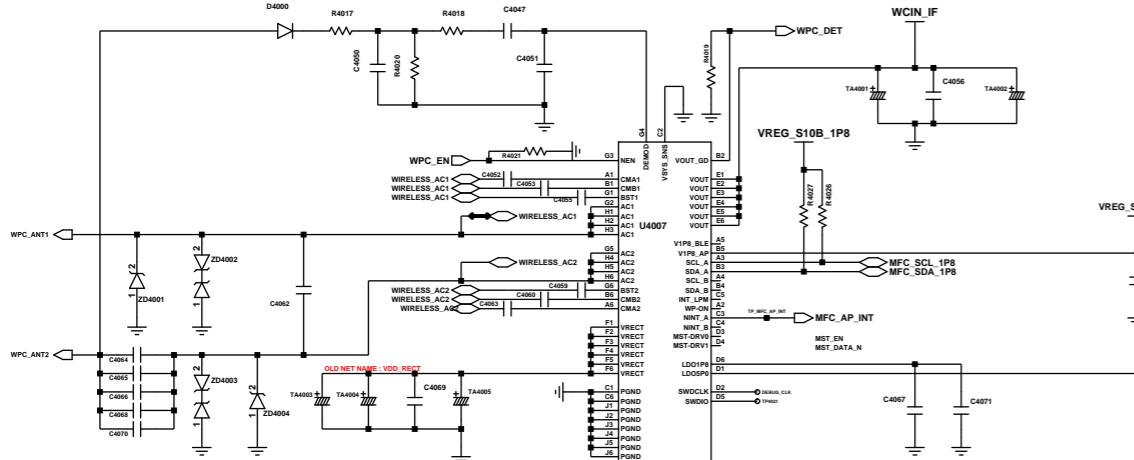
## MOTOR DRV IC



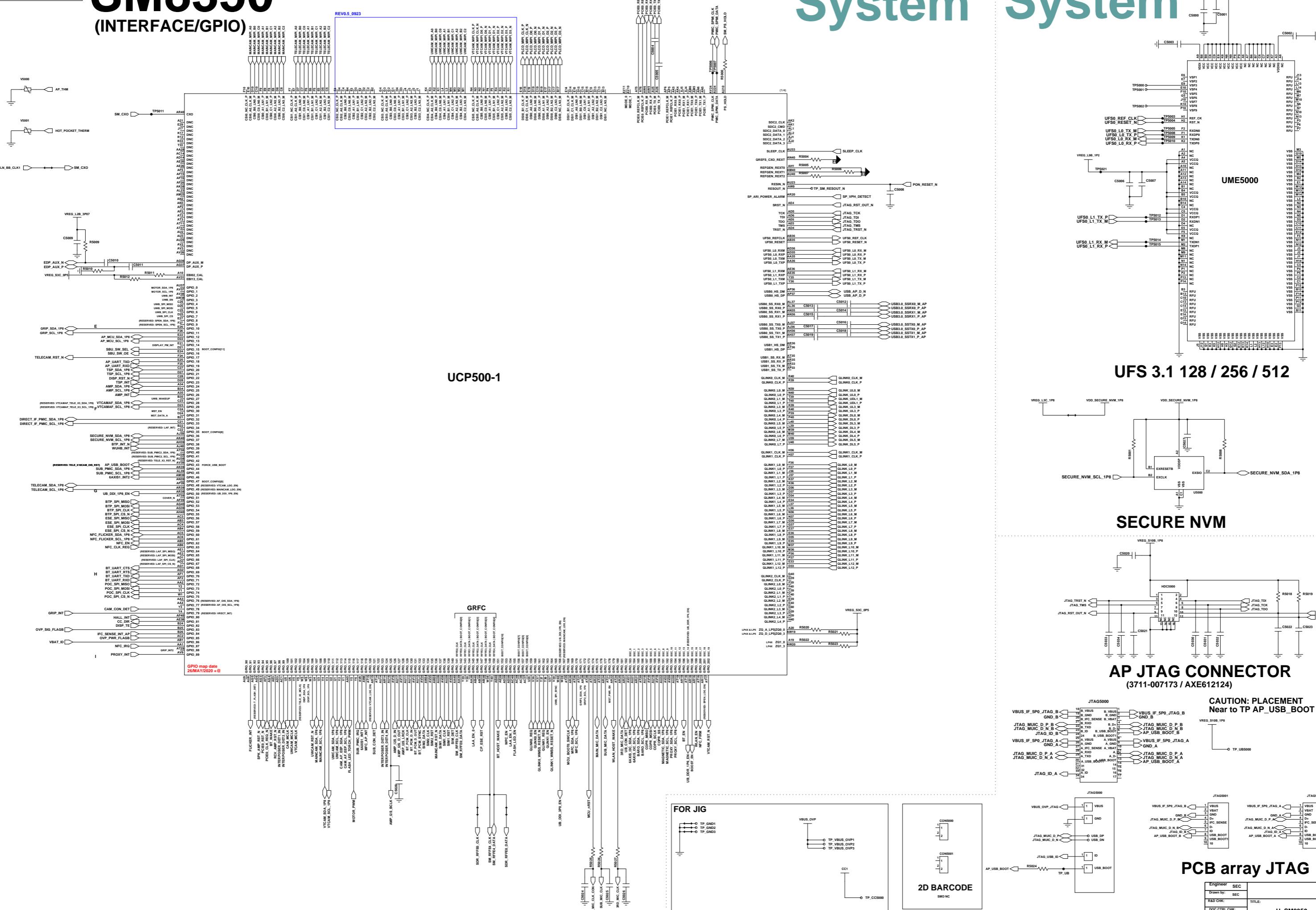
on SLAVE PCB

## W/C CONNECTOR

# Power



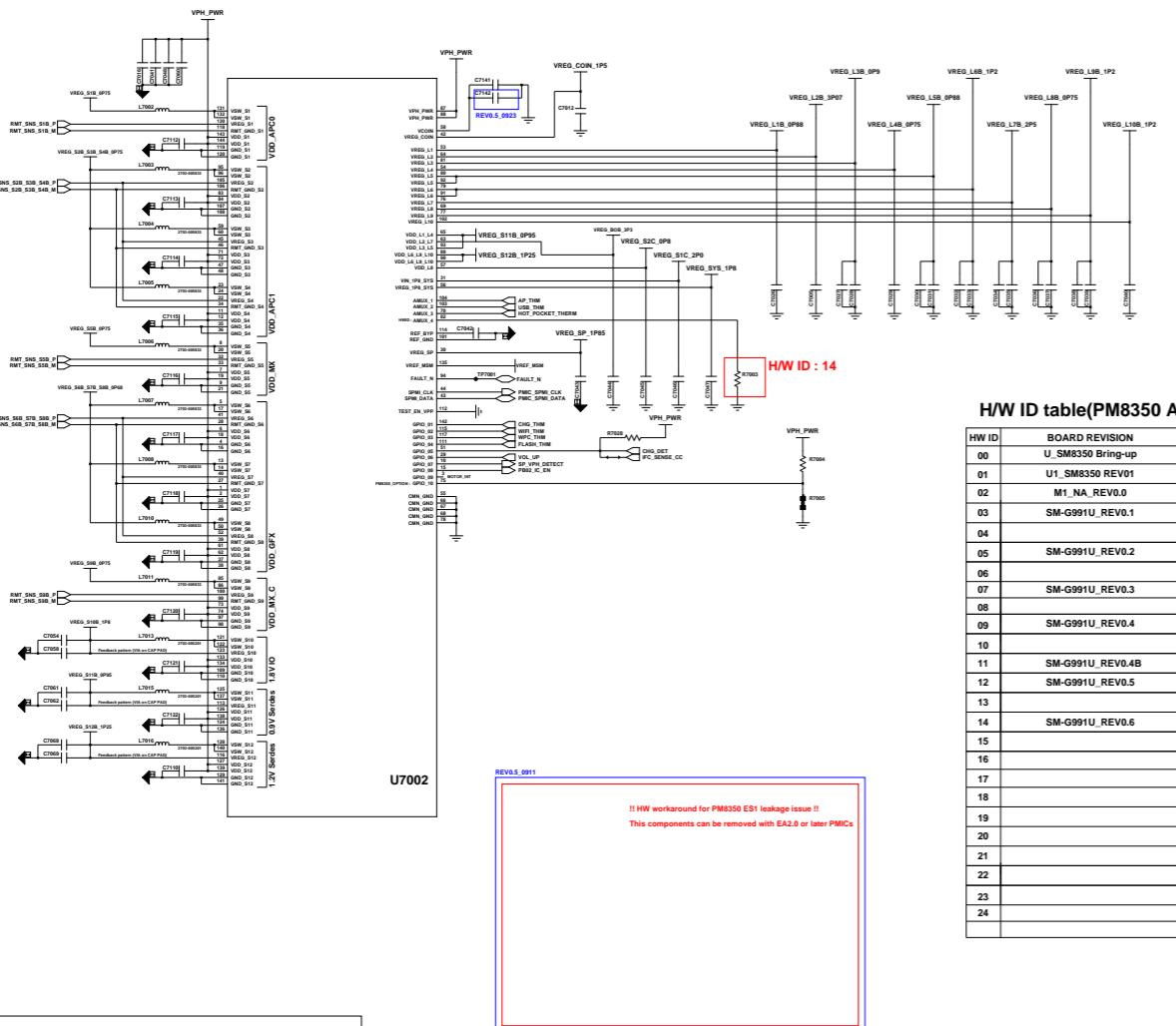
# SM8350 (INTERFACE/GPIO)



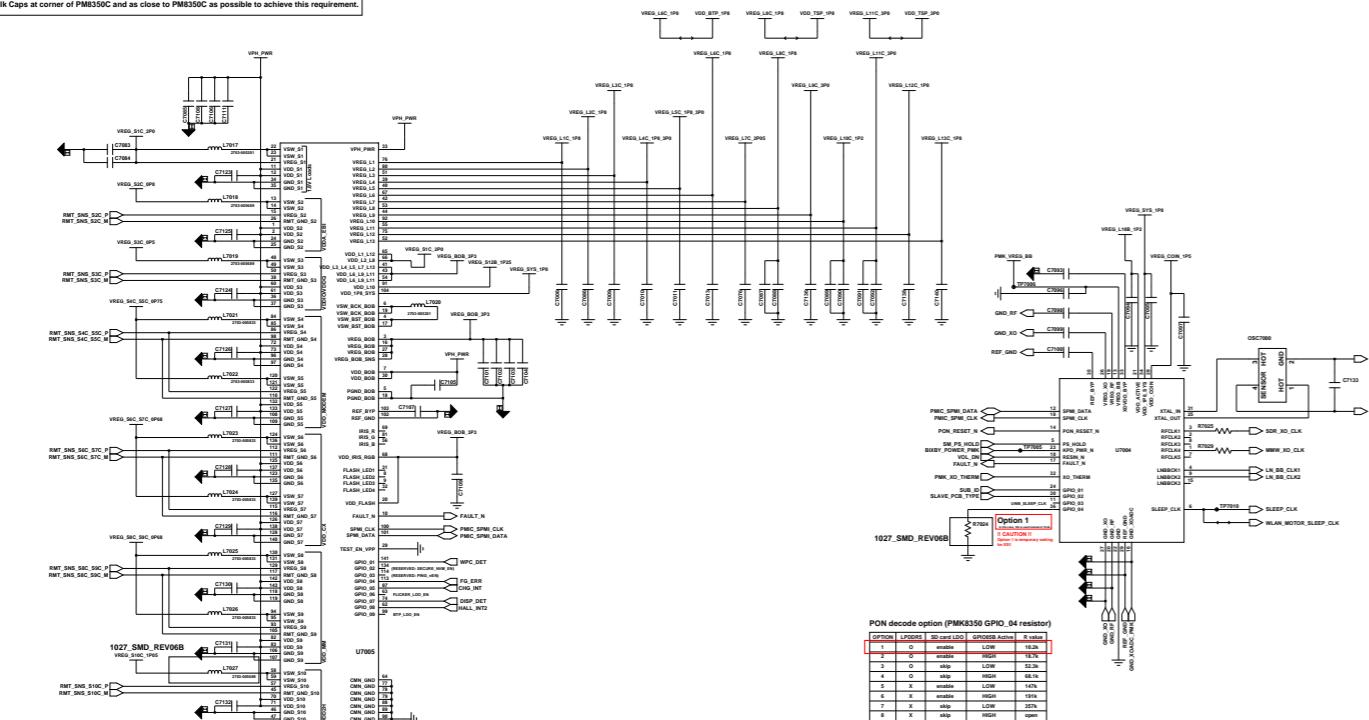


# AP PMIC set & CLK Generator

**!! CAUTION !!**  
Place Cin 10uF Bulk Caps at corner of PM8350 and as close to PM8350 as possible to achieve this requirement.

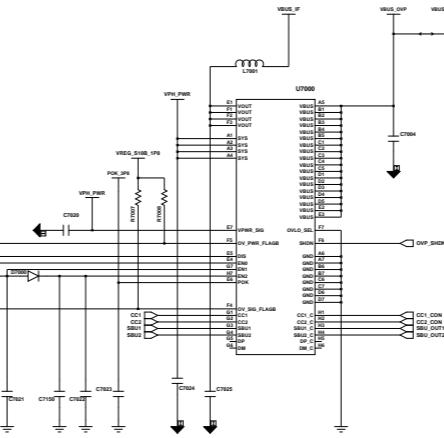


**!! CAUTION !!**  
Place Cin 10uF Bulk Caps at corner of PM8350C and as close to PM8350C as possible to achieve this requirement.

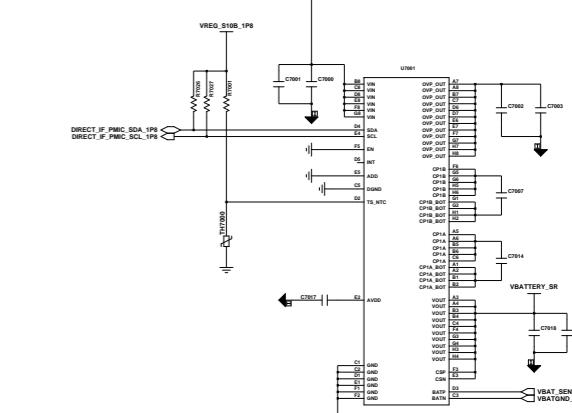


# Power System

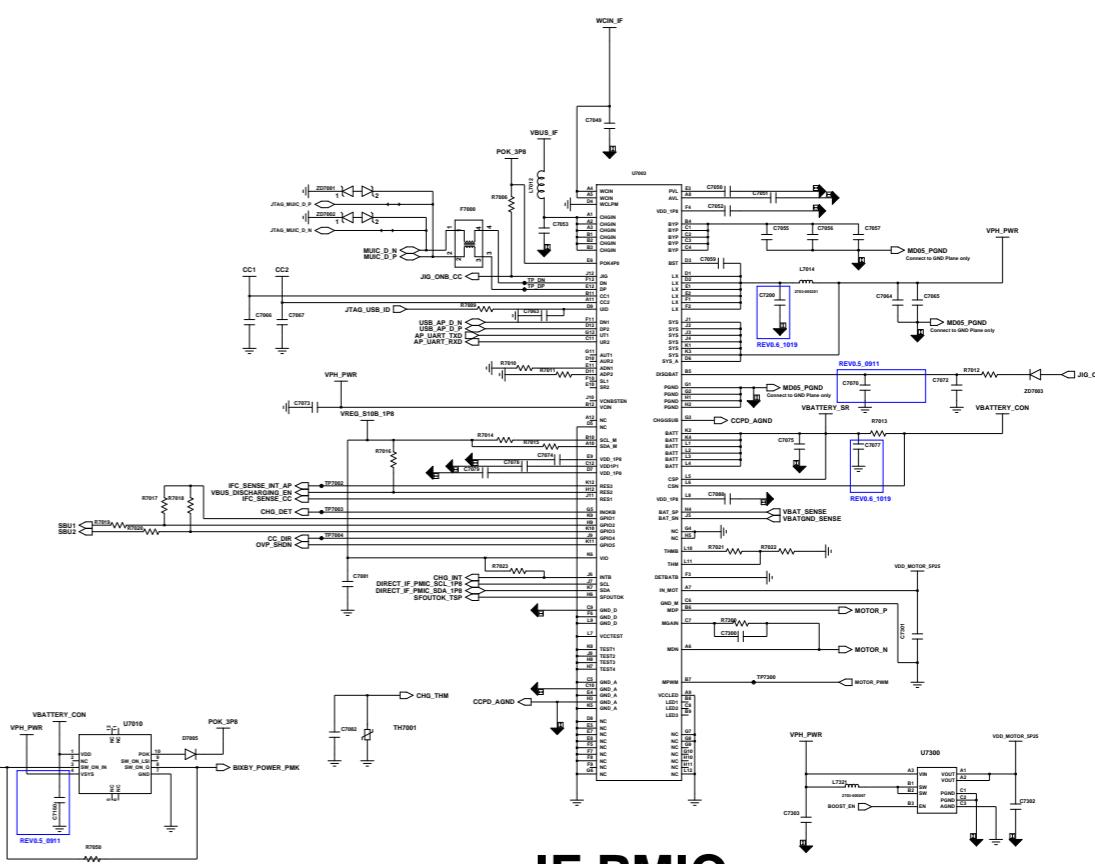
# Power



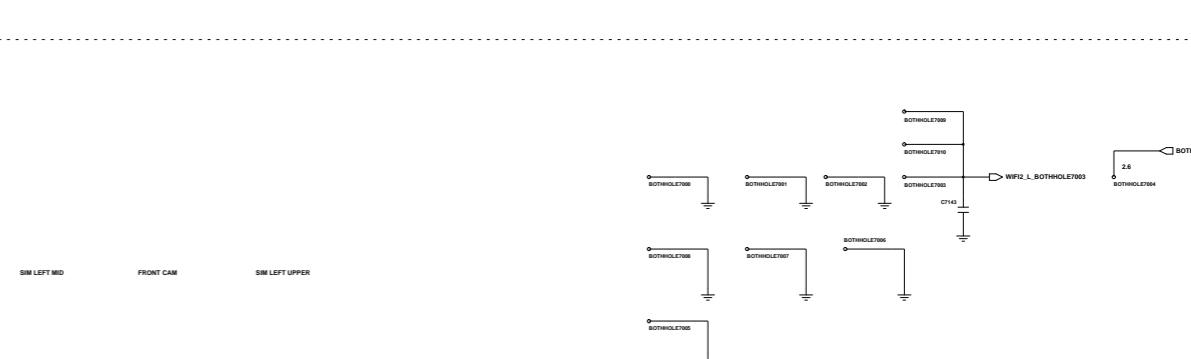
OVP LS



# Direct Charging



IF PMIC



CC

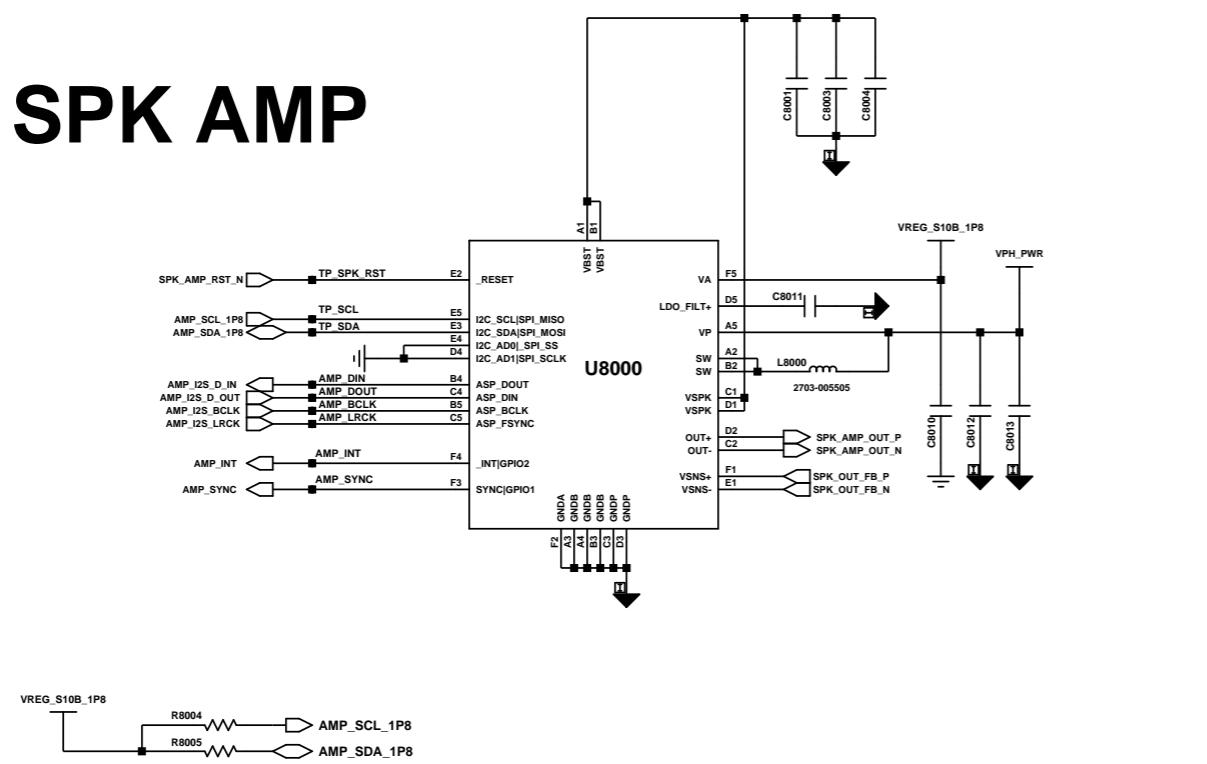
ESD POROM

BOSS HOLE

# AUDIO PART

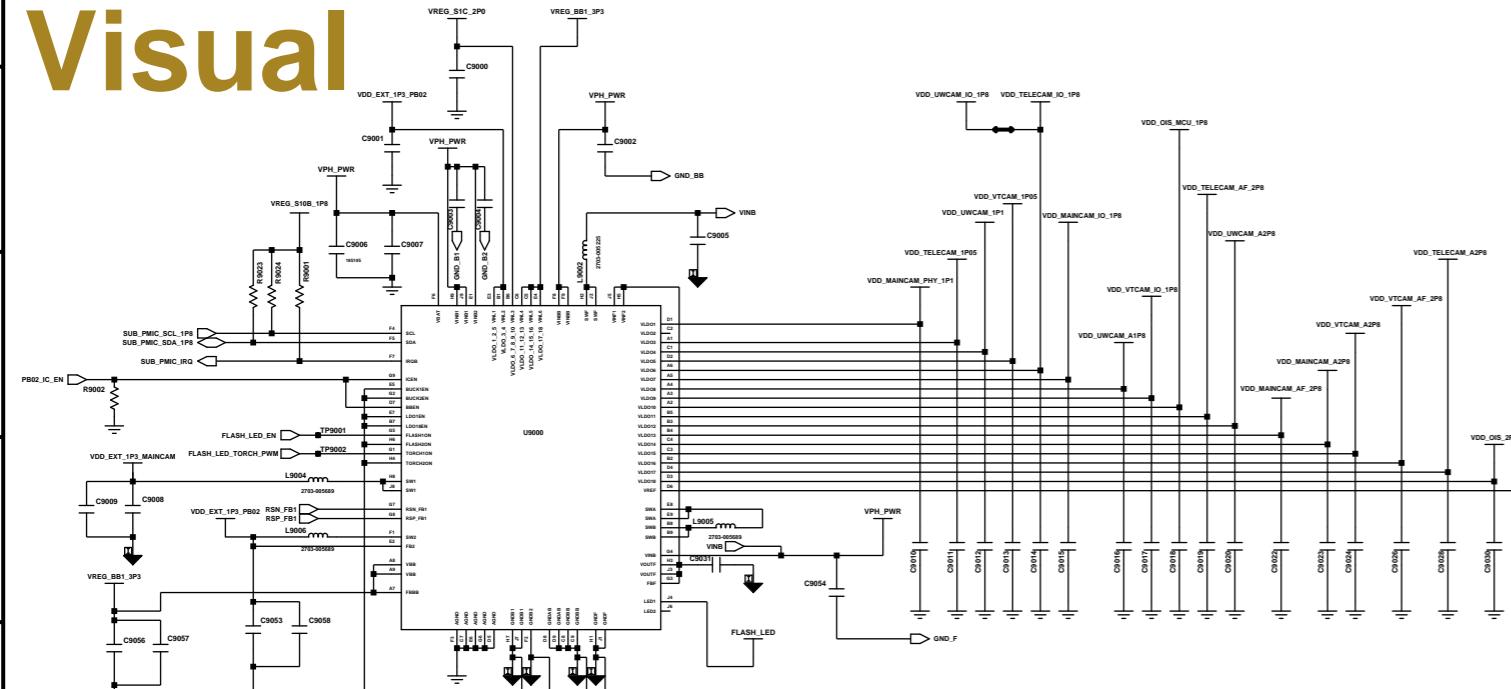
# AUDIO

## SPK AMP

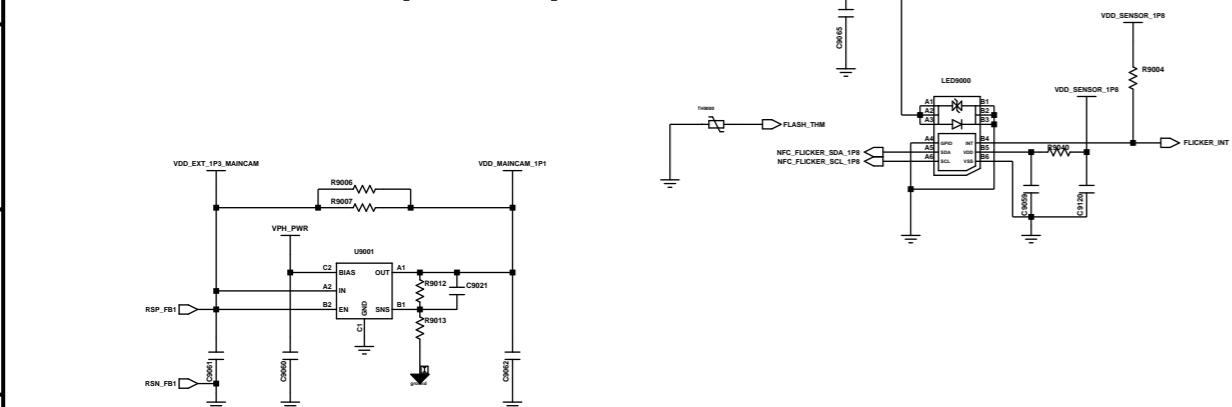


# Camera Powe

# Visual



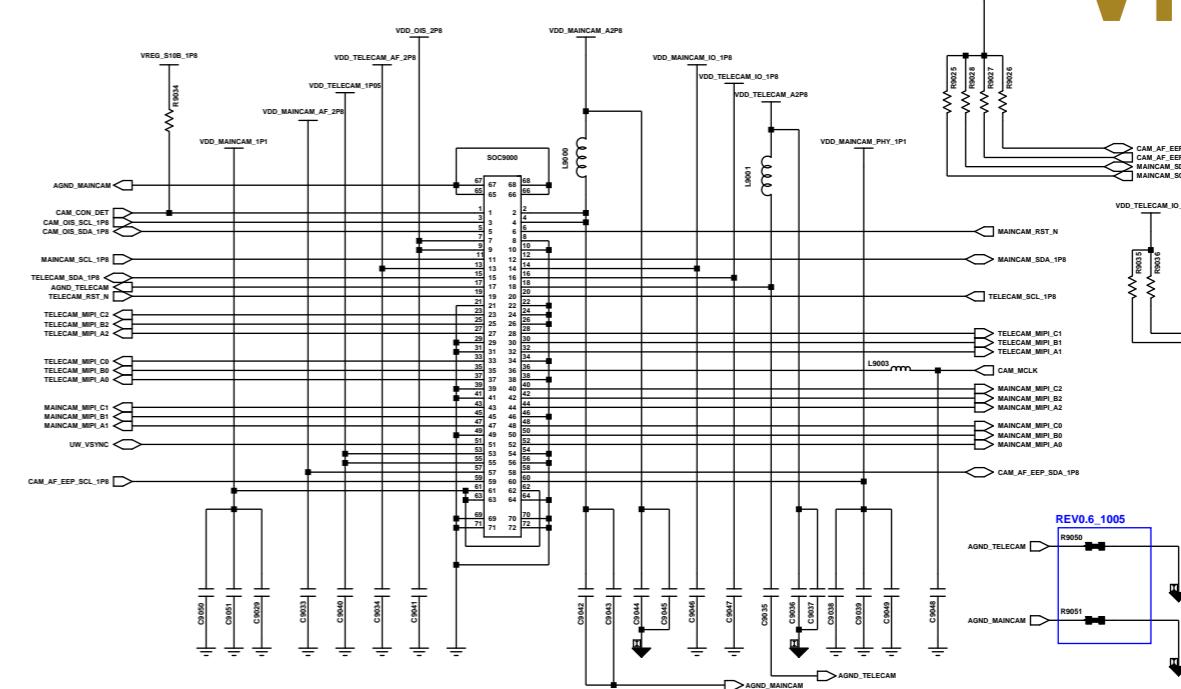
# CAM PMIC (PB02)



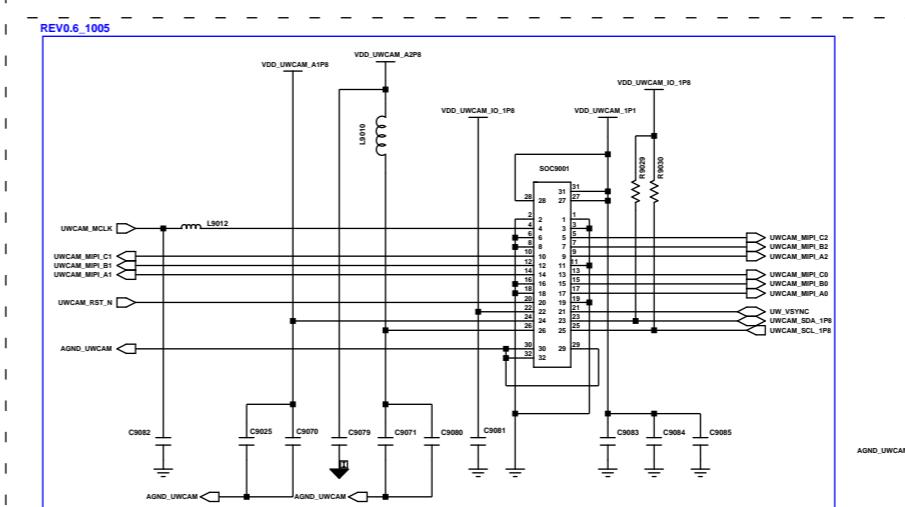
# MainCAM LDO

## Camera connector

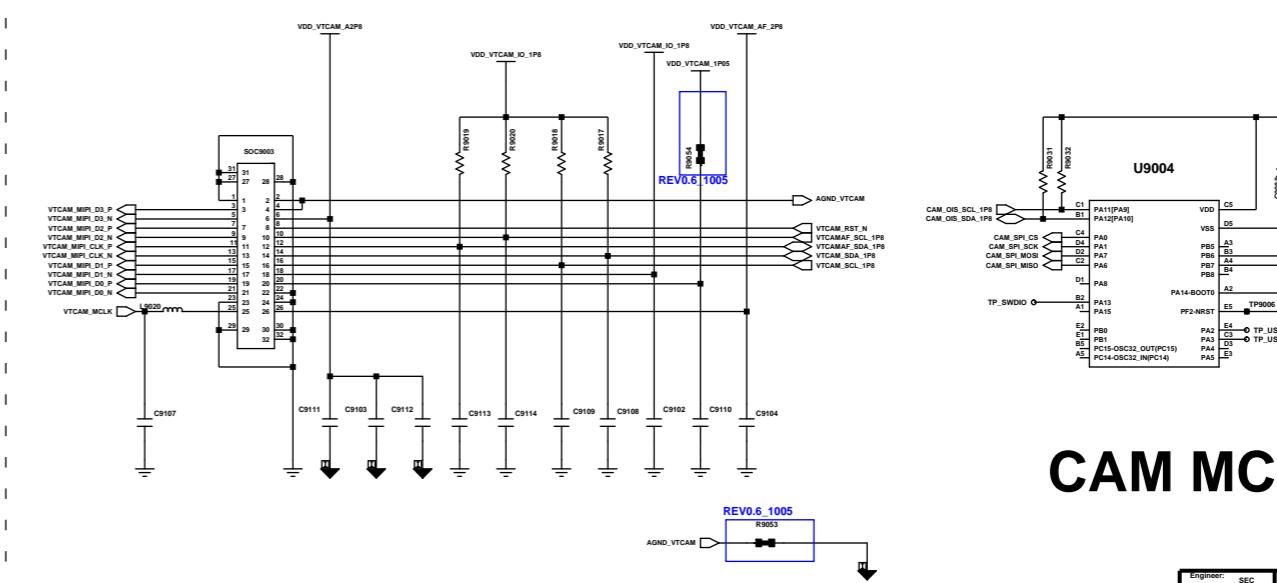
# Visual



## DUAL CAM CONN



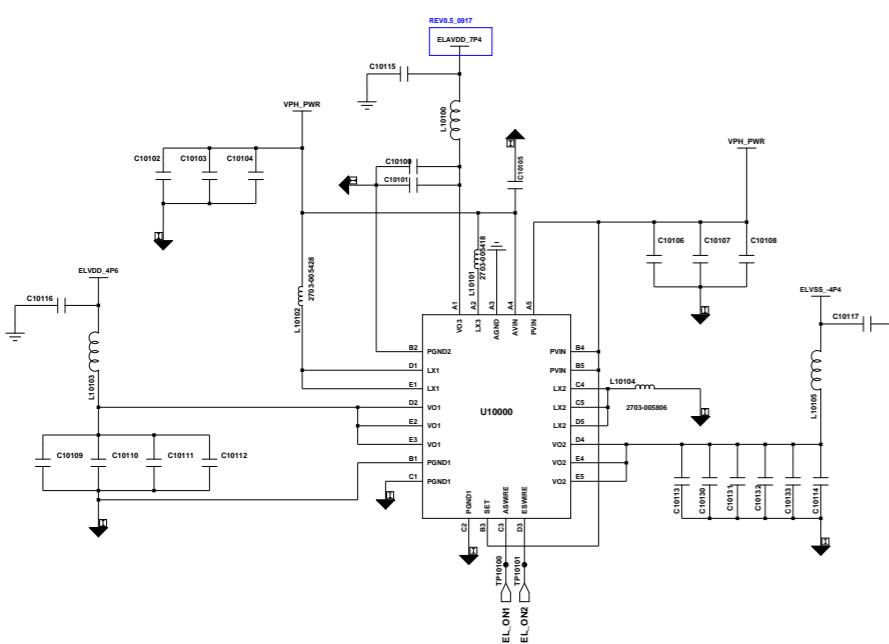
# ULTRA WIDE CAM



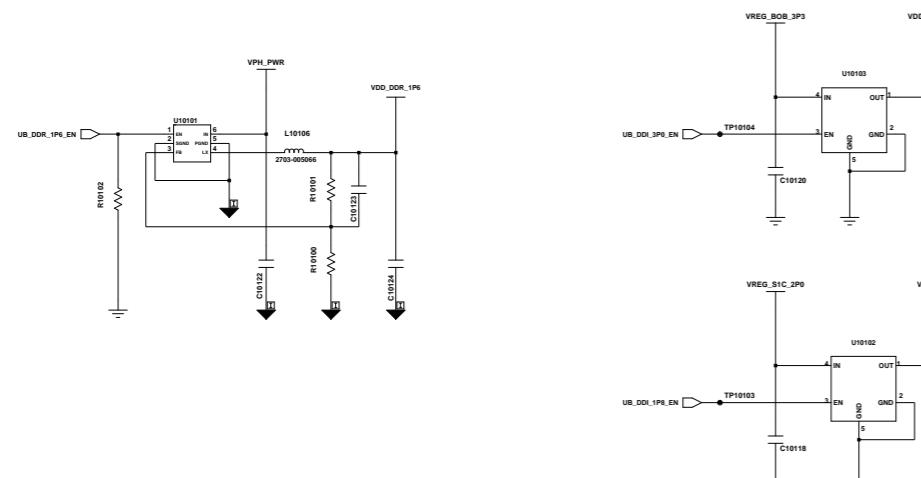
## **FRONT CAM(10M SINGLE)**

# DISPLAY

# Visual



# DISPLAY PMIC



### on SLAVE PCB

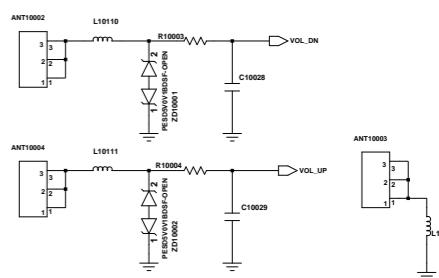
# DISPLAY CONNECTOR

## IF SUB PBA Conn (TBD)

# System

## on SLAVE PCB

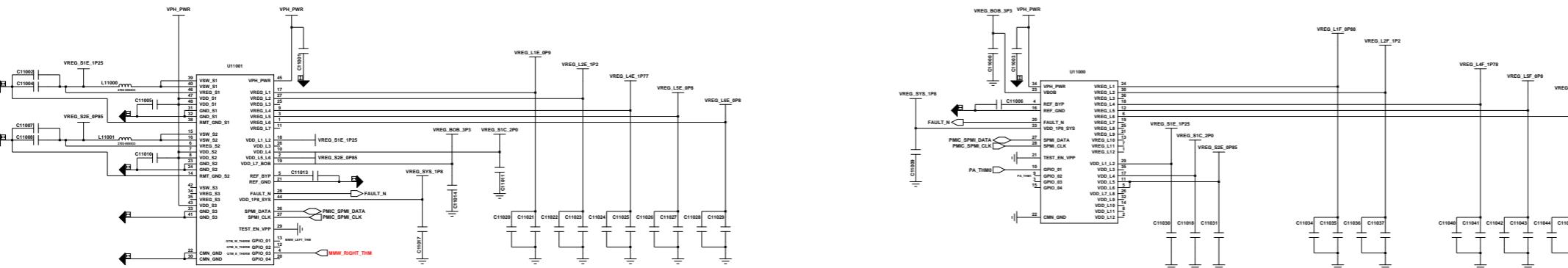
Power Key



# Vol key

# RF PMIC

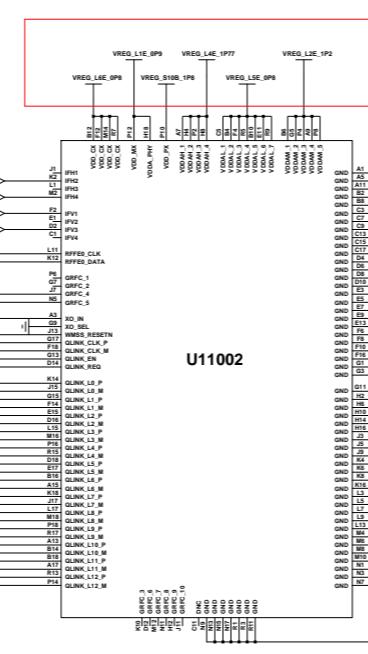
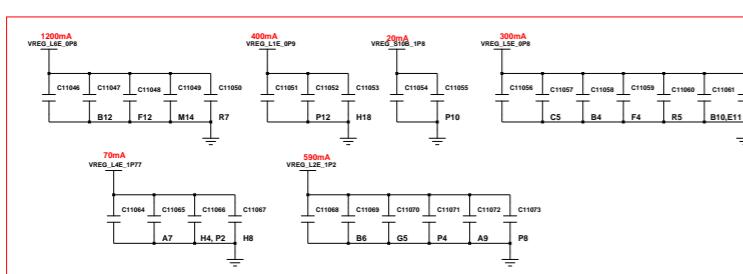
# Power



# PMR735B

# 5G IFIC

# Radiation



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

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16

A U2 & U3

B U3 only

C UWB

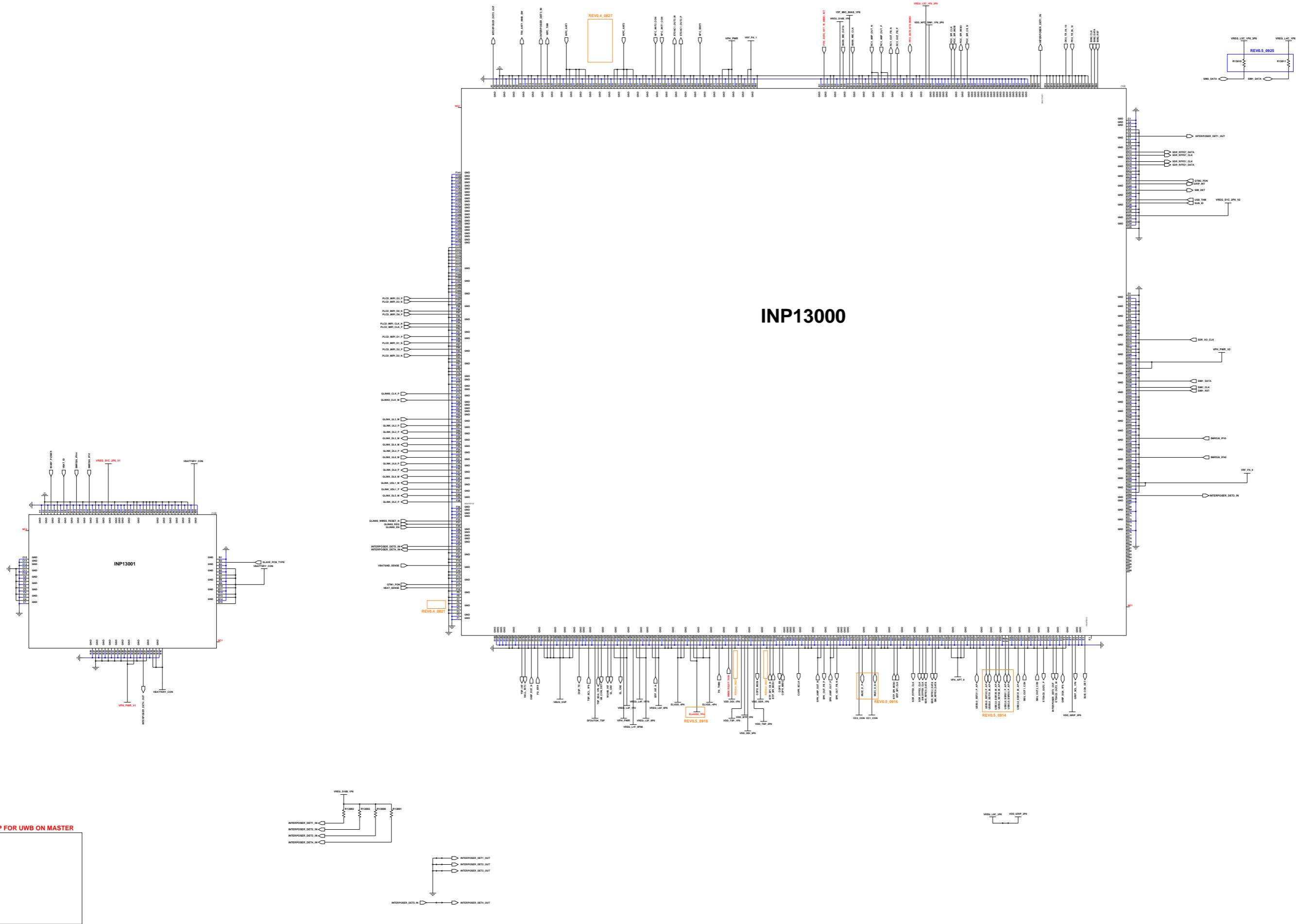
D Dual Tele CAMERA

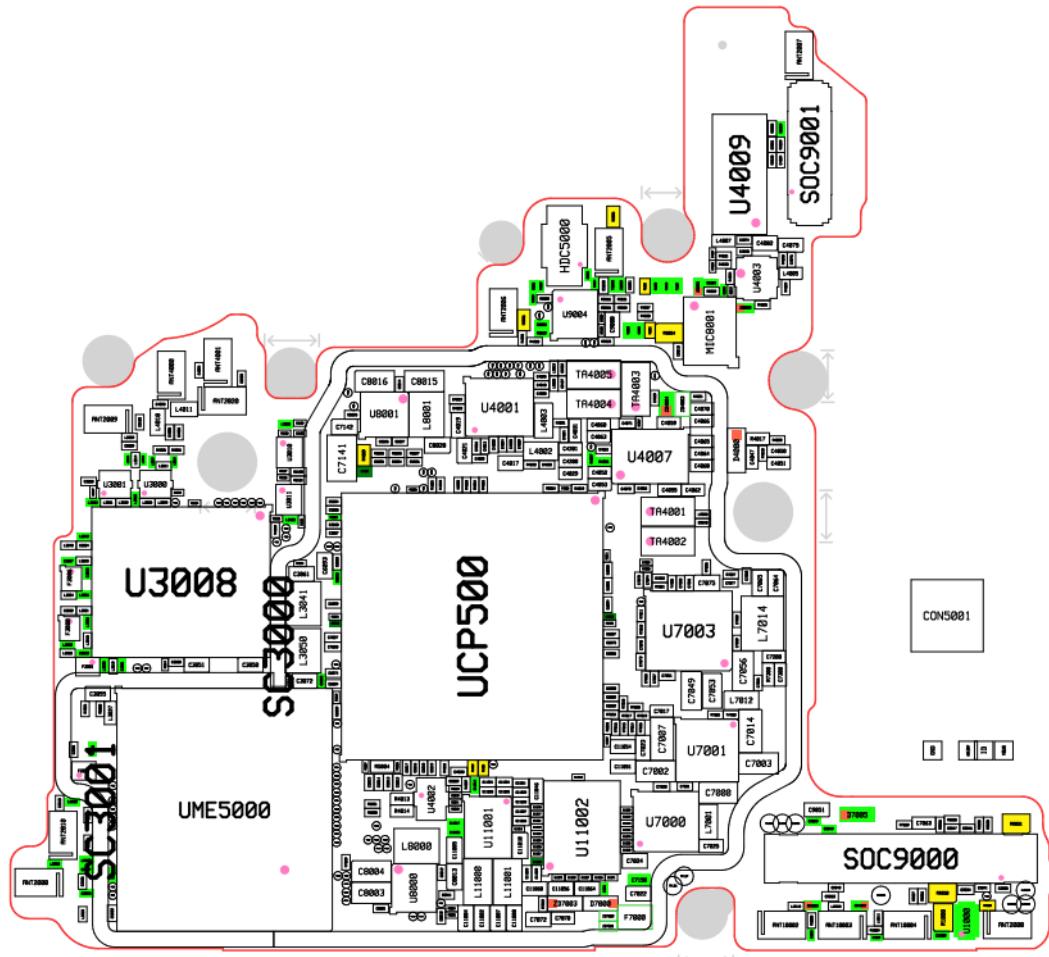
E on SLAVE PCB

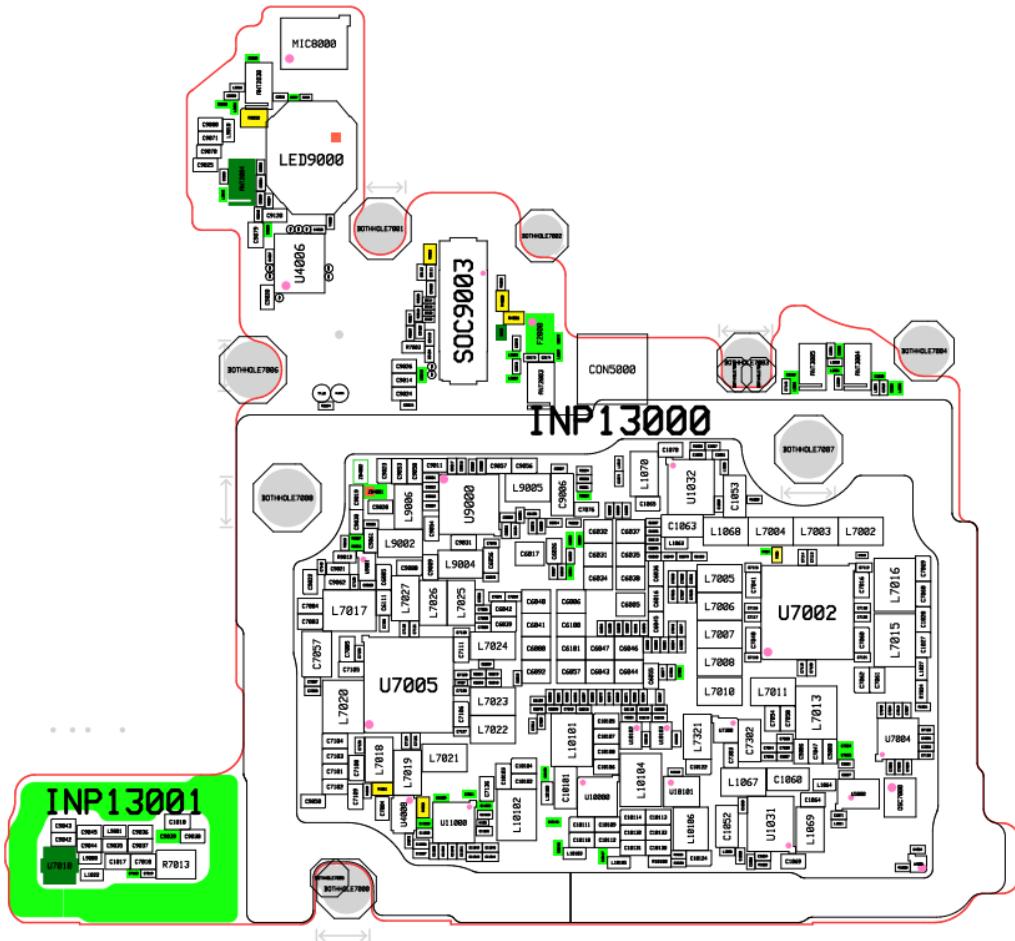
F on SLAVE PCB

G H I J K L UWB Conn.

# Design







# SM-G991U\_REV0.6

2020.10.16

**sheet01 : RF(1/2) FEMID, MMMB, HB PAMID**

**sheet02 : RF(2/2) SDR868, SUB6, DRX**

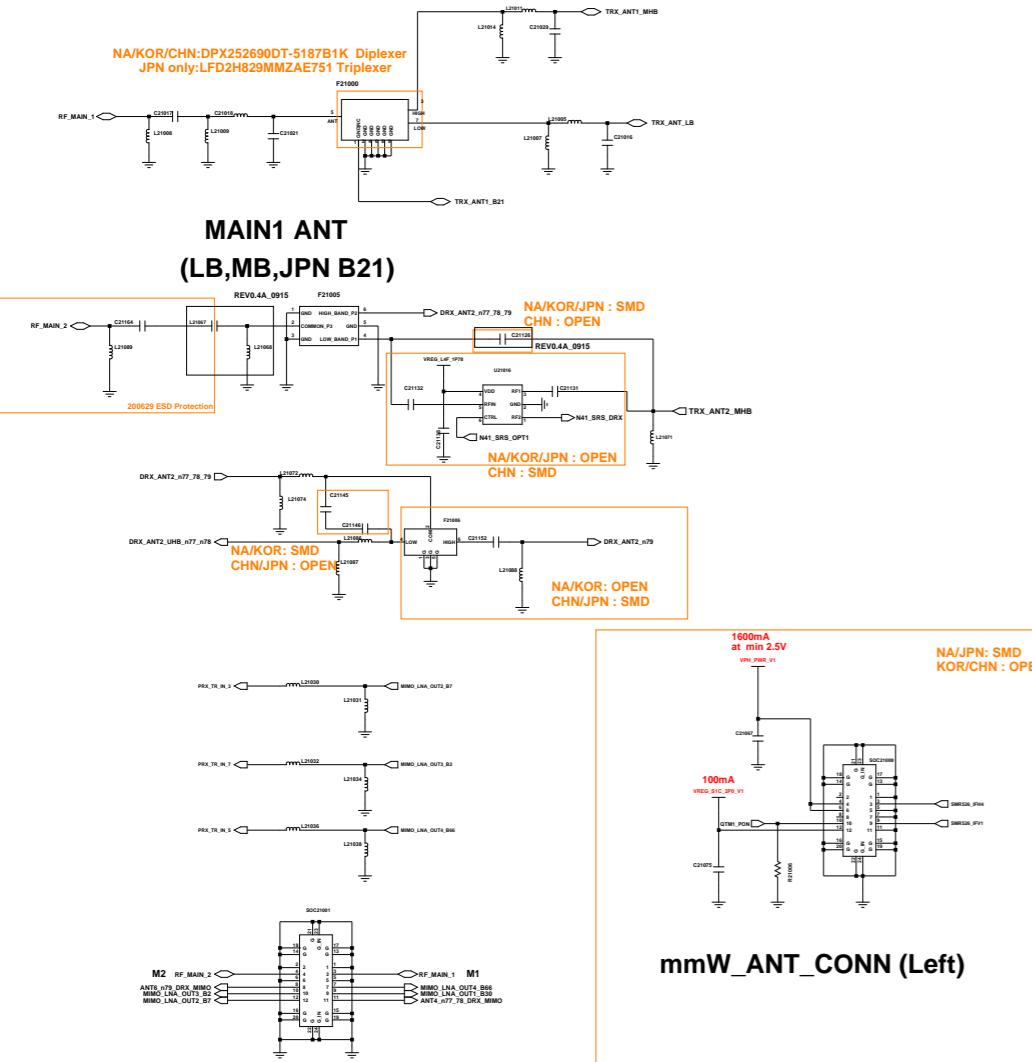
**sheet03 : MFC CON, RCV CON, BATT CON**

**sheet04 : UB CON, IF CON, POWER CON**

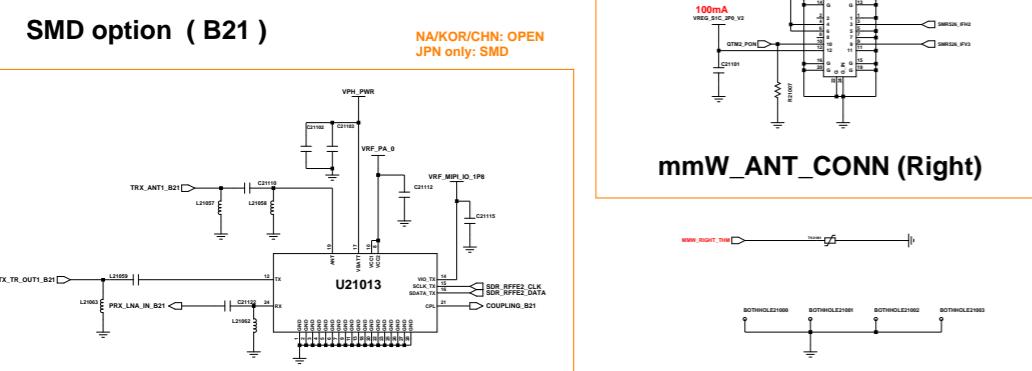
**sheet05 : INTERPOSER**

Engineer:		Date:	
Drawn by:		Time:	
R&D CHK:		QA CHK:	
DOC CTRL CHK:		REV:	
MFG ENGR CHK:		Drawing Number:	
U.SM9300		Page:	

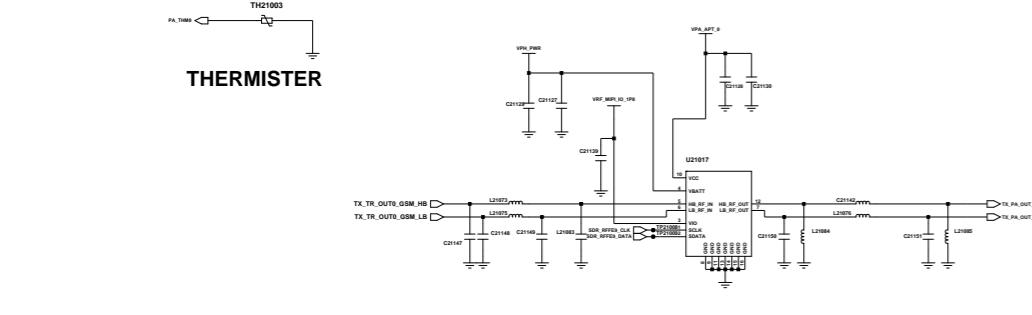
# Conduction



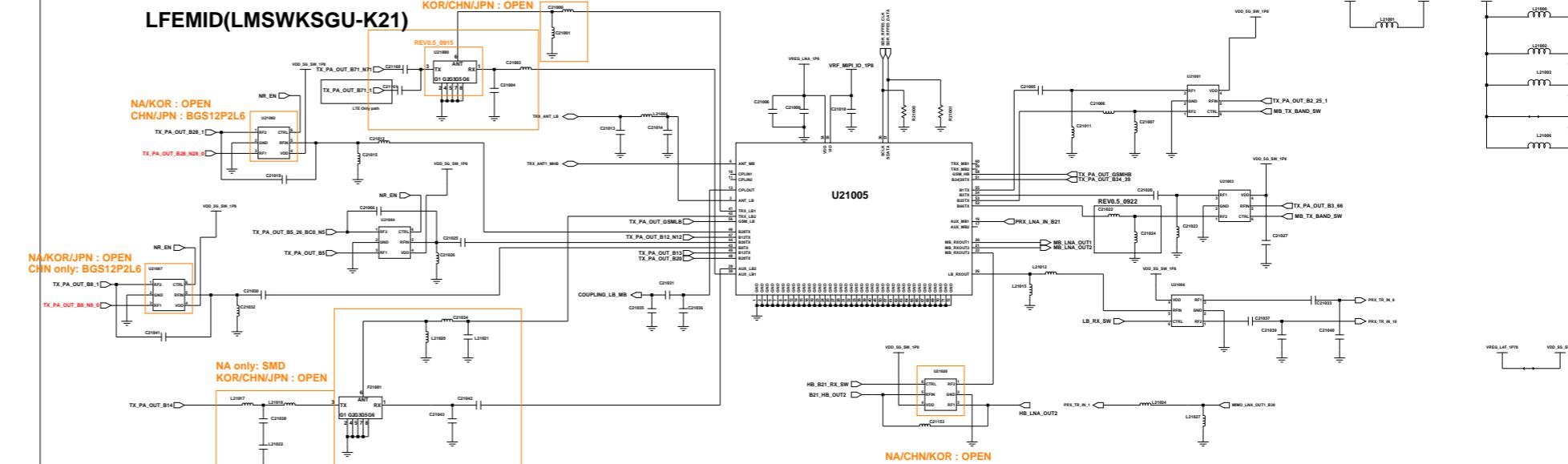
MAIN FRC



2G\_PA

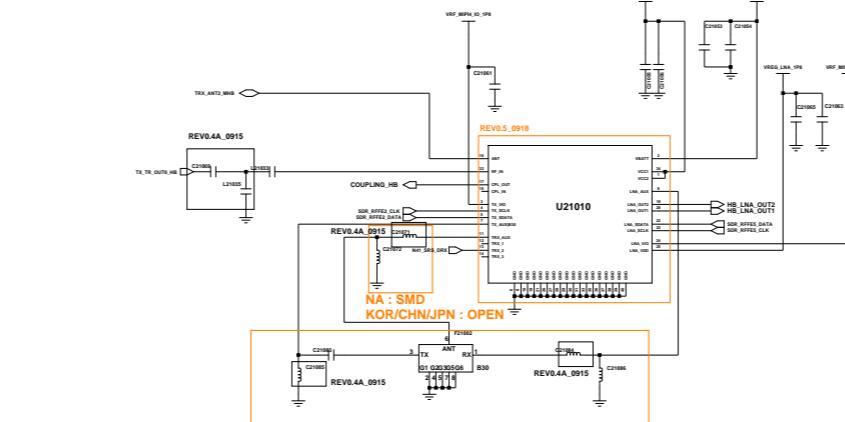


LFEMID(LMSWKSGU-K21)

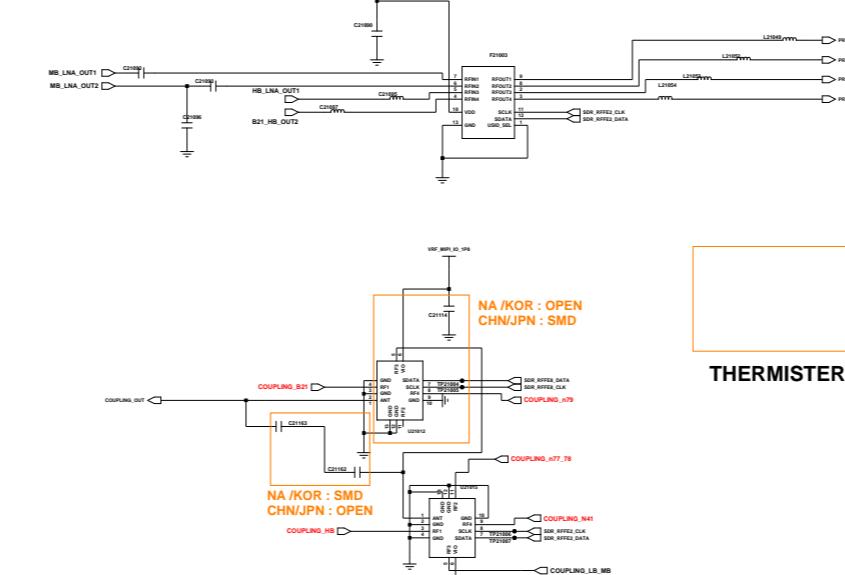


# Conduction

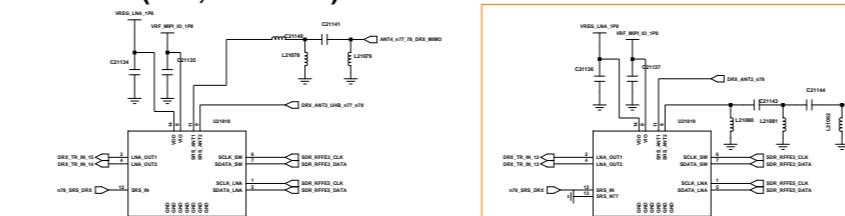
HB PAMID(QM78143)



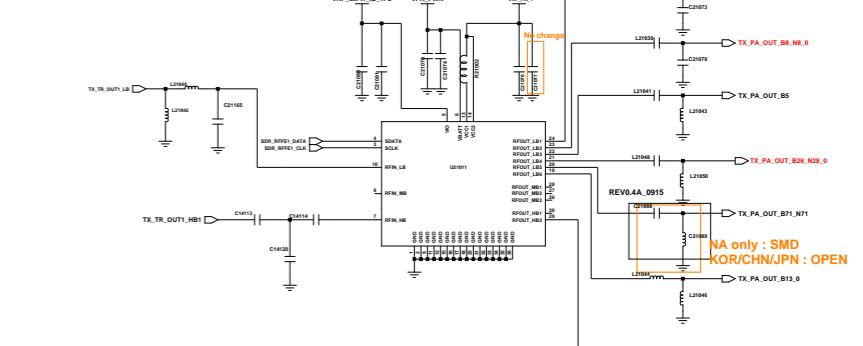
MB/HB RX 4P4T



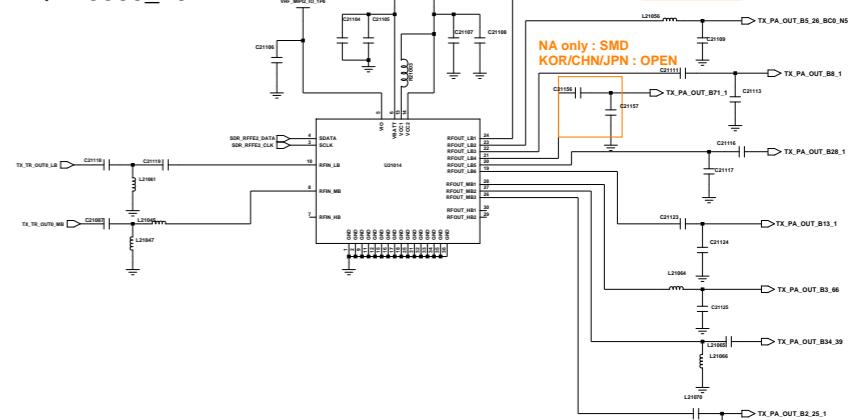
UHB  
(B48, n77/78/79)

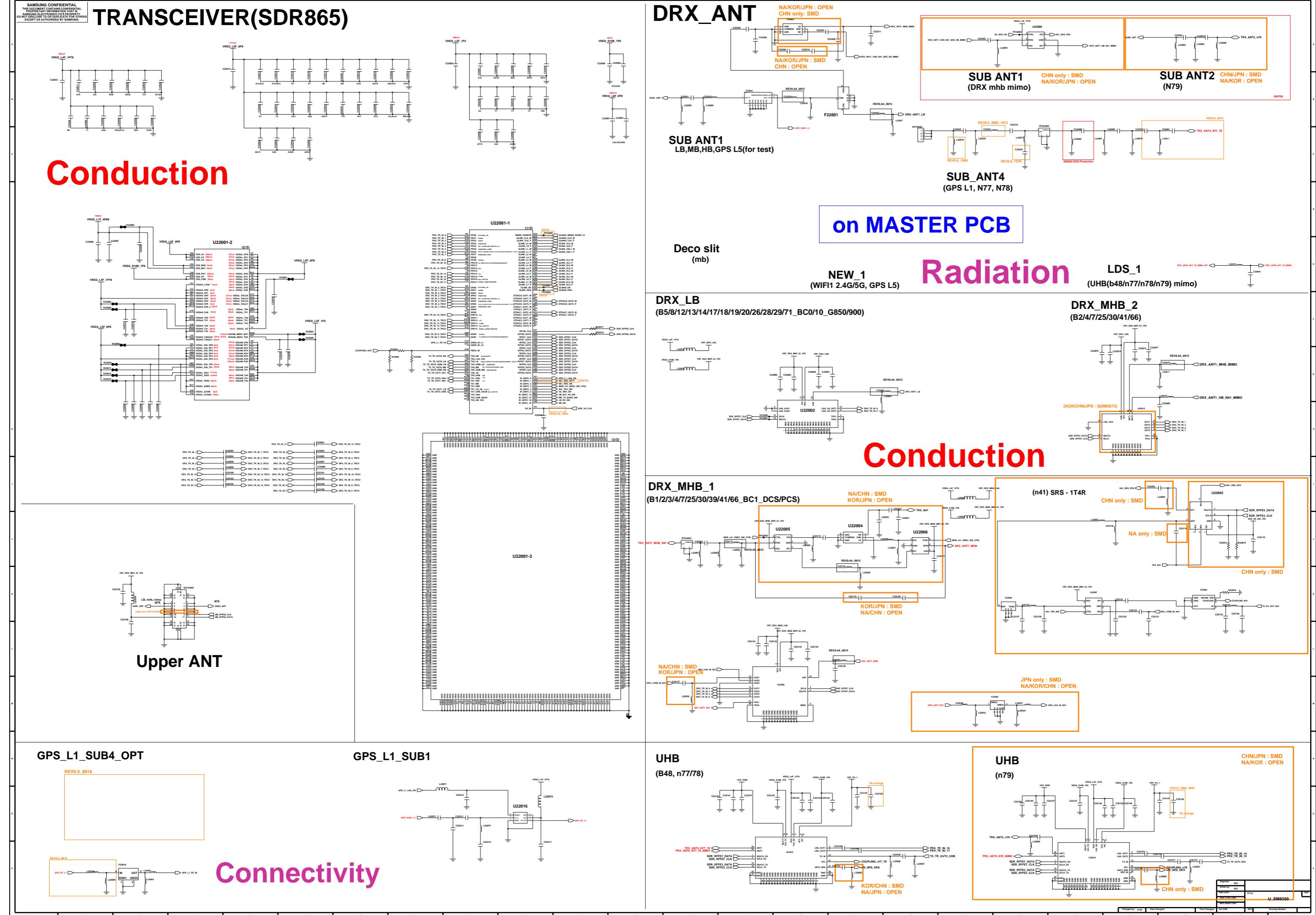


**QPA5580\_#1**



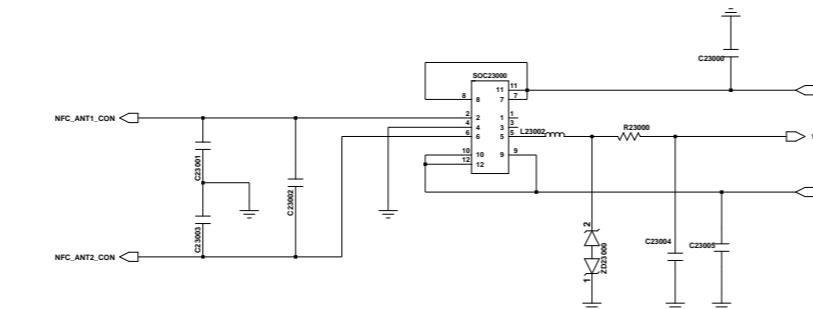
QPA5580 #0





NFC

# Power



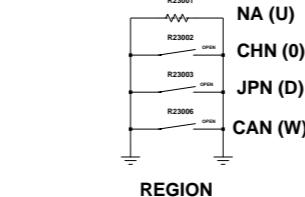
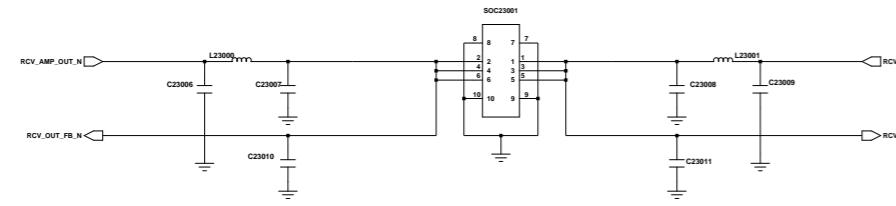
W/C CONNECTOR

RCV Conn.

# AUDIO

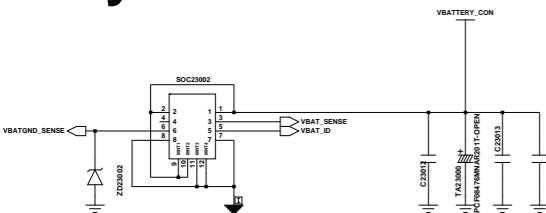
Design

System



SLAVE_TYPE	ADC
NA_mmW	68K
NA_CAN_Sub6	100K
CHN_Sub6	150K
KOR_Sub6	200K
JPN_mmW	270K
For JIG	OPEN

Battery Connector Power

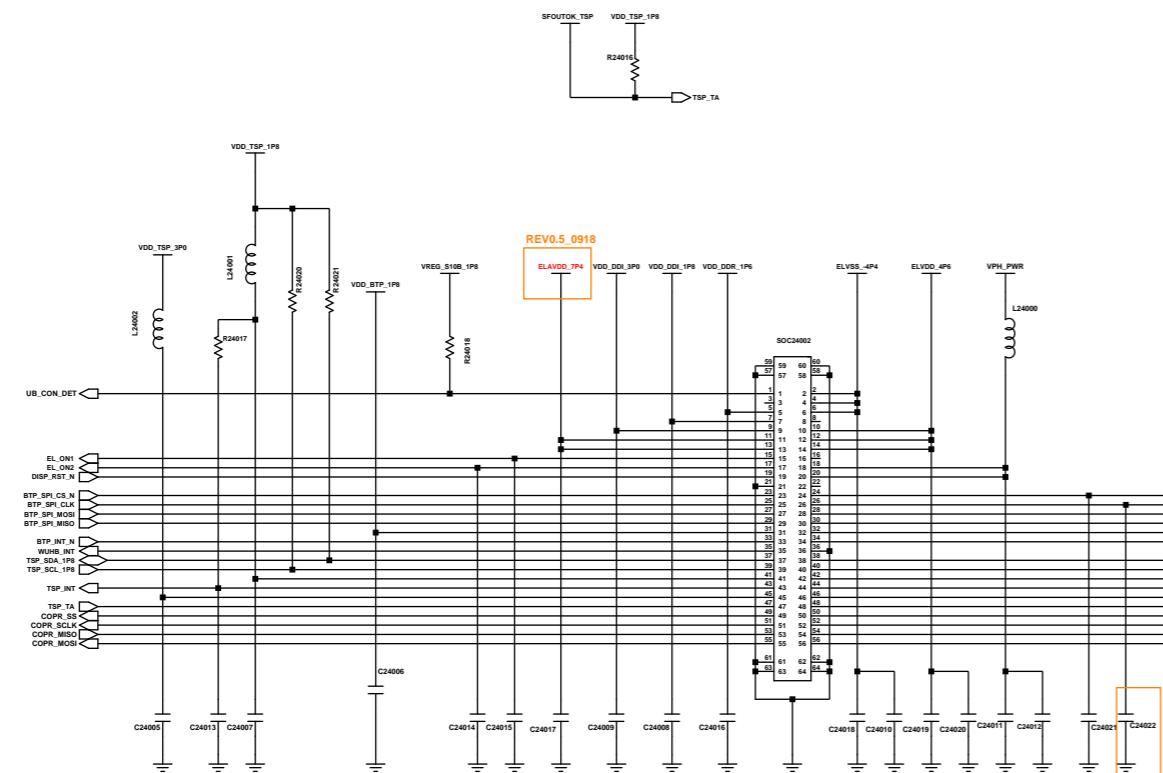


# DISPLAY

on MASTER PCB

## Visual

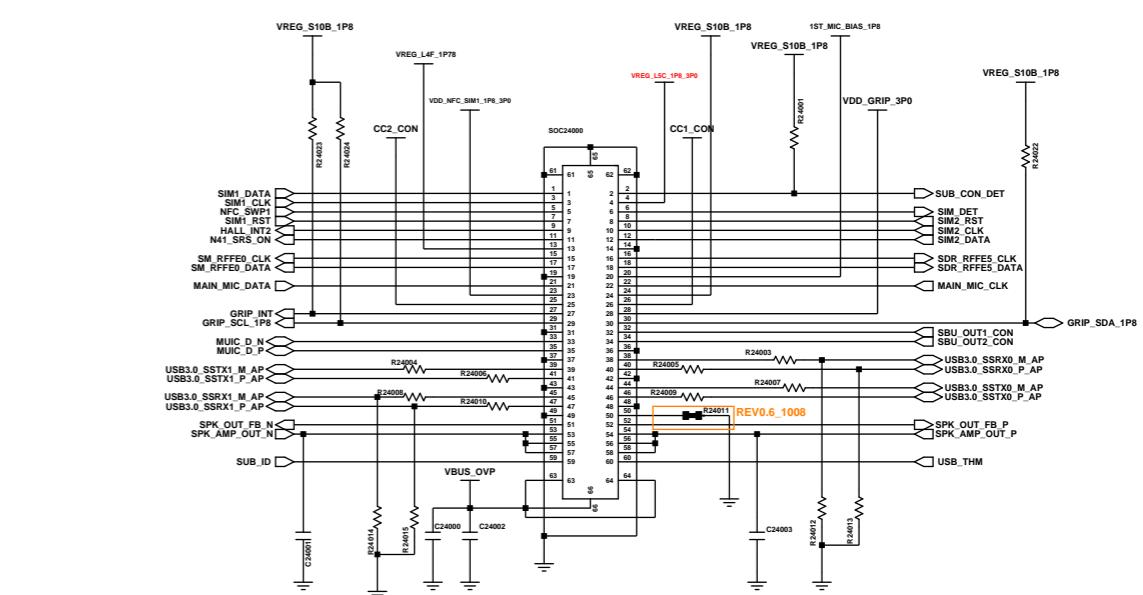
### DISPLAY PMIC



DISPLAY CONNECTOR

## System

IF SUB PBA Conn



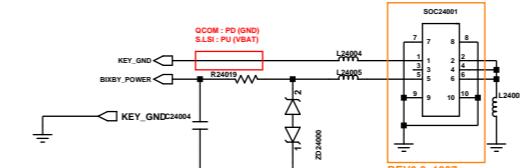
on MASTER PCB

Power Key

Vol key

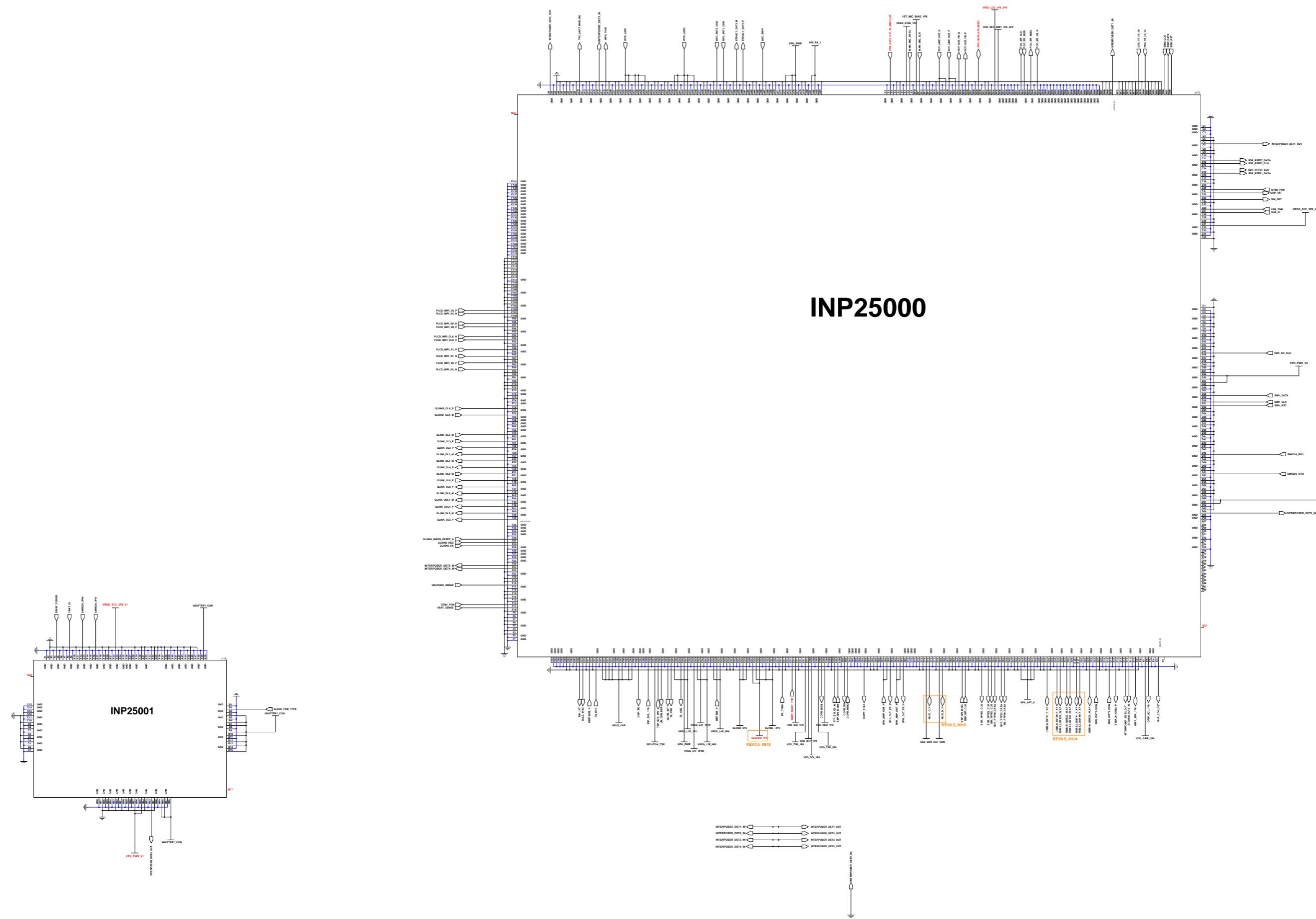
on MASTER PCB

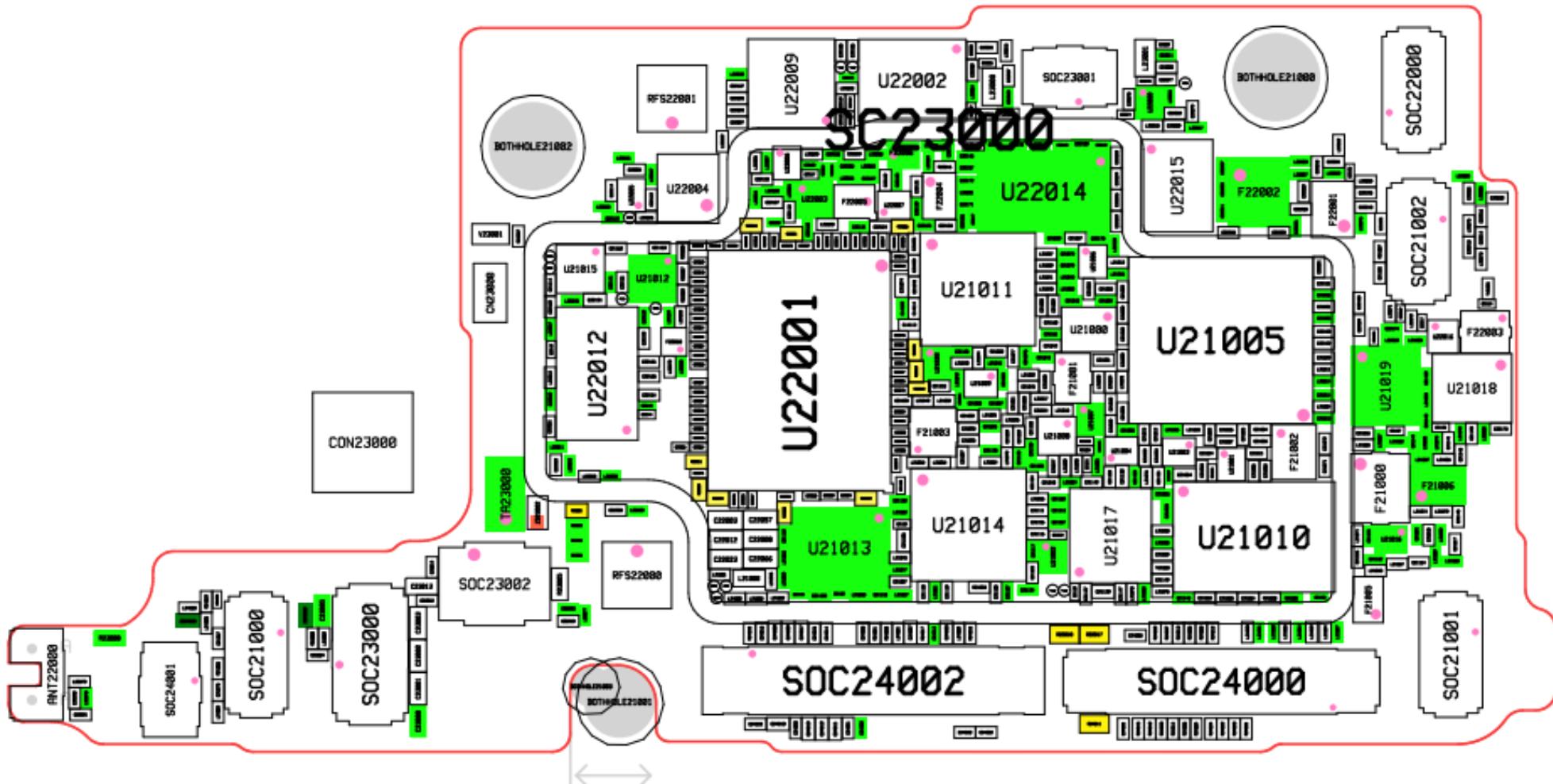
BOSS HOLE



Engineer: SEC	Drawn by: SEC	Title: U_SM8350
Drawn by: SEC	REV:	Drawing Number:
REQ CHK:	QA CHK:	Page:
DOC CTRL CHK:	Time Changed:	Page:
MPG ENGR CHK:	Date Changed:	Page:

# Design





**INP25000**

F  
CH23001

CON23001

T  
CH23003

**INP25001**

A

A



