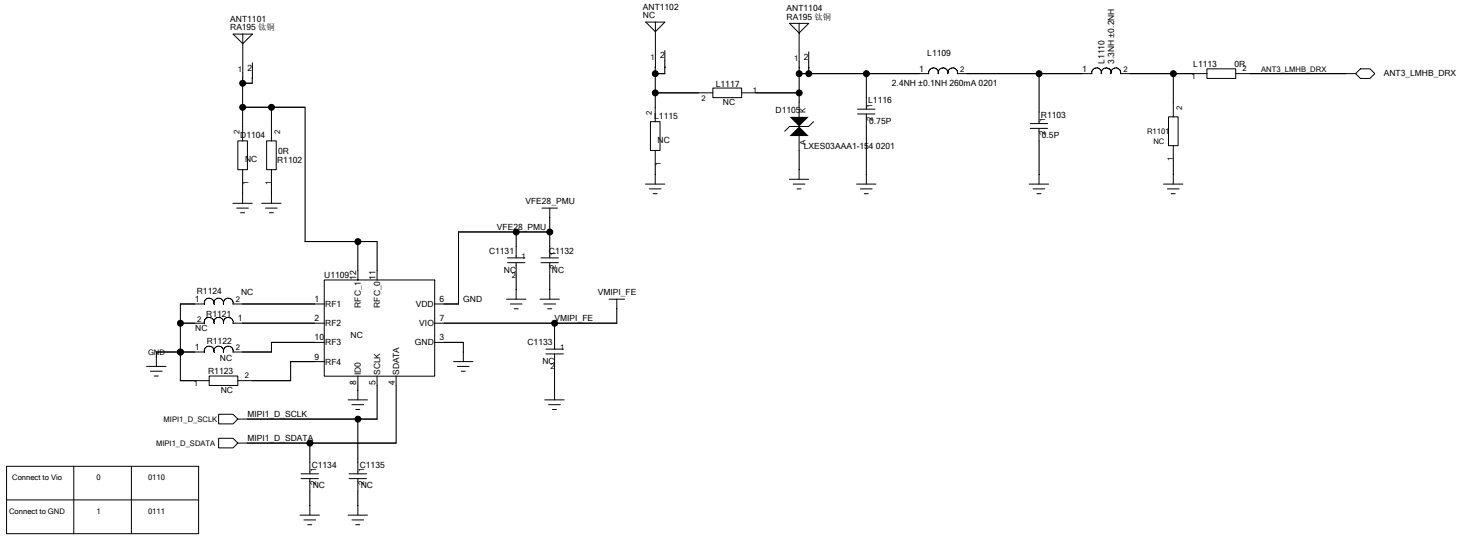
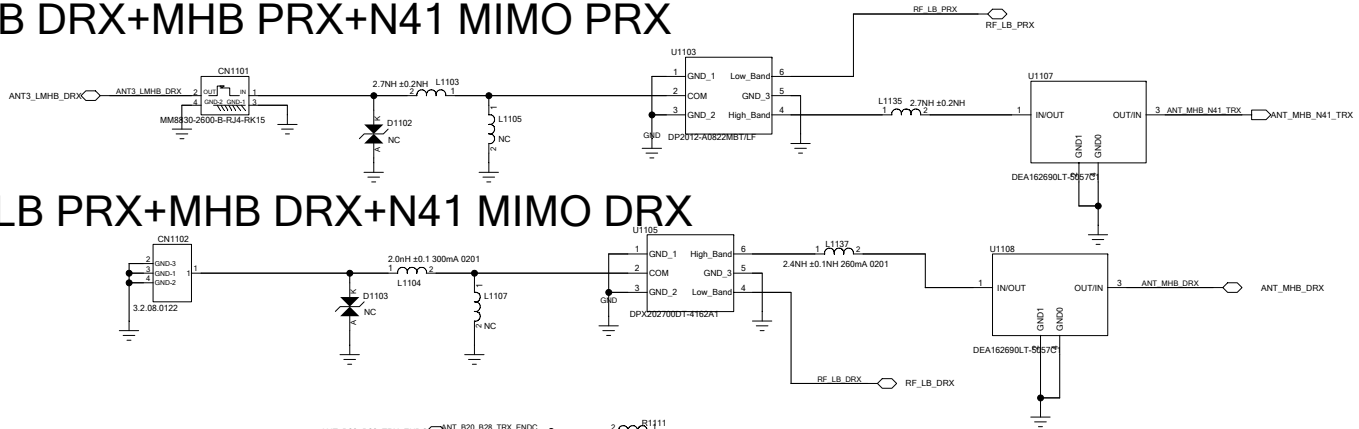
Ant0 LB DRX+MHB PRX+N41 MIMO PRX 上天线

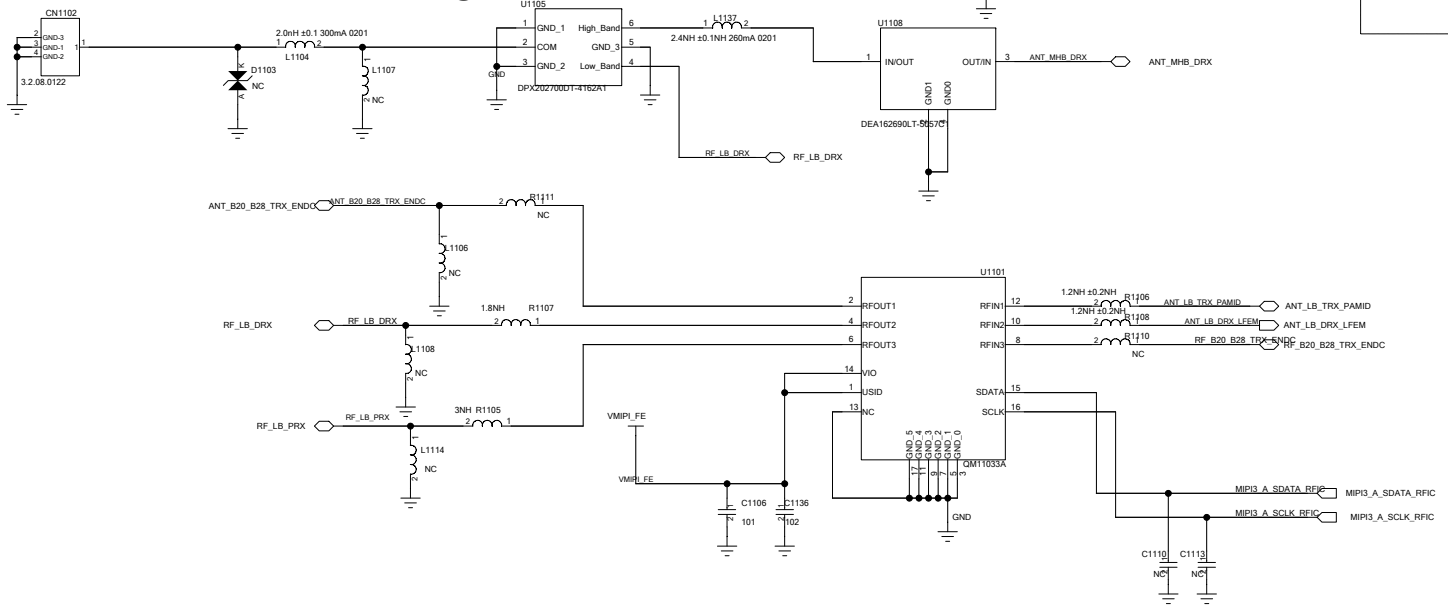


Connect to Vio	0	0110
Connect to GND	1	0111

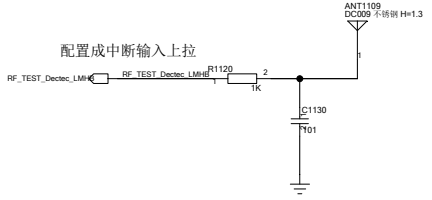
Ant0 LB DRX+MHB PRX+N41 MIMO PRX



ANT4 LB PRX+MHB DRX+N41 MIMO DRX

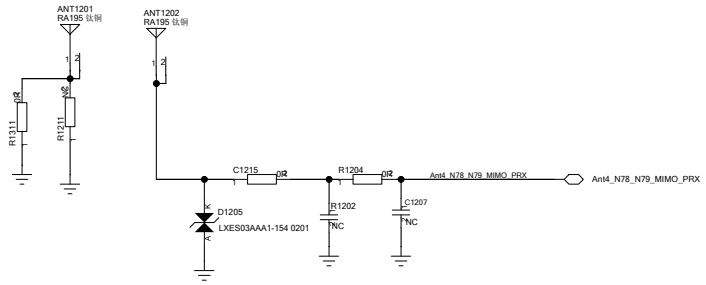


压板传导测试检测电路

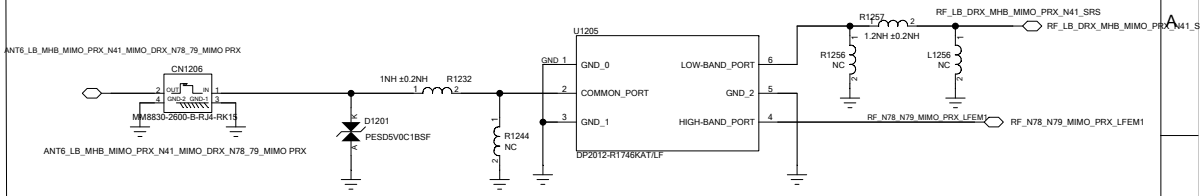


	Sign	Date	Type:
Drawn By			Draw No: Schematic
Checked By			Sheet of 50 Ver:
Standard By			realme
Approved By			

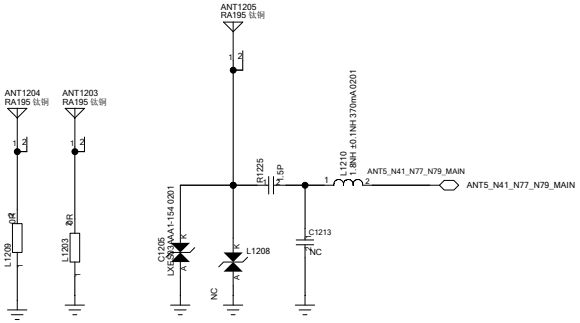
Ant8 N78/79 PRX



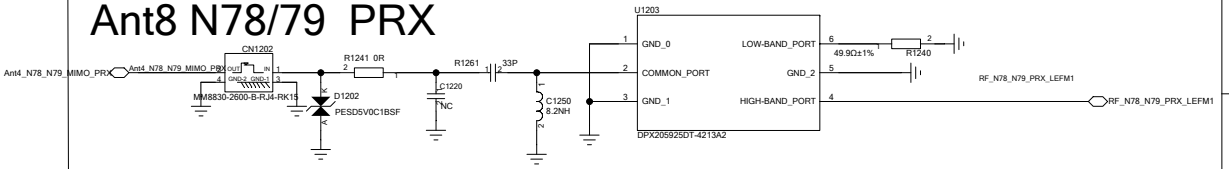
Ant6 MHB MIMO PRX+N41 MIMO DRX+N78/79 MIMO PRX



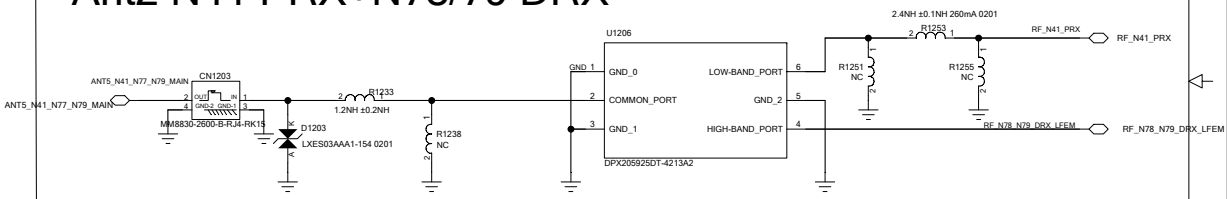
Ant2 N41 PRX+N78/79 DRX



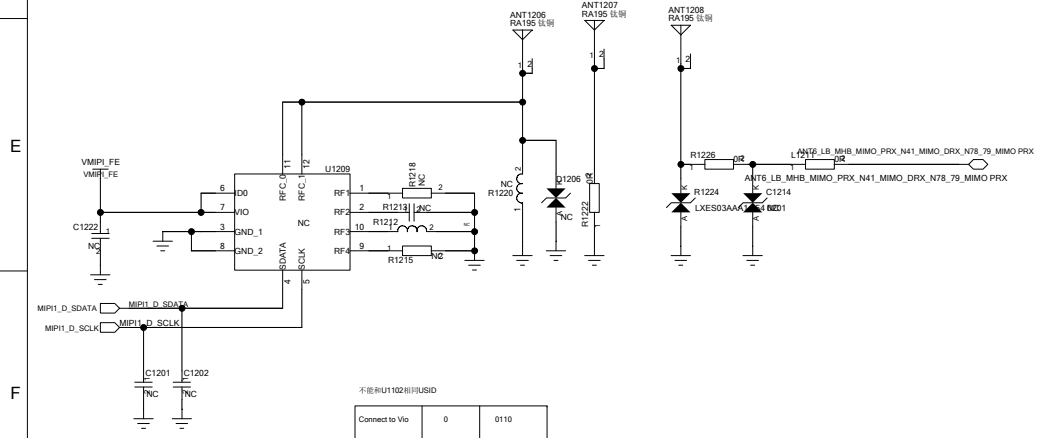
Ant8 N78/79 PRX



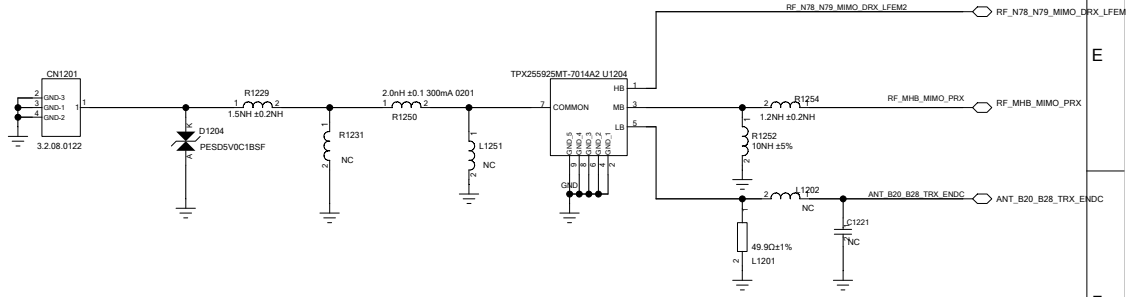
Ant2 N41 PRX+N78/79 DRX



Ant6 MHB MIMO PRX+N41 MIMO DRX+N78/79 MIMO PRX



Ant3 MHB MIMO DRX+N41 DRX+ N78/79 MIMO DRX



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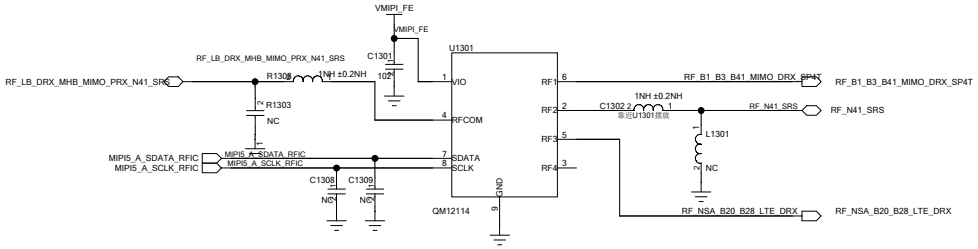
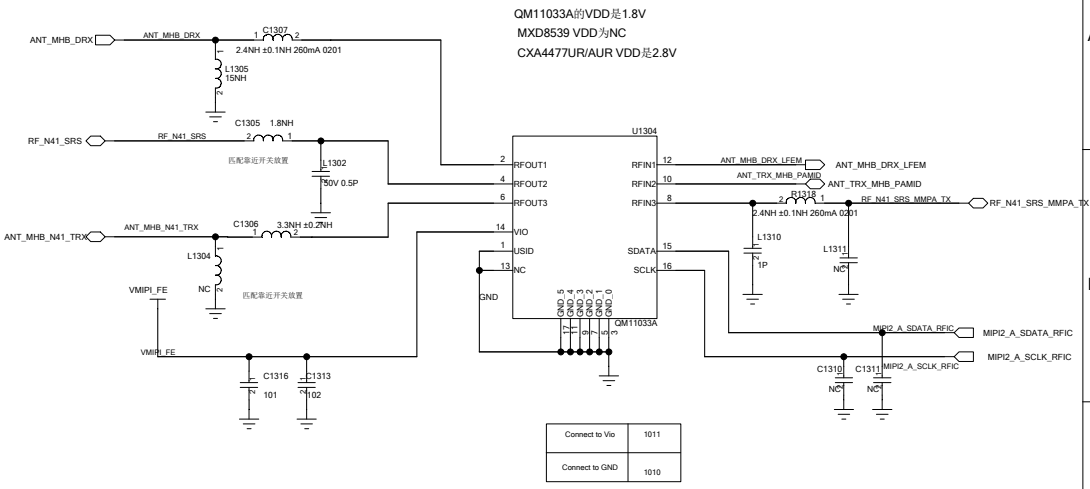
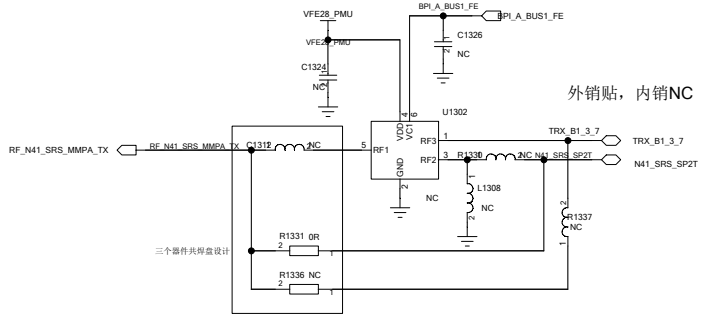
Checked By			Sheet of 50 Ver:
Standard By			
Approved By			realme



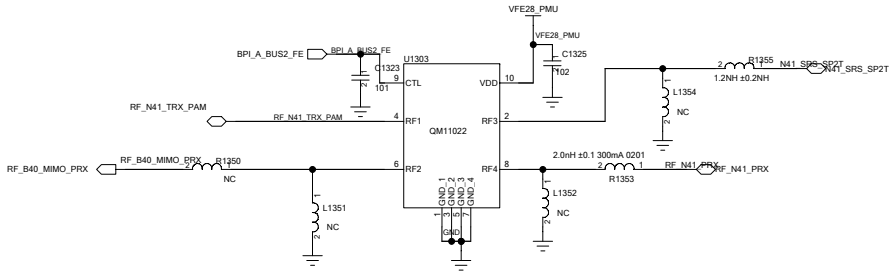


Connect to Vio	1011
Connect to GND	1010

SP2T For EU NSA TX



DP2T For N41 1T4R&MHB MIMO



	Sign	Date	Type:
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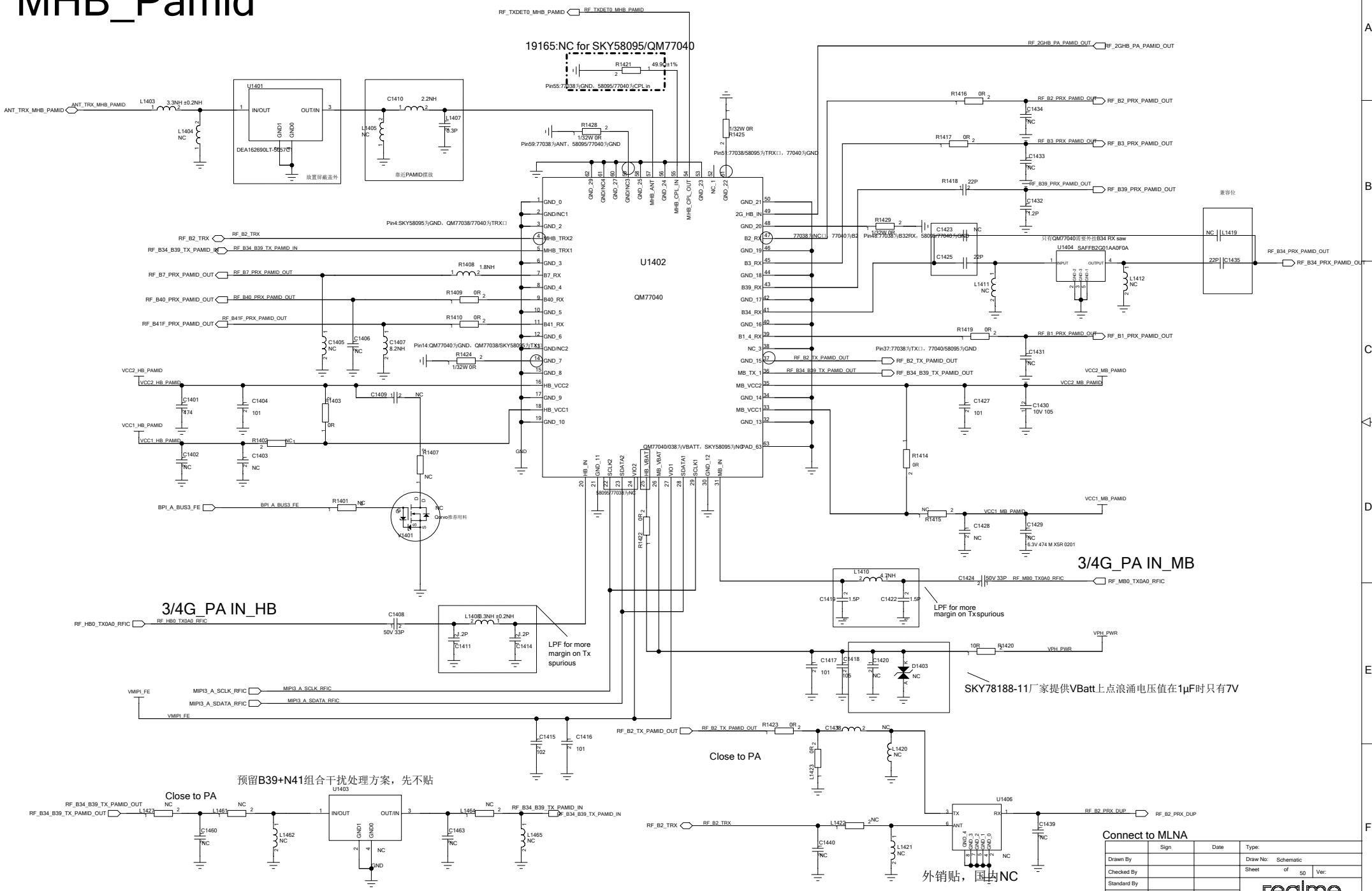
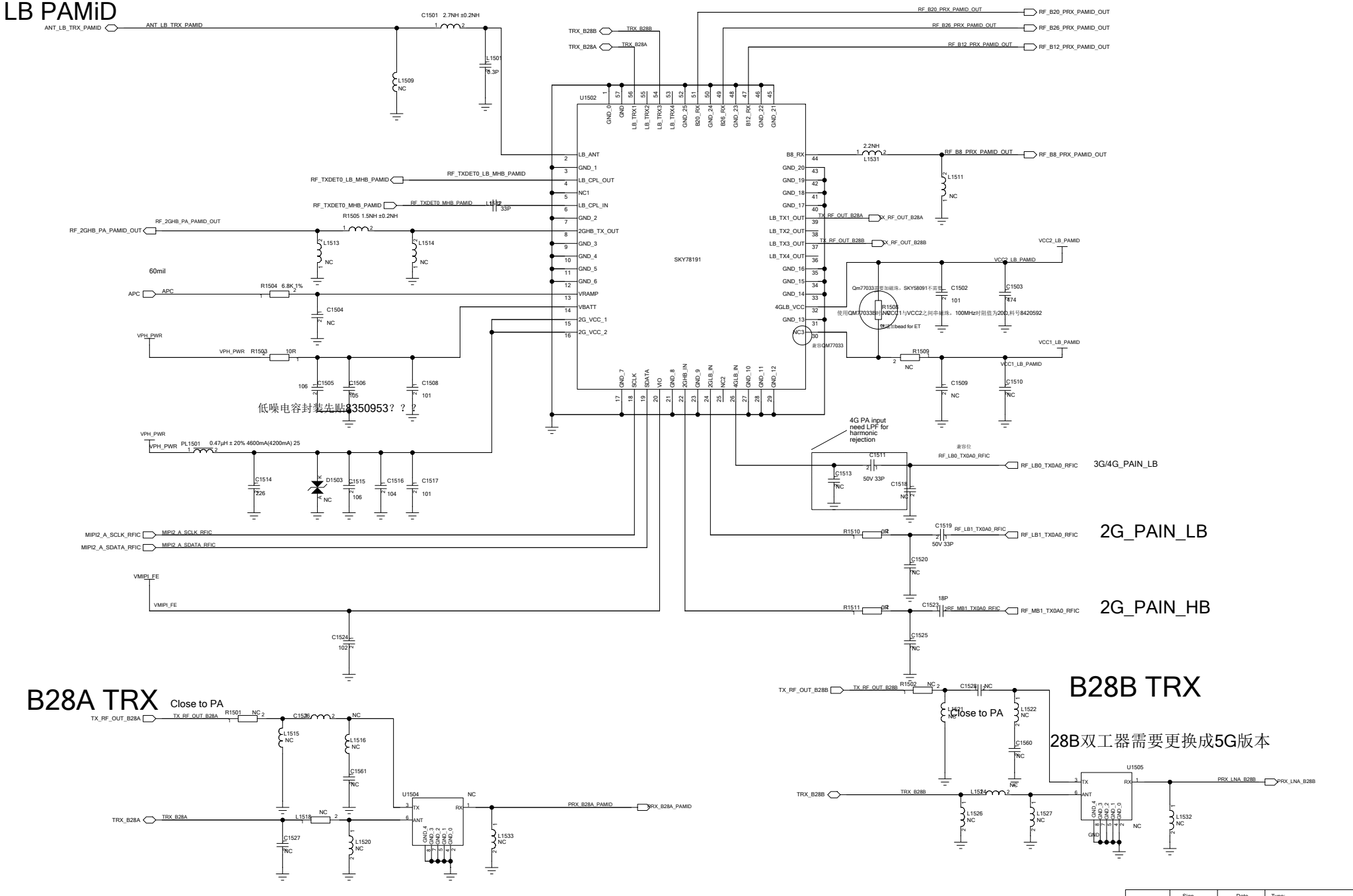
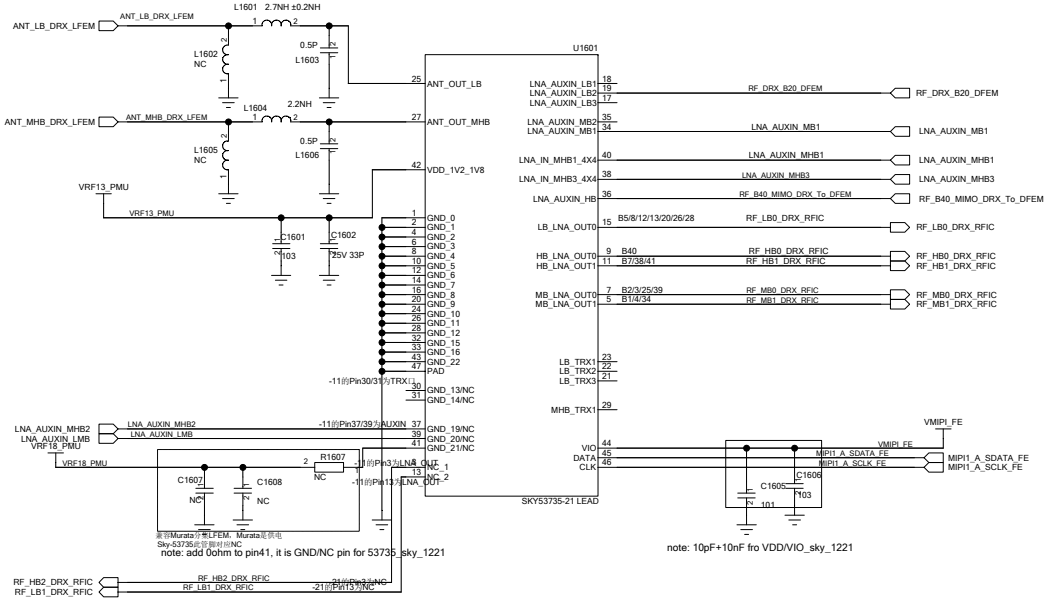
Standard By			
Approved By			realme

MHB_Pamid

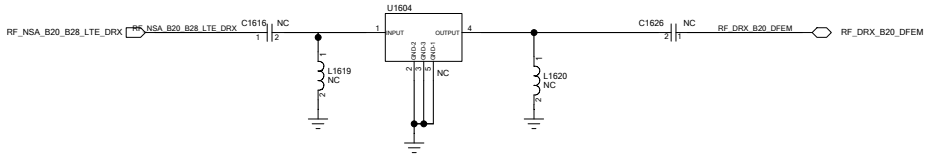

19165:NC for SKY58095/QM77040
U1402
QM77040
3/4G_PA IN_HB
3/4G_PA IN_MB
LPF for more margin on Tx spurious
LPF for more margin on Tx spurious
SKY78188-11厂家提供VBatt上点浪涌电压值在1μF时只有7V
Close to PA
Close to PA
预留B39+N41组合干扰处理方案，先不贴
外销贴，国内NC
Connect to MLNA
Qorvo推荐用料
靠近PAMID摆放
放置屏蔽盖外
只有QM77040需要外挂B34 RX saw
兼容位
Pin4:SKY58095为GND，QM77038/77040为TRX口
Pin14:QM77040为GND，QM77038/SKY58095为TX口
Pin37:77038为TX口，77040/58095为GND
Pin55:77038为GND，58095/77040为CPL in
Pin59:77038为ANT，58095/77040为GND
Pin5:77038/58095为TRX口，77040为GND
77038为NC口，77040为B2
Pin48:77038为B32RX，58095/77040为GND
QM77040/038为VBATT，SKY58095为NC
58095/77038为NC
Drawn By
Checked By
Standard By
Approved By
Sign
Date
Type:
Draw No: Schematic
Sheet of 50
Ver:
realme


LB PAMiD
SKY78191
C1501 2.7NH ±0.2NH
L1509 NC
L1501 0.3P
U1502
LB_ANT
GND_1
LB_CPL_OUT
NC1
LB_CPL_IN
GND_2
2GHB_TX_OUT
GND_3
GND_4
GND_5
GND_6
VRAMP
VBATT
2G_VCC_1
2G_VCC_2
B8_RX
GND_20
GND_19
GND_18
GND_17
LB_TX1_OUT
LB_TX2_OUT
LB_TX3_OUT
LB_TX4_OUT
GND_16
GND_15
GND_14
4GLB_VCC
GND_13
GND_0
GND
LB_TRX1
LB_TRX2
LB_TRX3
LB_TRX4
GND_25
B20_RX
GND_24
B26_RX
GND_23
B12_RX
GND_22
GND_21
GND_7
SCLK
SDATA
VIO
GND_8
2GHB_IN
GND_9
2GLB_IN
NC2
4GLB_IN
GND_10
GND_11
GND_12
TRX_B28B
TRX_B28A
RF_B20_PRX_PAMID_OUT
RF_B26_PRX_PAMID_OUT
RF_B12_PRX_PAMID_OUT
RF_B20_PRX_PAMID_OUT
RF_B26_PRX_PAMID_OUT
RF_B12_PRX_PAMID_OUT
2.2NH
L1531
RF_B8_PRX_PAMID_OUT
L1511 NC
ANT_LB_TRX_PAMID
RF_TXDET0_LB_MHB_PAMID
RF_TXDET0_MHB_PAMID
L1512 33P
R1505 1.5NH ±0.2NH
RF_2GHB_PA_PAMID_OUT
L1513 NC
L1514 NC
60mil
APC
R1504 6.8K 1%
C1504 NC
VPH_PWR
R1503 10R
C1505 106
C1506 105
C1508 101
低噪电容封装先贴8350953？？？
PL1501 0.47μH ± 20% 4600mA(4200mA) 25
C1514 226
D1503 NC
C1515 106
C1516 104
C1517 101
MIPI2_A_SCLK_RFIC
MIPI2_A_SDATA_RFIC
VMIPI_FE
C1524 102
TX_RF_OUT_B28A
TX_RF_OUT_B28B
4G PA input need LPF for harmonic rejection
C1511 50V 33P
C1513 NC
C1518 NC
RF_LB0_TX0A0_RFIC
3G/4G_PAIN_LB
C1519 50V 33P
R1510 0R
RF_LB1_TX0A0_RFIC
2G_PAIN_LB
C1520 NC
R1511 0R
C1523 18P
RF_MB1_TX0A0_RFIC
2G_PAIN_HB
C1525 NC
R1502 NC
C1528 NC
L1521 NC
L1522 NC
C1560 NC
B28B TRX
Close to PA
28B双工器需要更换成5G版本
U1505
PRX_LNA_B28B
L1524
L1526 NC
L1527 NC
L1532 NC
B28A TRX
Close to PA
R1501 NC
C1526 NC
L1515 NC
L1516 NC
C1561 NC
L1518 NC
C1527 NC
L1520 NC
U1504
PRX_B28A_PAMID
L1533 NC
Qm77033需要加磁珠，SKY58091不需要
使用QM77033时，VCC1与VCC2之间串磁珠，100MHz时阻值为200,料号8420592
C1502 101
C1503 474
R1508 0R
R1509 NC
C1509 NC
C1510 NC
VCC2_LB_PAMID
VCC1_LB_PAMID
兼容QM77033
Sign
Date
Type:
Drawn By
Draw No: Schematic
Checked By
Sheet of 50
Ver:
Standard By
Approved By
realme

外销使用SKY53735-11，内销使用SKY53735-21，RX端口删减；

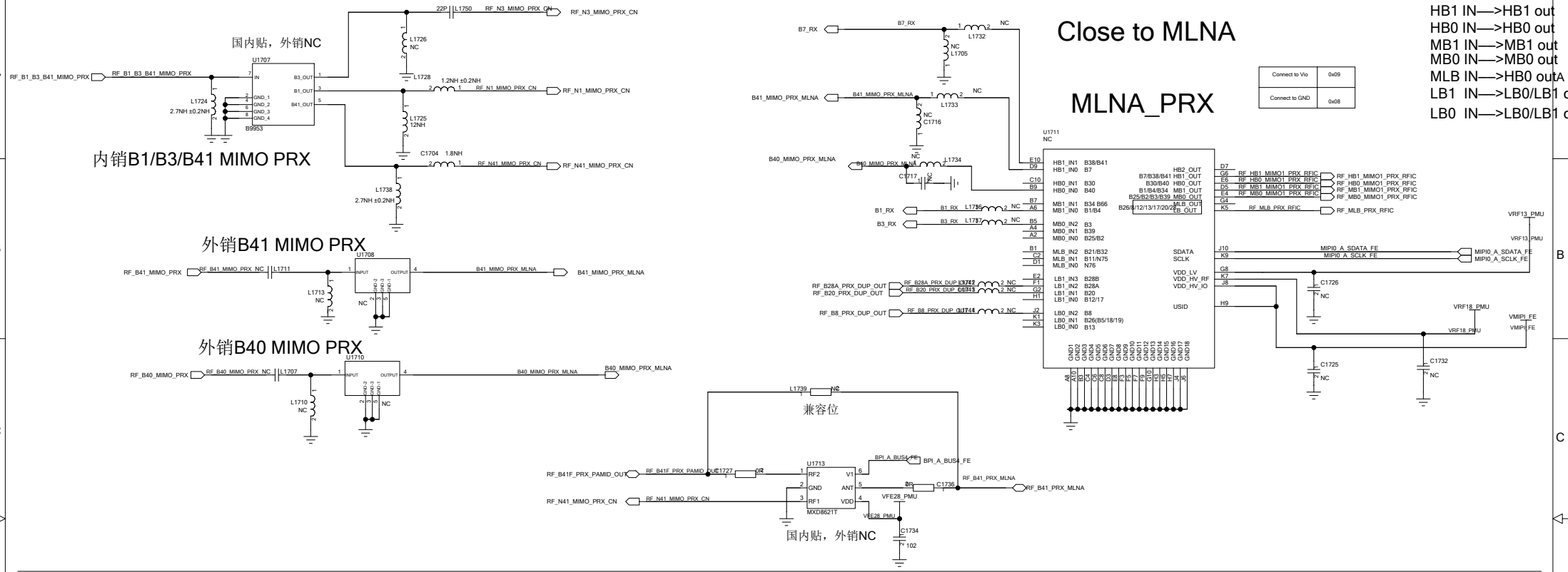


外销贴，国内NC B20

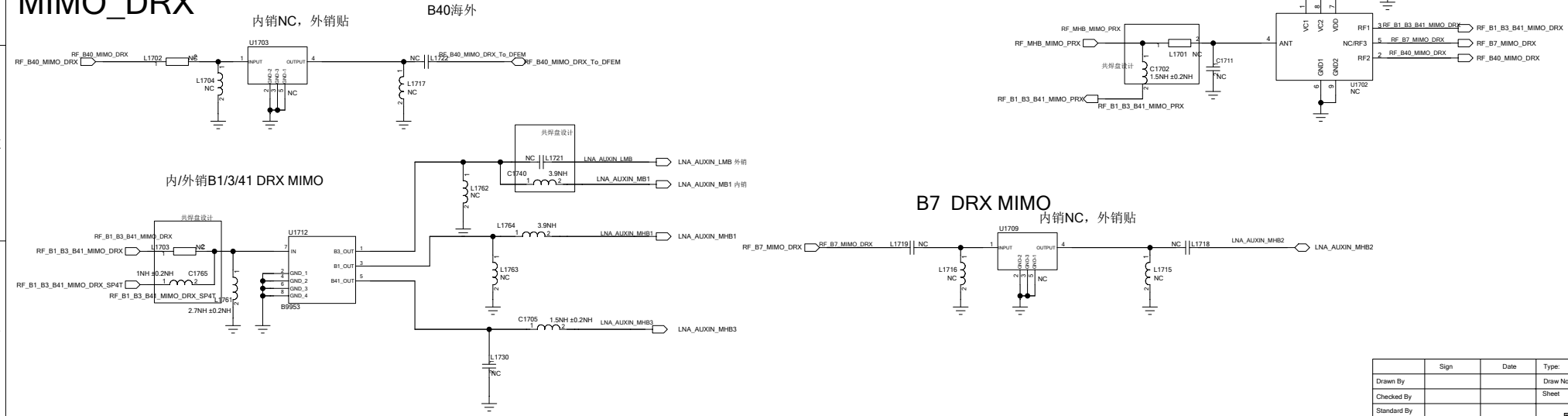


	Sign	Date	Type:
Drawn By			Draw No: Schematic
Checked By			Sheet of 50 Ver:
Standard By			
Approved By			realme

MIMO_PRX



MIMO_DRX



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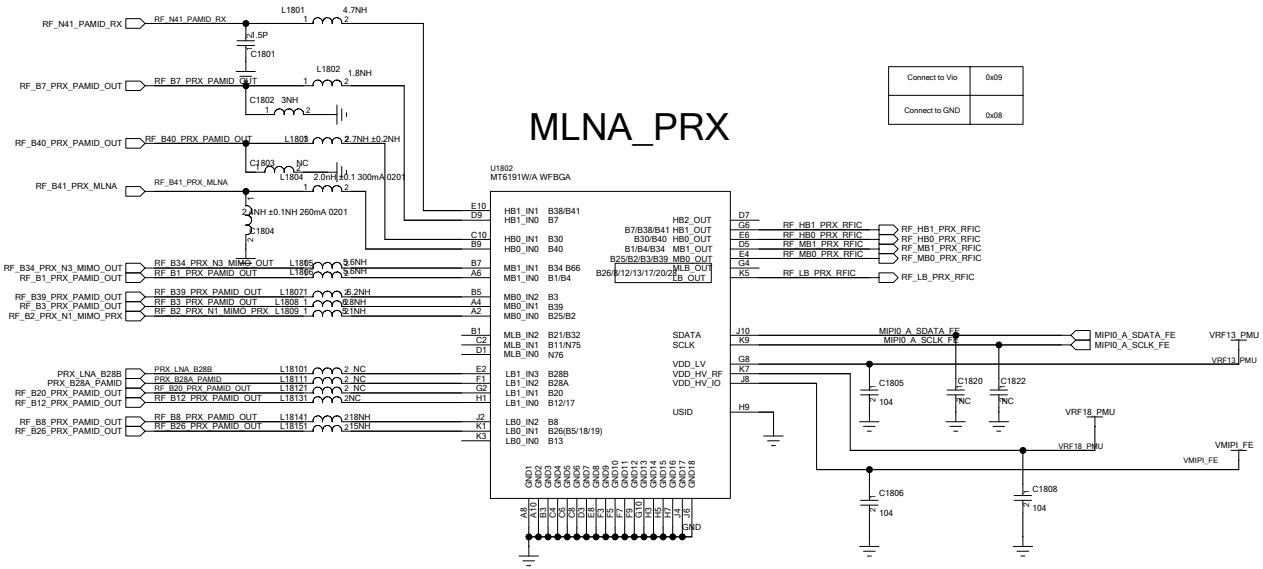
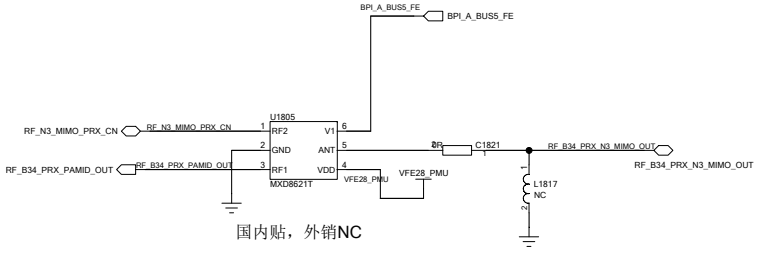
Drawn By			Draw No: Schematic
Checked By			Sheet of 50 Ver:
Standard By			
Approved By			realme

MLNA_PRX

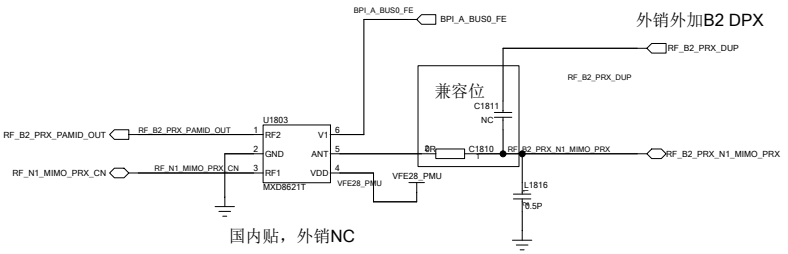


Connect to Vio	0x09
Connect to GND	0x08

HB2 out is reserved
HB1 IN—>HB1 out
HB0 IN—>HB0 out
MB1 IN—>MB1 out
MB0 IN—>MB0 out
MLB IN—>HB0 out
LB1 IN—>LB0/LB1 out
LB0 IN—>LB0/LB1 out



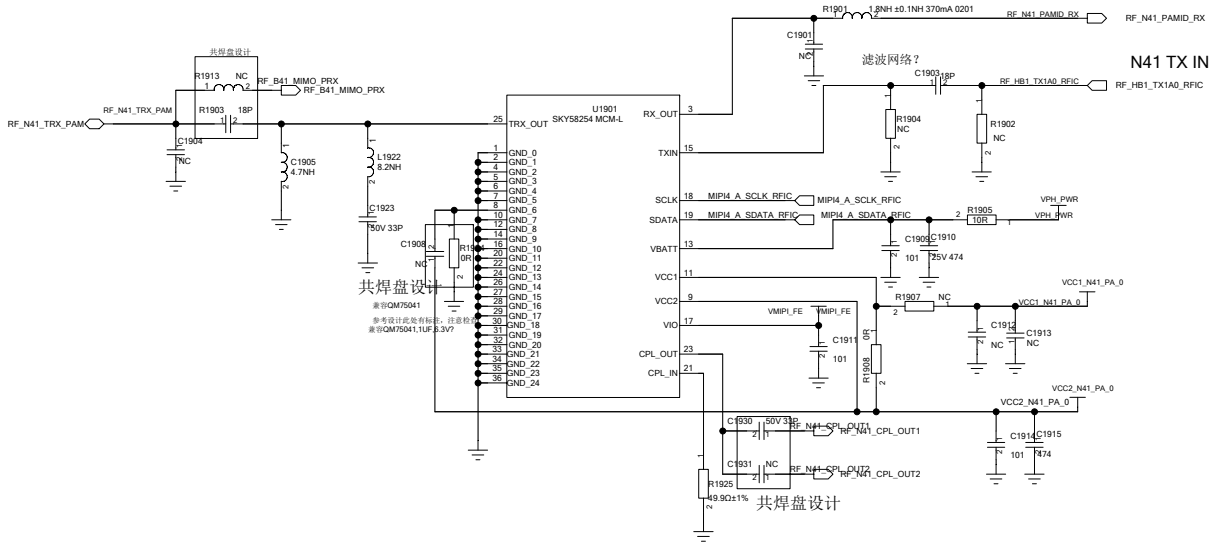
国内贴，外销NC



国内贴，外销NC

* MTK参考电路中该模块所有电容耐压值均为50V

	Sign	Date	Type:
Drawn By			Draw No: Schematic
Checked By			Sheet of 50 Ver:
Standard By			
Approved By			realme



	Sign	Date	Type:	
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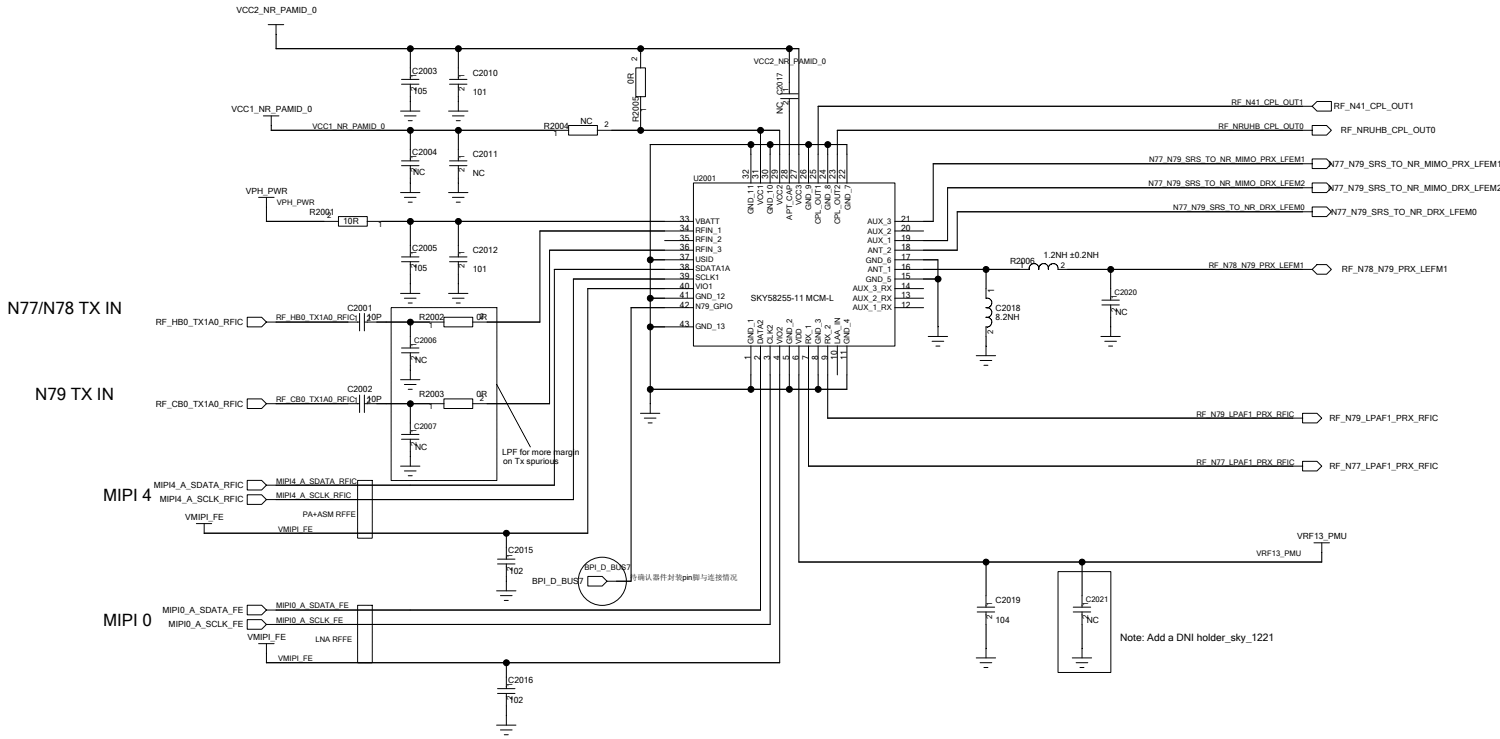
Checked By			Sheet	of 50 Ver:
Standard By				
Approved By			realme	

NR PAMID 0(N77/79Main)



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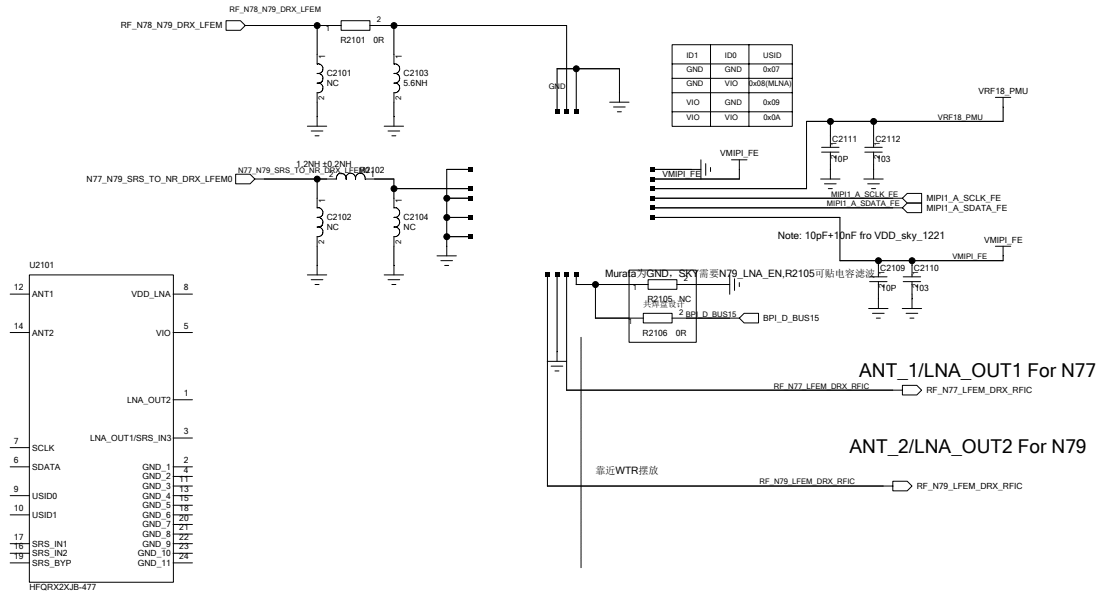
Standard By			
Approved By			realme

NR_LFEM_DRX



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Drawn By			Draw No: Schematic
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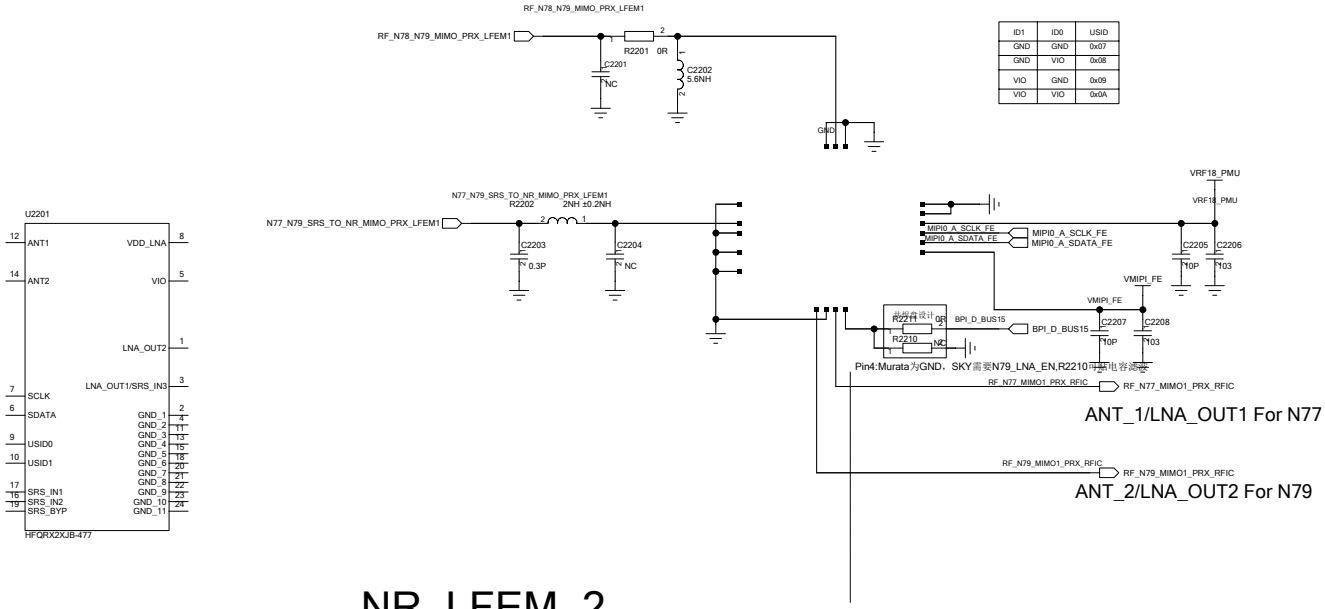
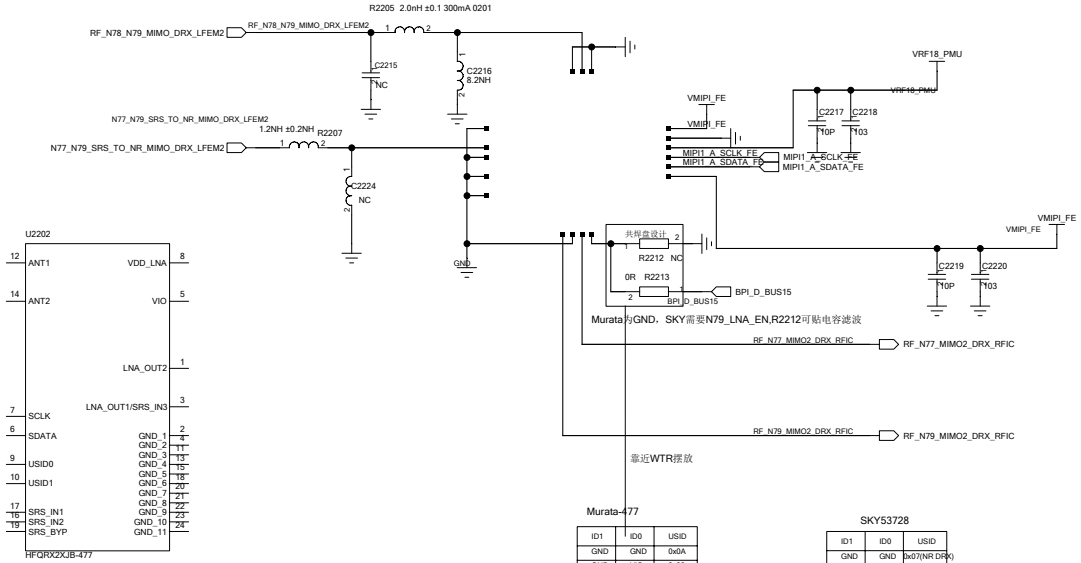
Standard By			
Approved By			realme

NR_LFEM_1



ID1	ID0	USID
GND	GND	0x07
GND	VIO	0x08
VIO	GND	0x09
VIO	VIO	0x0A

NR_LFEM_2



Murata-477

ID1	ID0	USID
GND	GND	0x0A
GND	VIO	0x08
VIO	GND	0x09
VIO	VIO	0x01

可换SKY53728

SKY53728

ID1	ID0	USID
GND	GND	0x07(NR DRX)
GND	VIO	0x08(MLNA)
VIO	GND	0x09
VIO	VIO	0x0A

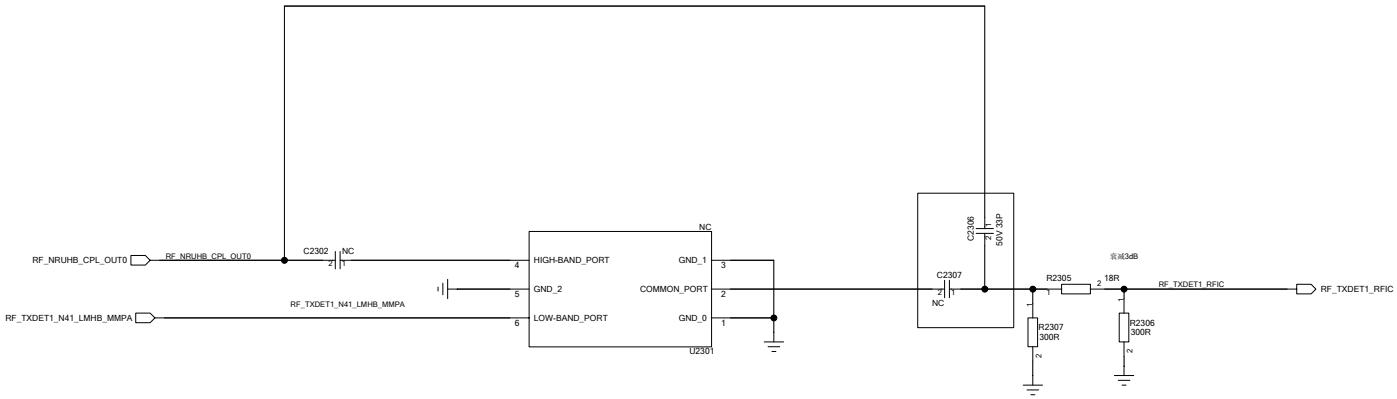
可换-477

	Sign	Date	Type:
Drawn By			Draw No: Schematic
Checked By			Sheet of 50 Ver:
Standard By			
Approved By			realme

TXDET

NR PAMID

MMPA



LB、MHB PAMID

	Sign	Date	Type:
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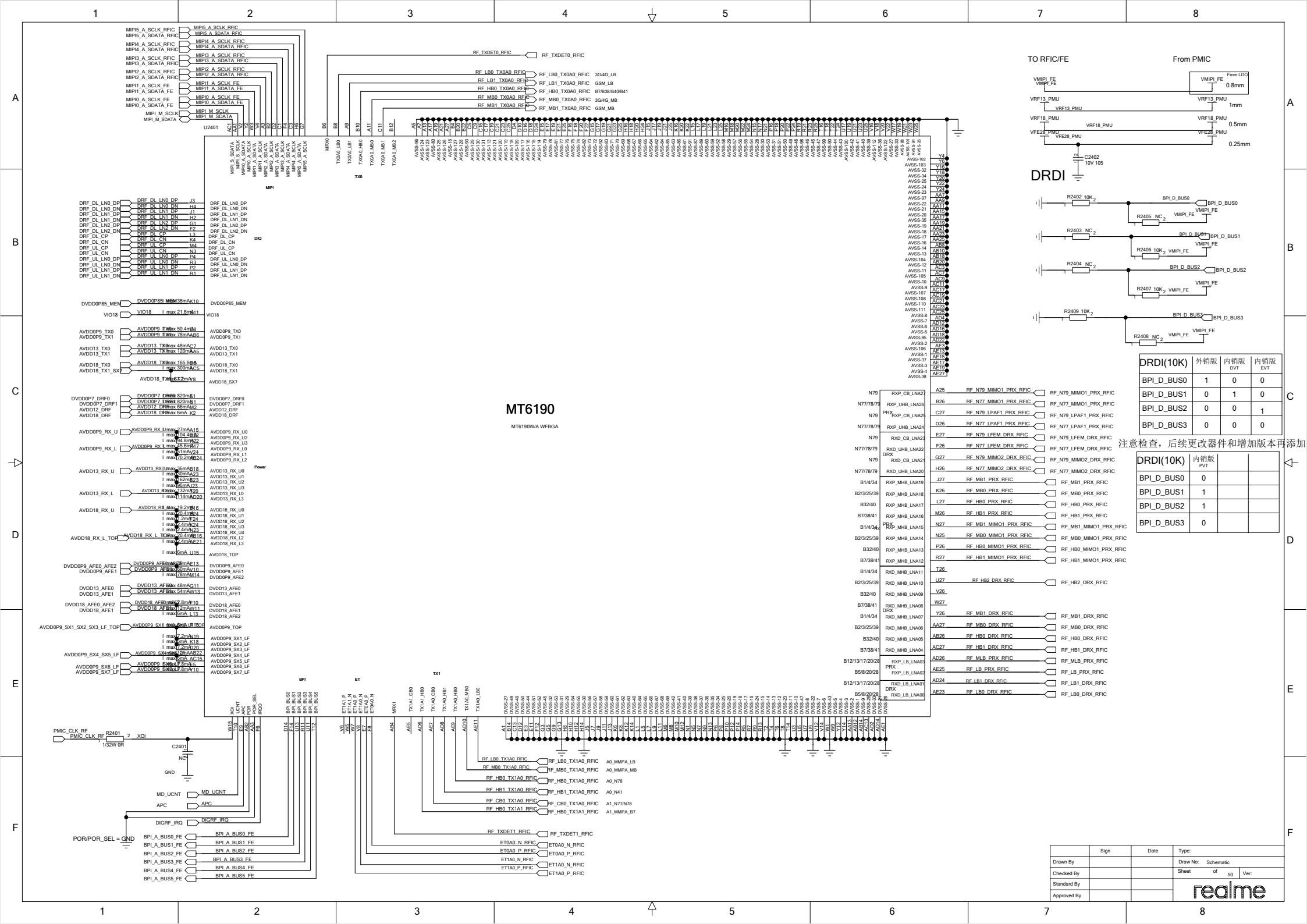
Checked By			Sheet of 50 Ver:
Standard By			
Approved By			realme

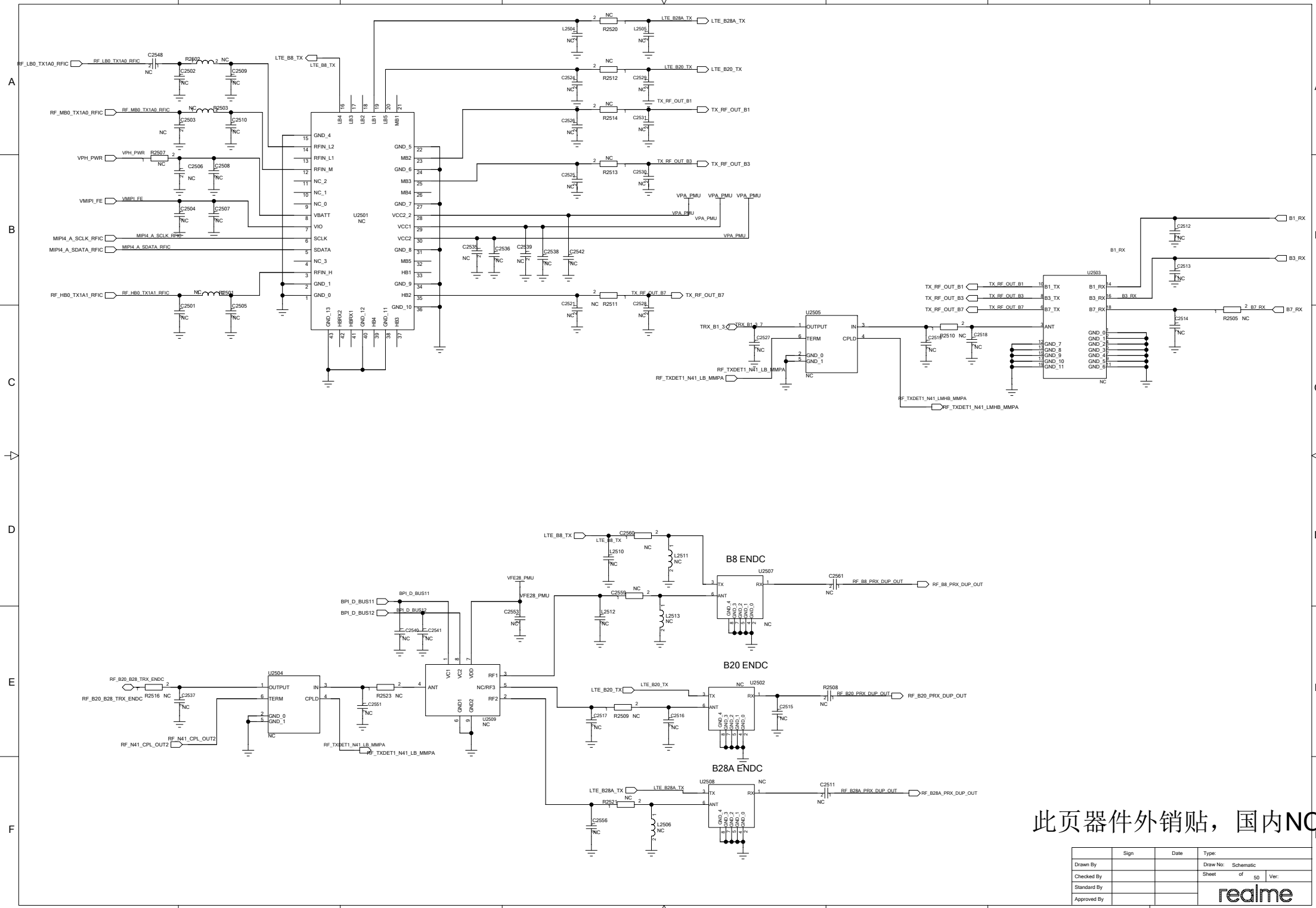


DRDI(10K)	外销版	内销版 DVT	内销版 EVT
BPI_D_BUS0	1	0	0
BPI_D_BUS1	0	1	0
BPI_D_BUS2	0	0	1
BPI_D_BUS3	0	0	0

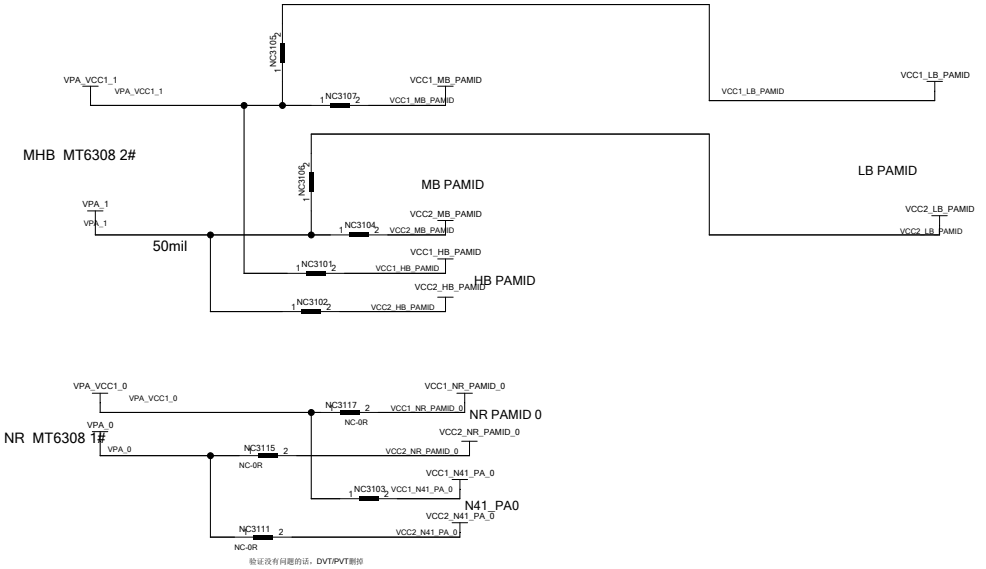
注意检查，后续更改器件和增加版本再添加

DRDI(10K)	内销版 PVT		
BPI_D_BUS0	0		
BPI_D_BUS1	1		
BPI_D_BUS2	1		
BPI_D_BUS3	0		

	Sign	Date	Type:
Drawn By			Draw No: Schematic
Checked By			Sheet of 50 Ver:
Standard By			
Approved By			realme


B8 ENDC
B20 ENDC
B28A ENDC
U2501
U2503
U2504
U2505
U2507
U2508
U2509
U2502
RF_LB0_TX1A0_RFIC
RF_MB0_TX1A0_RFIC
RF_HB0_TX1A1_RFIC
MIPI4_A_SCLK_RFIC
MIPI4_A_SDATA_RFIC
VMIPI_FE
VPH_PWR
LTE_B8_TX
LTE_B20_TX
LTE_B28A_TX
TX_RF_OUT_B1
TX_RF_OUT_B3
TX_RF_OUT_B7
VPA_PMU
VFE28_PMU
BPI_D_BUS11
BPI_D_BUS12
B1_RX
B3_RX
B7_RX
RF_B8_PRX_DUP_OUT
RF_B20_PRX_DUP_OUT
RF_B28A_PRX_DUP_OUT
RF_B20_B28_TRX_ENDC
RF_N41_CPL_OUT2
RF_TXDET1_N41_LB_MMPA
RF_TXDET1_N41_LMHB_MMPA
此页器件外销贴，国内NC
Drawn By
Checked By
Standard By
Approved By
Sign
Date
Type:
Draw No: Schematic
Sheet of 50
Ver:
realme

MT6308 ET供电转接



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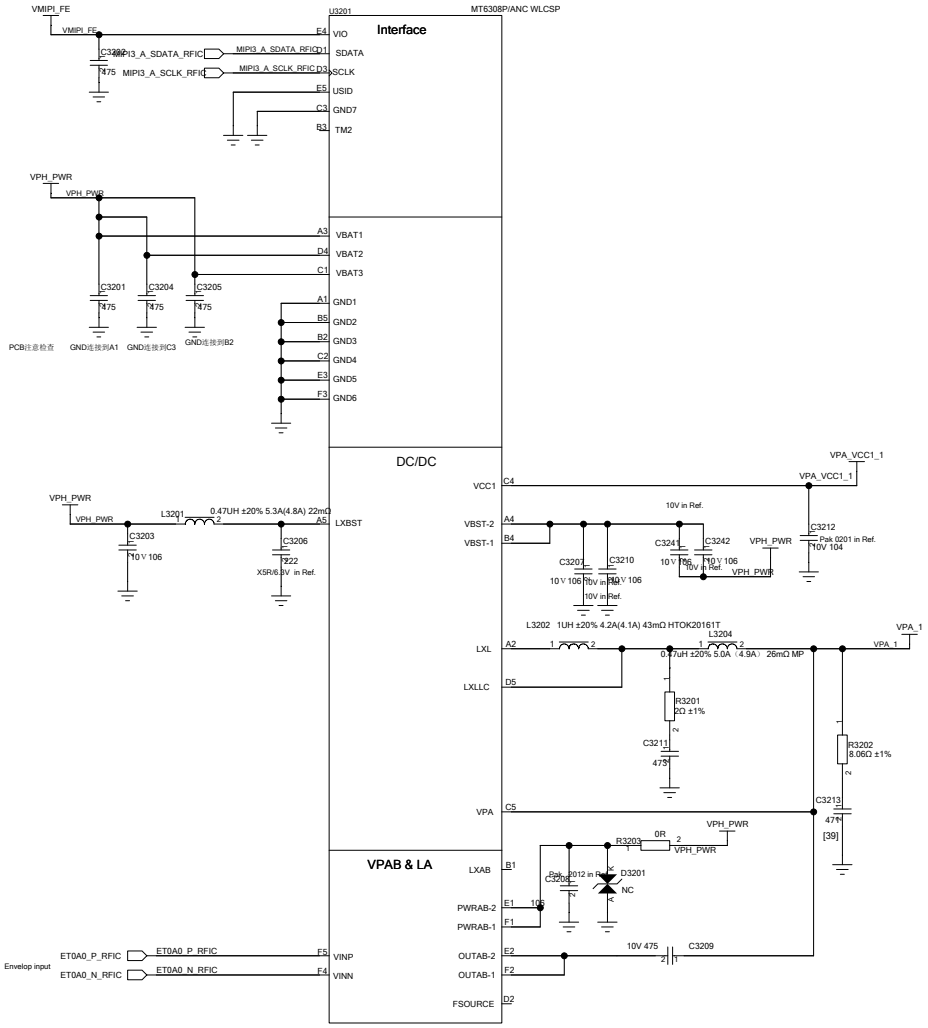
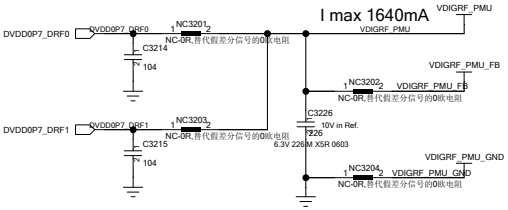
Standard By			
Approved By			realme

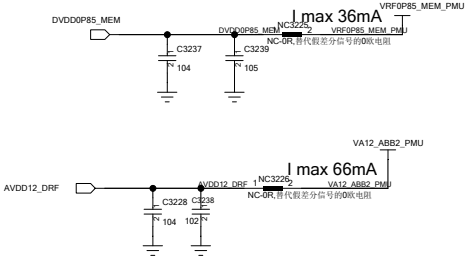
NR_PAMid_n41_SatPA_ET1_NR1/ET Ref design

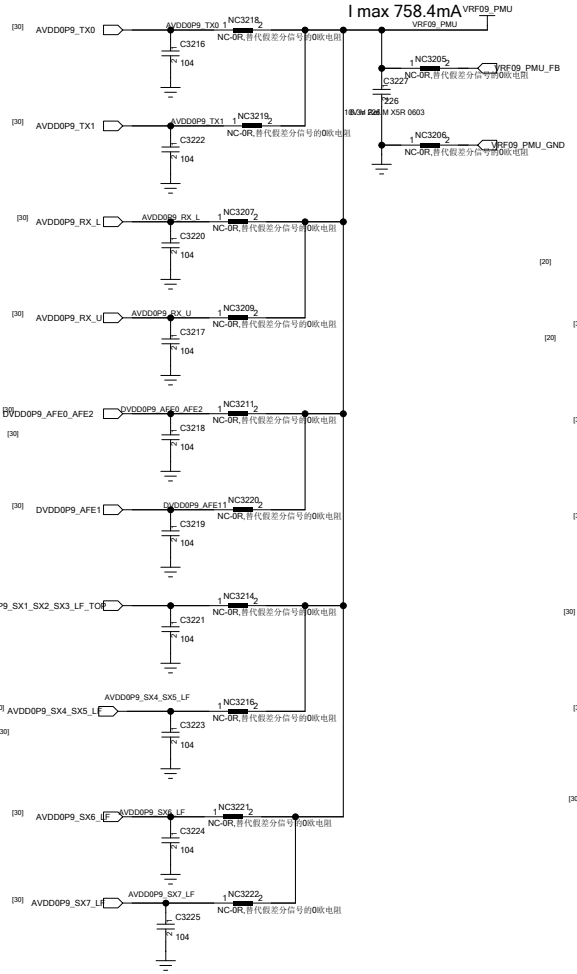
LB/MHB_PAMID_ET MT6308 2#

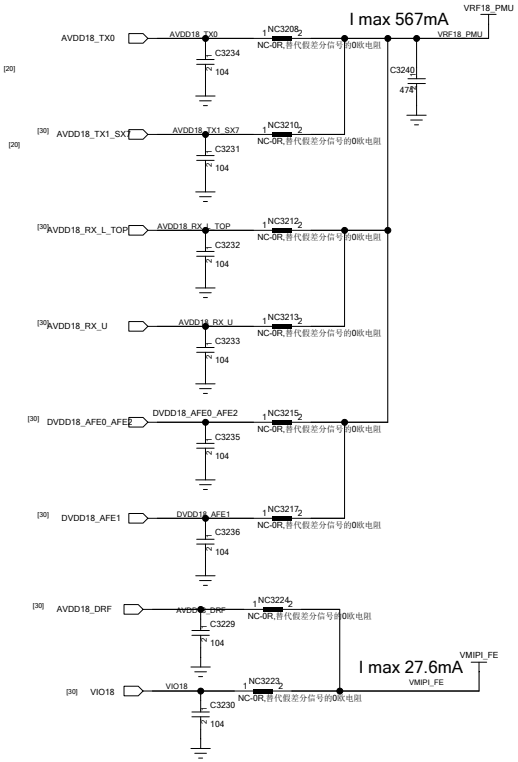


MT6190供电部分









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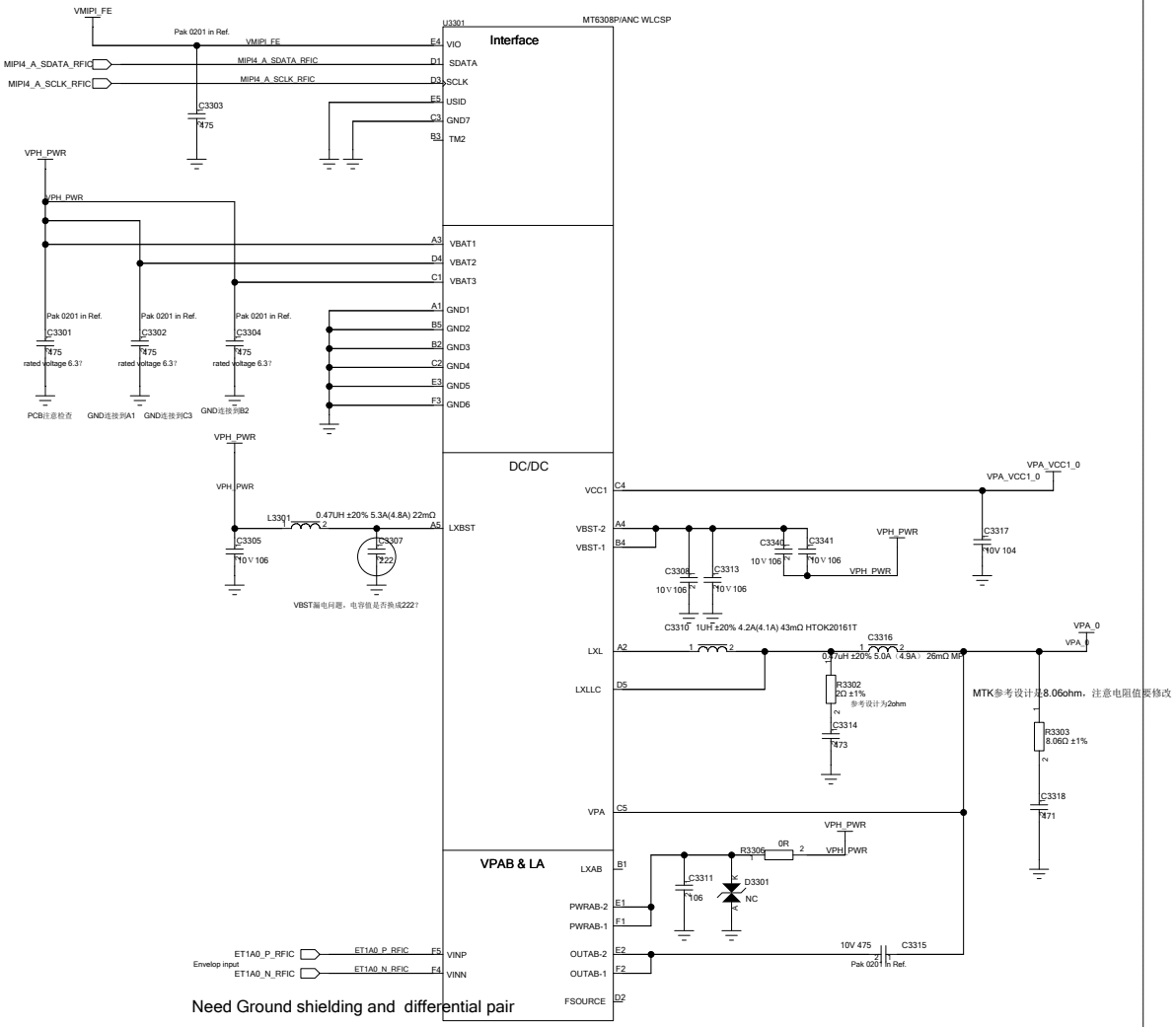
Approved By			realme

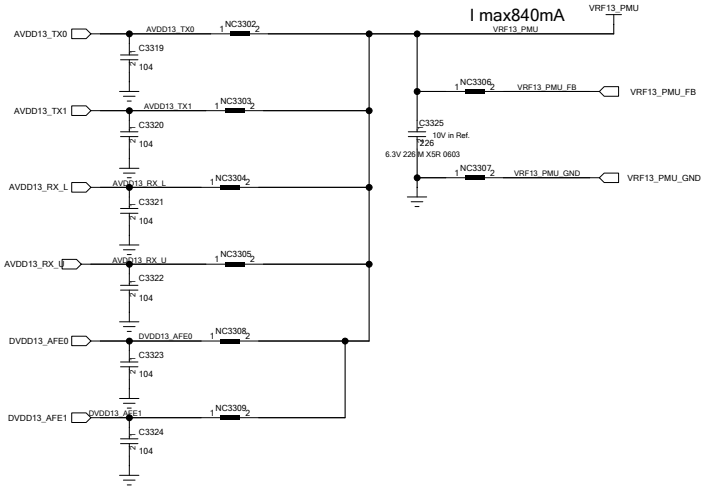
NR_PAMID + N41 PAD /APT Ref Design

MT6308 1#



Need Ground shielding and differential pair

MT6190供电TX部分



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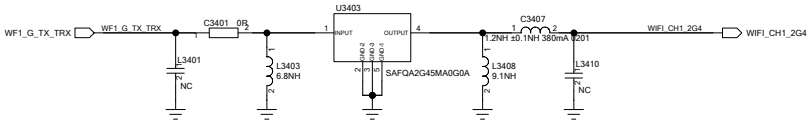
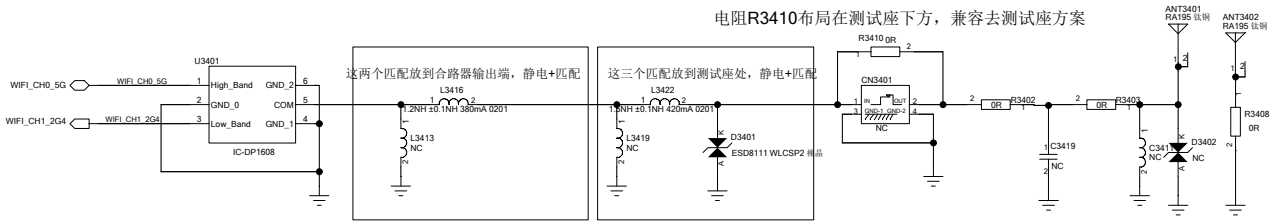
Approved By			

CH1 2.4G

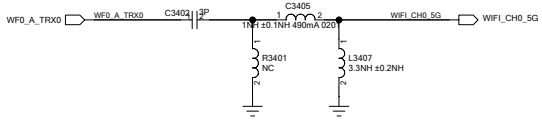


WIFI部分

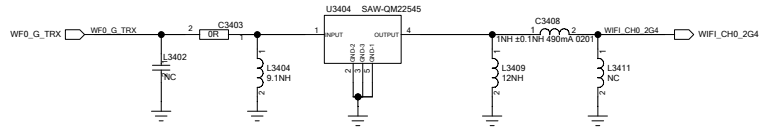
2G Chain1_5G_Chain0



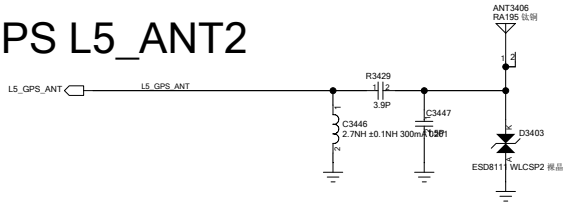
CH0 5G



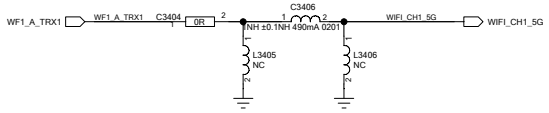
CH0 2.4G



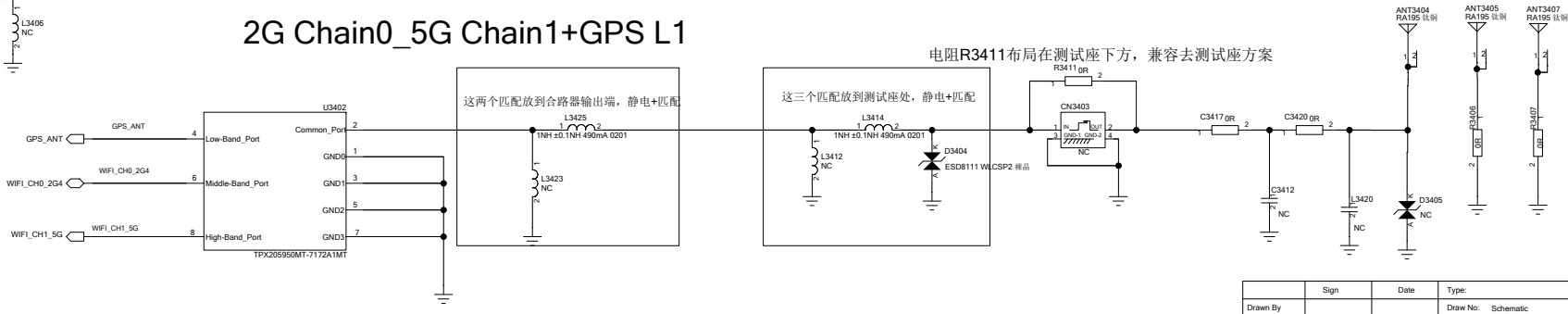
GPS L5_ANT2



CH1 5G



2G Chain0_5G Chain1+GPS L1



	Sign	Date	Type:
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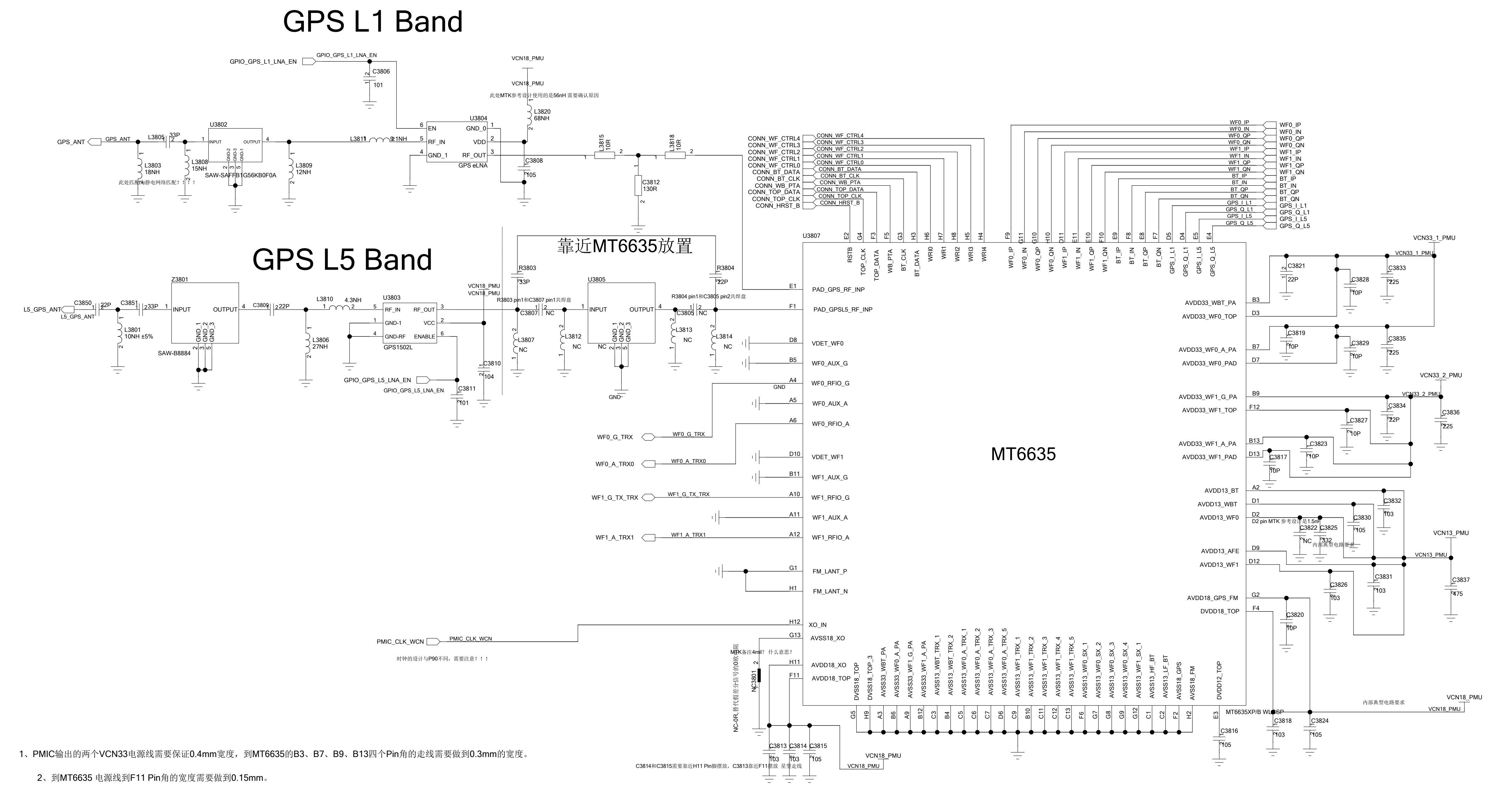
Standard By			
Approved By			realme



1、PMIC输出的两个VCN33电源线需要保证0.4mm宽度，到MT6635的B3、B7、B9、B13四个Pin角的走线需要做到0.3mm的宽度。

2、到MT6635 电源线到F11 Pin角的宽度需要做到0.15mm。

3、到MT6635其他电源管脚（A3、D1、D2、D3、D7、D9、D12、D13、F4、F11、F12、G2、H11）走线宽度可以按照最小线宽来走

4、A3、A9、H9三个Pin与表层隔开单独接内层地

5、C1&C2表层连接到一起，再与表层其他地隔开，通过孔接到内层地；

6、F6、G7、G8、G9四个孔表层接在一起，与其他表层地分开，通过过孔接到内层GND

7、B4、B6、B11、B10、B12、C3、C5、C6、C7、C9、C11、C12、C13、D6、A5、A11、B5、B11可直接接表层GND

8、IQ走线需要保证10PF以内，走线长度尽量不要超过5CM；

9、PMIC到BB的CLK走线按照45欧姆阻抗设计，width=2.5mi，Space=？，长度8cM以内；

10、PMIC到MT6635的CLK走线按照30欧姆阻抗设计，Width=3min、Space=4mil，长度8CM以内；

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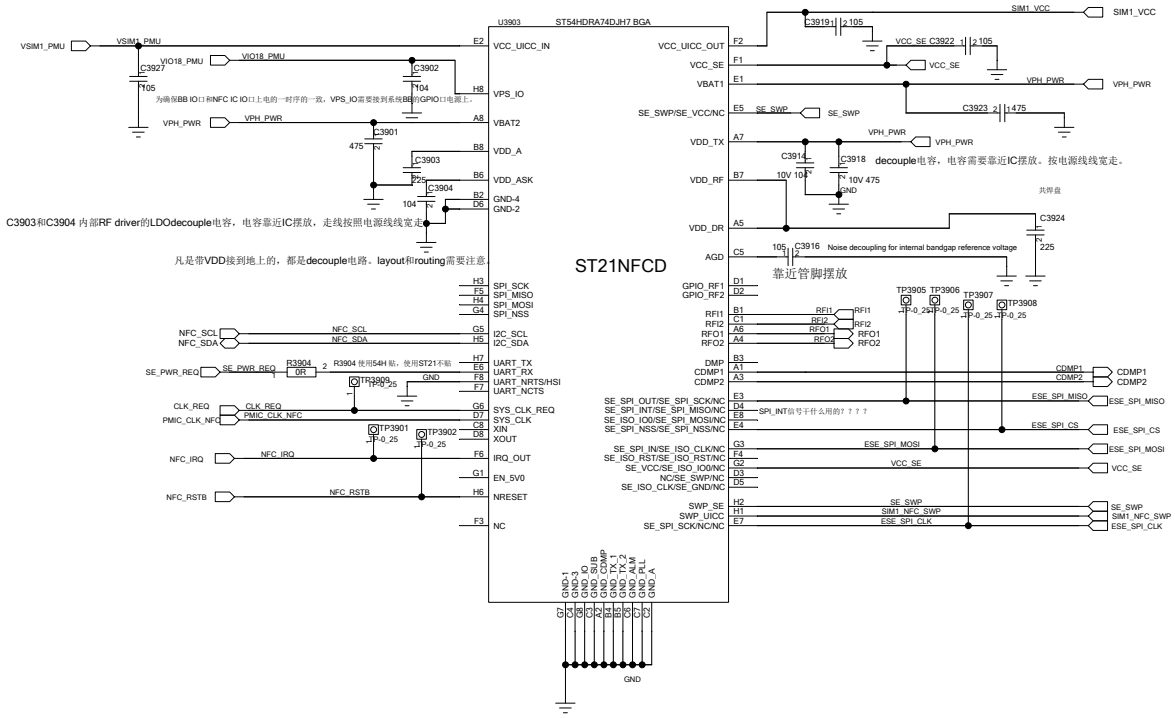
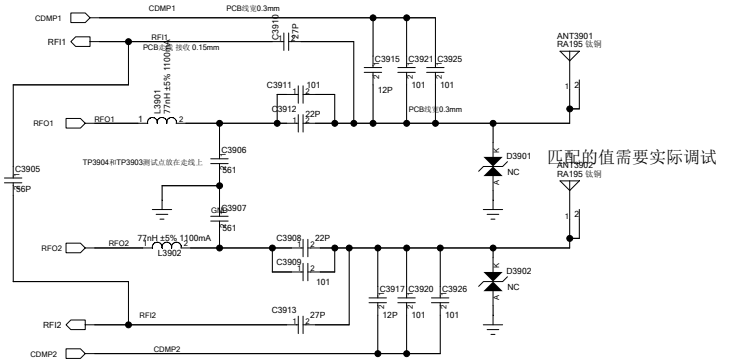
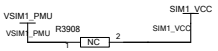
Approved By			realme

NFC







NFC电源走线线宽要求：

1、到VDD_TX的VPH_PWR走线宽度要达到0.3mm以上；

2、VPH_PWR到VBAT1&VBAT2 要到到0.15mm，然后分到两个电源管脚分别为0.1mm。

default I2C address is 0x08

NFC	Write	Read
ST54HDRA	0X10	0X11

1、 VBAT1+VBAT2 消耗最大200mA， VBAT2是给芯片内部（除了射频发射部分）的模拟电路供电， Vbat1给其它片上资源供电（如CPU, Flash, 逻辑电路）。考虑搭到浪涌的因素ST54H的VBat建议接到系统的VPH_PWR上面，不建议接到电池的VBAT上面。

2、eSE模块消耗最大30mA, 正常工作情况下，实际消耗的电流根据当时eSE的工作状态大概在 100uA ~ 20mA 之间。

3、VDD_RF，是载波的功率源。

4、VDD_ASK，调制的功率源，是调制信号的驱动。

5、VDD_A， 给芯片内部的模拟电路供电，比如小信号处理，内部滤波器，运放等。

6、R4620建议先按照NC调试，若是调试结果需要使用电阻，一定要计算流过的电路，避免电流过大烧电阻

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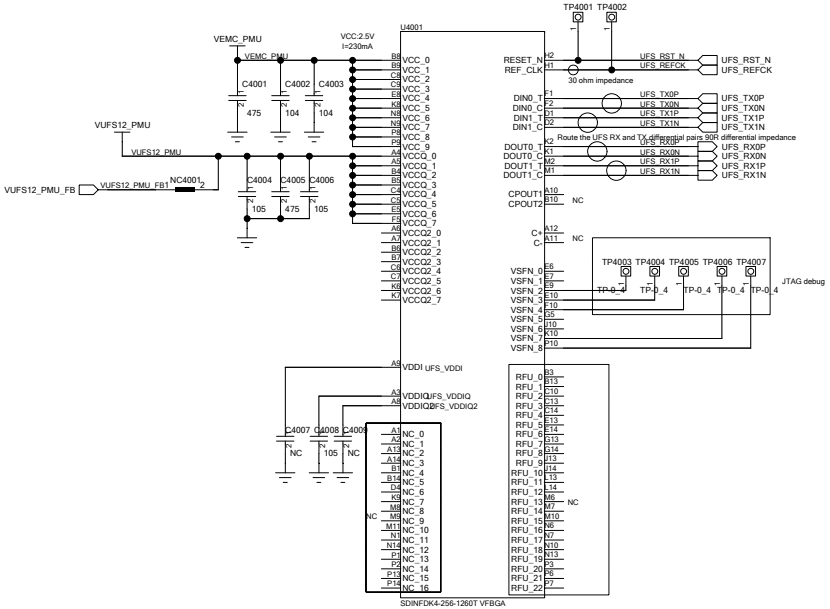
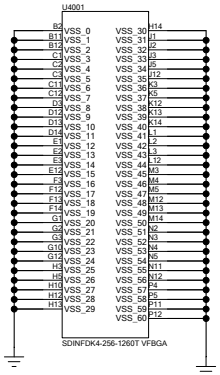
Approved By				

oppo

UFS(256GB Sandisk)

UFS物料代码：128G 9120283;256G 9120307





POP LPDDR4X(8GB)

8G DDR 物料代码9120214

12G DDR 物料代码9120219

U4002

DDR

BB

K3UH7H20AM-AGCL 556FBGA

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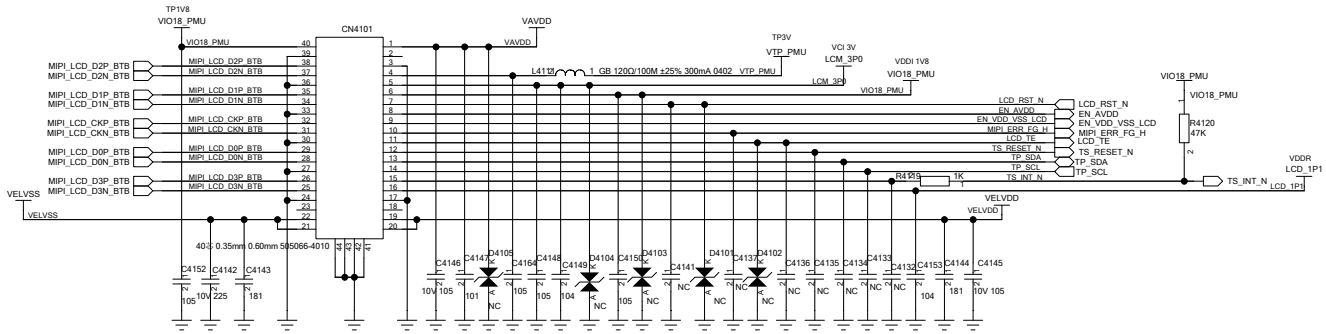
TO L_FPC

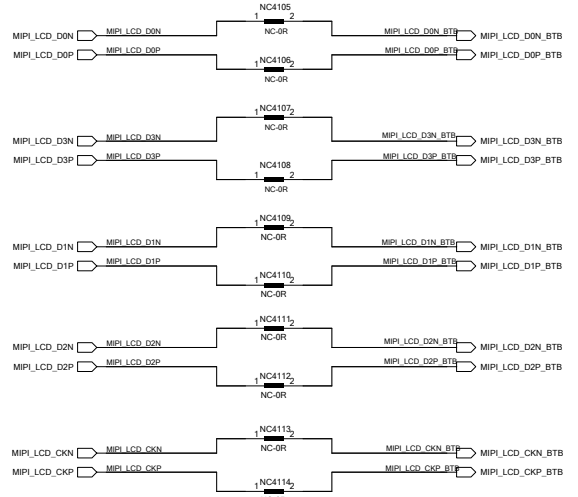


TP I2C	Read	Write
SDC	0X91	0X90
BOE	0X97	0X96

LCD AVDD Option for SDC and BOE

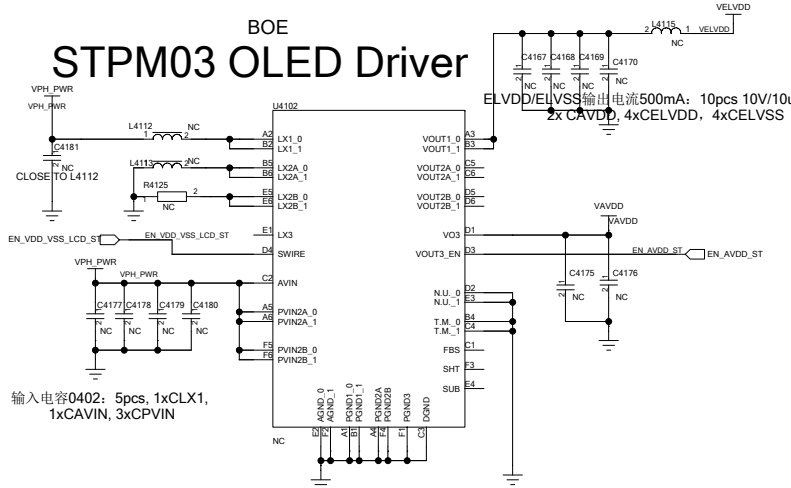
Panel	Voltage Range	
SDC	typical 1.25V, Range:1.20V to1.30V	
BOE	Typical: 1.1V Range:0.99V to1.21V	

DSI CMF

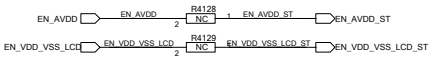


BOE

STPM03 OLED Driver

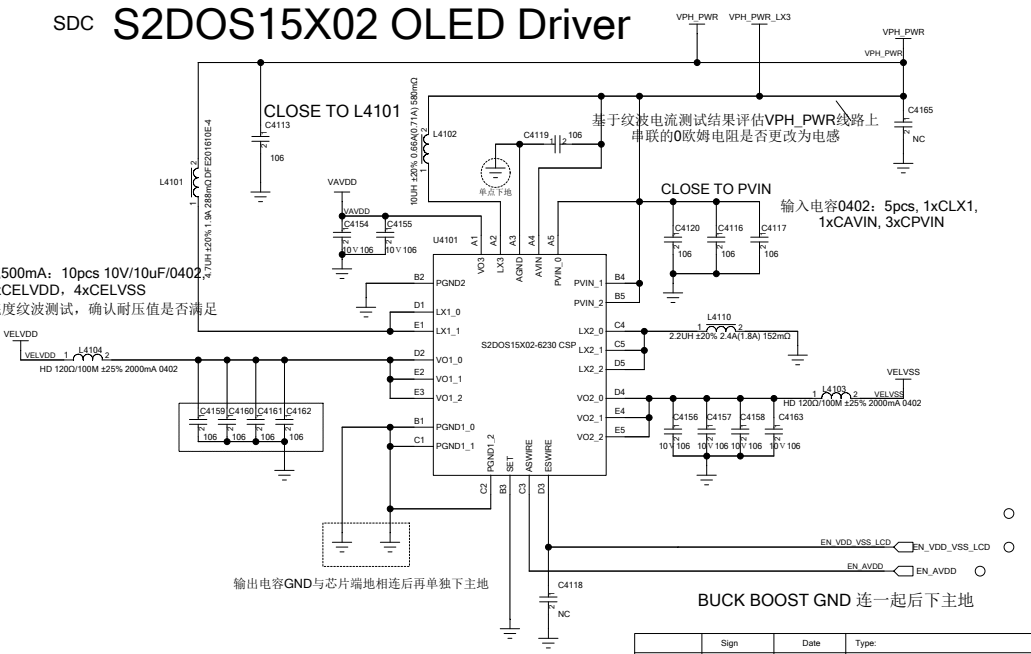


输入电容0402：5pcs, 1xCLX1,
1xCAVIN, 3xCPVIN



SDC

S2DOS15X02 OLED Driver



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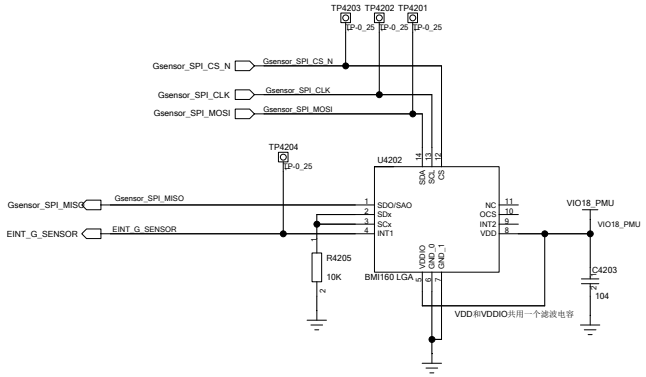
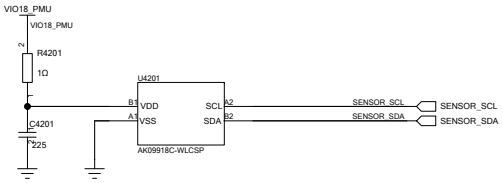
realme

G-Sensor/Gyo

BMI160



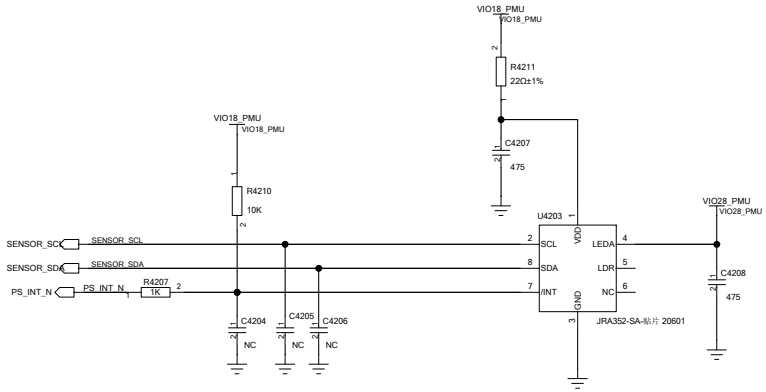
Magnetic Sensor



M-sensor	Write	Read
AK09918	0X18	0X19

P.S sensor module

A.L.S. sensor1



STK33502 读地址0x8D、写地址0x8C

ALS Sensor	Write	Read
STK33502	0X8C	0X8D

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Drawn By	Elvis	2014/01/15	Draw No: Schematic
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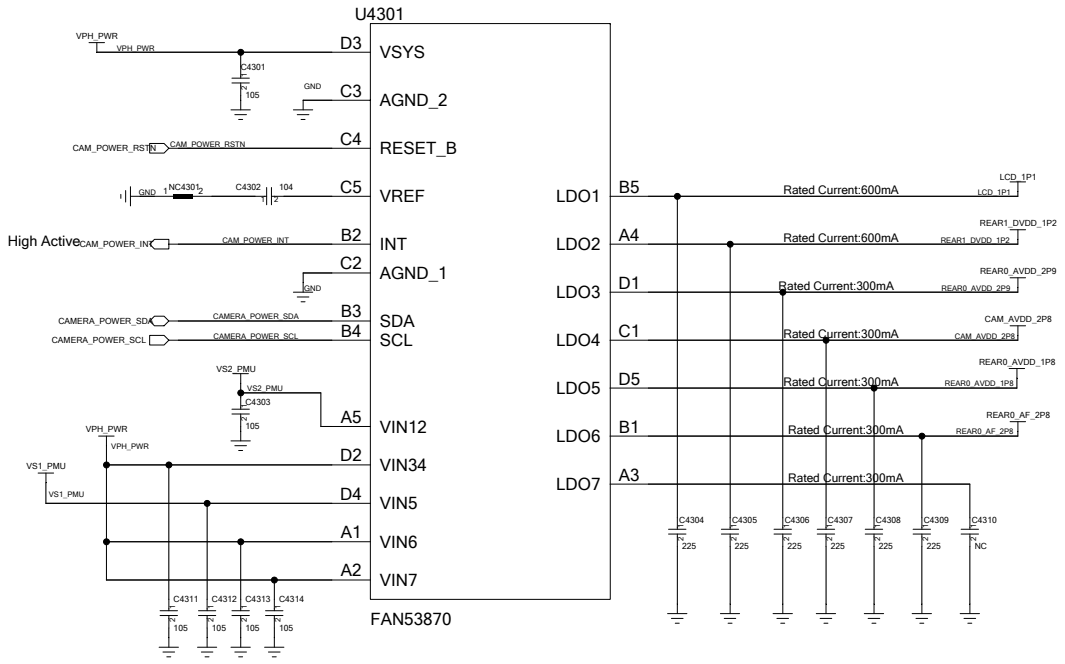
Approved By			realme

FAN53870

FAN53870	write	read
I2C	0X6A	0X6B

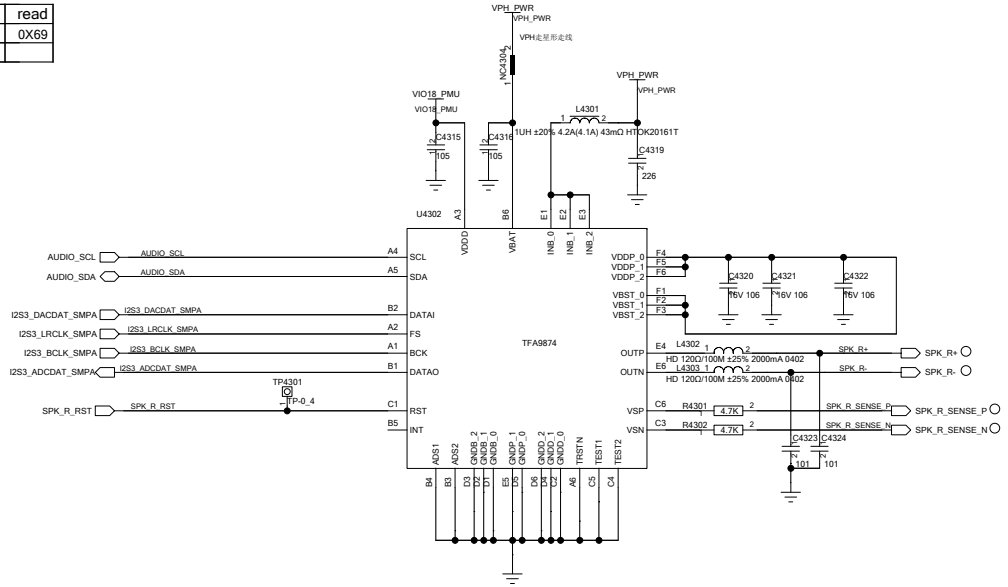
PM8008

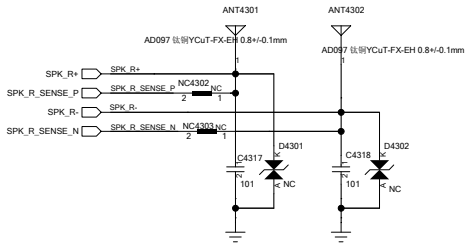
PM8008 LDO W:0x12 R:0x13
PM8008 Other W:0x10 R:0x11



Smart PA TOP

TFA9894 TOP	write	read
I2C	0X68	0X69





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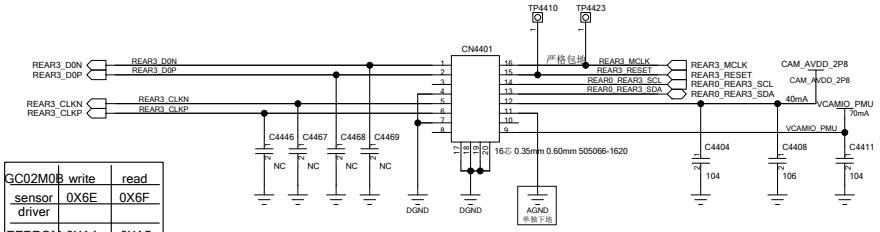
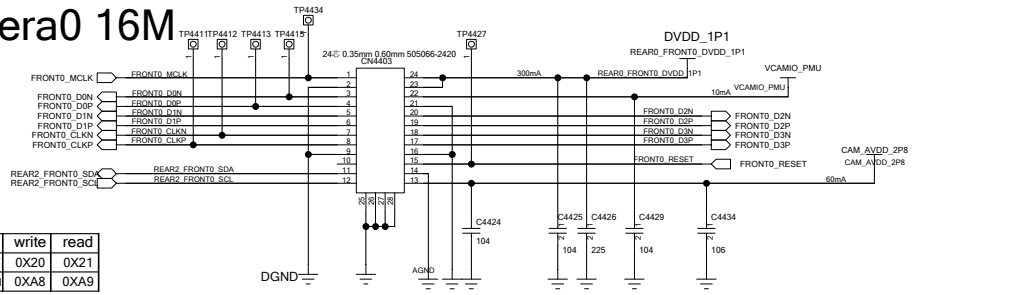
Approved By			realme

Rear_Camera3 (2M) MICRO



GC02M0B	write	read
sensor	0X6E	0X6F
driver		
EEPROM	0XA4	0XA5

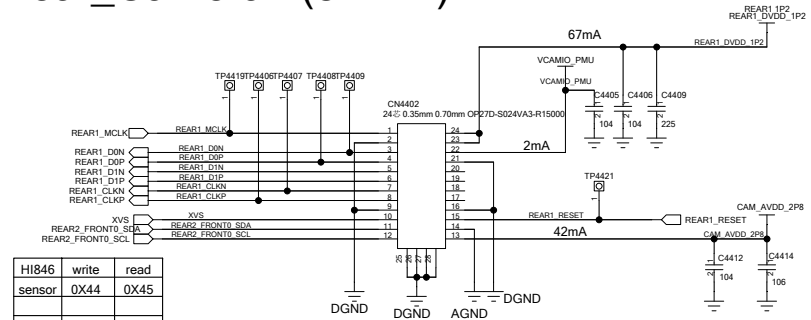
Front_Camera0 16M



IMX471	write	read
sensor	0X20	0X21
EEPROM	0XA8	0XA9

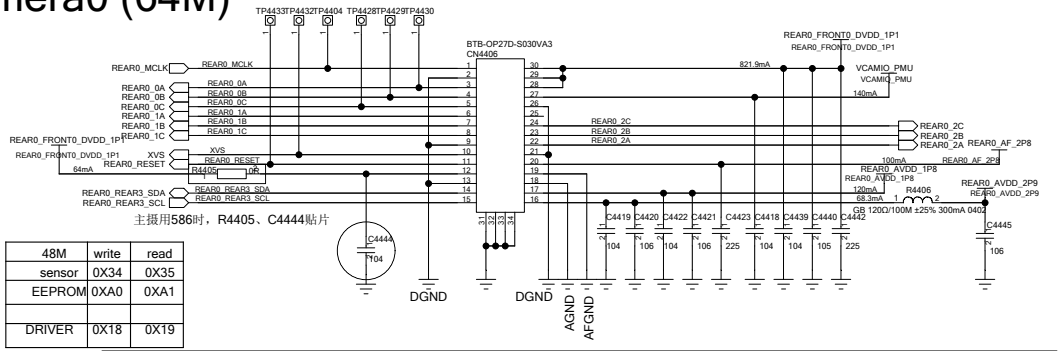
IMX616	write	read
sensor	0X20	0X21
EEPROM	0XA8	0XA9

Rear_Camera1 (8M FF)



HI846	write	read
sensor	0X44	0X45
EEPROM	0XA2	0XA3

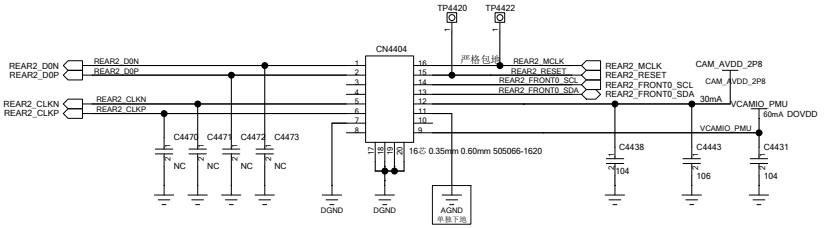
Rear_Camera0 (64M)



64M	write	read
sensor	0X20	0X21
EEPROM	0XA0	0XA1
DRIVER	0X18	0X19

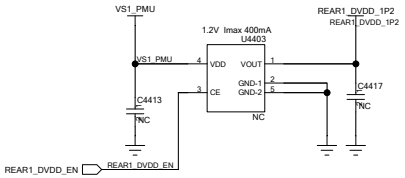
48M	write	read
sensor	0X34	0X35
EEPROM	0XA0	0XA1
DRIVER	0X18	0X19

Rear_Camera2(2M MONO)

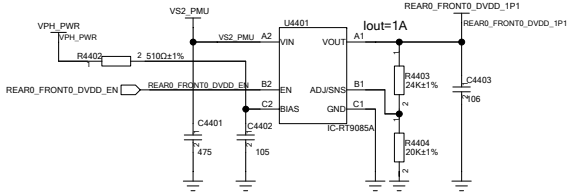


OV02B1B	Write	Read
Sensor	0X7A	0X7B
Driver		
EEPROM	0XA4	0XA5

Rear_Camera1(8M)_DVDD_1P2



Main_Front_Camera_DVDD1P1



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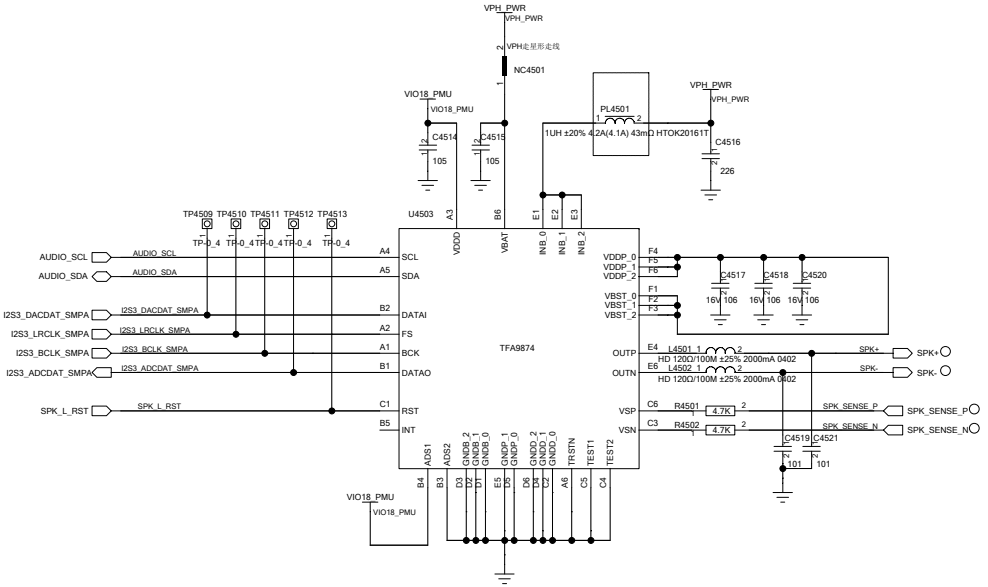
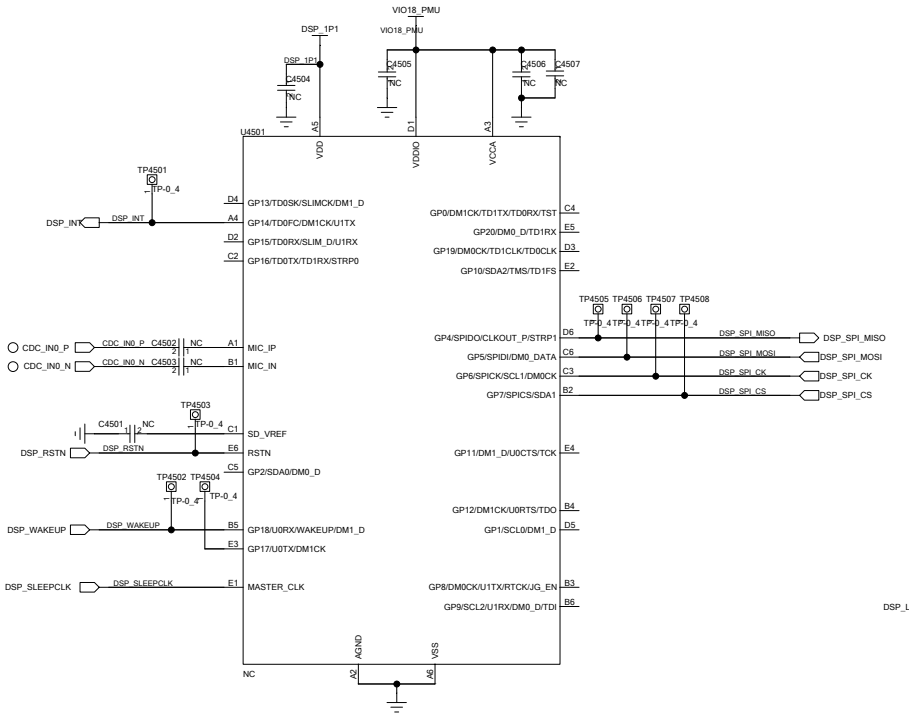
Standard By			
Approved By			realme

Smart PA BOT

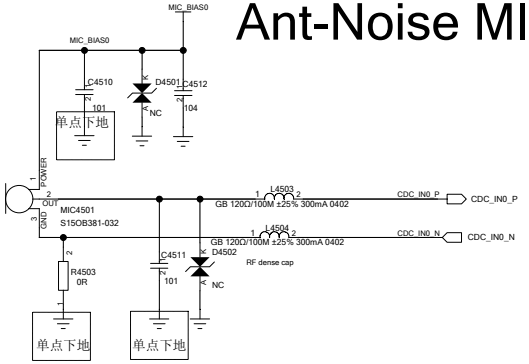
TFA9894/9874 I2C Address (R:0x6B; W:0x6A)

TFA9894 BOT	write	read
I2C	0X6A	0X6B

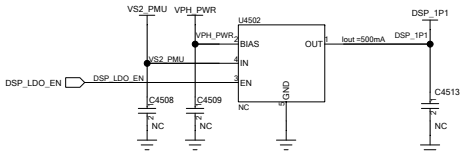




Ant-Noise MIC



Close to DSP



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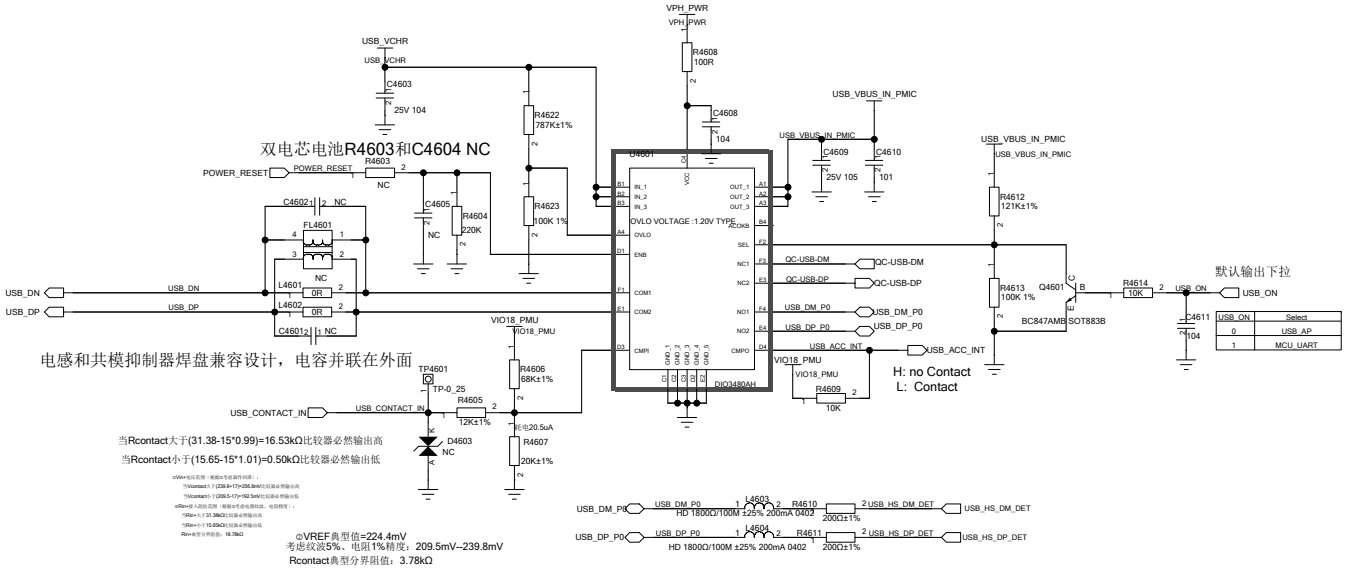
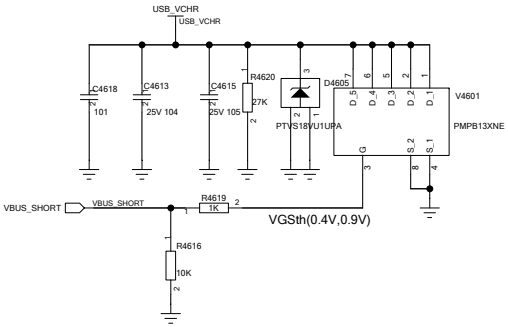
Approved By			realme

OVP SW Comparator

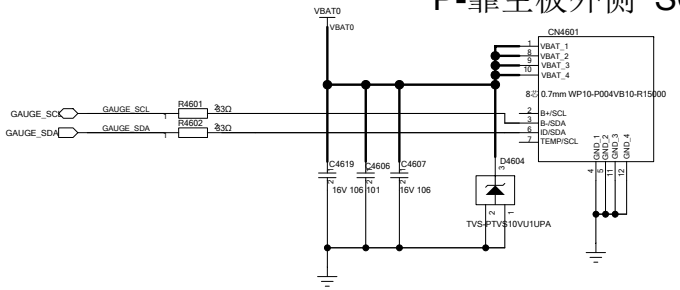




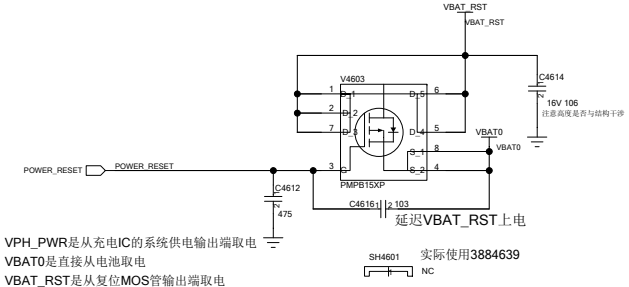
Battery Connector

Battery	Read	Write
28Z719	0XAB	0XAA

P-靠主板外侧 SCL靠电池



VBAT_MOSFET



VPH_PWR是从充电IC的系统供电输出端取电
VBAT0是直接从电池取电
VBAT_RST是从复位MOS管输出端取电

对应位号V4603,使用平台复位时贴上

	Sign	Date	Type:
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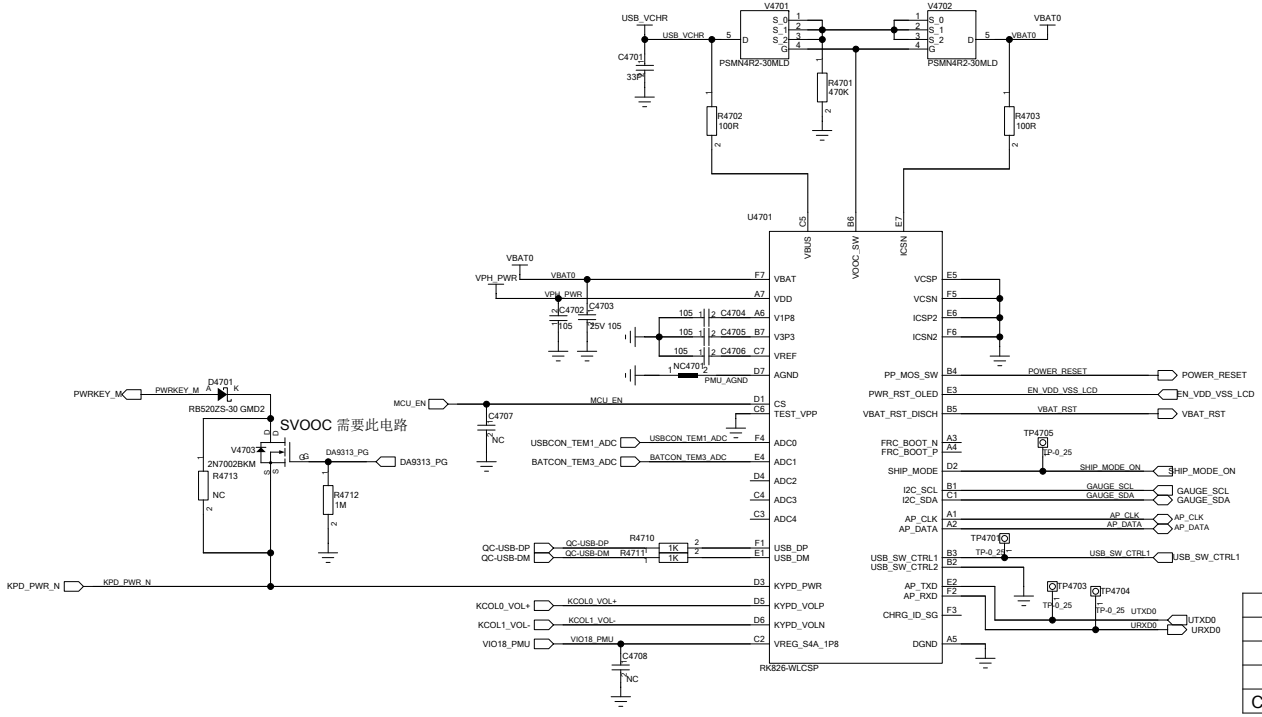
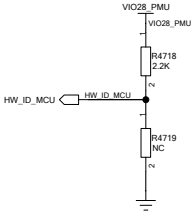
Fast Charge



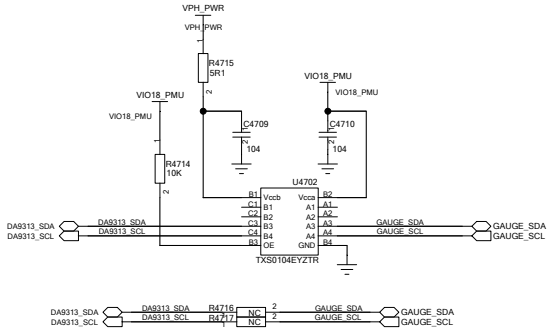
MCU	Read	Write
RK826	0X15	0X14
SY6610	0X0D	0X0C
RT5125	0X1D	0X1C

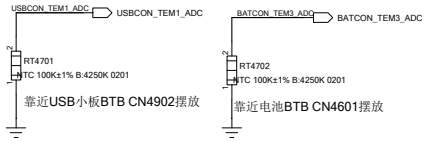


ASIC	HW_ID_MCU
RK826	PU
OP10	PD
RT5123	High-Z

1. 开机时软件先设置输入pullup，读取IO状态0；再设置输入pulldown，读取IO状态1；最后设置为输入nopull
2. 上下拉电阻10K以内，不同平台需要确认所选GPIO上下拉电阻阻值，确保外部上下拉能拉高/低

Status		Control Pins	
USB_DP	USB_DM	SW_CTRL	USB_SW_CTRL2
AP_RXD	AP_TXD	L	L
MCU_RXD	MCU_TXD	H	L
CHRG_ID_SG		L	H





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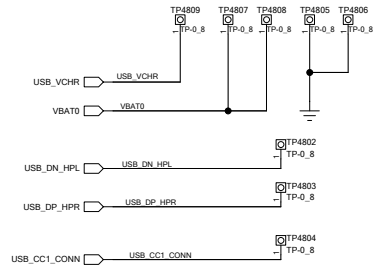
Approved By			realme

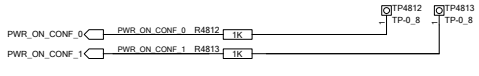
USB Switch

Test Point

JTAG TEST POINT



Test Confige

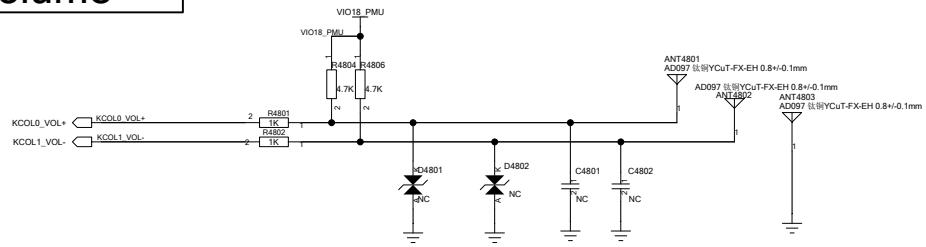


综测校准测试点

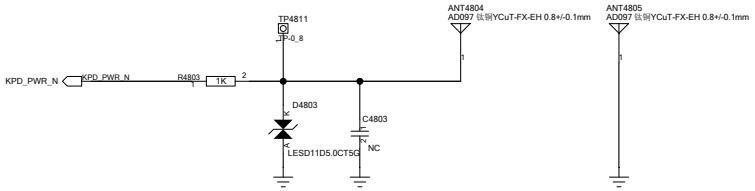
BOOT MODE

CONF_0	CONF_1	Mode
0	0	Factory Mode
0	1	WLAN Final Test
1	0	RF mode
1	1	Ordinary Power On

Key of Volume + -



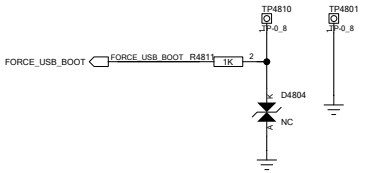
Power Key



Force_USB_Boot

强制下载测试点

两个测试点靠近放置



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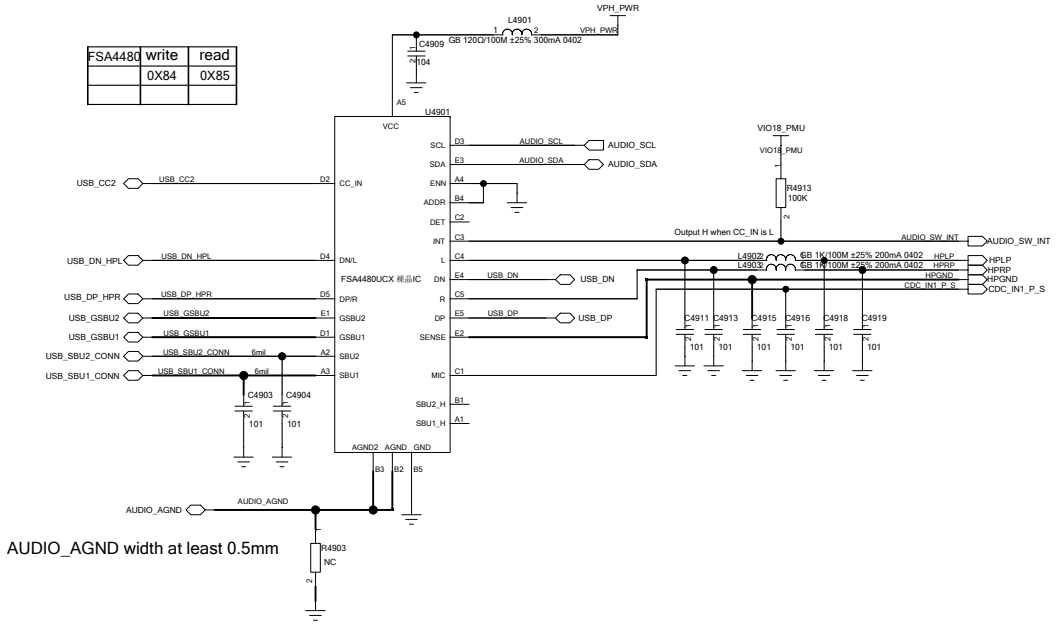
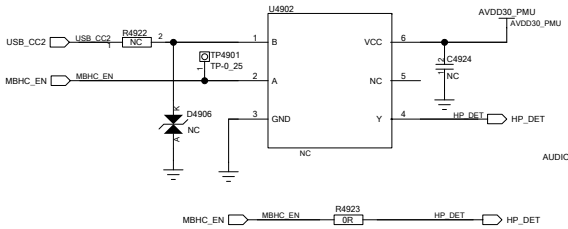
USB Audio Switch

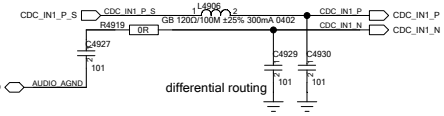


AUDIO_AGND width at least 0.5mm

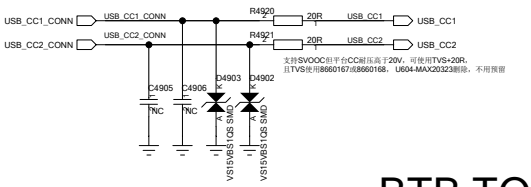
EAR DET

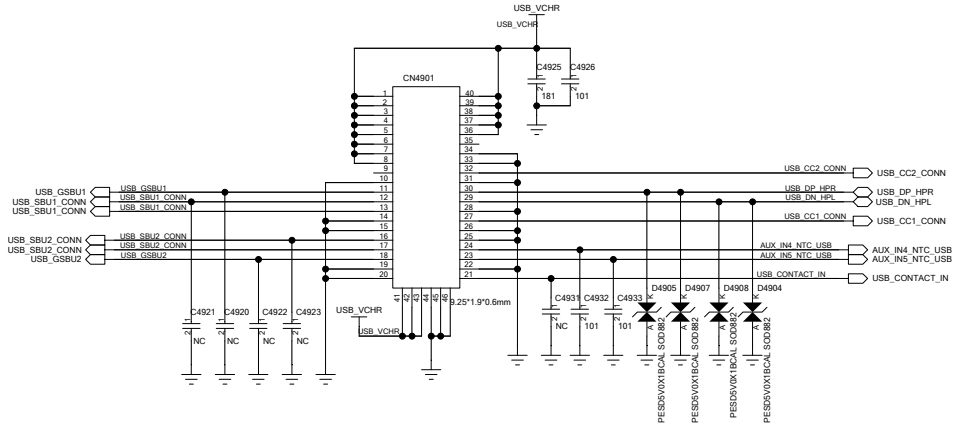


EAR MIC

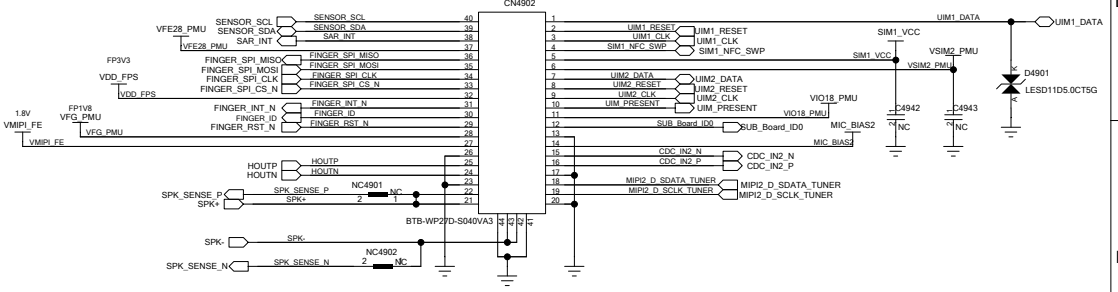


BTB TO U BOARD





BTB TO C BOARD



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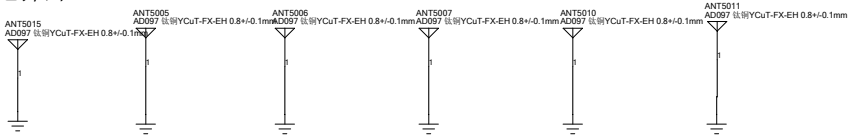
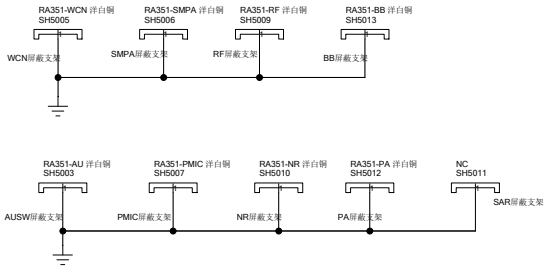
Approved By				

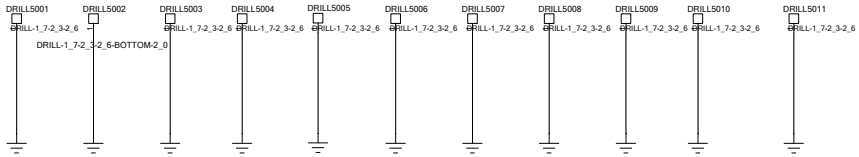
天线接地弹片



屏蔽支架

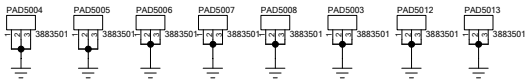


主板螺钉孔

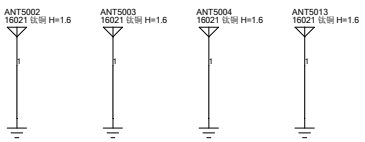


摄像头补强钢片

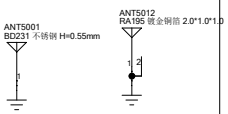
螺钉垫片



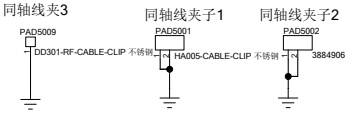
后摄装饰件接地弹片



主摄支架接地弹片

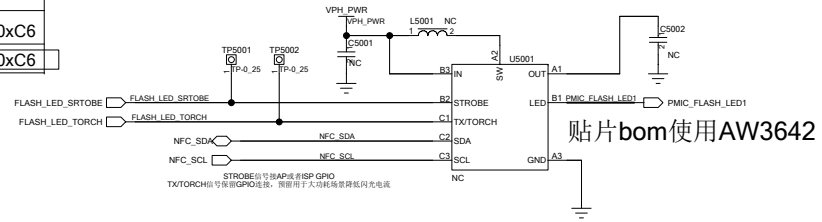


RF线夹

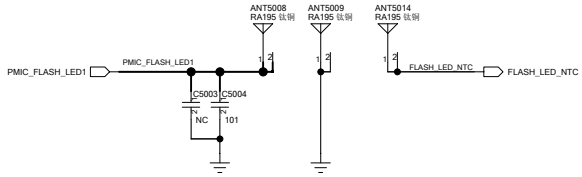


Flash LED

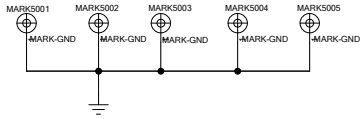
	Read	Write
LM3642	0xC7	0xC6
AW3642	0xC7	0xC6



LED+



MARK POINT



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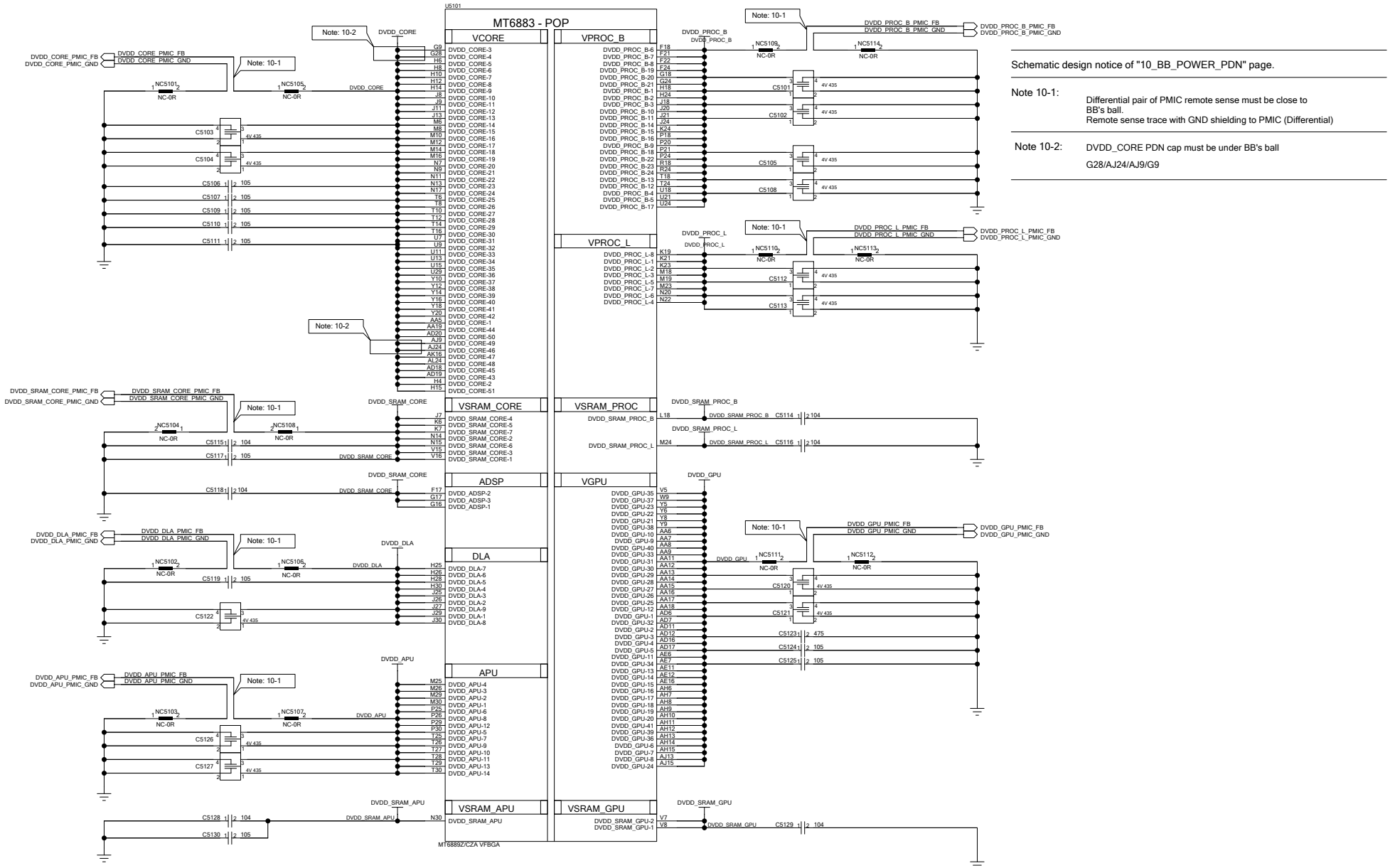

Schematic design notice of "10_BB_POWER_PDN" page.

Note 10-1: Differential pair of PMIC remote sense must be close to BB's ball.
Remote sense trace with GND shielding to PMIC (Differential)

Note 10-2: DVDD_CORE PDN cap must be under BB's ball
G28/AJ24/AJ9/G9

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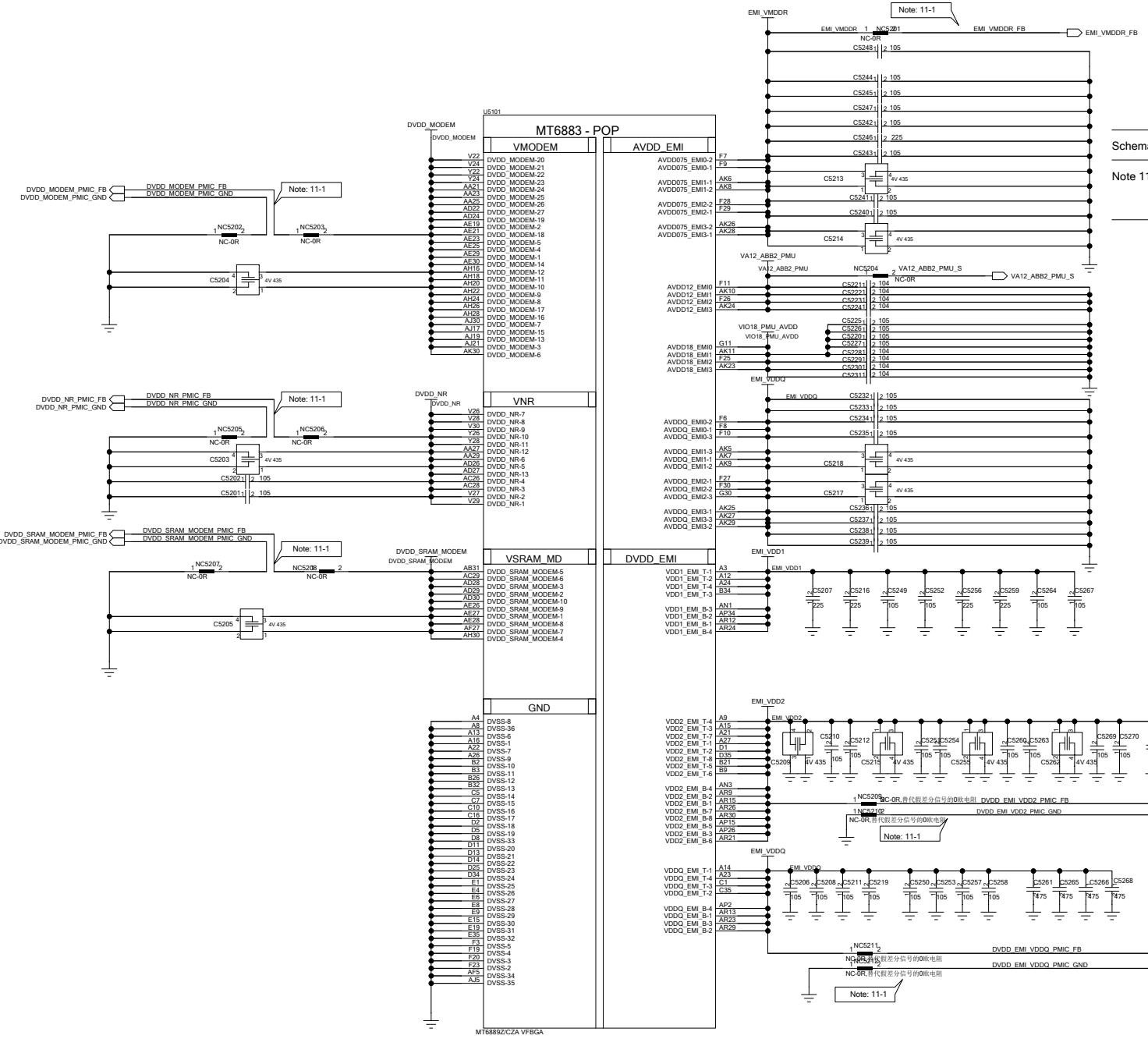
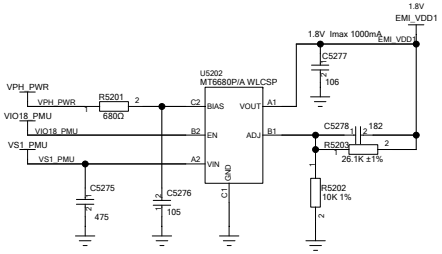
Standard By			
Approved By			realme

LP4X DRAM: VDD1





Schematic design notice of "11_BB_POWER_PDN" page.

Note 11-1: Differential pair of PMIC remote sense must be close to BB's ball.
Remote sense trace with GND shielding to PMIC (Differential)

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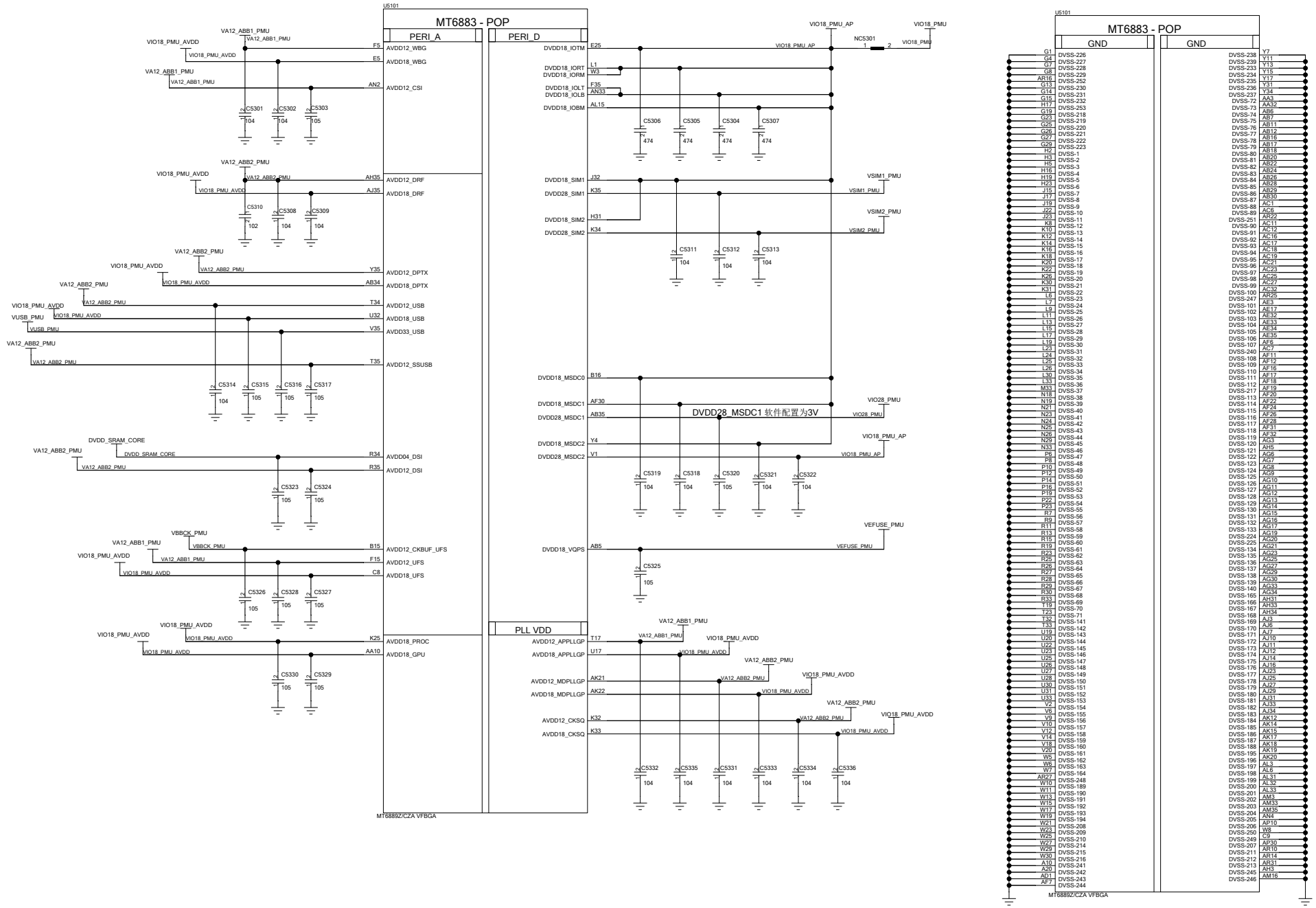
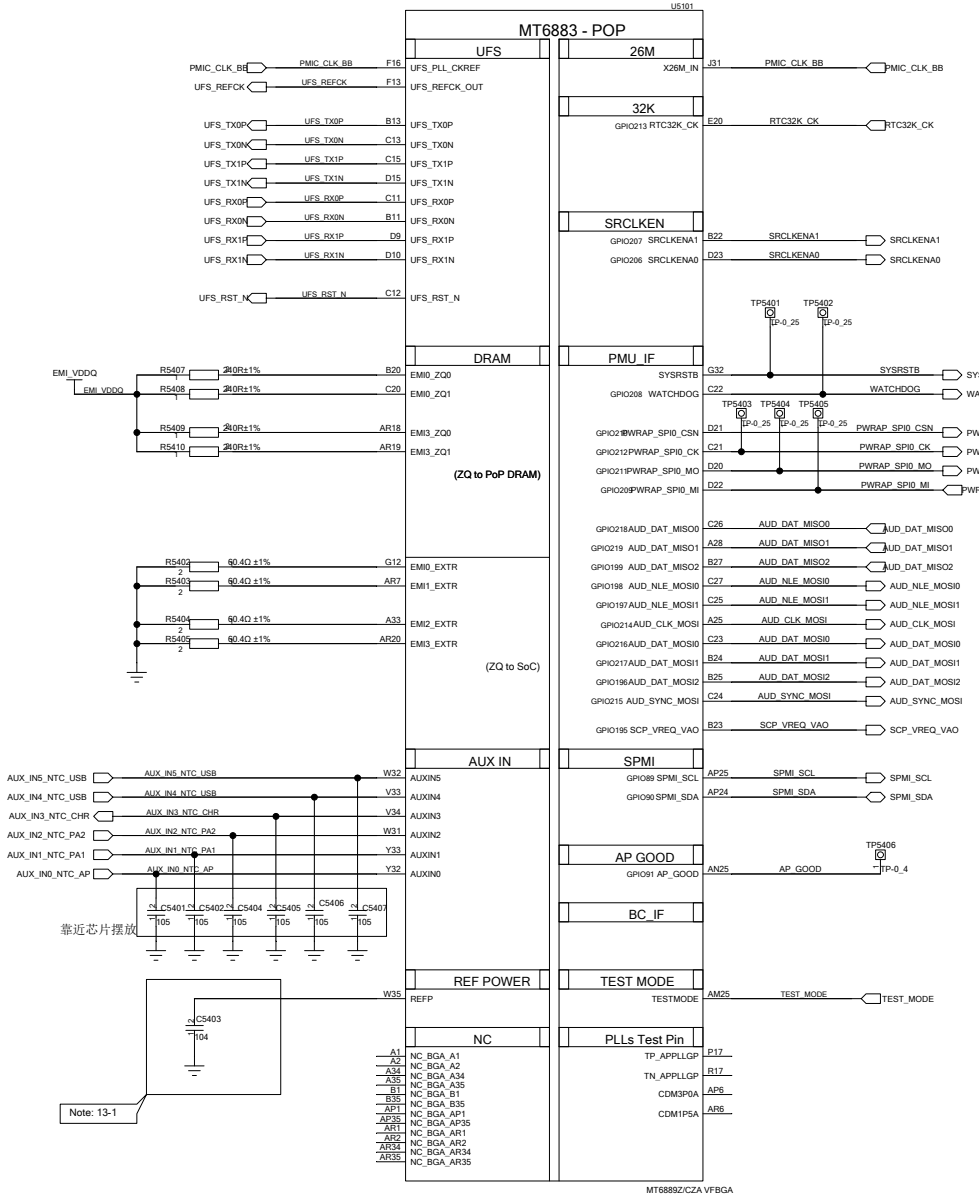
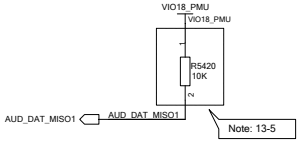
Standard By			realme	
Approved By				



	Sign	Date	Type:
Drawn By			Draw No: Schematic
Checked By			Sheet of 50 Ver:
Standard By			
Approved By			realme





Schematic design notice:

Note 13-1: The load cap. have to be placed as close to REFP ball as possible.

Note 13-2: "PWRAP_SPI0_CSN" and "AUD_DAT_MOS0"I pin features in trapping pin to enable JTAG.

PWRAP_SPI0_CSN	AUD_DAT_MOSI0	AP JTAG	IO JTAG
H (Default)	L (Default)	N/A	N/A
H	H (by external PU)	SPI0_CSB, SPI0_CLK, SPI0_MO, SPI0_MI, DMIC_CLK	N/A
L (by external PD)	L	SPI0_CSB, SPI0_CLK, SPI0_MO, SPI0_MI, DMIC_CLK	TDM_LRCK/TDM_BCK/TDM_MCK/ TDM_DATA0/TDM_DATA1
L (by external PD)	H (by external PU)	MSDC1_CLK, MSDC1_CMD, MSDC1_DAT0, MSDC1_DAT1, MSDC1_DAT2	N/A

Note 13-3: "AUD_NLE_MOSI1" features in trapping pin to enable JTAG over USB 2.0 port.

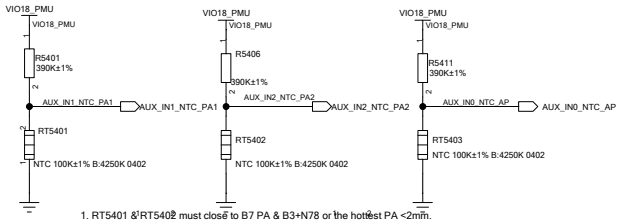
AUD_NLE_MOSI1	USB JTAG
L (Default)	USB 2.0
H (by external PU)	DP/DM output JTAG

Note 13-4: "AUD_NLE_MOSI0" is trapping pin to select UFS booting only or eMMC booting only.

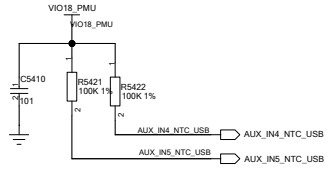
AUD_NLE_MOSI0	Storage Booting
L (Default)	UFS only
H (by external PU)	eMMC only

Note 13-5: "AUD_DAT_MISO1" is trapping pin to select VEMC Voltage.

AUD_DAT_MISO1	VEMC Voltage
L (Default)	VEMC=3.0V
H (by external PU)	VEMC=2.5V



1. RT5401 &RT5402 must close to B7 PA & B3+N78 or the hottest PA <2mm.
2. The distance is the shortest distance from package edge to edge.



	Sign	Date	Type:
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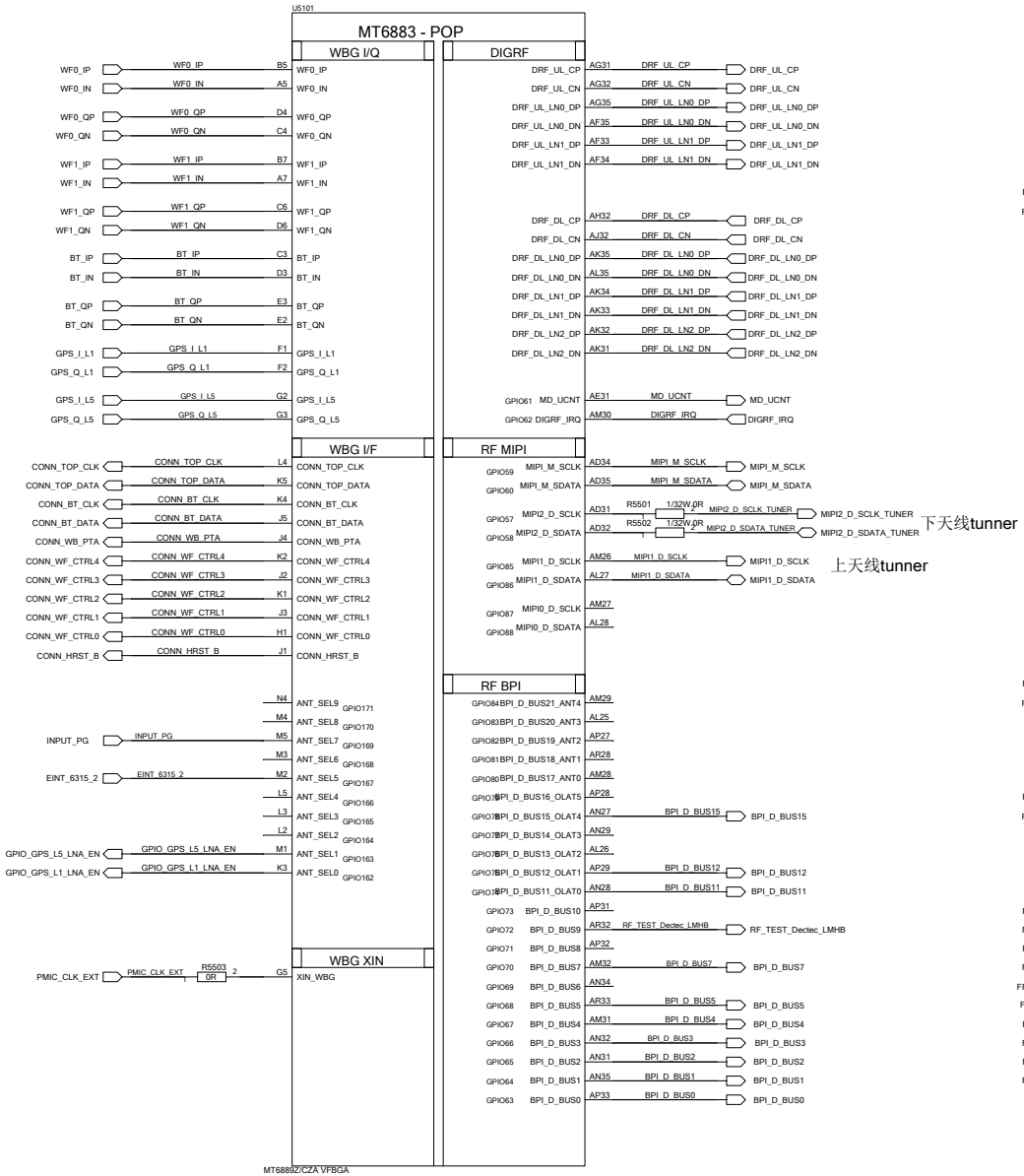
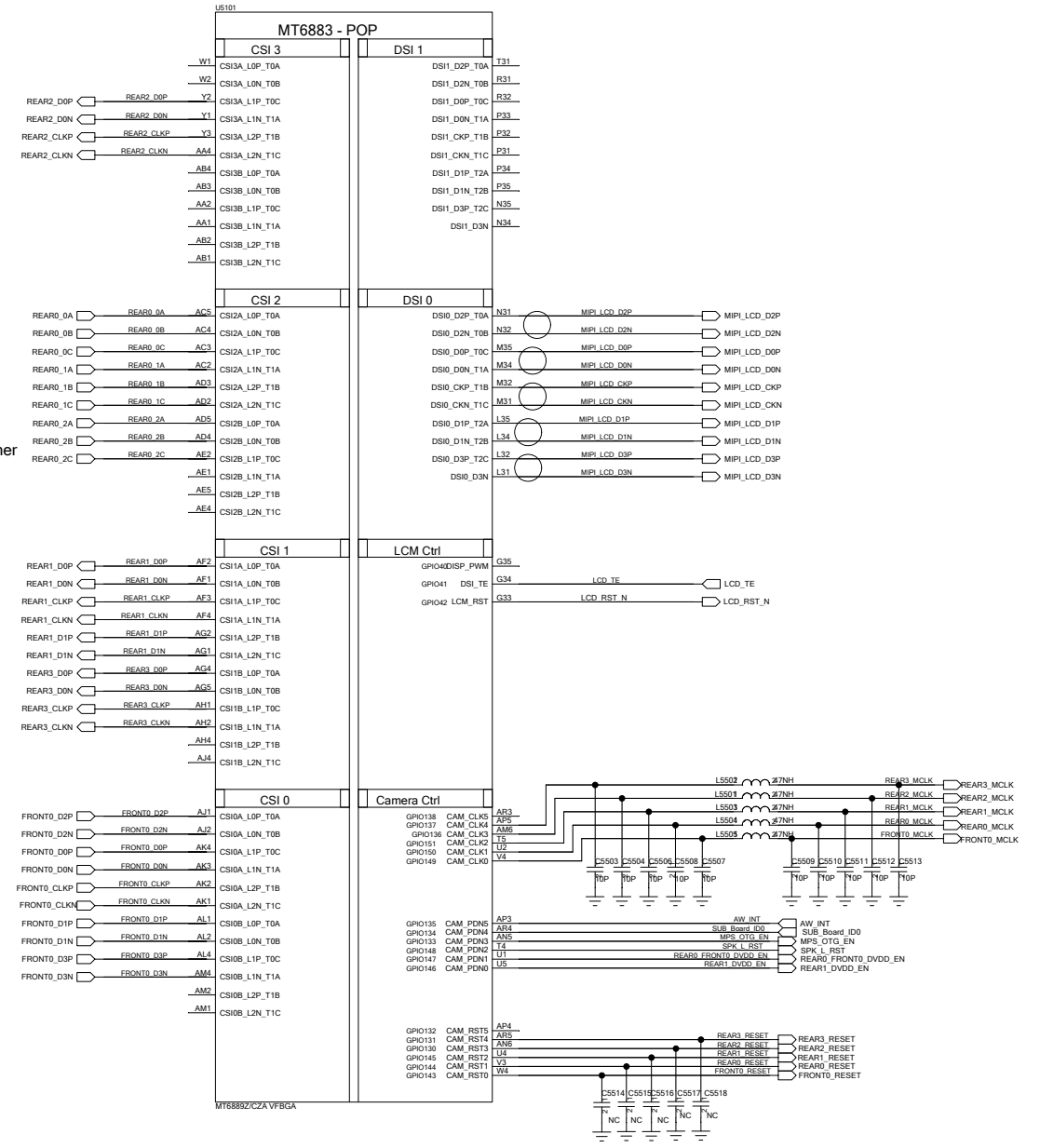
Standard By			
Approved By			realme



下天线tunner

上天线tunner



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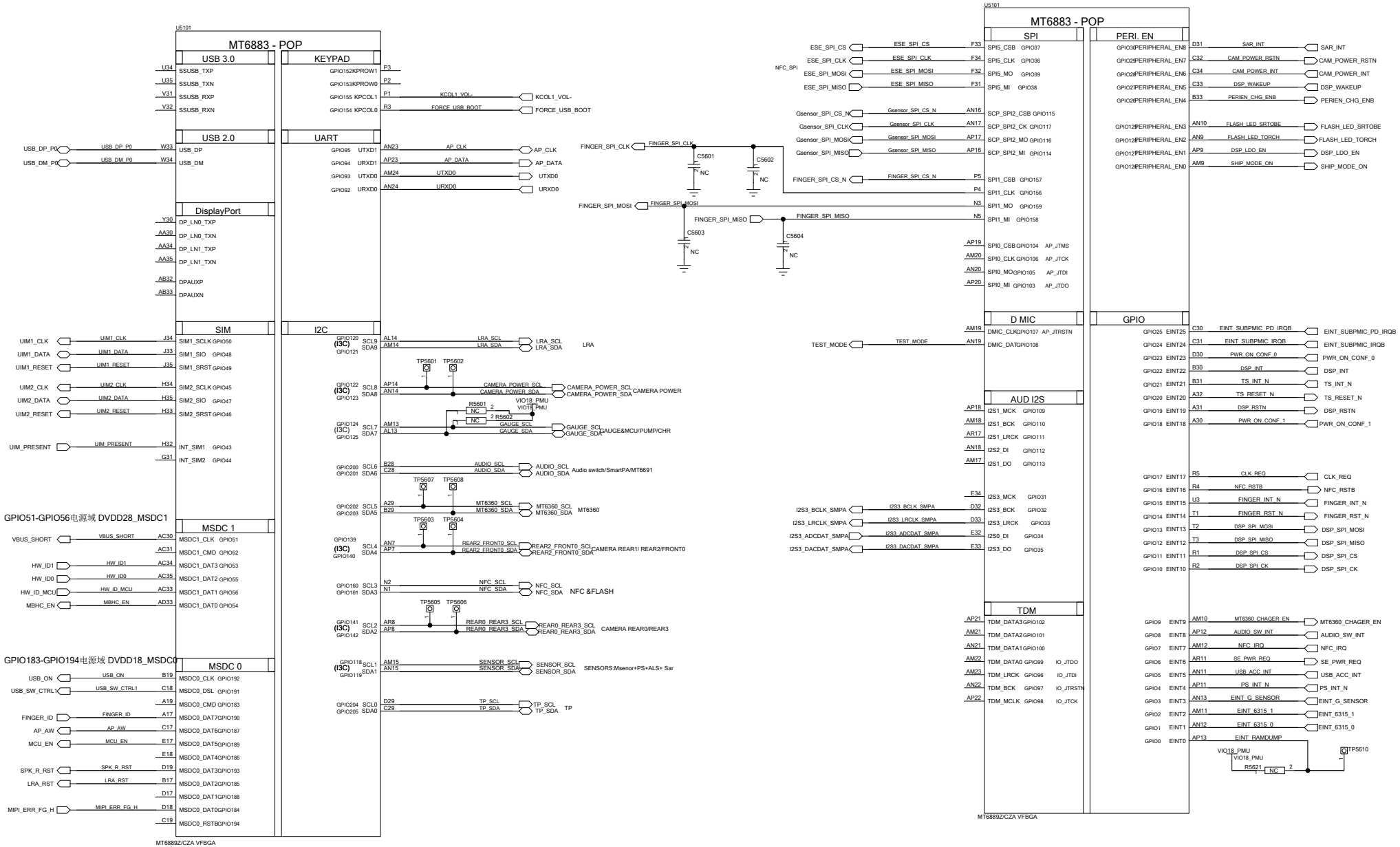
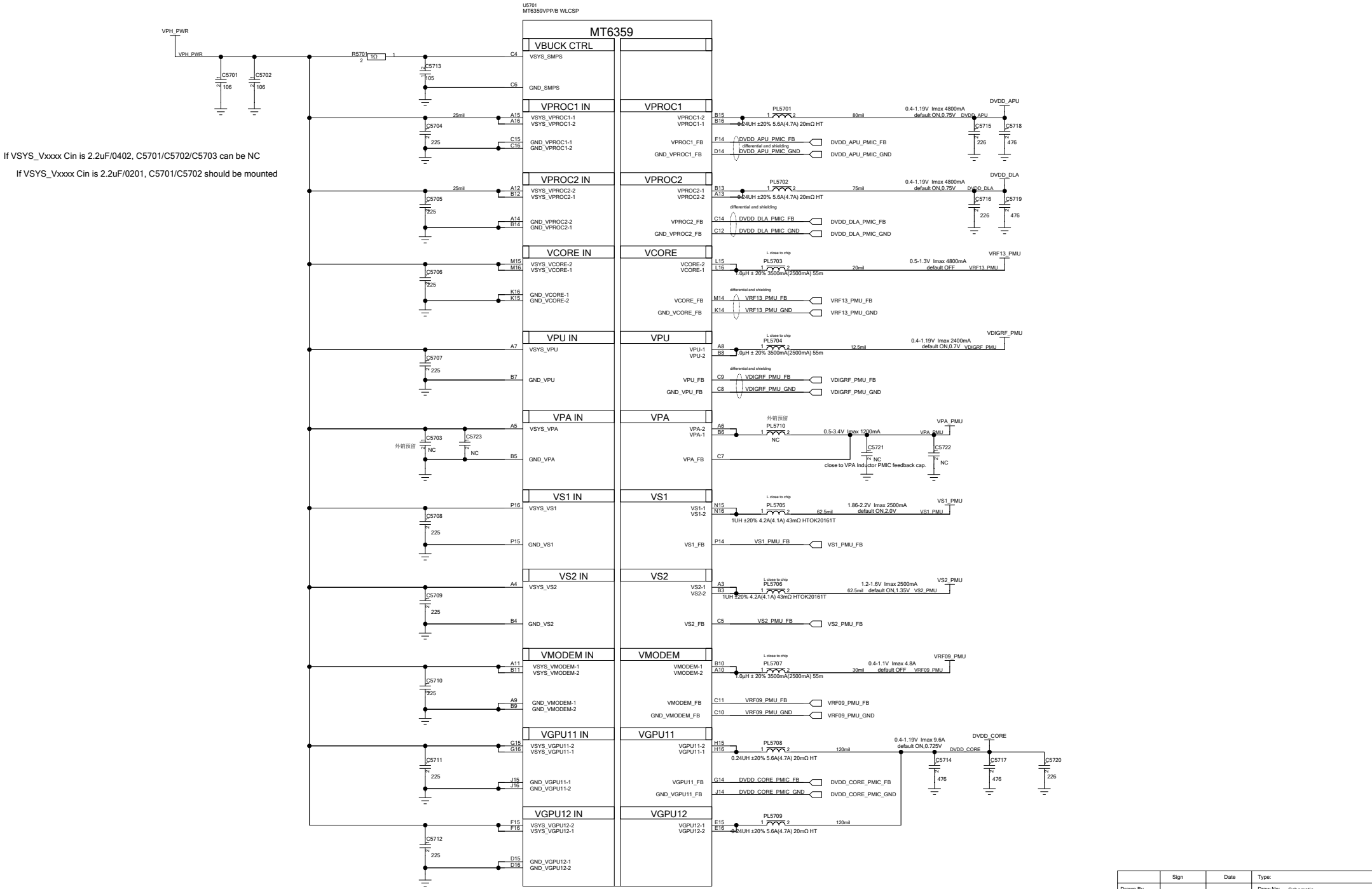
Drawn By			Draw No: Schematic
Checked By			Sheet of 50 Ver:
Standard By			realme
Approved By			



	Sign	Date	Type:
Drawn By			Draw No: Schematic
Checked By			Sheet of 50 Ver:
Standard By			realme
Approved By			



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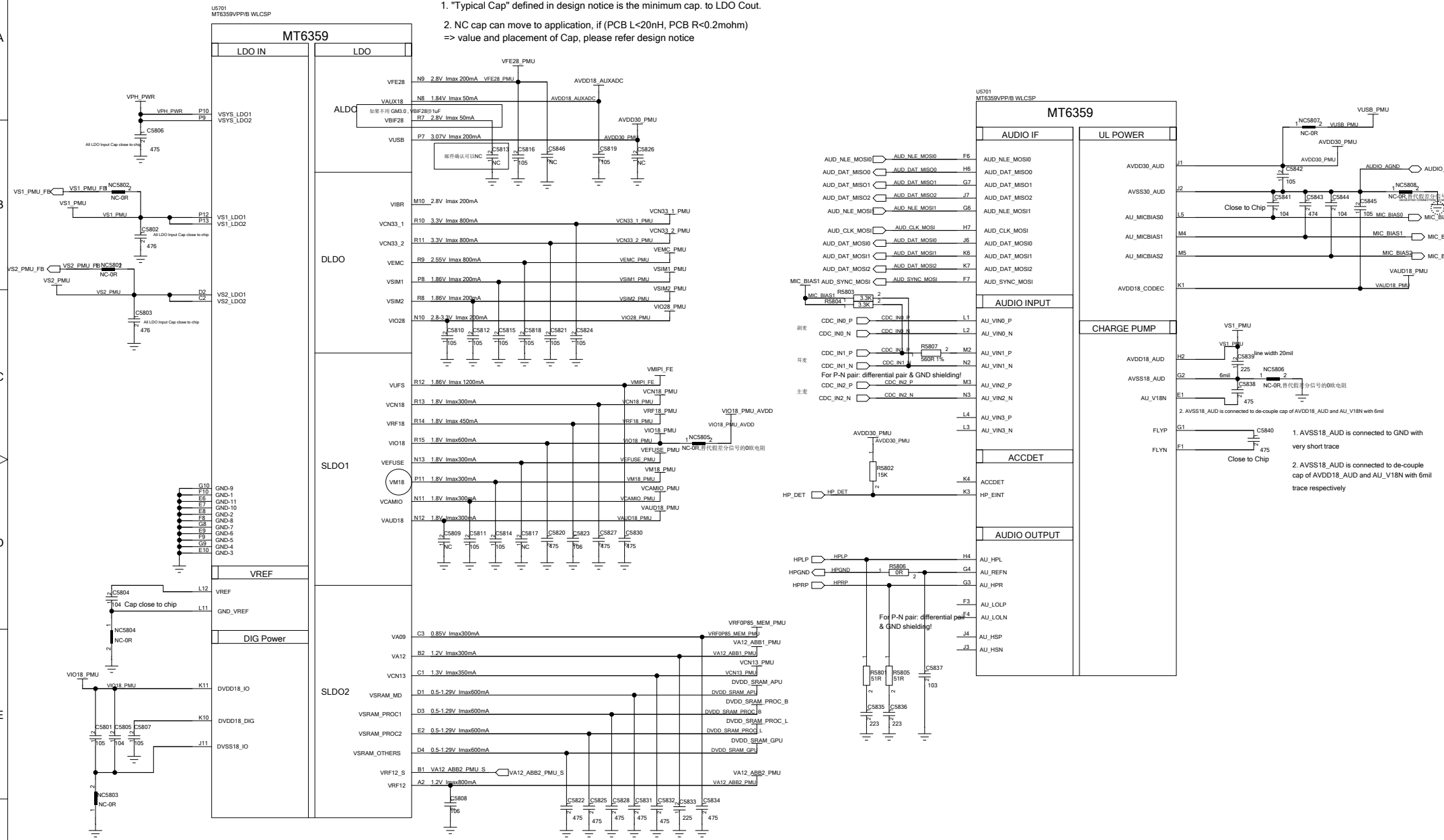
Drawn By			Draw No: Schematic
Checked By			Sheet of 50 Ver:
Standard By			
Approved By			realme

1. "Typical Cap" defined in design notice is the minimum cap. to LDO Cout.

2. NC cap can move to application, if (PCB L<20nH, PCB R<0.2mohm)
=> value and placement of Cap, please refer design notice



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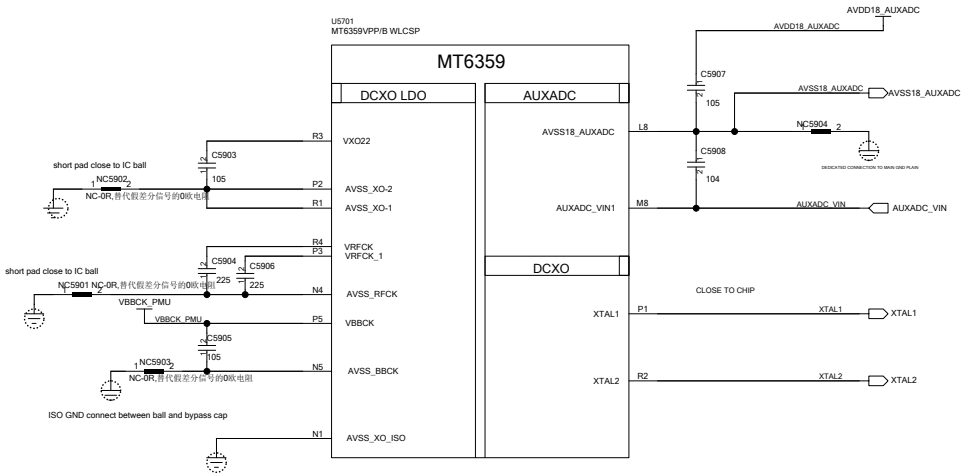
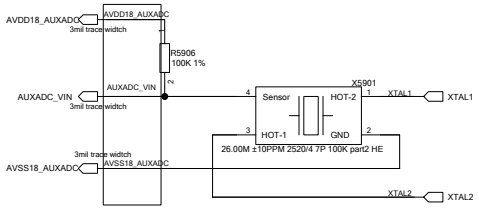
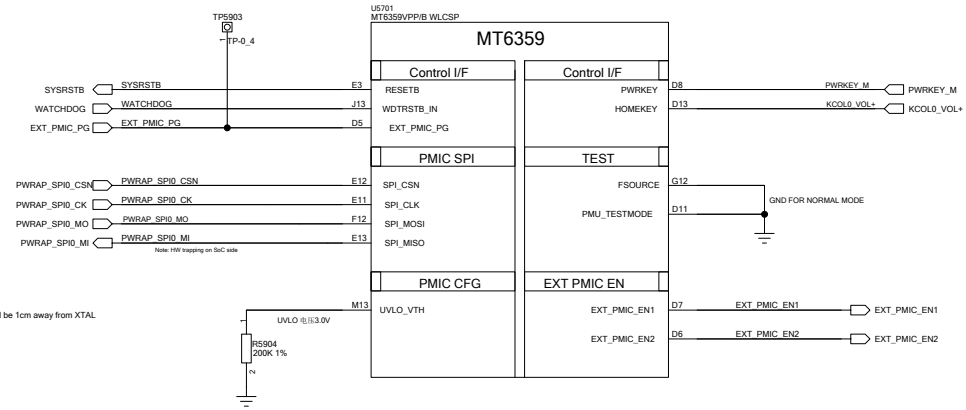
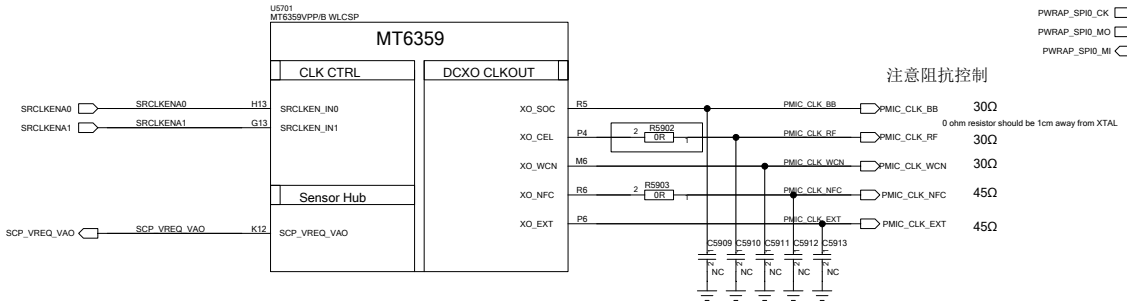
Checked By			Sheet of 50 Ver:
Standard By			
Approved By			realme



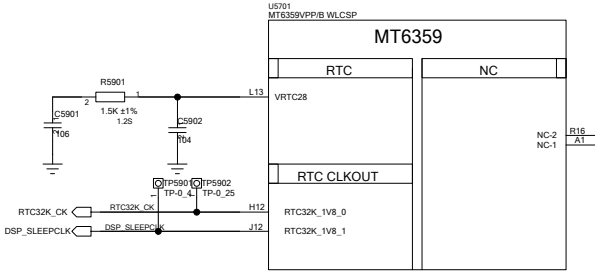


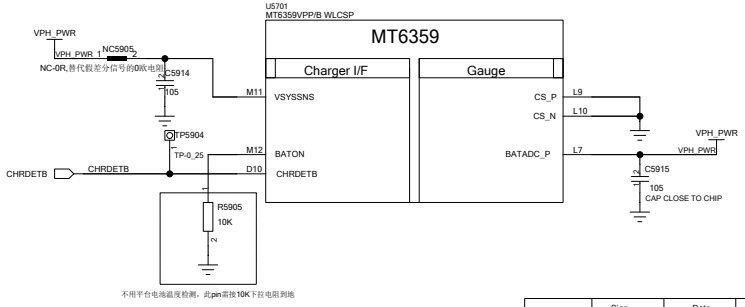
Route AVDD18_AUXADC/AUXADC_VIN (3 mil each)with well GND shielding





注意阻抗控制





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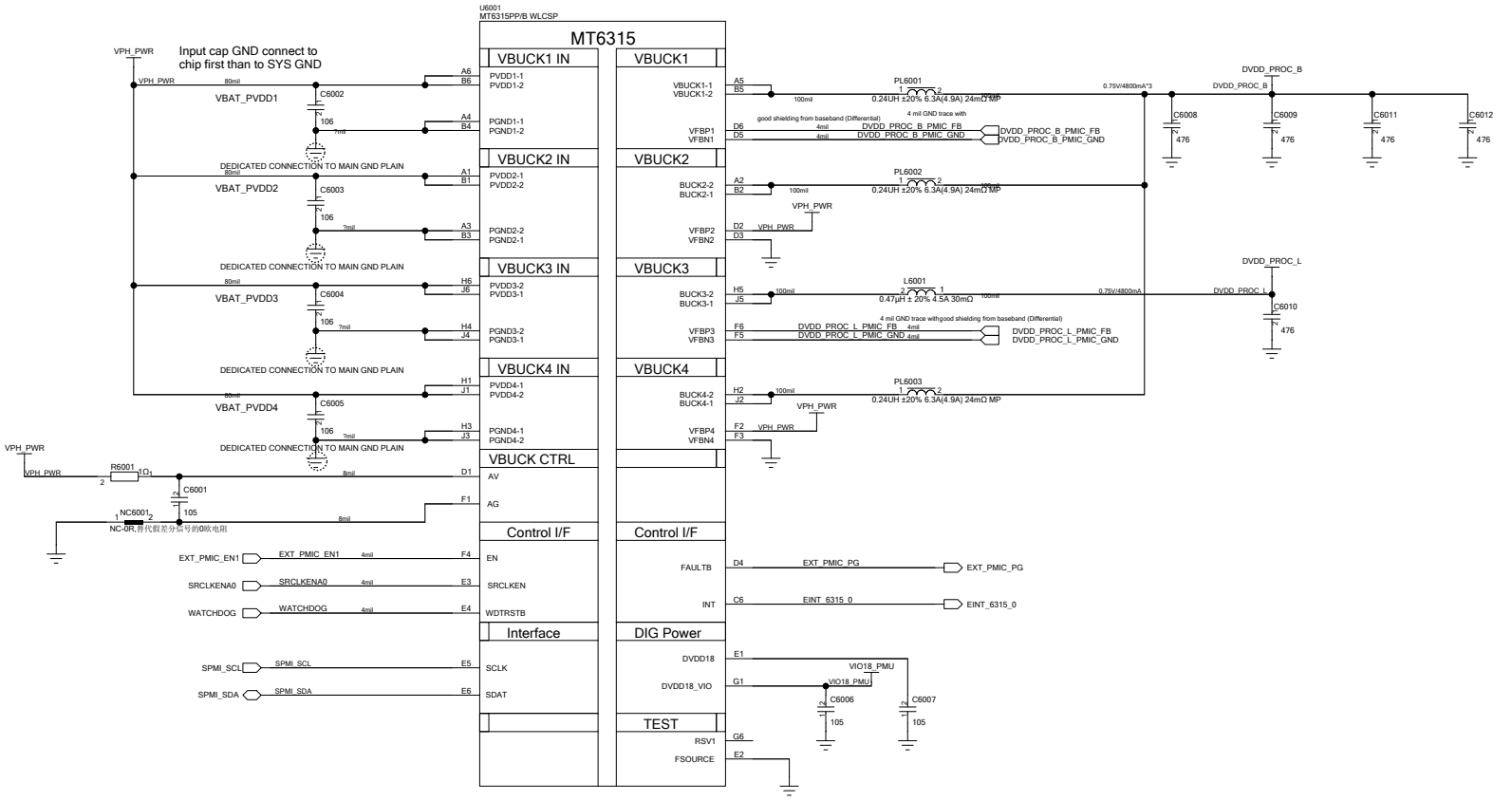
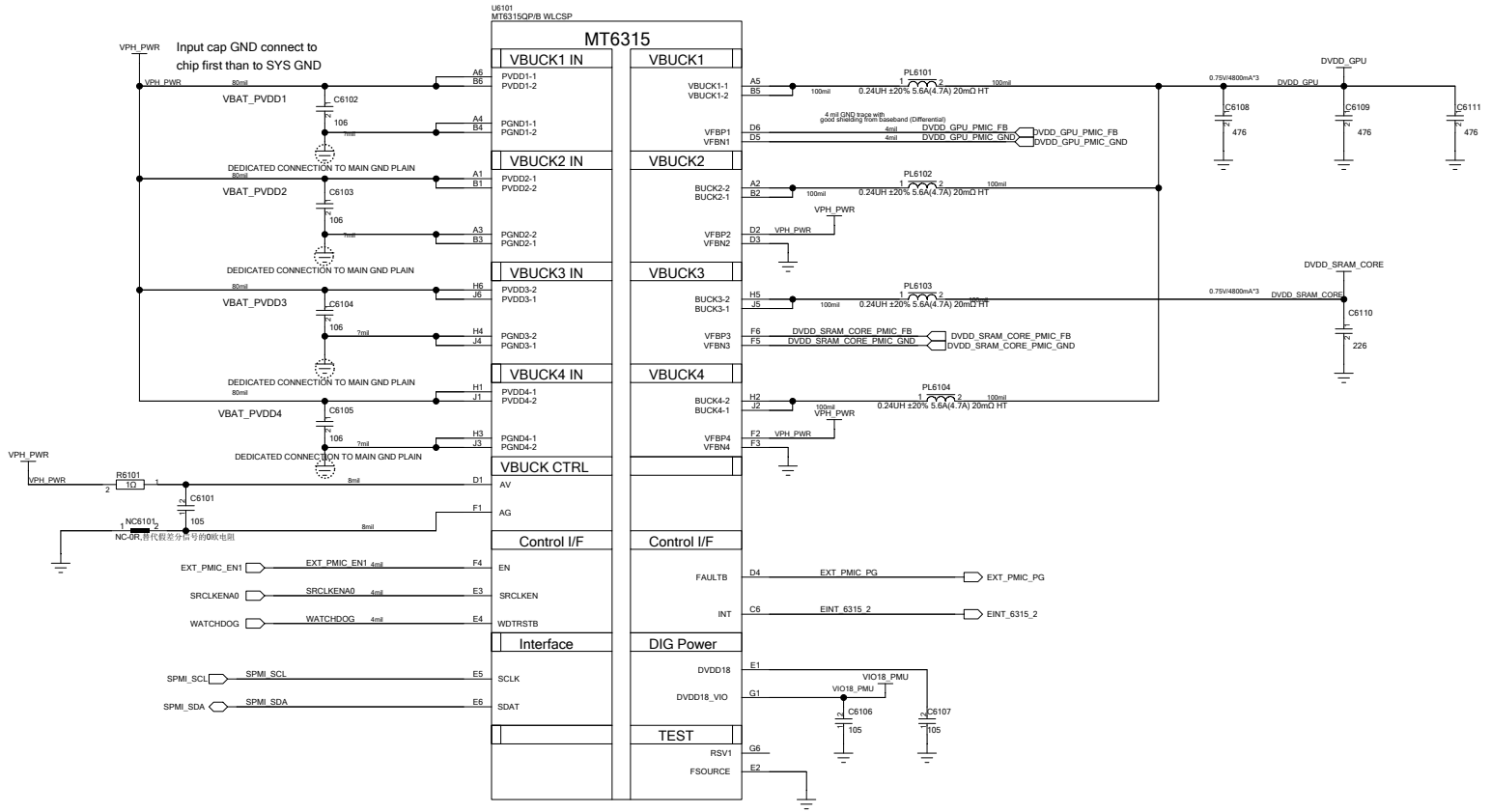
Standard By			
Approved By			realme

MT6315 4-Phase Buck (CPU)



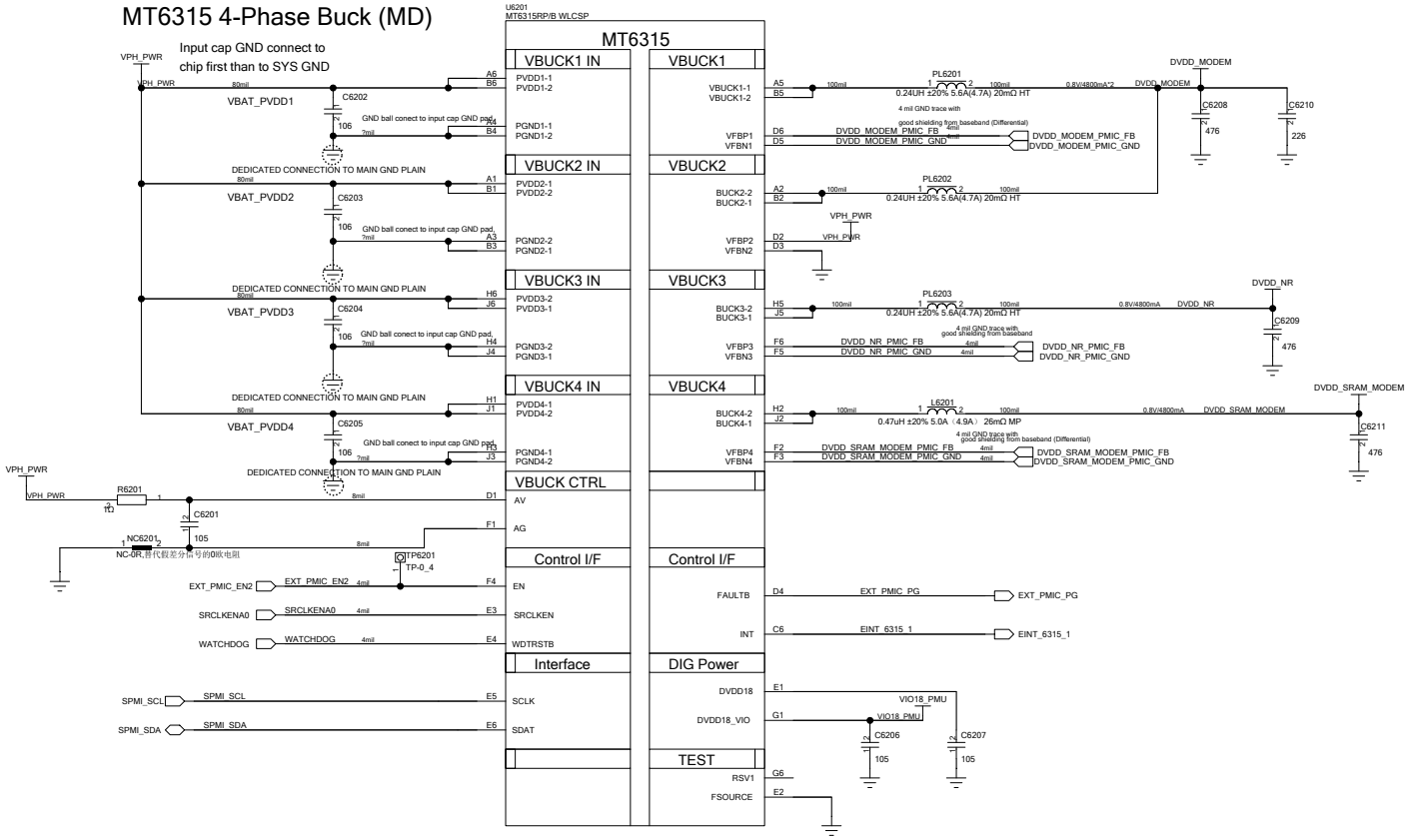
	Sign	Date	Type:
Drawn By			Draw No: Schematic
Checked By			Sheet of 50 Ver:
Standard By			
Approved By			realme

MT6315 4-Phase Buck (GPU)

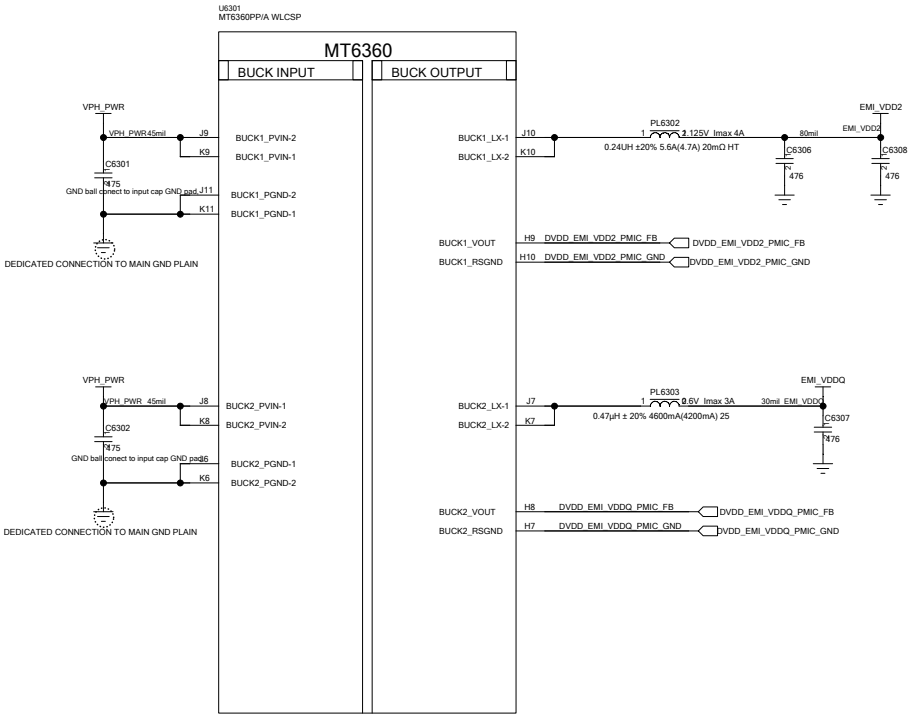


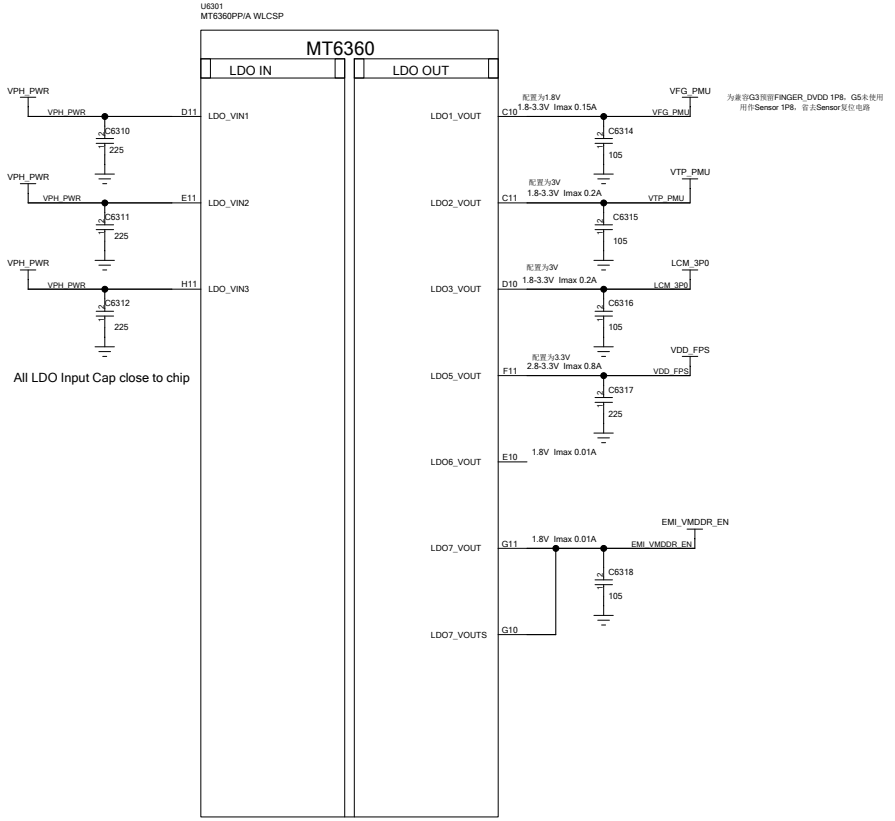
	Sign	Date	Type:
Drawn By			Draw No: Schematic
Checked By			Sheet of 50 Ver:
Standard By			
Approved By			realme

MT6315 4-Phase Buck (MD)

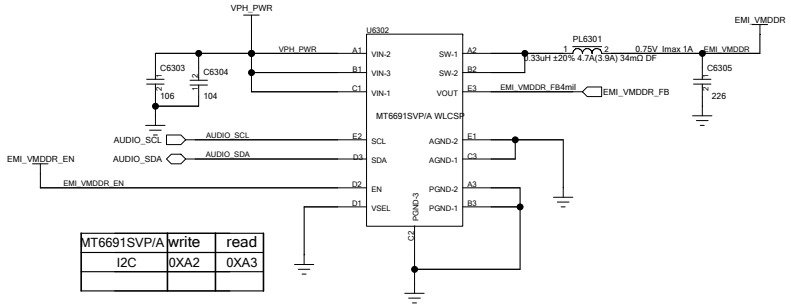


	Sign	Date	Type:
Drawn By			Draw No: Schematic
Checked By			Sheet of 50 Ver:
Standard By			
Approved By			realme



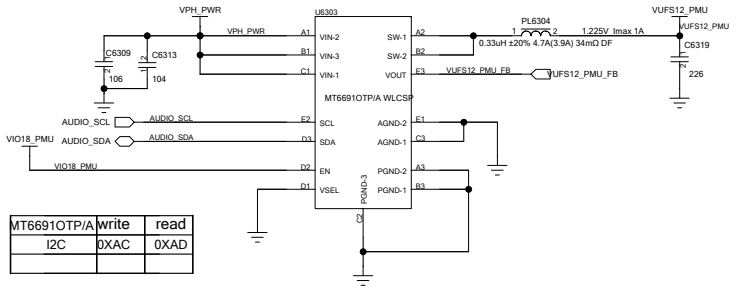


LP4X DRAM: VMDDR



MT6691SVP/A	write	read
I2C	0XA2	0XA3

UFS 3.0



MT6691OTP/A	write	read
I2C	0XAC	0XAD

	Sign	Date	Type:	
Drawn By			Draw No:	Schematic
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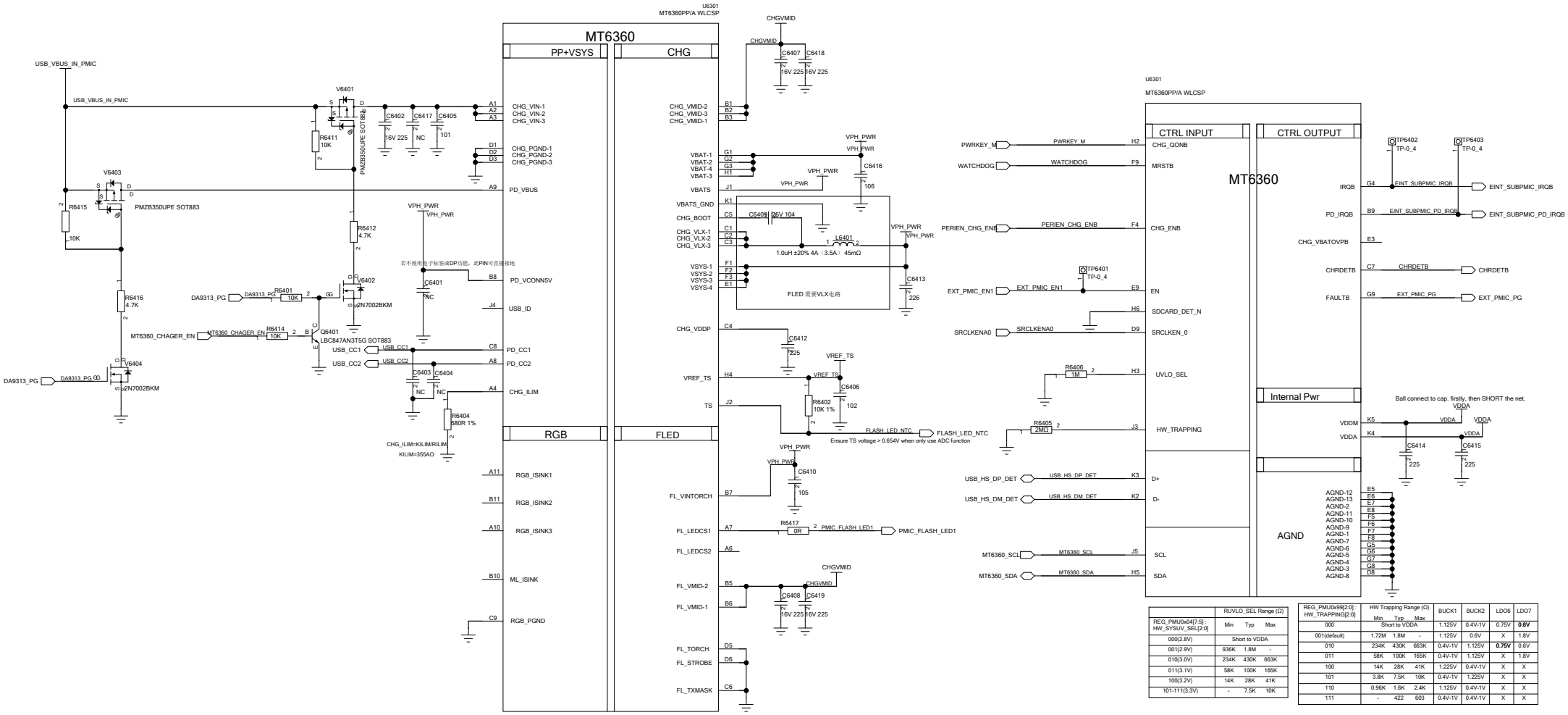
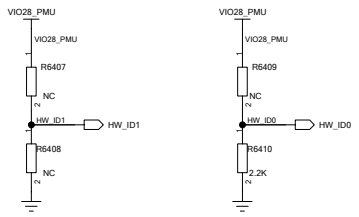
Standard By			realme	
Approved By				



	RUVLO_SEL Range (Ω)		
REG_PMU0x04[7:5] : HW_SYSUV_SEL[2:0]	Min	Typ	Max
000(2.8V)	Short to VDDA		
001(2.9V)	936K	1.8M	-
010(3.0V)	234K	430K	663K
011(3.1V)	58K	100K	165K
100(3.2V)	14K	28K	41K
101-111(3.3V)	-	7.5K	10K

REG_PMU0x99[2:0] : HW_TRAPPING[2:0]	HW Trapping Range (Ω) Min	Typ	Max	BUCK1	BUCK2	LDO6	LDO7
000	Short to VDDA			1.125V	0.4V-1V	0.75V	**0.6V**
001(default)	1.72M	1.8M	-	1.125V	0.6V	X	1.8V
010	234K	430K	663K	0.4V-1V	1.125V	**0.75V**	0.6V
011	58K	100K	165K	0.4V-1V	1.125V	X	1.8V
100	14K	28K	41K	1.225V	0.4V-1V	X	X
101	3.8K	7.5K	10K	0.4V-1V	1.225V	X	X
110	0.96K	1.6K	2.4K	1.125V	0.4V-1V	X	X
111	-	422	603	0.4V-1V	0.4V-1V	X	X

Board Version and HW ID



版本名	HW_ID1	HW_ID0
EVB1		
T0-1	HIGH-Z	HIGH-Z
EVT1	HIGH-Z	PU
EVT2	PU	PU
DVT1	PU	PD
DVT2	PD	PD
PVT1	PD	HIGH-Z
MP1	HIGH-Z	PD

1. 开机时软件先设置输入pullup，读取IO状态0；再设置输入pulldown，读取IO状态1；最后设置为输入nopull
2. 上下拉电阻10K以内，不同平台需要确认所选GPIO上下拉电阻阻值，确保外部上下拉能拉高/低

	Sign	Date	Type:
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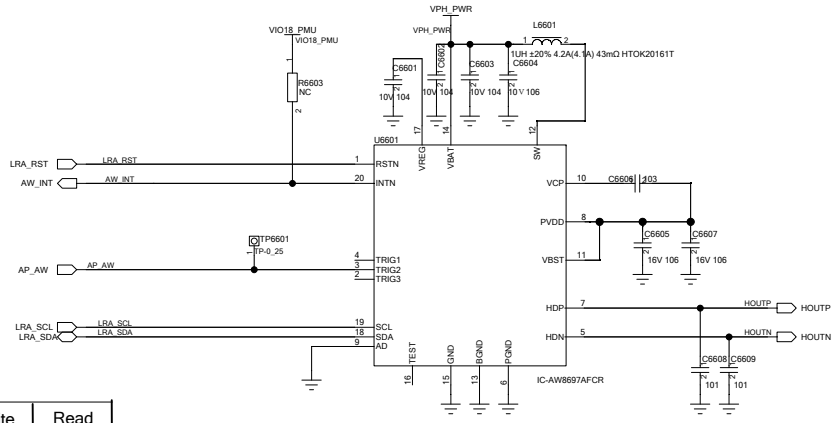
Standard By			
Approved By			realme

LRA Driver



AD	Write	Read
0	0xB4	0XB5
1	0xB6	0XB7

AD=0 0X5A(front 7 bit)
AD=1 0X5B(front 7 bit)

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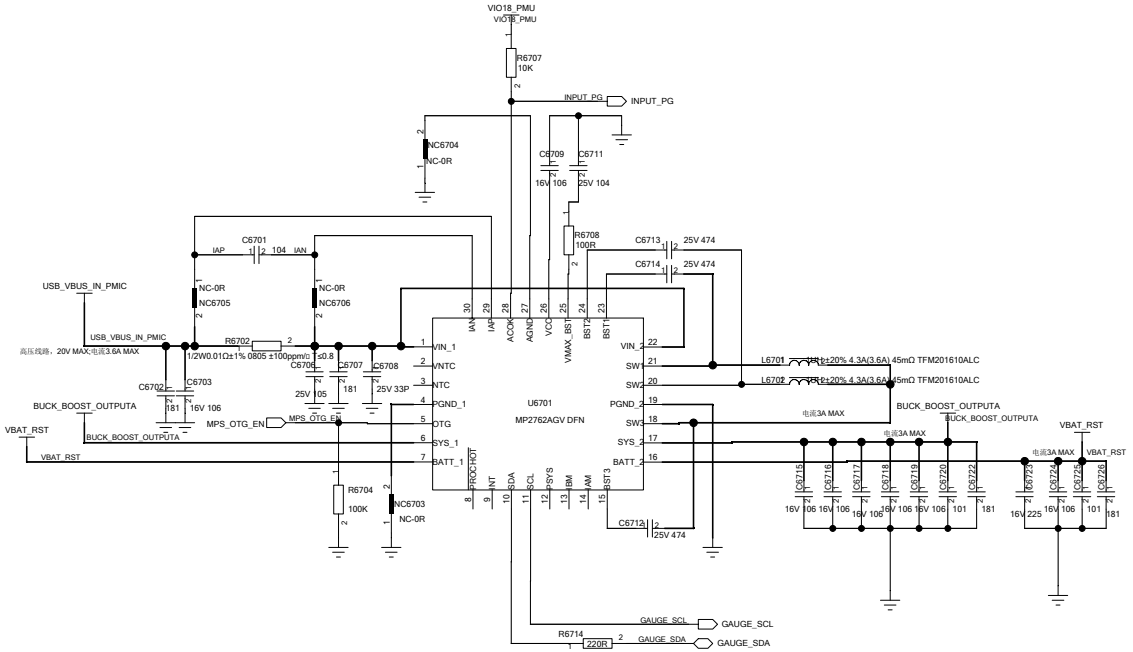
Standard By			
Approved By			realme

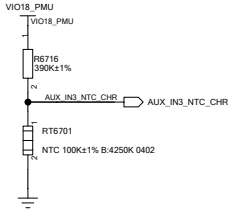
BUCK-BOOST CHARGE

兼容单电芯时全部NC



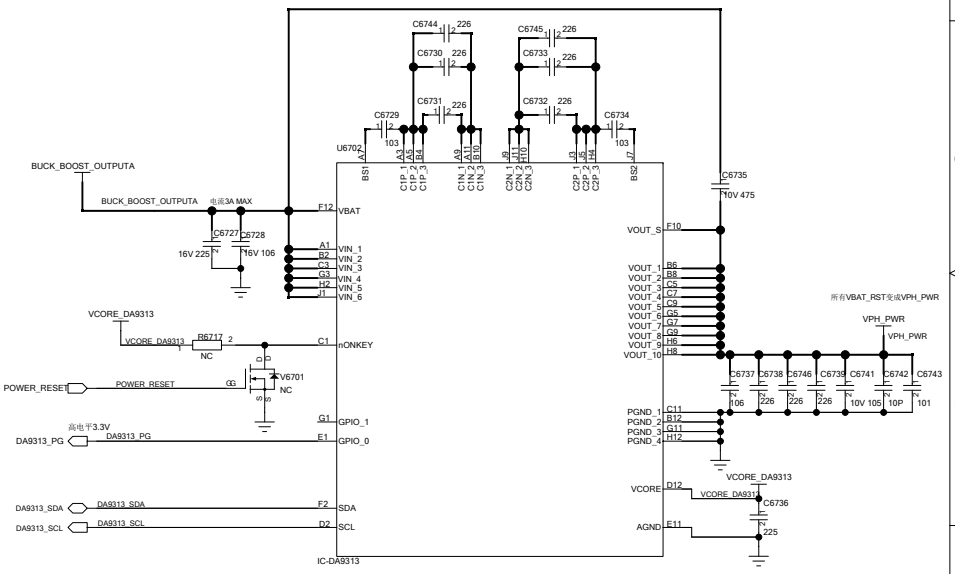
R6714靠近MP2762A串220ohm电阻，消减线上的干扰

	Write	Read
MP2762	0XB8	0XB9



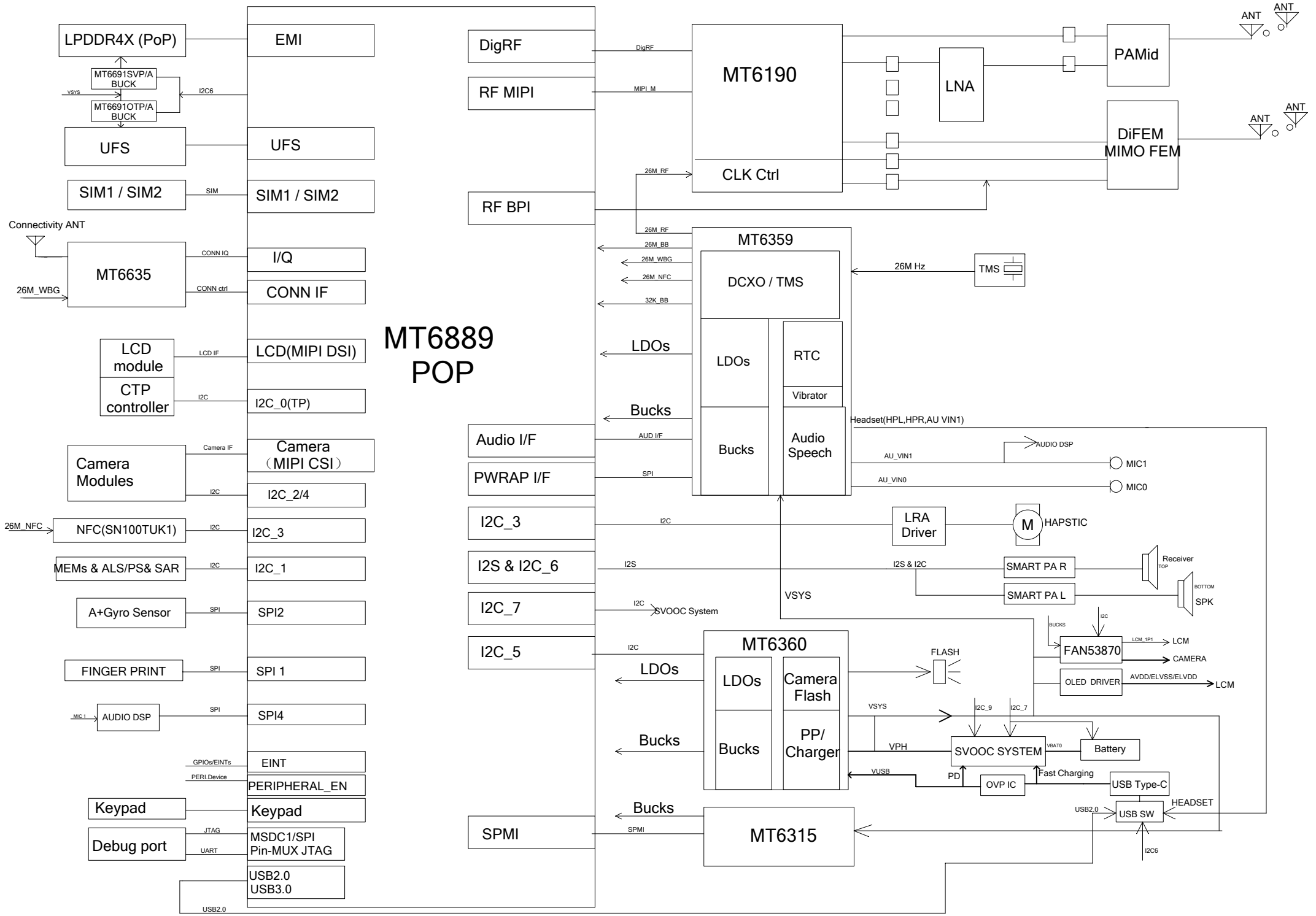
CHARGE PUMP

兼容单电芯时全部NC



	Write	Read
DA9313	0XD0	0XD1

	Sign	Date	Type:
Drawn By			Draw No: Schematic
Checked By			Sheet of 50 Ver:
Standard By			
Approved By			realme


MT6889
POP
LPDDR4X (PoP)
EMI
MT6691SVP/A BUCK
MT6691OTP/A BUCK
VSYS
I2C6
UFS
UFS
SIM1 / SIM2
SIM
SIM1 / SIM2
Connectivity ANT
MT6635
26M_WBG
CONN IQ
I/Q
CONN ctrl
CONN IF
LCD module
CTP controller
LCD IF
LCD(MIPI DSI)
I2C
I2C_0(TP)
Camera Modules
Camera IF
Camera （MIPI CSI）
I2C
I2C_2/4
26M_NFC
NFC(SN100TUK1)
I2C
I2C_3
MEMs & ALS/PS& SAR
I2C
I2C_1
A+Gyro Sensor
SPI
SPI2
FINGER PRINT
SPI
SPI 1
MIC 1
AUDIO DSP
SPI
SPI4
GPIOs/EINTs
EINT
PERI.Device
PERIPHERAL_EN
Keypad
Keypad
Debug port
JTAG
UART
MSDC1/SPI
Pin-MUX JTAG
USB2.0
USB3.0
USB2.0
DigRF
RF MIPI
RF BPI
Audio I/F
PWRAP I/F
I2C_3
I2S & I2C_6
I2C_7
I2C_5
SPMI
DigRF
MIPI_M
MT6190
CLK Ctrl
26M_RF
LNA
PAMid
DiFEM
MIMO FEM
ANT
ANT
ANT
ANT
26M_RF
26M_BB
26M_WBG
26M_NFC
32K_BB
MT6359
DCXO / TMS
26M Hz
TMS
LDOs
Bucks
LDOs
RTC
Vibrator
Bucks
Audio Speech
AUD I/F
SPI
Headset(HPL,HPR,AU VIN1)
AUDIO DSP
AU_VIN1
MIC1
AU_VIN0
MIC0
I2C
LRA Driver
M
HAPSTIC
I2S
I2S & I2C
SMART PA R
SMART PA L
Receiver
TOP
BOTTOM
SPK
VSYS
I2C
SVOOC System
BUCKS
I2C
FAN53870
LCM_1P1
LCM
CAMERA
OLED DRIVER
AVDD/ELVSS/ELVDD
LCM
I2C
LDOs
Bucks
MT6360
LDOs
Camera Flash
Bucks
PP/ Charger
FLASH
VSYS
I2C_9
I2C_7
VPH
SVOOC SYSTEM
VBAT0
Battery
VUSB
PD
OVP IC
Fast Charging
USB Type-C
Bucks
SPMI
MT6315
USB2.0
USB SW
HEADSET
I2C6

I2C	AP, SCP, SSPM	Function	I2C/I3C Spec.	I2C Slave Address
I2C-0	AP	CTP	I2C	SDC I2C address: Write:0x90, Read:0x91BOE I2C address:Write:0x96 Read:0x97
I2C-1 (I3C)	SCP		I3C	
		ALPS Sensor		STK33502 I2C address: Write:0x8C, Read:0x8D
		M Sensor		AK09918 I2C address: Write: 0x18, Read: 0x19
		SAR Sensor		SX9324 I2C address: Write: 0x50, Read: 0x51
I2C-2 (I3C)	AP	Rear Camera0 64M	I3C	MAIN CAM 64 Write Read IMX682 SENSOR 0X20 0X21 EEPROM 0XA0 0XA1 AF DRIVER 0X18 0X19 MAIN CAM 48 write read sensor 0X34 0X35 EEPROM 0XA0 0XA1 DRIVER 0X18 0X19 MICRO CAM write read SENSOR 0X6E 0X6F EEPROM 0XA4 0XA5
		Rear Camera 3 2M		
I2C-3	AP	NFC	I2C	NFC I2C address: 0X08 (Write:0x10, Read:0x11)
		LRA Driver		AW8697AFCR I2C Address: 0x5A (Write:0xB4, Read:0xB5) LM3642 I2C Address: 0x63 (Write:0xC6, Read:0xC7)
I2C-4 (I3C)	AP	Rear Camera 1 8M FF	I3C	FRONT 16M write read SENSOR 0X20 0X21 EEPROM 0XA8 0XA9 FRONT 32M write read SENSOR 0X20 0X21 EEPROM 0XA8 0XA9 MONO CAM 2M write read SENSOR 0x7A 0x7B EEPROM 0xA4 0xA5 WIDE CAM write read SENSOR 0x44 0x45 EEPROM 0xA2 0xA3
		Front Camera0 16M		
		Rear Camera 2 13M LF		
I2C-5	AP	MT6360	I2C	MT6360 PD's I2C address: 0X4E (Write:0X9C, Read:0X9D) MT6360 PMU's I2C address: 0X34 (Write:0X68, Read:0X69)
I2C-6	AP	Smart PA TOP	I2C	T0P Speaker AMP I2C Address: 0x34 (Write:0x68, Read:0x69)
		Smart PA BOT		BOT Speaker AMP I2C Address: 0x35 (Write:0x6A, Read:0x6B)
		MT6691SVP/A		MT6691SVP/A I2C Address: 0x51 (Write:0xA2, Read:0xA3)
		MT6691OTP/A		MT6691OTP/A I2C Address: 0x56 (Write:0xAC, Read:0xAD)
		FSA4480		FSA4480 I2C Address: 0x42 (Write:0x84, Read:0x85)
I2C-7 (I3C)	AP	Fuel Guage	I3C	I2C Address: Write 0xAA Read 0xAB
		Fast Charger MCU		I2C Address: Write 0x0A Read 0x0B
		Charger Pump		I2C Address: Write 0xD0 Read 0xD1
I2C-8 (I3C)	AP	CAM PROWER PM8008	I3C	FAN53870 I2C address: 0X35 (Write:0x6A, Read:0x6B) PM8008 LDO W:0x12 R:0x13 PM8008 Other W:0x10 R:0x11
I2C-9 (I3C)	AP	BOOST BUCK Driver	I3C	MP2762A I2C Address: Write:0xB8, Read:0xB9)

Note : I2C Spec. : Standard mode (100 kbps) and Fast mode (400 kbps), Fast mode Plus (1 Mbps) and High-speed mode (3.4 Mbps)