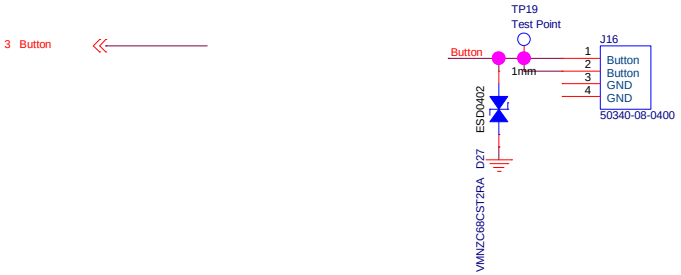
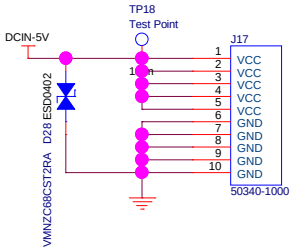
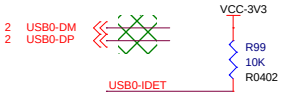
Button



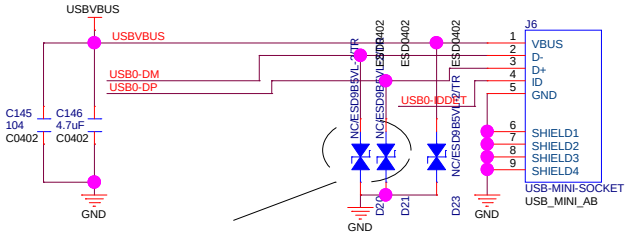
PCB Power Assay





USB-DEVICE

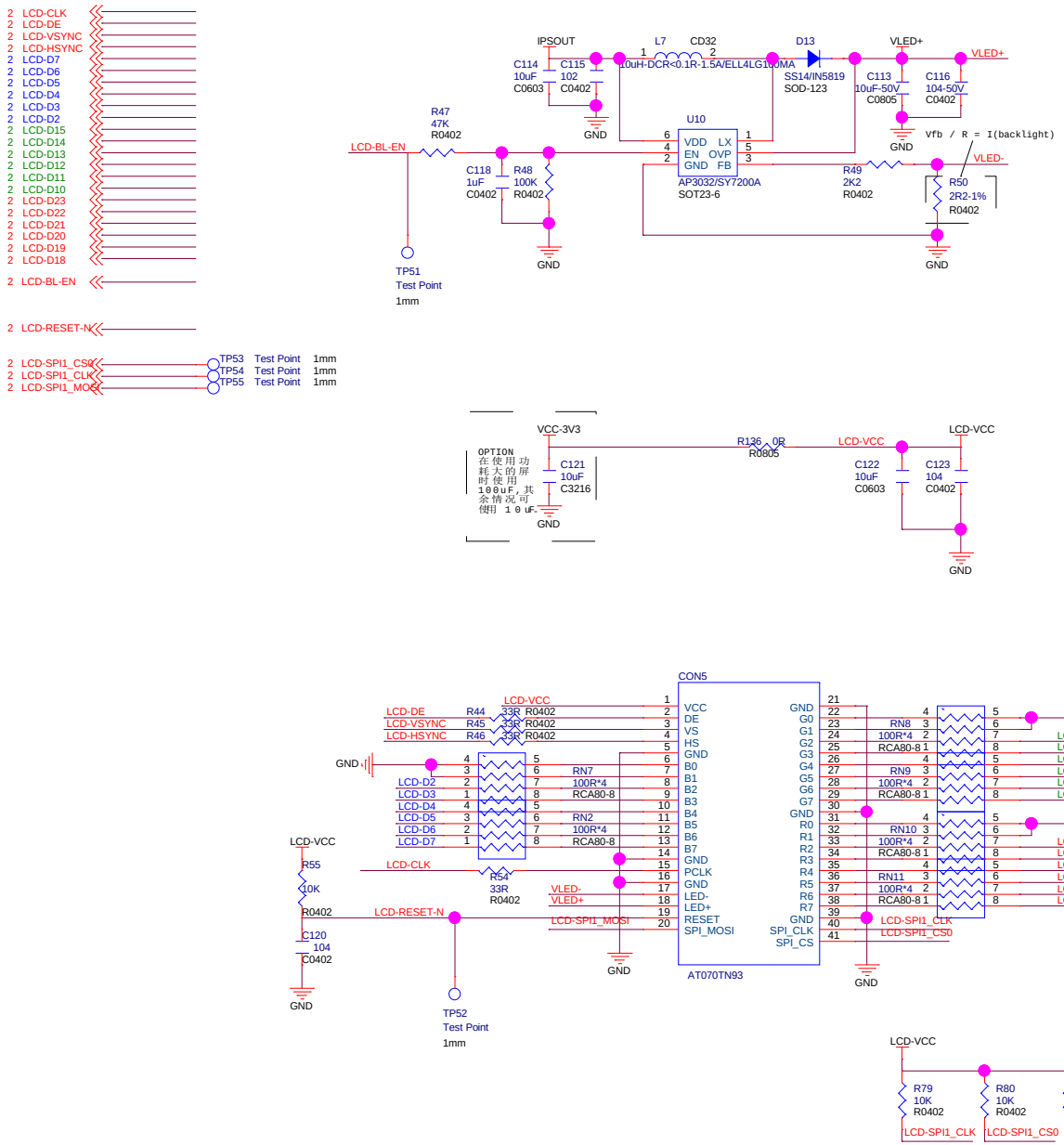
Differential pairs
Z0= 90 ohm



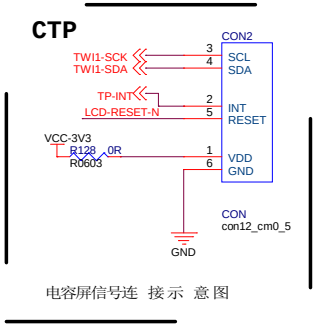
D+/D- 上的 ESD 器件电 容 小 于等于 4 pF(包括了 误差)。

DISPLAY

LCD



CTP

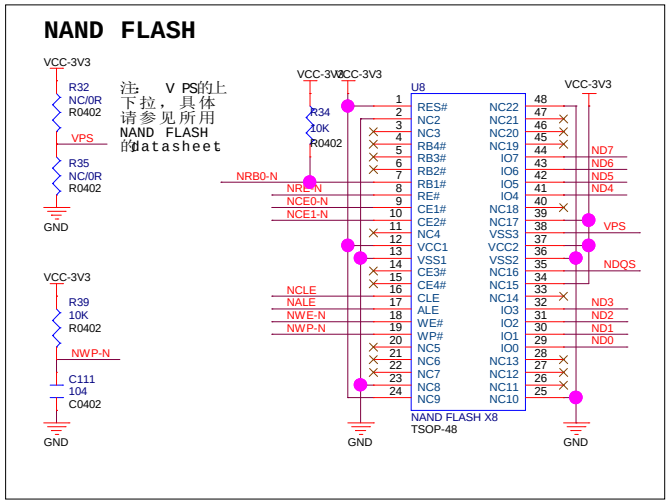


电容屏信号连 接示 意图

FLASH/CARD

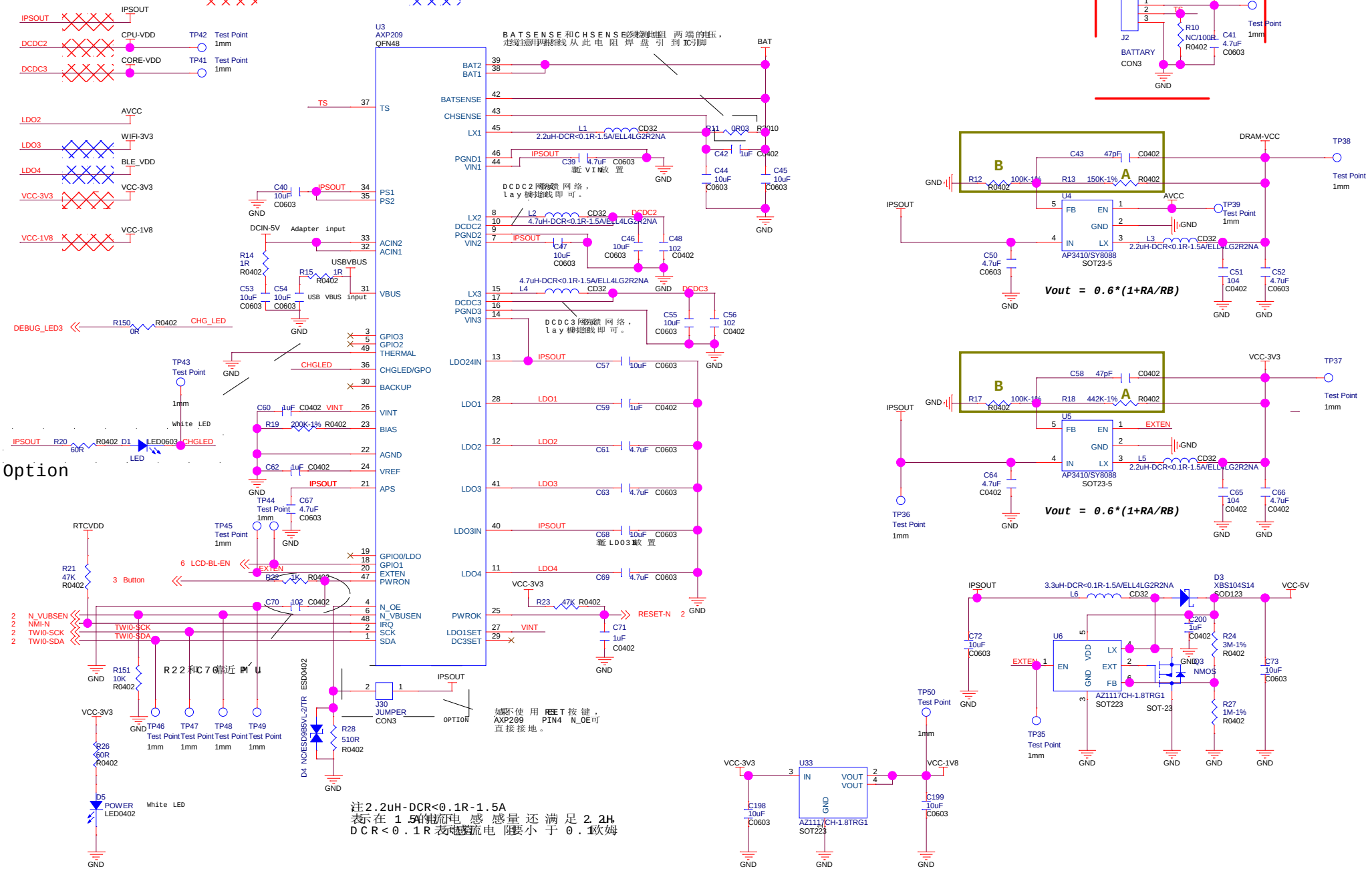
2 ND[7:0] ND[7:0]
2 NDQS NDQS

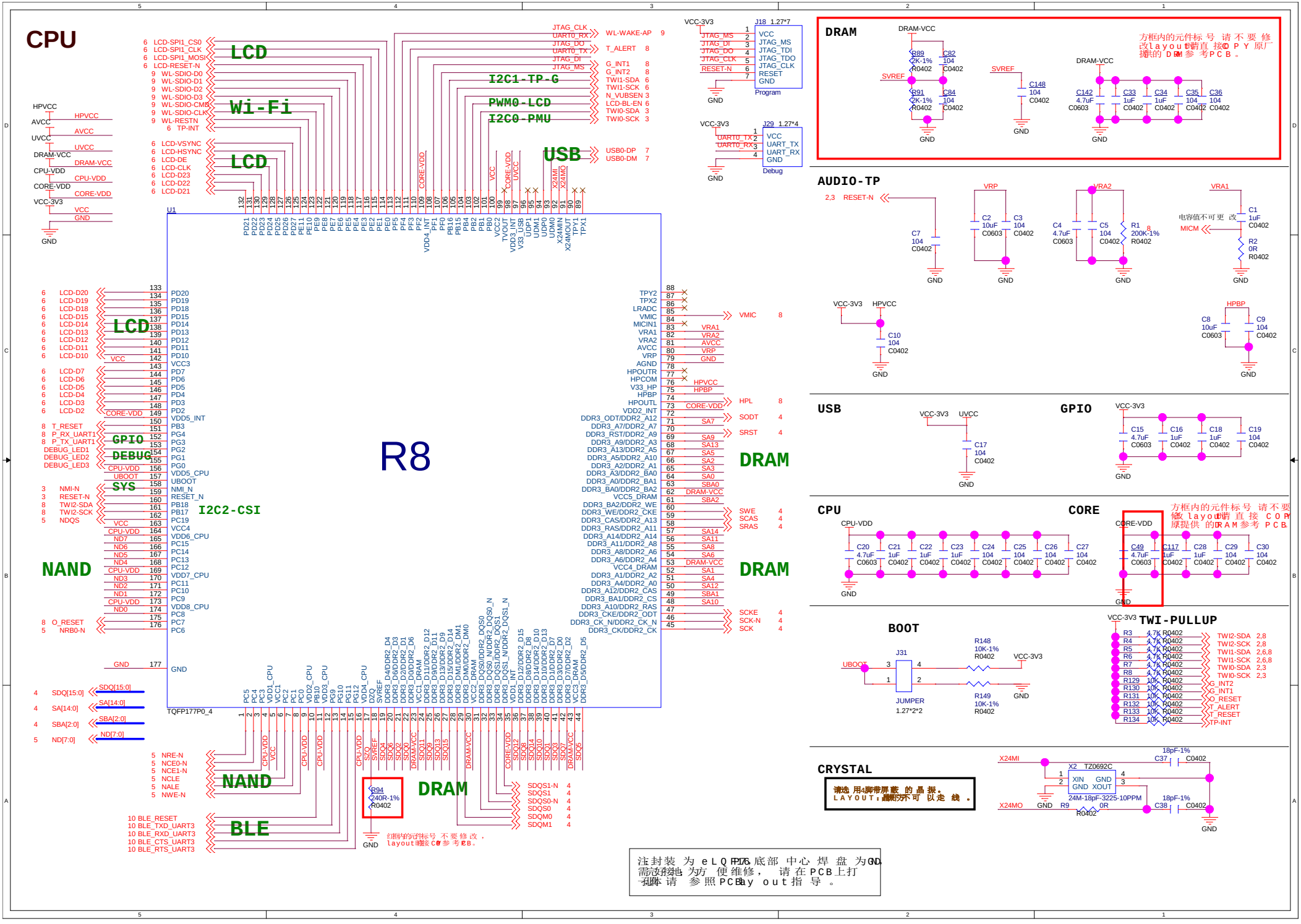
2 NRB0-N NRB0-N
2 NRE-N NRE-N
2 NCE0-N NCE0-N
2 NCE1-N NCE1-N
2 NCLE NCLE
2 NALE NALE
2 NWE-N NWE-N



POWER

POWER LINE:Width>=80mil POWER LINE:Width>=50mil

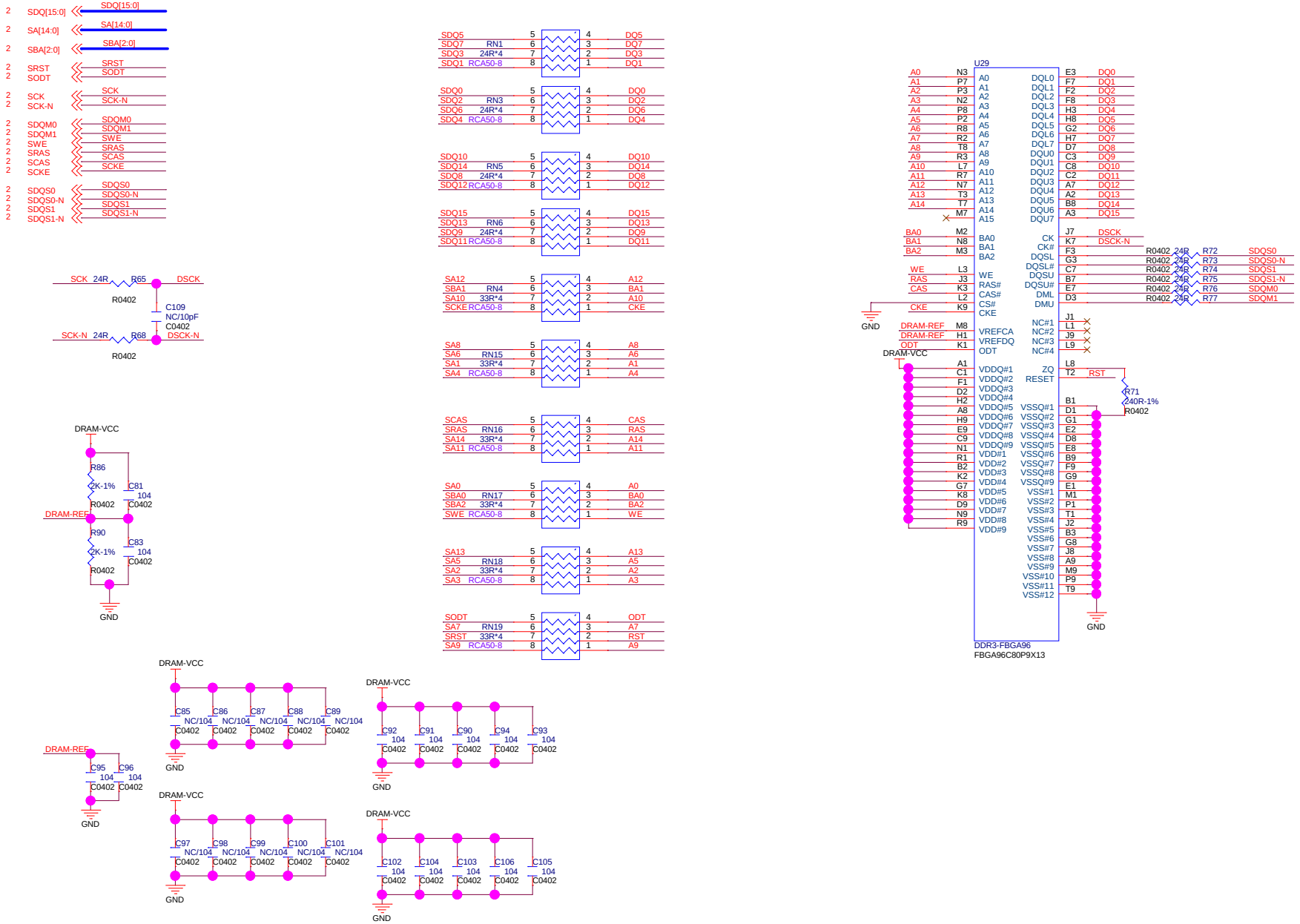


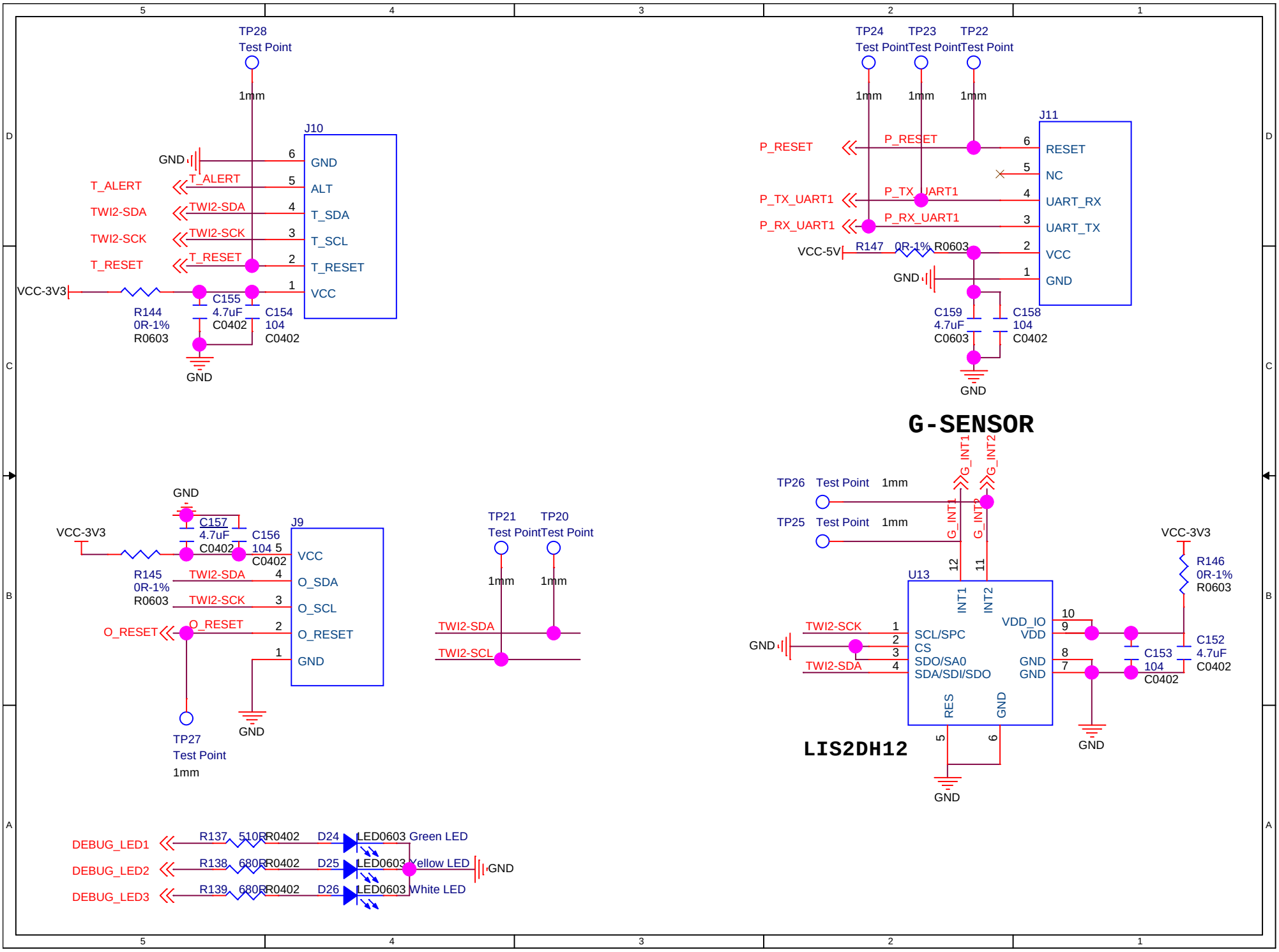

CPU
R8
LCD
Wi-Fi
LCD
USB
I2C1-TP-G
PWM0-LCD
I2C0-PMU
LCD
GPIO
DEBUG
SYS
I2C2-CSI
NAND
NAND
BLE
DRAM
DRAM
DRAM
DRAM
JTAG_CLK
UART0_RX
JTAG_DO
UART0_TX
JTAG_DI
JTAG_CLK
JTAG_MS
WL-WAKE-AP
T_ALERT
G_INT1
G_INT2
TWI1-SDA
TWI1-SCK
N_VUBSEN
LCD-BL-EN
TWI0-SDA
TWI0-SCK
USB0-DP
USB0-DM
J18 1.27*7
VCC
JTAG_MS
JTAG_DI
JTAG_DO
JTAG_CLK
RESET
GND
Program
J29 1.27*4
UART0_TX
UART0_RX
VCC
UART_TX
UART_RX
GND
Debug
U1
TQFP177P0_4
DRAM
DRAM-VCC
SVREF
AUDIO-TP
RESET-N
VRP
VRA2
VRA1
MICM
HPVCC
HPBP
USB
UVCC
GPIO
CPU
CPU-VDD
CORE
CORE-VDD
BOOT
UBOOT
JUMPER
1.27*2*2
TWI-PULLUP
CRYSTAL
X24MI
X24MO
18pF-1%
X2 TZ0692C
24M-18pF-3225-10PPM
R94
240R-1%
R0402
方框内的元件标号 请不要修改layout时靠直接COPY原厂提供的DRAM参考PCB。
请选用4脚带屏蔽的晶振。
LAYOUT：越短越好可以走线。
注封装为eLQFP176底部中心焊盘为GND需连接地，为方便维修，请在PCB上打孔，详细请参照PCB layout指导。

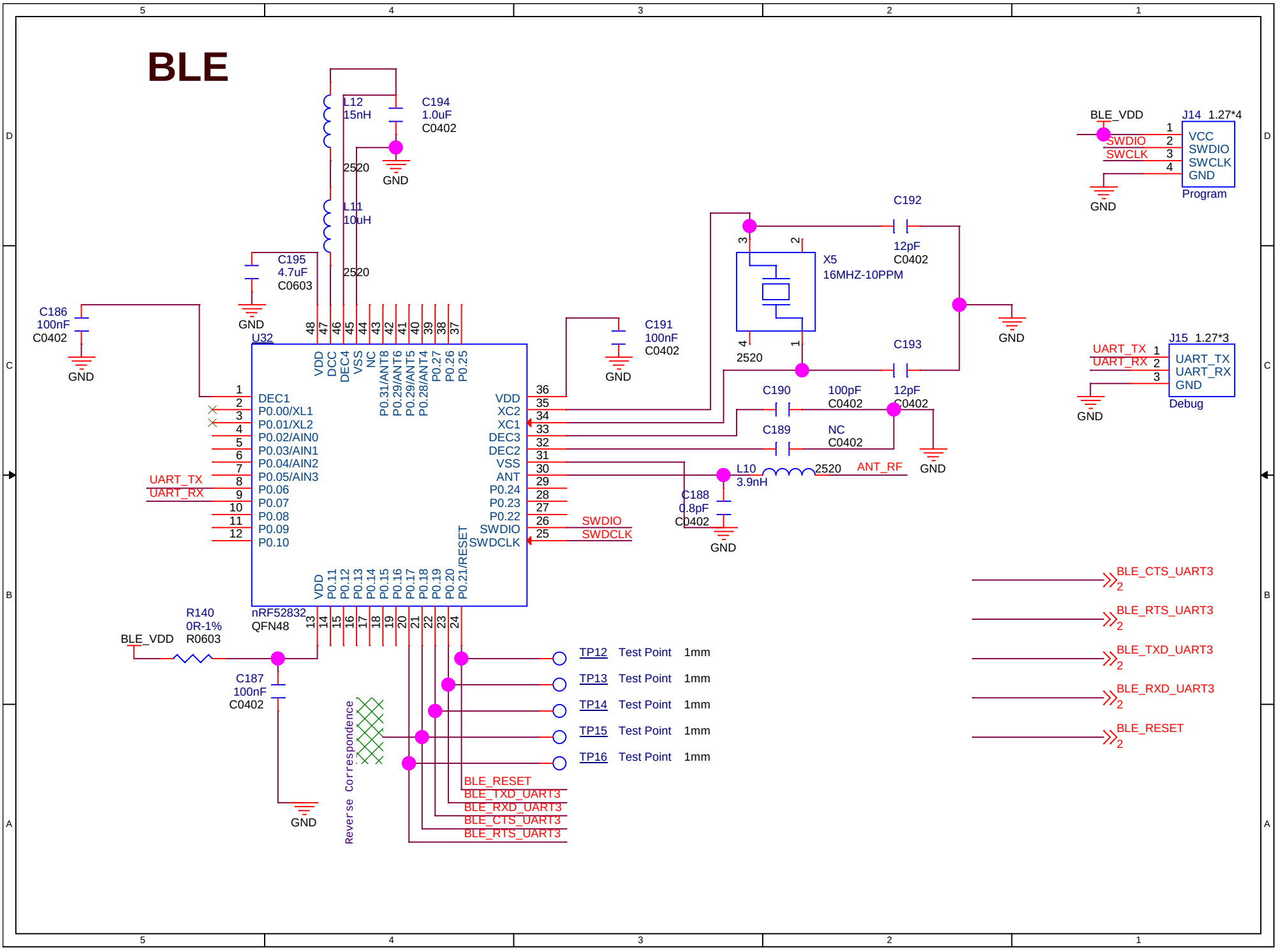
DDR3 16x1

DDR3

本页的元件标号请不要修改
layout时直接COPY原厂提供
的DRAM参考PCB




TP28
Test Point
1mm
J10
GND
T_ALERT
TWI2-SDA
TWI2-SCK
T_RESET
VCC-3V3
R144
0R-1%
R0603
C155
4.7uF
C0402
C154
104
C0402
GND
6
5
4
3
2
1
GND
ALT
T_SDA
T_SCL
T_RESET
VCC
TP24
TP23
TP22
Test Point
1mm
J11
P_RESET
P_TX_UART1
P_RX_UART1
VCC-5V
R147
0R-1%
R0603
C159
4.7uF
C0603
C158
104
C0402
RESET
NC
UART_RX
UART_TX
VCC
GND
G-SENSOR
TP26
TP25
G_INT1
G_INT2
U13
INT1
INT2
SCL/SPC
CS
SDO/SA0
SDA/SDI/SDO
VDD_IO
VDD
GND
RES
LIS2DH12
R146
0R-1%
R0603
C152
4.7uF
C0402
C153
104
C0402
J9
C157
4.7uF
C0402
C156
104
C0402
R145
0R-1%
R0603
O_RESET
O_SDA
O_SCL
O_RESET
TP27
TP21
TP20
TWI2-SDA
TWI2-SCK
TWI2-SCL
DEBUG_LED1
DEBUG_LED2
DEBUG_LED3
R137 510R R0402
R138 680R R0402
R139 680R R0402
D24 LED0603 Green LED
D25 LED0603 Yellow LED
D26 LED0603 White LED


BLE
L12
15nH
C194
1.0uF
C0402
2520
GND
L11
10uH
2520
C195
4.7uF
C0603
GND
C186
100nF
C0402
GND
U32
nRF52832
QFN48
DEC1
P0.00/XL1
P0.01/XL2
P0.02/AIN0
P0.03/AIN1
P0.04/AIN2
P0.05/AIN3
P0.06
P0.07
P0.08
P0.09
P0.10
VDD
DCC
DEC4
VSS
NC
P0.31/ANT8
P0.29/ANT6
P0.29/ANT5
P0.28/ANT4
P0.27
P0.26
P0.25
VDD
XC2
XC1
DEC3
DEC2
VSS
ANT
P0.24
P0.23
P0.22
SWDIO
SWDCLK
P0.21/RESET
VDD
P0.11
P0.12
P0.13
P0.14
P0.15
P0.16
P0.17
P0.18
P0.19
P0.20
C191
100nF
C0402
GND
C192
12pF
C0402
X5
16MHZ-10PPM
2520
C193
GND
C190
100pF
C0402
C189
NC
C0402
L10
3.9nH
2520
ANT_RF
GND
C188
0.8pF
C0402
GND
UART_TX
UART_RX
SWDIO
SWDCLK
R140
0R-1%
R0603
BLE_VDD
C187
100nF
C0402
GND
Reverse Correspondence
TP12 Test Point 1mm
TP13 Test Point 1mm
TP14 Test Point 1mm
TP15 Test Point 1mm
TP16 Test Point 1mm
BLE_RESET
BLE_TXD_UART3
BLE_RXD_UART3
BLE_CTS_UART3
BLE_RTS_UART3
BLE_VDD
J14 1.27*4
SWDIO
SWCLK
VCC
SWDIO
SWCLK
GND
Program
GND
UART_TX
UART_RX
J15 1.27*3
UART_TX
UART_RX
GND
Debug
GND
BLE_CTS_UART3
BLE_RTS_UART3
BLE_TXD_UART3
BLE_RXD_UART3
BLE_RESET

COVER

Schematics Index

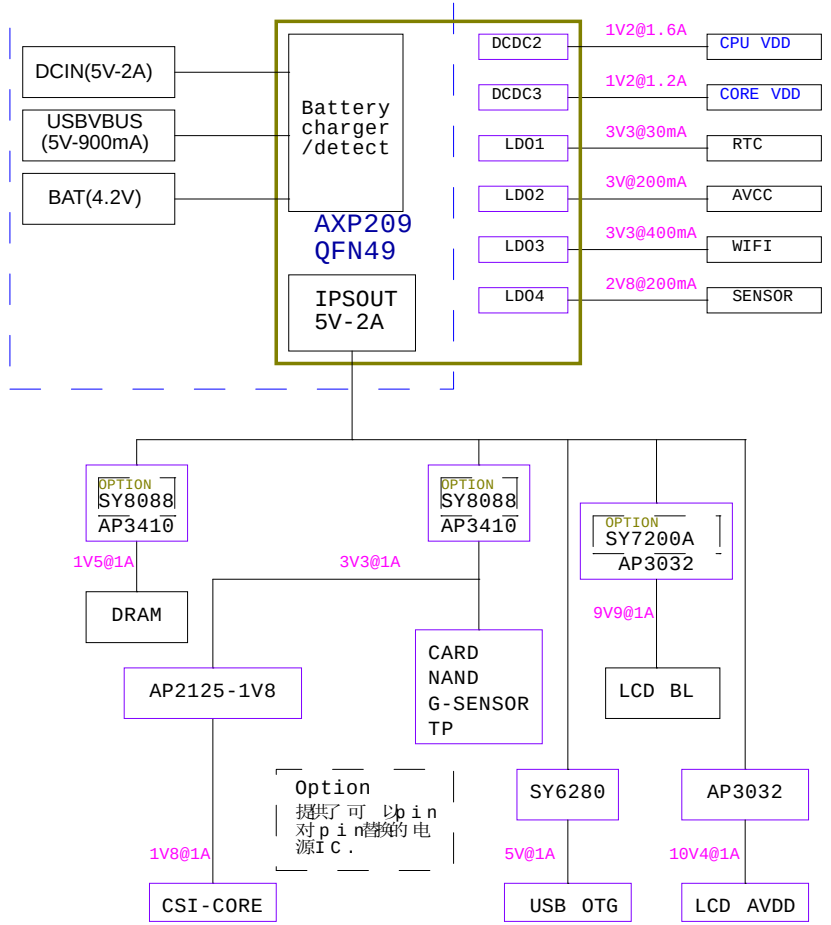
特别提醒：
1:PG0 / PG1 / PG2这个PIN脚具有INPUT功能有功能。
2:PMU的GPIO0/1/2这四个PIN脚做GPIO-OUTPUT功能的话可改变。
3:PG10 / PG11 / PG12这个PIN脚具有INPUT功能有功能。
4:CSI-PCLK / CSI-MCLK这两个PIN脚具有INPUT功能有功能。
5:CSI-HSYNC具有INPUT专有功能，不能他用途。

GPIO ASSIGNMENT

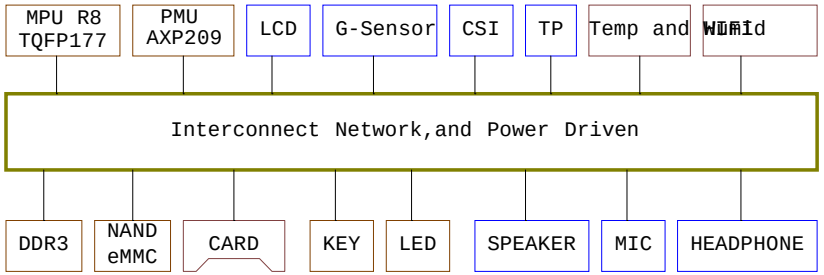
CPU	Define	Function
PB0	TWI0_SCK	TWI0-PMU
PB1	TWI0_SDA	
PB2	PWM0	LCD
PB3	GPIO-OUT	TP-WAKEUP
PB4	GPIO-OUT	USER-LED
PB10	GPIO-OUT	CSI-STY
PB15	TWI1_SCK	TWI1-TP-G
PB16	TWI1_SDA	
PB17	TWI2_SCK	TWI2-CSI
PB18	TWI2_SDA	
PG0	GPIO-IN	SD0-DET-N
PG1	NC	
PG2	GPIO-IN	USB0-IDDET
PG3	GPIO-OUT	CSI-STY-1
PG4	GPIO-OUT	CSI-RST-1
PG9	GPIO-OUT	ACIN-EN
PG10	GPIO-OUT	PA-SHDN
PG11	EINT	TP-INT
PG12	GPIO-OUT	USB0-DRV
PMU	**Define**	**Function**
GPIO0	GPIO-OUT	LCD-PWR
GPIO1	GPIO-OUT	LCD-BL-EN
GPIO2	GPIO-OUT	CSI-PWR-EN
GPIO3	GPIO-OUT	CSI-RST

POWER TREE

LAYOUT: DCIN BAT、IPSOUT输入或输出线，从PMU管脚处就要保证尽量粗。



BLOCK



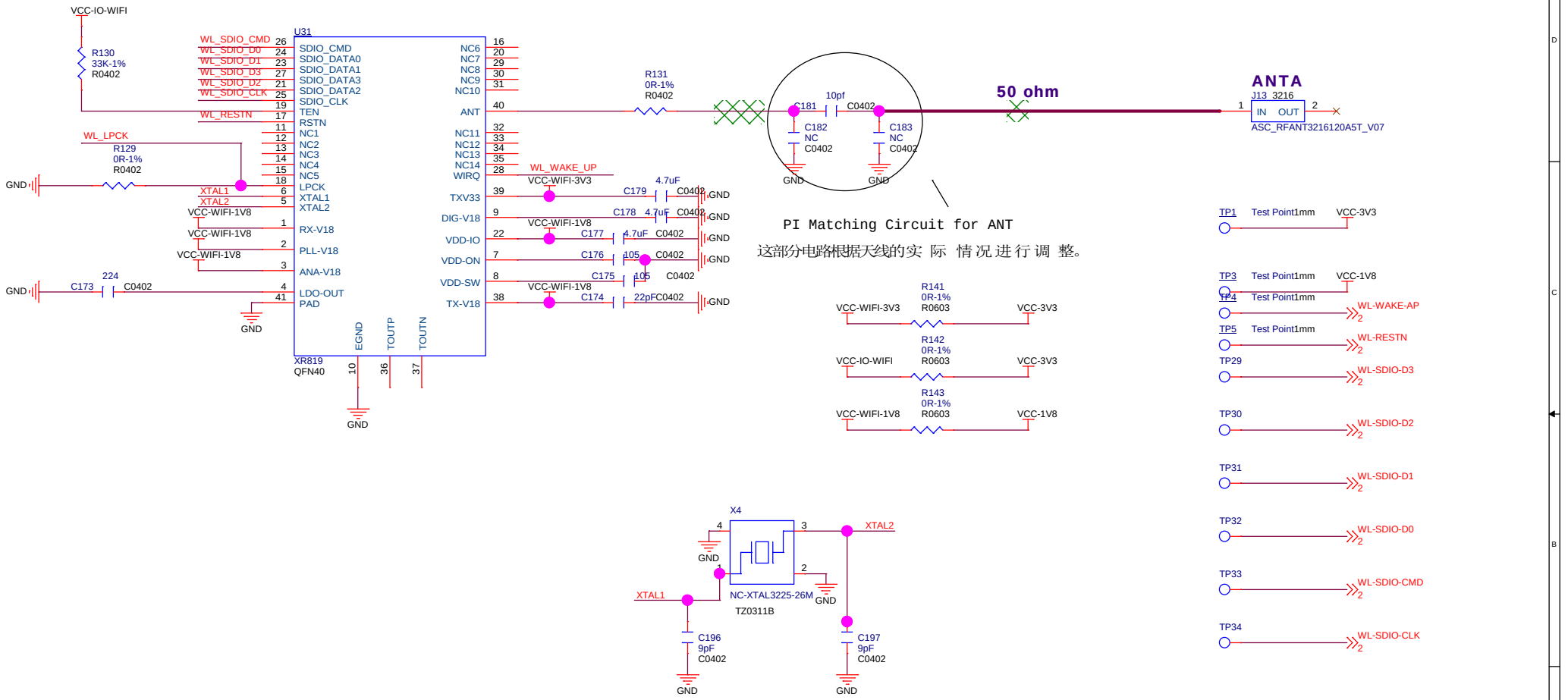
REVISION HISTORY

Revision	Description	Date	Drawn	Checked	Approved
Ver 1.0					

AllWinner Technology Co.,Ltd

Design Name: R8_STD_V2_0		
Size: A3	Page Name: COVER	Rev
Date: Tuesday, May 31, 2016	Sheet 1 of 10	

Wi-Fi



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Size B	Document Number <Doc>	Rev <RevCode>
Date: Wednesday, June 01, 2016	Sheet 1 of 1	