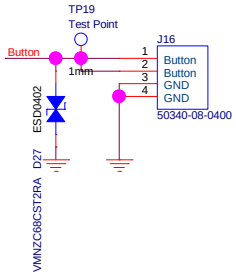
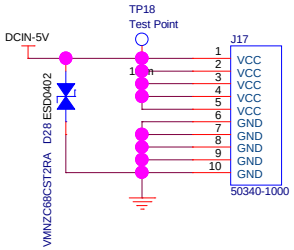
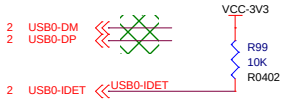
Button



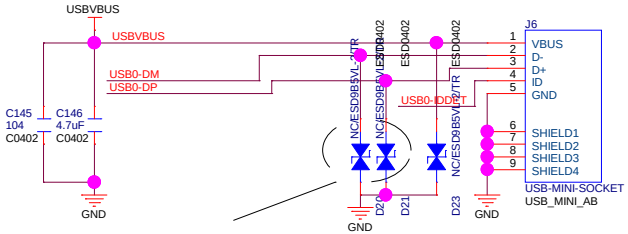
PCB Power Assay





USB-DEVICE

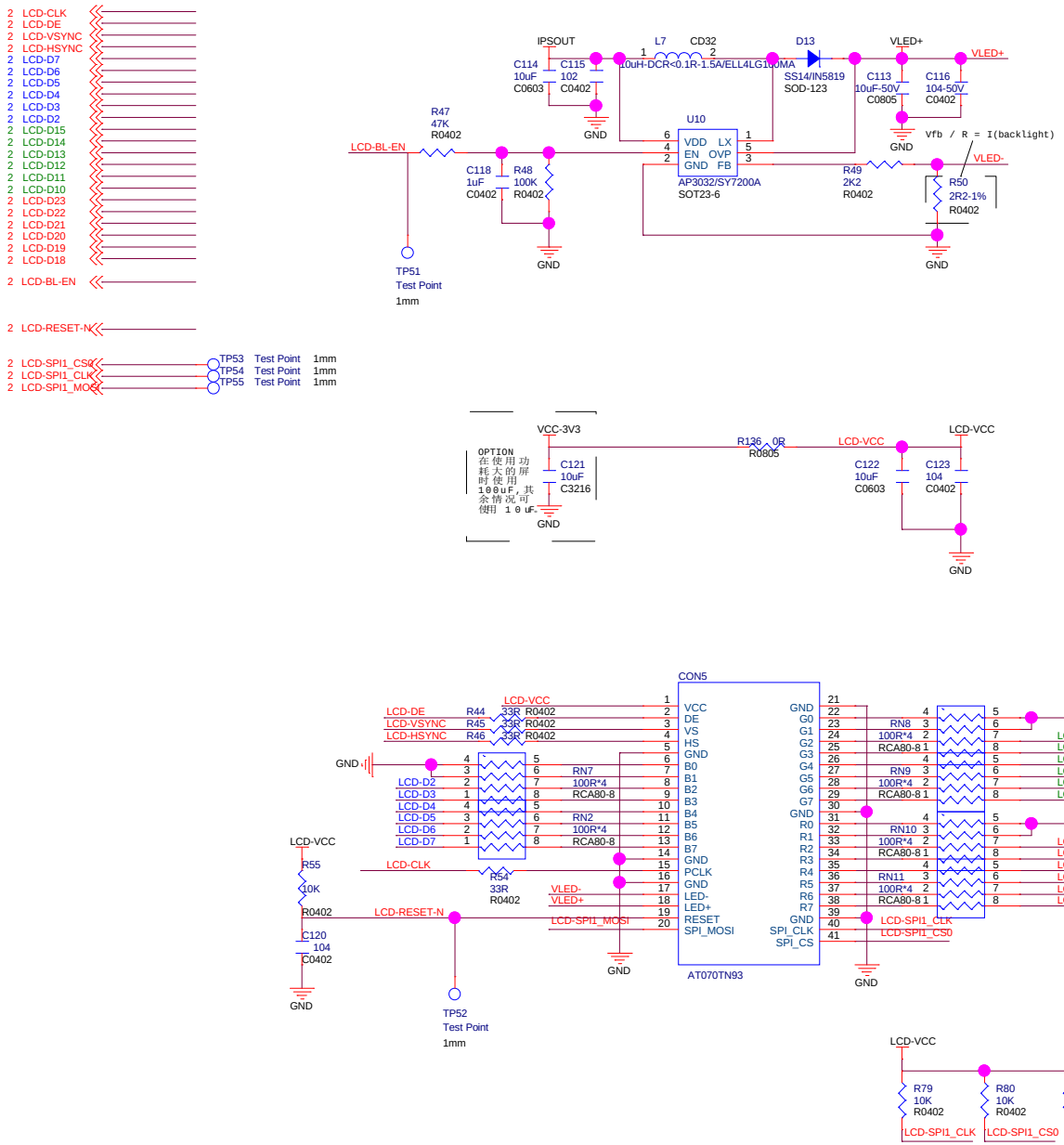
Differential pairs
Z0= 90 ohm



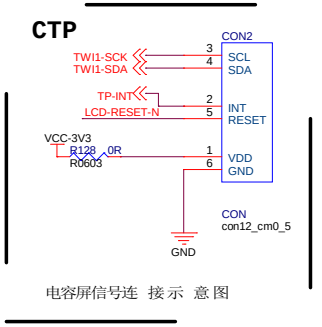
D+/D- 上的 ESD 器件电容小于等于 4pF(包括了误差)。

DISPLAY

LCD



CTP

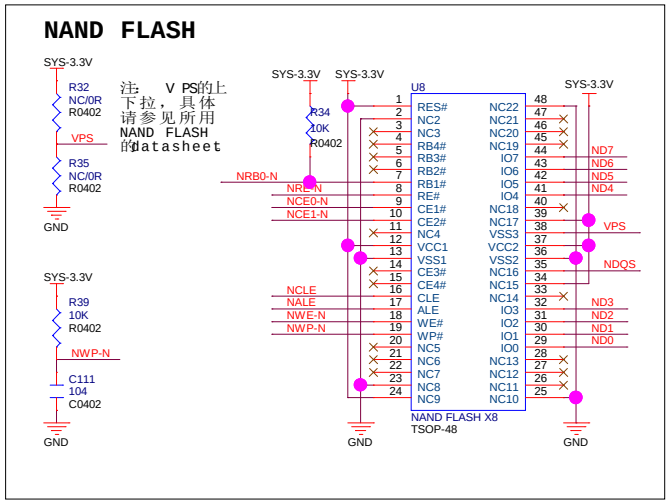


电容屏信号连 接示 意图

FLASH/CARD

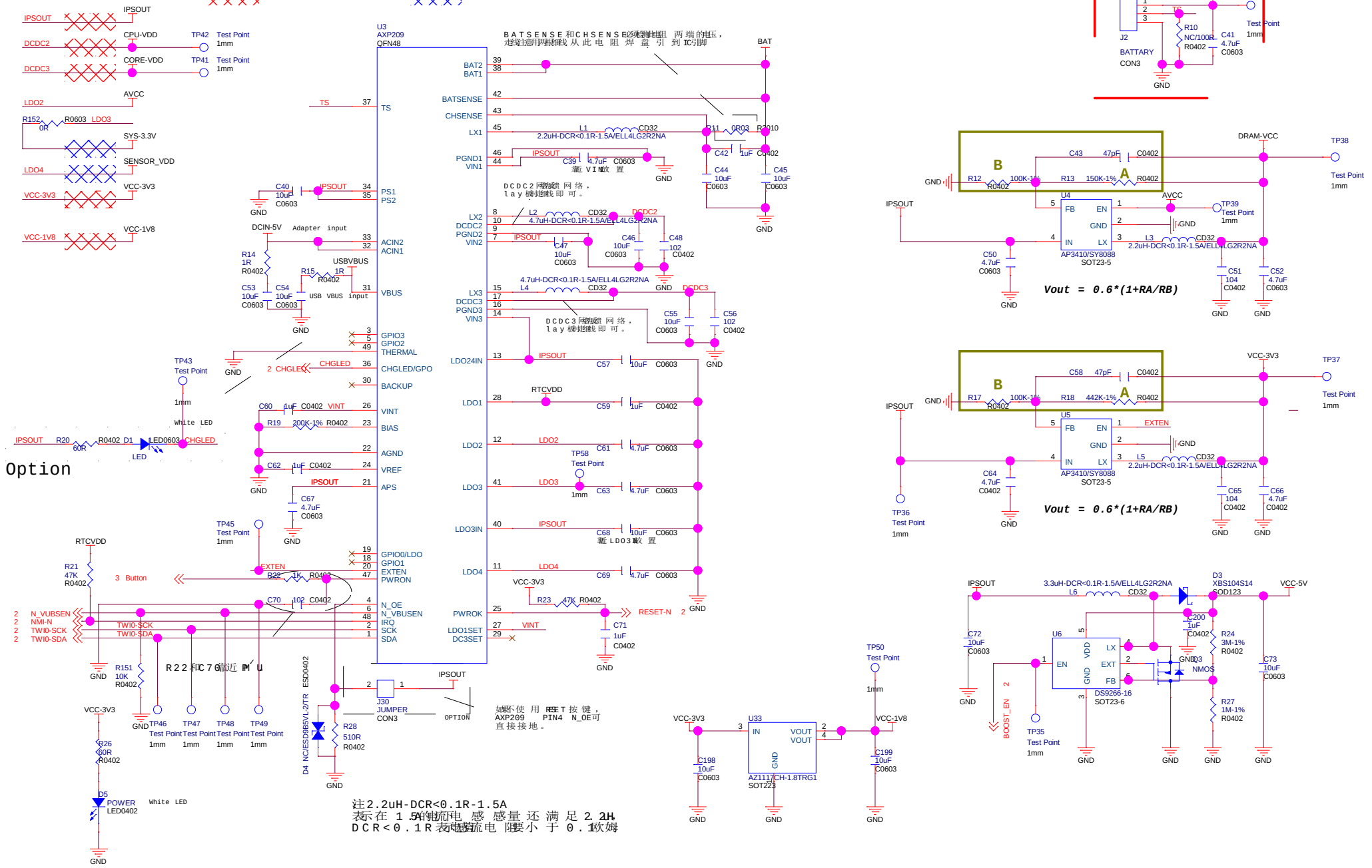
2 ND[7:0] ND[7:0]
2 NDQS NDQS

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

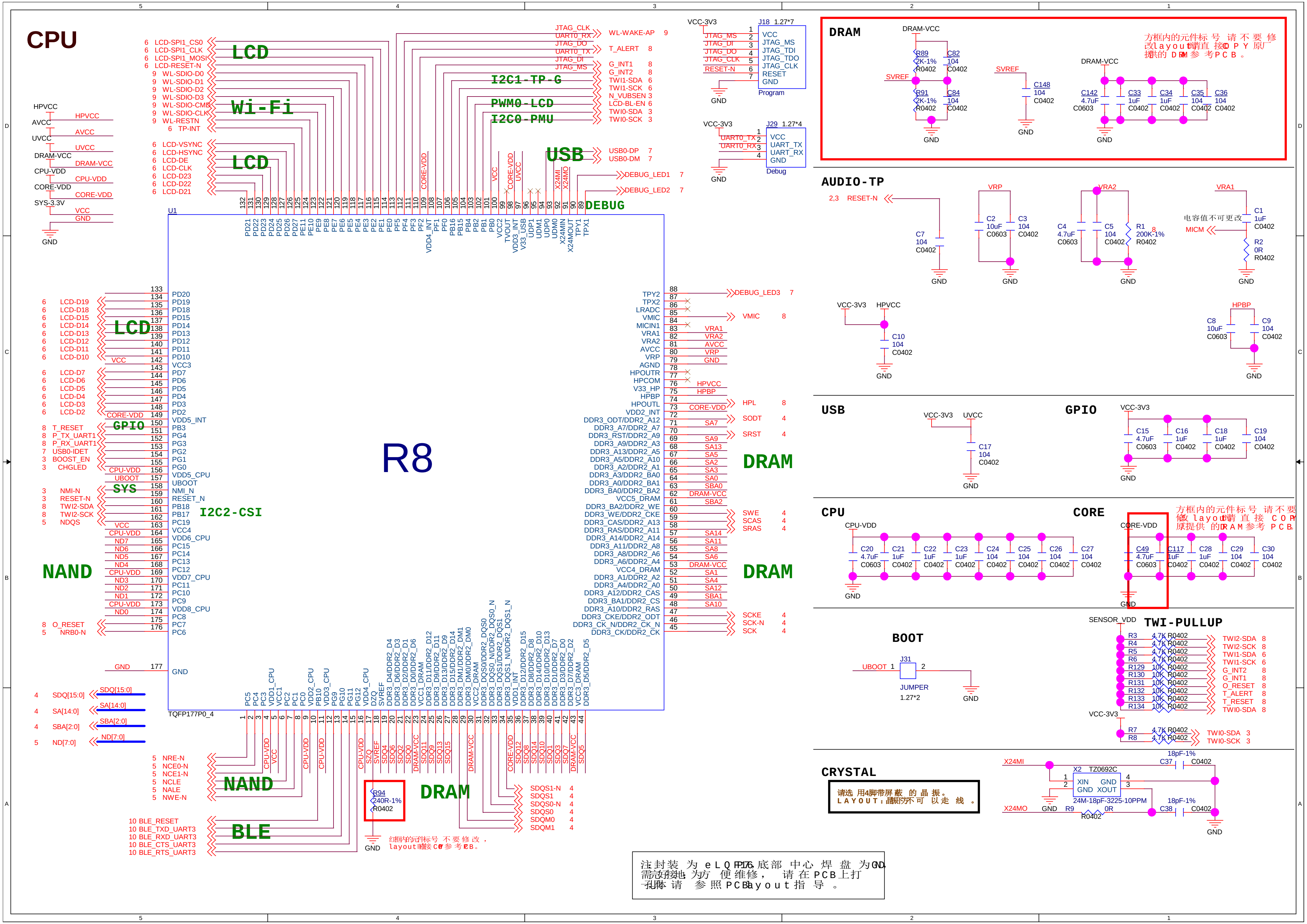


POWER

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



注2.2uH-DCR<0.1R-1.5A
表示在1.5A的额定电感量还满足2.2uH，
DCR<0.1R表示额定电阻要小于0.1欧姆



CPU
R8
U1
TQFP177P0_4
LCD
Wi-Fi
I2C1-TP-G
PWM0-LCD
I2C0-PMU
USB
DEBUG
GPIO
SYS
I2C2-CSI
NAND
DRAM
BLE
HPVCC
AVCC
UVCC
DRAM-VCC
CPU-VDD
CORE-VDD
SYS-3.3V
VCC
GND
J18 1.27*7
VCC JTAG_MS JTAG_TDI JTAG_TDO JTAG_CLK RESET GND
Program
J29 1.27*4
VCC UART_TX UART_RX GND
Debug
DRAM
方框内的元件标号请不要修改layout时请直接COPY原厂提供的DRAM参考PCB。
AUDIO-TP
电容值不可更改
USB
GPIO
CPU
CORE
方框内的元件标号请不要修改layout时请直接COPY原厂提供的DRAM参考PCB。
BOOT
J31
JUMPER
1.27*2
TWI-PULLUP
SENSOR_VDD
CRYSTAL
请选用4脚带屏蔽的晶振。LAYOUT:晶振下方不可以走线。
X2 TZ0692C
24M-18pF-3225-10PPM
红框内的元件标号不要修改，layout时直接COPY参考PCB。
注：封装为eLQFP176,底部中心焊盘为GND,需完好接地；为方便维修，请在PCB上打一孔，具体请参照PCB layout指导。

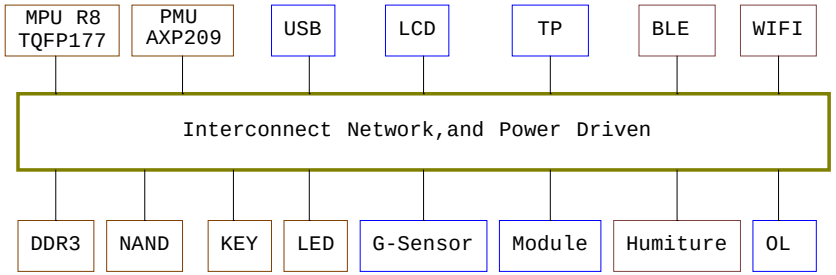
COVER

Schematics Index

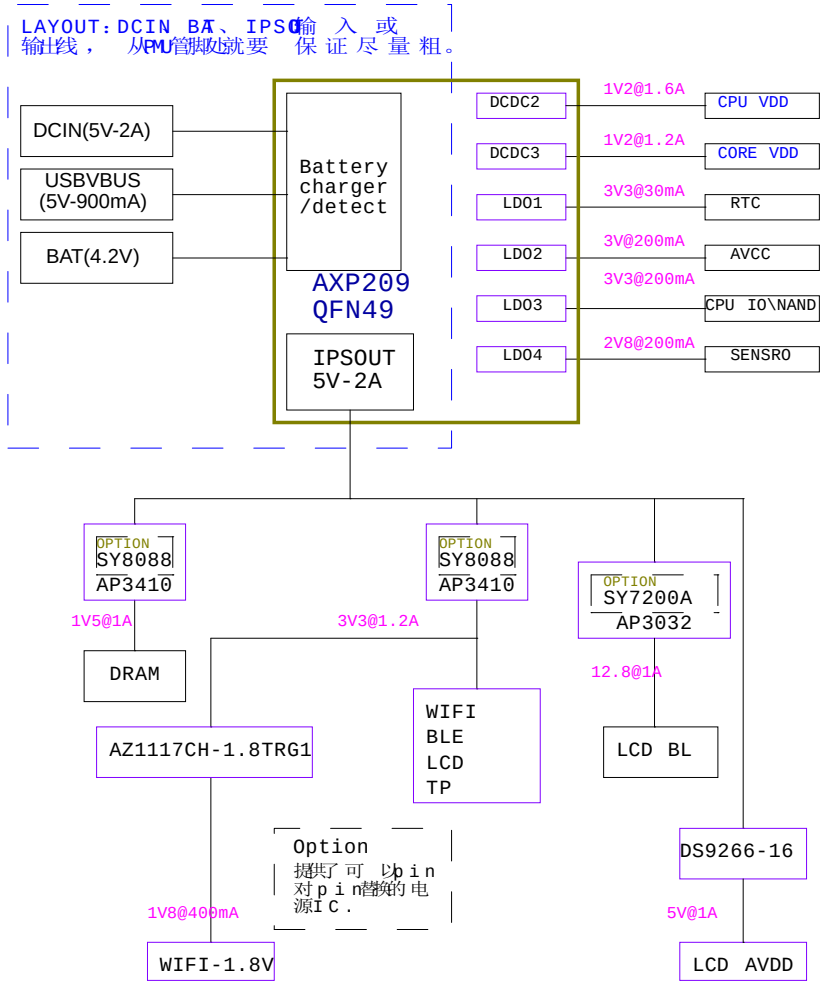
Bran-Design

特别提醒：
1:PG0 / PG1 / PG2这个PIN脚
具有INPUT唤醒有功能。
2:PMU的GPIO0/1/2这四个PIN脚
做GPIO-OUTPUT功能
3:PG10 / PG11 / PG12这个PIN脚
的功能可改变。
4:CSI-PCLK / CSI-MCLK这个PIN脚
具有INPUT唤醒有功能。
5:CSI-HSYNC具有INPUT专有功能，
不能用途。

BLOCK



POWER TREE



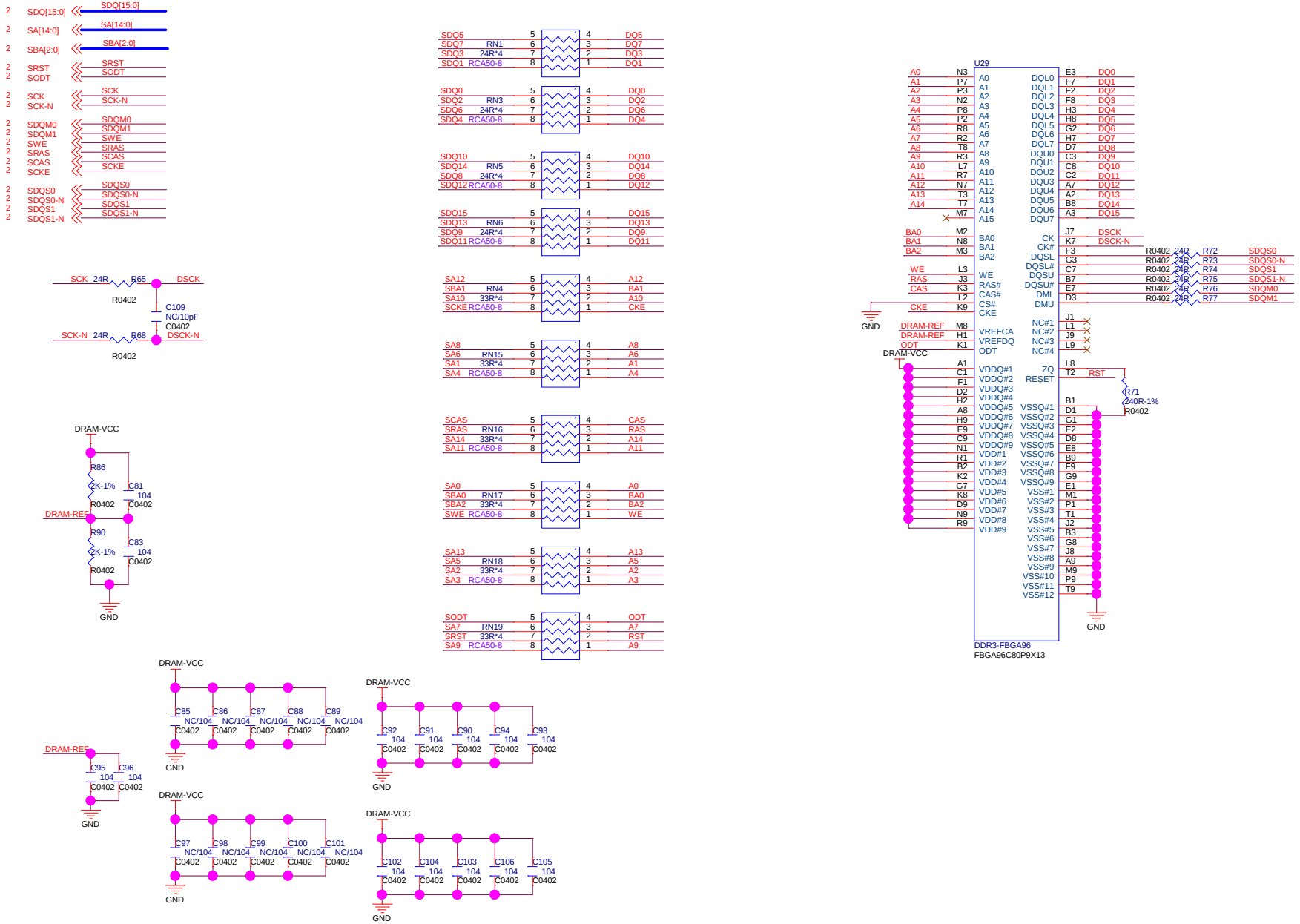
REVISION HISTORY

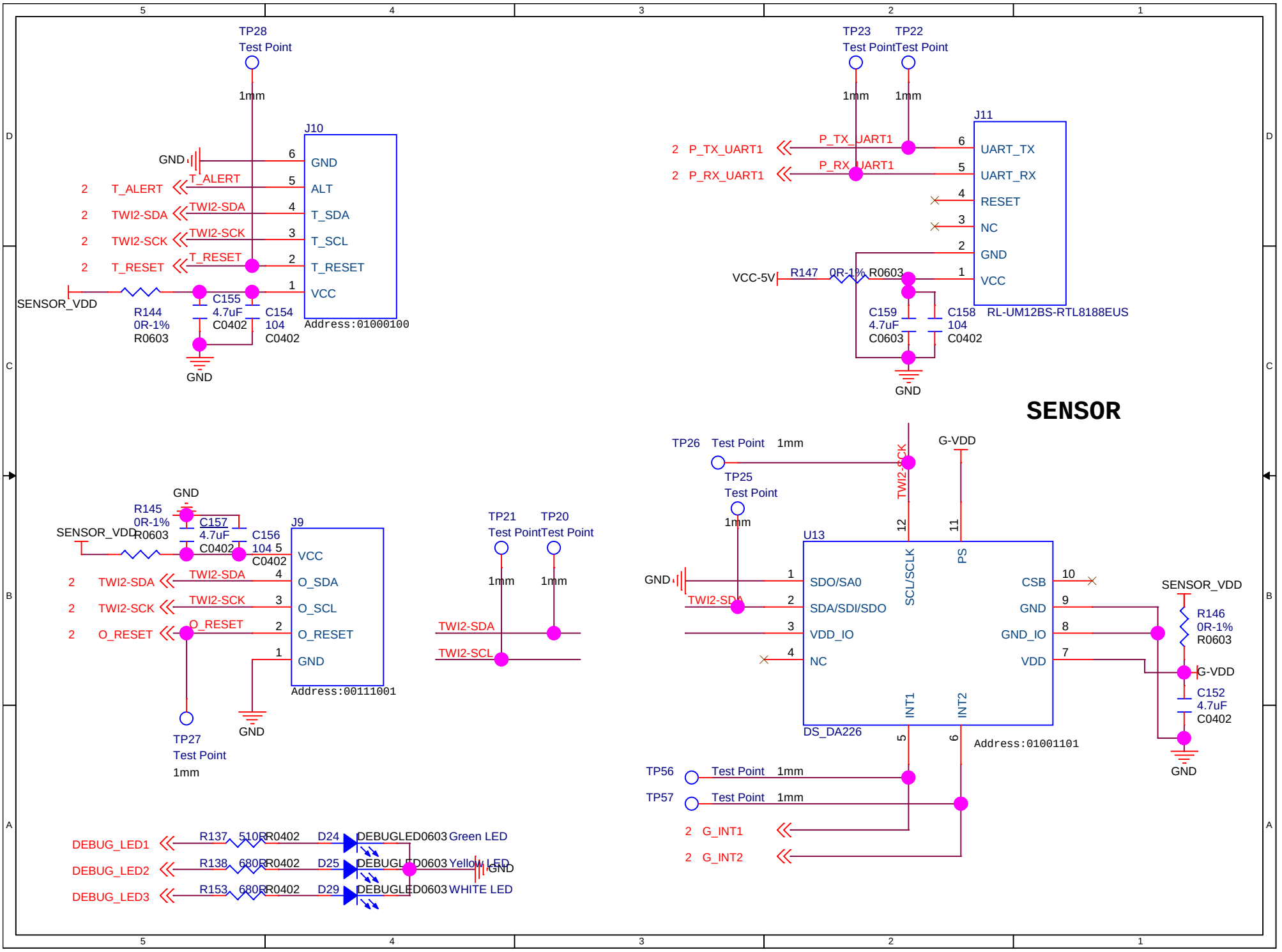
Revision	Description	Date	Drawn	Checked	Approved
Ver 1.0	Bran Main PCB ASSY	2016/6/2	Violet/Jemmey	Jemmey	

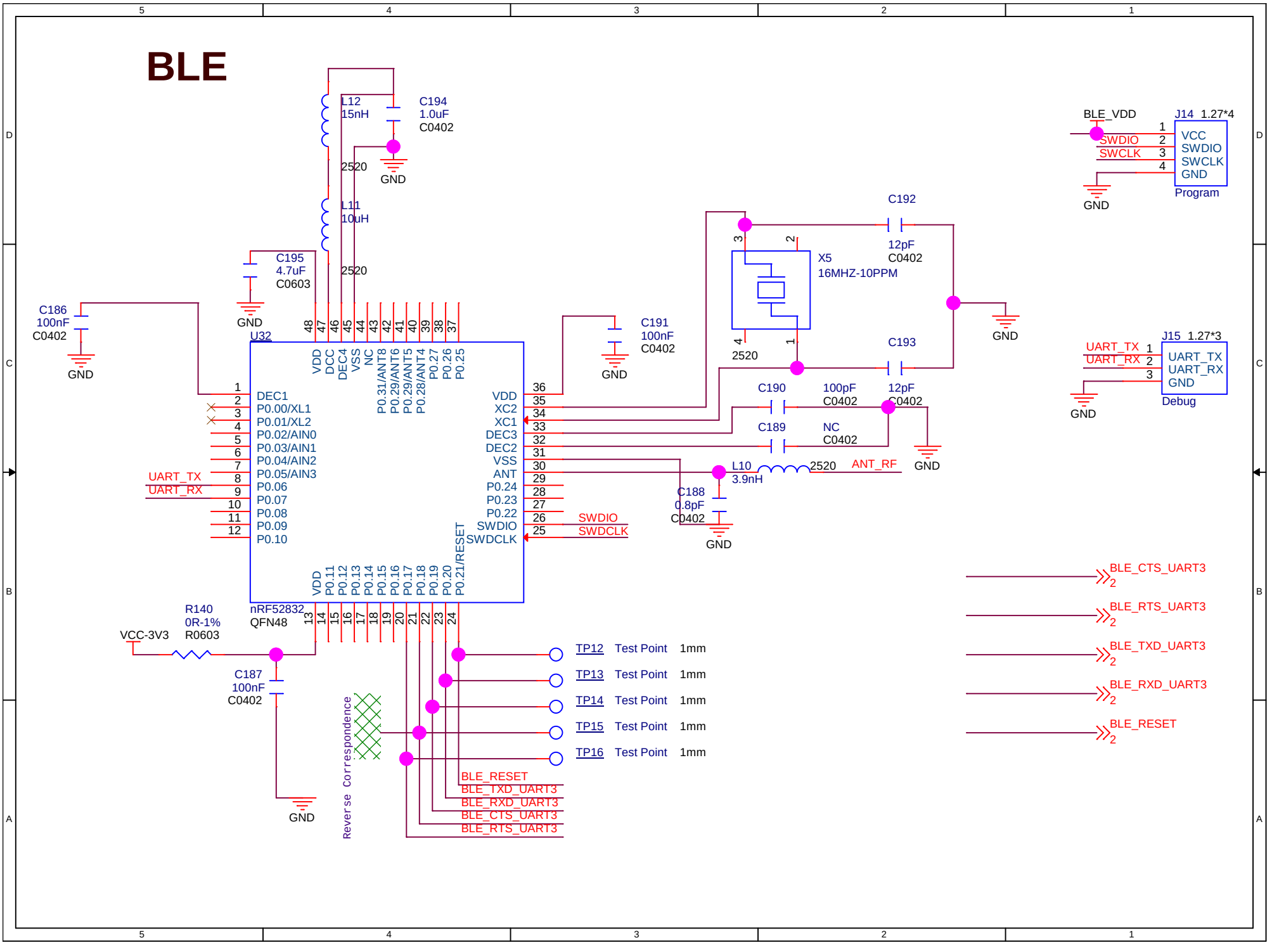
DDR3 16x1

DDR3

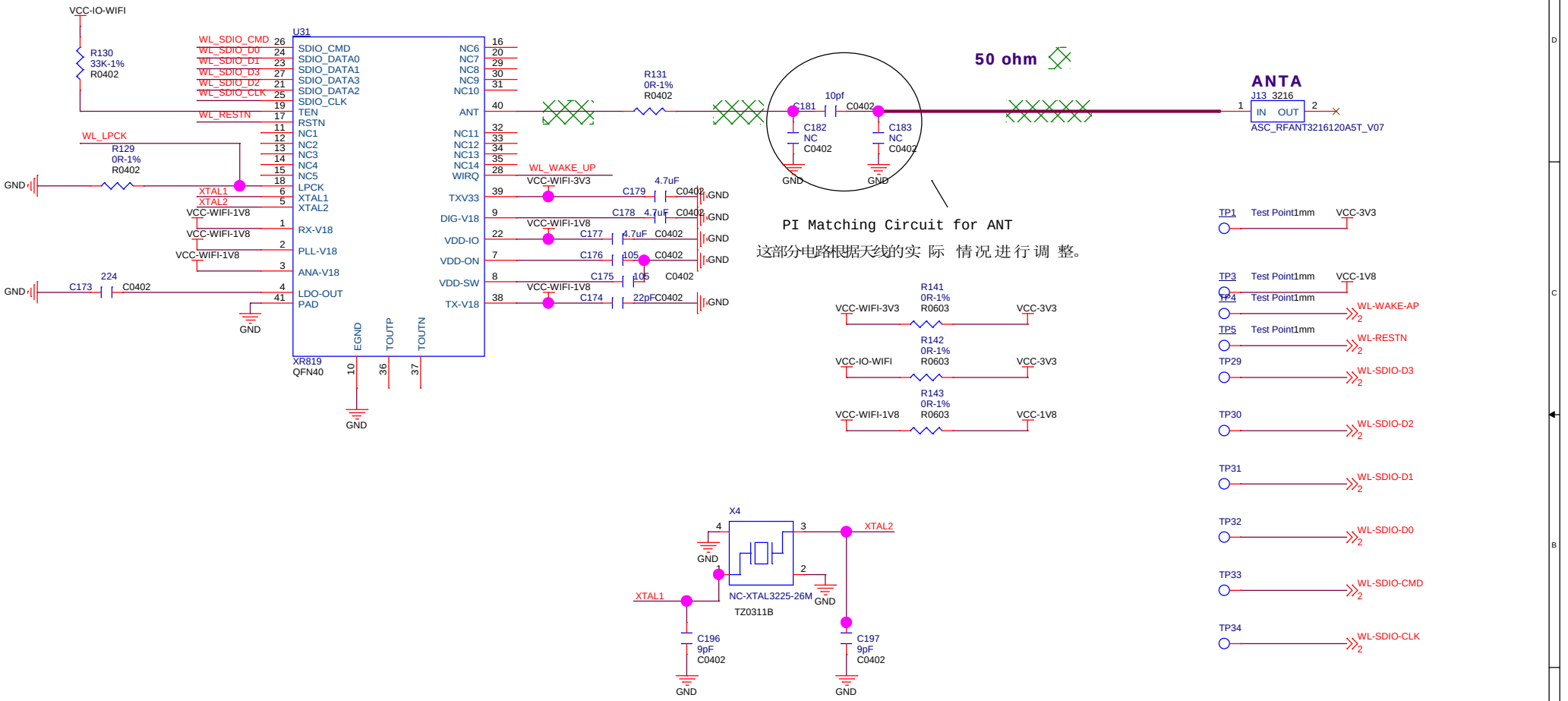
本页的元件标号请不要修改
layout时直接COPY原厂提供
的DRAM参考PCB




TP28
Test Point
1mm
J10
GND
6
GND
T_ALERT
5
ALT
2 T_ALERT
2 TWI2-SDA
4
T_SDA
2 TWI2-SCK
3
T_SCL
2 T_RESET
2
T_RESET
SENSOR_VDD
R144
0R-1%
R0603
C155
4.7uF
C0402
C154
104
C0402
1
VCC
Address:01000100
GND
TP23
Test Point
TP22
Test Point
1mm
1mm
J11
2 P_TX_UART1
P_TX_UART1
6
UART_TX
2 P_RX_UART1
P_RX_UART1
5
UART_RX
4
RESET
3
NC
2
GND
VCC-5V
R147
0R-1%
R0603
1
VCC
C159
4.7uF
C0603
C158
104
C0402
RL-UM12BS-RTL8188EUS
GND
SENSOR
GND
R145
0R-1%
R0603
SENSOR_VDD
C157
4.7uF
C0402
C156
104
C0402
5
J9
VCC
2 TWI2-SDA
TWI2-SDA
4
O_SDA
2 TWI2-SCK
TWI2-SCK
3
O_SCL
2 O_RESET
O_RESET
2
O_RESET
1
GND
Address:00111001
GND
TP27
Test Point
1mm
TP21
Test Point
TP20
Test Point
1mm
1mm
TWI2-SDA
TWI2-SCL
TP26
Test Point
1mm
TP25
Test Point
1mm
TWI2-SCK
12
SCL/SCLK
G-VDD
11
PS
U13
GND
1
SDO/SA0
TWI2-SDA
2
SDA/SDI/SDO
3
VDD_IO
4
NC
CSB
10
GND
9
GND_IO
8
VDD
7
SENSOR_VDD
R146
0R-1%
R0603
G-VDD
C152
4.7uF
C0402
GND
INT1
INT2
5
6
DS_DA226
Address:01001101
TP56
Test Point
1mm
TP57
Test Point
1mm
2 G_INT1
2 G_INT2
DEBUG_LED1
DEBUG_LED2
DEBUG_LED3
R137
510R
R0402
R138
680R
R0402
R153
680R
R0402
D24
D25
D29
DEBUGLED0603
DEBUGLED0603
DEBUGLED0603
Green LED
Yellow LED
WHITE LED
GND


BLE
L12
15nH
C194
1.0uF
C0402
2520
GND
L11
10uH
2520
C195
4.7uF
C0603
GND
C186
100nF
C0402
GND
U32
nRF52832
QFN48
VDD
DCC
DEC4
VSS
NC
P0.31/ANT8
P0.29/ANT6
P0.29/ANT5
P0.28/ANT4
P0.27
P0.26
P0.25
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
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
12pF
C0402
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
VCC-3V3
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

Wi-Fi



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Size B	Document Number <Doc>	Rev <RevCode>
Date: Thursday, June 02, 2016	Sheet 1 of 1	