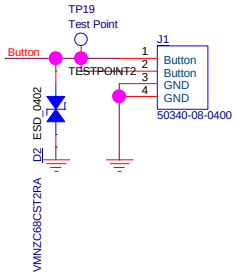
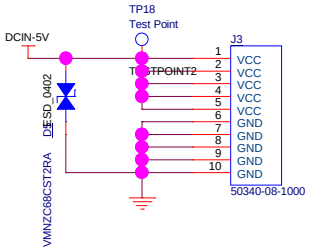
Button

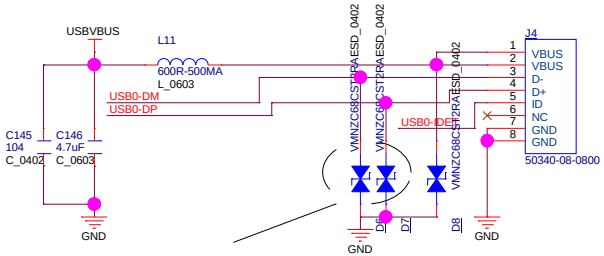


PCB Power Assay



USB-DEVICE

Differential pairs
Z0= 90 ohm



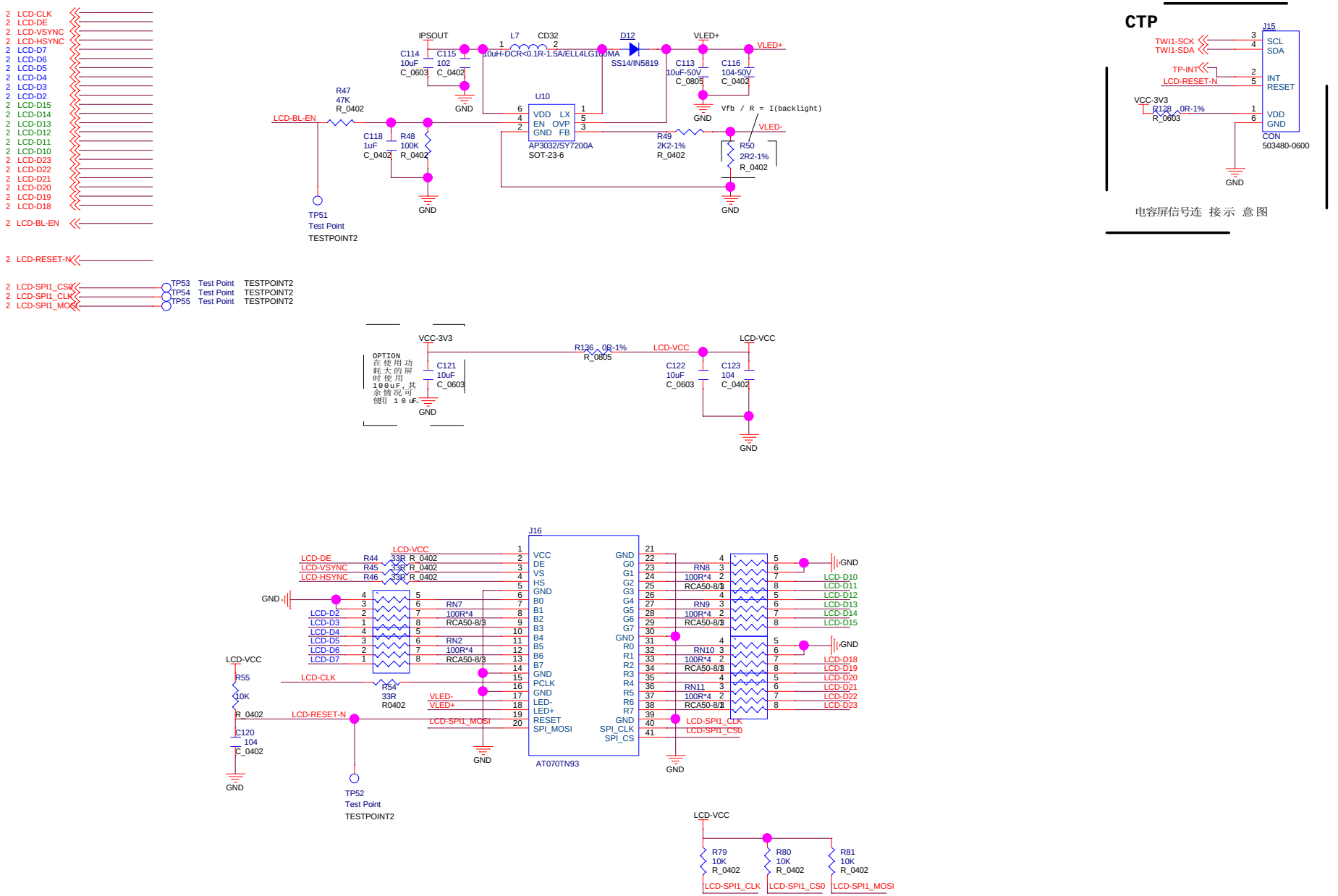
D+/D-上的ESD器件电容小于等于4 pF(包括了误差)。

M1
Bad Mark

M2
Bad Mark

DISPLAY

LCD



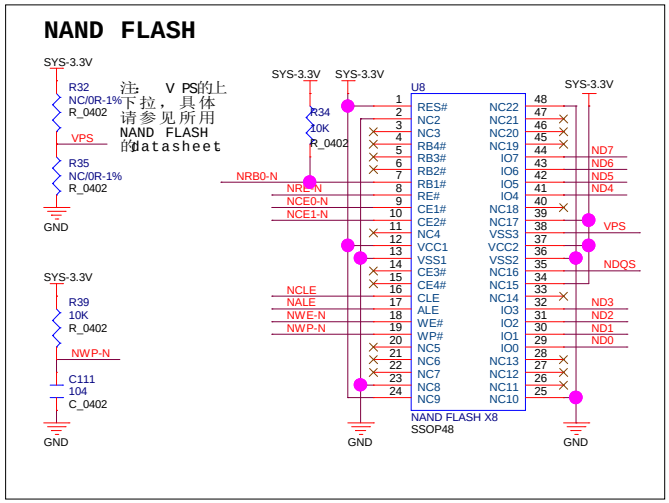
CTP

电容屏信号连 接示 意图

FLASH/CARD

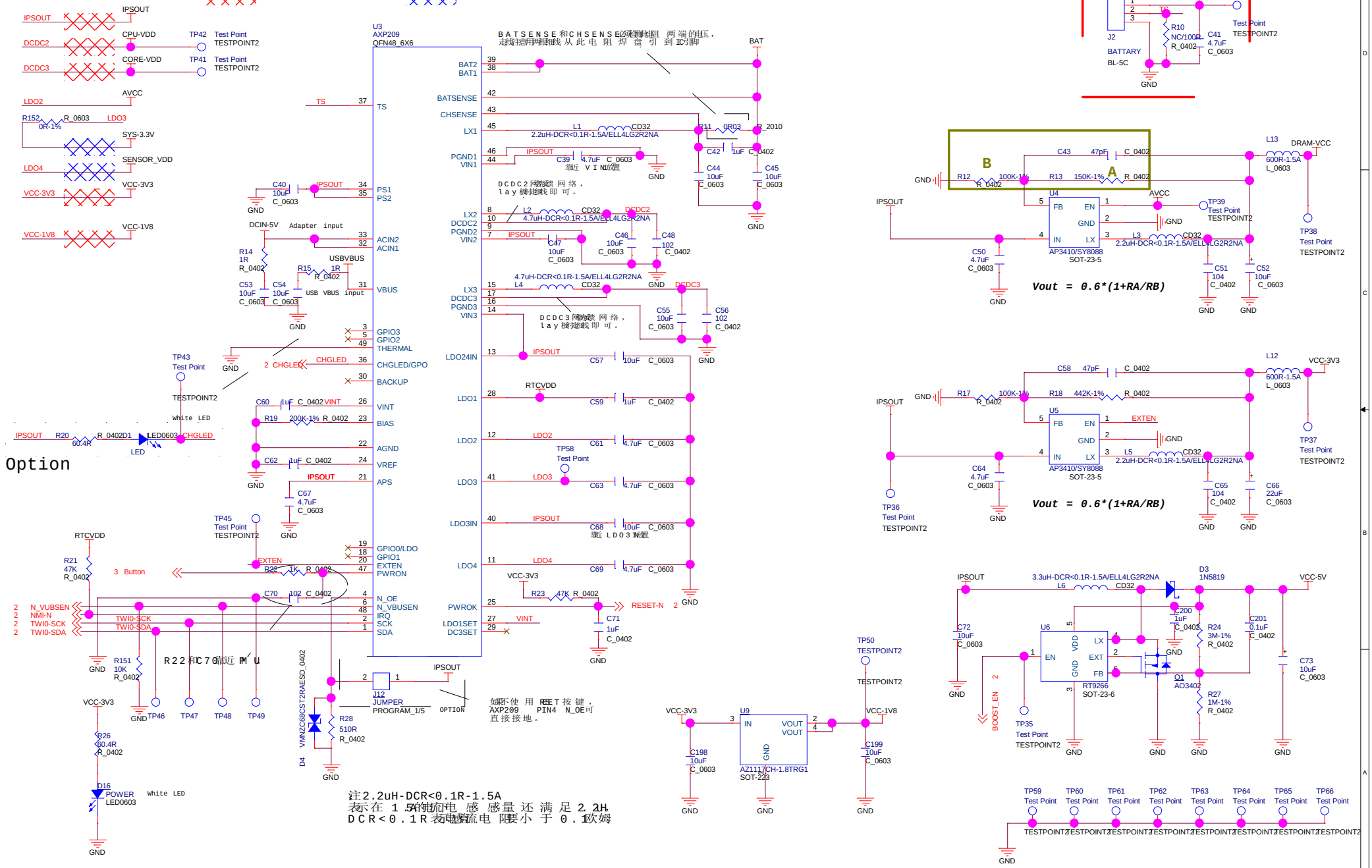
2 ND[7:0] ND[7:0]
2 NDQS NDQS

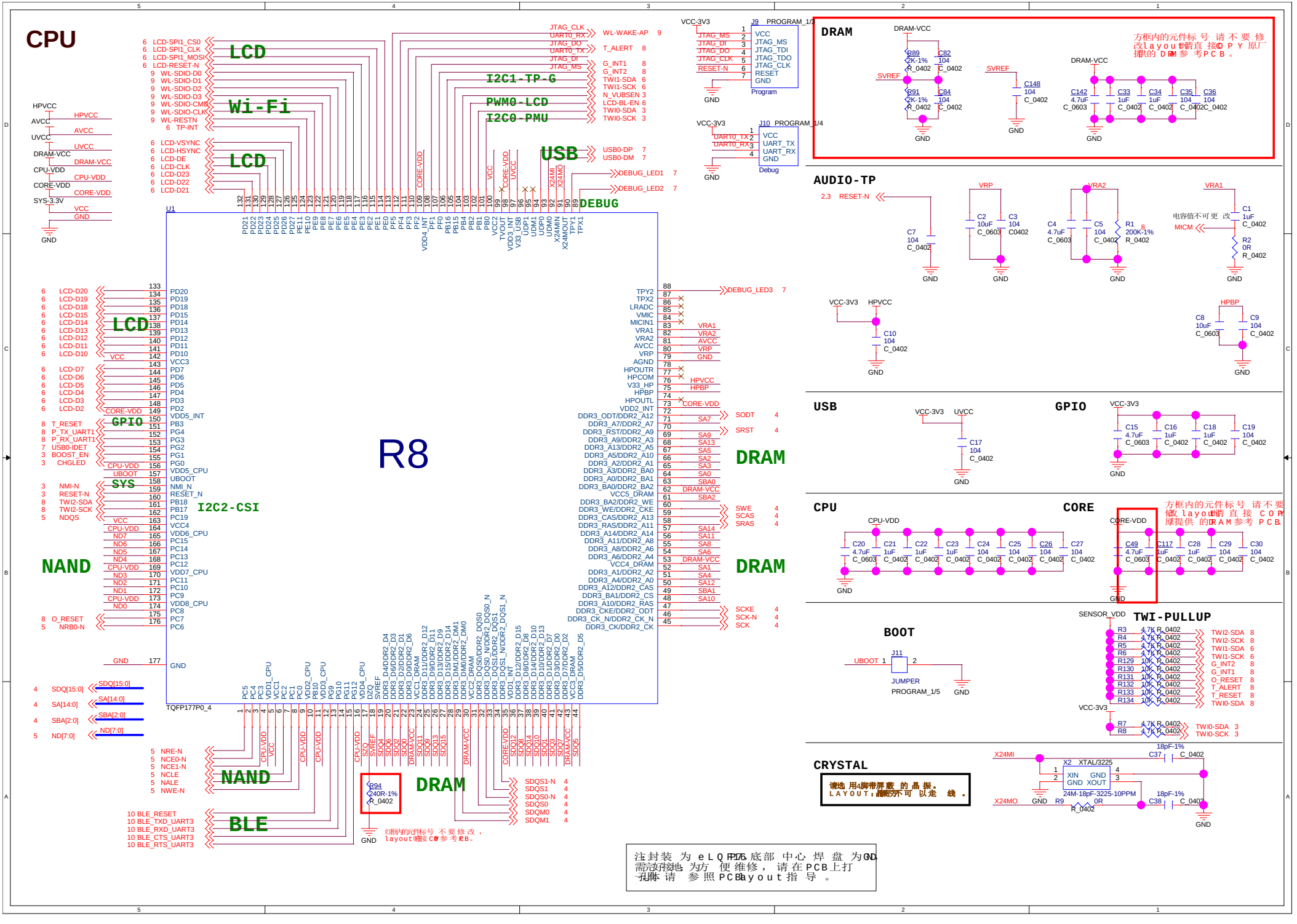
2 NRB0-N NRB0-N
2 NRE-N NRE-N
2 NCE0-N NCE0-N
2 NCE1-N NCE1-N
2 NCLE NCLE
2 NALE NALE
2 NWE-N NWE-N



POWER

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




CPU
R8
LCD
Wi-Fi
LCD
USB
DEBUG
I2C1-TP-G
PWM0-LCD
I2C0-PMU
LCD
GPIO
SYS
I2C2-CSI
NAND
DRAM
DRAM
NAND
DRAM
BLE
DRAM
AUDIO-TP
USB
GPIO
CPU
CORE
BOOT
TWI-PULLUP
CRYSTAL
TQFP177P0_4
U1
J9 PROGRAM_1/3
Program
J10 PROGRAM_1/4
Debug
JUMPER
PROGRAM_1/5
X2 XTAL/3225
24M-18pF-3225-10PPM
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。
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上打孔请参照PCB layout指导。

COVER

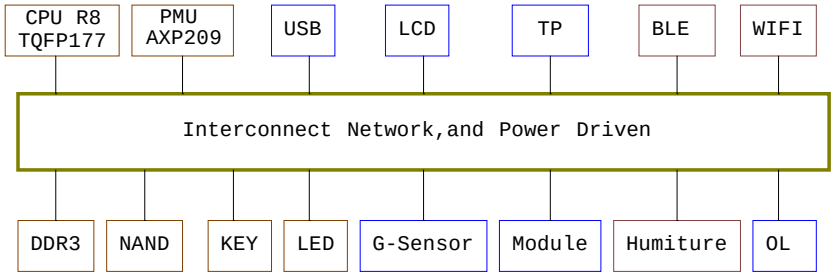
Schematics Index

Bran-Design

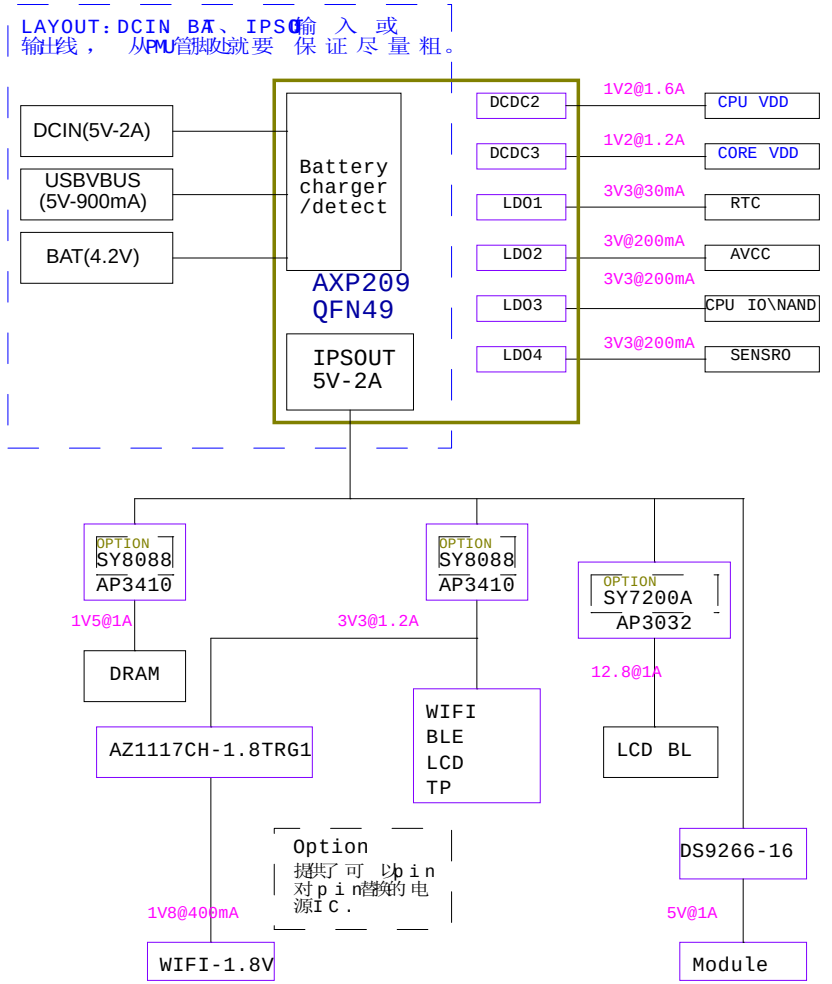
01 COVER
02 CPU
03 POWER
04 DDR3 16x1
05 FLASH
06 DISPLAY
07 PERIPHERS
08 SENSOR
09 WI-FI
Option:
10 BLE

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



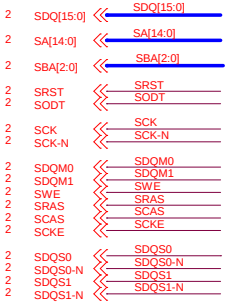
REVISION HISTORY

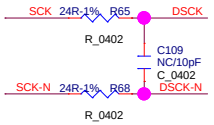
Revision	Description	Date	Drawn	Checked	Approved
Ver 1.0	Bran Main PCB ASSY	2016/6/2	Violet/Jemmey	Jemmey	

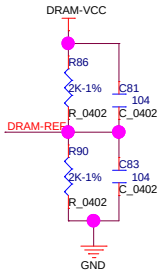
DDR3 16x1

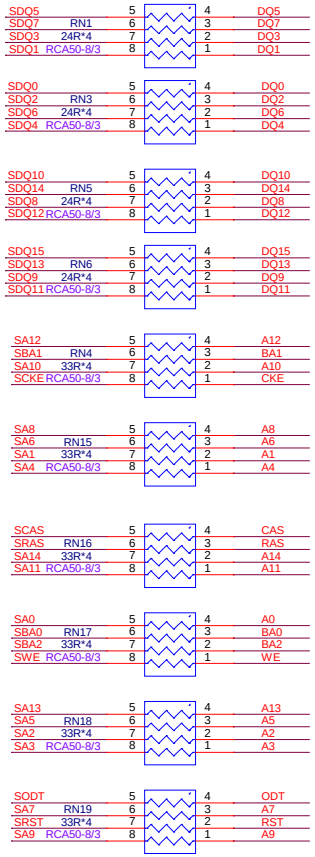
DDR3

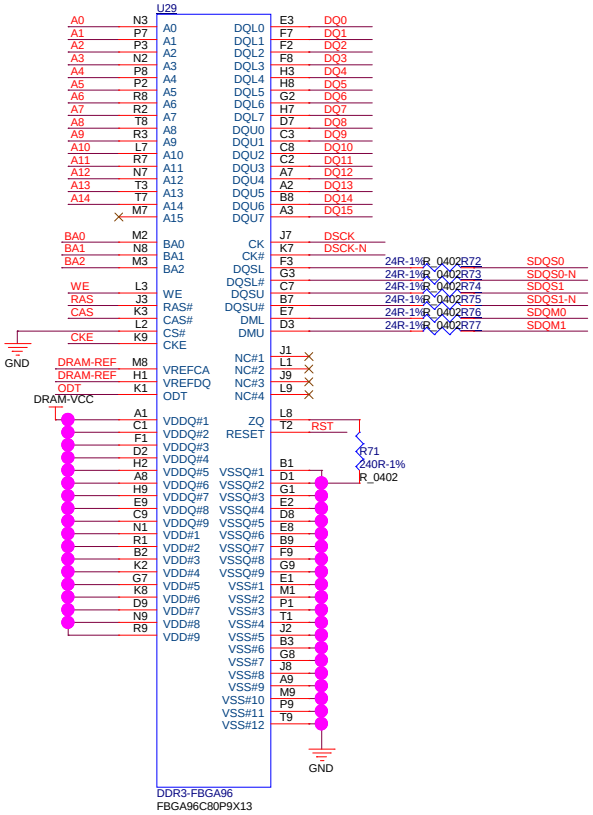
本页的元件标号请不要修改
layout时直接COPY原厂提供
的DRAM参考PCB

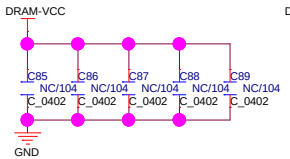


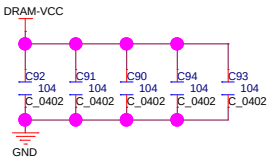


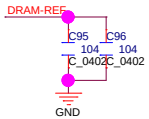


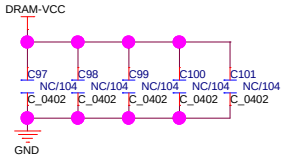


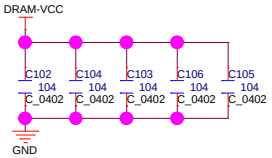


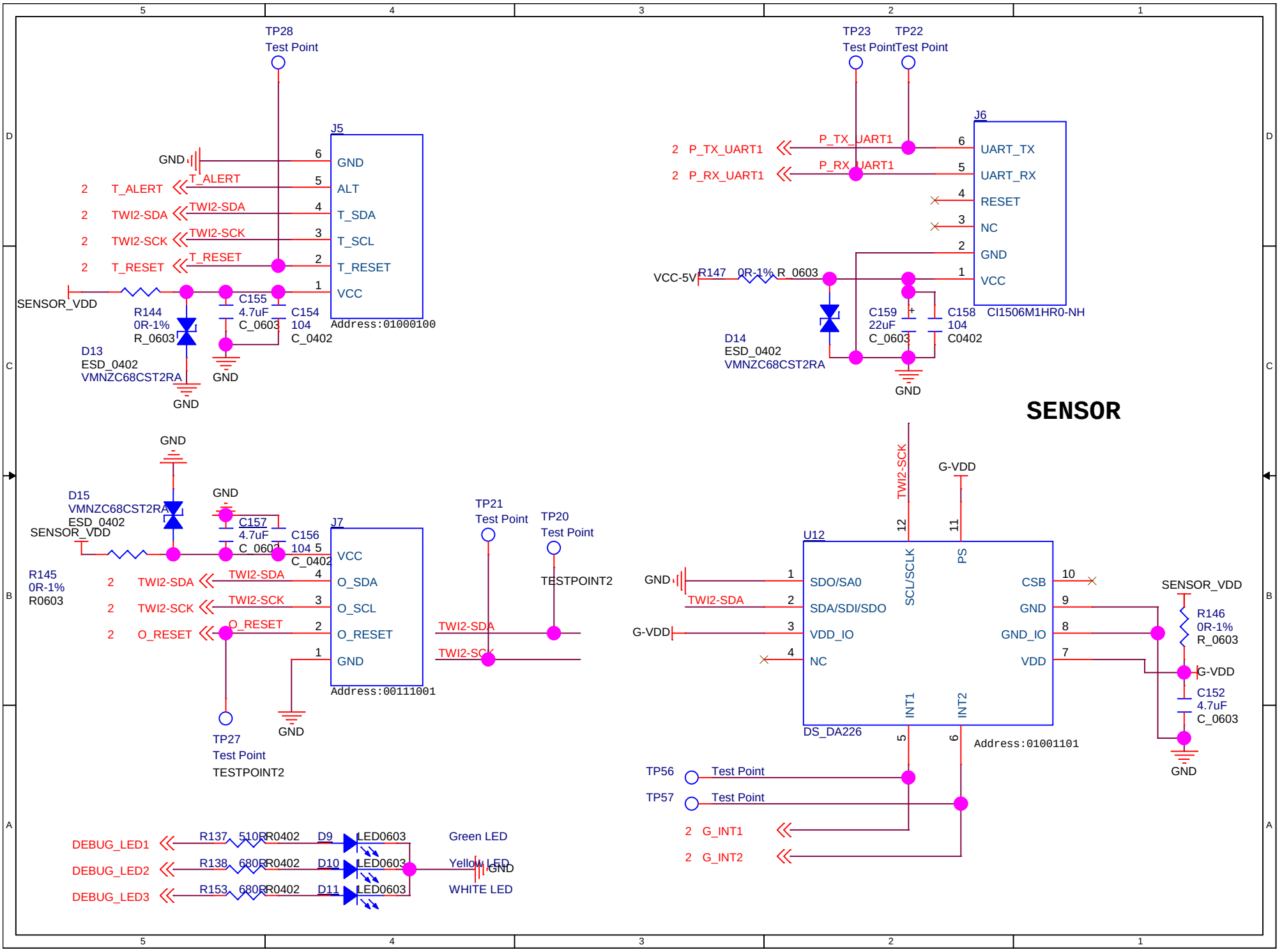


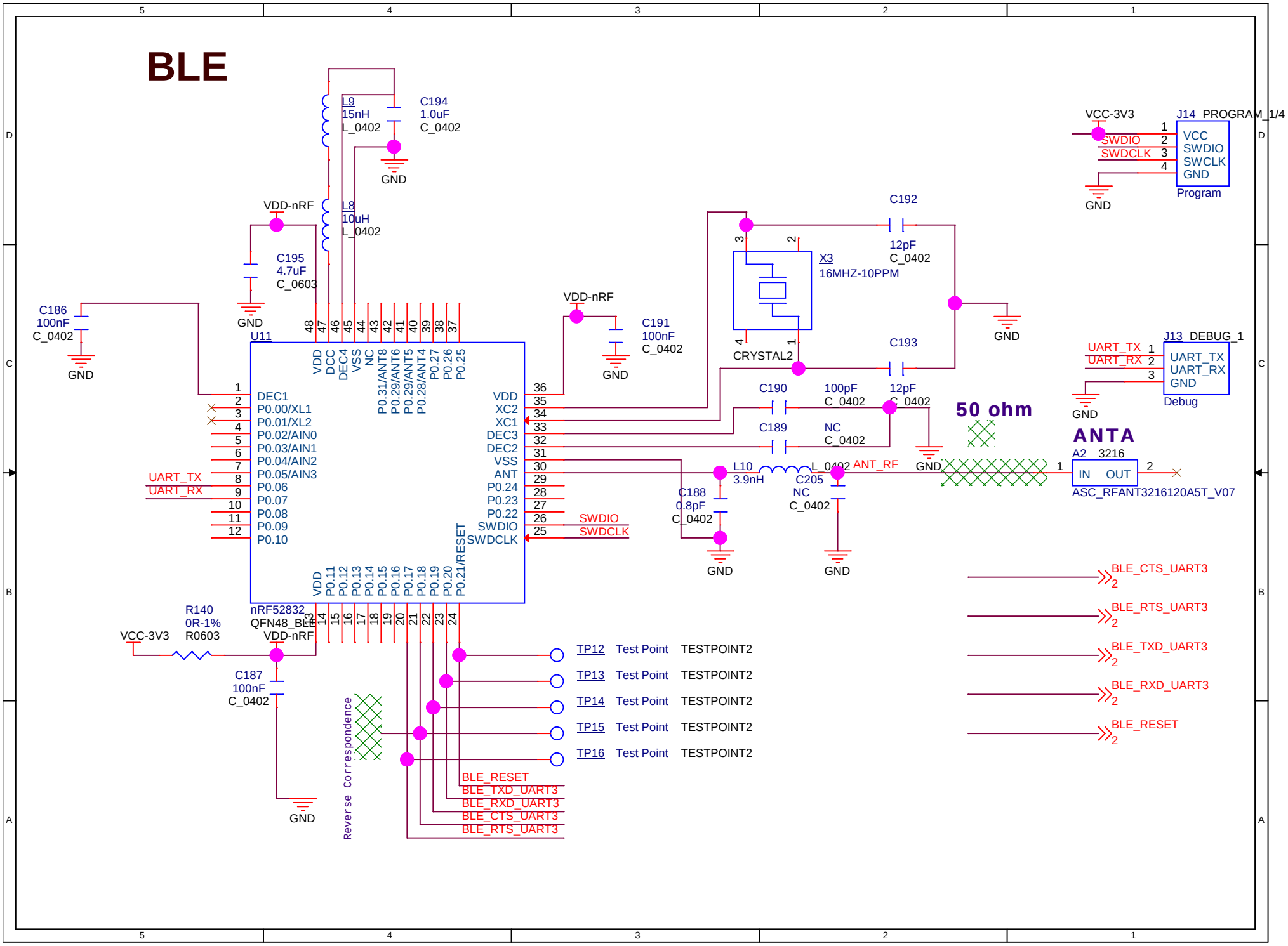




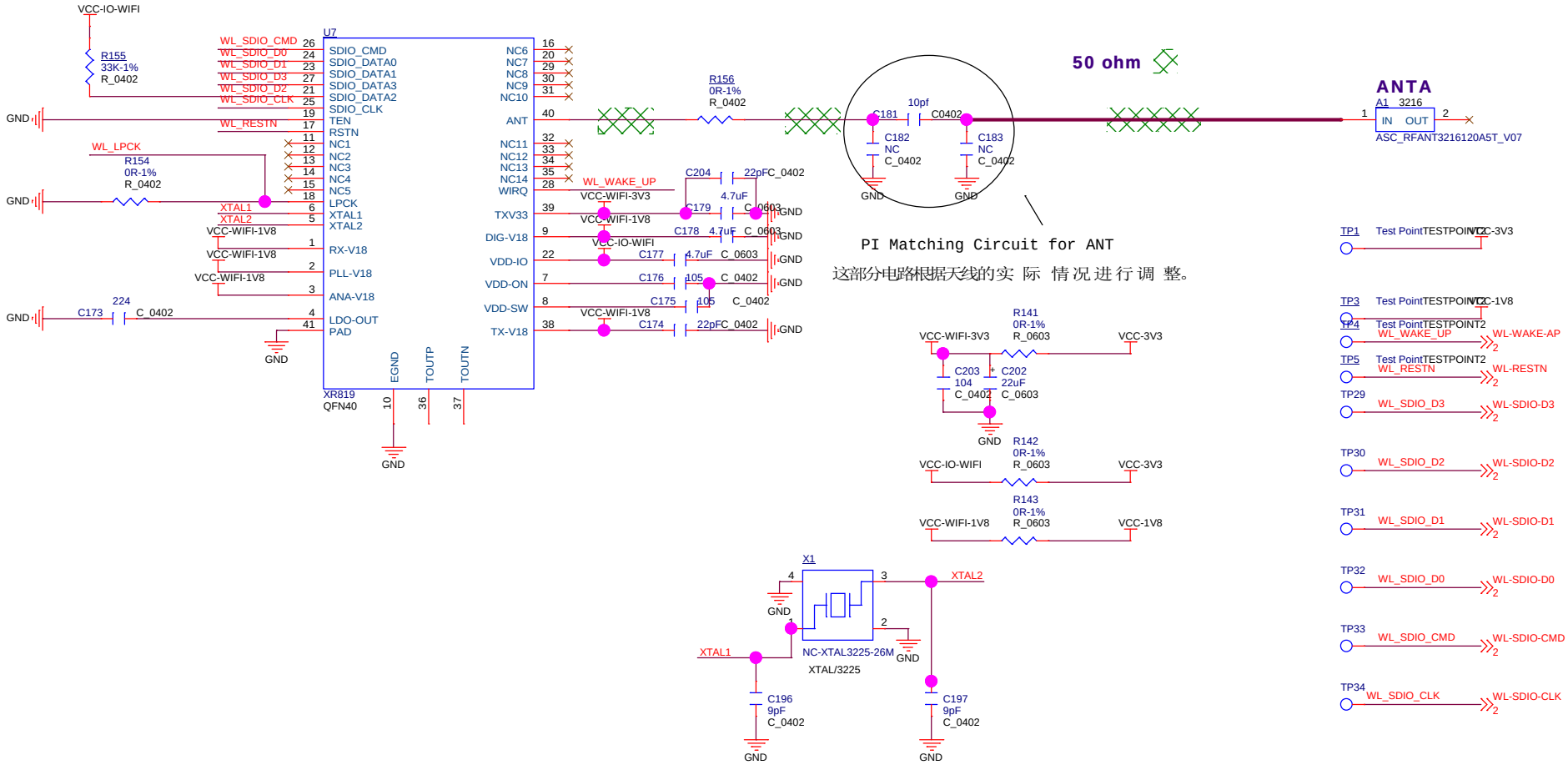





SENSOR
TP28
Test Point
J5
GND
T_ALERT
TWI2-SDA
TWI2-SCK
T_RESET
SENSOR_VDD
R144
0R-1%
R_0603
C155
4.7uF
C_0603
C154
104
C_0402
VCC
T_SDA
T_SCL
ALT
GND
Address:01000100
D13
ESD_0402
VMNZC68CST2RA
TP23
Test Point
TP22
Test Point
J6
P_TX_UART1
P_RX_UART1
UART_TX
UART_RX
RESET
NC
VCC-5V
R147
0R-1%
R_0603
C159
22uF
C_0603
C158
104
C0402
CI1506M1HR0-NH
D14
ESD_0402
VMNZC68CST2RA
D15
VMNZC68CST2RA
ESD_0402
C157
4.7uF
C156
104
C_0402
J7
O_SDA
O_SCL
O_RESET
Address:00111001
R145
0R-1%
R0603
TP21
Test Point
TP20
Test Point
TESTPOINT2
TP27
Test Point
TESTPOINT2
U12
SDO/SA0
SDA/SDI/SDO
VDD_IO
CSB
GND_IO
VDD
SCL/SCLK
PS
INT1
INT2
DS_DA226
Address:01001101
G-VDD
R146
0R-1%
R_0603
C152
4.7uF
C_0603
TP56
TP57
Test Point
G_INT1
G_INT2
DEBUG_LED1
DEBUG_LED2
DEBUG_LED3
R137 510RR0402
R138 680RR0402
R153 680RR0402
D9 LED0603
D10 LED0603
D11 LED0603
Green LED
Yellow LED
WHITE LED


BLE
L9
15nH
L_0402
C194
1.0uF
C_0402
GND
VDD-nRF
L8
10uH
L_0402
C195
4.7uF
C_0603
GND
C186
100nF
C_0402
GND
U11
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
nRF52832
QFN48_BE3
UART_TX
UART_RX
SWDIO
SWDCLK
VDD-nRF
C191
100nF
C_0402
GND
C192
12pF
C_0402
X3
16MHZ-10PPM
CRYSTAL2
C193
12pF
C_0402
GND
C190
100pF
C_0402
C189
NC
C_0402
L10
3.9nH
L_0402
ANT_RF
C188
0.8pF
C_0402
C205
NC
C_0402
GND
GND
50 ohm
GND
ANTA
A2 3216
IN
OUT
ASC_RFANT3216120A5T_V07
VCC-3V3
R140
0R-1%
R0603
VDD-nRF
C187
100nF
C_0402
GND
Reverse Correspondence
TP12 Test Point TESTPOINT2
TP13 Test Point TESTPOINT2
TP14 Test Point TESTPOINT2
TP15 Test Point TESTPOINT2
TP16 Test Point TESTPOINT2
BLE_RESET
BLE_TXD_UART3
BLE_RXD_UART3
BLE_CTS_UART3
BLE_RTS_UART3
VCC-3V3
J14 PROGRAM_1/4
SWDIO
SWDCLK
VCC
SWDIO
SWCLK
GND
Program
GND
UART_TX
UART_RX
J13 DEBUG_1
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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