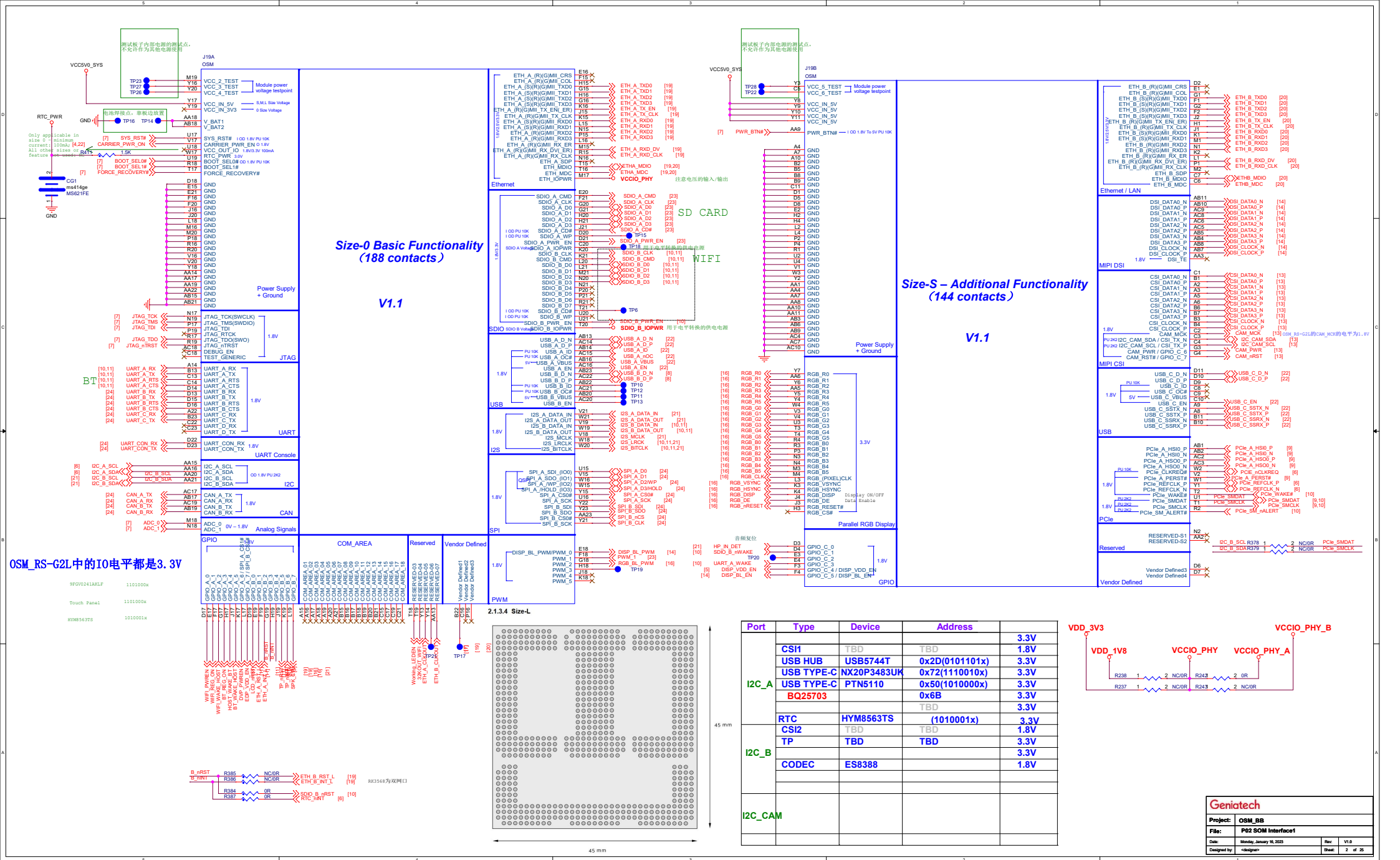




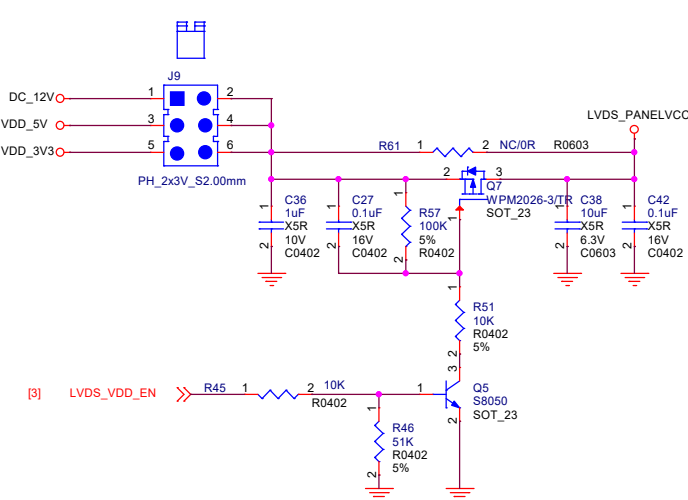
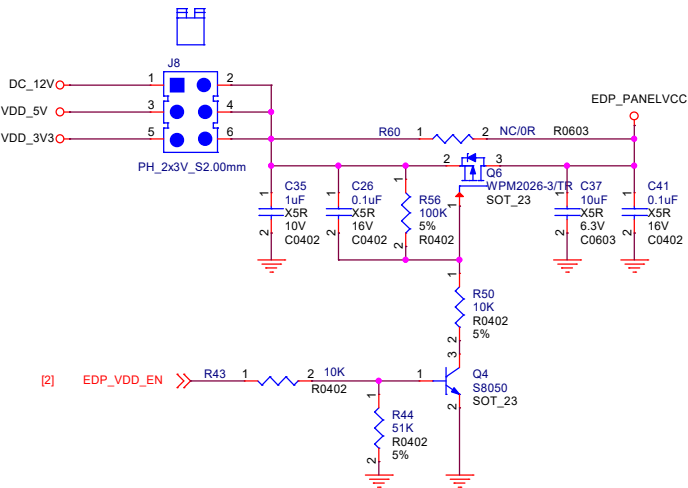
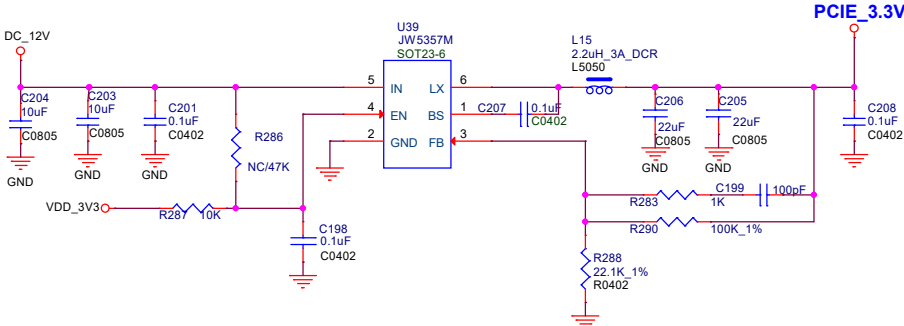
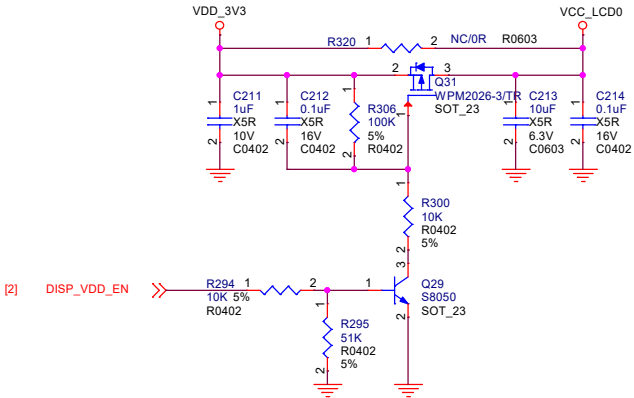






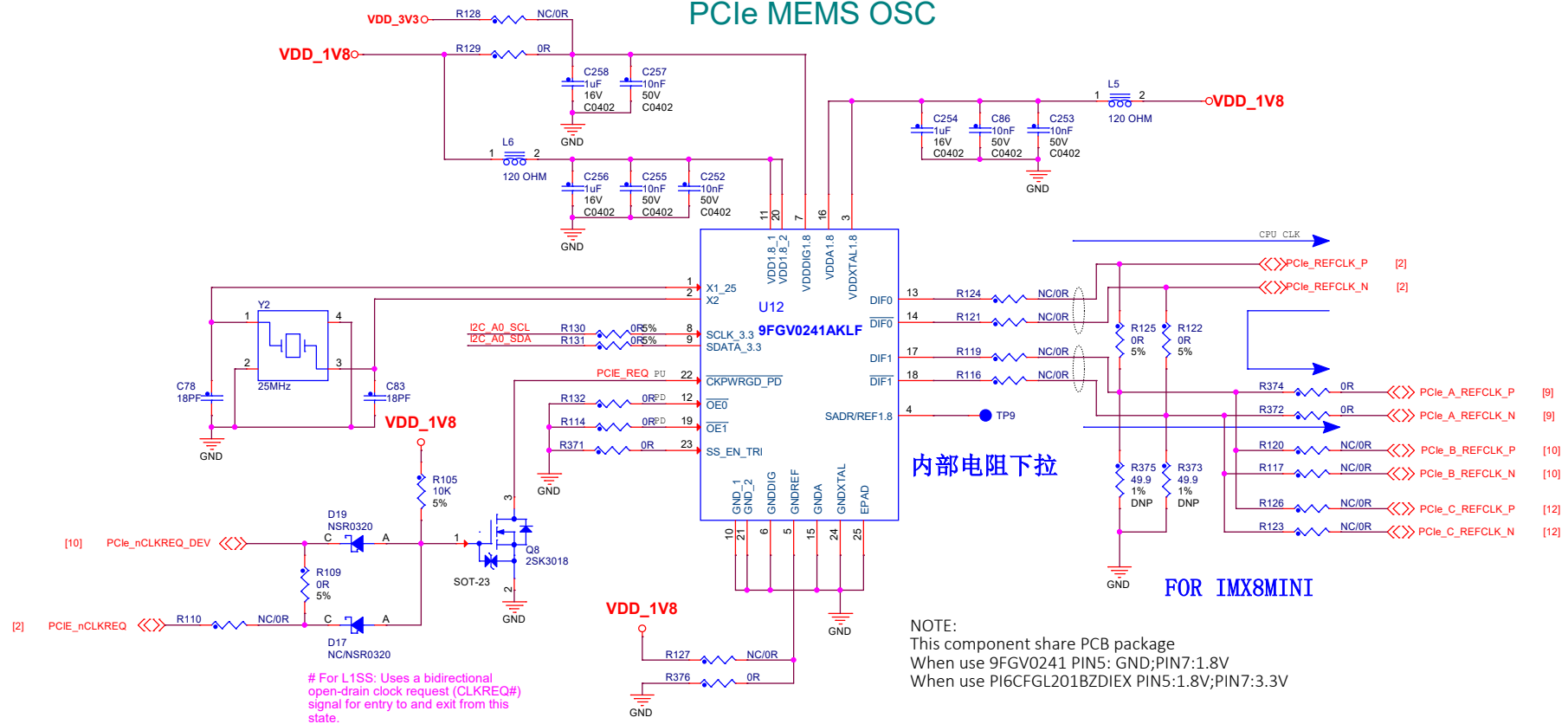
Power for MIPI/LVDS/eDP Panel

RGB/MIPI



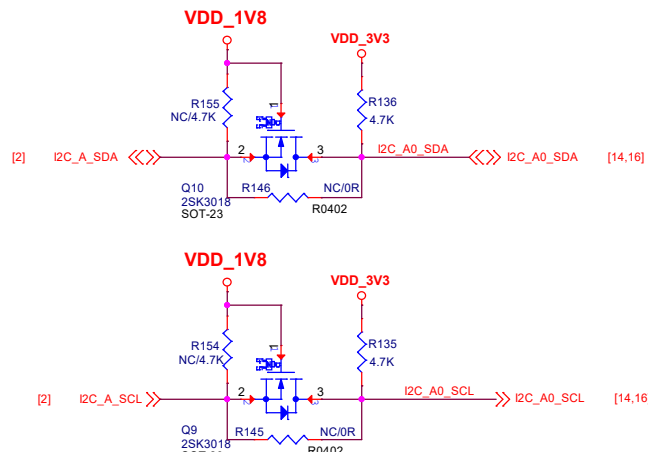
|              |                          |        |         |
|--------------|--------------------------|--------|---------|
| Geniatech    |                          |        |         |
| Project:     | OSM_BB                   |        |         |
| File:        | P05 POWER_LCD            |        |         |
| Date:        | Monday, January 16, 2023 | Rev:   | V1.0    |
| Designed by: | <designer>               | Sheet: | 5 of 25 |

## PCIe MEMS OSC

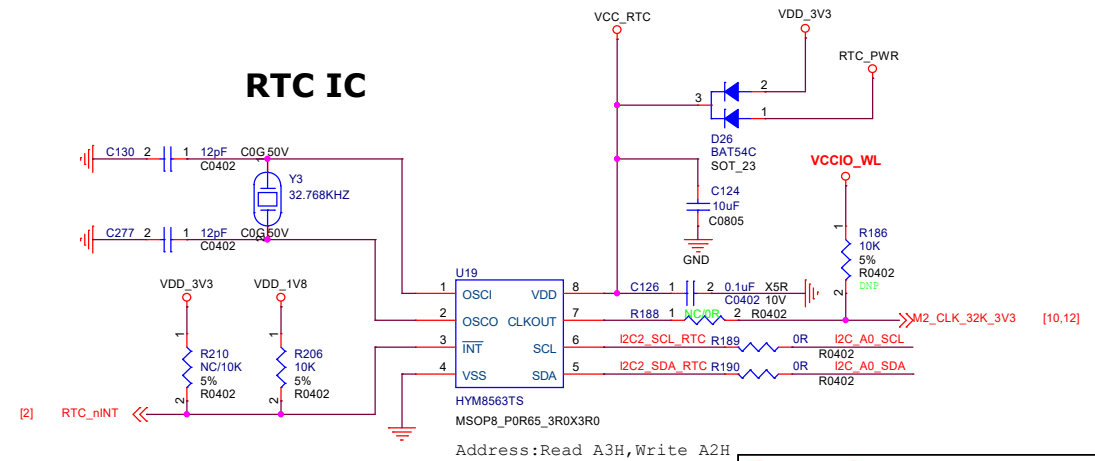


NOTE:  
This component share PCB package  
When use 9FGV0241 PIN5: GND;PIN7:1.8V  
When use PI6CFL201BZDIEX PIN5:1.8V;PIN7:3.3V

选用OSM\_RS-G2L, 使用电阻



## RTC IC

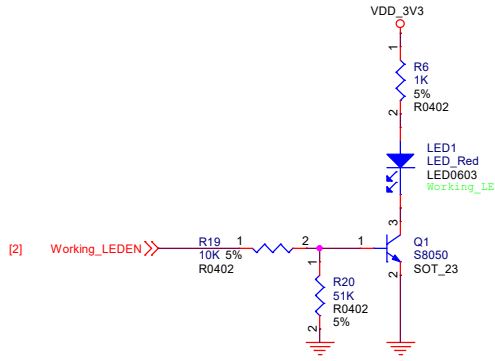
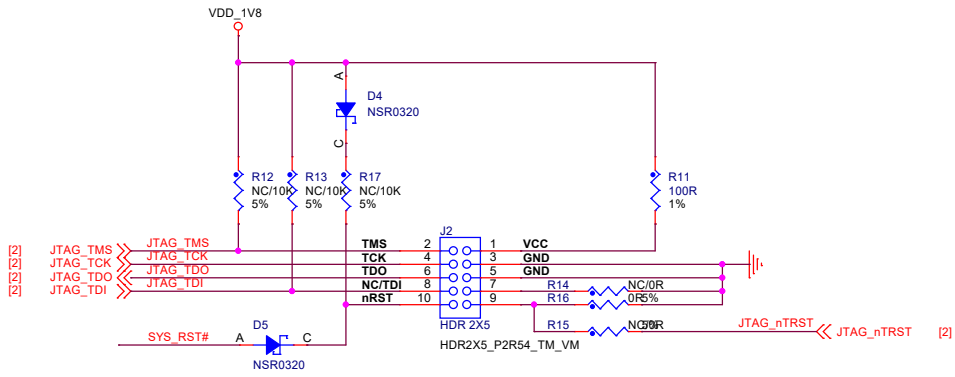


Address:Read A3H,Write A2H

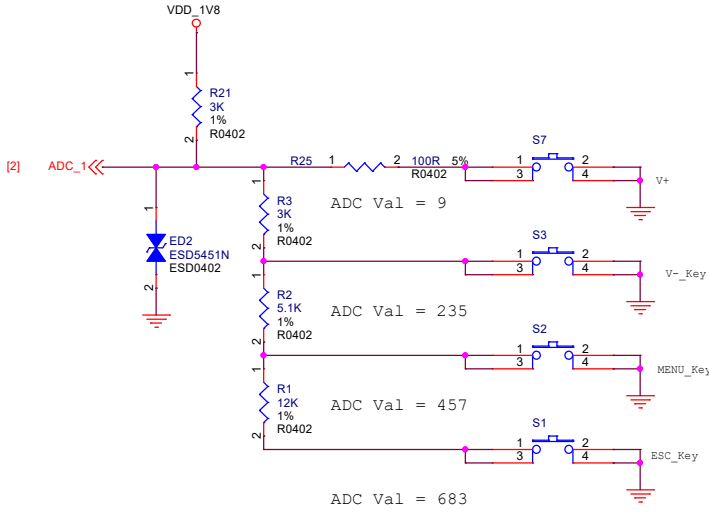
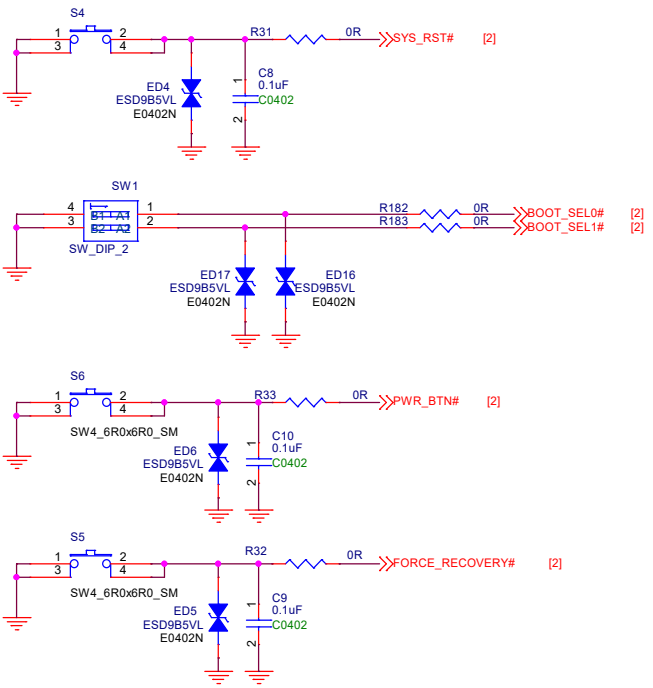
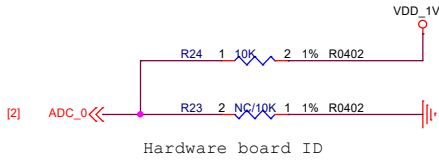
Geniatech

|                     |                           |               |         |
|---------------------|---------------------------|---------------|---------|
| <b>Project:</b>     | OSM_BB                    |               |         |
| <b>File:</b>        | P06 PCIe Clock buffer,RTC |               |         |
| <b>Date:</b>        | Monday, January 16, 2023  | <b>Rev:</b>   | V1.0    |
| <b>Designed by:</b> | <designer>                | <b>Sheet:</b> | 6 of 25 |

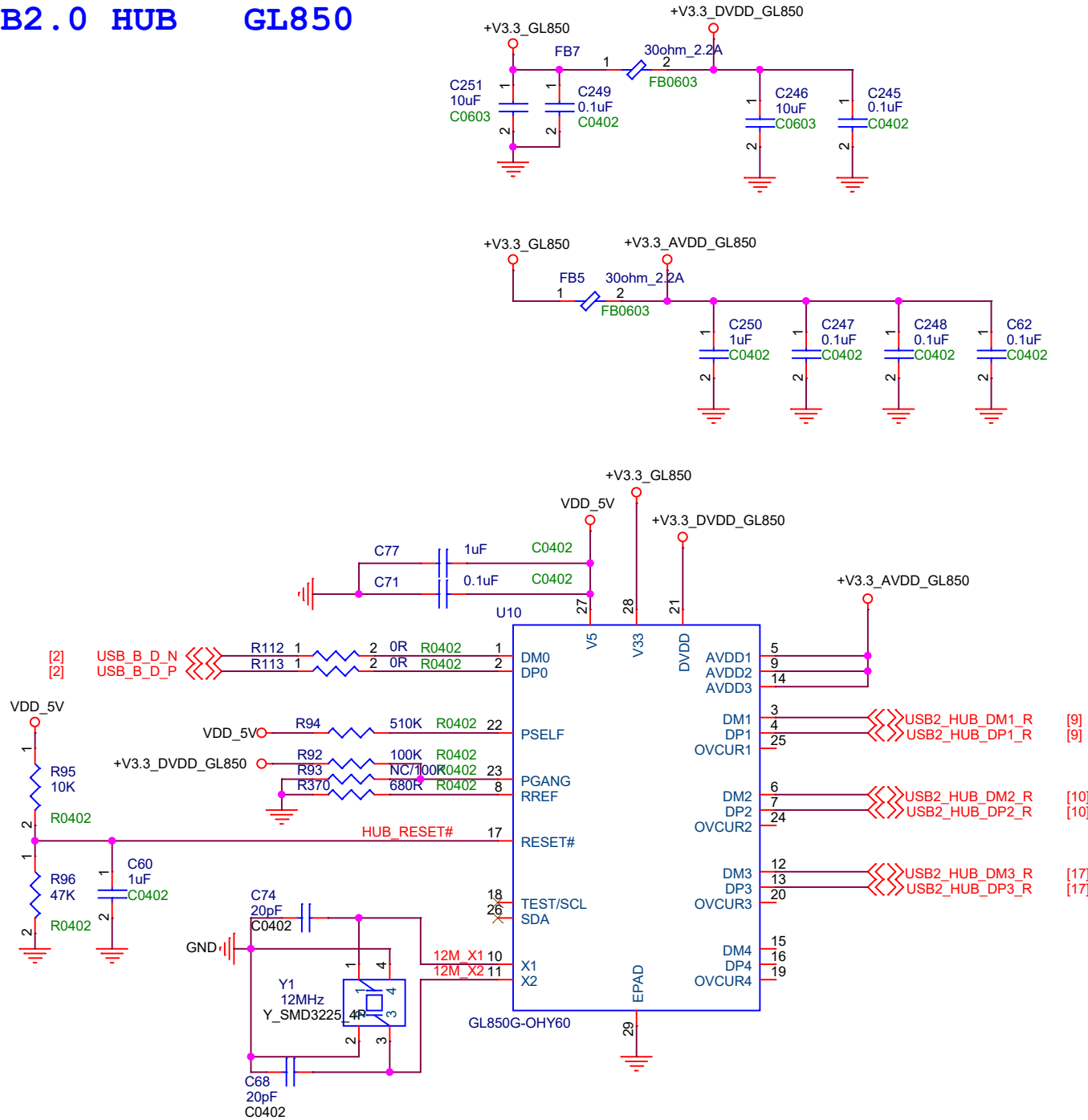
JTAG Debug



| SARADC_VIN1_HW_ID | Rup  | Rdown | ADC  |      |
|-------------------|------|-------|------|------|
| Version 1         | 10K  | DNP   | 1023 | 1.8V |
| Version 2         | 20K  | 100K  | 852  | 1.5V |
| Version 3         | 18K  | 36K   | 681  | 1.2V |
| Version 4         | 51K  | 51K   | 512  | 0.9V |
| Version 5         | 36K  | 18K   | 340  | 0.6V |
| Version 6         | 100K | 20K   | 170  | 0.3V |
| Version 7         | DNP  | 10K   | 0    | 0V   |



# USB2.0 HUB GL850



|              |                          |        |         |
|--------------|--------------------------|--------|---------|
| Geniatech    |                          |        |         |
| Project:     | OSM_BB                   |        |         |
| File:        | P08 USB2.0 HUB-GL850     |        |         |
| Date:        | Monday, January 16, 2023 | Rev:   | V1.0    |
| Designed by: | <designer>               | Sheet: | 8 of 25 |

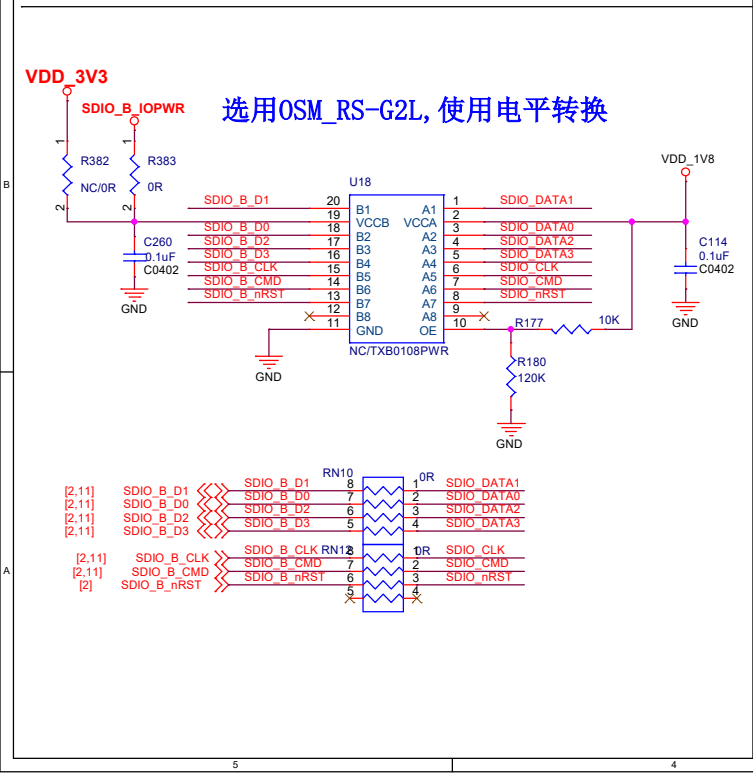
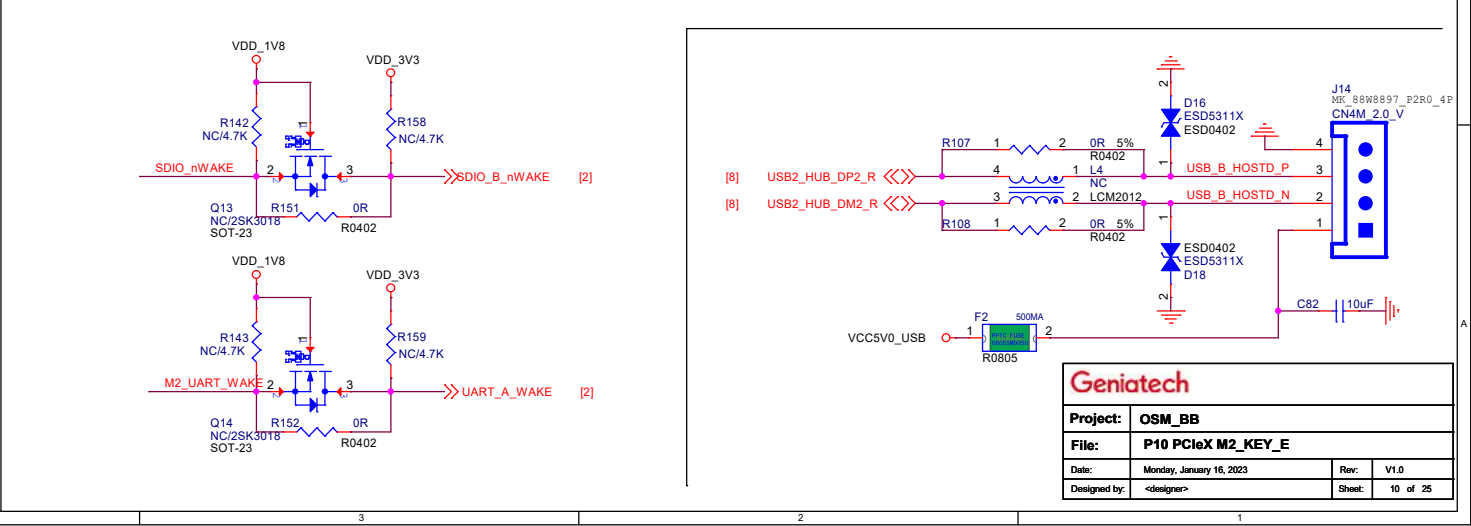




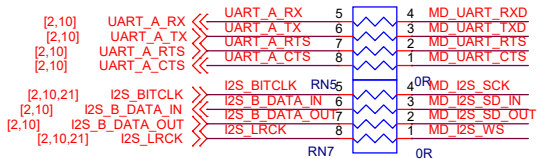
### 选用OSM\_RS-G2L, 使用电平转换 OSM\_RS-G2L的IO电平为3.3V

The diagram illustrates the connection of the OSM\_RS-G2L level shifter (U15) between two different logic levels: 3.3V and 1V8. The 3.3V side (VDD\_3V3) provides the input signals for UART\_A and I2S. The 1V8 side (VDD\_1V8) provides the output signals for M2 UART and M2 I2S. The level shifter U15 (NC/TXB0108PWR) is configured with its B pins connected to the 3.3V signals and its A pins connected to the 1V8 signals. Pull-up resistors R170 (10K) and R169 (120K) are used to pull the 1V8 signals up to the 1V8 supply voltage. Capacitors C259 (0.1uF) and C0402 are used for decoupling on the 3.3V side, while C104 (0.1uF) and C0402 are used for decoupling on the 1V8 side.

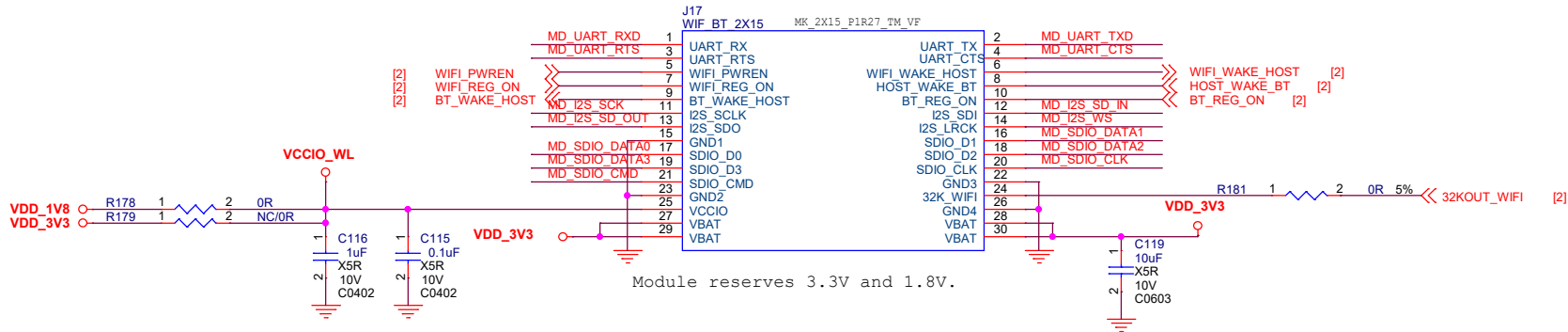
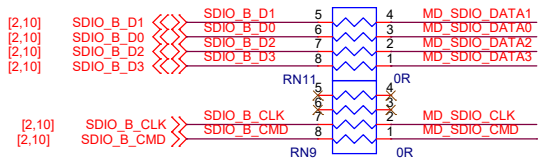
| Signal         | Pin | Level |
|----------------|-----|-------|
| UART_A_RX      | 20  | 3.3V  |
| UART_A_TX      | 19  | 3.3V  |
| UART_A_RTS     | 17  | 3.3V  |
| UART_A_CTS     | 16  | 3.3V  |
| I2S_BITCLK     | 15  | 3.3V  |
| I2S_B_DATA_IN  | 14  | 3.3V  |
| I2S_B_DATA_OUT | 13  | 3.3V  |
| I2S_LRCK       | 12  | 3.3V  |
| GND            | 11  | 3.3V  |
| M2_UART_RXD    | 1   | 1V8   |
| M2_UART_TXD    | 2   | 1V8   |
| M2_UART_RTS    | 3   | 1V8   |
| M2_UART_CTS    | 4   | 1V8   |
| M2_I2S_SCK     | 6   | 1V8   |
| M2_I2S_SD_IN   | 7   | 1V8   |
| M2_I2S_SD_OUT  | 8   | 1V8   |
| M2_I2S_WS      | 9   | 1V8   |
| NC/TXB0108PWR  | 10  | 1V8   |

[illegible]

# WIFI/BT Module



RN5, RN6与RN10, RN11正反面共layout



Geniatech

Project: OSM\_BB

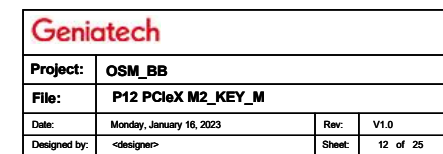
File: P11 Module WIFI+BT

Date: Monday, January 16, 2023

Designed by: <designer>

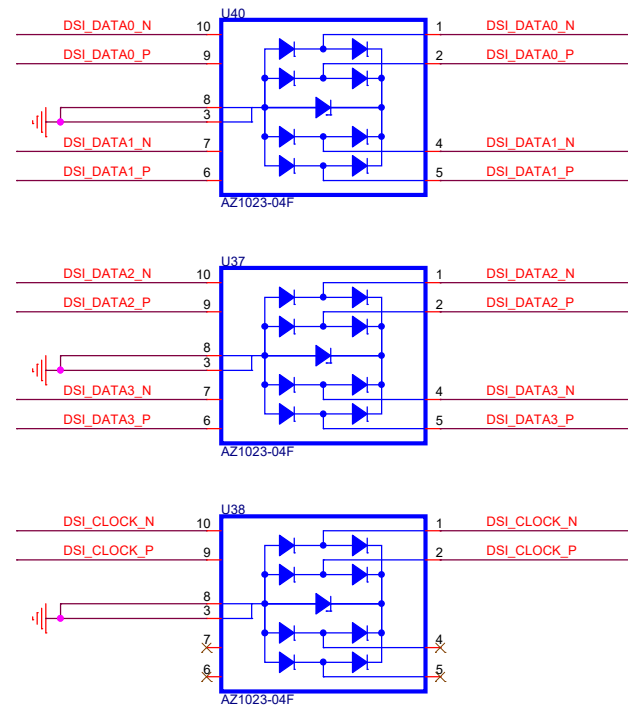
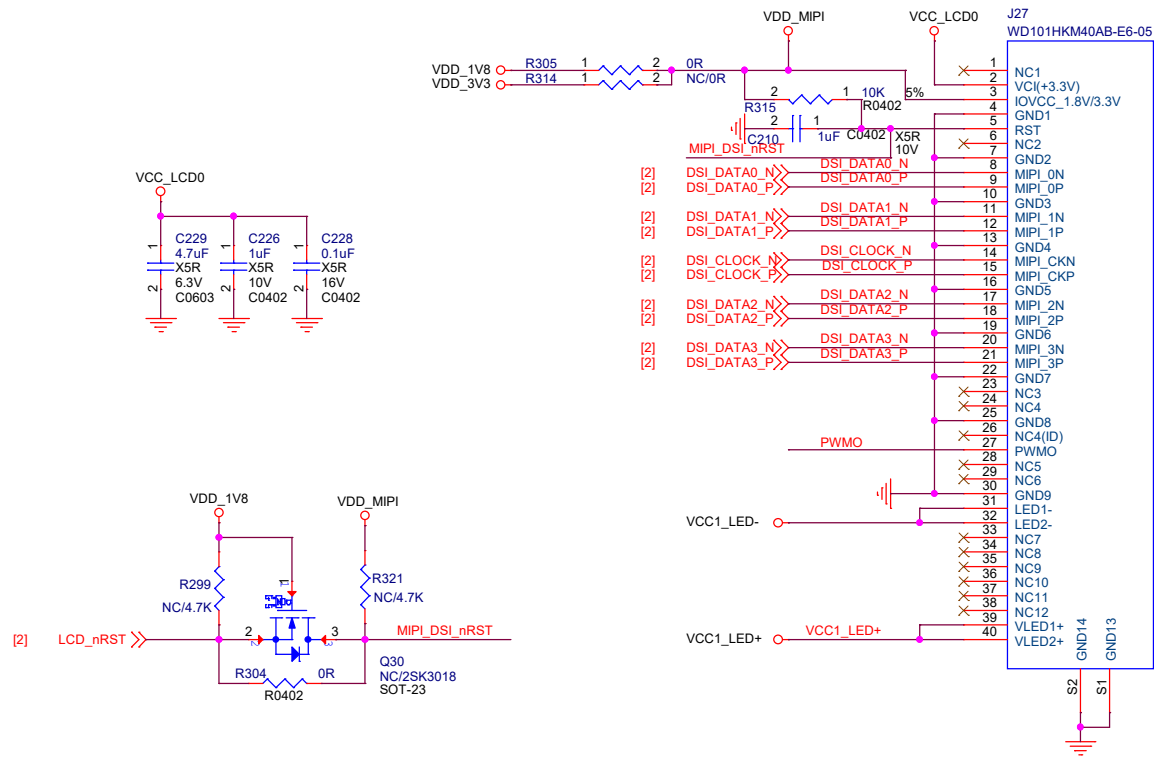
Rev: V1.0

Sheet: 11 of 25



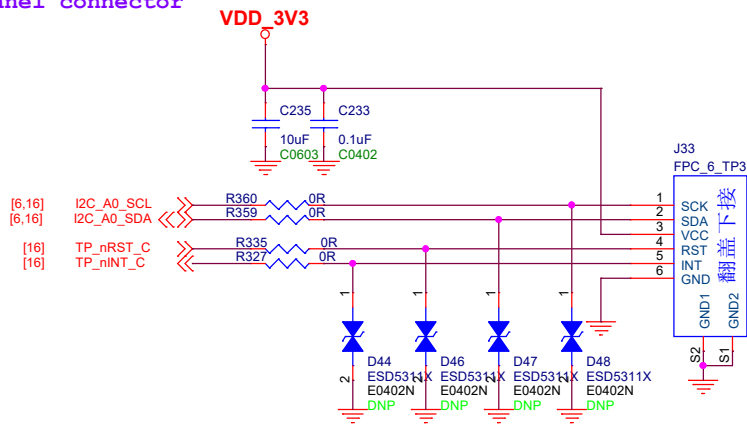


# MIPI Panel

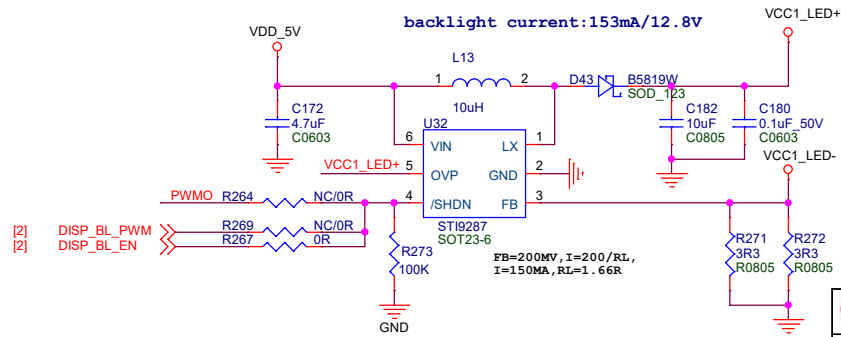


选用呆滞物料010415000901

## Touch Panel connector



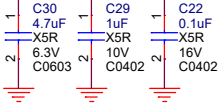
## LED Backlight



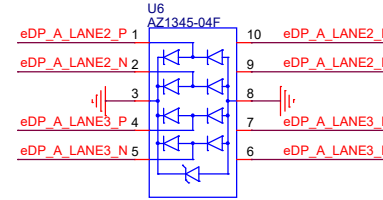
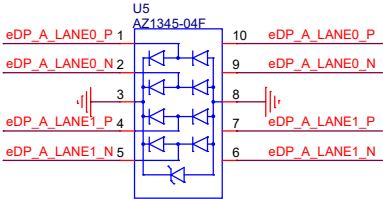
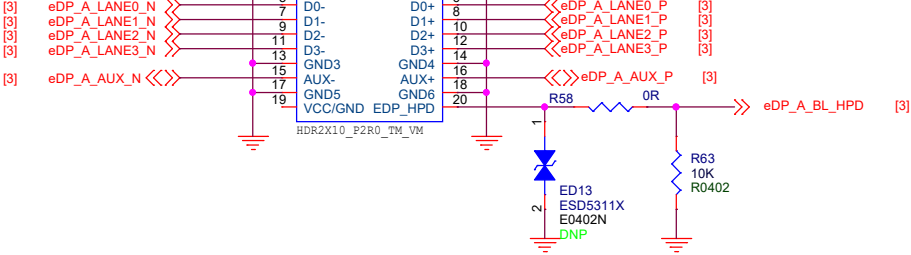
|              |                          |        |          |
|--------------|--------------------------|--------|----------|
| Geniatech    |                          |        |          |
| Project:     | OSM_BB                   |        |          |
| File:        | P14 DSI LCD              |        |          |
| Date:        | Monday, January 16, 2023 | Rev:   | V1.0     |
| Designed by: | <designer>               | Sheet: | 14 of 25 |

eDP Panel

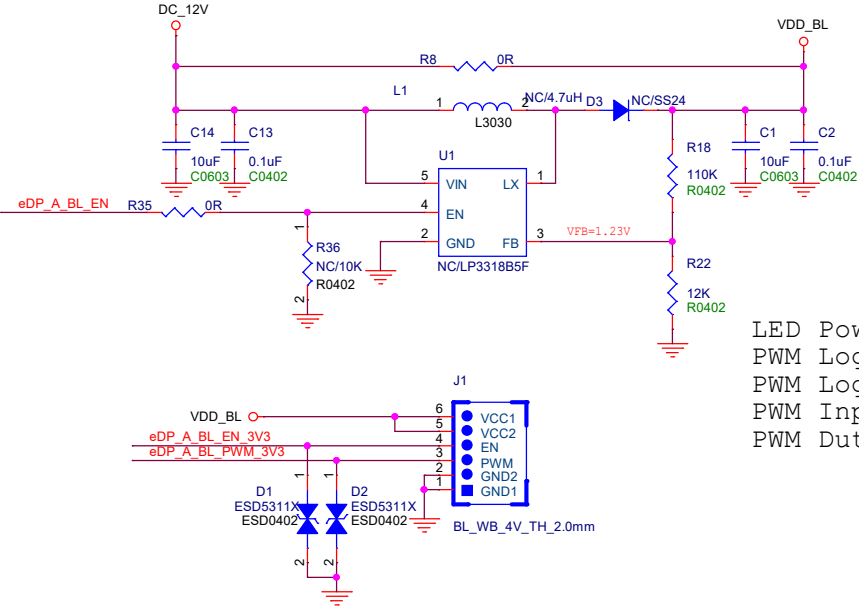
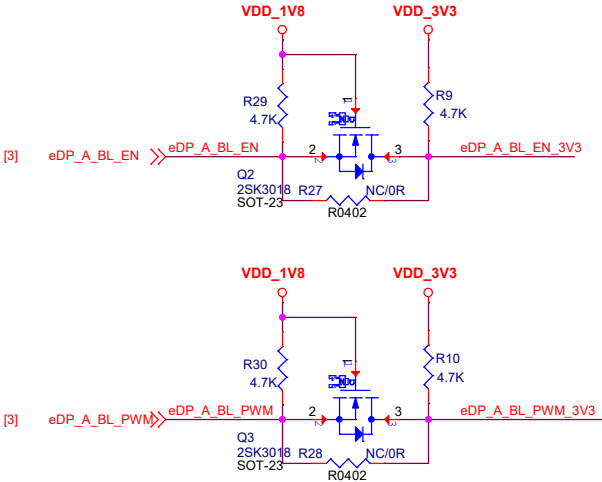
EDP\_PANELVCC



EDP\_PANELVCC



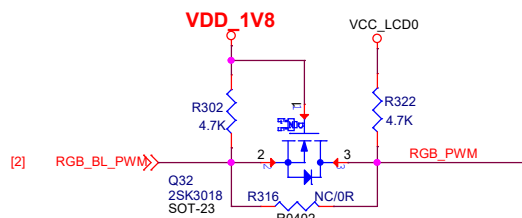
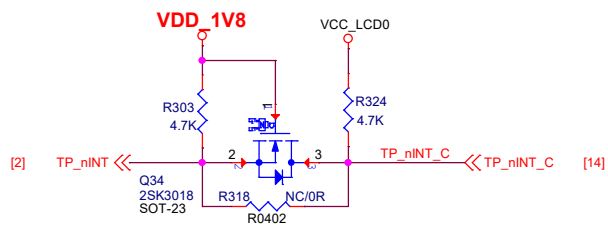
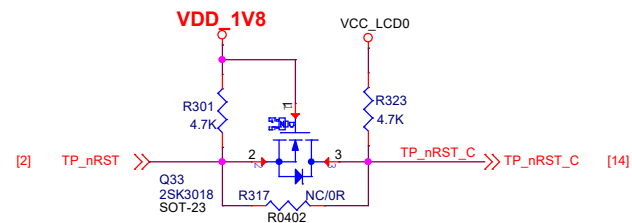
选用呆滞物料010415000901



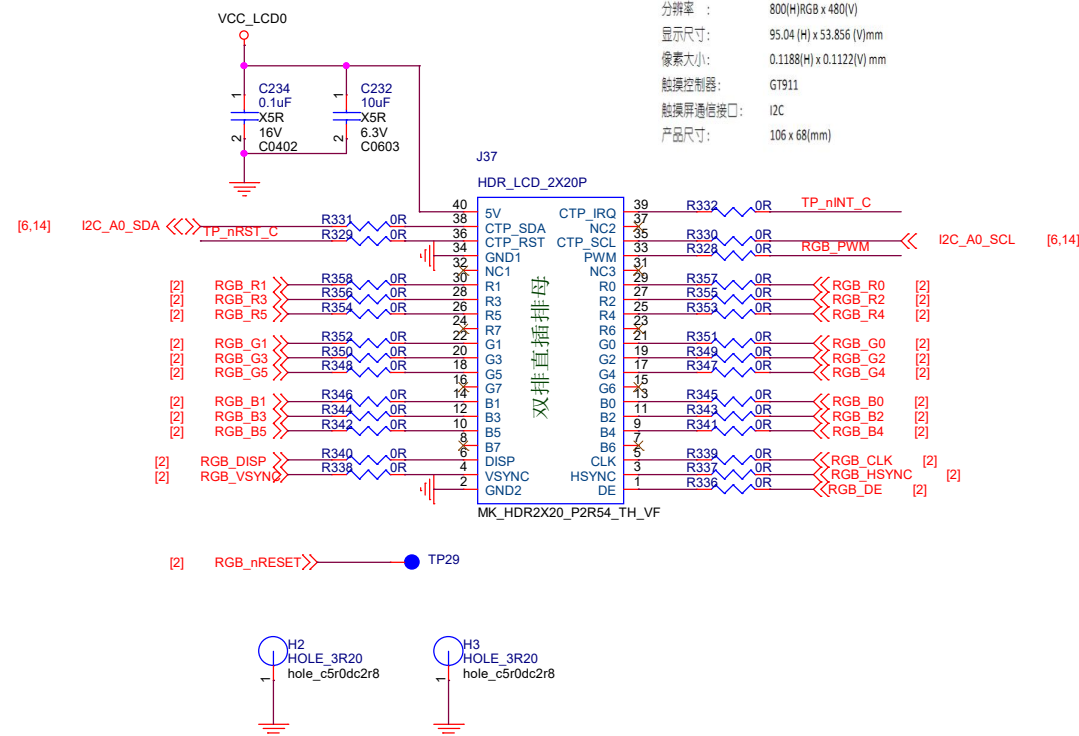
LED Power Supply:6.0~21V  
PWM Logic Input High Level:2.5~5.5V  
PWM Logic Input Low Level:0.0~0.5V  
PWM Input Frequency:200~10KHz  
PWM Duty Ratio:5~100%

Geniatech

|              |                          |        |          |
|--------------|--------------------------|--------|----------|
| Project:     | OSM_BB                   |        |          |
| File:        | P15 EDP LCD              |        |          |
| Date:        | Monday, January 16, 2023 | Rev:   | V1.0     |
| Designed by: | <designer>               | Sheet: | 15 of 25 |



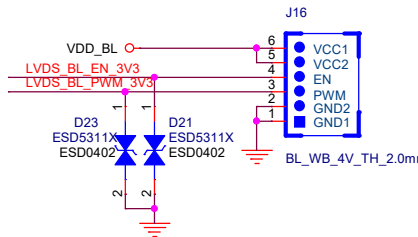
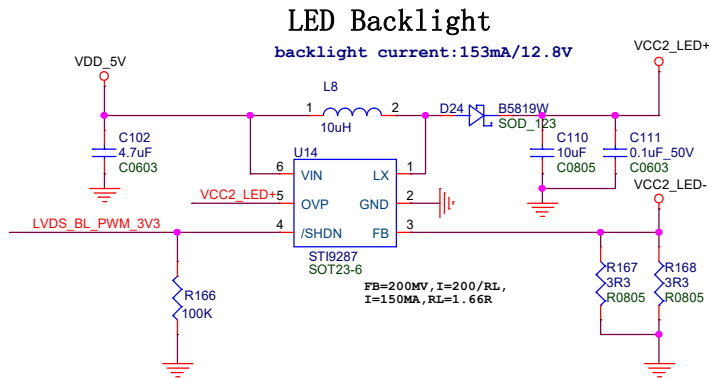
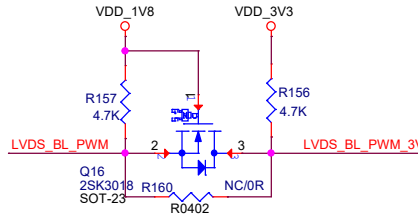
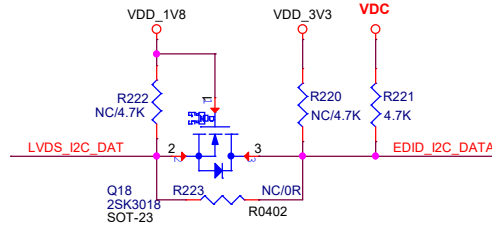
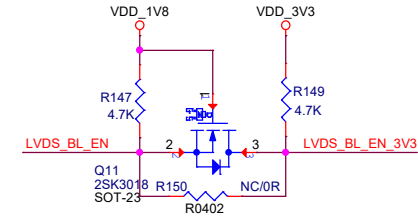
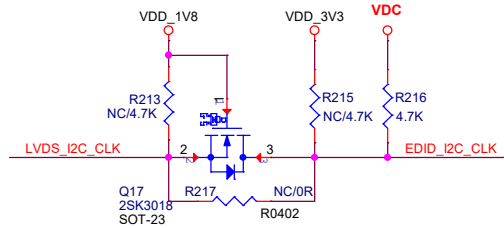
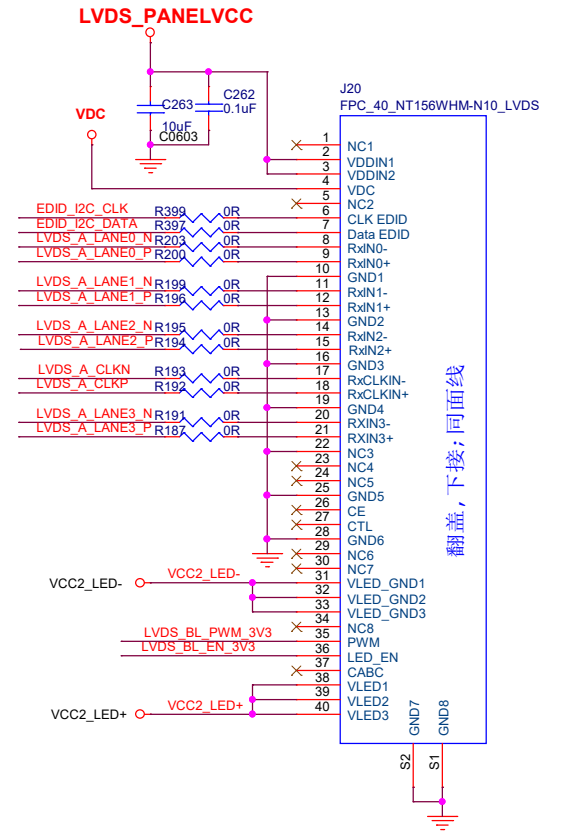
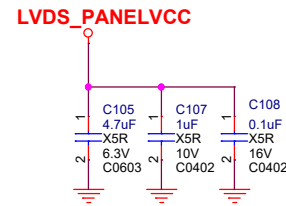
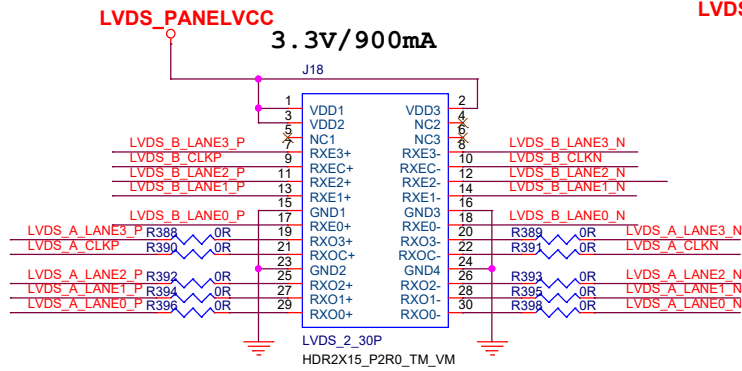
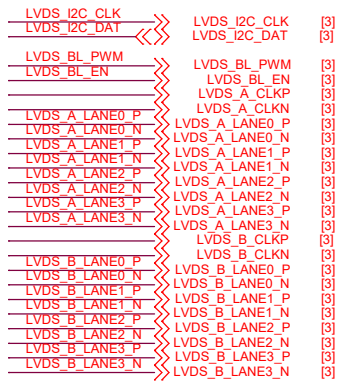
<https://www.waveshare.net/shop/4.3inch-Capacitive-Touch-LCD.htm>



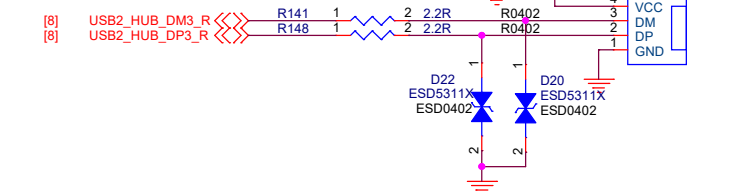
|           |                          |
|-----------|--------------------------|
| 工作电压:     | 3.3V/5V                  |
| LCD 通信接口: | 24 位并行 RGB               |
| 逻辑电平:     | 3.3V                     |
| 屏幕类型:     | TFT                      |
| 显示颜色:     | RGB, 16.7M 彩色            |
| 分辨率 :     | 800(H)×RGB x 480(V)      |
| 显示尺寸:     | 95.04 (H) × 53.856 (V)mm |
| 像素大小:     | 0.1188(H) x 0.1122(V) mm |
| 触摸控制器:    | GT911                    |
| 触摸屏通信接口:  | I2C                      |
| 产品尺寸:     | 106 x 68(mm)             |

|                     |                                 |             |                        |
|---------------------|---------------------------------|-------------|------------------------|
| <b>Genitech</b>     |                                 |             |                        |
| <b>Project:</b>     | <b>OSM_BB</b>                   |             |                        |
| <b>File:</b>        | <b>P16 RGB LCD</b>              |             |                        |
| <b>Date:</b>        | <b>Monday, January 16, 2023</b> | <b>Rev:</b> | <b>V1.0</b>            |
| <b>Designed by:</b> | <b>&lt;designer&gt;</b>         |             | <b>Sheet: 16 of 25</b> |





Touch Panel connector

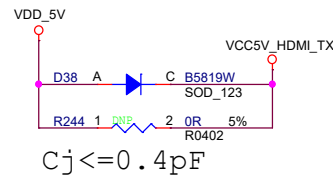
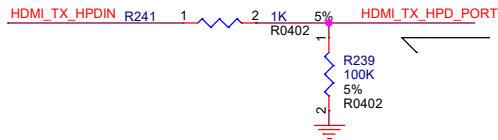


Geniatech

|              |                          |        |          |
|--------------|--------------------------|--------|----------|
| Project:     | OSM_BB                   |        |          |
| File:        | P17 LVDS LCD             |        |          |
| Date:        | Monday, January 16, 2023 | Rev:   | V1.0     |
| Designed by: | <designer>               | Sheet: | 17 of 25 |

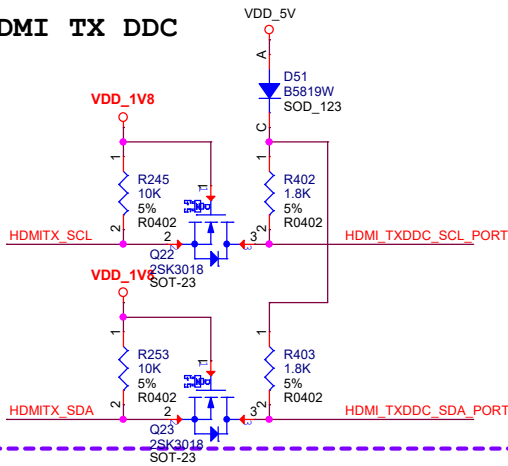
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>>>HDMI\_TX2N\_PORT [3]  
>>>HDMI\_TX1P\_PORT [3]  
>>>HDMI\_TX1N\_PORT [3]  
>>>HDMI\_TX0P\_PORT [3]  
>>>HDMI\_TX0N\_PORT [3]  
>>>HDMI\_TXCLKP\_PORT [3]  
>>>HDMI\_TXCLKN\_PORT [3]  
>>>HDMITX\_SCL [3]  
>>>HDMITX\_SDA [3]  
>>>HDMITX\_CEC [3]  
>>>HDMI\_TX\_HPDI [3]

## HDMI TX HPD

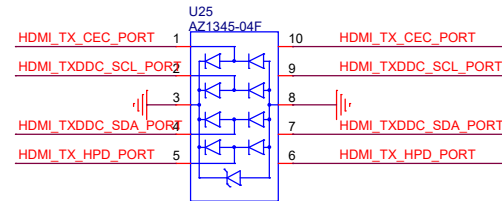
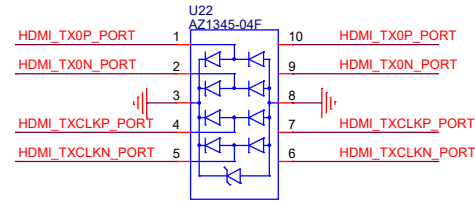
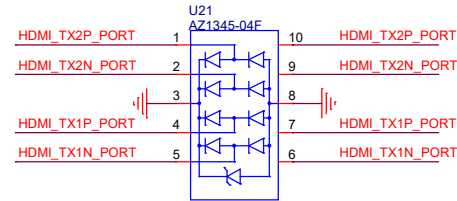
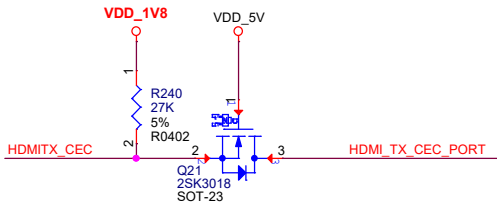


$C_j \leq 0.4 \text{ pF}$

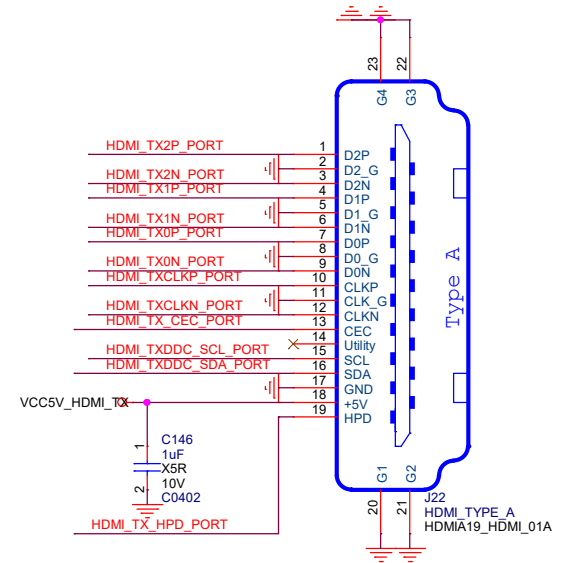
## HDMI TX DDC



## HDMI TX CEC

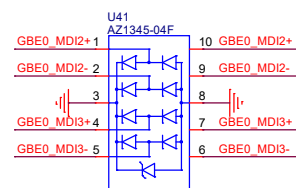
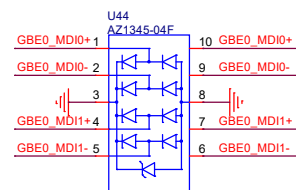


选用呆滯物料010415000901

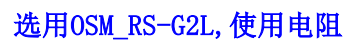


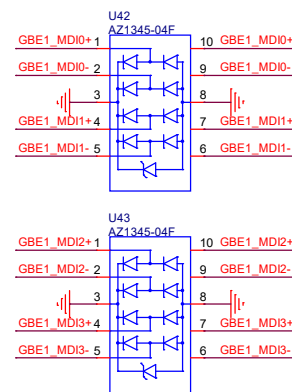
Geniatech

|              |                          |        |          |
|--------------|--------------------------|--------|----------|
| Project:     | OSM_BB                   |        |          |
| File:        | P18 HDMI                 |        |          |
| Date:        | Monday, January 16, 2023 | Rev:   | V1.0     |
| Designed by: | <designer>               | Sheet: | 18 of 25 |

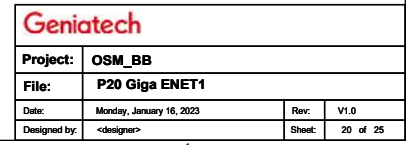


Pin connection diagram for J29 BT 2X8 connector. The diagram shows a 16-pin connector with pins 1-8 on the left and 9-16 on the right. Pins 1, 3, 5, 7, 9, 11, 13, and 15 are connected to ground. Pins 2, 4, 6, 8, 10, 12, 14, and 16 are connected to various signals: GBE0\_LINK\_ACT# (pin 1), GBE0\_MDIO+ (pin 2), GBE0\_MDIO- (pin 3), GBE0\_MDIO+ (pin 4), GBE0\_MDIO- (pin 5), GBE0\_MDIO+ (pin 6), GBE0\_MDIO- (pin 7), GBE0\_MDIO+ (pin 8), GBE0\_MDIO- (pin 9), GBE0\_MDIO+ (pin 10), GBE0\_MDIO- (pin 11), GBE0\_MDIO+ (pin 12), GBE0\_MDIO- (pin 13), GBE0\_MDIO+ (pin 14), GBE0\_MDIO- (pin 15), and GBE0\_MDIO+ (pin 16). The connector is labeled J29 BT 2X8. The signals are labeled GBE0\_LINK\_ACT#, GBE0\_LINK100#, GBE0\_LINK200#, GBE0\_MDIO+, and GBE0\_MDIO-.

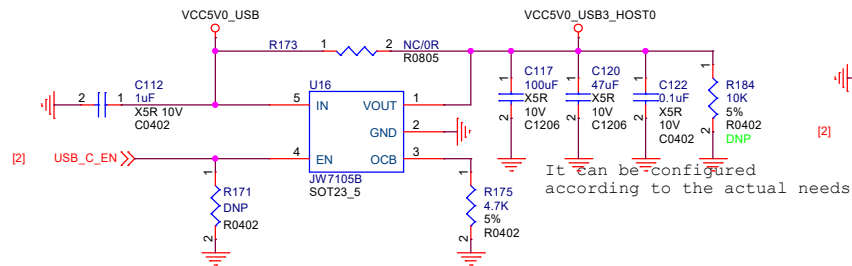




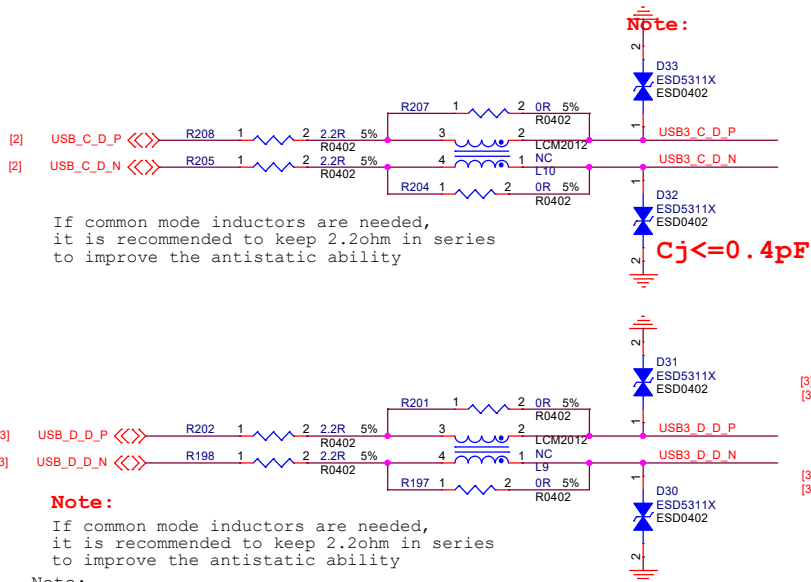
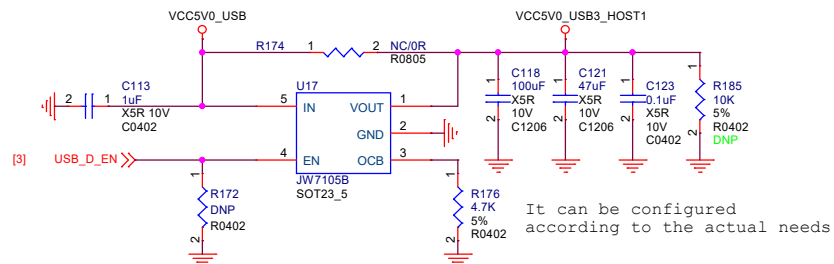
The diagram illustrates the electrical connections for the RJ45 module. The module's pins are connected to the board's power and signal pins. The LEDs are connected to the board's VDD\_3V3 and GND pins. The RJ45 module also has pins for SHIELD1 and SHIELD2. The board's power and signal pins are labeled: VDD\_3V3, GND, R307, R308, R309, C209, C215, C216, C218, C219, GBE1\_MDIO-1, GBE1\_MDIO-2, GBE1\_MDIO-3, GBE1\_MDIO-4, GBE1\_MDIO-5, GBE1\_MDIO-6, GBE1\_MDIO-7, GBE1\_MDIO-8, GBE1\_MDIO-9, GBE1\_MDIO-10, TR0\_TAP, TR1\_TAP, TR2\_TAP, TR3\_TAP, 100Mbps, 100Mbps, ACT, 19, 20, SHIELD1, SHIELD2. The RJ45 module is labeled RJ45\_16R0X21R25\_DIP\_R\_LED\_POE.







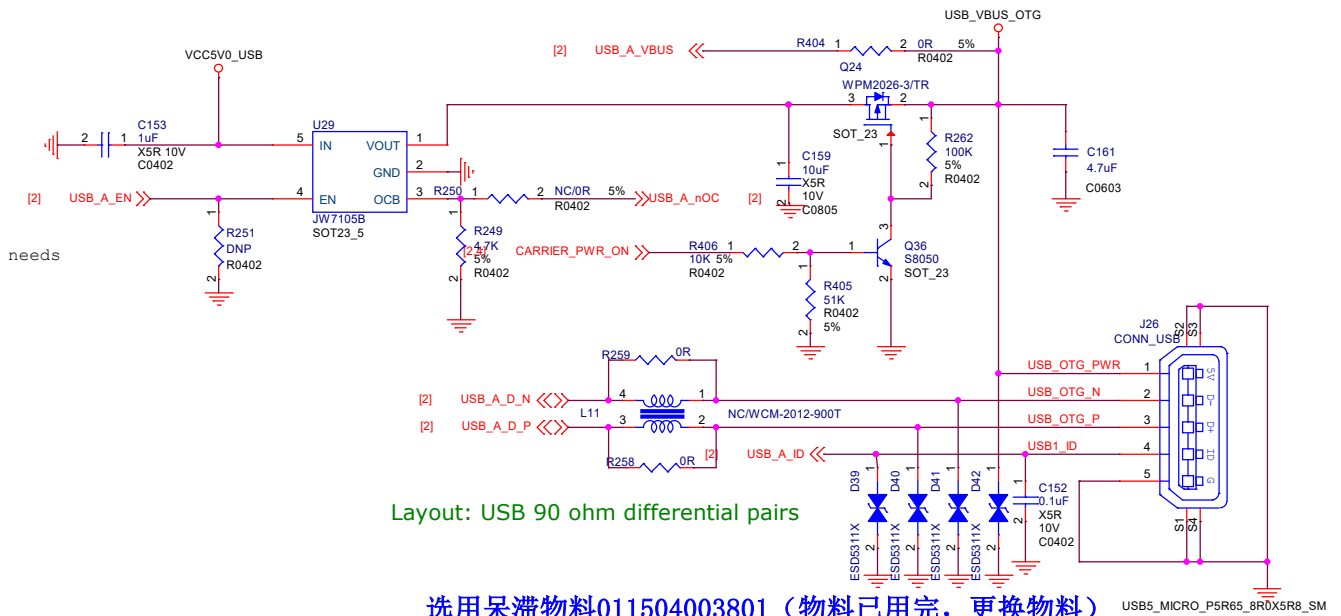
STI9712已经停产，还有库存



If common mode inductors are needed, it is recommended to keep 2.2ohm in series to improve the antistatic ability

Note:  
If common mode inductors are needed, it is recommended to keep 2.2ohm in series to improve the antistatic ability

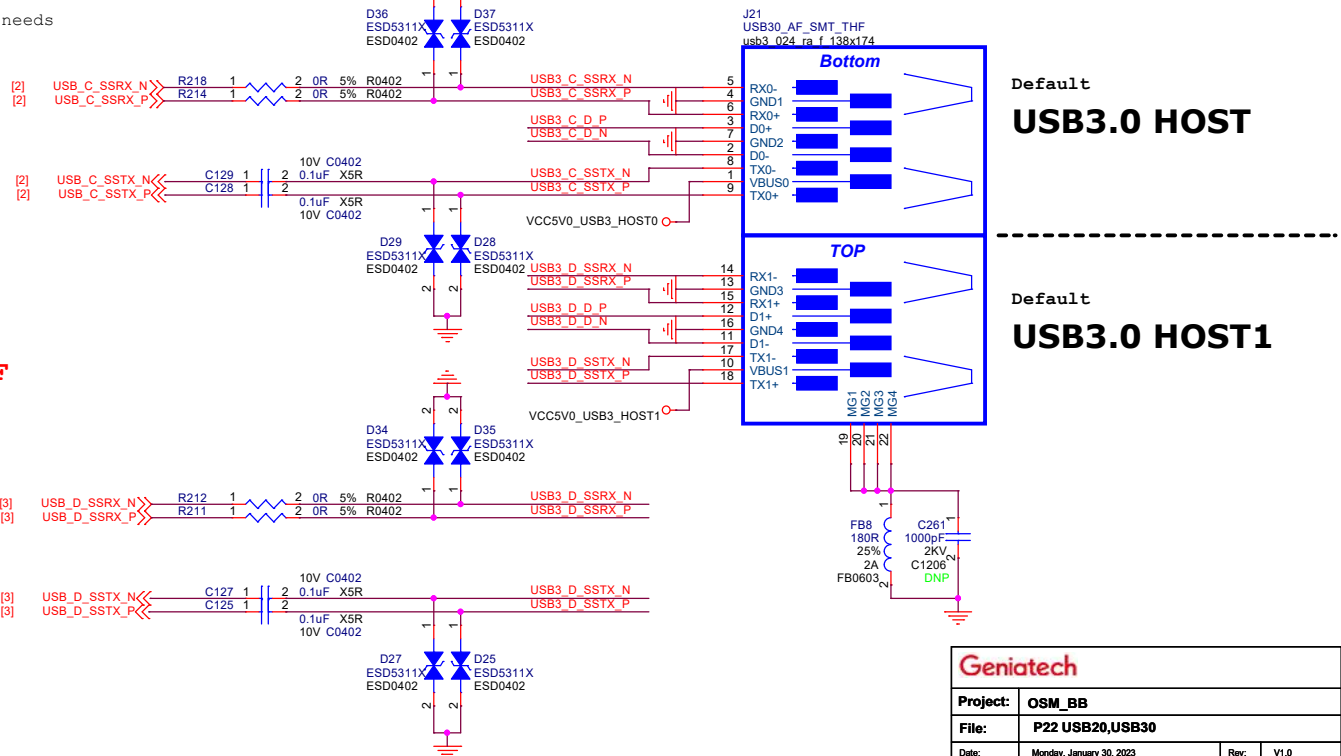
Note:  
The ESD of USB3.0 signal cannot be change at will  
If it needs to be change, the same specification must be selected.



Layout: USB 90 ohm differential pairs

选用呆滞物料011504003801（物料已用完，更换物料）

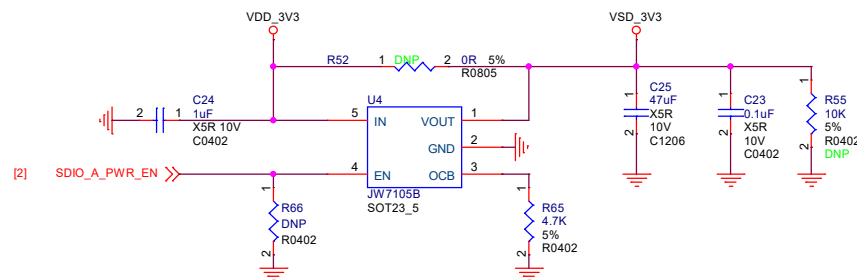
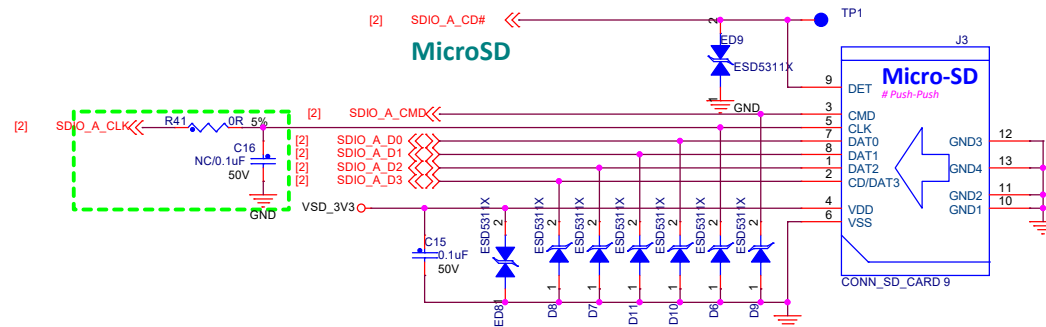
011504003801 呆滞物料，测试载板使用，无规格书



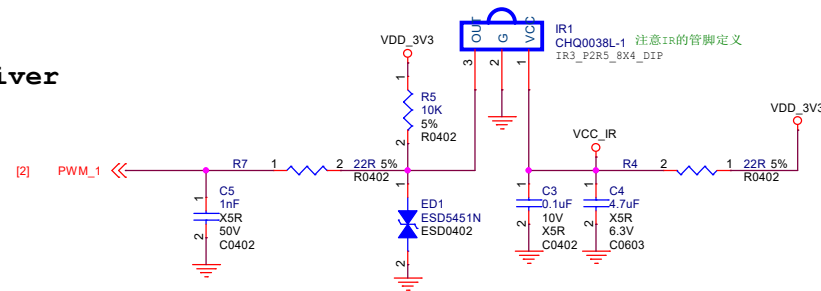
Default  
USB3.0 HOST

Default  
USB3.0 HOST1

|              |                          |        |          |
|--------------|--------------------------|--------|----------|
| Geniatech    |                          |        |          |
| Project:     | OSM_BB                   |        |          |
| File:        | P22 USB20,USB30          |        |          |
| Date:        | Monday, January 30, 2023 | Rev:   | V1.0     |
| Designed by: | <designer>               | Sheet: | 22 of 25 |

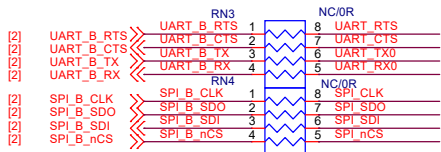
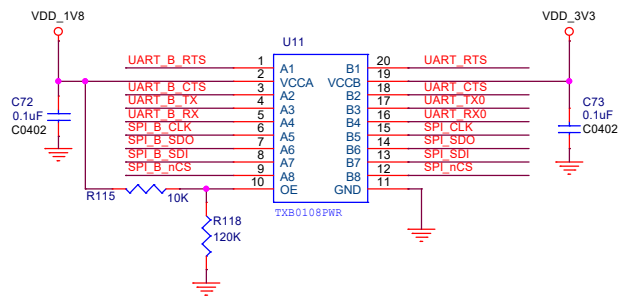


## IR Receiver

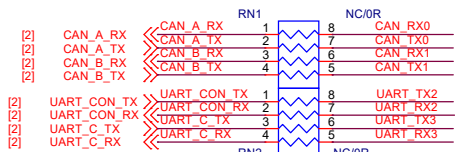
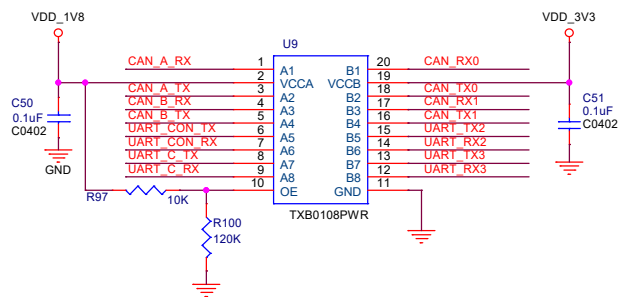


Geniatech

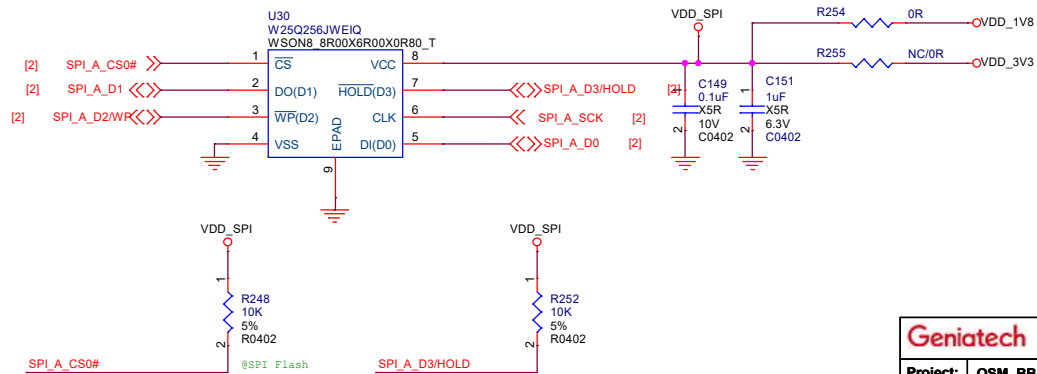
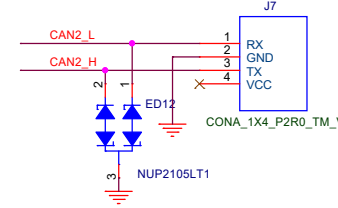
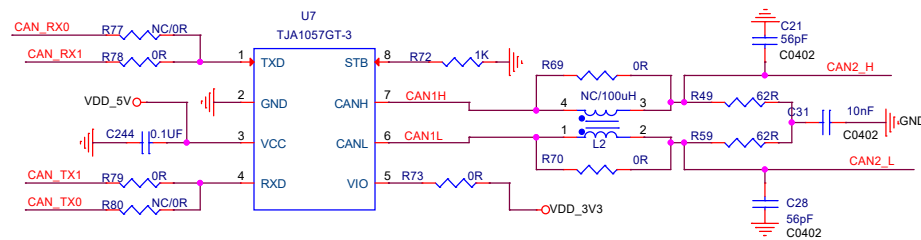
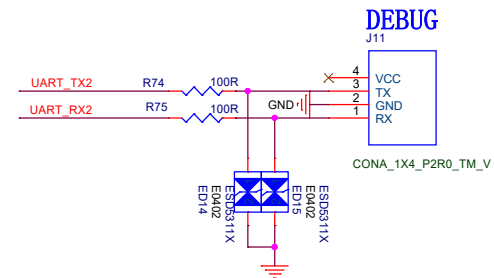
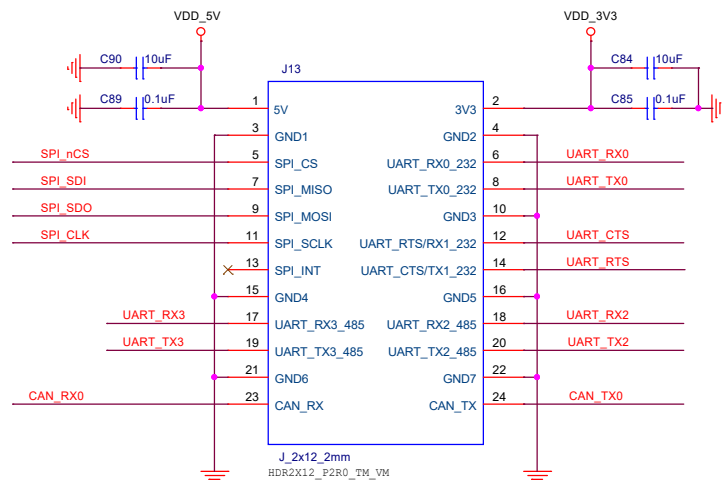
|              |                          |        |          |
|--------------|--------------------------|--------|----------|
| Project:     | OSM_BB                   |        |          |
| File:        | P23 MicroSD,IR           |        |          |
| Date:        | Monday, January 16, 2023 | Rev:   | V1.0     |
| Designed by: | <designer>               | Sheet: | 23 of 25 |



选用OSM\_RS-G2L, 使用电阻

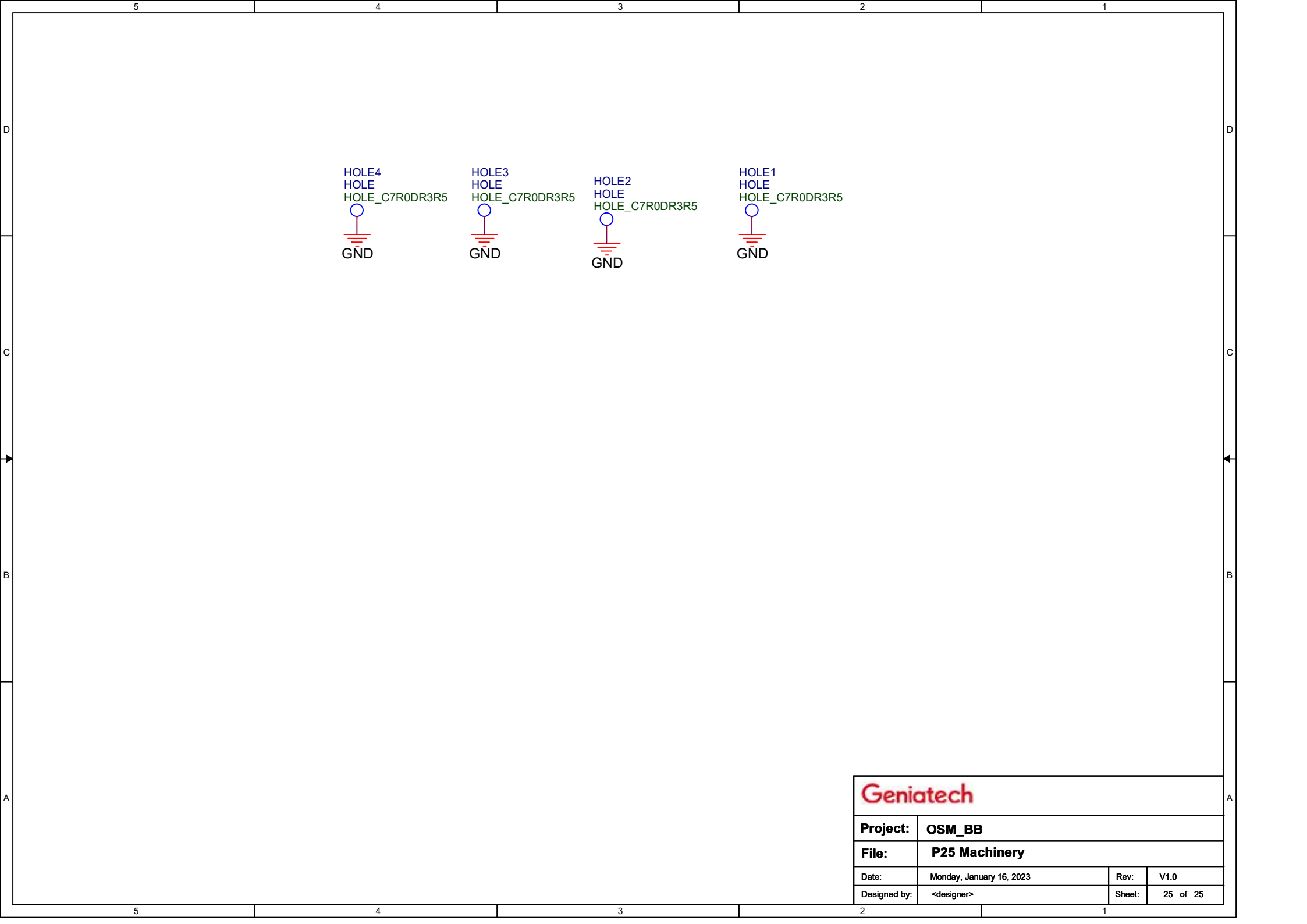


选用OSM\_RS-G2L, 使用电阻



|              |                          |        |          |
|--------------|--------------------------|--------|----------|
| Geniatech    |                          |        |          |
| Project:     | OSM_BB                   |        |          |
| File:        | P24 UART,CAN,SPI         |        |          |
| Date:        | Monday, January 16, 2023 | Rev:   | V1.0     |
| Designed by: | <designer>               | Sheet: | 24 of 25 |





|              |                          |        |          |
|--------------|--------------------------|--------|----------|
| Geniatech    |                          |        |          |
| Project:     | OSM_BB                   |        |          |
| File:        | P25 Machinery            |        |          |
| Date:        | Monday, January 16, 2023 | Rev:   | V1.0     |
| Designed by: | <designer>               | Sheet: | 25 of 25 |