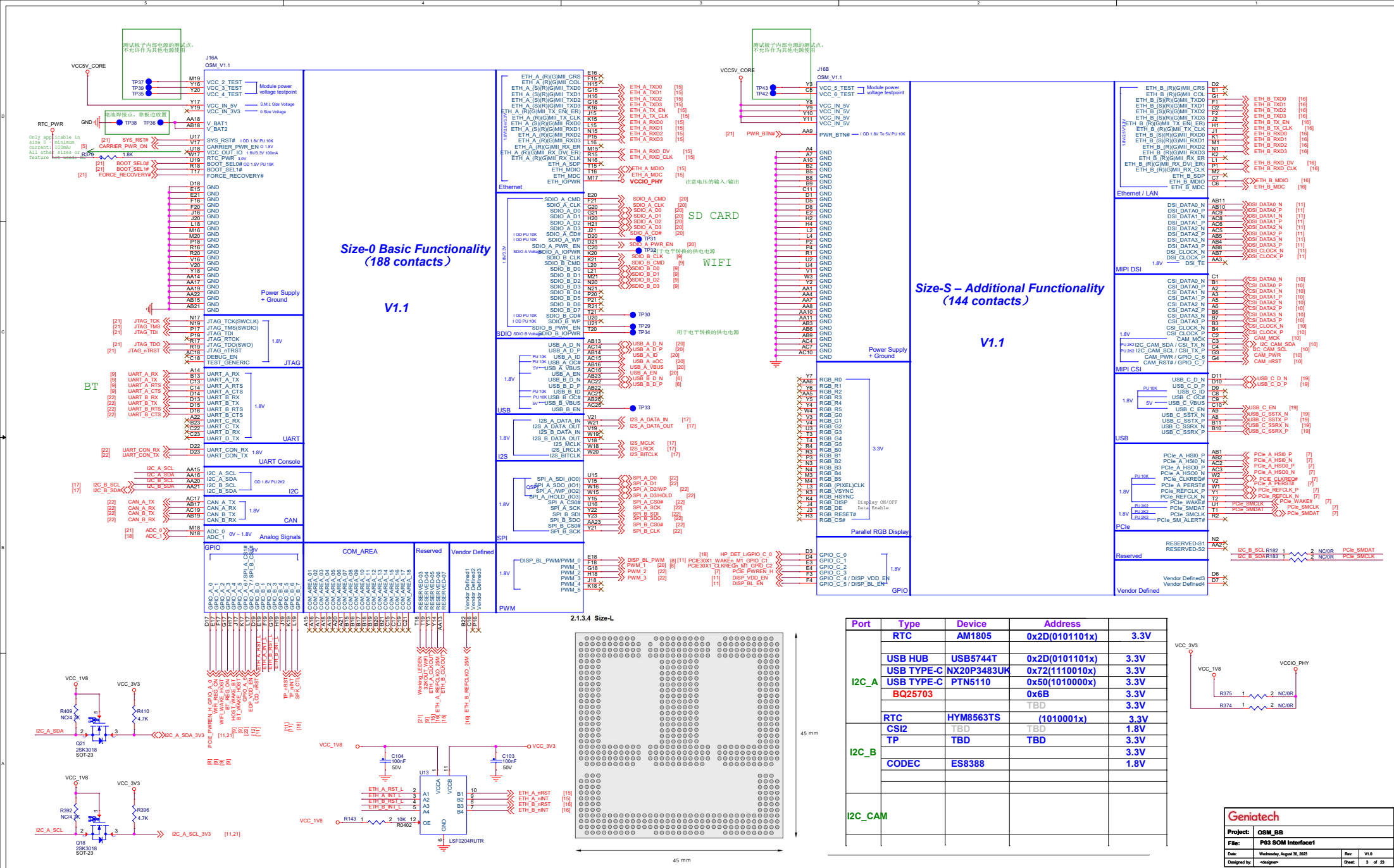
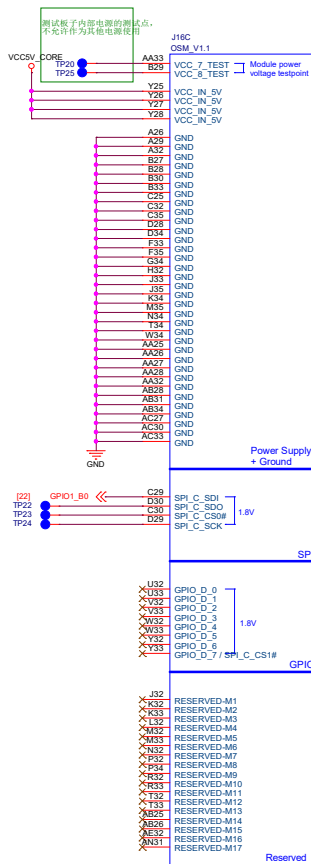


Revision History

Version	Date	By	Change Dscription	Approved
V1.0	2021-12-28	Felix.ruan	1:Revision preliminary version	Chenw

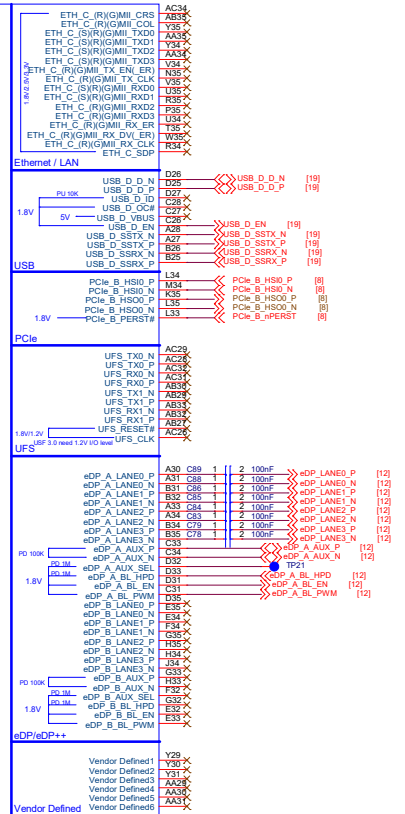




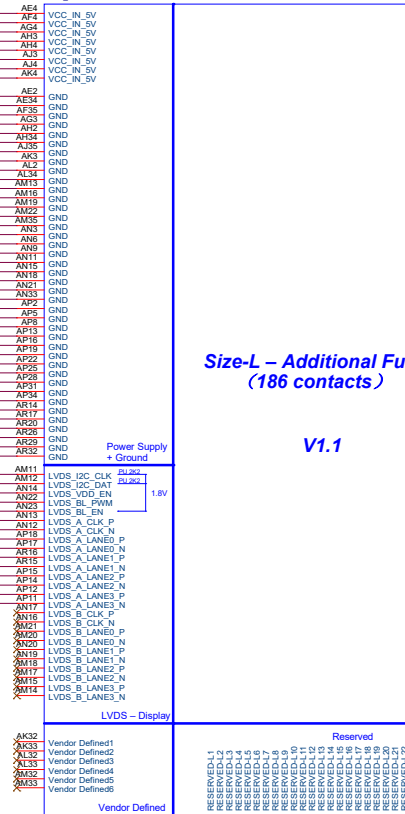


Size-M – Additional Functionality (144 contacts)

V1.1



VCCSV CORE

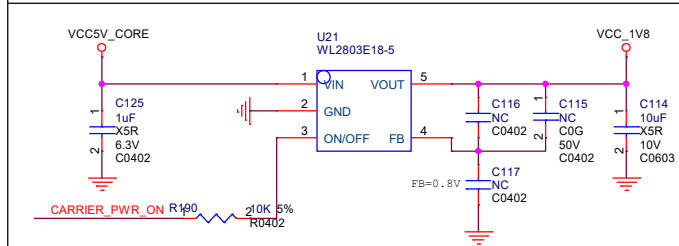
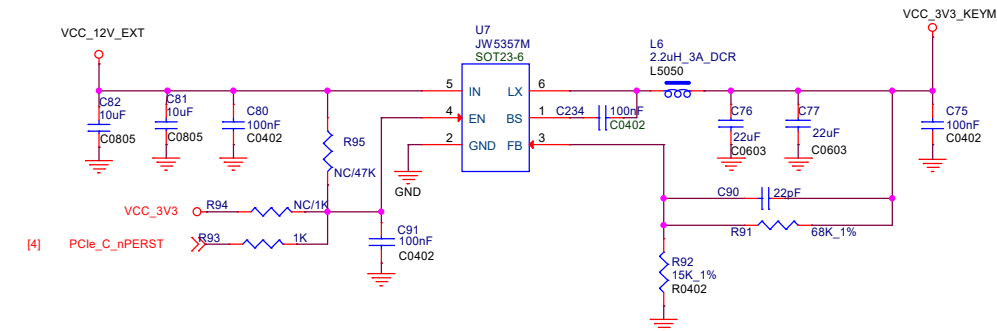
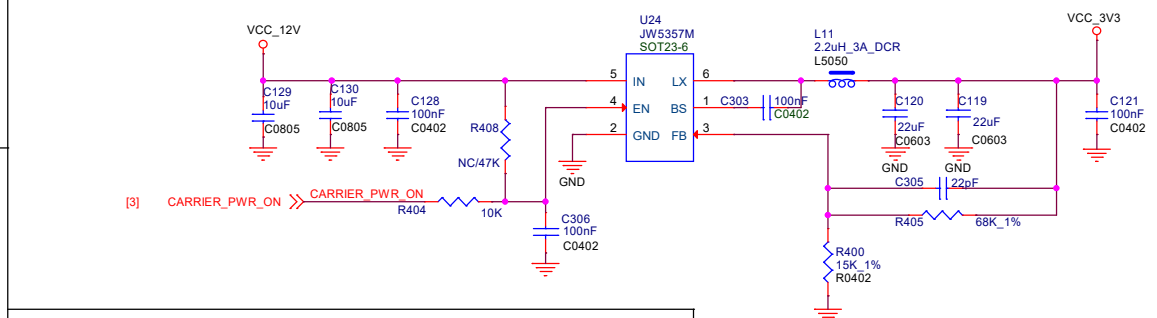
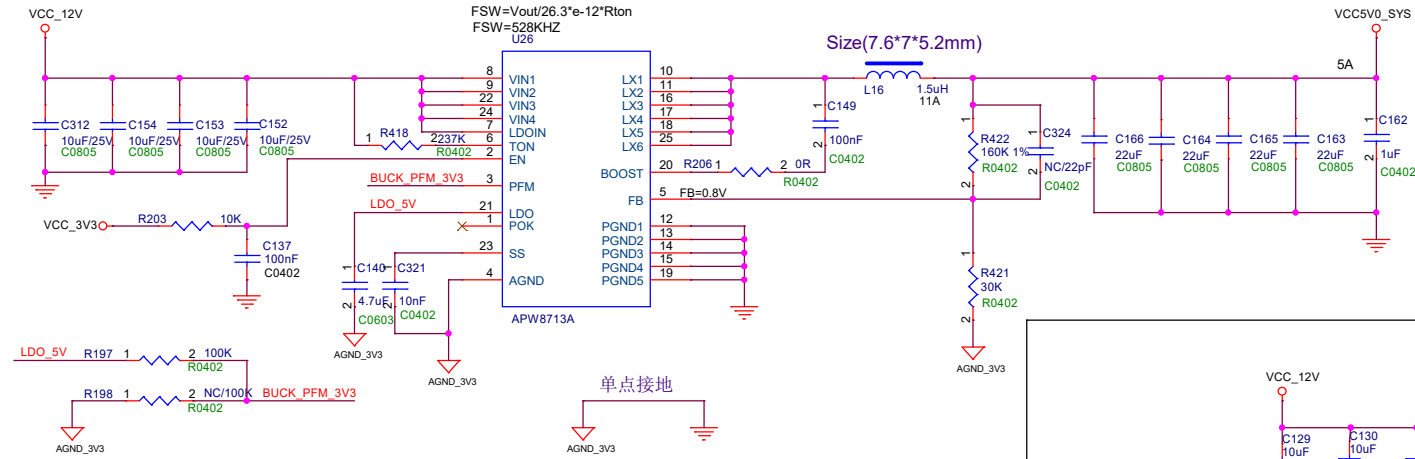
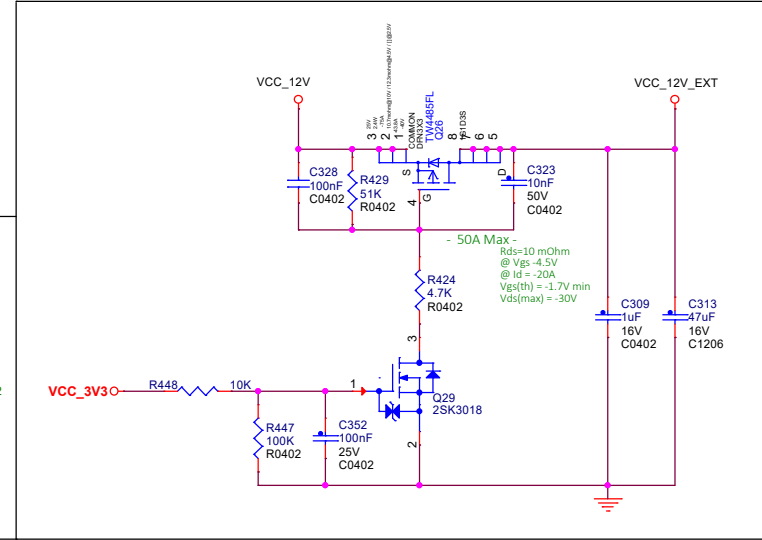
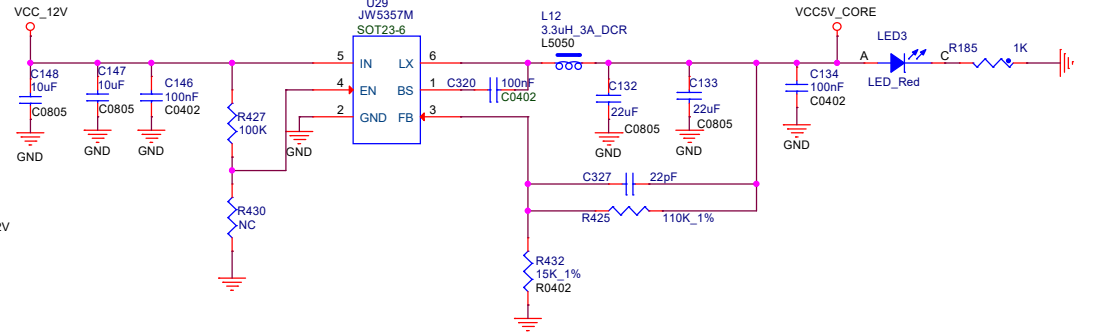
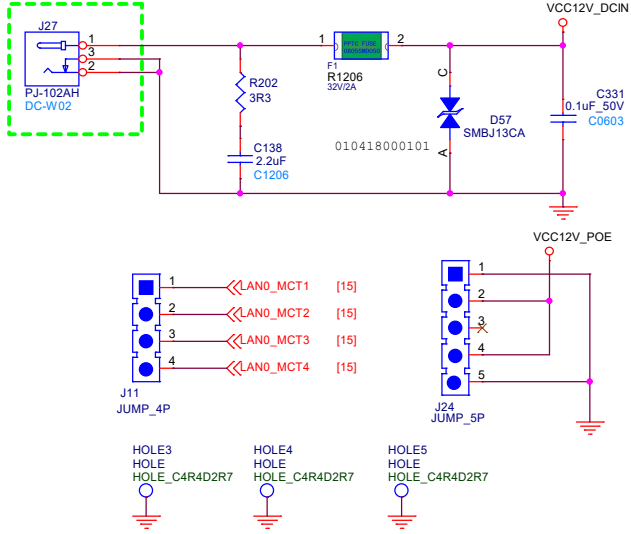


Size-L – Additional Functionality (186 contacts)

V1.1

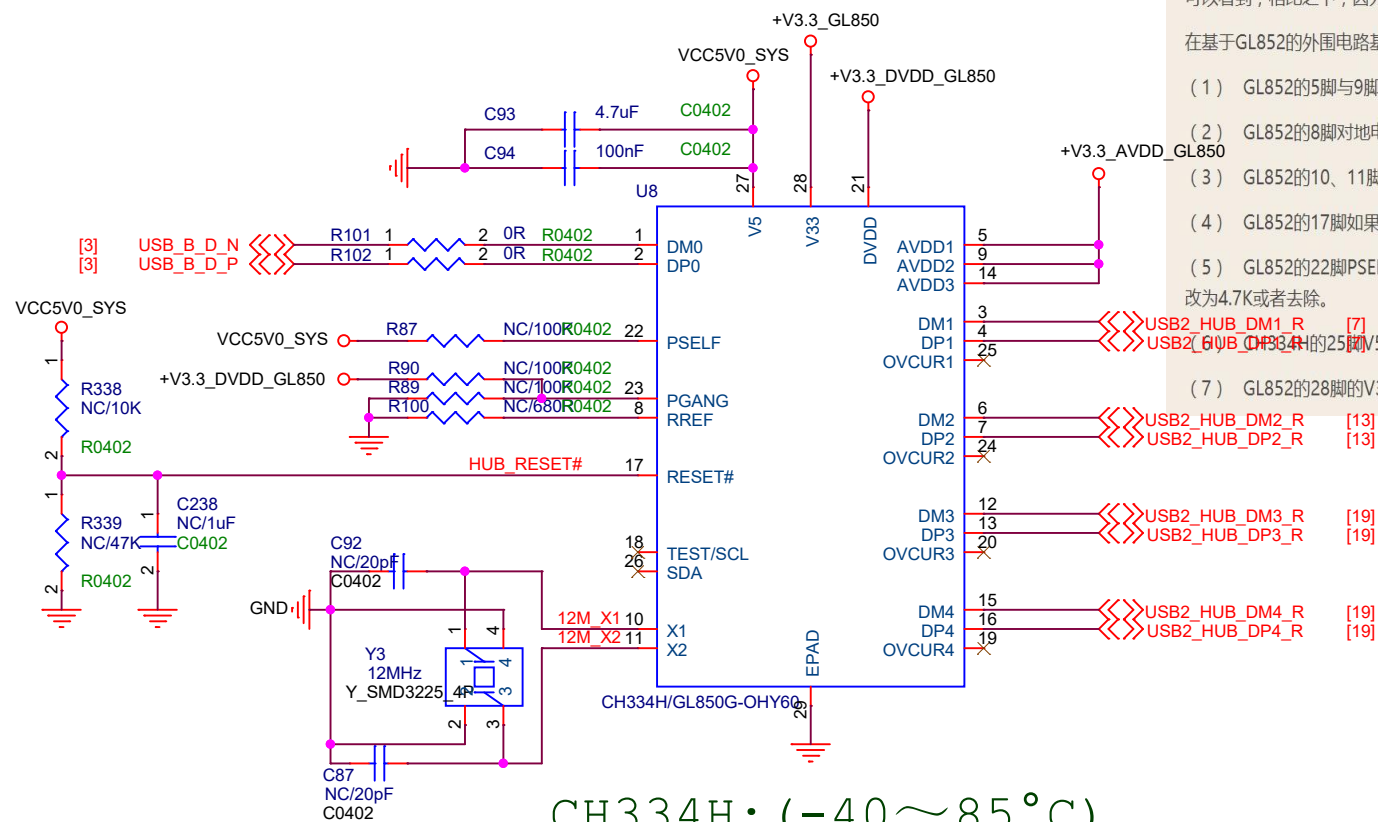
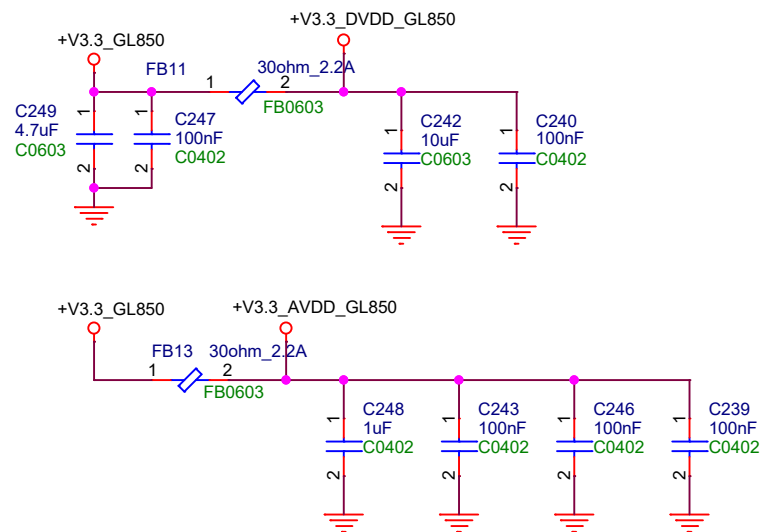


DC12V_2A



Geniatech			
Project:	OSM_BB		
File:	P05 POWER IN		
Date:	Wednesday, August 30, 2023	Rev:	V1.0
Designed by:	<designer>	Sheet:	5 of 23

USB2.0 HUB GL850



可以看到，相比之下，因为CH334H采用更高的设计工艺，集成度有了很大的提升，外围电路更加精简。

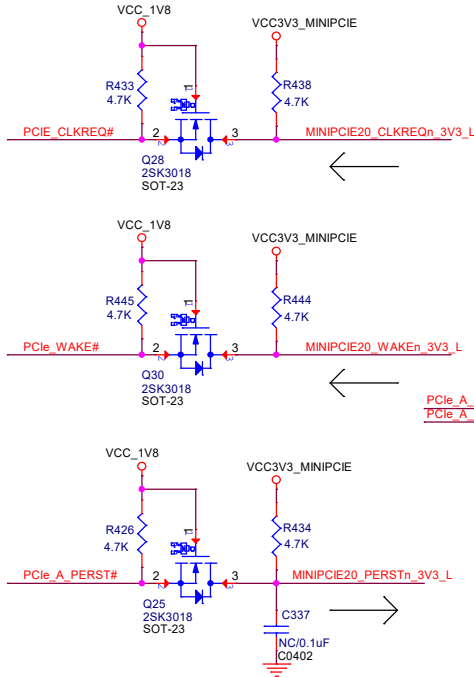
在基于GL852的外围电路基础上,如果需要替换为CH334H,无需重新lay电路板,只需要修改部分元器件即可:

- (1) GL852的5脚与9脚如果有接地电容 (C11,C12),可以去掉;
 - (2) GL852的8脚对地电阻 (R3), 最好去除, 对于CH334H来说, 去掉这个电阻, 可以降低功耗。
GL850
 - (3) GL852的10、11脚连接的电容必须去除, CH334H芯片内部已经集成。
 - (4) GL852的17脚如果有外部连接电阻的话 (本图没有), CH334H必须去掉。
 - (5) GL852的22脚PSELF脚以及23脚PGANG, 如果是外接的上拉电阻, 可以去除; 如果是对地电阻, 则可以改为4.7K或者去除。
- B2 HUB_DM1_R
B2 (6) B2_CH334H的25脚V5脚可以与GL852的保持一直, 也可以串联一个二极管用于保护;
- (7) GL852的28脚的V33对地电容建议修改为1uF, 也可以改为0.47uF-4.7uF。

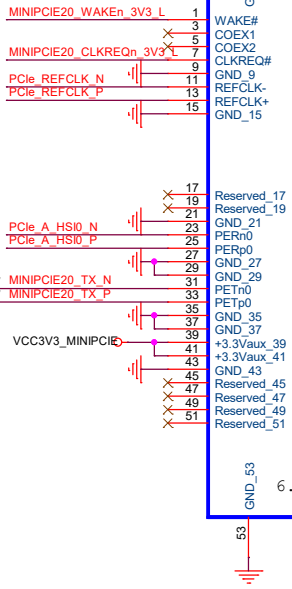
CH334H: (-40~85°C)
GL850G-OHY60: (-20--70°C)

Mini PCIE

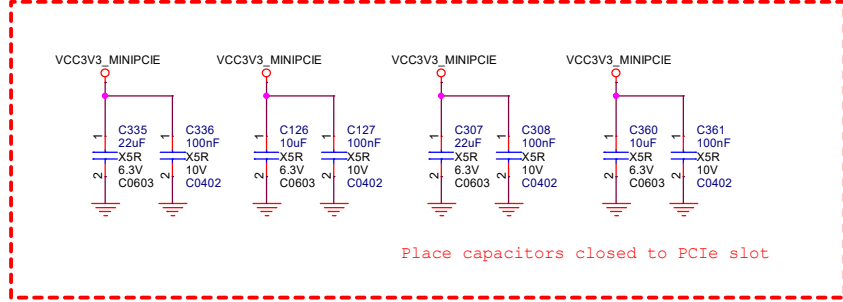
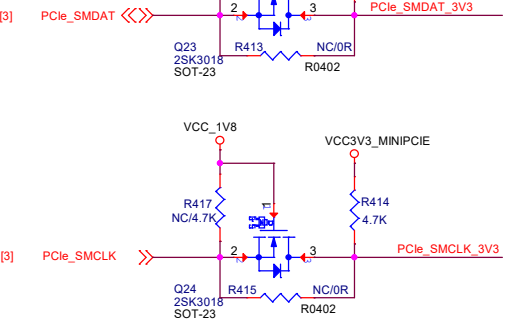
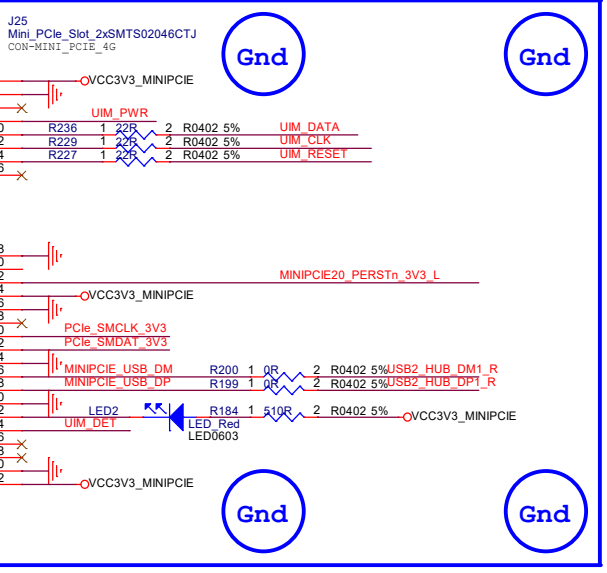
- >>PCle_A_HSO0_P [3]
- >>PCle_A_HSO0_N [3]
- >>PCle_A_HSI0_P [3]
- >>PCle_A_HSI0_N [3]
- >>PCle_REFCLK_P [3]
- >>PCle_REFCLK_N [3]
- >>PCle_CLKREQ# [3]
- >>PCle_WAKE# [3]
- >>PCle_A_PERST# [3]
- >>USB2_HUB_DM1_R [6]
- >>USB2_HUB_DP1_R [6]
- >>PCle_PWREN_H [3,7]



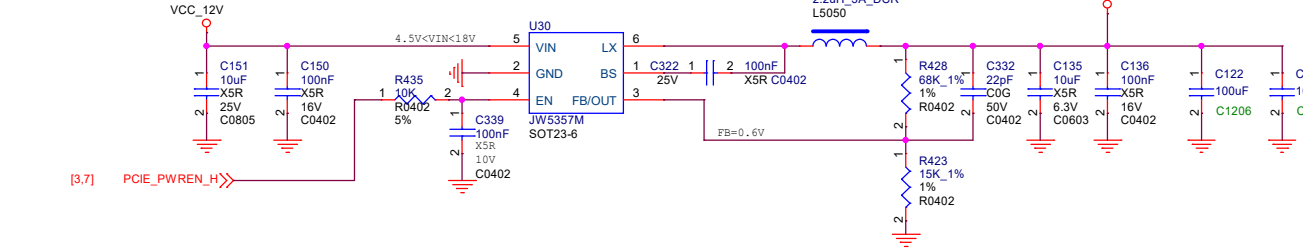
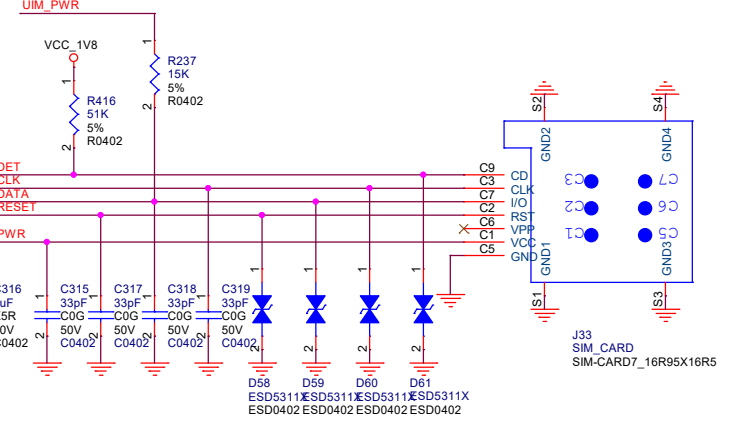
PCle_A_HSO0_N C311 1 2 100nF C0201 X5R 10V MINIPCIE20_TX_N
PCle_A_HSO0_P C310 1 2 100nF C0201 X5R 10V MINIPCIE20_TX_P



Mini PCIE



Place capacitors closed to PCIe slot



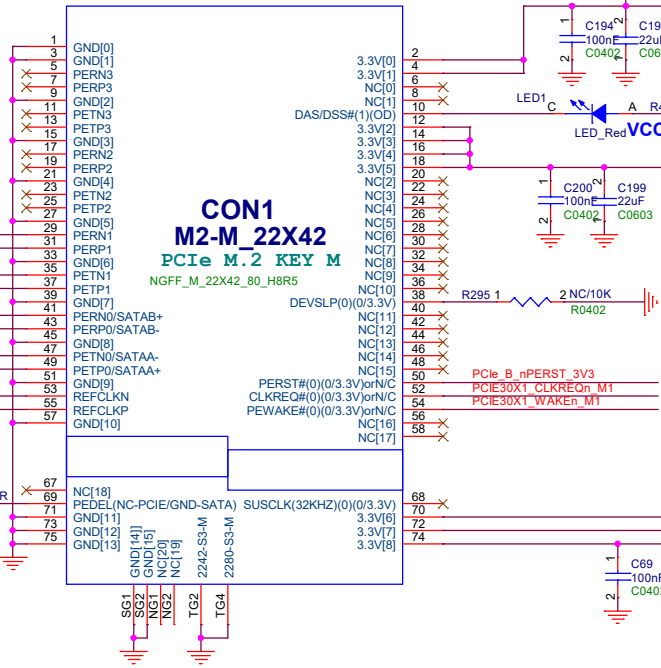
M.2 PCIE NVME

OSM3566不支持KEY M,SSD

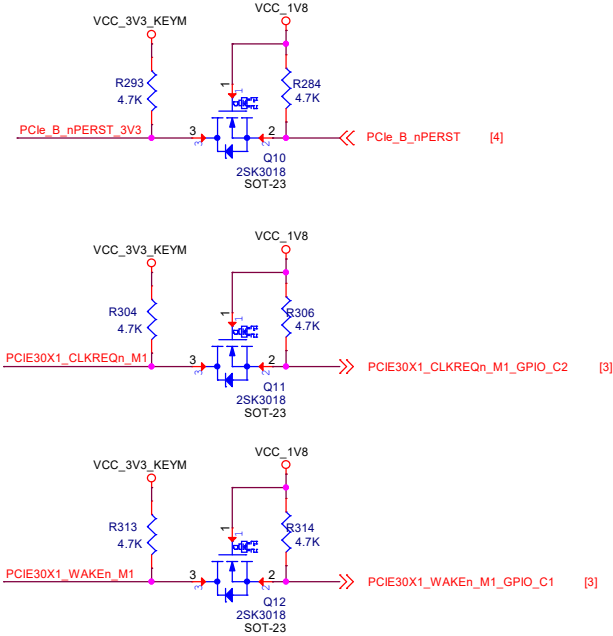
Diff 85 Ohm ±10%

- [4] PCIe_C_HSI0_N
- [4] PCIe_C_HSI0_P
- [4] PCIe_C_HSO0_N
- [4] PCIe_C_HSO0_P
- [4] PCIe_B_HSI0_N
- [4] PCIe_B_HSI0_P
- [4] PCIe_B_HSO0_N
- [4] PCIe_B_HSO0_P

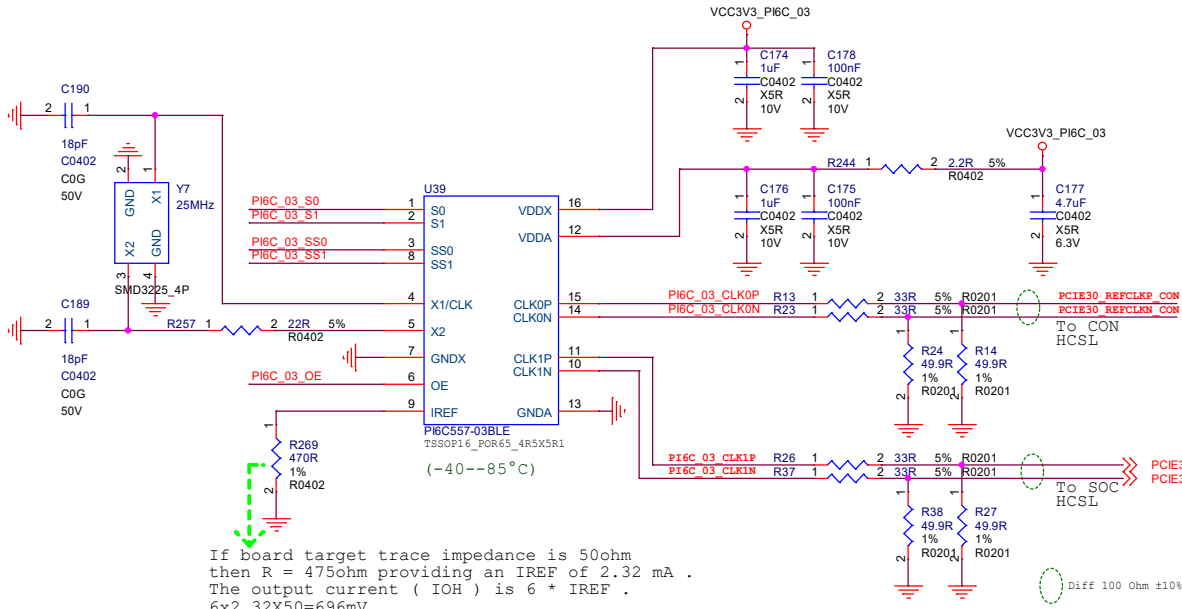
PCIe30_REFCLKP_CON
PCIe30_REFCLKP_CON



VCC_3V3_KEYM

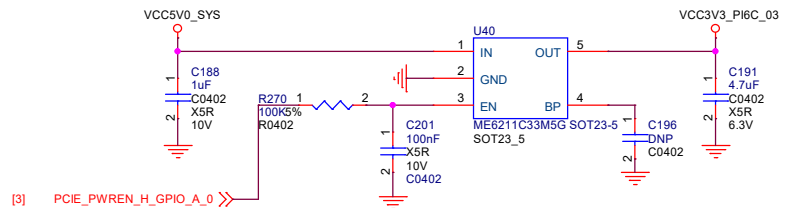


100MHZ CLK



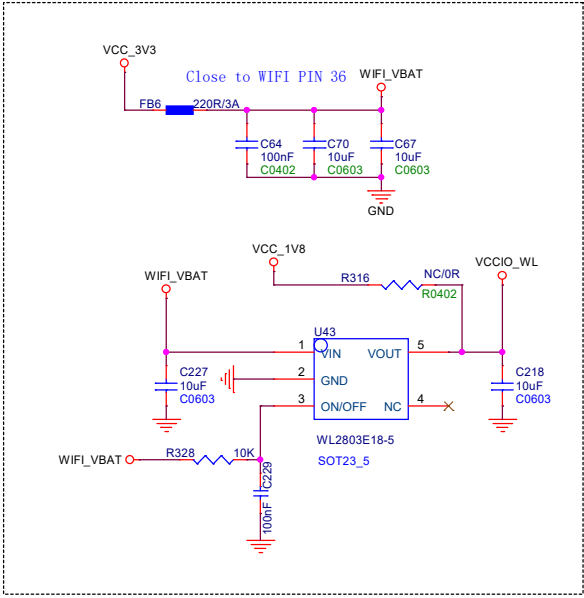
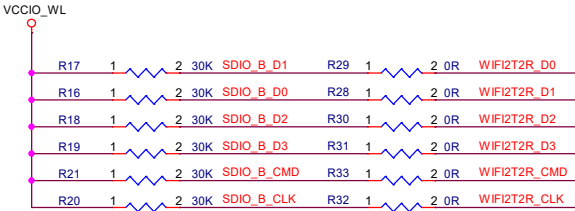
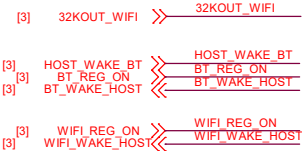
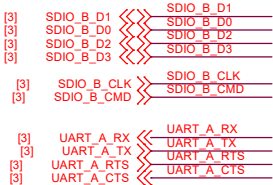
If board target trace impedance is 50ohm then R = 475ohm providing an IREF of 2.32 mA . The output current (IOH) is 6 * IREF . 6x2.32X50=696mV

PI6C_S1	PI6C_S0	Out Freq
0	1	100MHz
PI6C_03_S0	R242 1 2 10K 5% R0402	
PI6C_03_S1	R243 1 2 10K 5% R0402	
PI6C_03_SS0	R241 1 2 10K 5% R0402	
PI6C_03_SS1	R268 1 2 10K 5% R0402	
PI6C_03_OE	R261 1 2 10K 5% R0402	
PI6C_SS1	PI6C_SS0	Spread %
0	0	No Spread
1	1	-0.5
1	0	-1.0
1	1	No Spread



Geniatech			
Project:	OSM_BB		
File:	P08 PCIeX M2_KEY_M		
Date:	Wednesday, August 30, 2023	Rev:	V1.0
Designed by:	<designer>	Sheet:	8 of 23

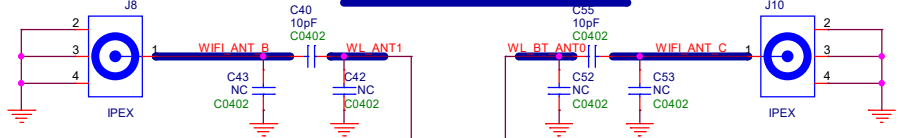
SDIO WIFI6/BT Module-2T2R



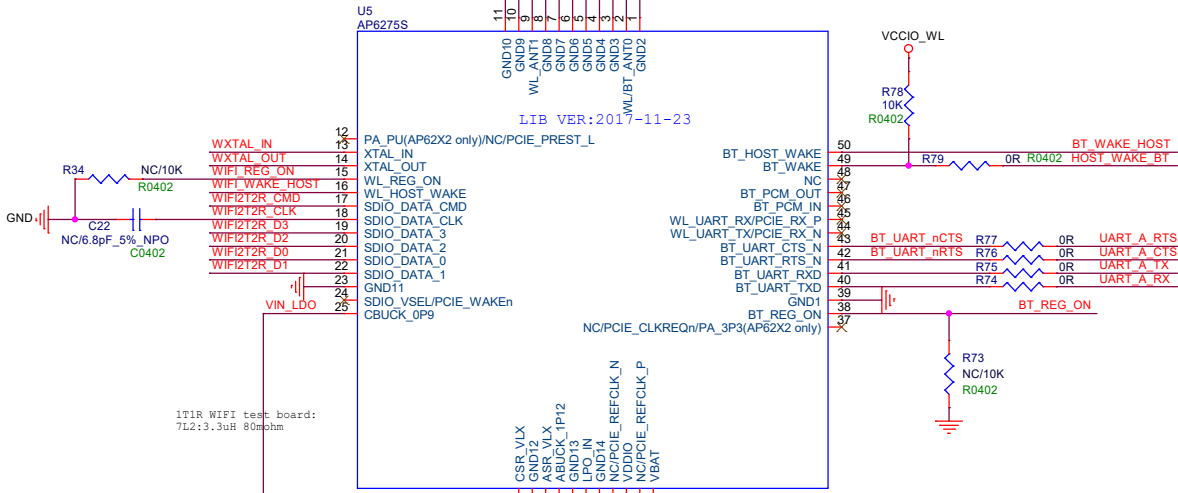
Default for 2T2R
WiFi ANT

50 ohm impedance RF trace

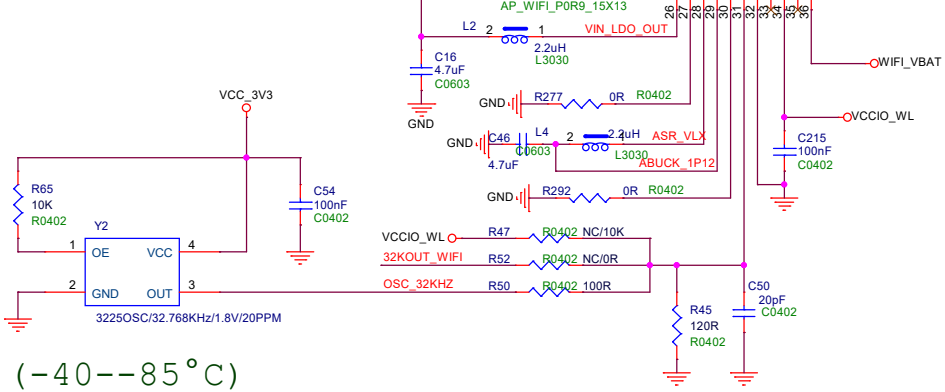
WiFi/BT ANT



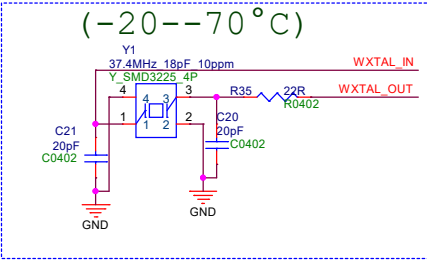
(-30--85°C)



1T1R WIFI test board:
7L2:3.3uH 80ohm



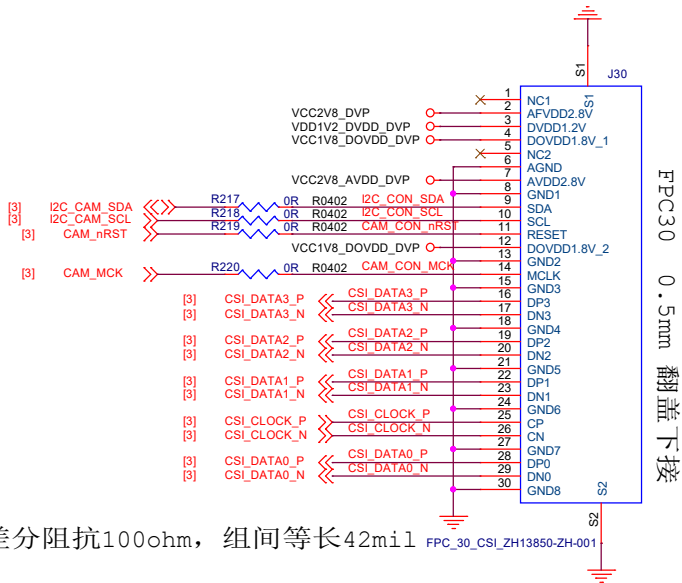
(-40--85°C)



Geniatech

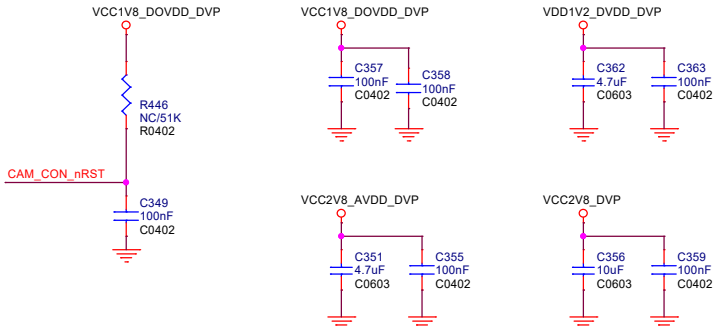
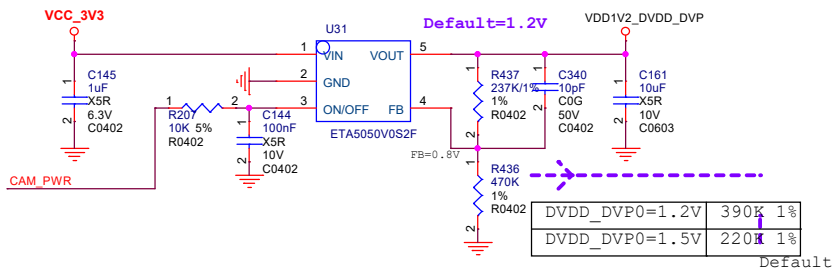
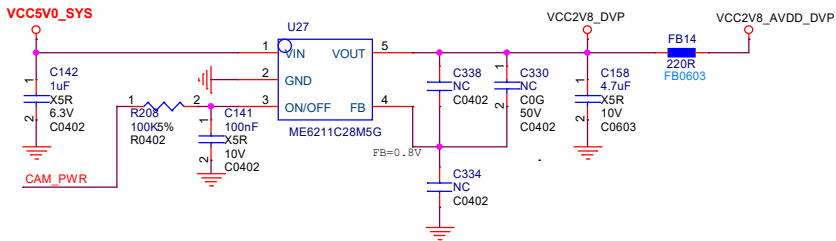
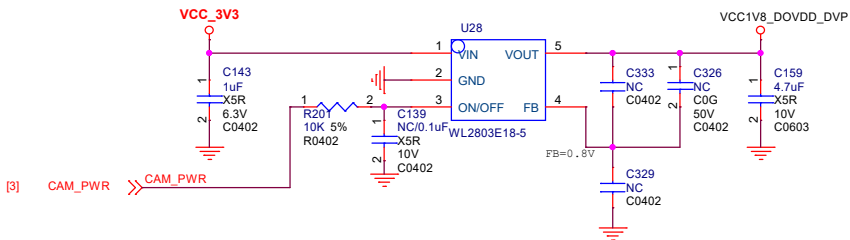
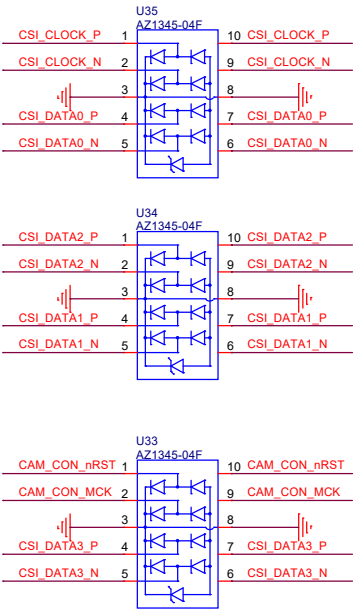
Project:	OSM_BB
File:	P09 WIFI6/BT (AP6275S)
Date:	Wednesday, August 30, 2023
Designed by:	<designer>
Rev:	V1.0
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Camera0:MIPI_CSI_RX 4Lanes(ZH13850-ZH-001)
(-20--70°C)



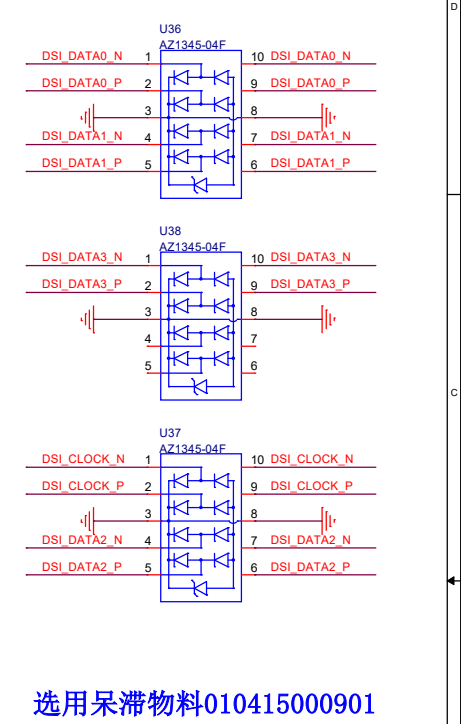
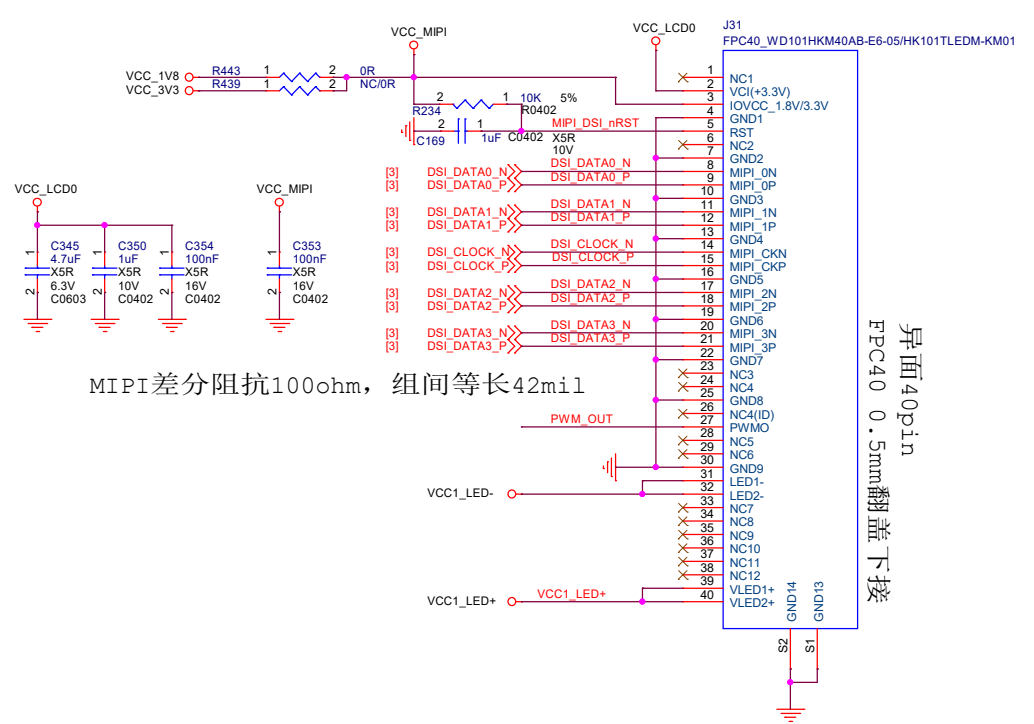
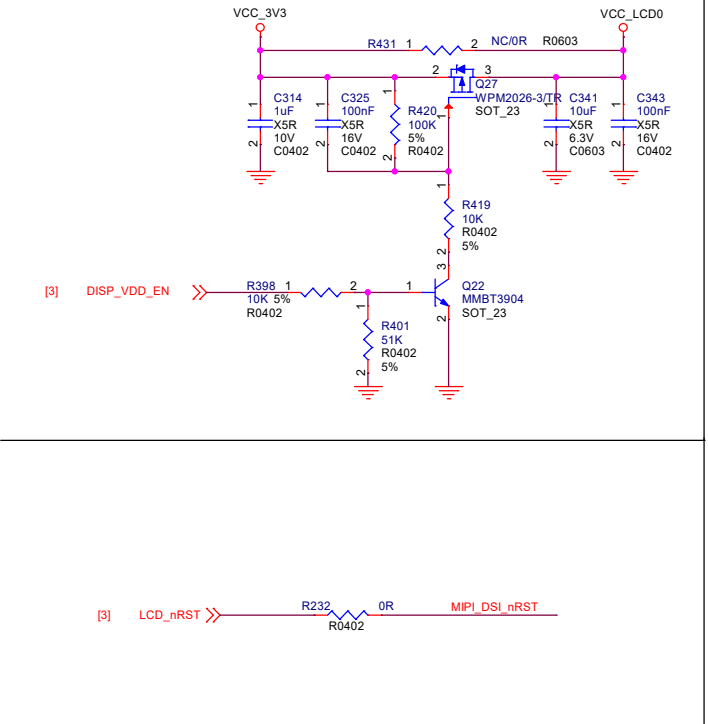
MIPI差分阻抗100ohm, 组间等长42mil
FPC_30_CSI_ZH13850-ZH-001

Note:
Adjust the power on sequence according to the camera model
eg:OV50C40
Power on Sequence
2.8V-->1.8V-->1.2V--->MCLK-->PWDN--->RST



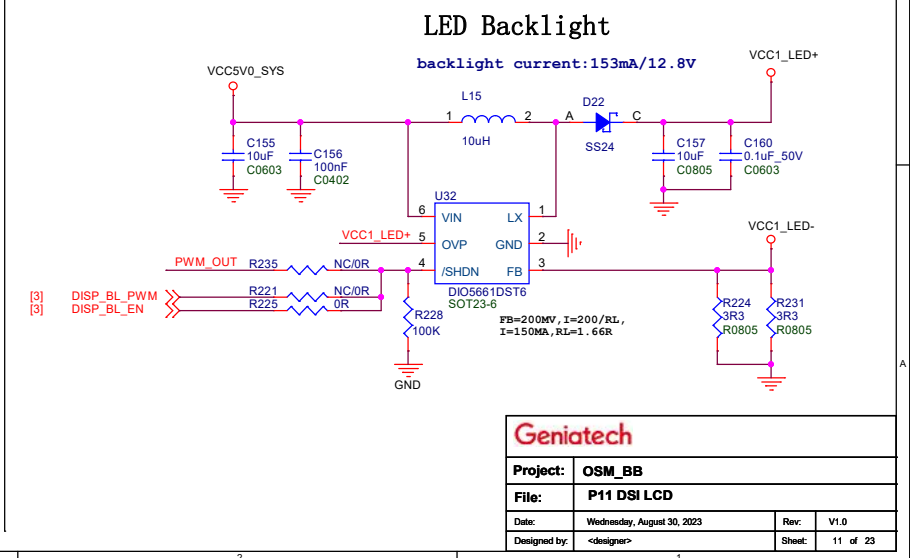
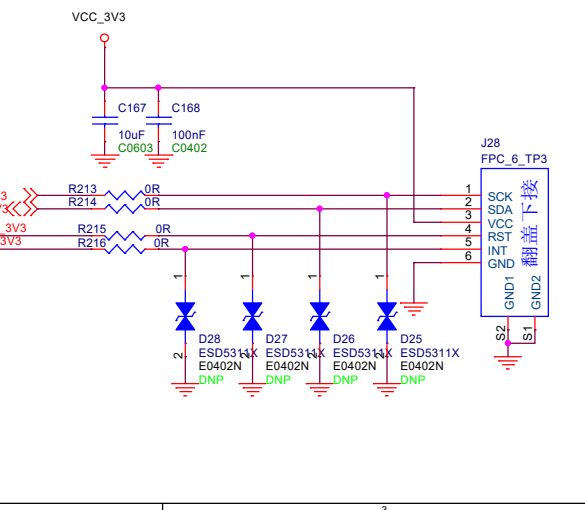
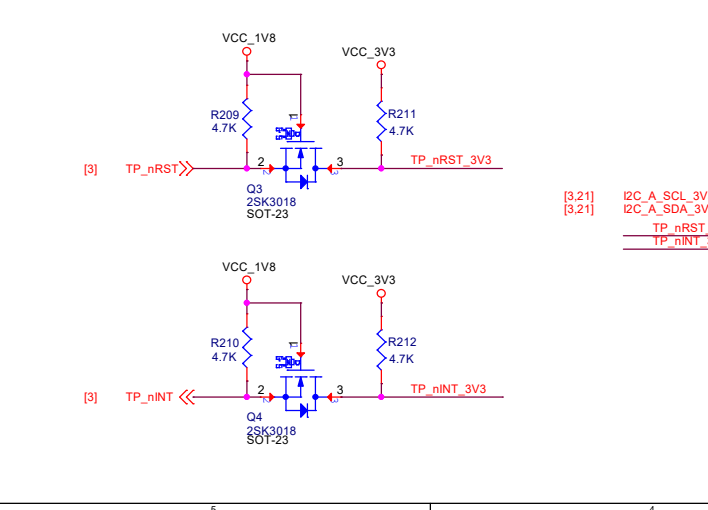
Geniatech			
Project:	OSM_BB		
File:	P10 MIPI Camera		
Date:	Wednesday, August 30, 2023	Rev:	V1.0
Designed by:	<designer>	Sheet:	10 of 23

MIPI Panel(10.1寸 WD101HKM40AB-E6-05/HK101TLEDM-KM01)



选用呆滞物料010415000901

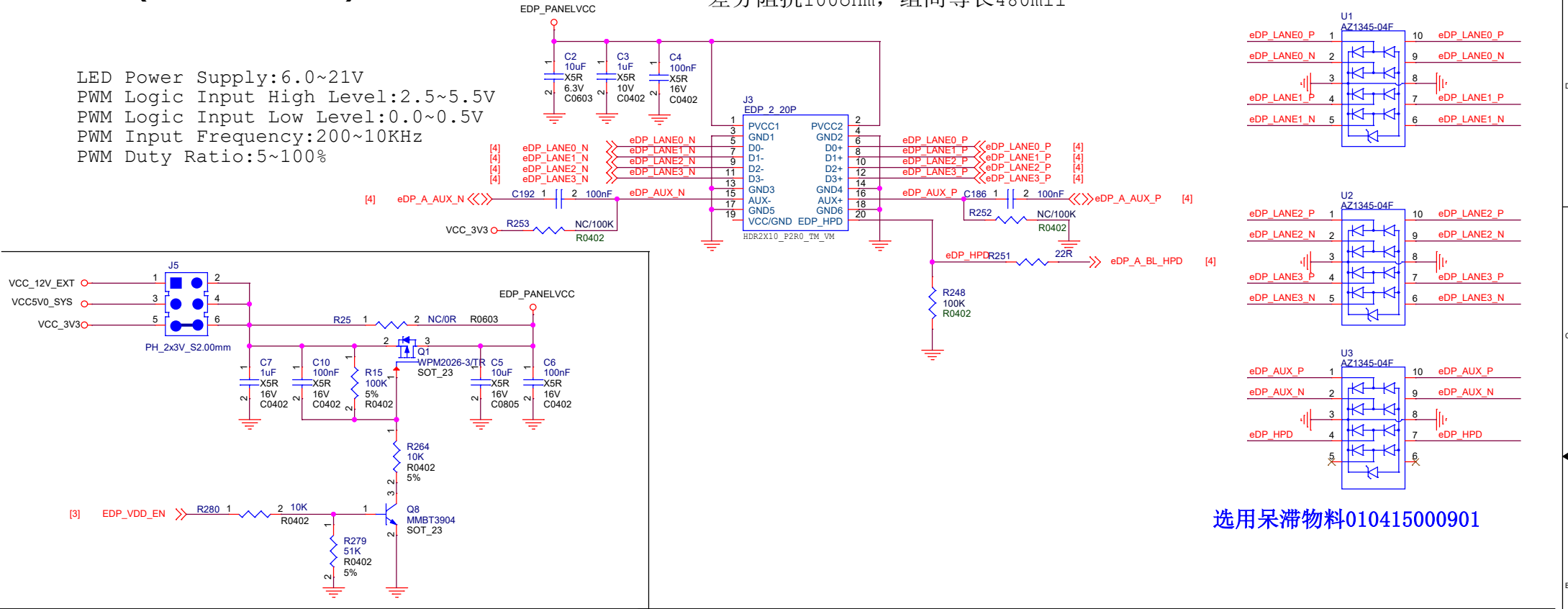
Touch Panel connector



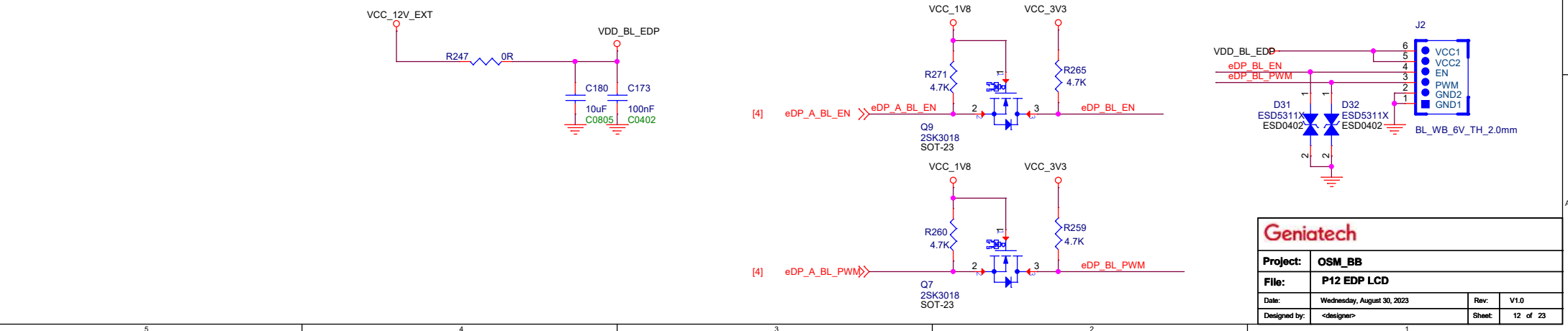
eDP Panel(NV156FHM-N42)

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%

差分阻抗100ohm, 组间等长480mil



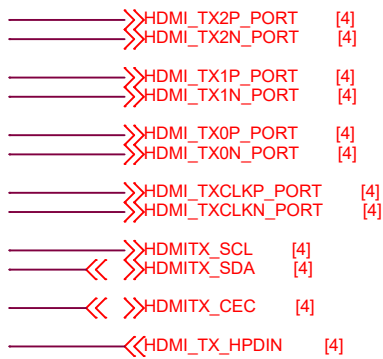
选用呆滞物料010415000901



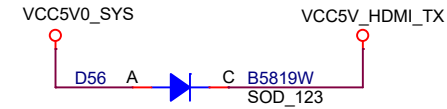
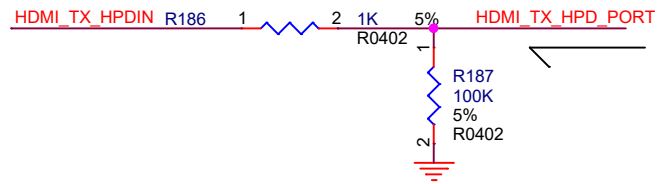
Geniatech

Project:	OSM_BB		
File:	P12 EDP LCD		
Date:	Wednesday, August 30, 2023	Rev:	V1.0
Designed by:	<designer>	Sheet:	12 of 23

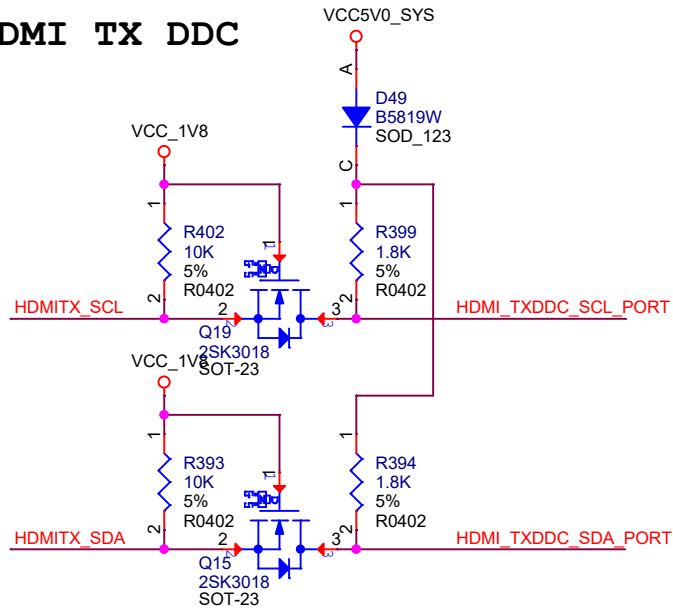




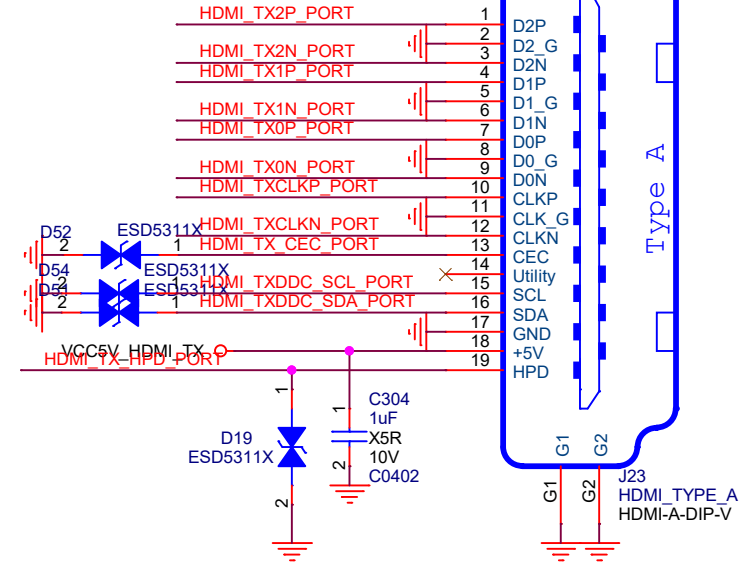
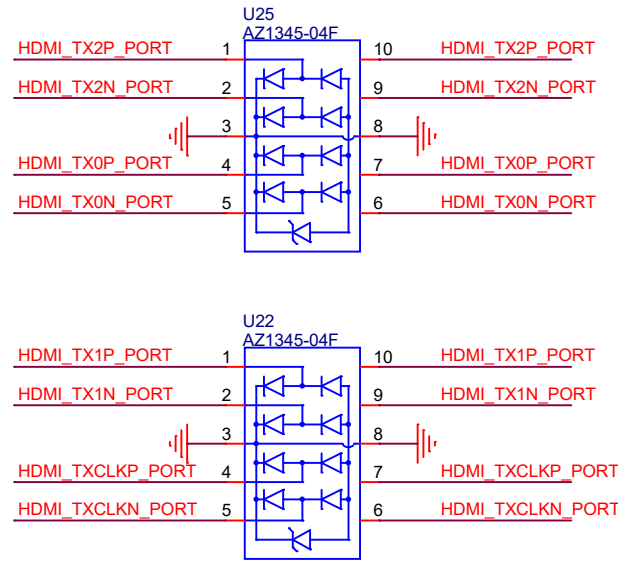
HDMI TX HPD



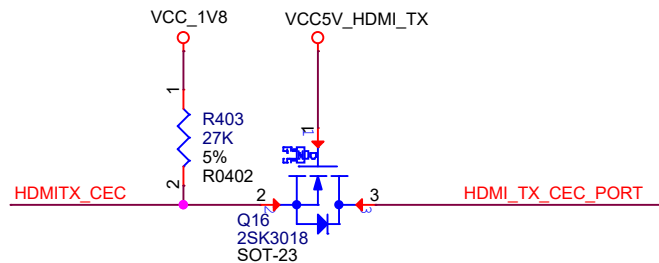
HDMI TX DDC



$C_j \leq 0.4 \text{ pF}$



HDMI TX CEC

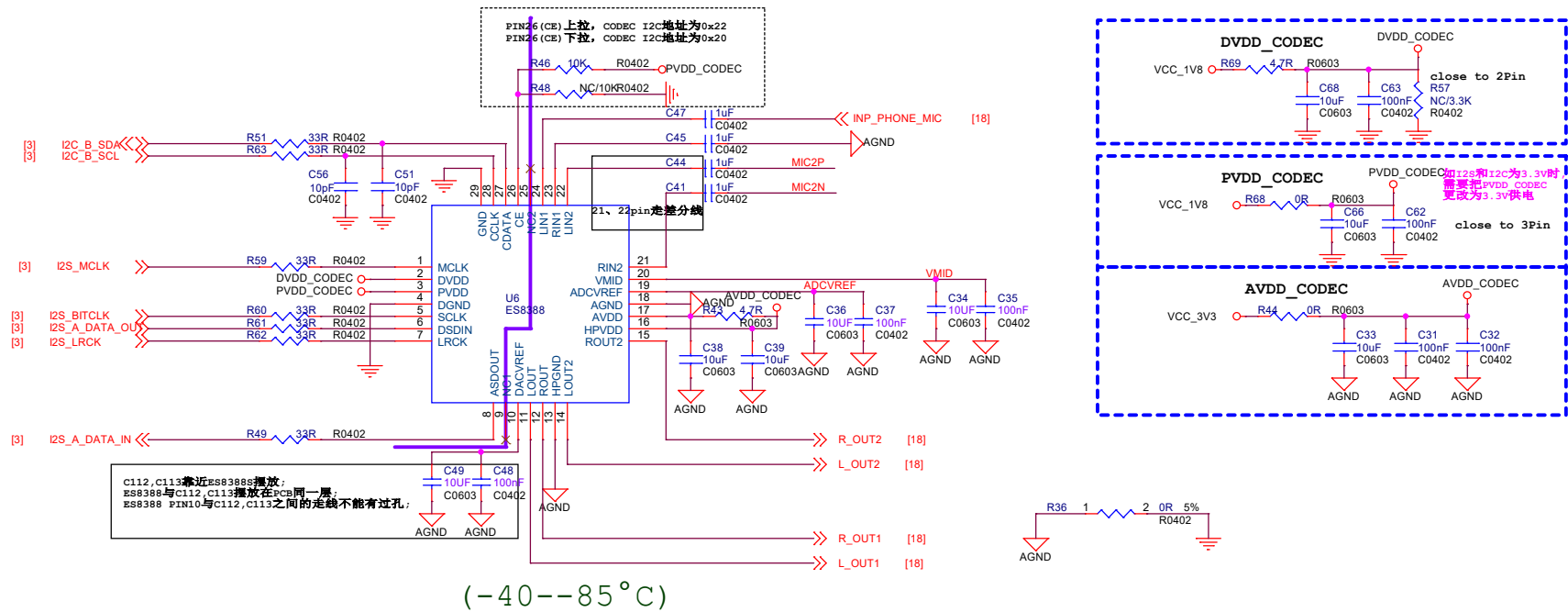


选用呆滞物料010415000901

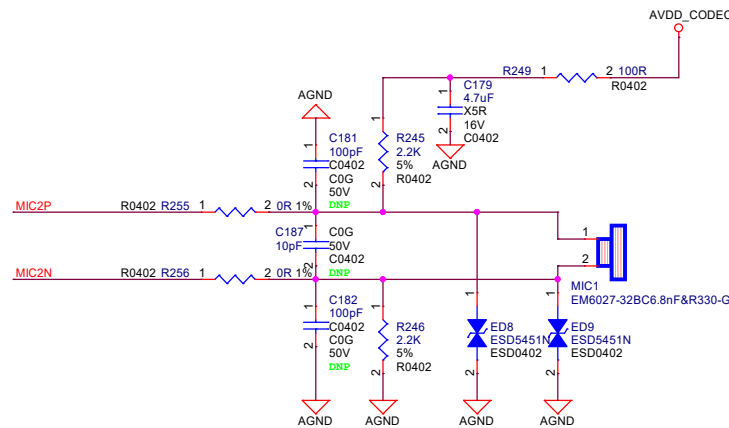
Geniatech

Project:	OSM_BB		
File:	P14 HDMI OUT		
Date:	Wednesday, August 30, 2023	Rev:	V1.0
Designed by:	<designer>	Sheet:	14 of 23

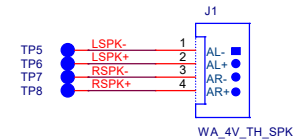
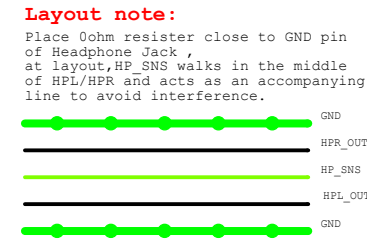
CODEC

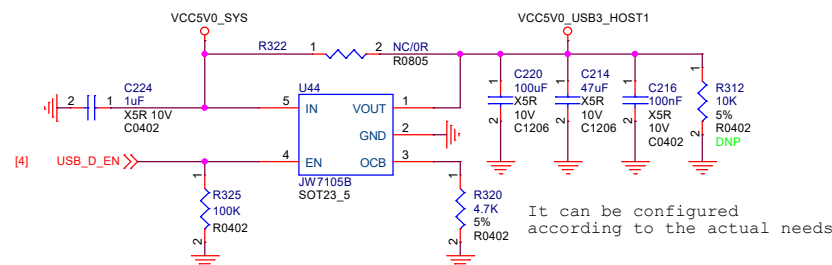
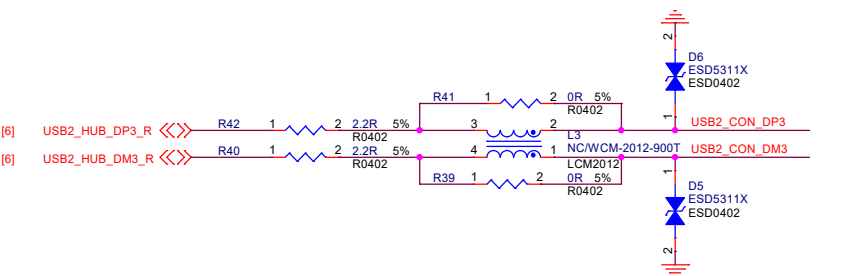


Analog MIC



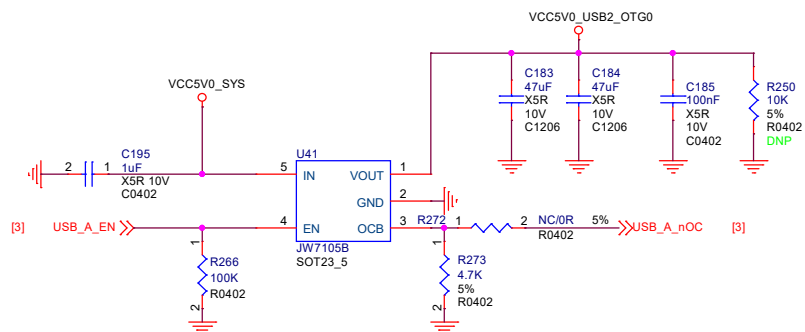
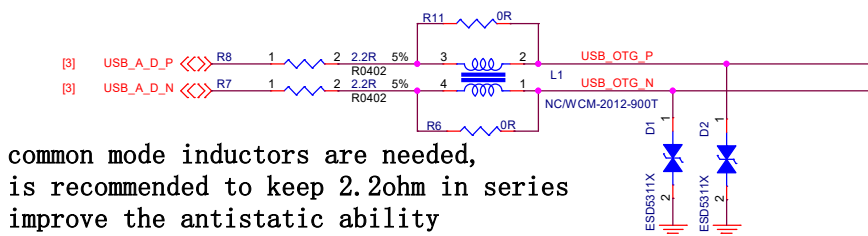
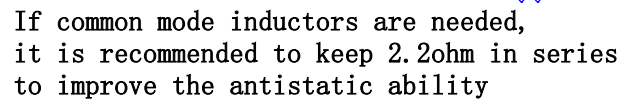
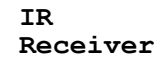
AMP





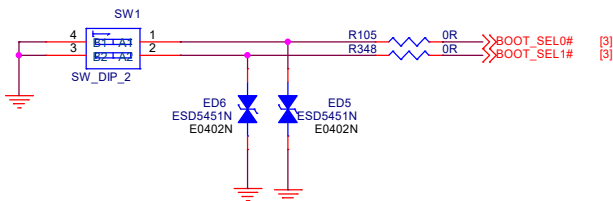
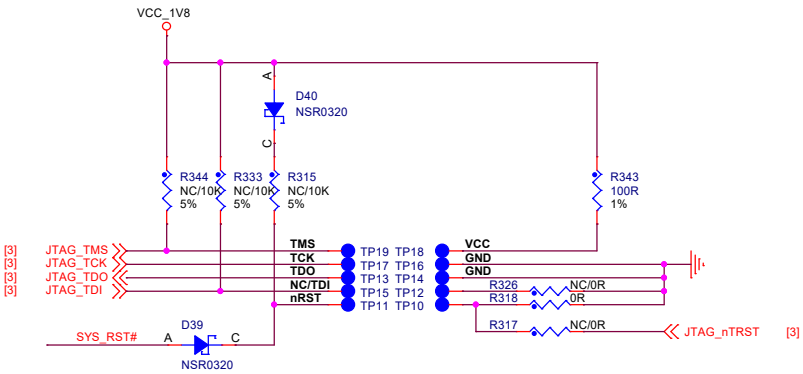
USB2.0 HOST2

Geniatech			
Project:	OSM_BB		
File:	P19 USB20,USB30		
Date:	Wednesday, August 30, 2023	Rev:	V1.0
Designed by:	<designer>	Sheet:	19 of 23

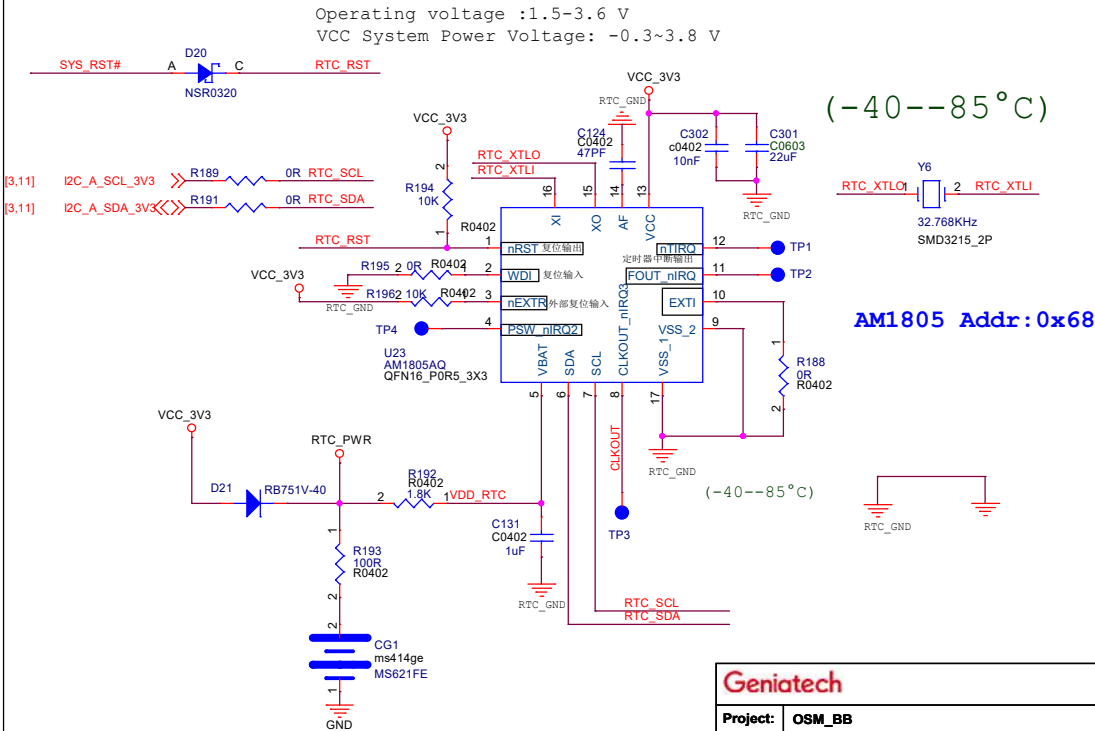
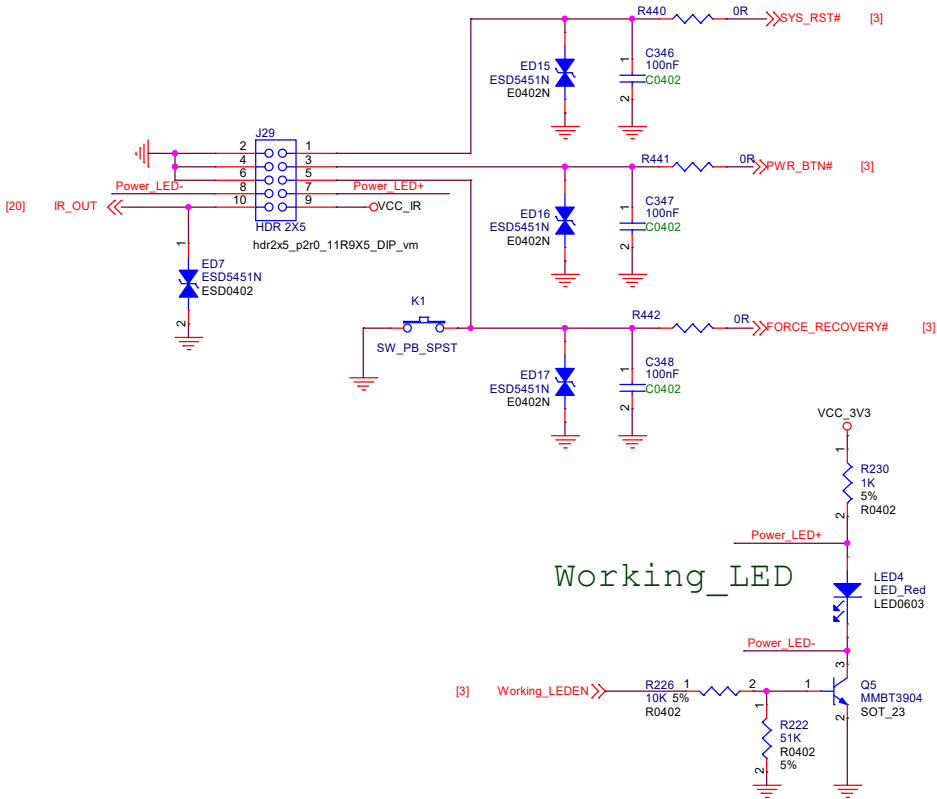
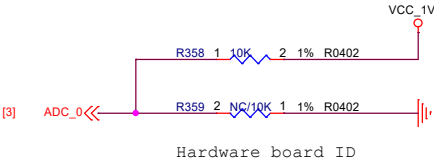


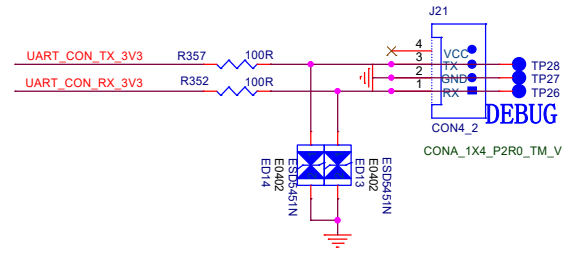
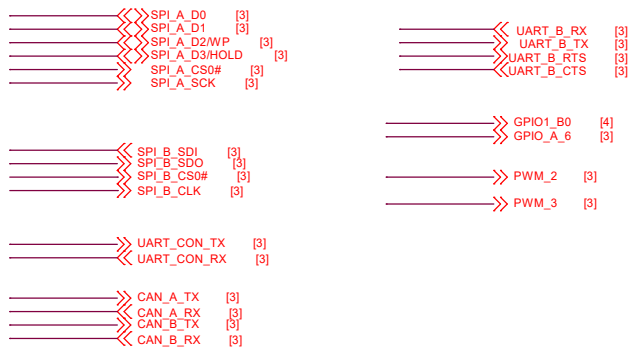
Geniatech			
Project:	OSM_BB		
File:	P20 MicroSD Card,TypeC,IR		
Date:	Wednesday, August 30, 2023	Rev:	V1.0
Designed by:	<designer>	Sheet:	20 of 23

JTAG Debug

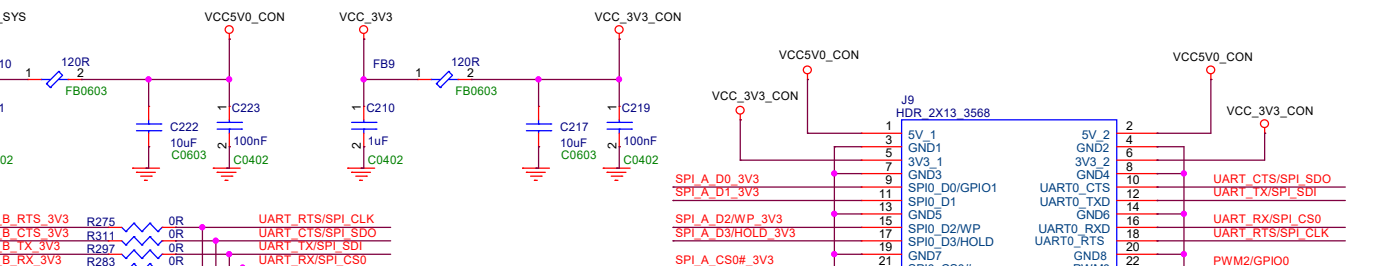
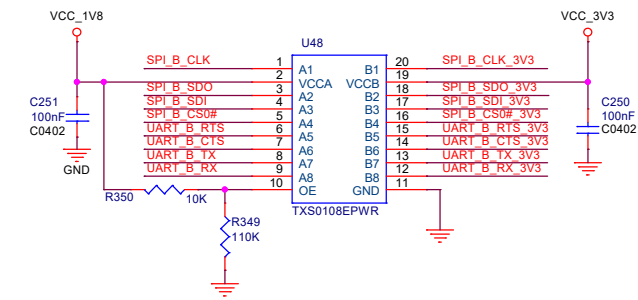
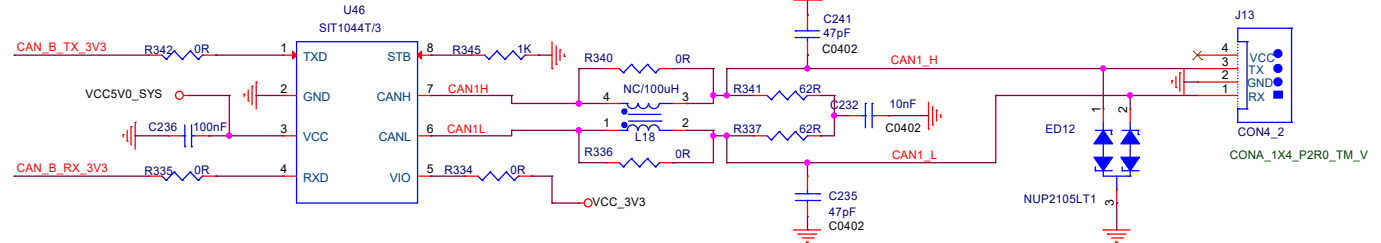
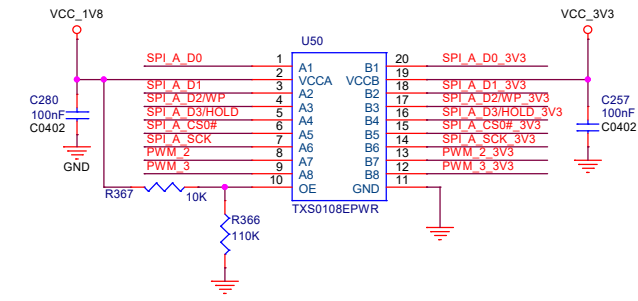
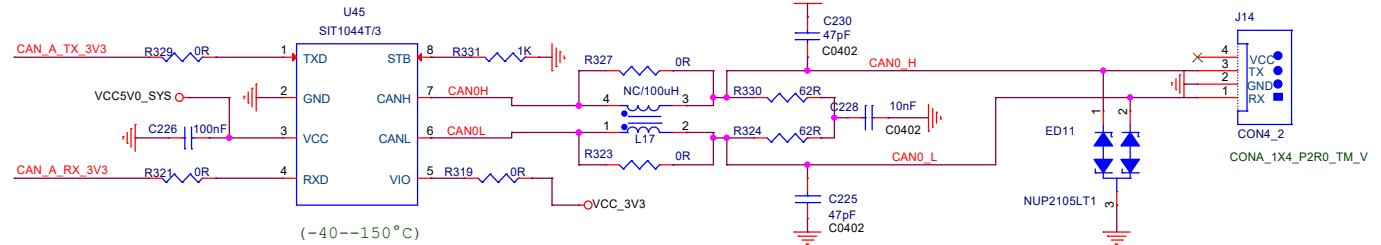
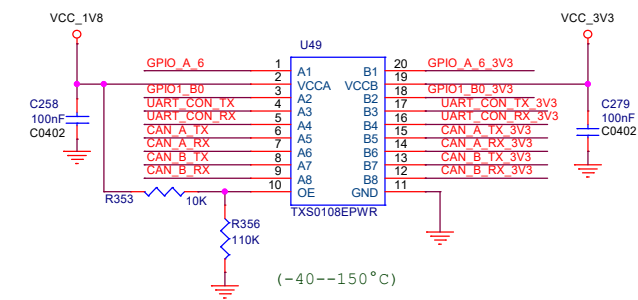


SARADC_VIN1_HW_ID	Rup	Rdown	ADC	
Version 1	10K	DNP	1023	1.8V
Version 2	20K	100K	852	1.5V
Version 3	18K	36K	681	1.2V
Version 4	51K	51K	512	0.9V
Version 5	36K	18K	340	0.6V
Version 6	100K	20K	170	0.3V
Version 7	DNP	10K	0	0V





OSM3566不支持CAN



OSM3566不支持RTS,CTS

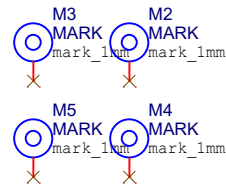
OSM3566不支持PWM3,GPIO1

Geniatech			
Project:	OSM_BB		
File:	P22 UART,CAN,SPI		
Date:	Wednesday, August 30, 2023	Rev:	V1.0
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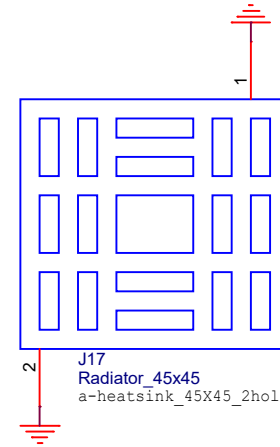
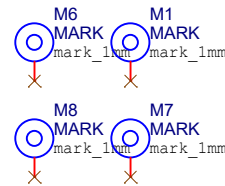
Mark

HEATSINK

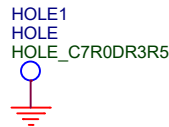
TOP Mark



BOTTOM Mark



FAN : 8CMX8CM



Geniatech			
Project:	OSM_BB		
File:	P23 Mark/Hole/Heatsin		
Date:	Monday, August 21, 2023	Rev:	V1.0
Designed by:	<designer>	Sheet:	23 of 23