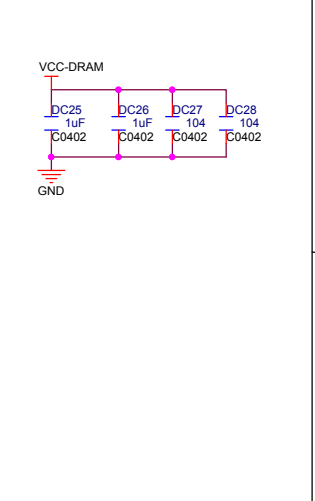
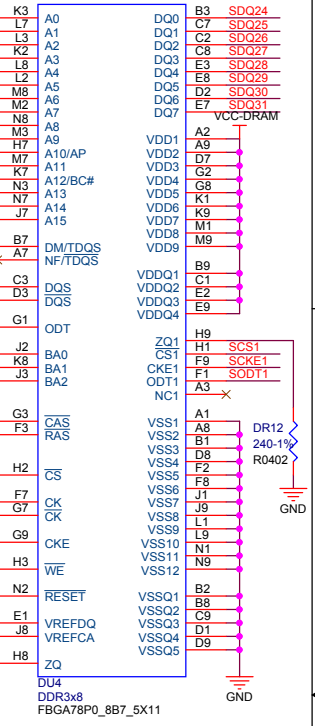
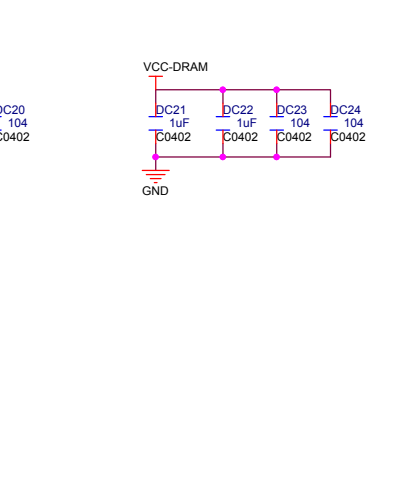
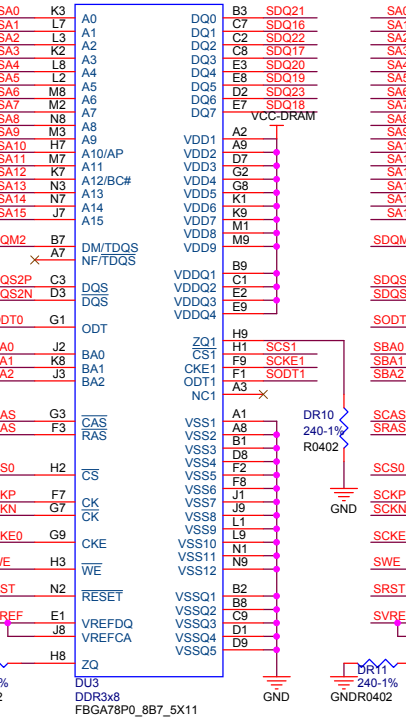
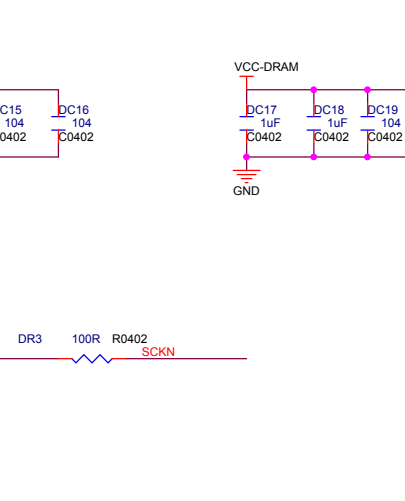
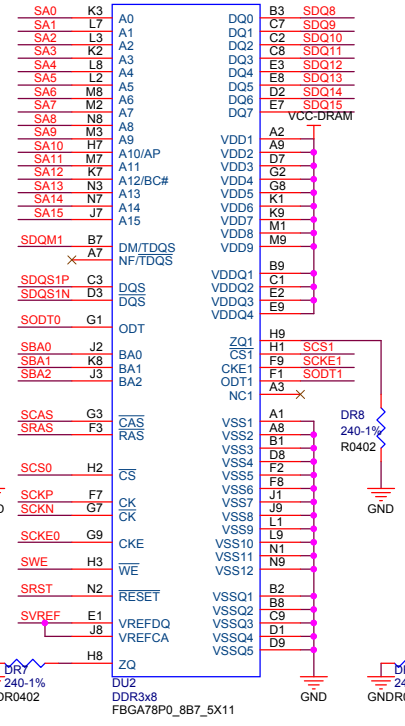
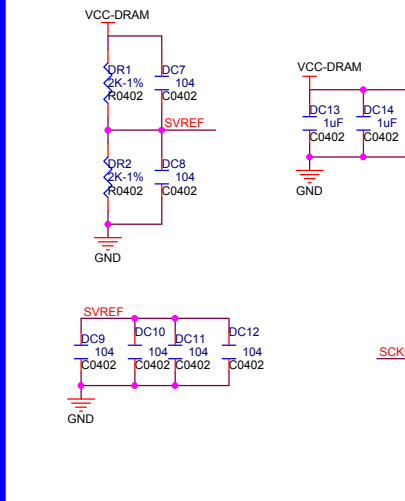
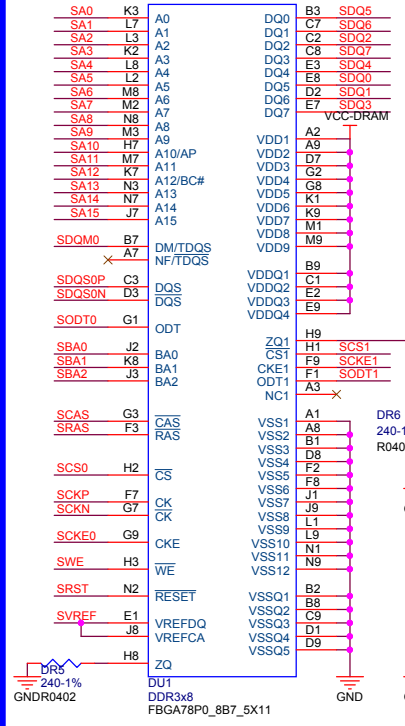
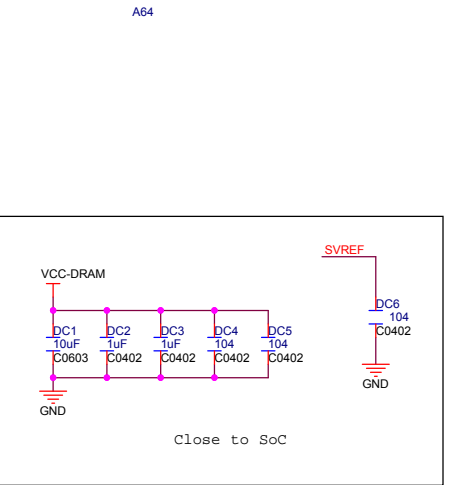
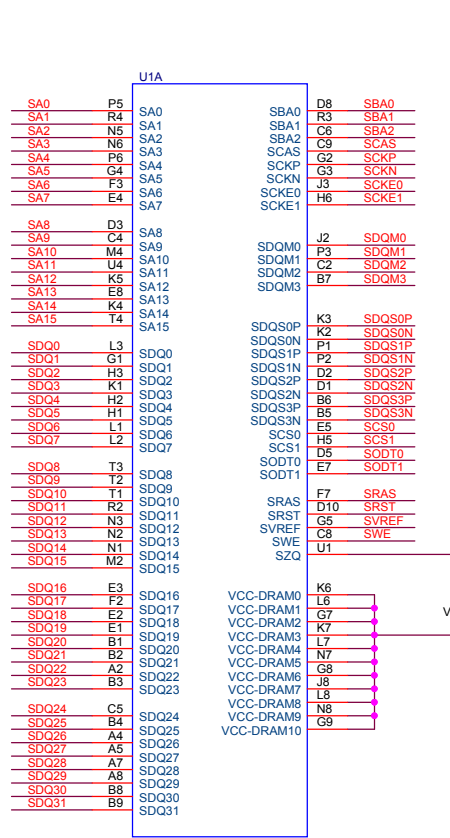








# DDR3 8bx4

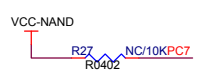
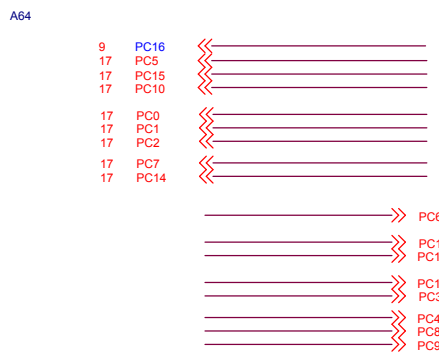
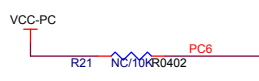
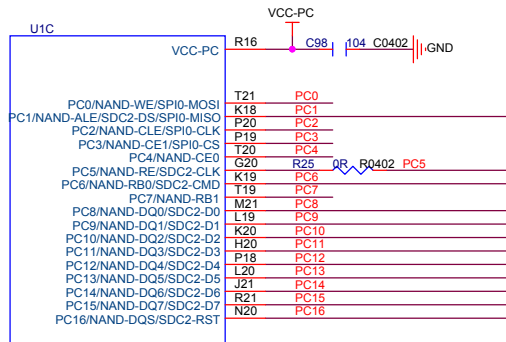


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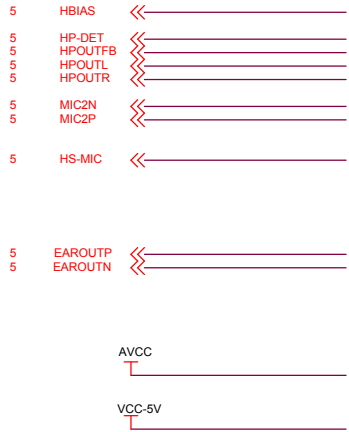
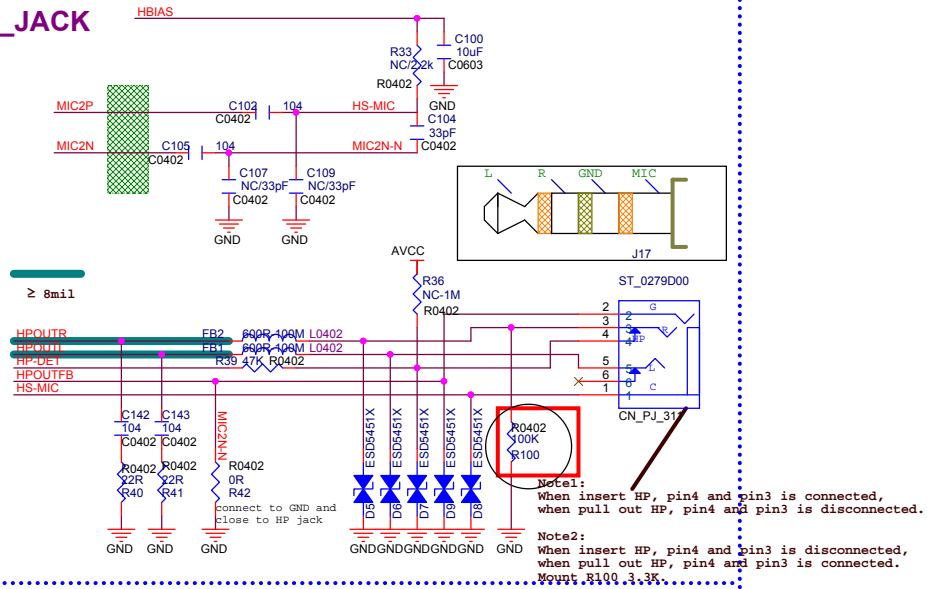


# NAND/eMMC



# AUDIO

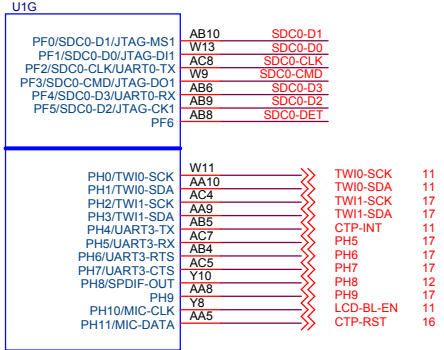
## HP\_JACK



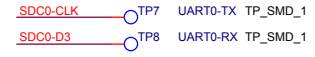
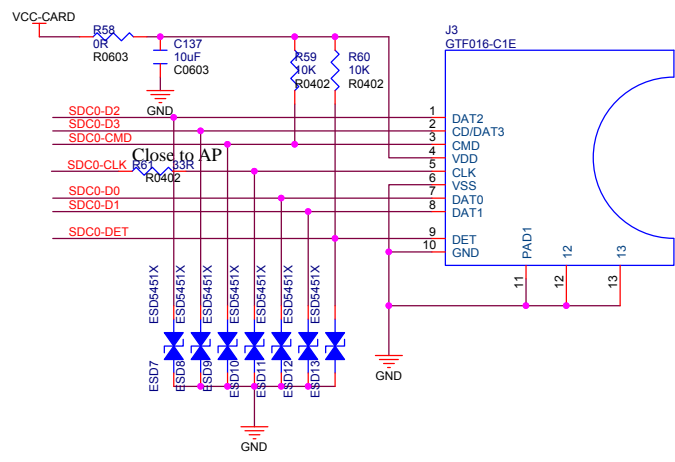
<i>Pine A64</i>	
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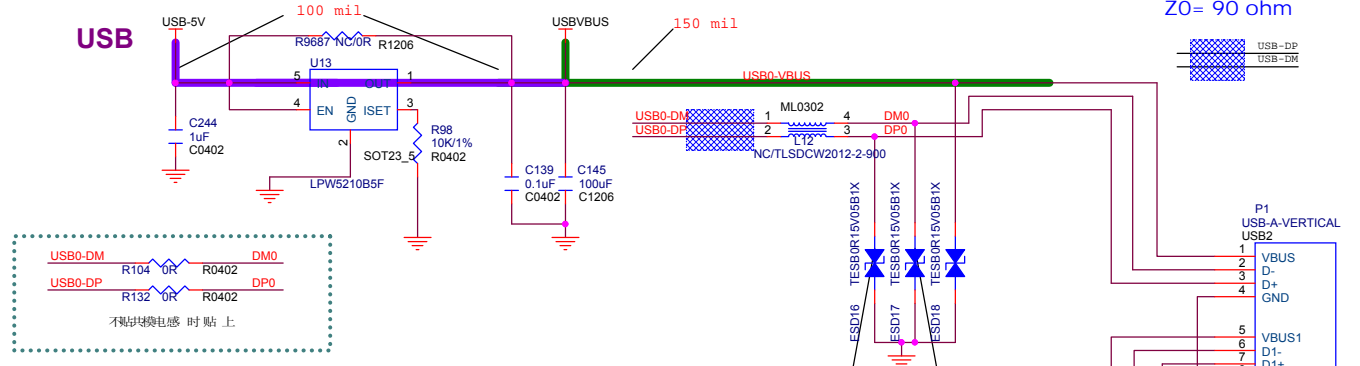
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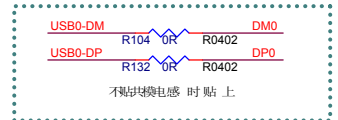
## T-CARD



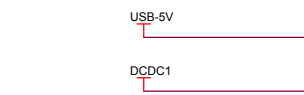
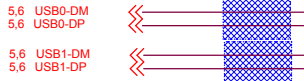
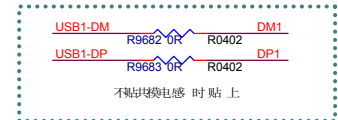
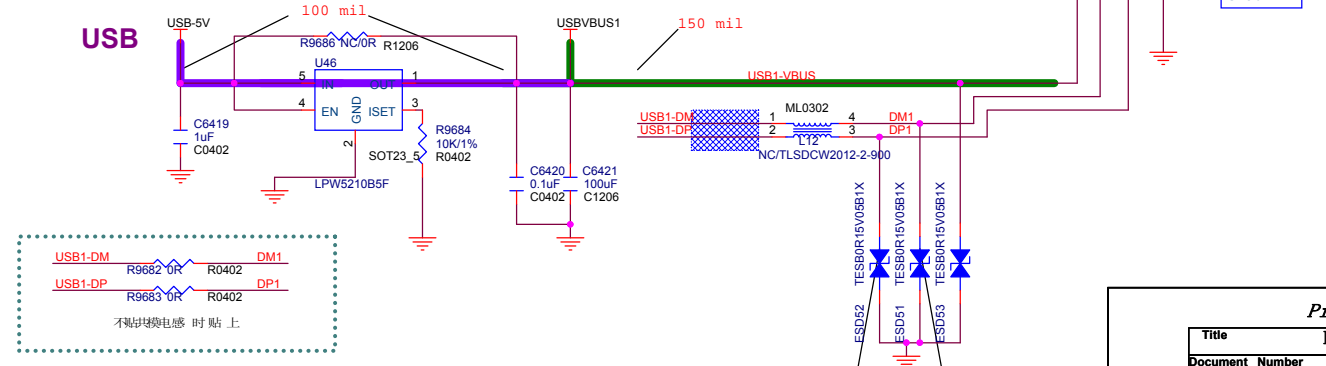
## USB



Differential pairs  
 ZO= 90 ohm

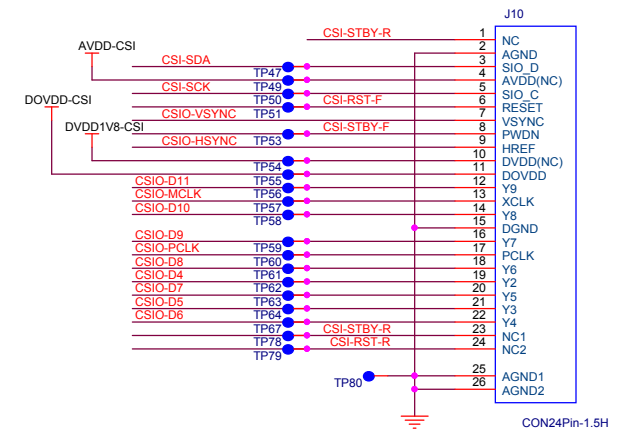
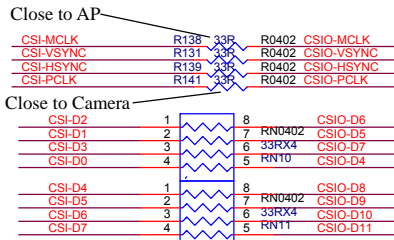
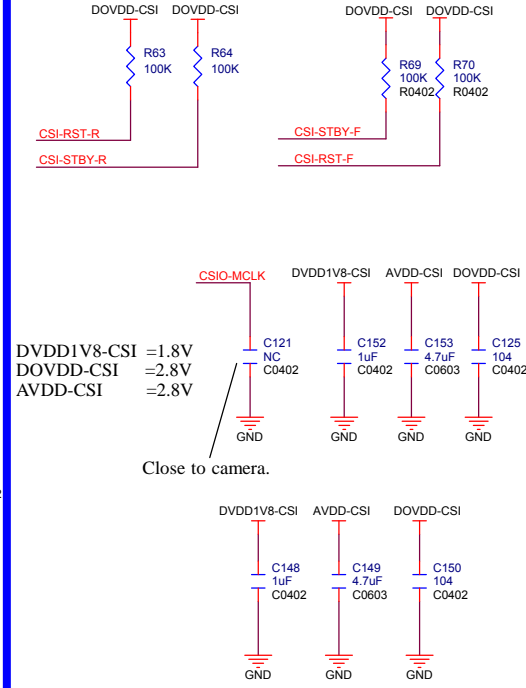
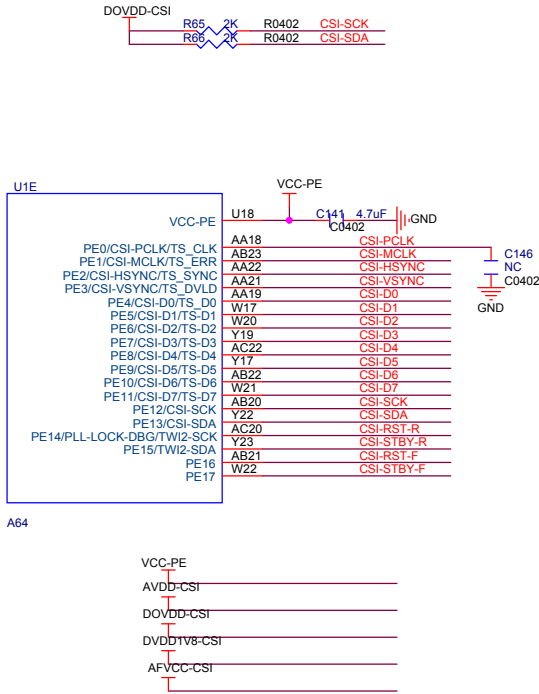


## USB

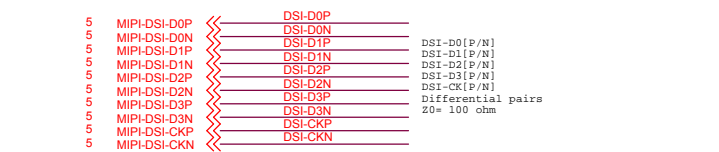
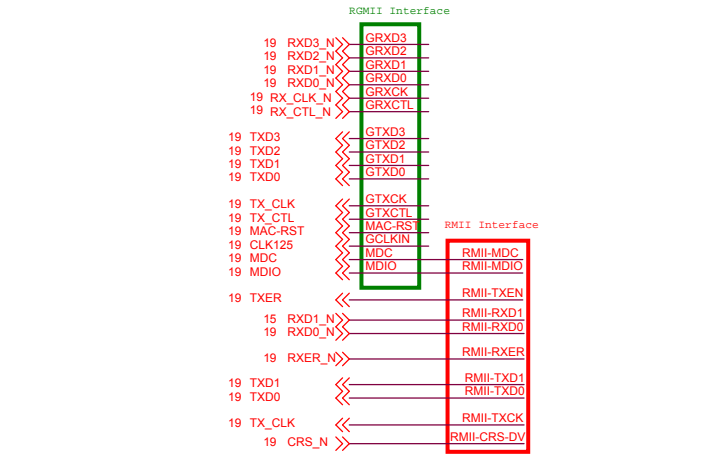
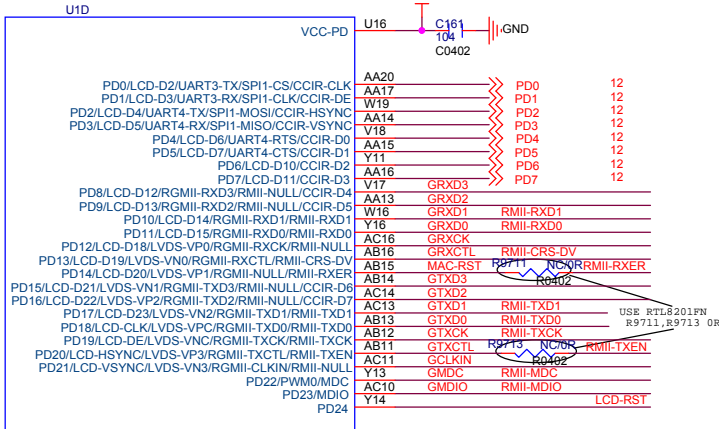


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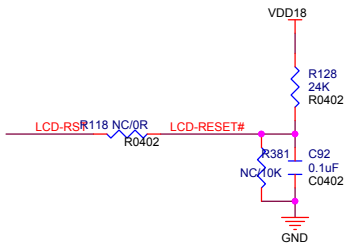
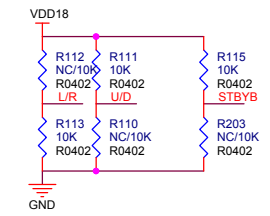
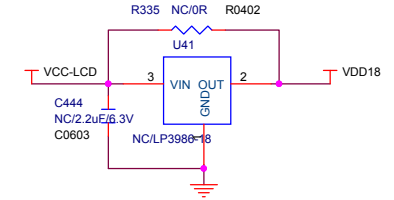
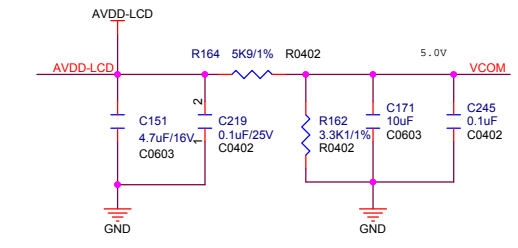
# CAM9F5



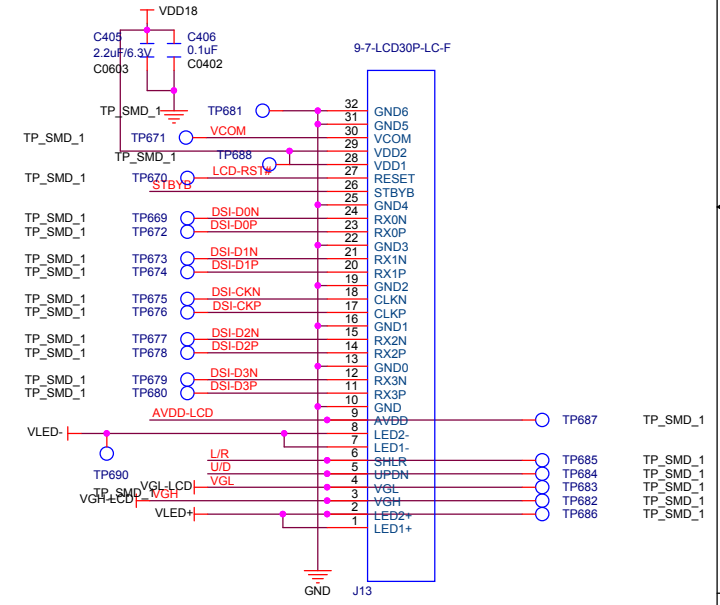
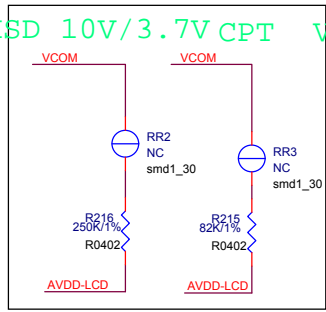
# LCD



# MIPI-LCD

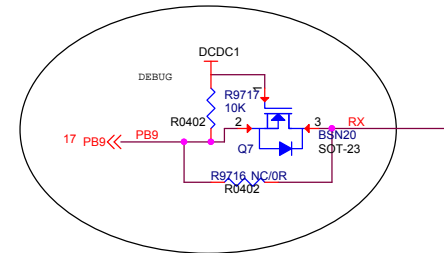
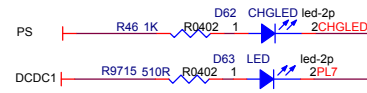
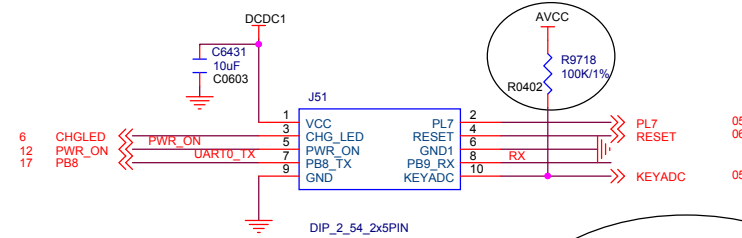
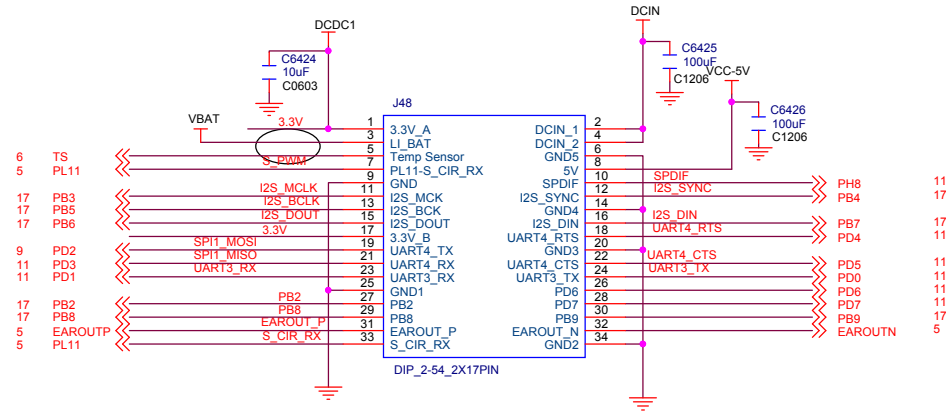


HSD 10V/3.7V CPT Vcom=4.3V



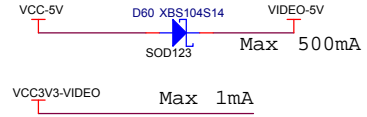
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Title	PINE A64+ 2GB
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# Euler bus

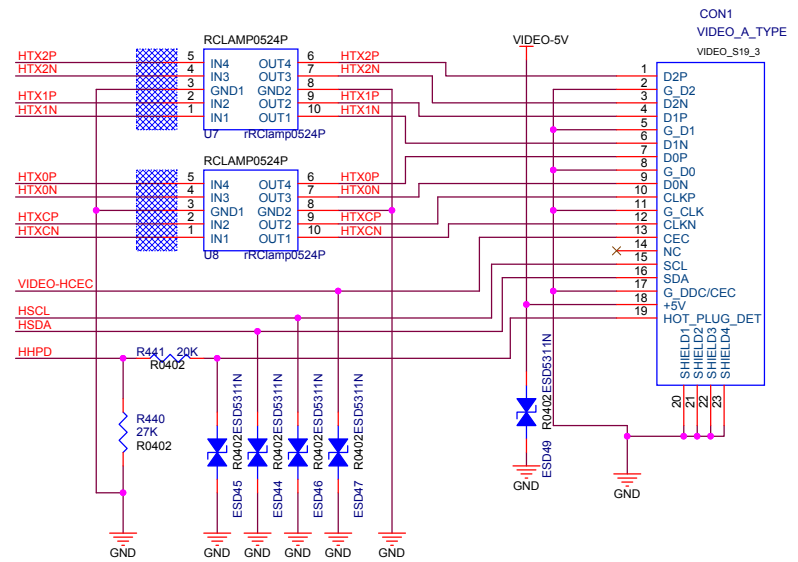
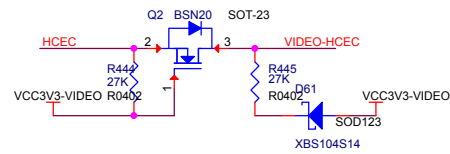
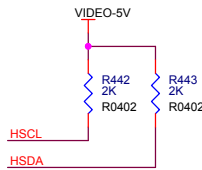


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# VIDEO

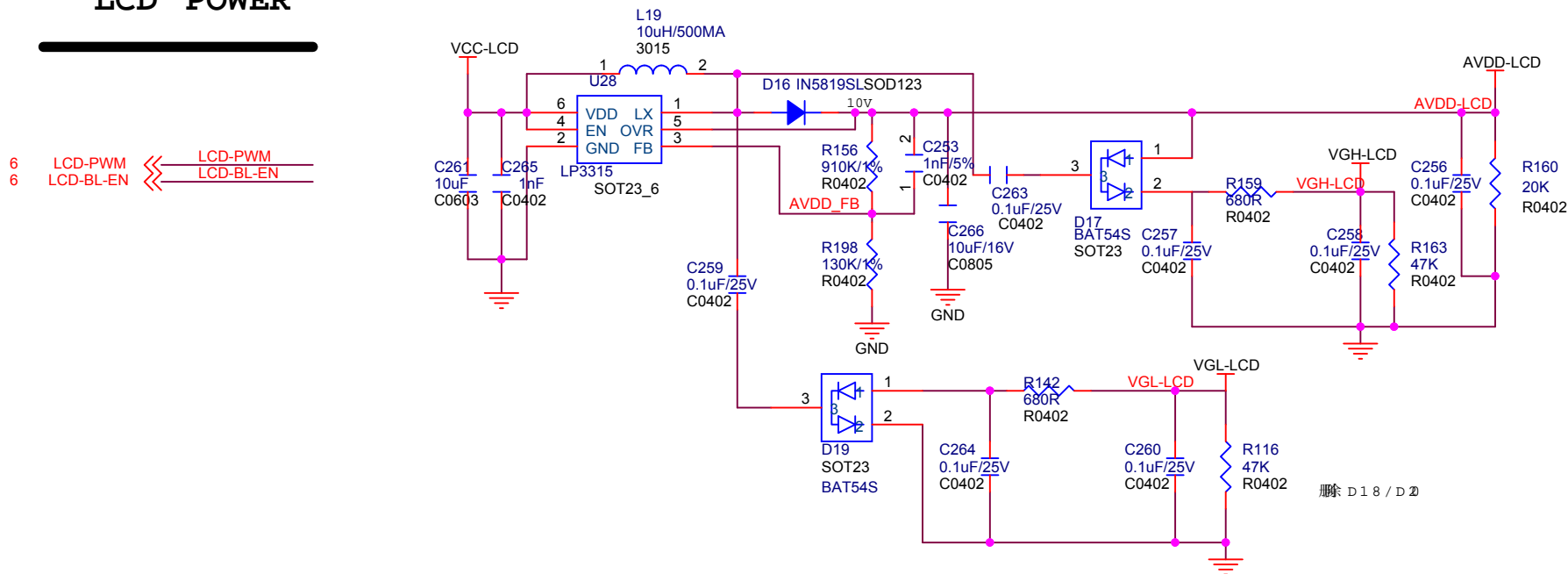


Differential pairs  
Z0= 100 ohm



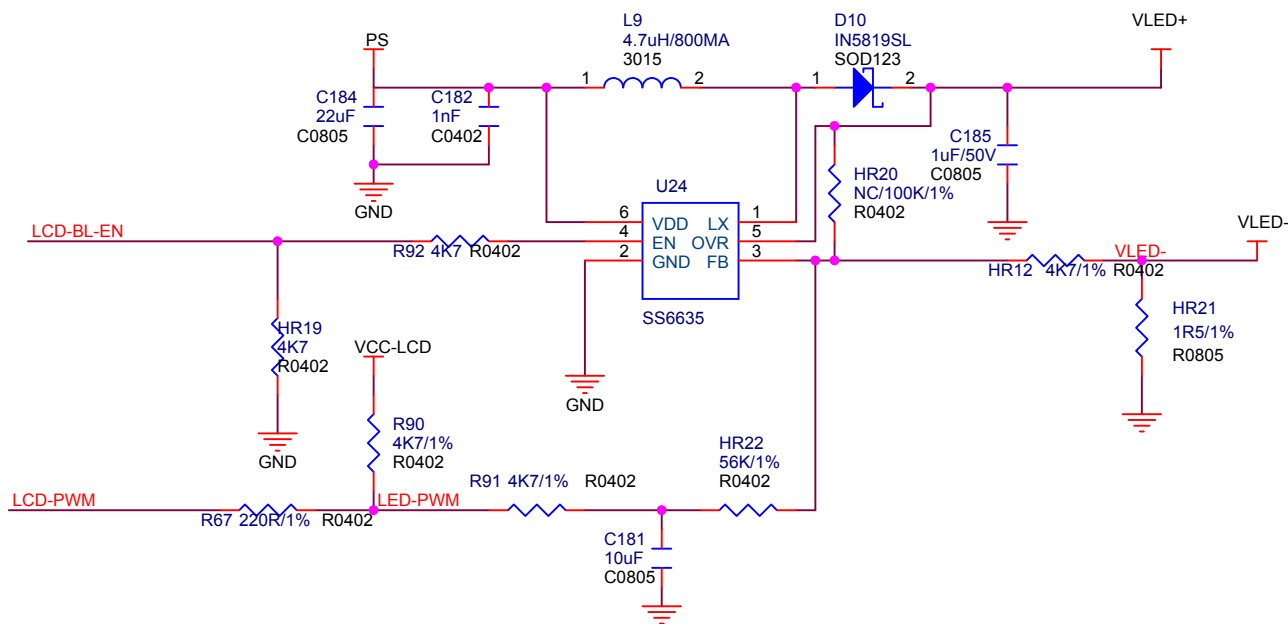
<i>Pine A64</i>	
Title	PINE A64+ 2GB
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# LCD POWER



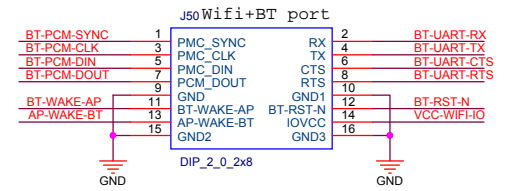
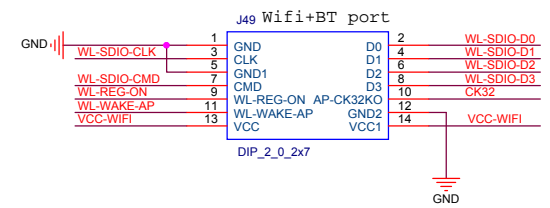
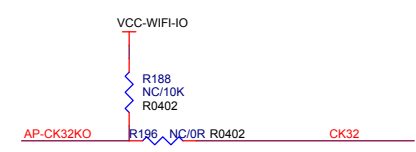
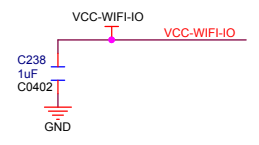
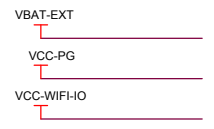
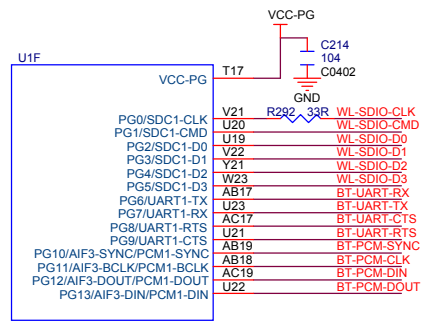
删除 D18 / D20

# Backlight



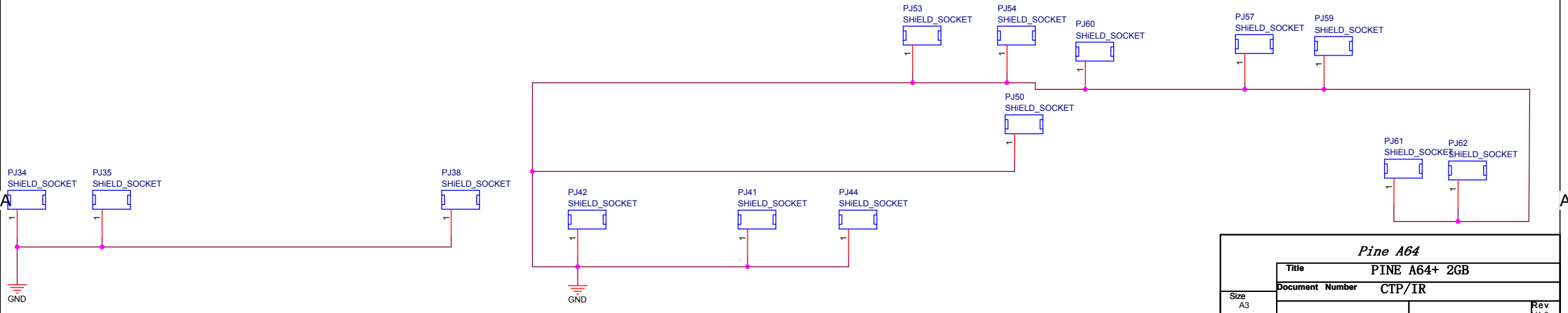
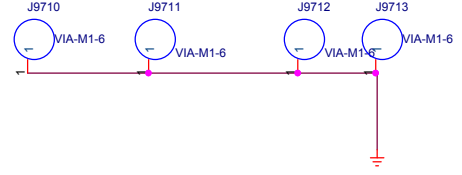
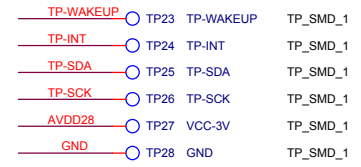
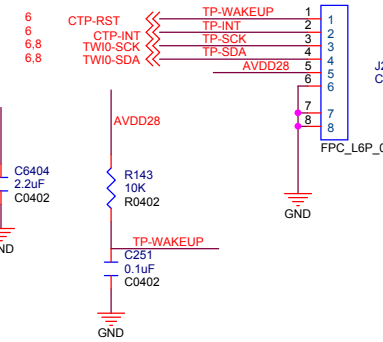
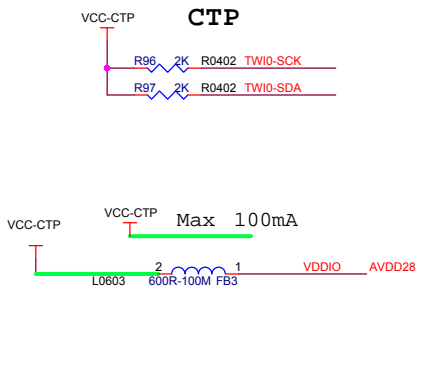
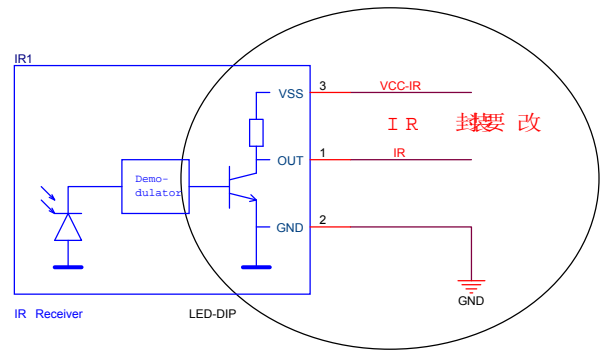
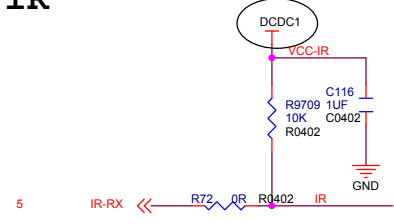
<i>Pine A64</i>	
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# WIFI+BT



# CTP

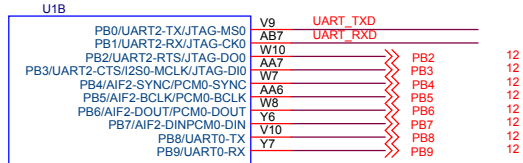
# IR



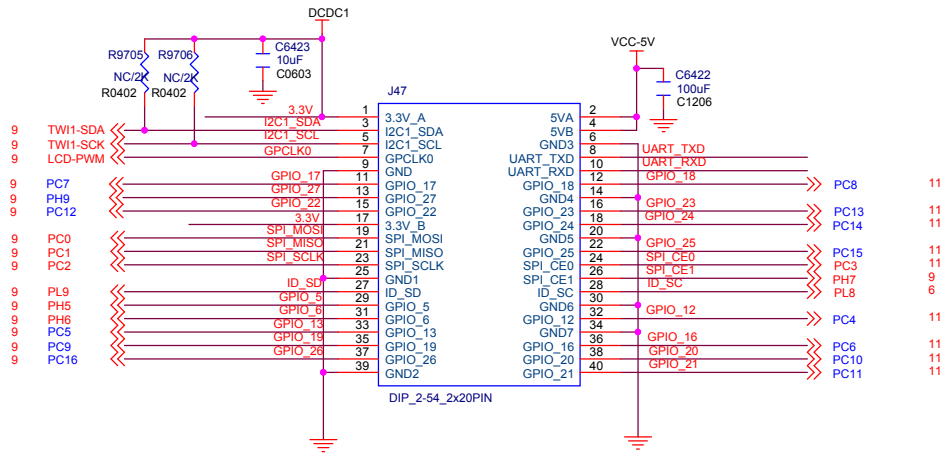
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Title <b>PINE A64+ 2GB</b>		
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# PI-2 bus

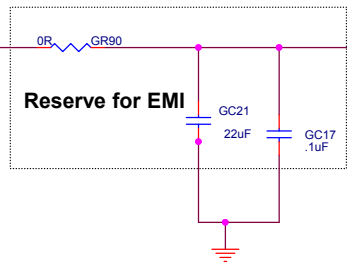


A64



<i>Pine A64</i>	
Title PINE A64+ 2GB	
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### GMAC-3V



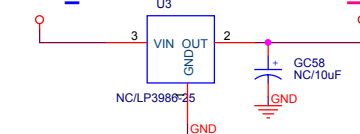
### PHY\_VDD33

### PHY\_AVDD33

### 3.3/2.5V RGMII Power

#### PHY\_VDD33

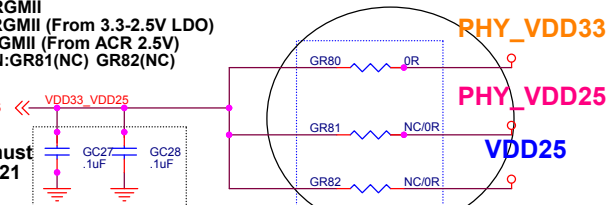
#### PHY\_VDD25



Reserve for 2.5V RGMII power (if MAC support 2.5V RGMII)

- R80 for 3.3V RGMII
- R81 for 2.5V RGMII (From 3.3-2.5V LDO)
- R82 for 2.5V RGMII (From ACR 2.5V)
- RTL8201FN/EN: GR81(NC) GR82(NC)

For EMI GC27, GC28 must be close to pin15 and pin21



RTL8211CN/D/E	GL1	C56	U10	GR65	GR66	GR122	GC41/GC57
Enable switching regulator	○	○	✗	○	✗	✗	○
Disable switching regulator	✗	✗	○	✗	○	○	✗

Note 1: The Trace length between GL1 and Pin 48 must be within 0.5 cm. GC40 and GC41 to G L1 must be within 0.5cm.

RTL8211D/8211CN: GC40 22uF(X5R)  
RTL8211E: GC40 4.7uF(X5R)



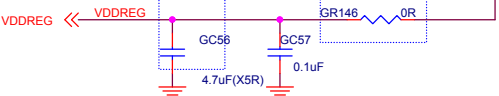
### GMAC-3V

### VDDREG

RTL8211D/8211CN: L1=4.7uH  
RTL8211E: L1=2.2uH

Note 2: The Trace length from C56, C57 to Pin 44,45 must be within 1 cm. The trace width from PHY\_AVDD33 to Pin 44,45 should >40mils

### PHY\_AVDD33

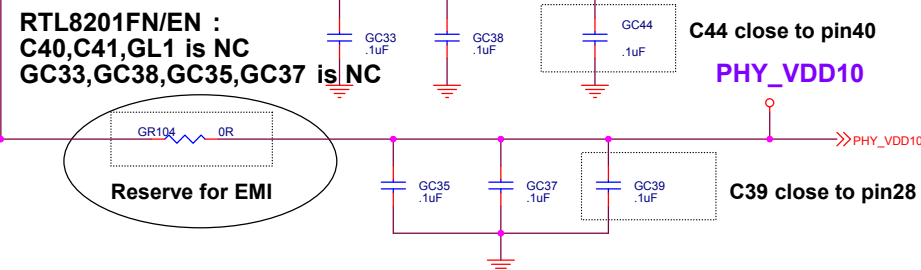


Isolation VDDREG and AVDD33  
RTL8201FN/EN: GC56(NC), GC57(NC), GR146(NC)  
RTL8211CN/8211D: GC56 22uF(X5R)  
RTL8211E: GC56 4.7uF(X5R)

### External Power Source

U10, GC69, GC68, GR122, GR120 and GR121 are only used by 8211CN/8211D/8211E application when switching regulator is disabled. For other applications, please remove them.

RESERVE

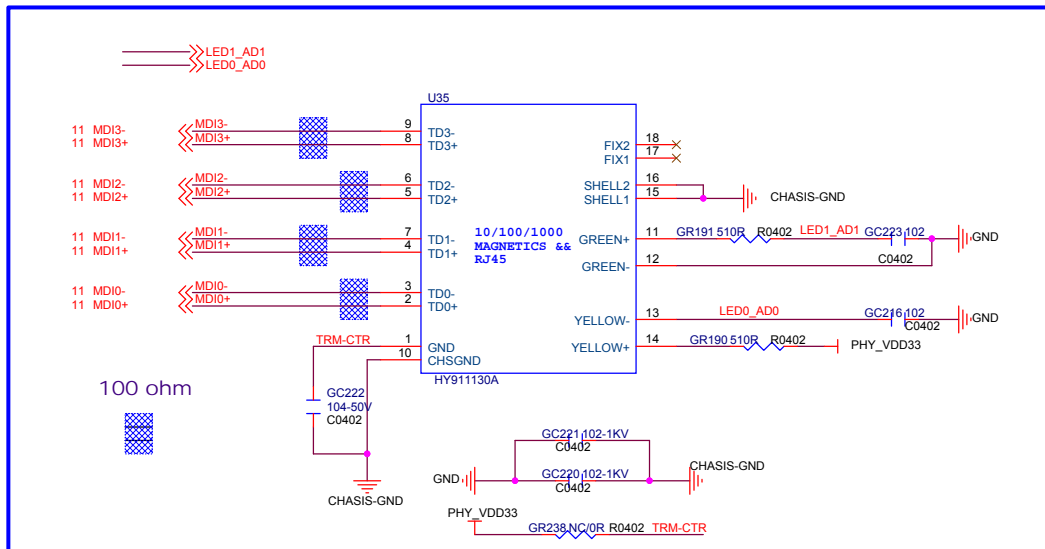


RTL8201FN/EN :  
C40, C41, GL1 is NC  
GC33, GC38, GC35, GC37 is NC

C44 close to pin40

Reserve for EMI

C39 close to pin28



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