


# LCFC Confidential

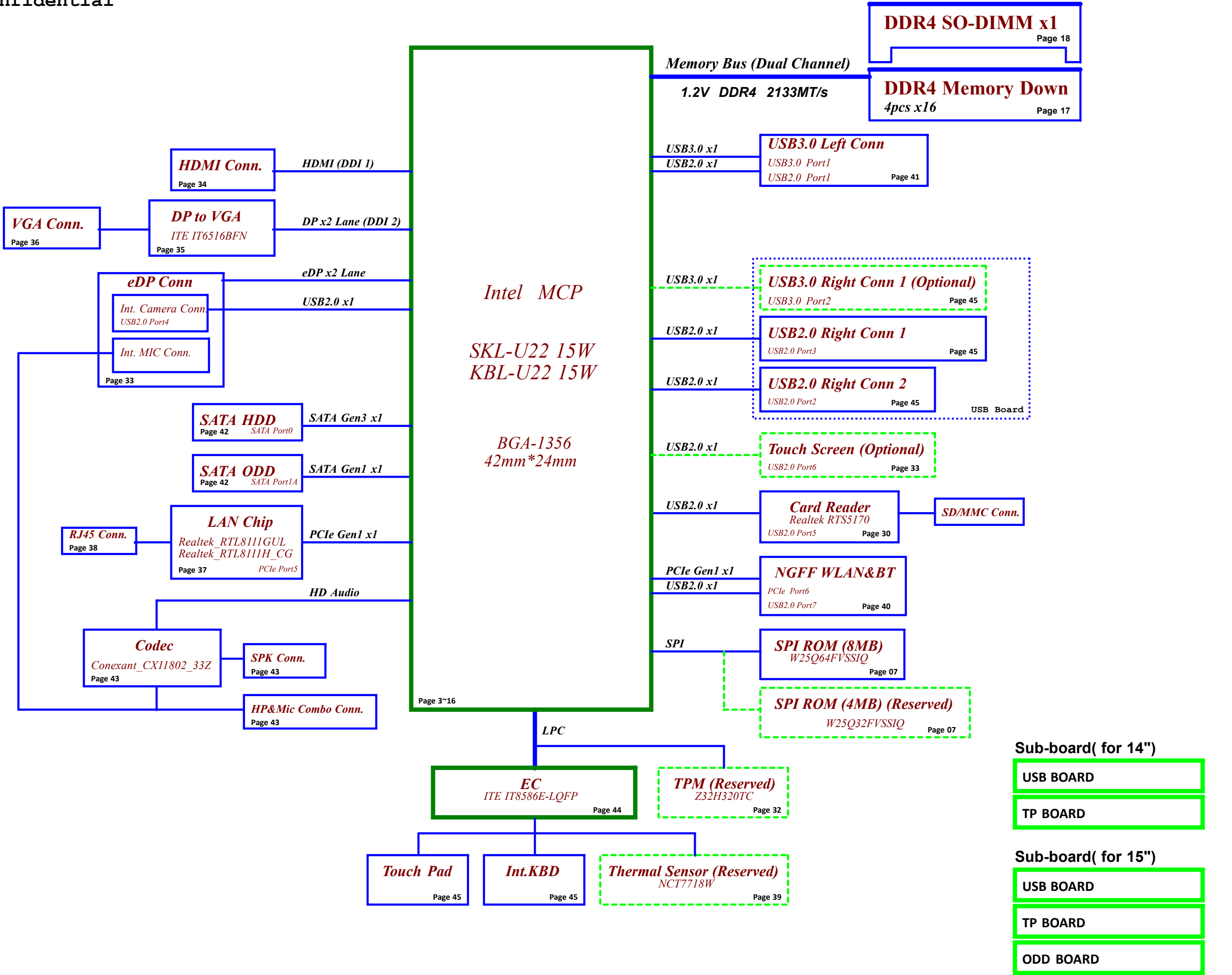
## CG411/CG511 MB Schematics Document

Intel Skylake-U22&U23/Kabylake-U22&U23 with DDR4

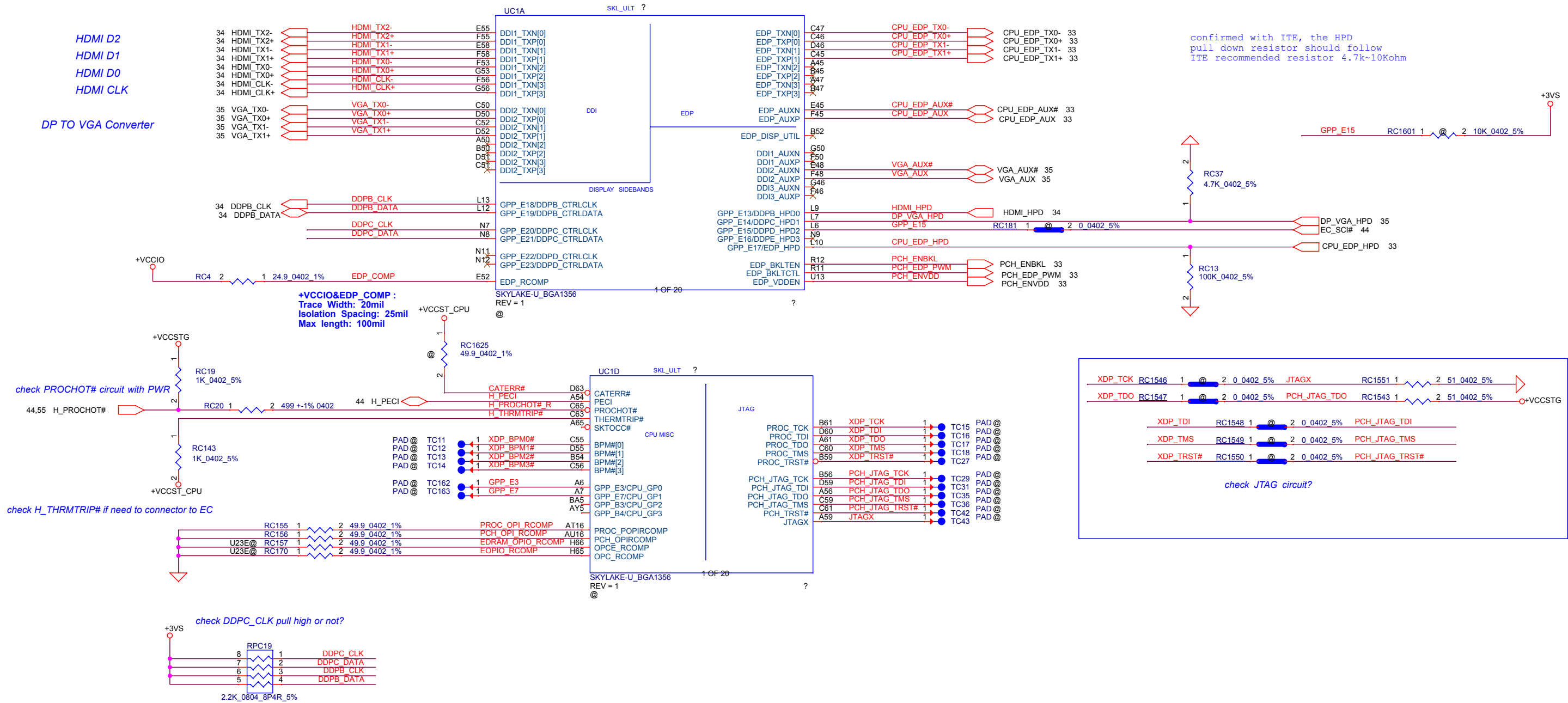
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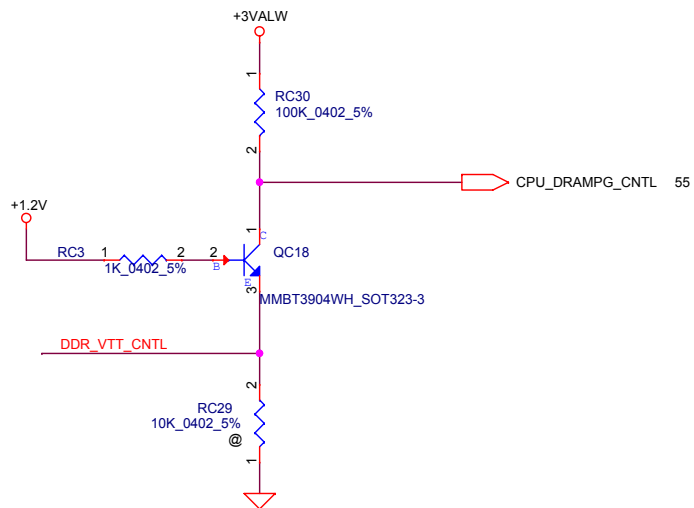
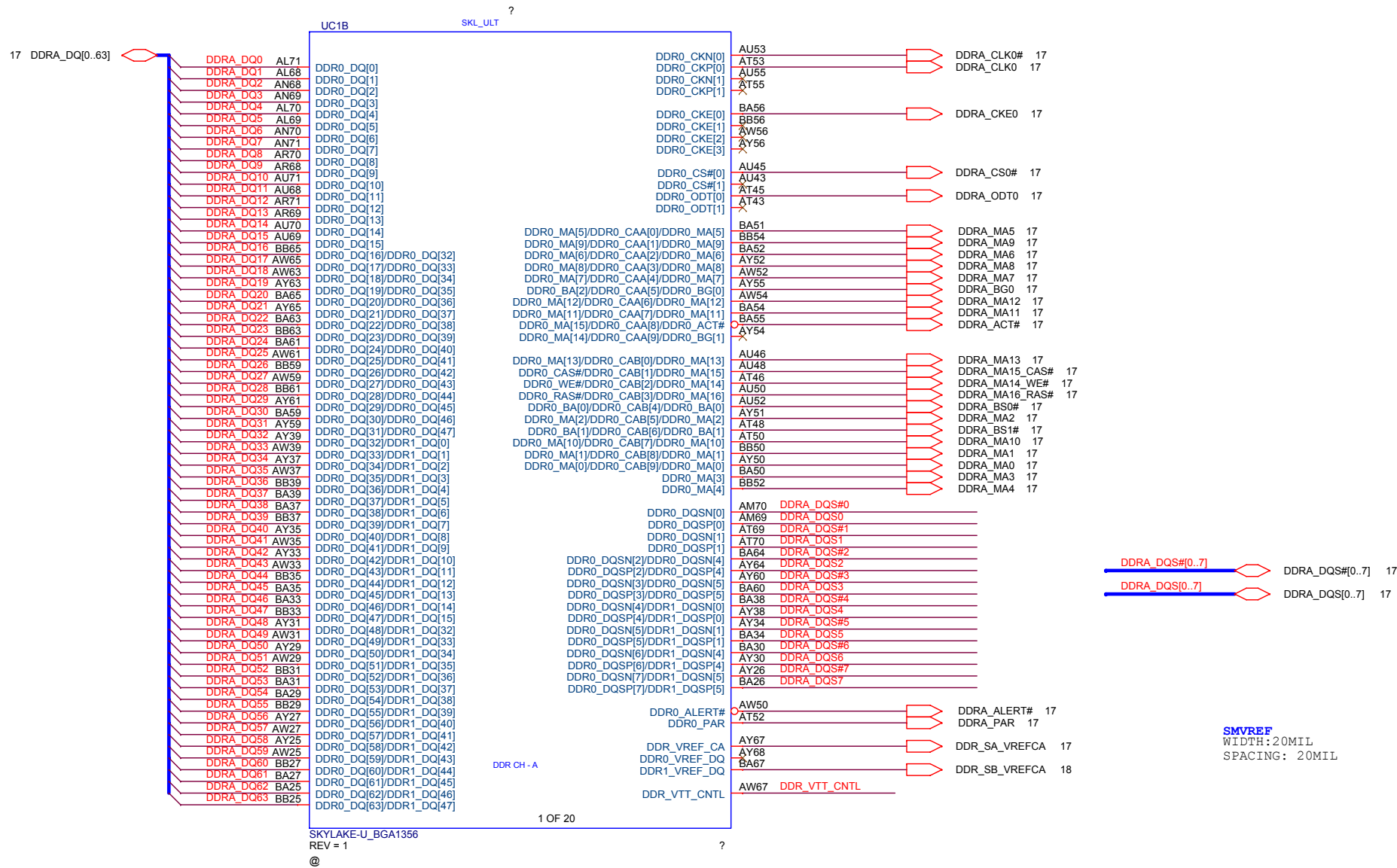
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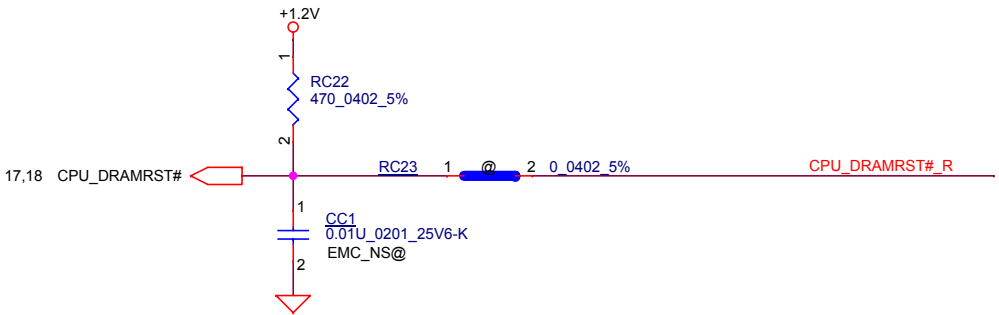
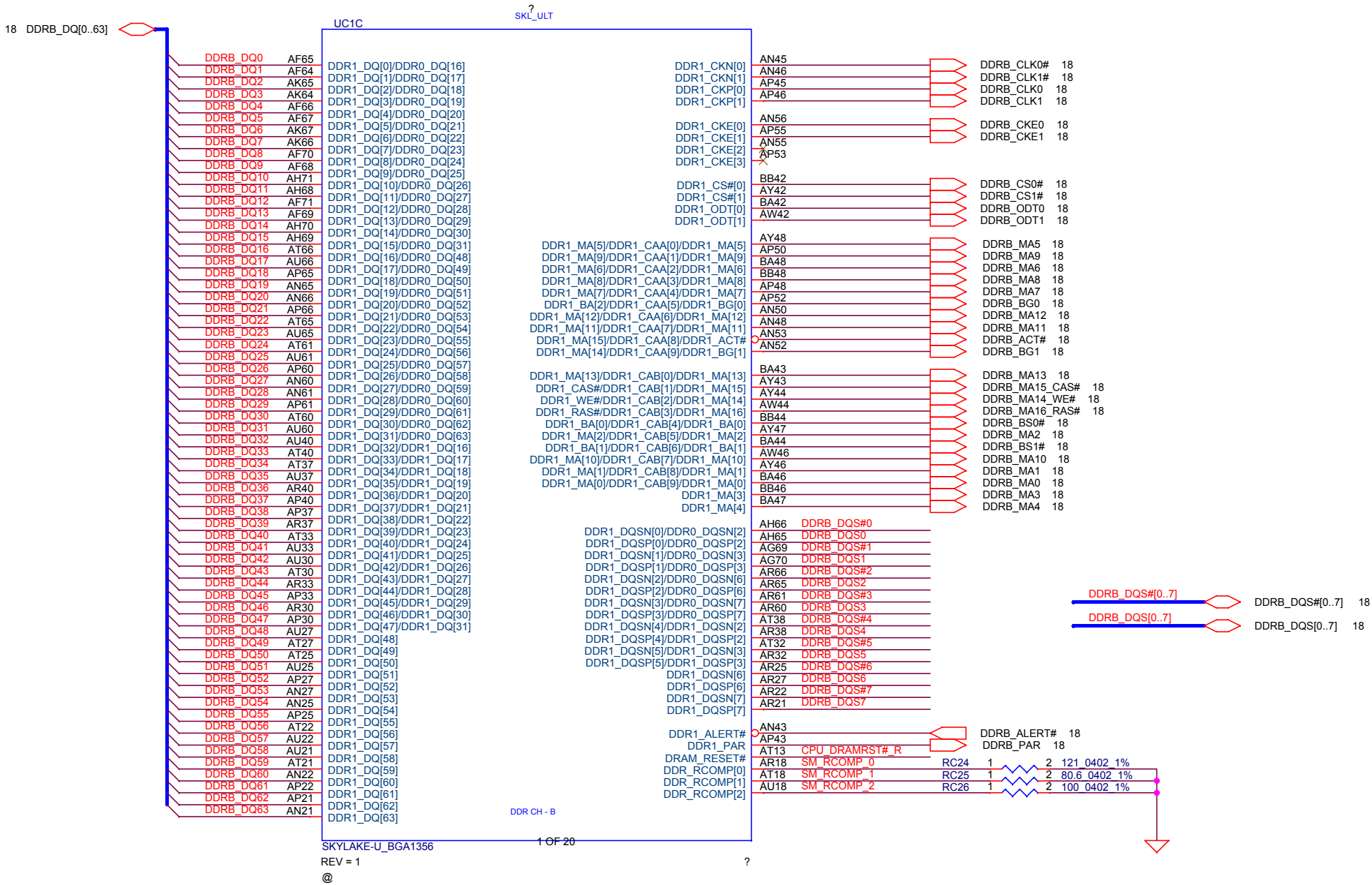




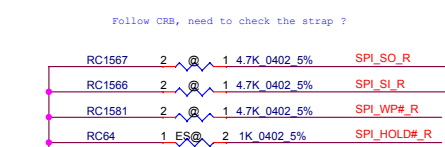
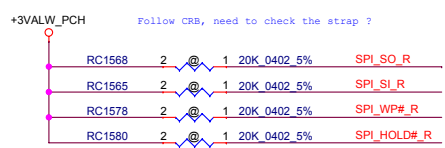
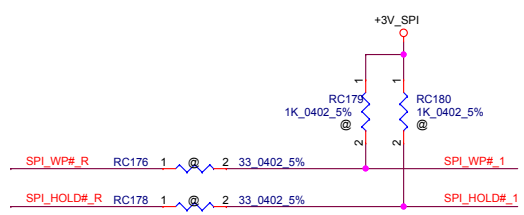
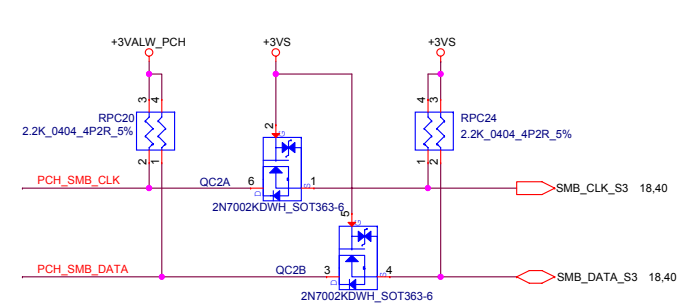
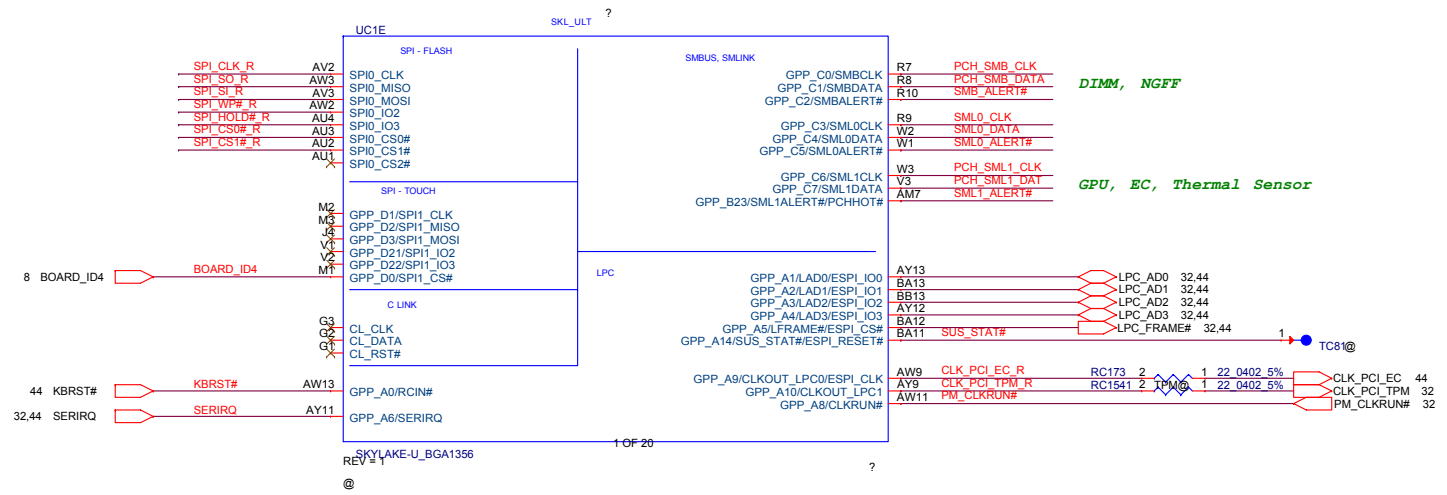
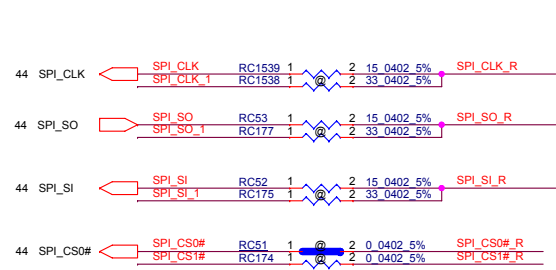


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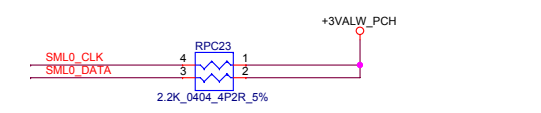
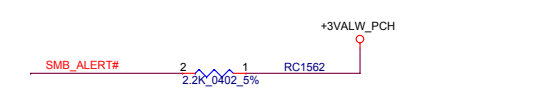
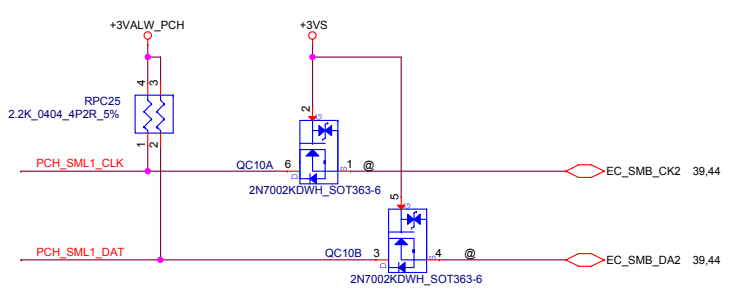
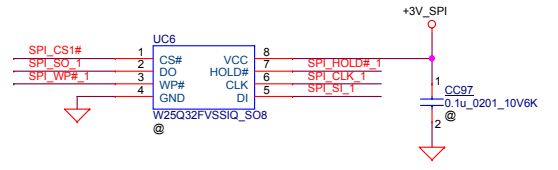
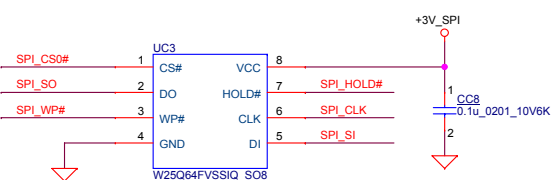
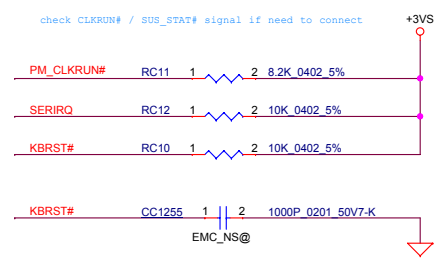
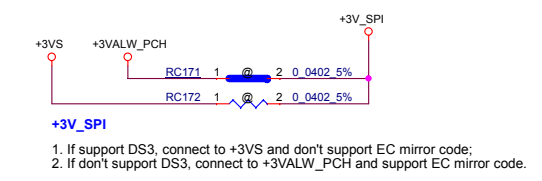




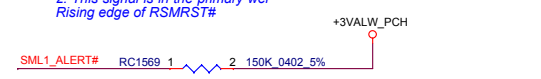




Based on WW36 SKL U&Y WOM, RC64 populated, and RC61 de-populated for SKL U ES sample. In this case, customers must ensure that the SPI flash device on the platform has HOLD functionality disabled by default.

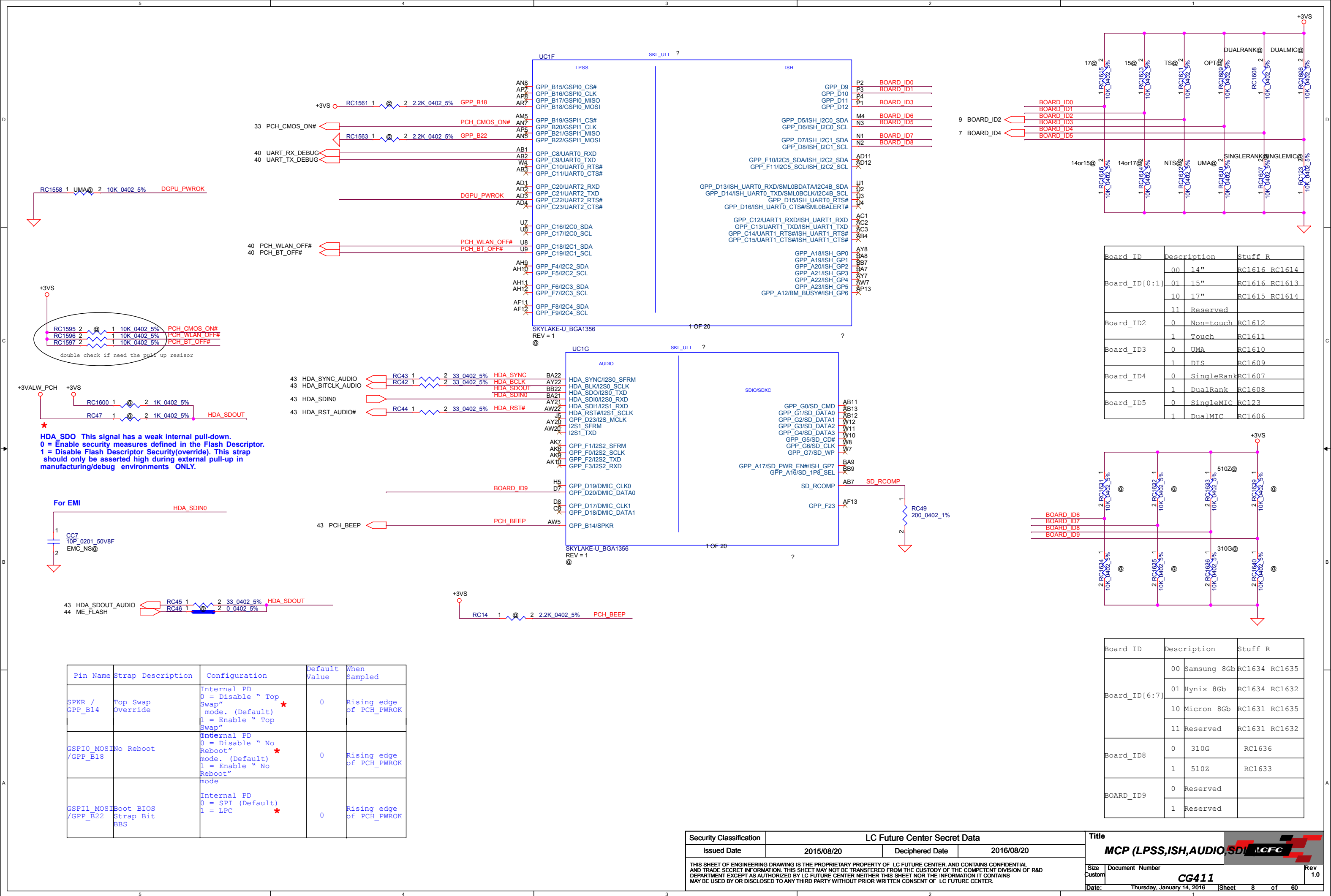


This signal has a weak internal pull-down.  
0 = LPC is selected for EC. (Default)  
1 = eSPI is selected for EC.  
Notes:  
1. The internal pull-down is disabled after RSMRST# de-asserts.  
2. This signal is in the primary wel  
Rising edge of RSMRST#



To enable Direct Connect Interface (DCI), a 150K pull up resistor will need to be added to PCHHOT# pin. This pin must be low during the rising edge of RSMRST# (Refer to WWS2\_MOW)

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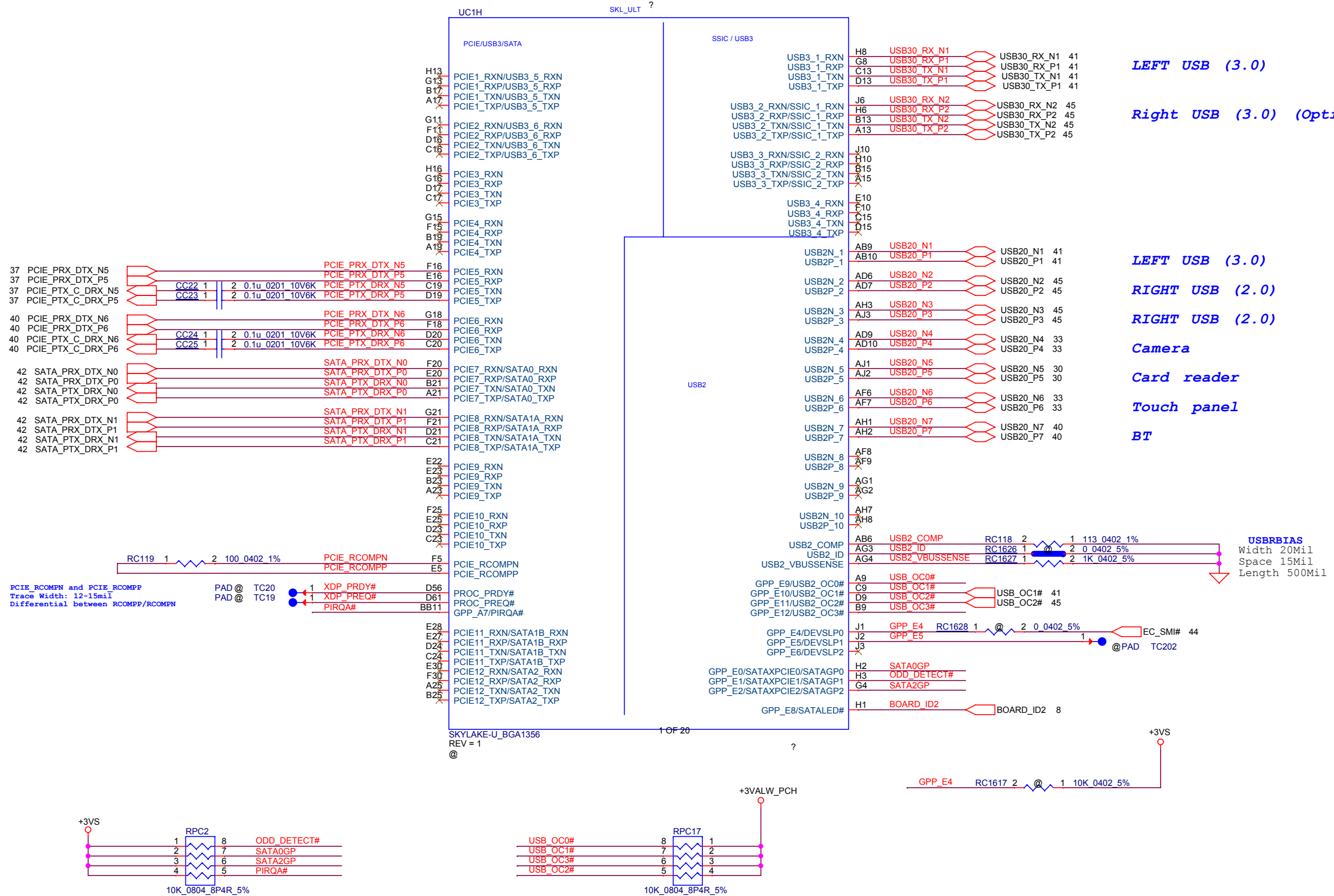
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WLAN

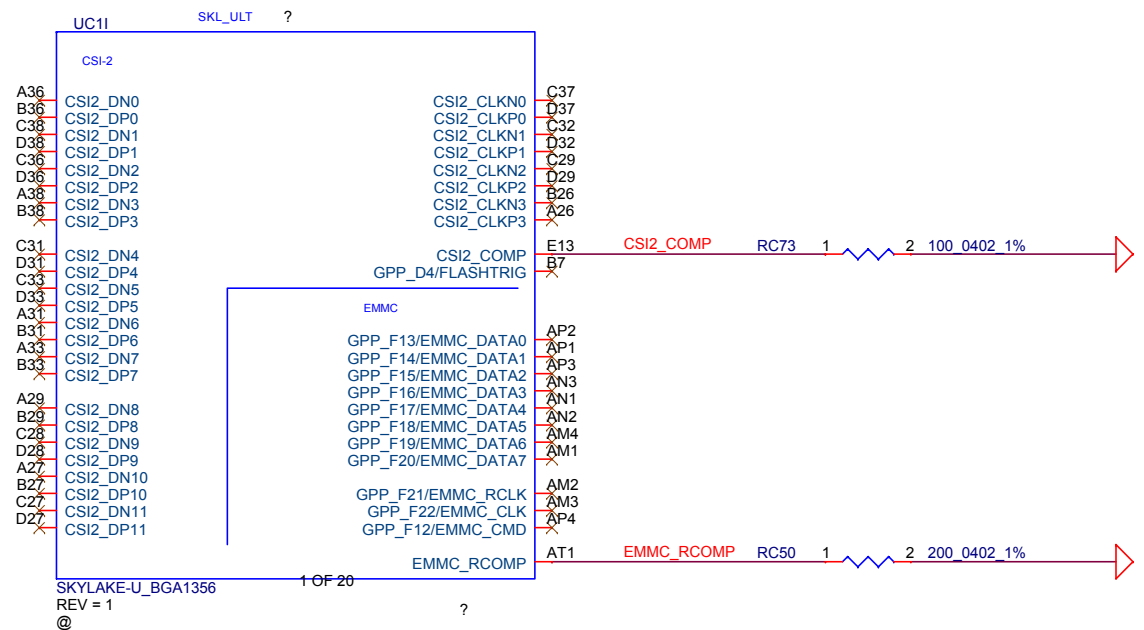
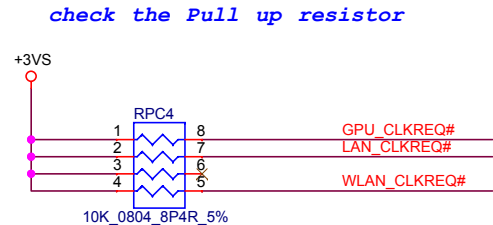
SATA HDD

SATA ODD

DGPU



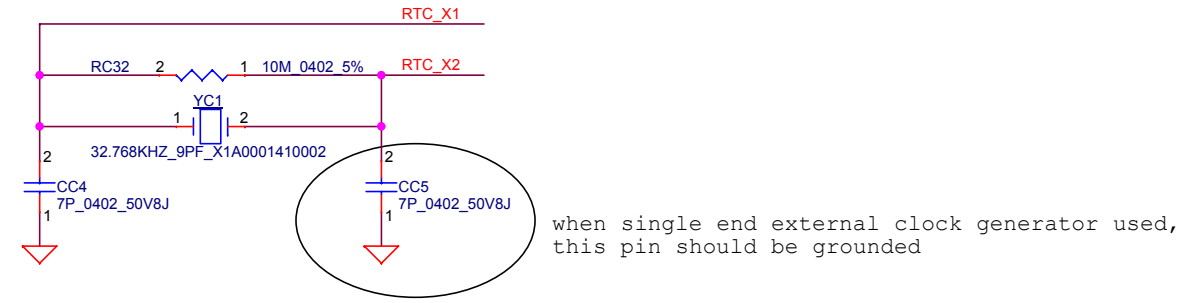
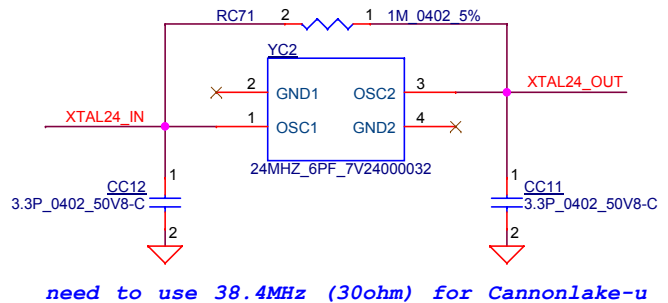
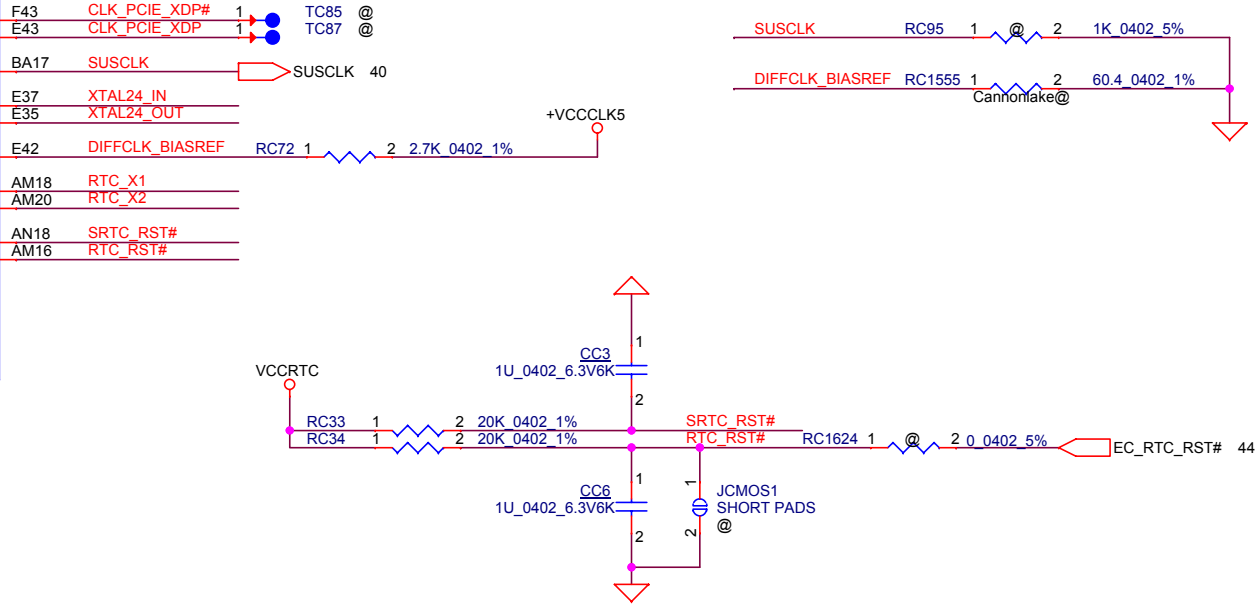
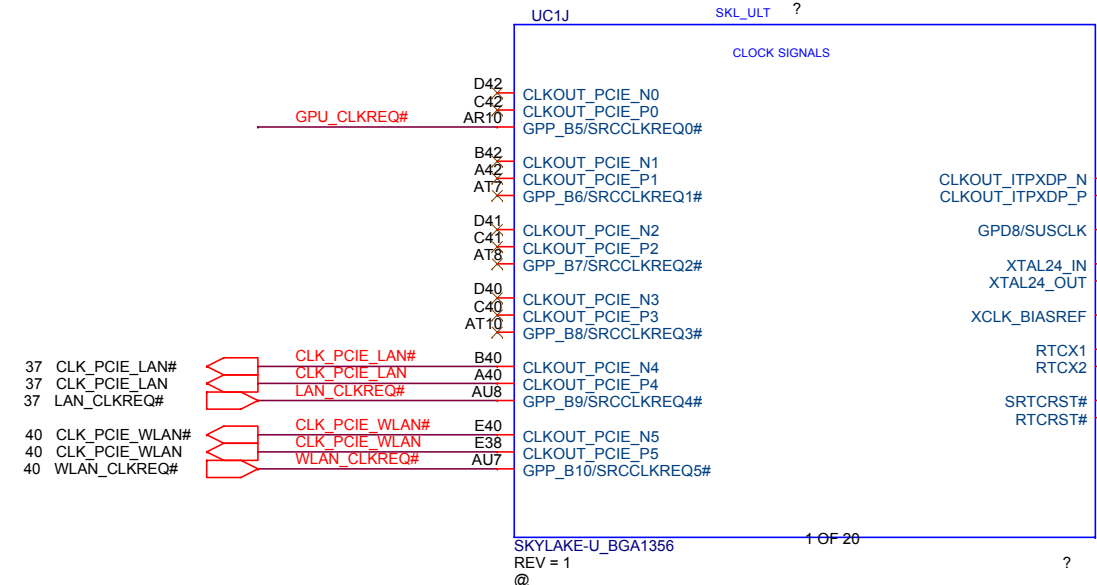
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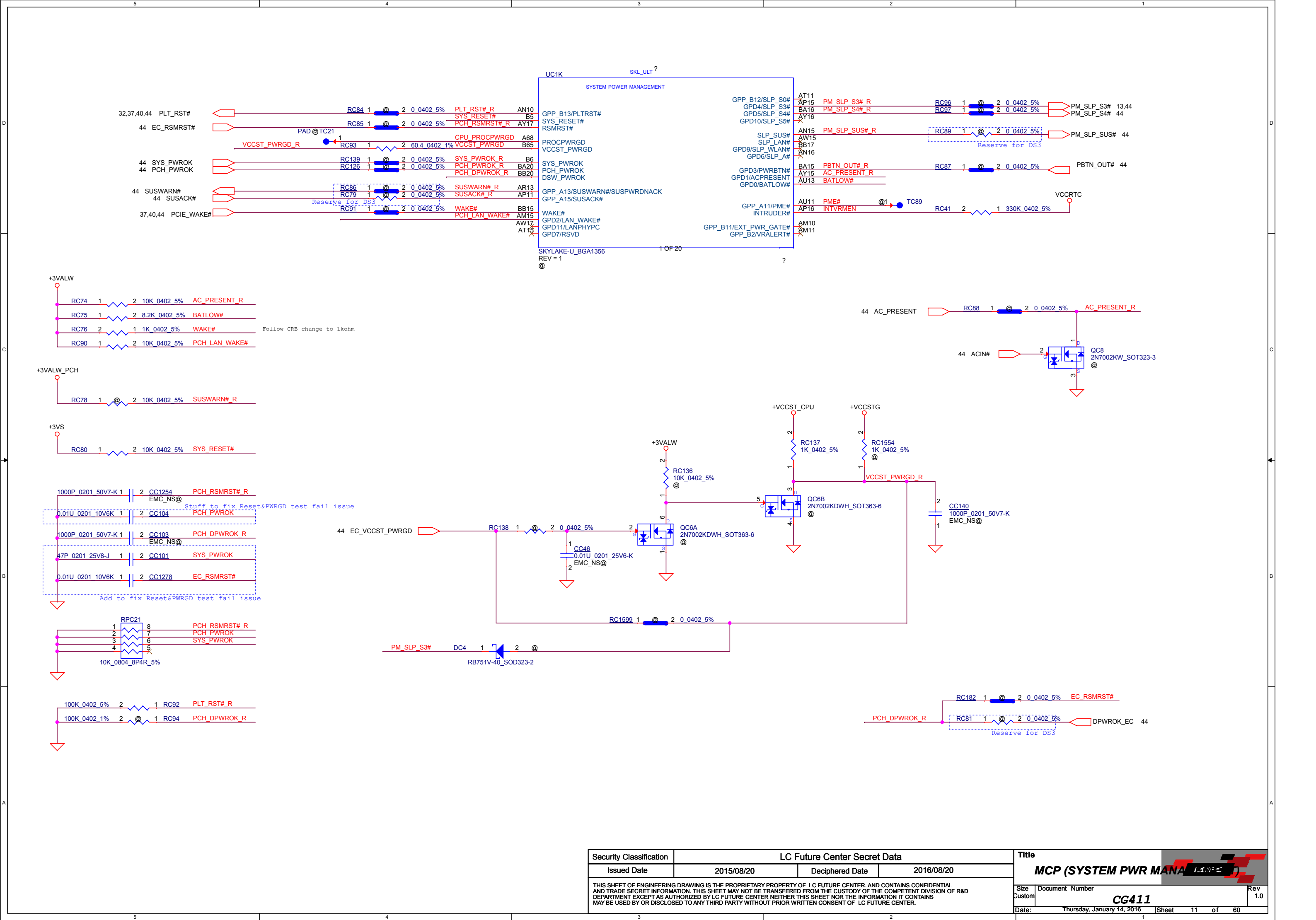


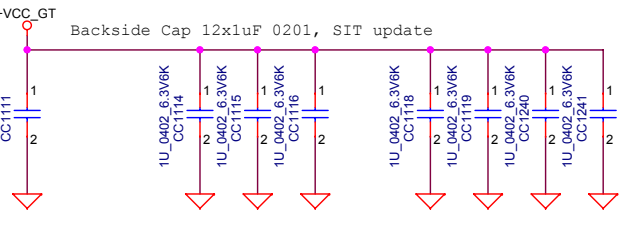
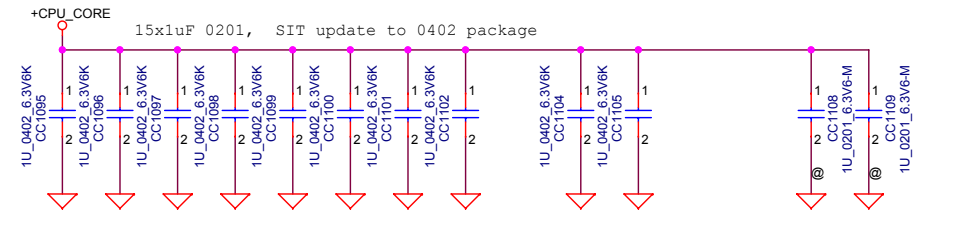
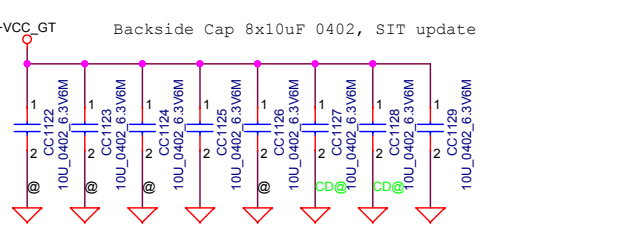
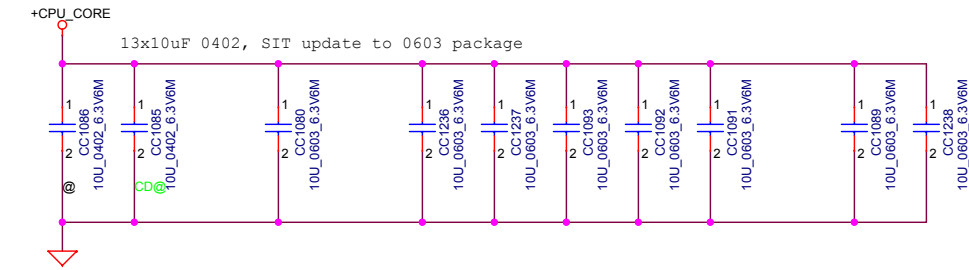
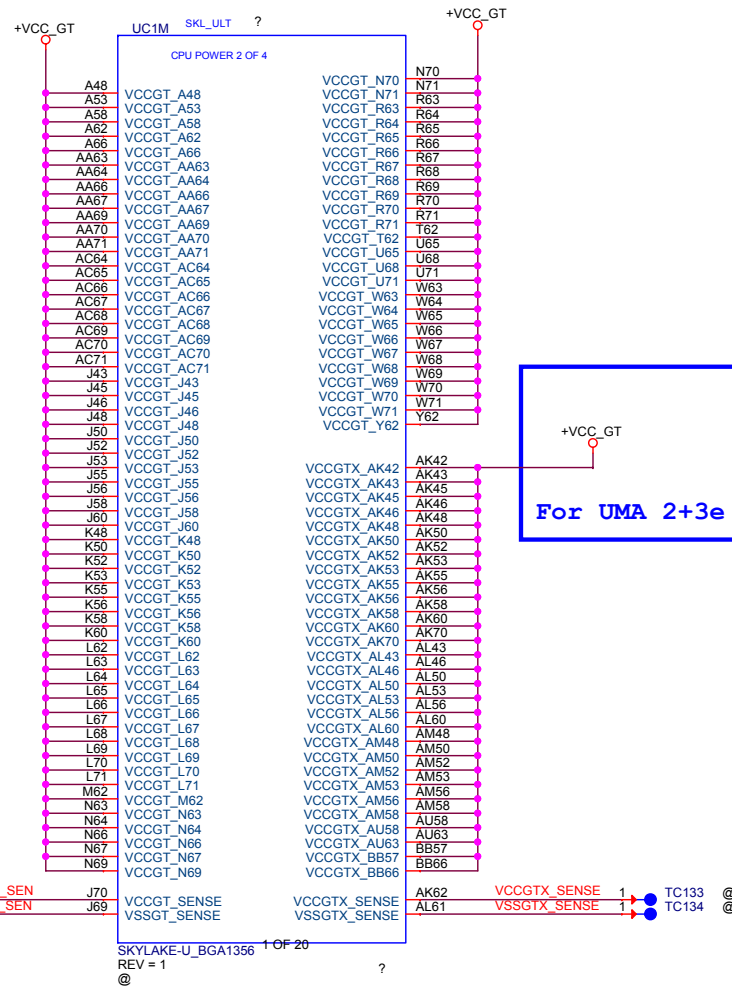
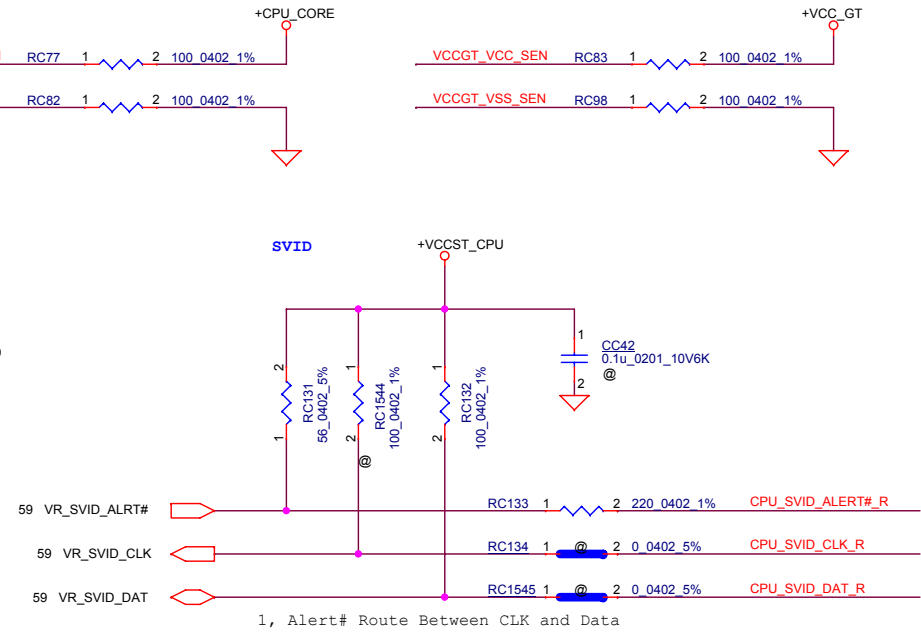
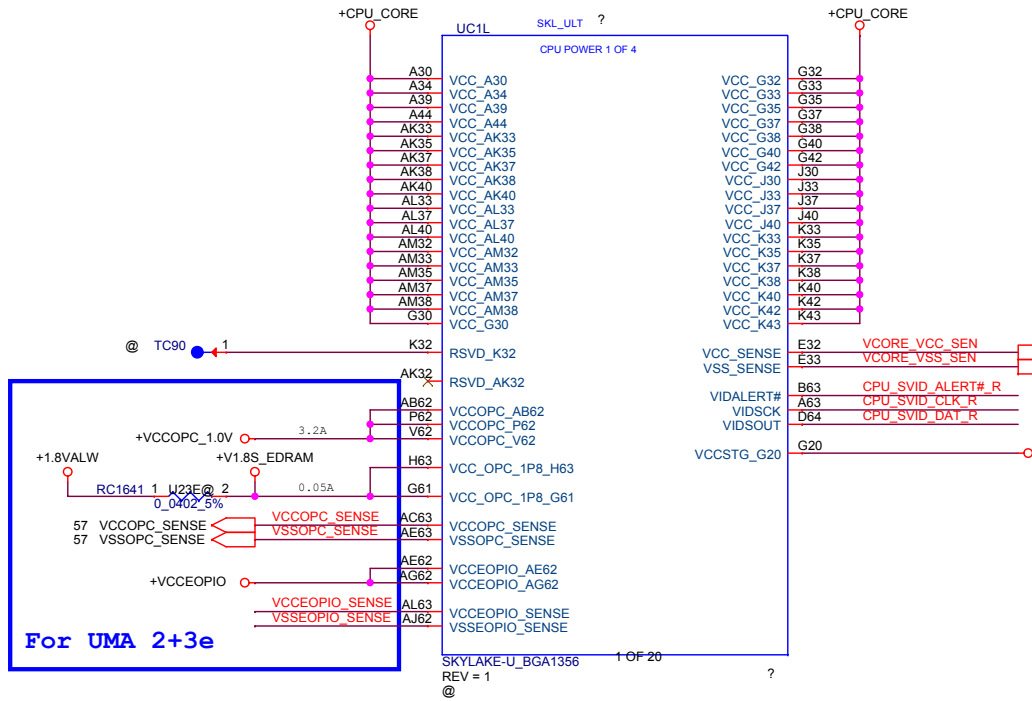
PCIE CLK0 DGPU

PCIE CLK4 LAN

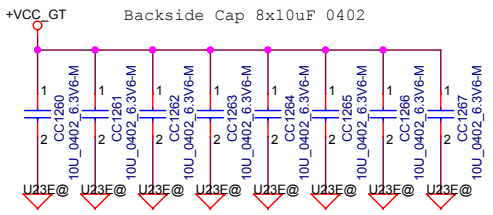
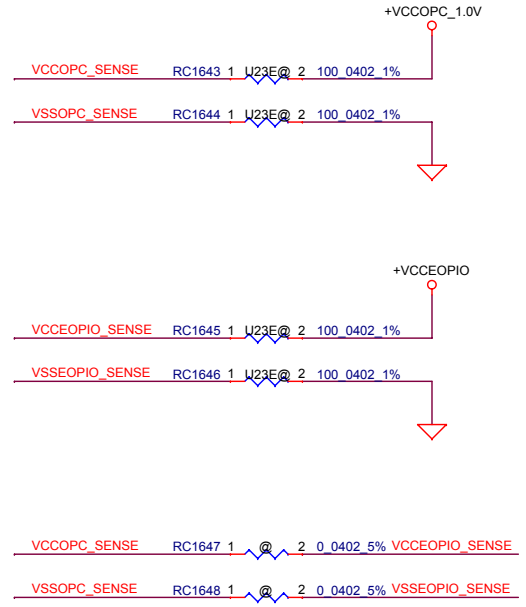
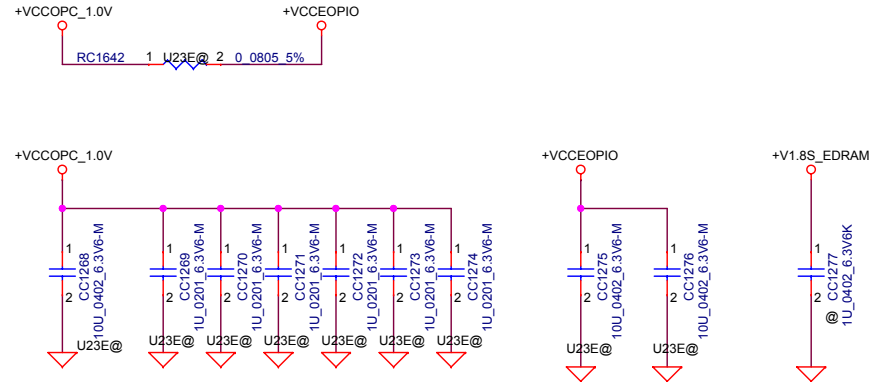
PCIE CLK5 WLAN




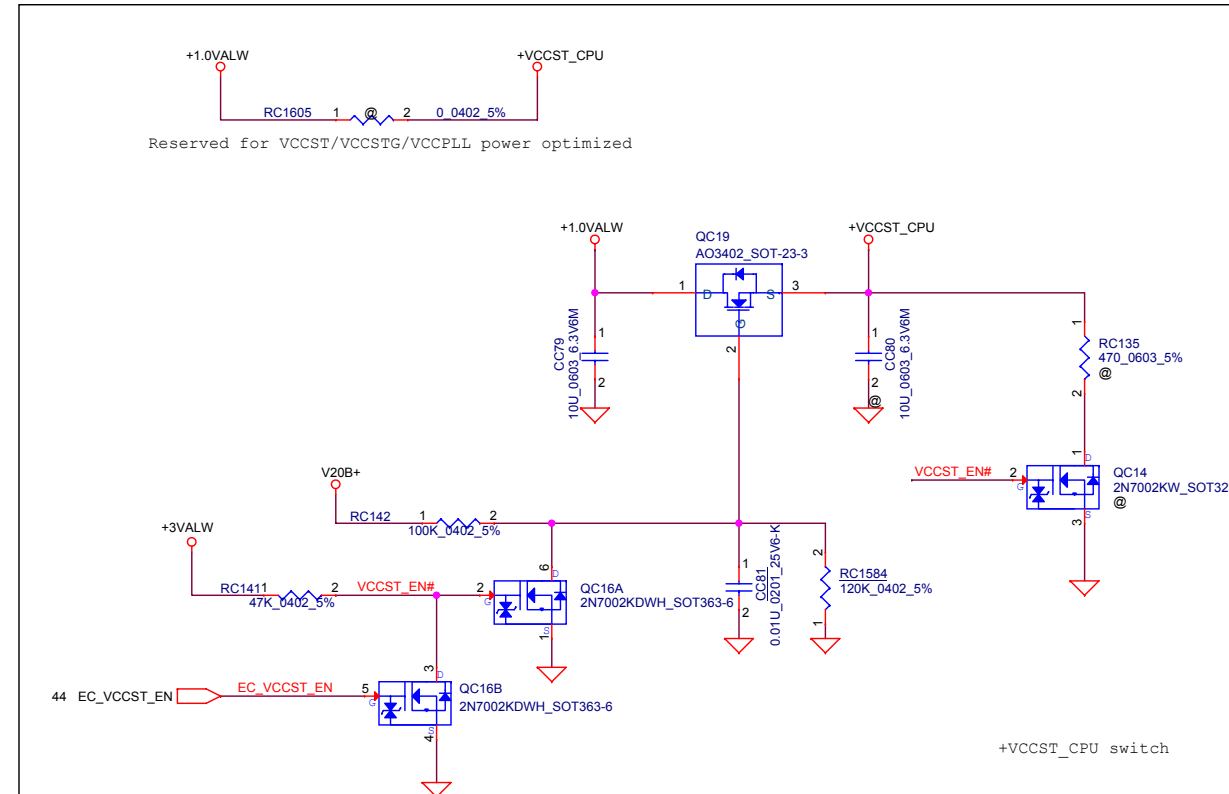
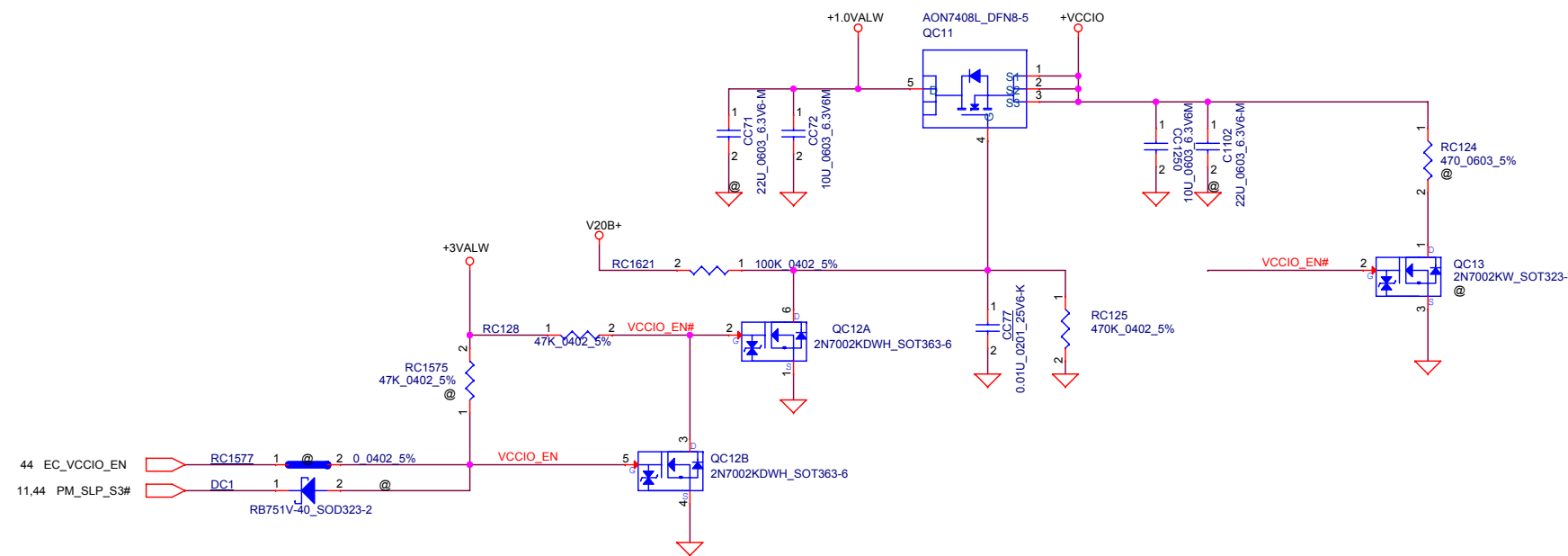
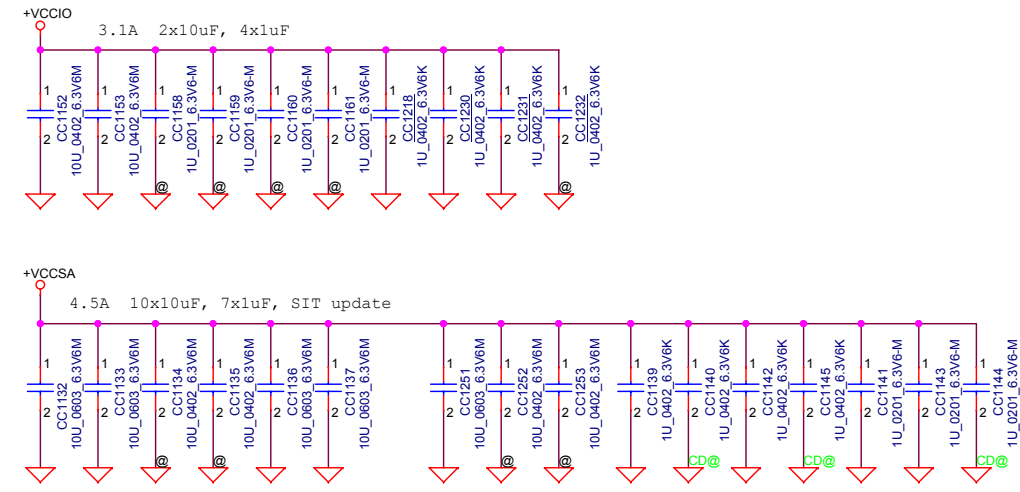
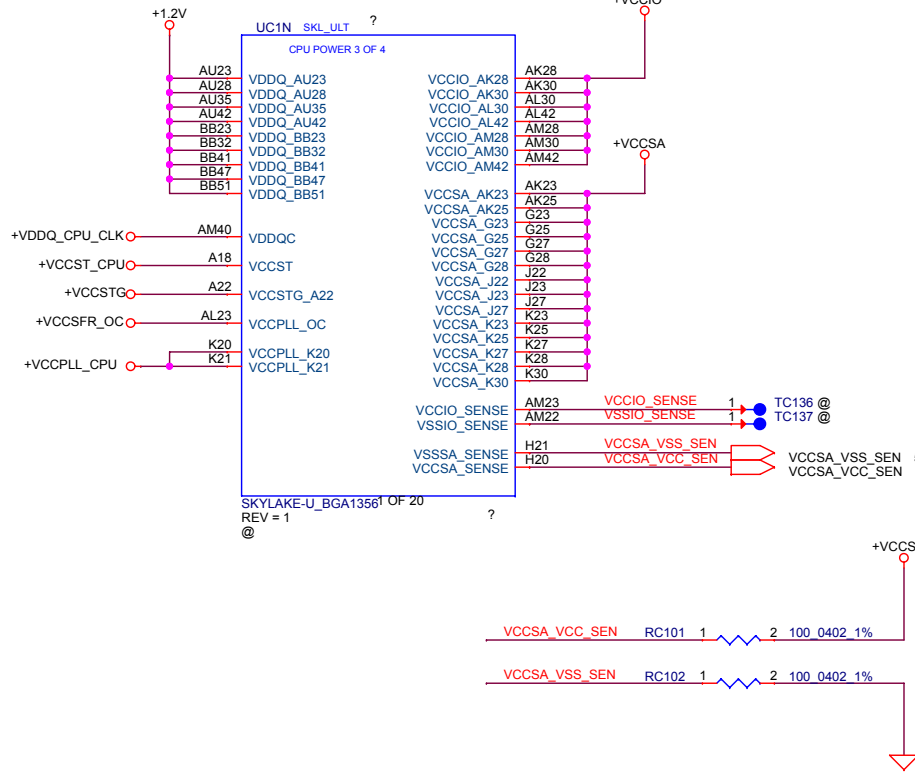
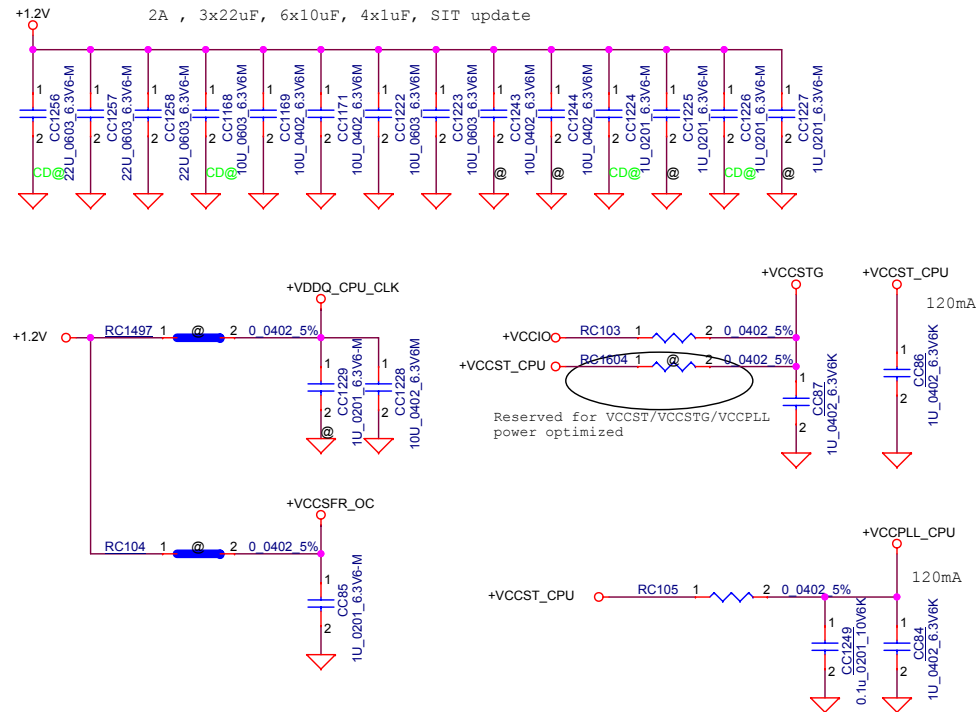





For UMA 2+3e

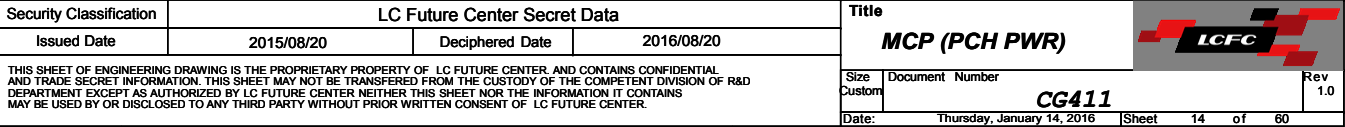


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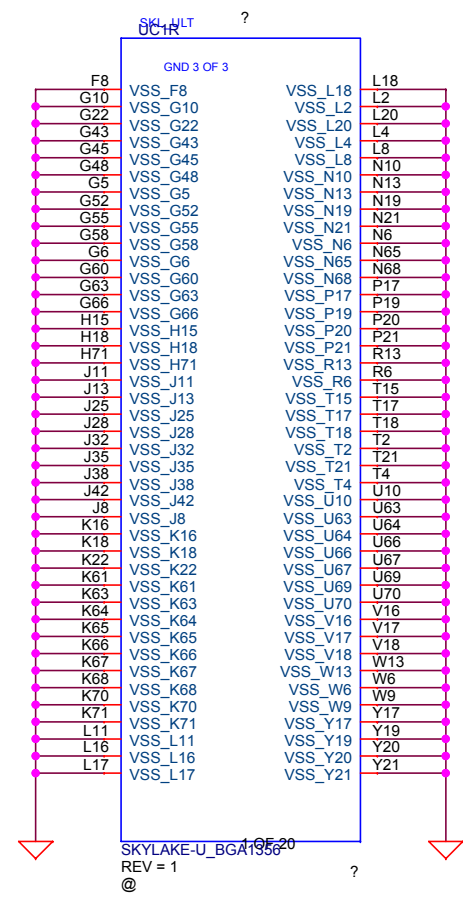
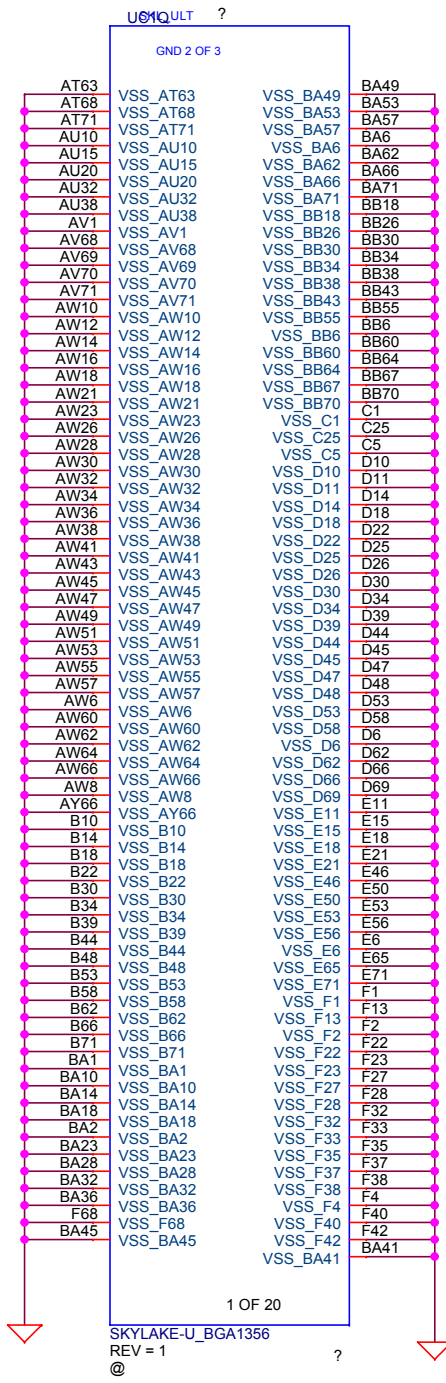
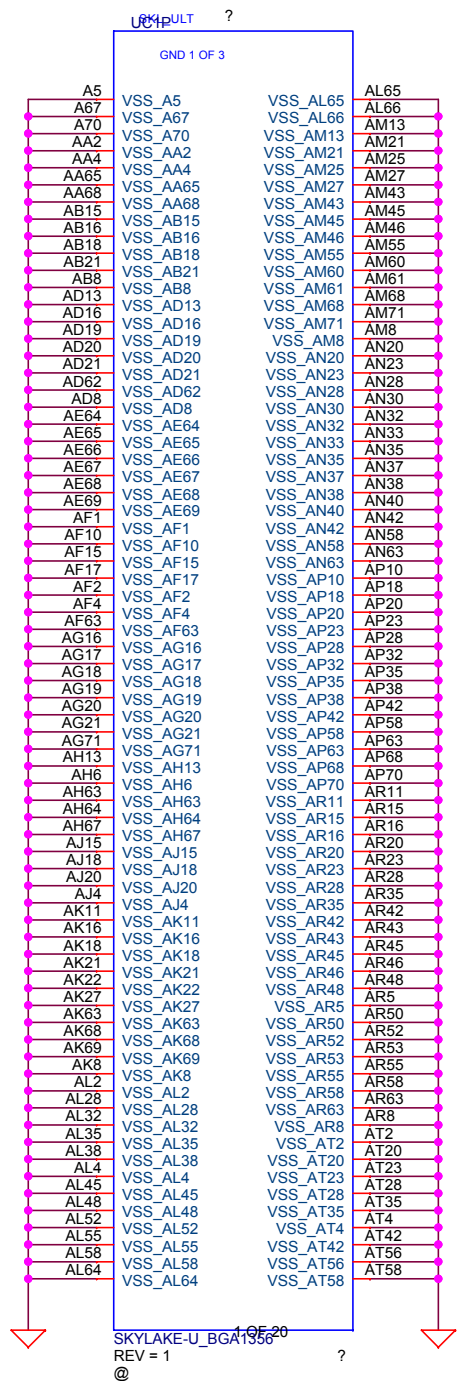


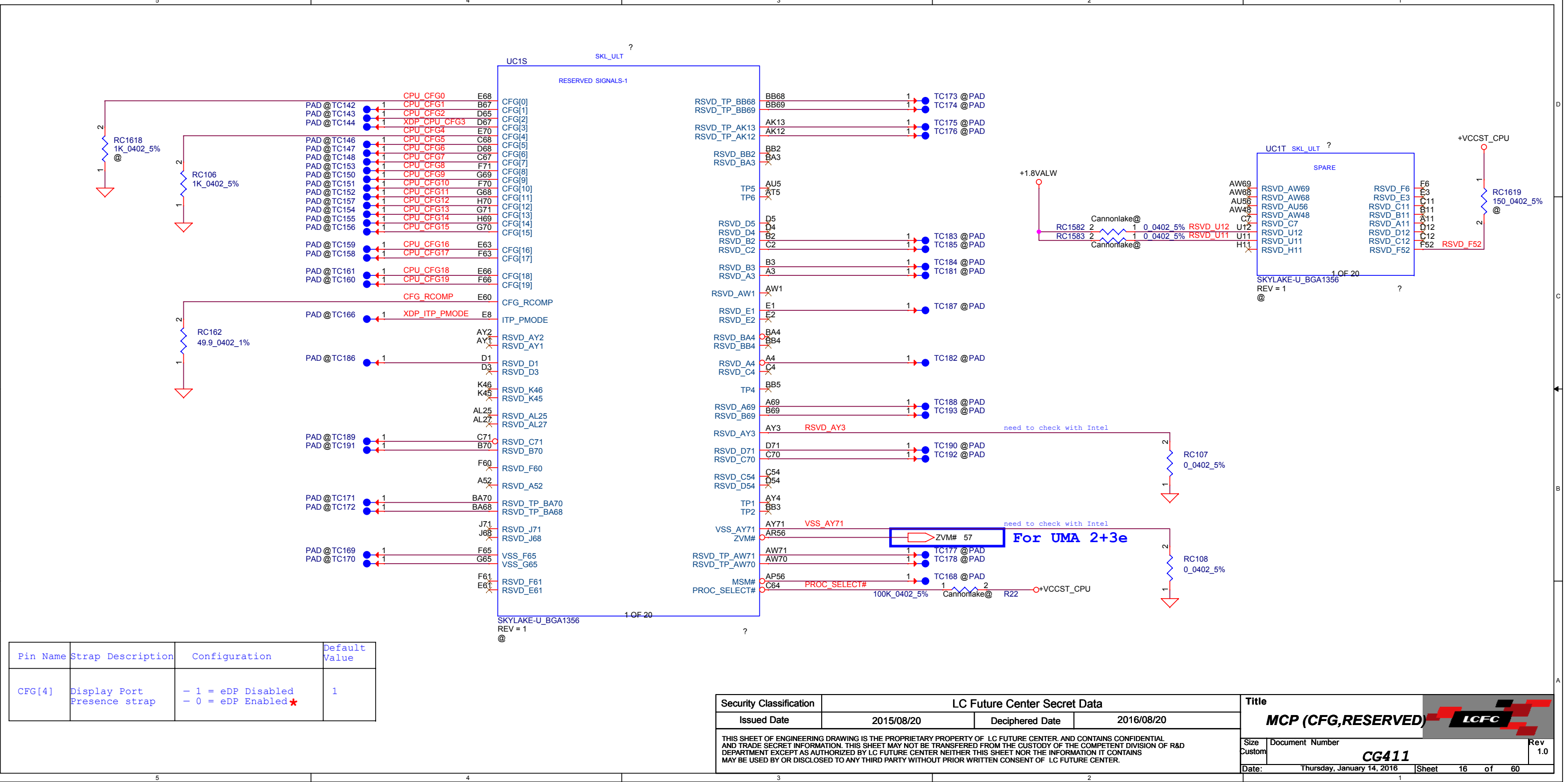
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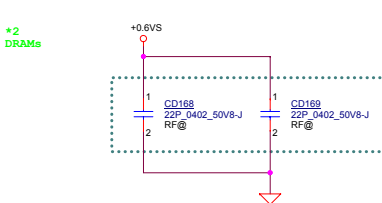
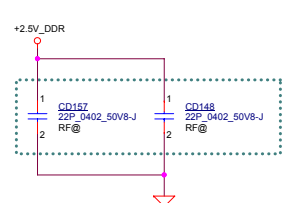
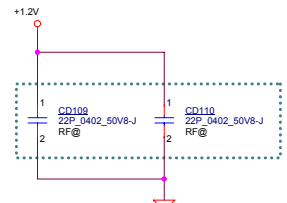
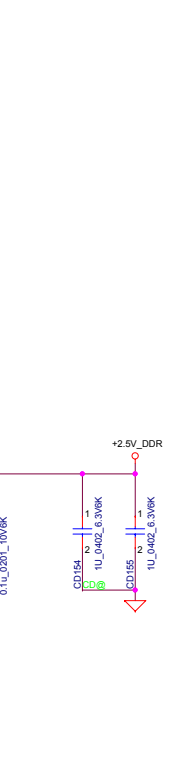
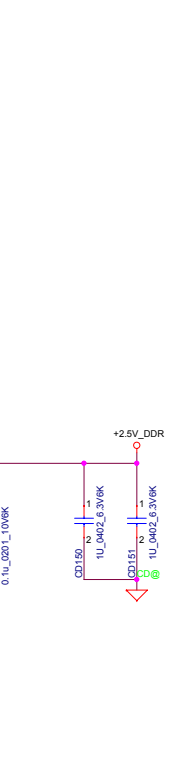
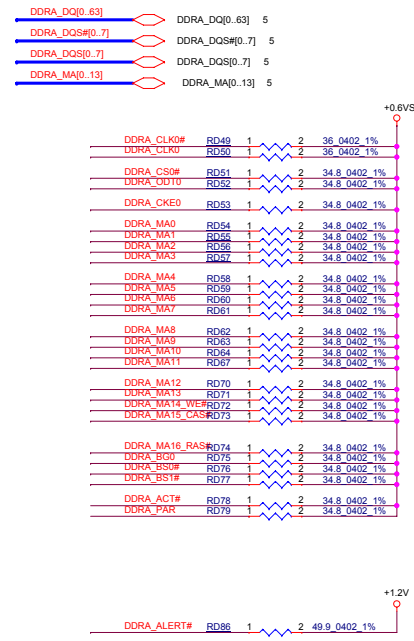
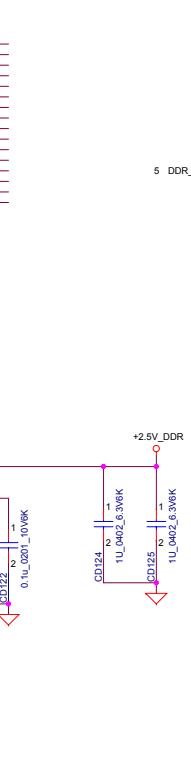
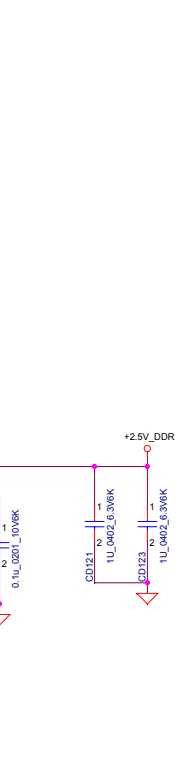







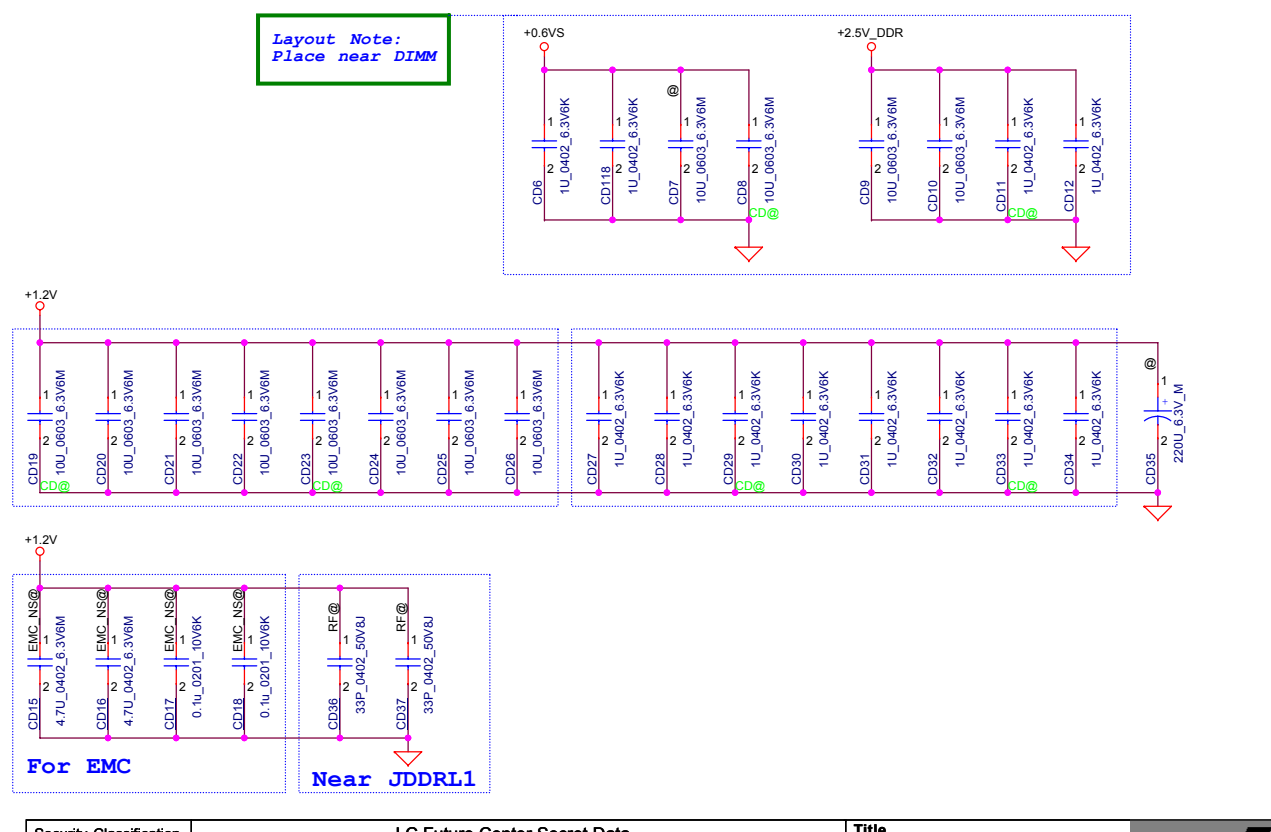
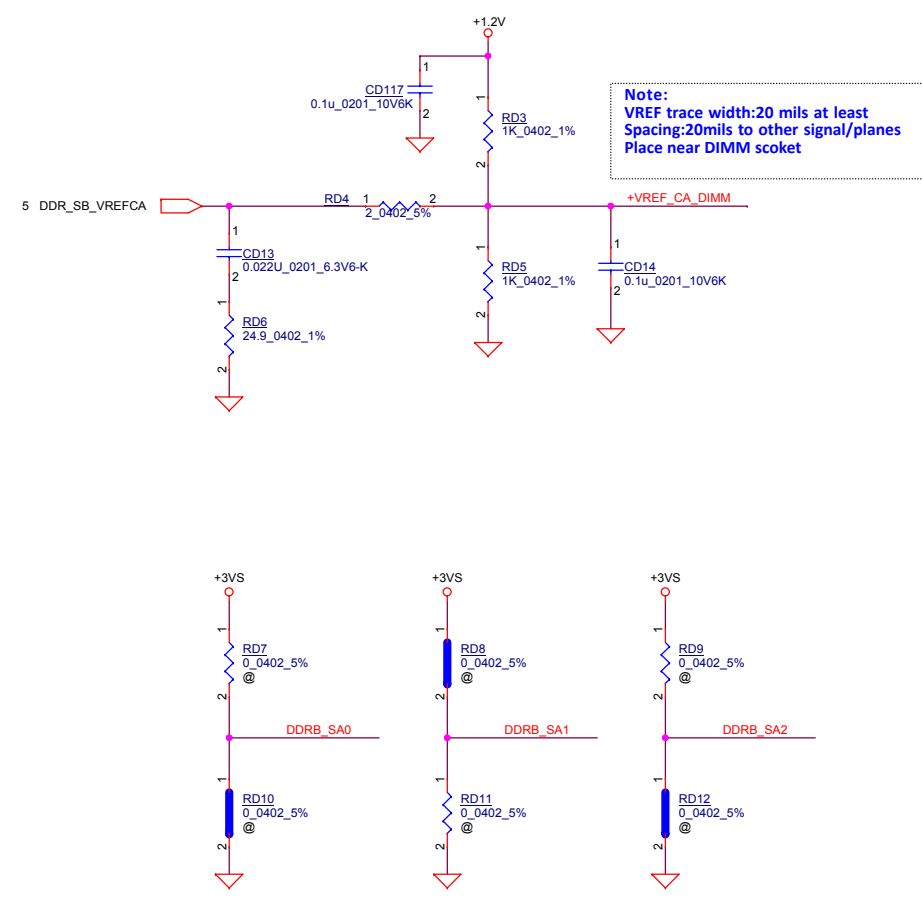
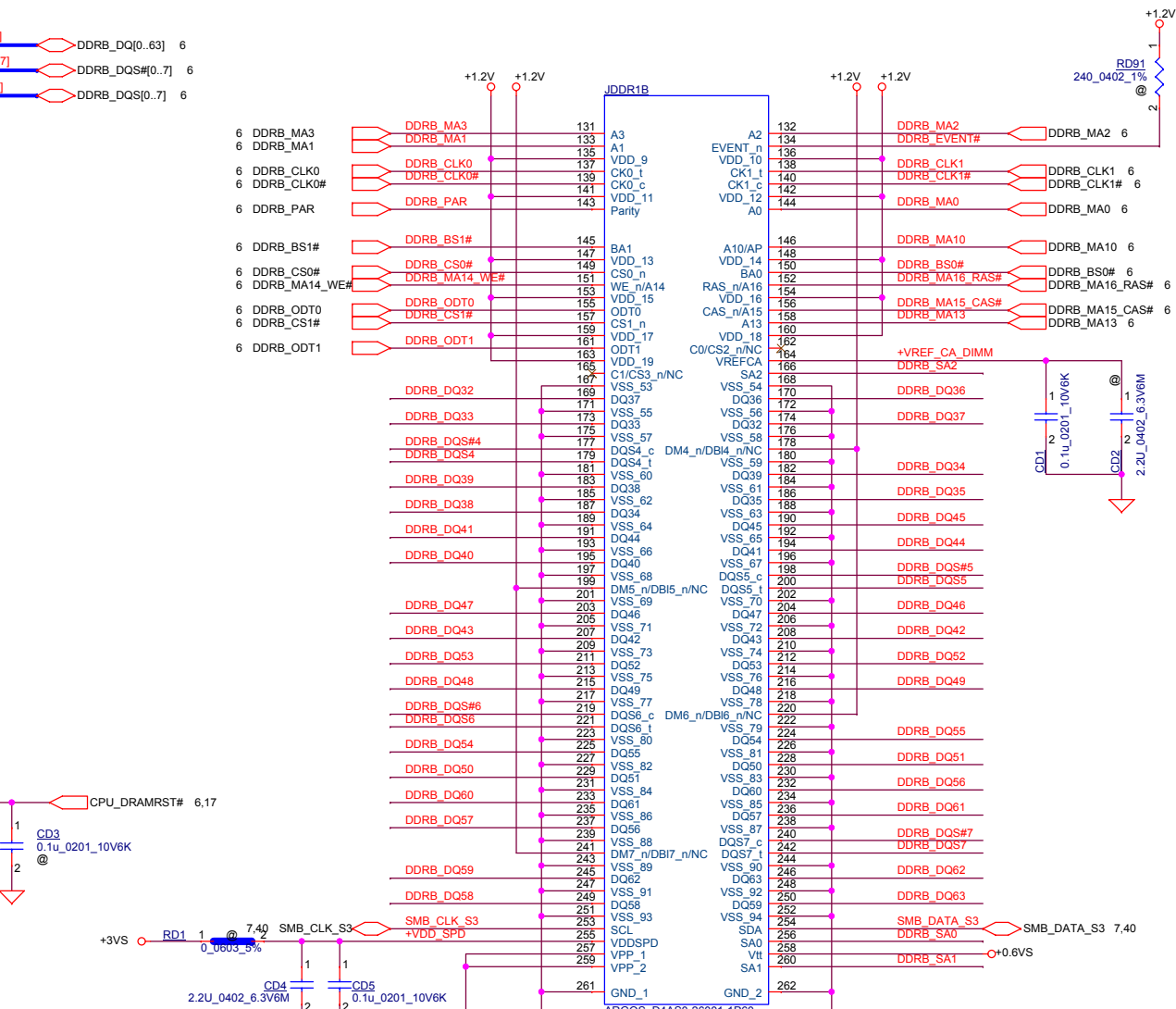
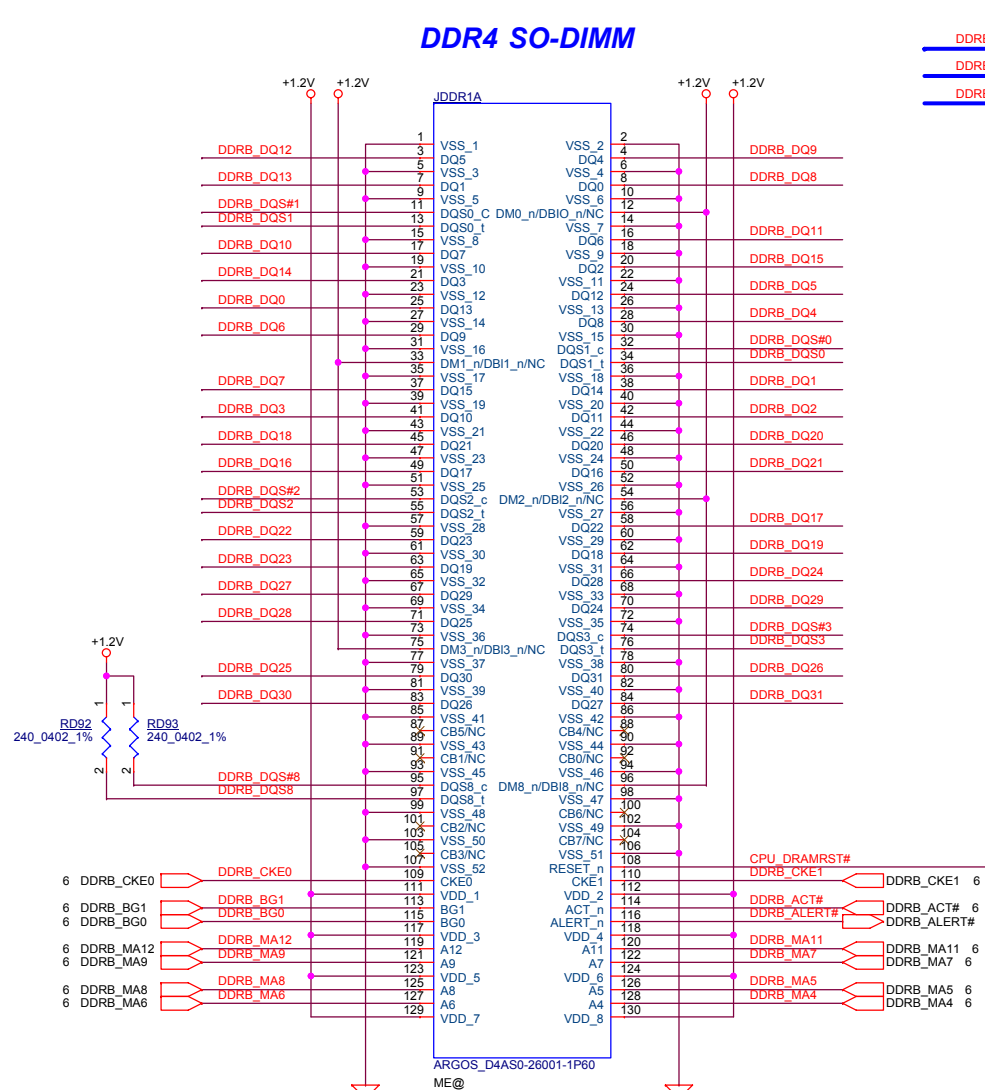







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# DDR4 SO-DIMM



SPD Address = 2H

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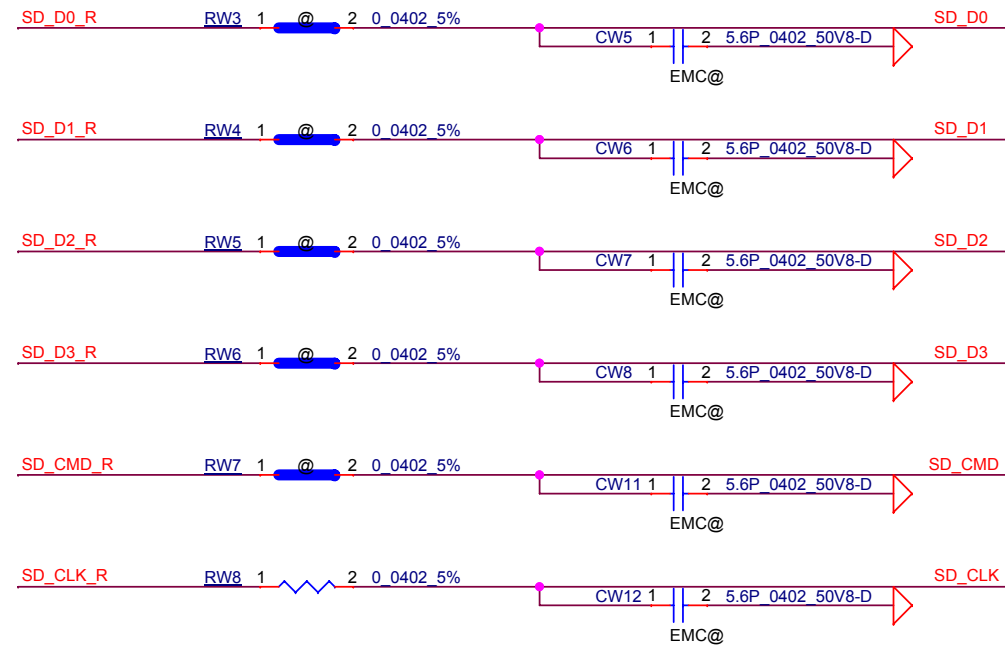
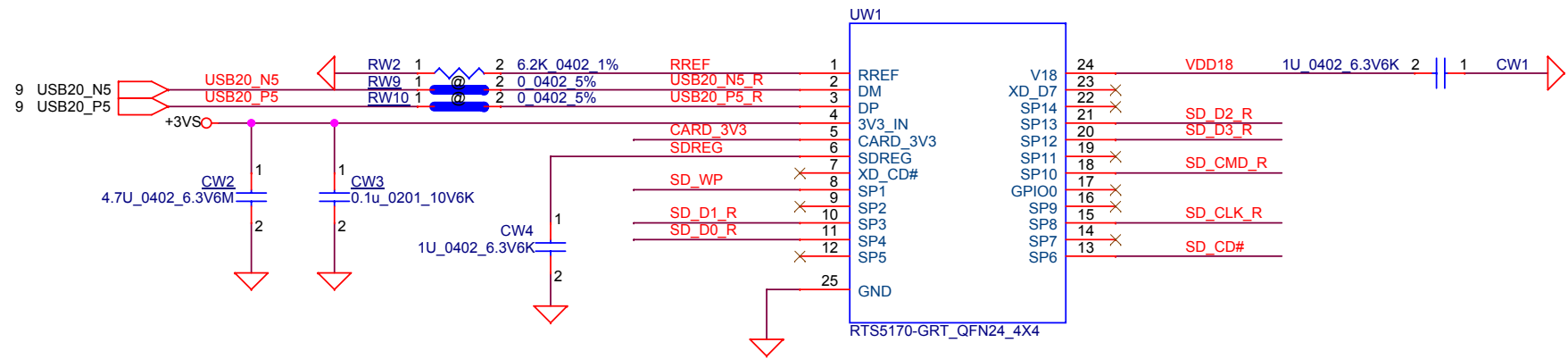
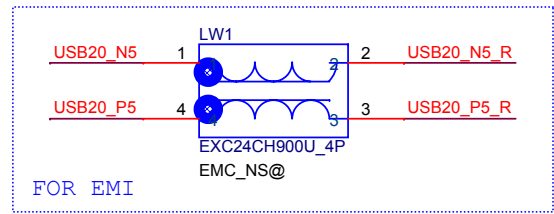




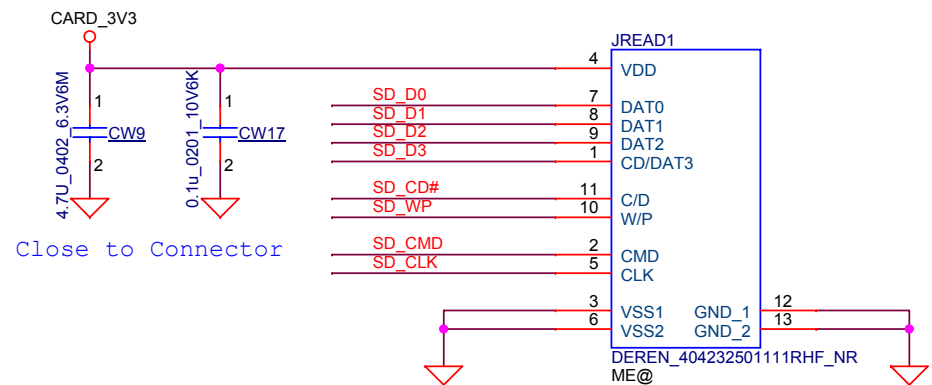
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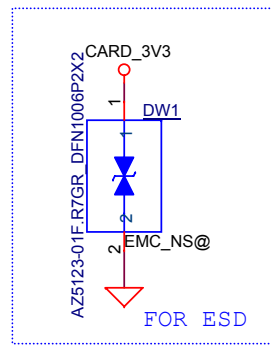
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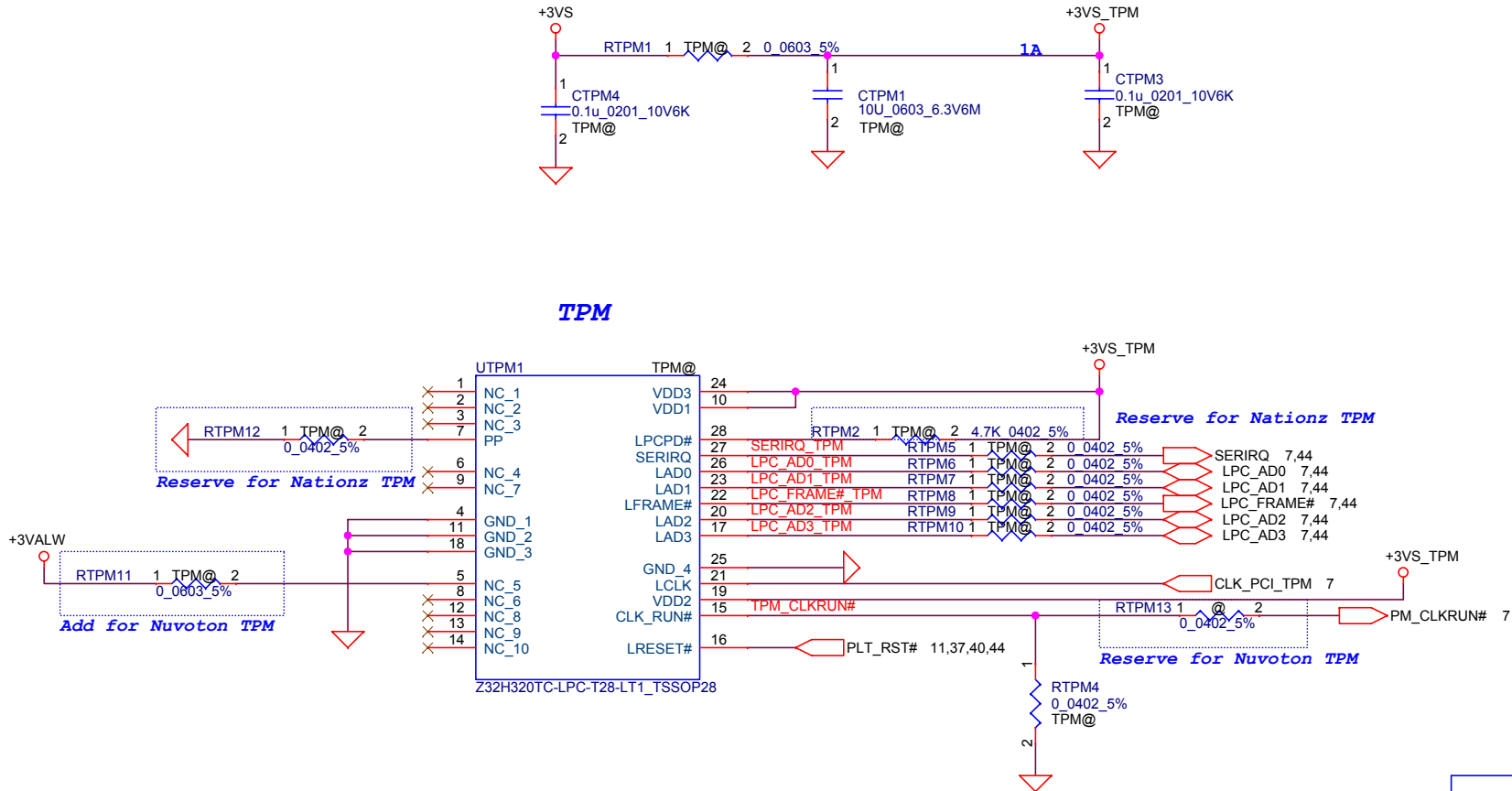


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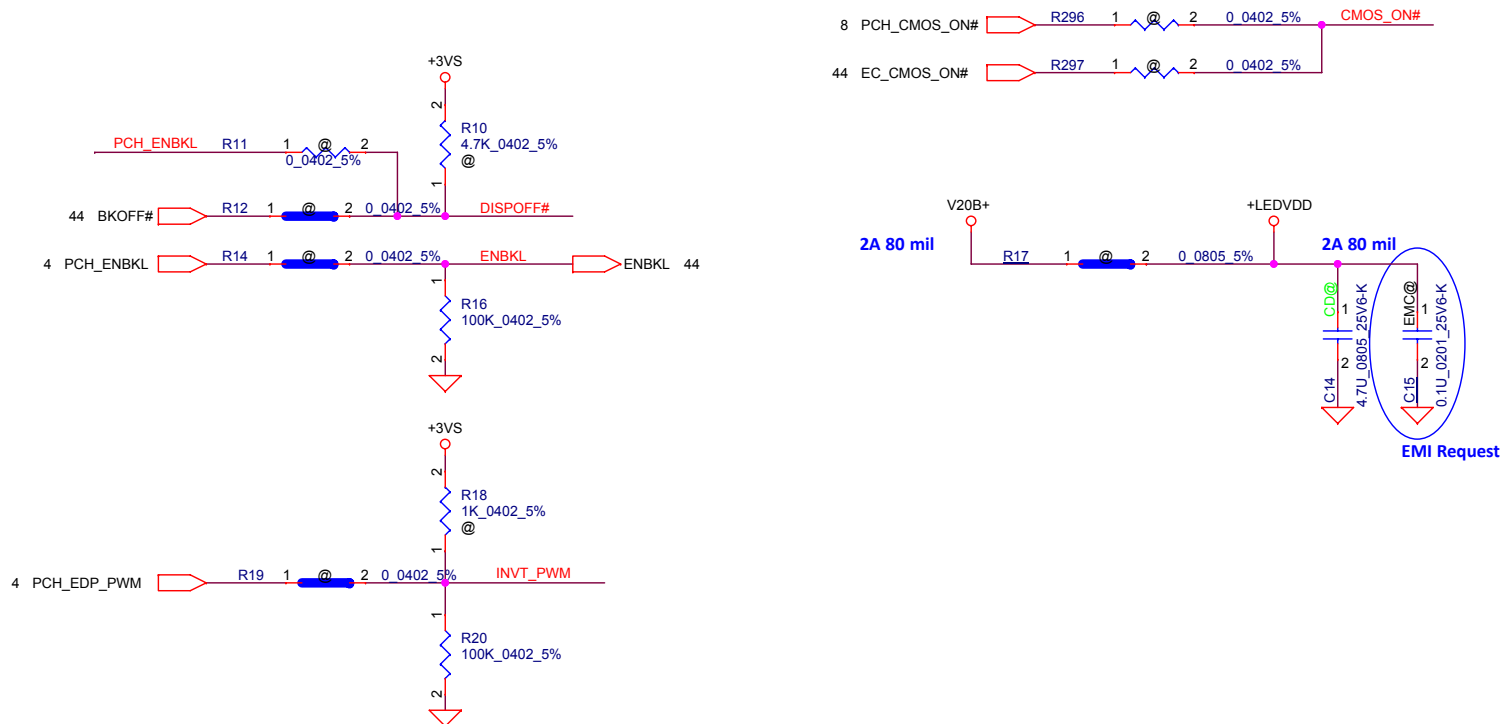
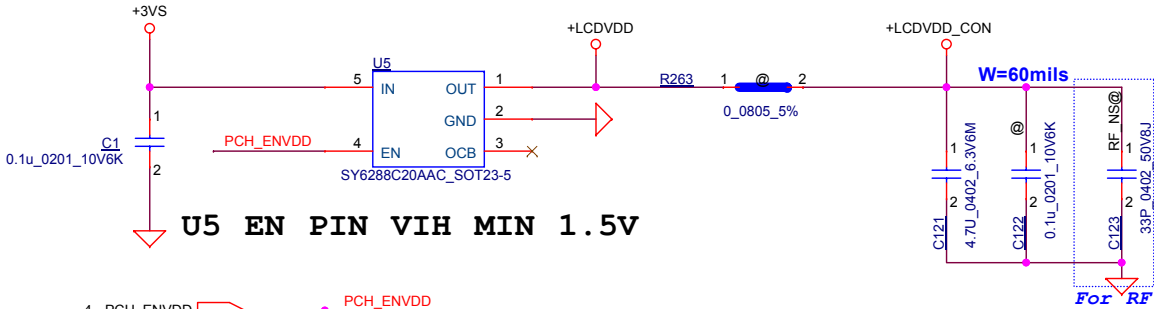


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RTPM2	Stuff	NC
RTPM12	Stuff	NC
RTPM11	NC	Stuff

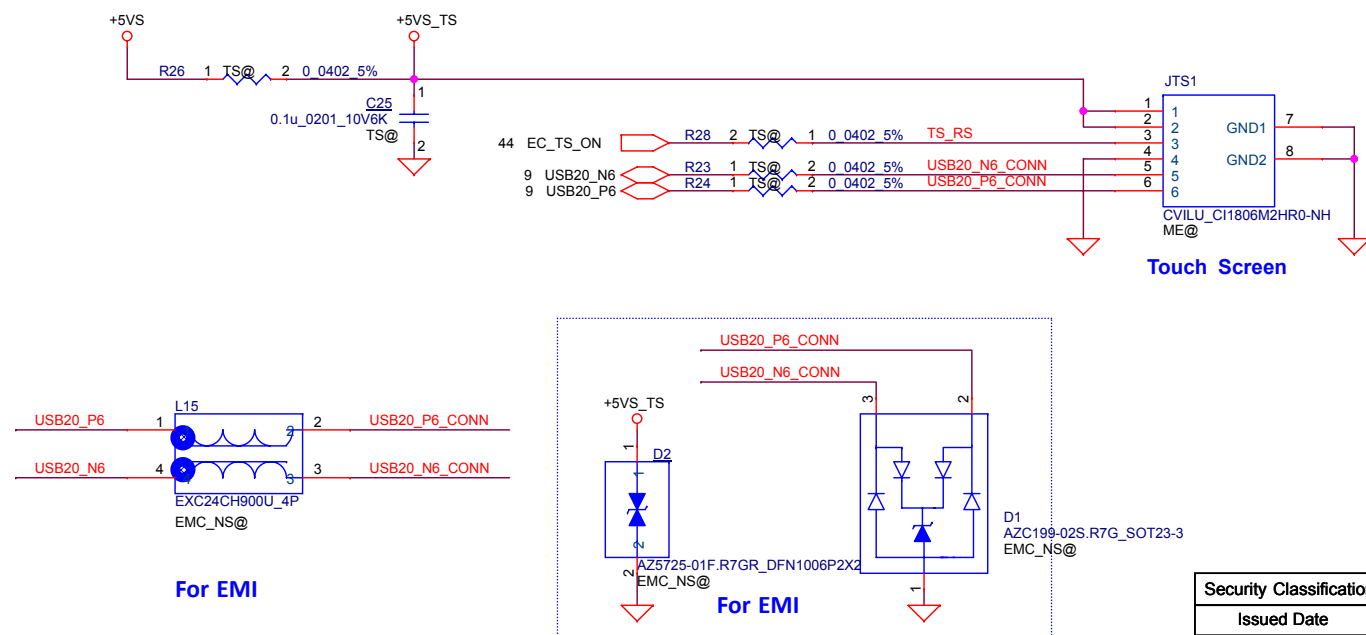
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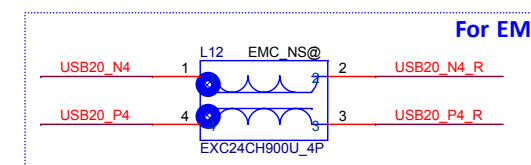
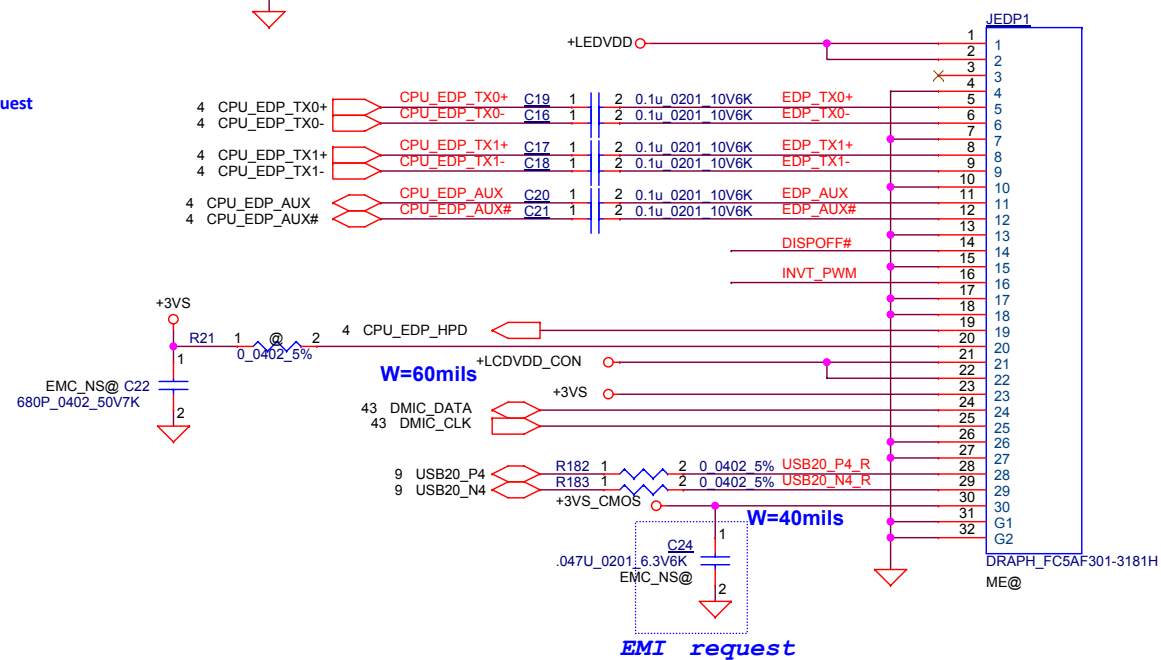
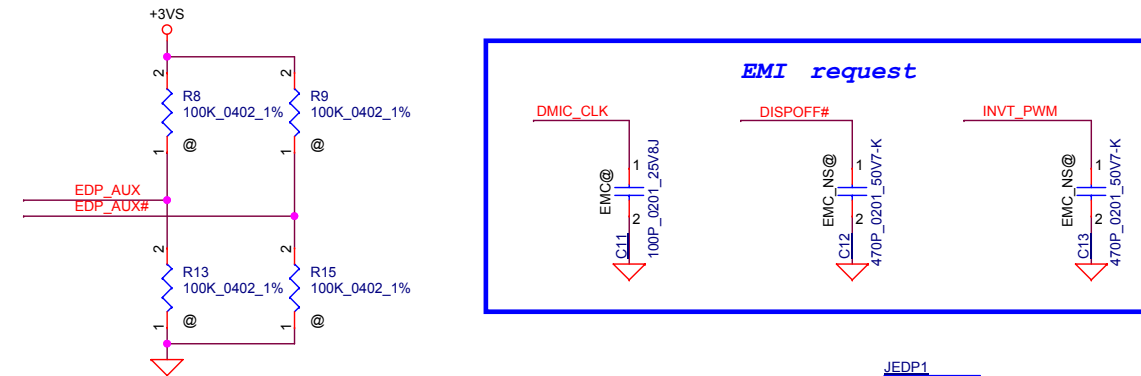
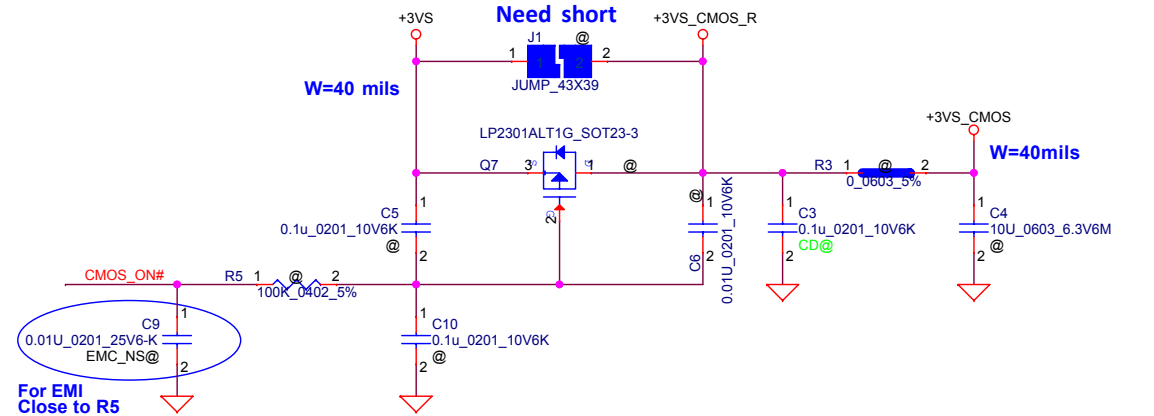
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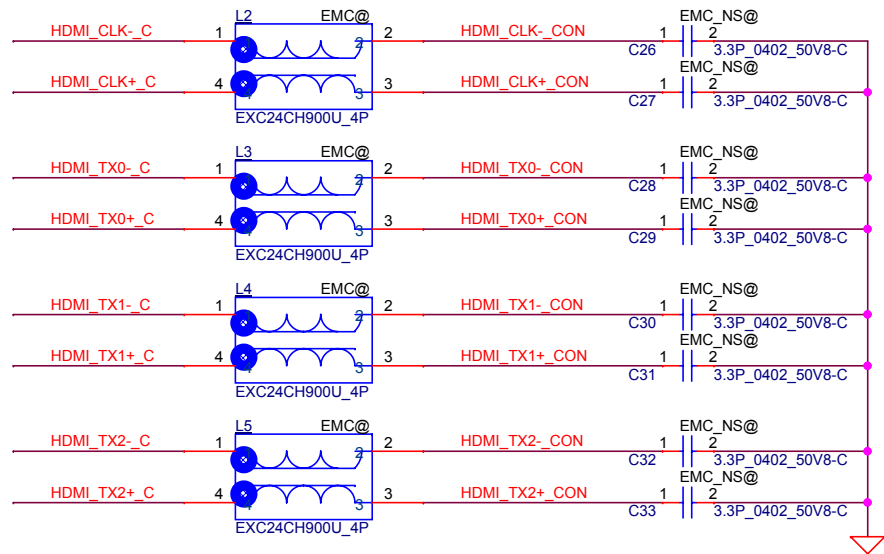
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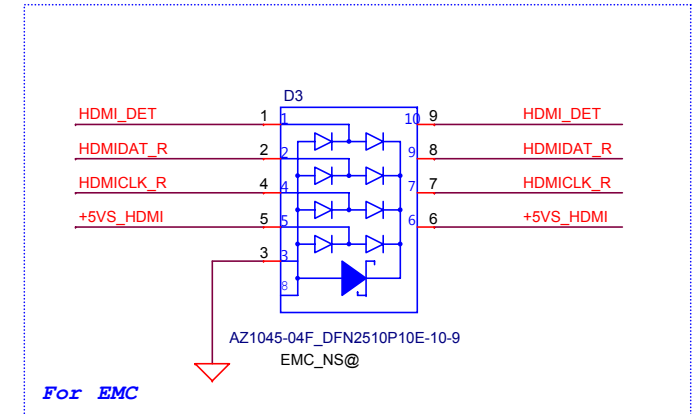
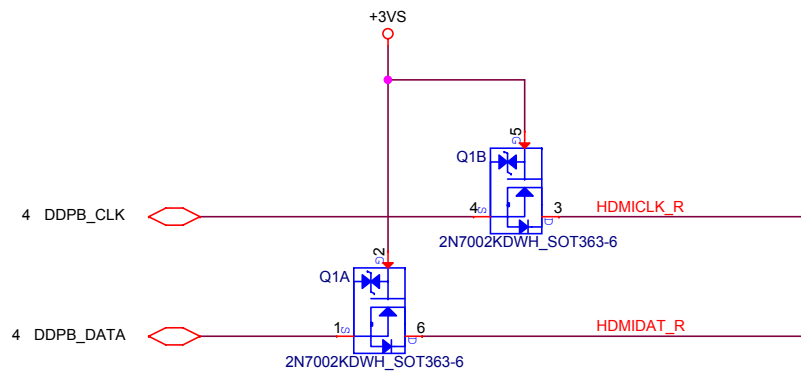
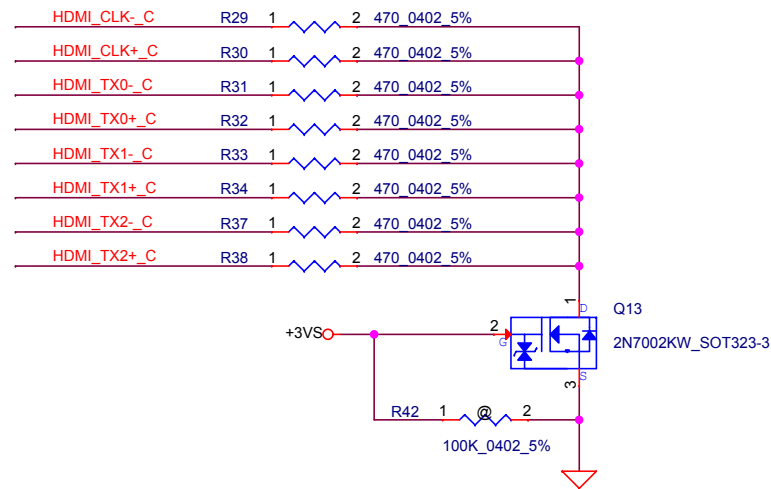
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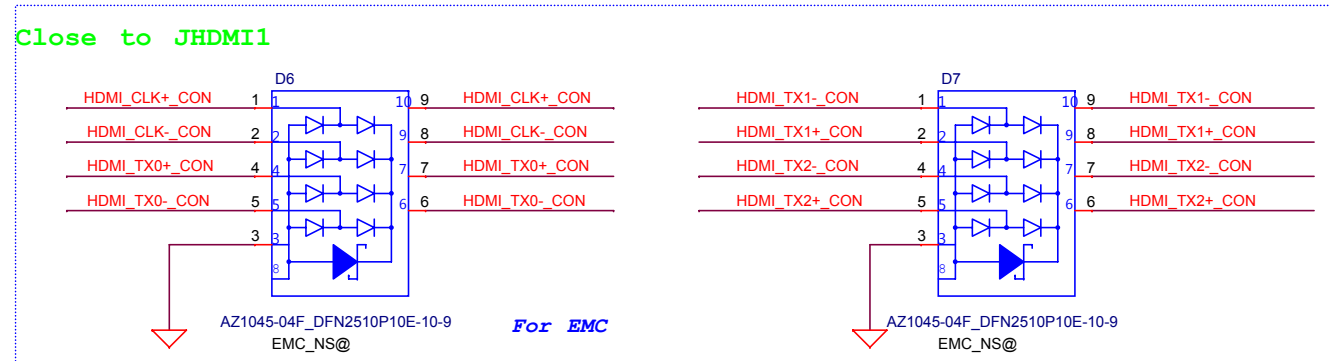
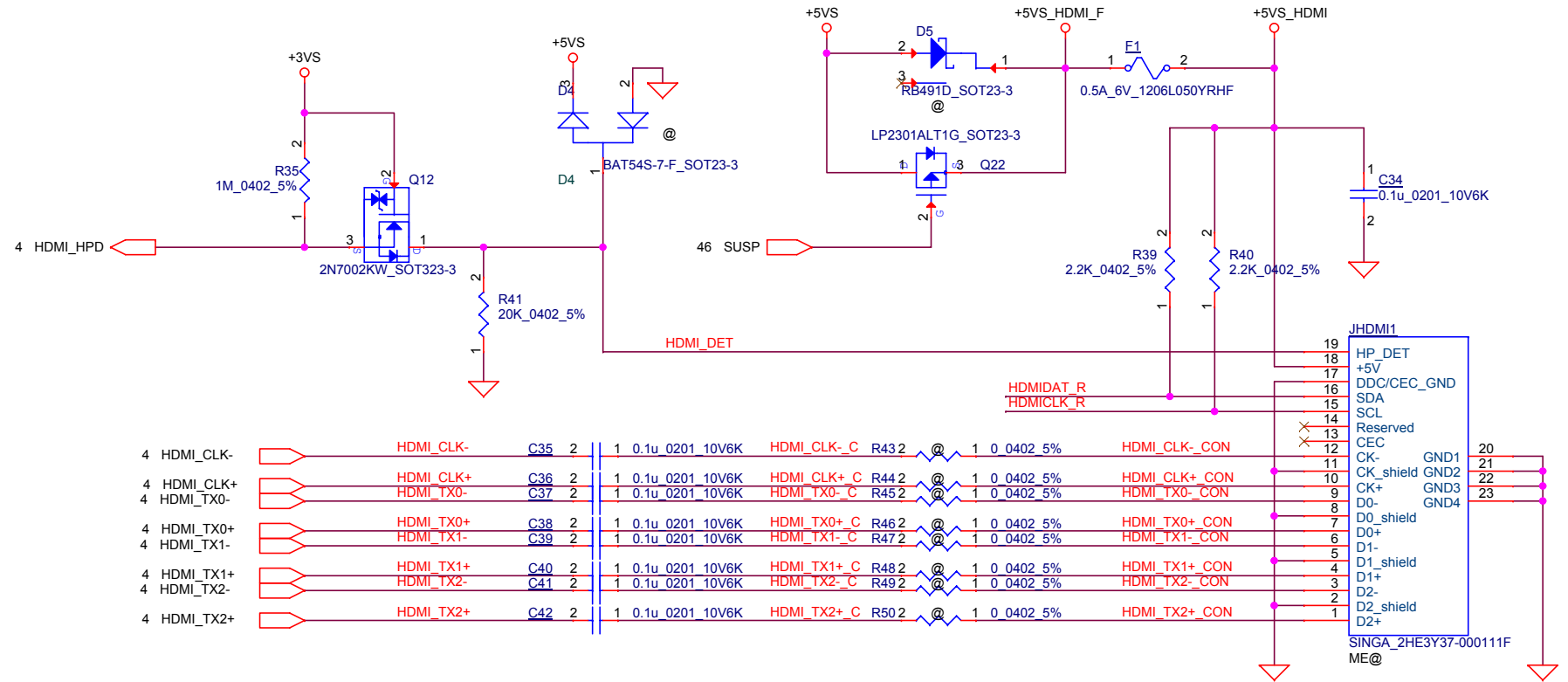
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For EMC




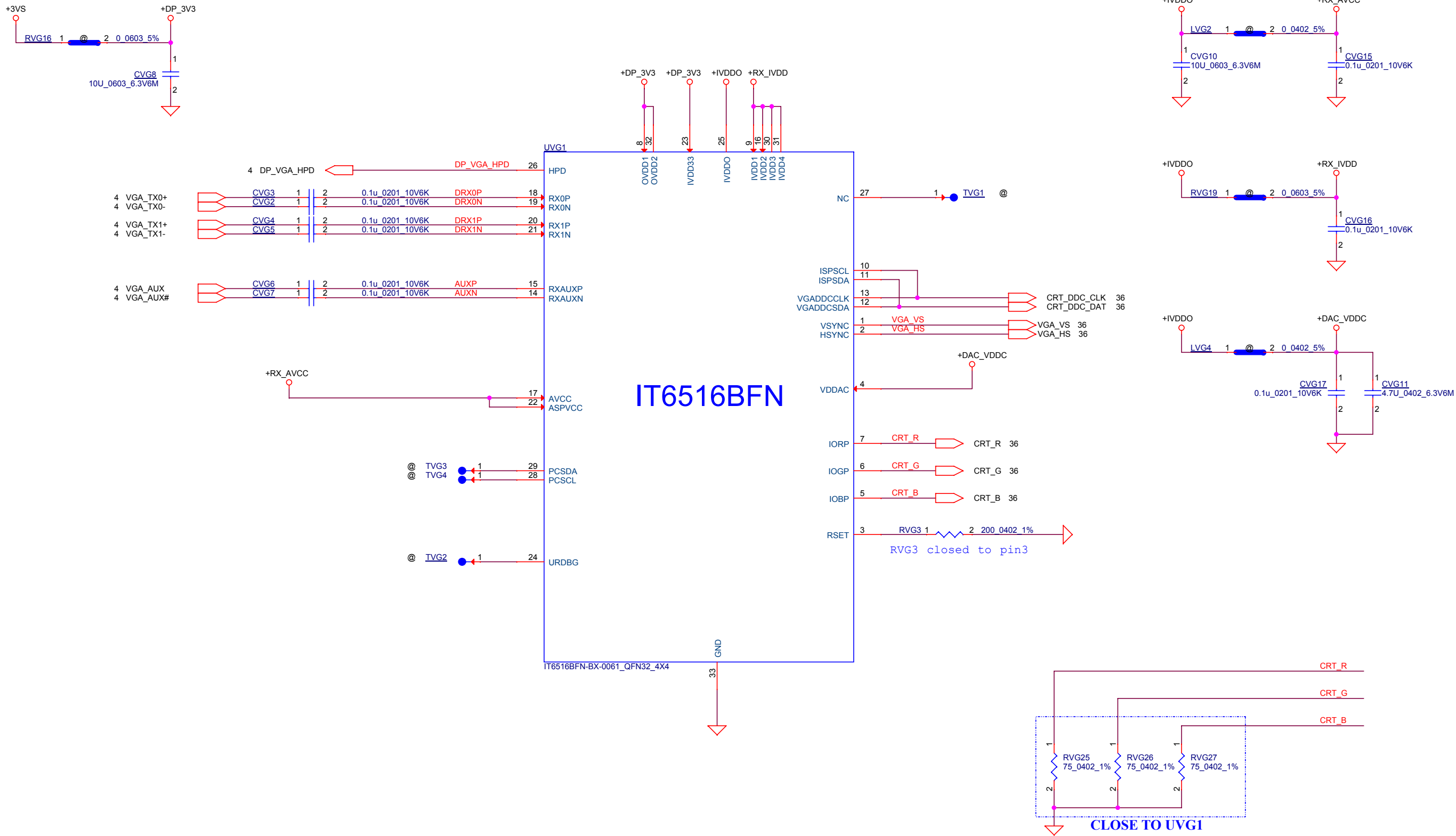
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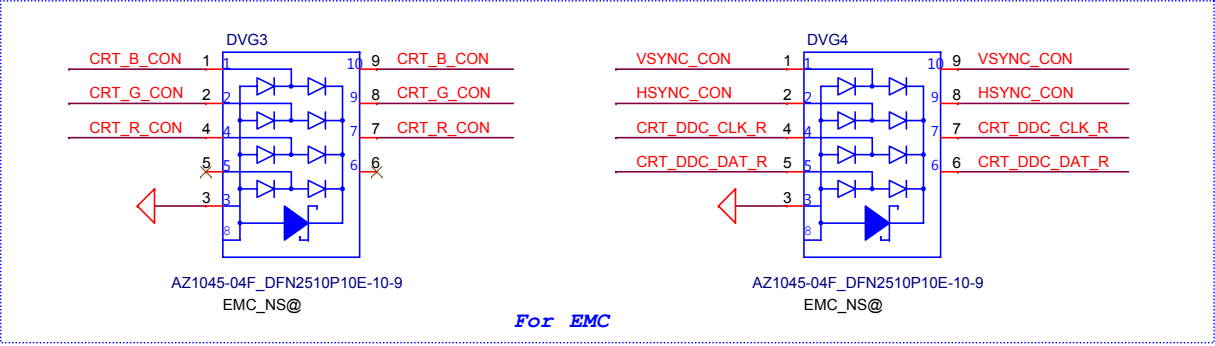
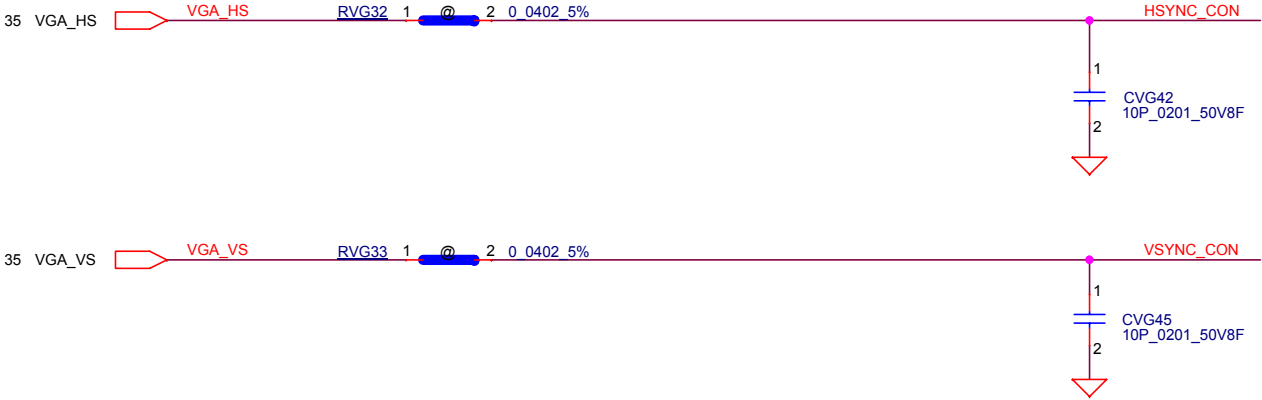
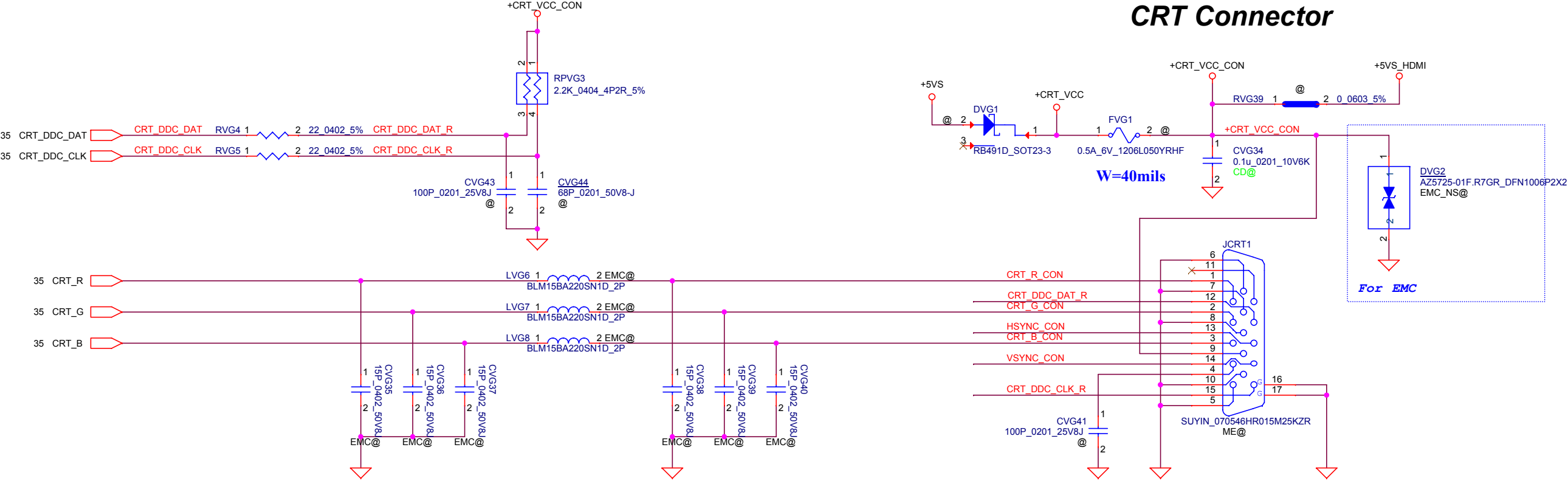
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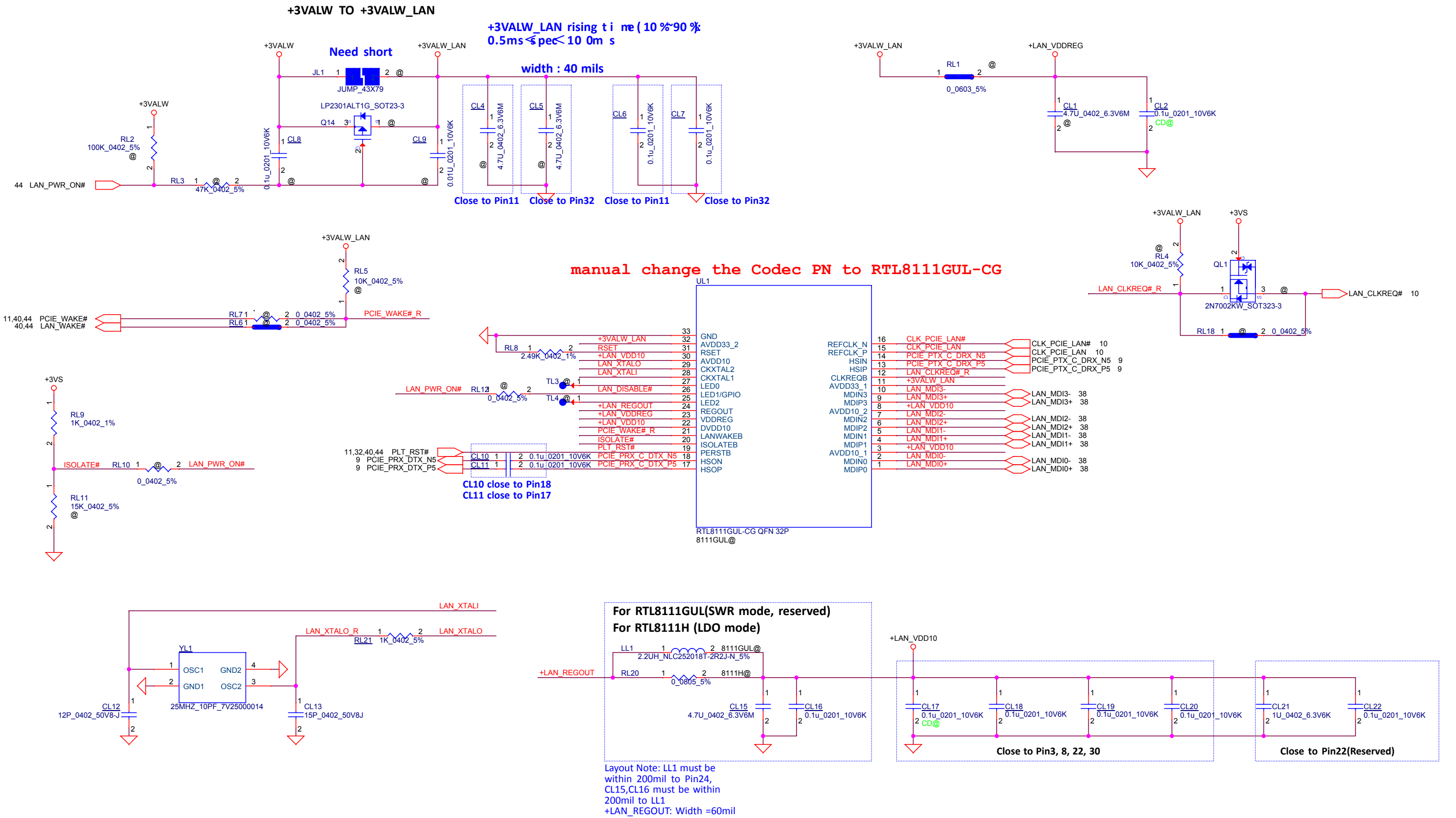
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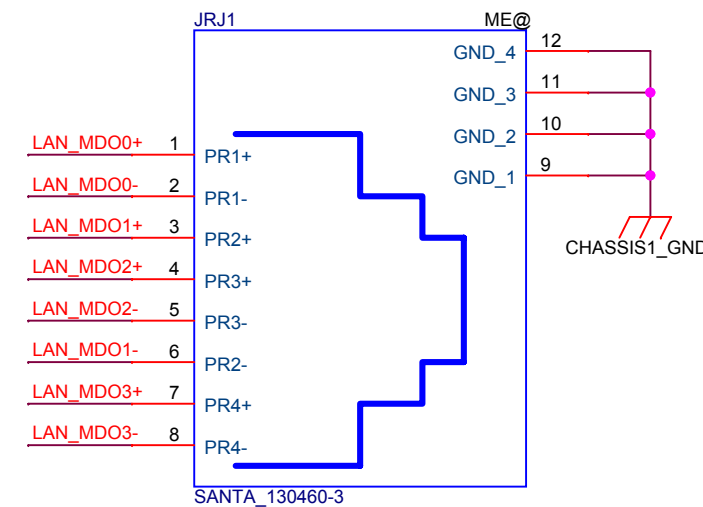
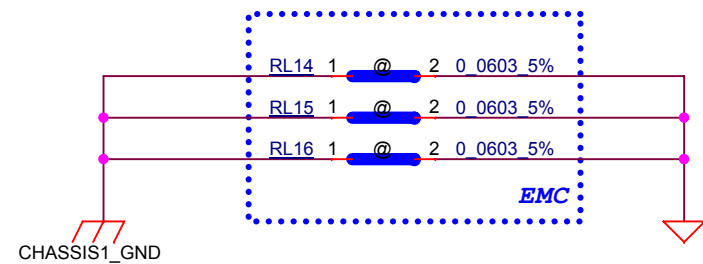
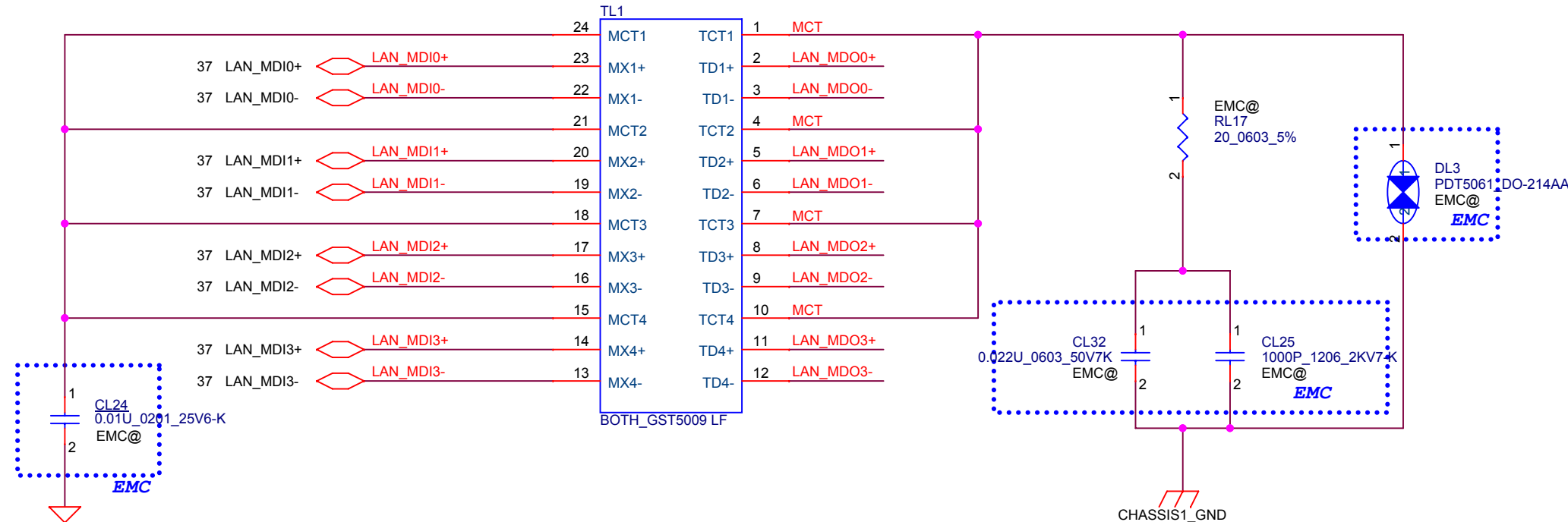
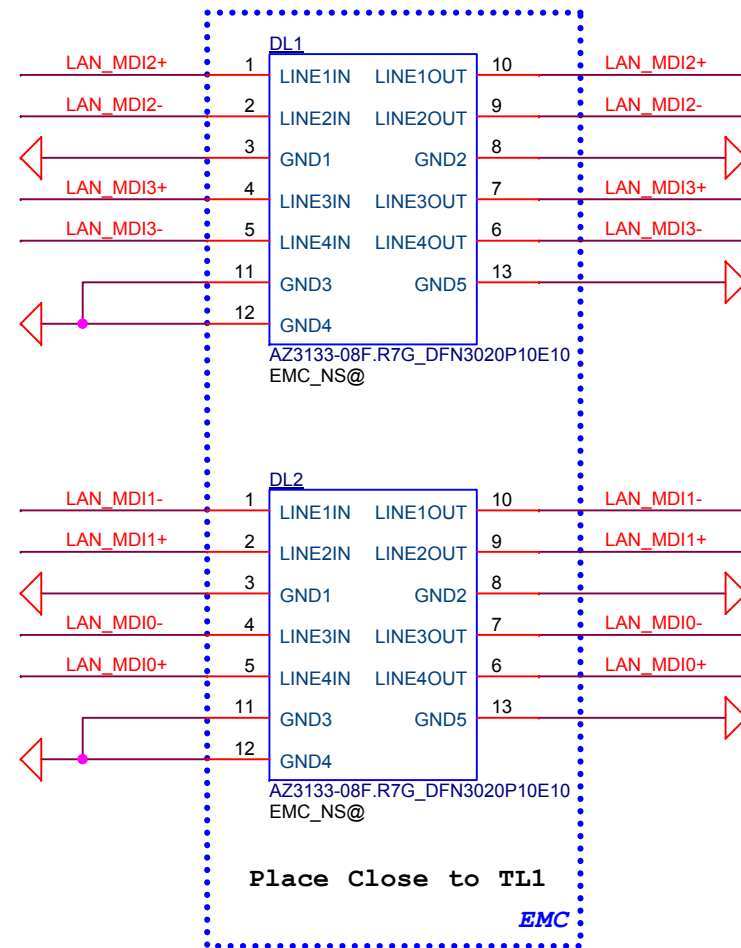
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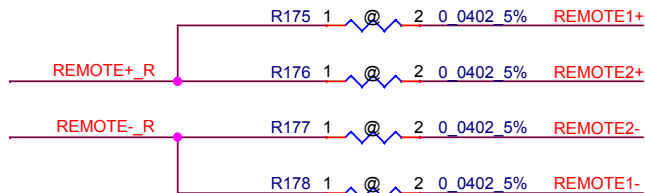
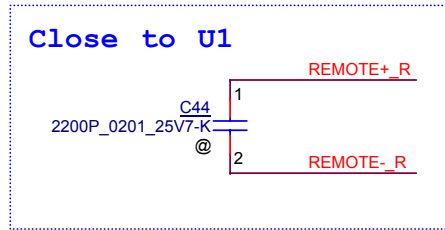


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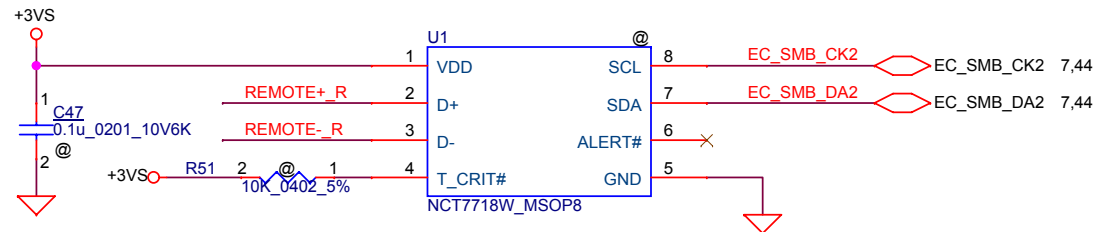


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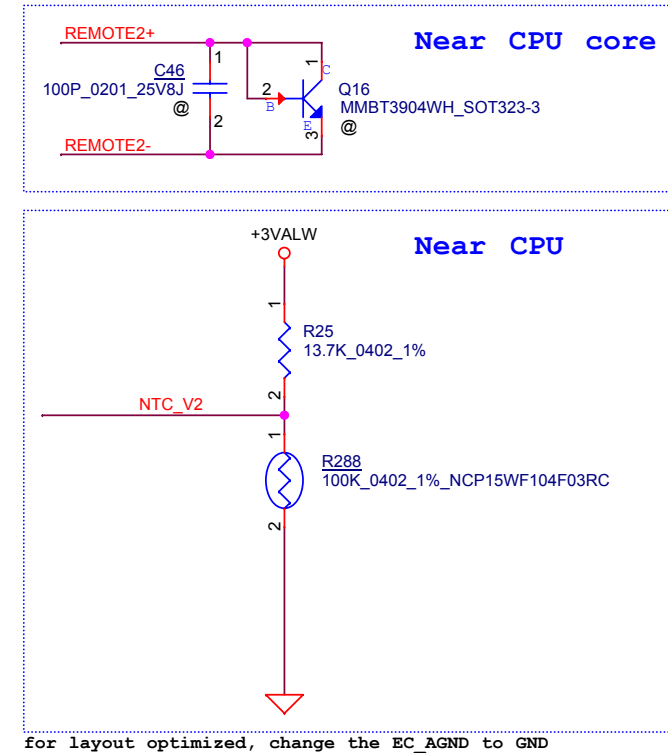
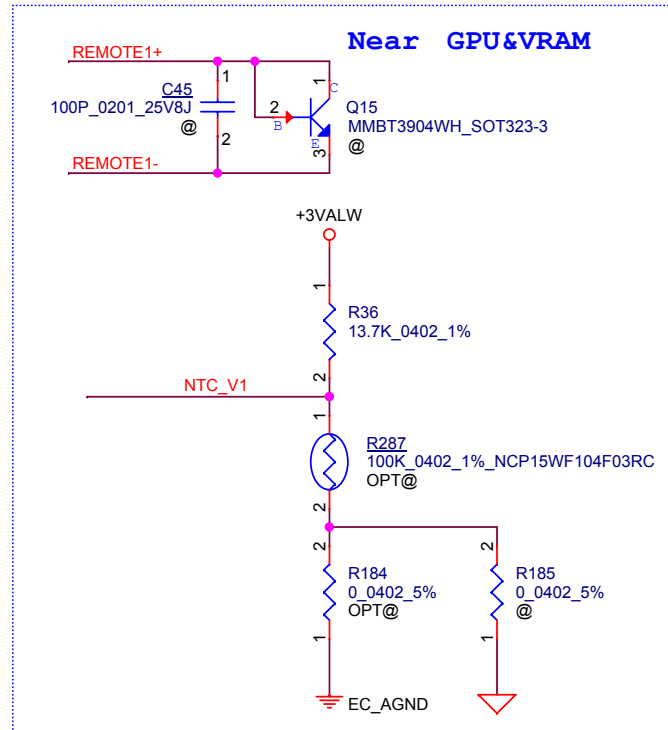


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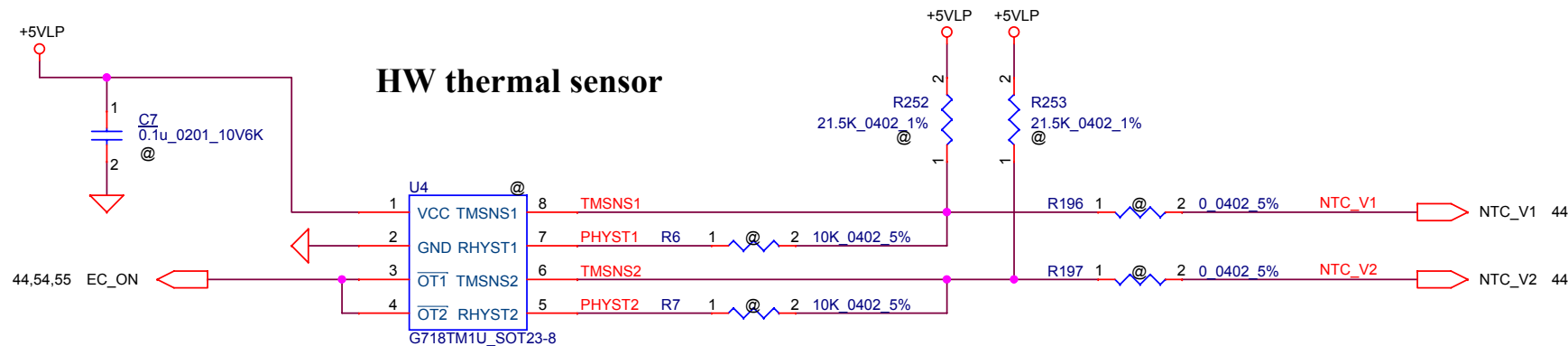
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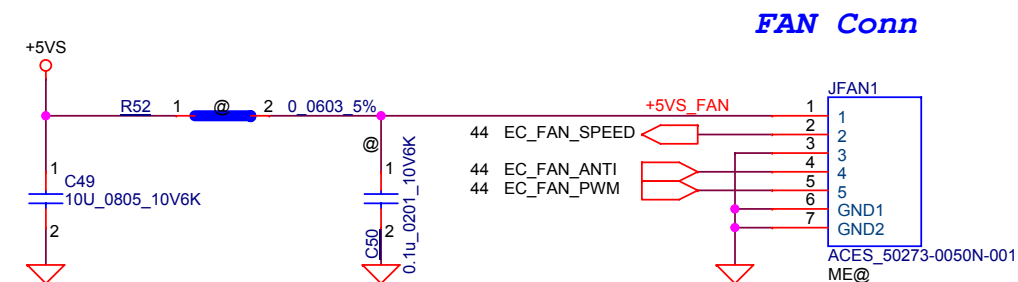
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### HW thermal sensor



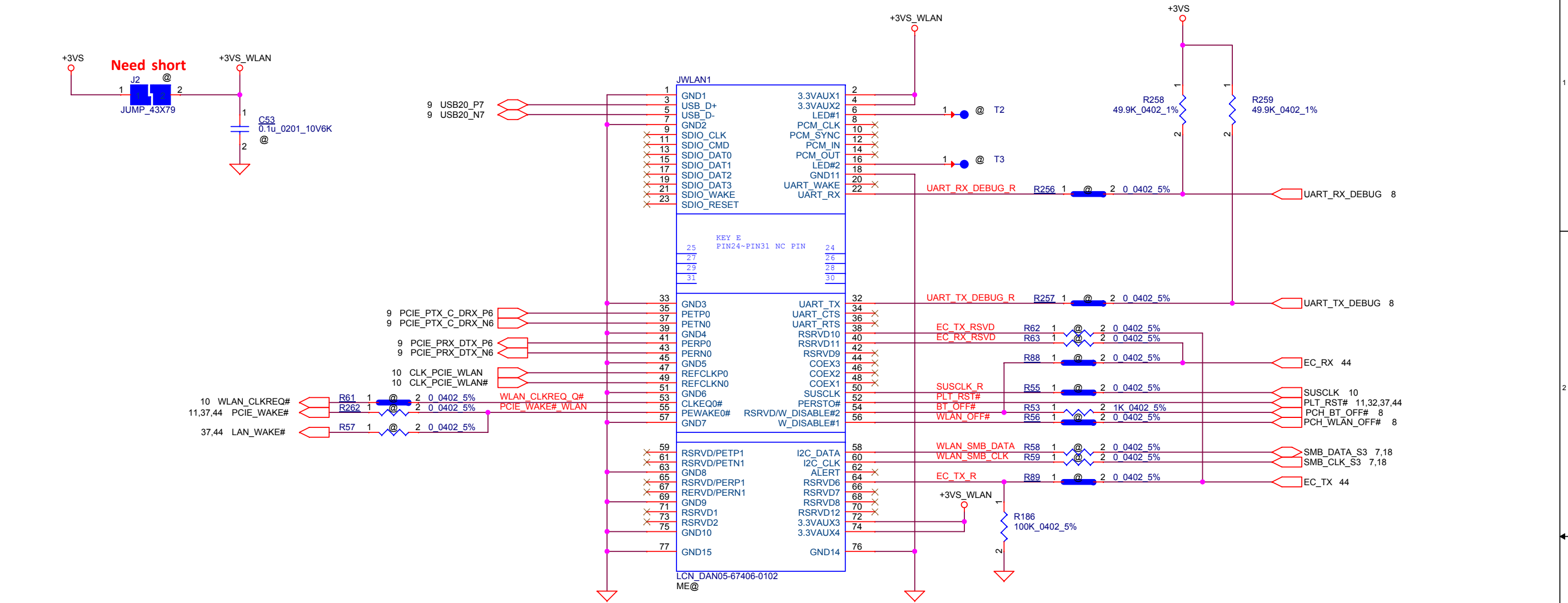
over temperature threshold:  
 $RSET=3*RTMH$   
92+/-30C  
Hysteresis temperature threshold.  
 $RHYST=(RSET*RTML)/(3*RTML-RSET)$   
56+/-30C



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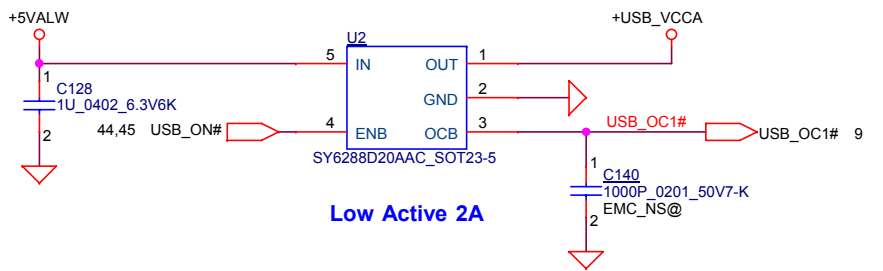


Mini-Express Card(WLAN/WiMAX)

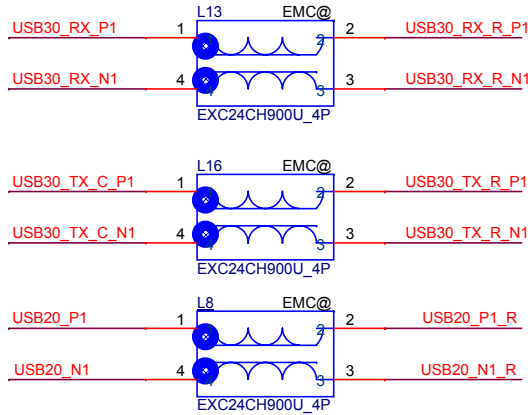




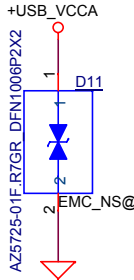
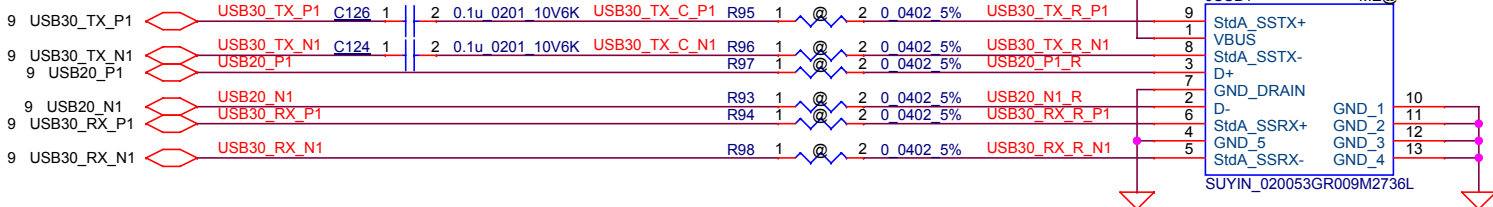
LEFT SIDE USB3.0 PORT x1



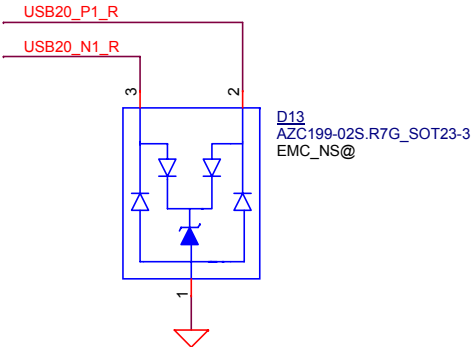
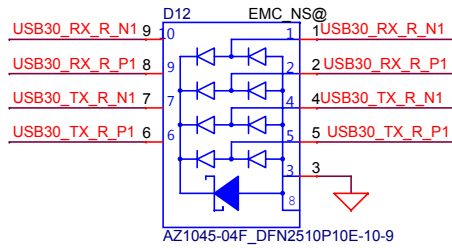
Low Active 2A



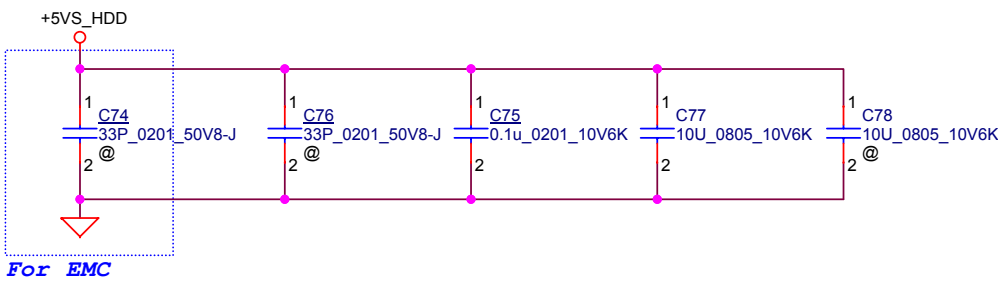
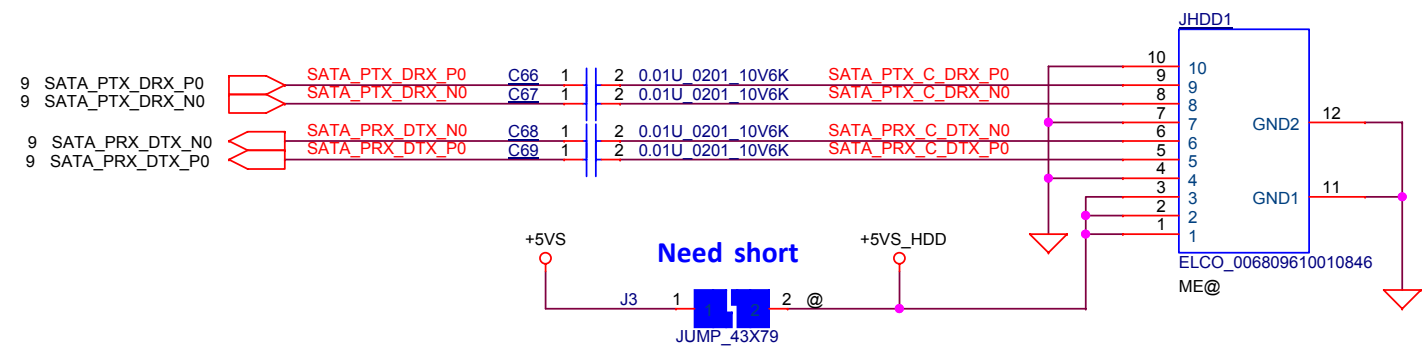
EMC



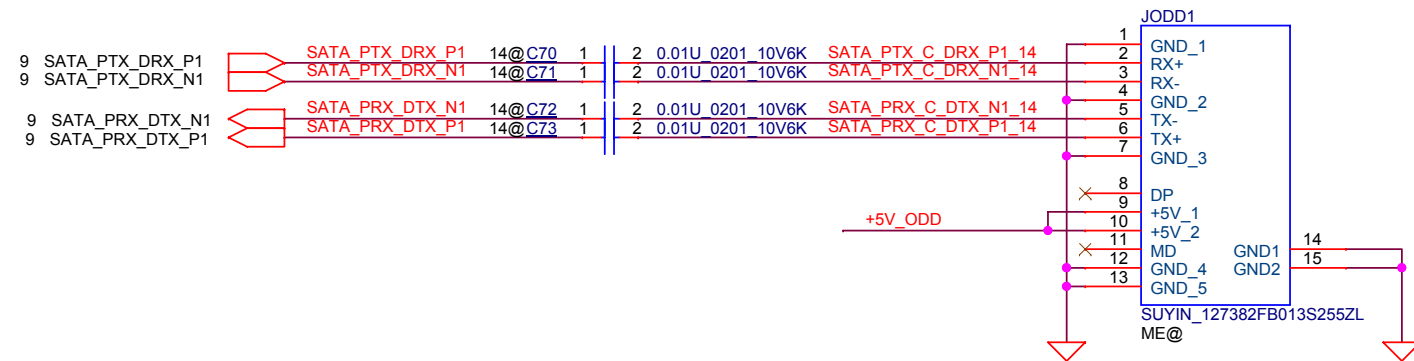
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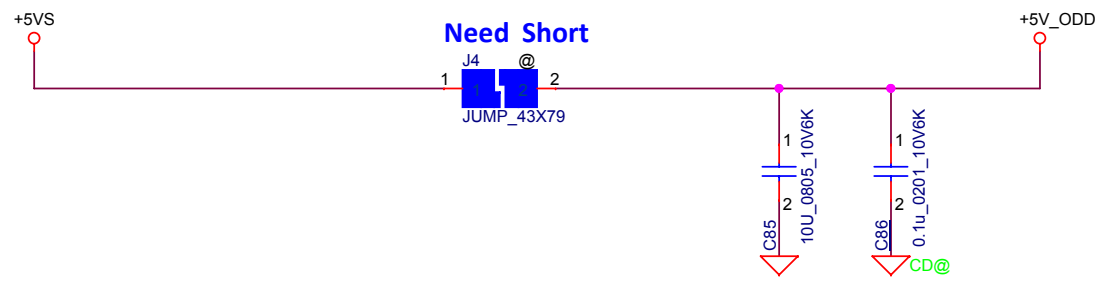
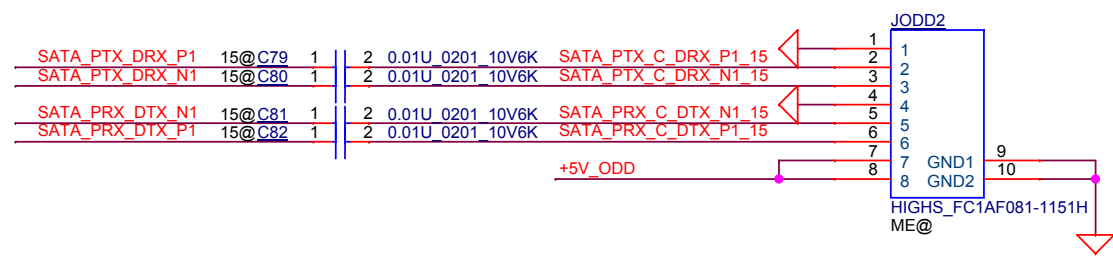
SATA HDD Conn.

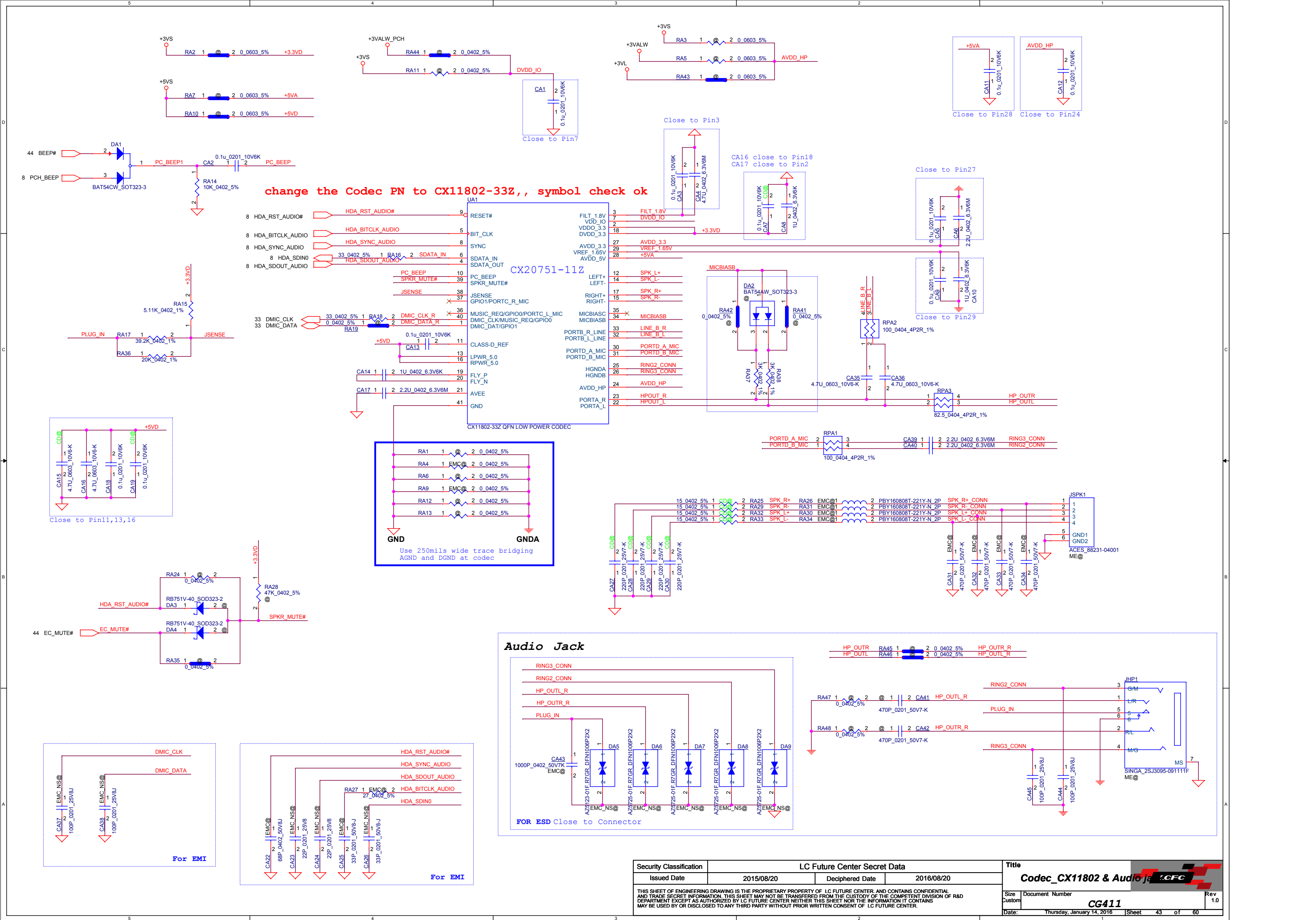


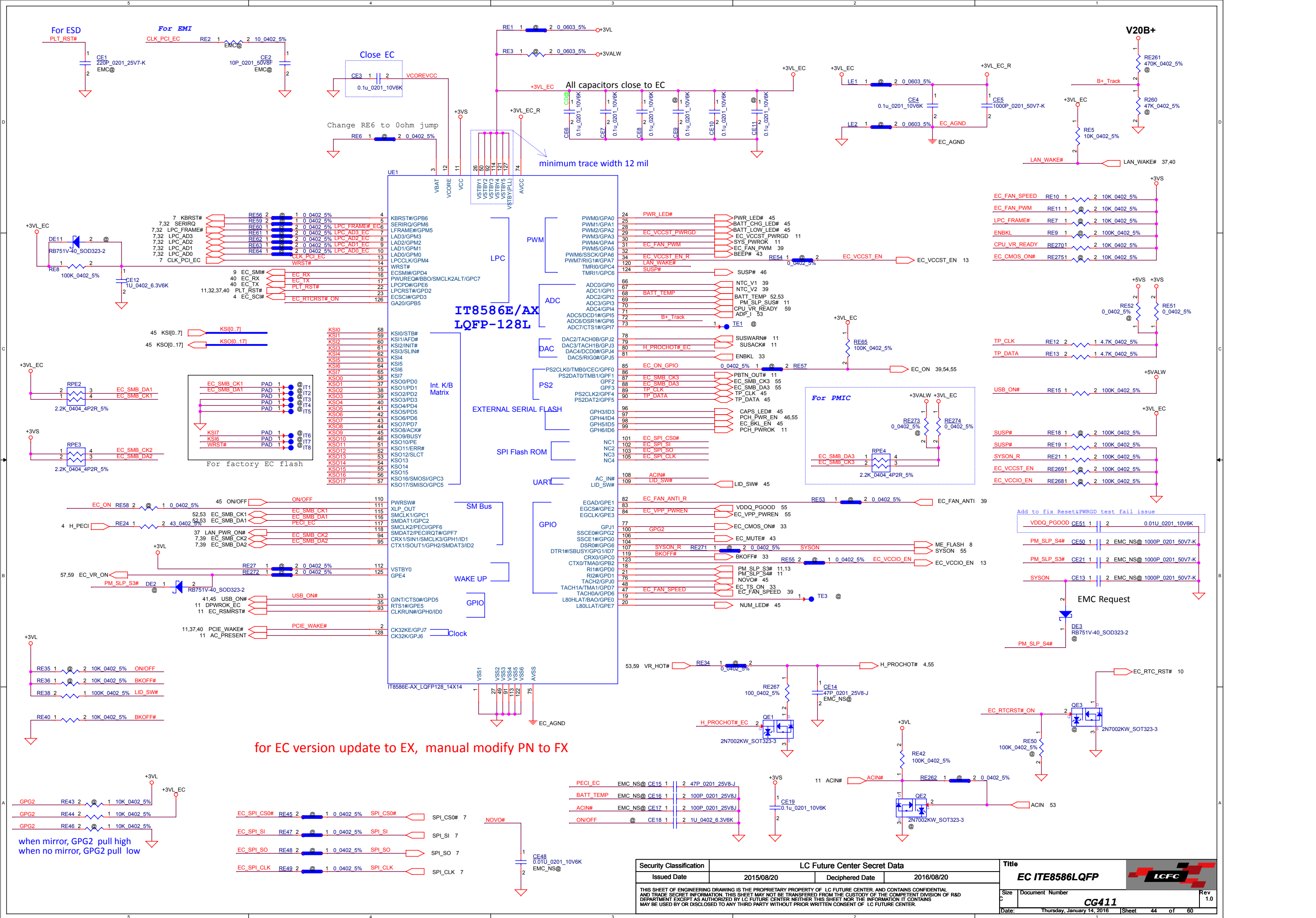
FOR 14" SATA ODD Conn.



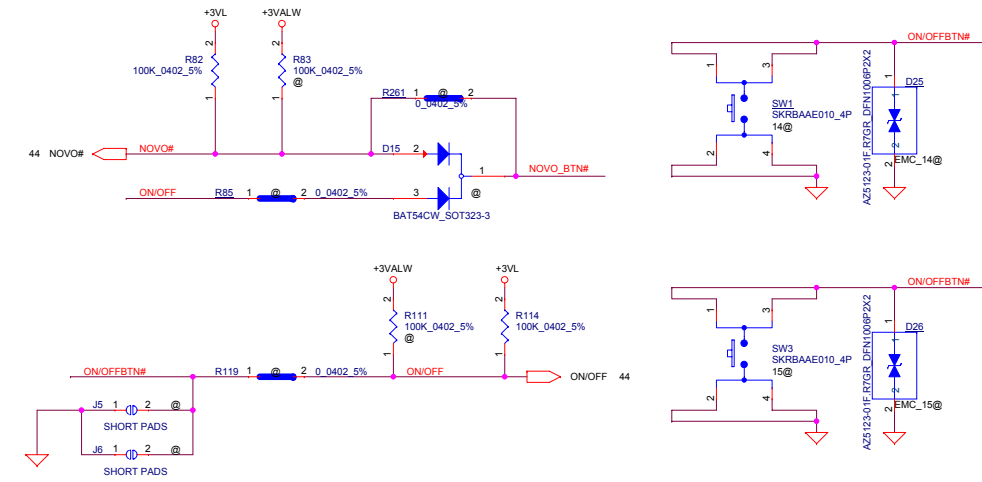
FOR 15" SATA ODD FFC Conn



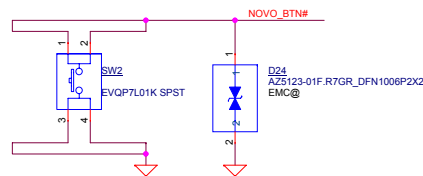
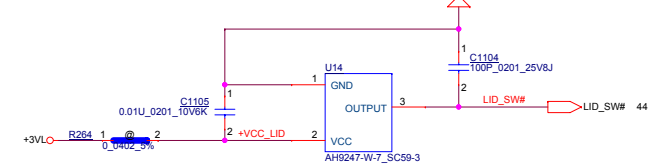




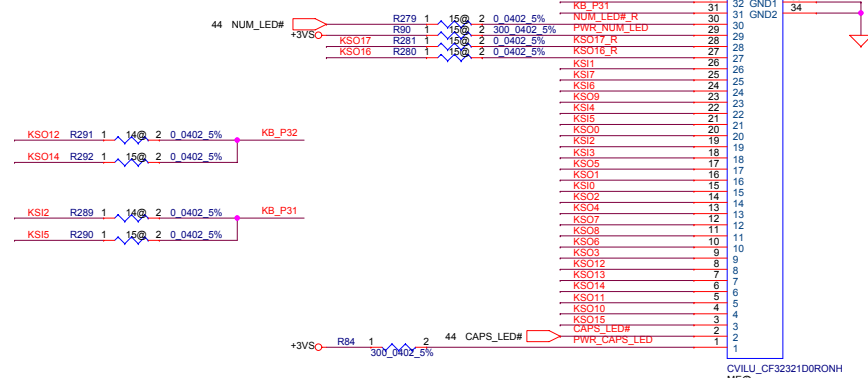
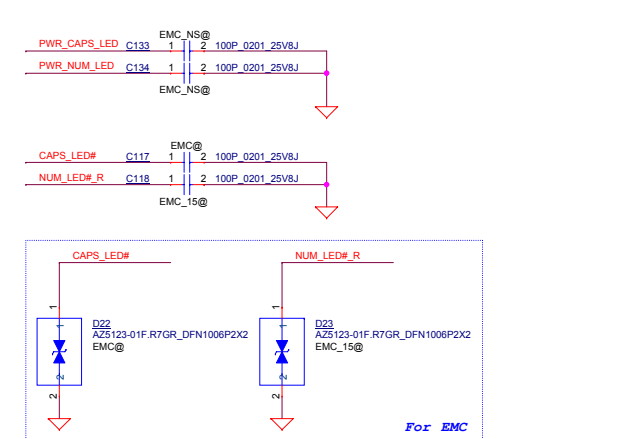
## ON/OFF switch



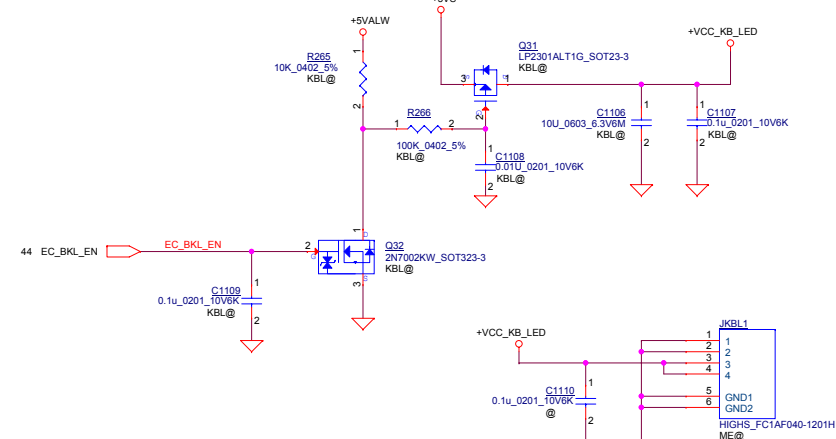
### Novo button

**LID switch**

## K/B Connector

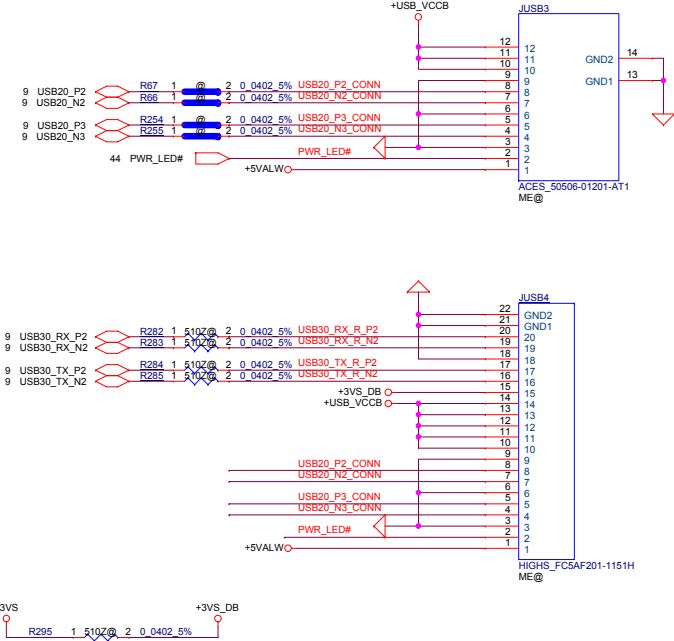
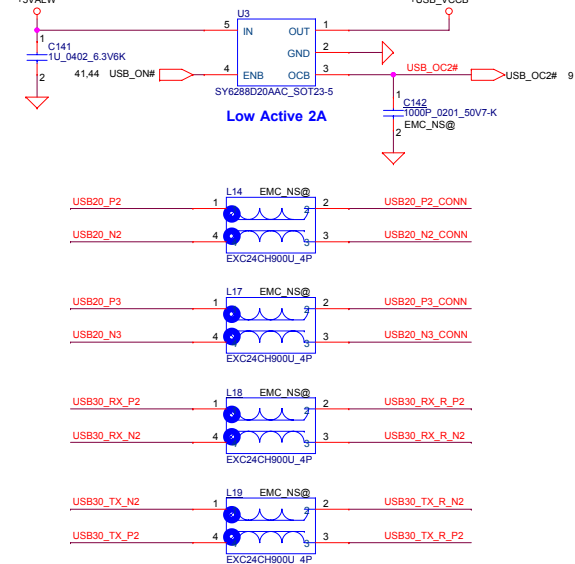


## KB Backlight Connector

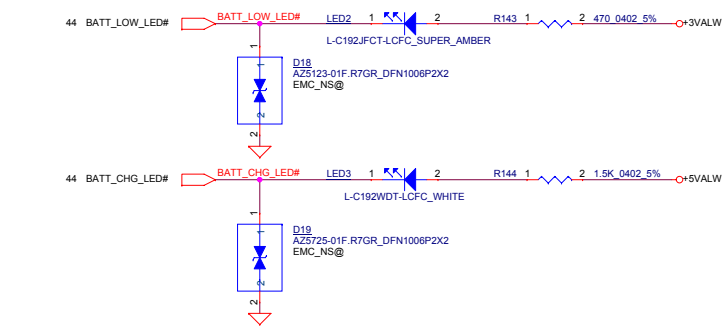
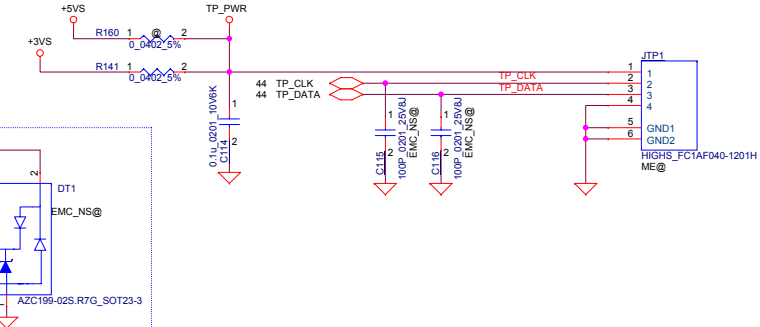



## USB DB Connector

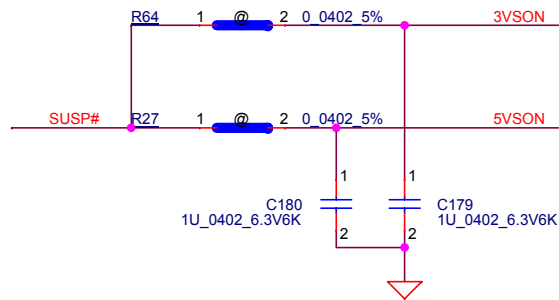
### Right Side USB2.0 Port X 2 (USB/B)



## TP/B Connector



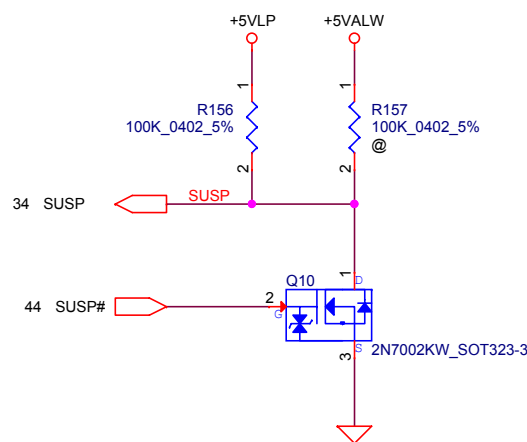
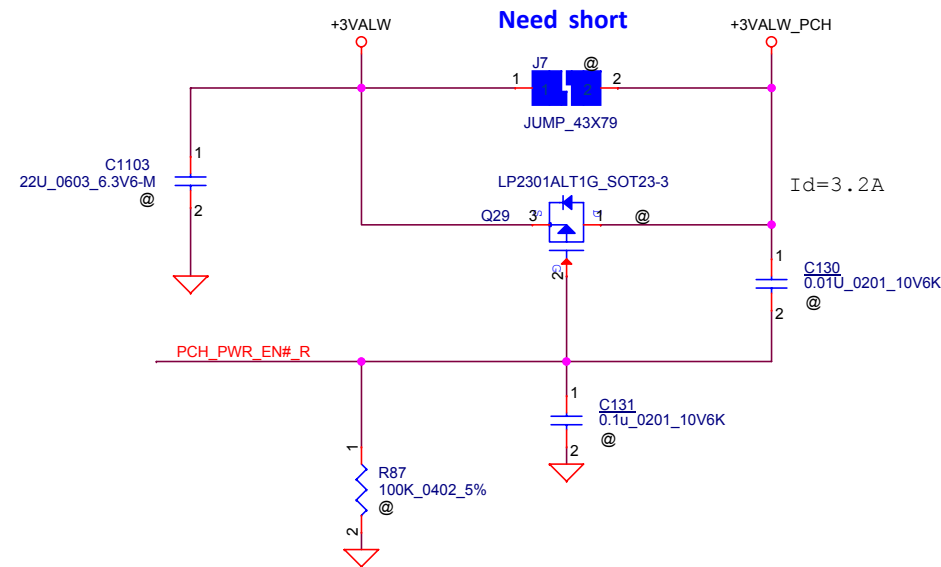
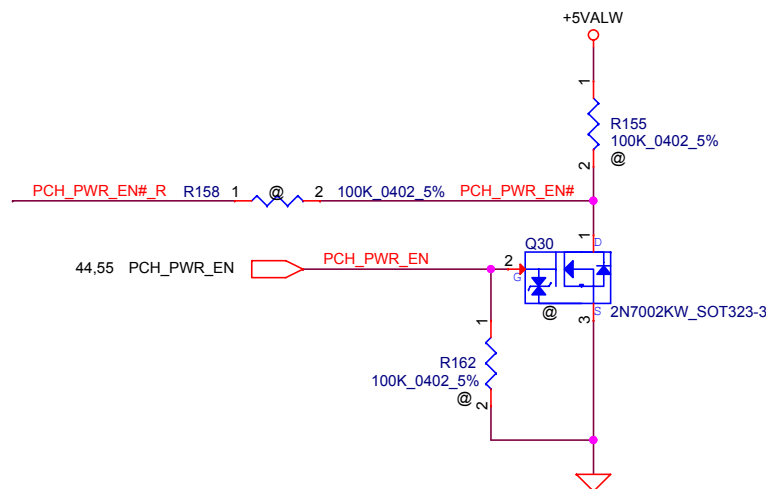
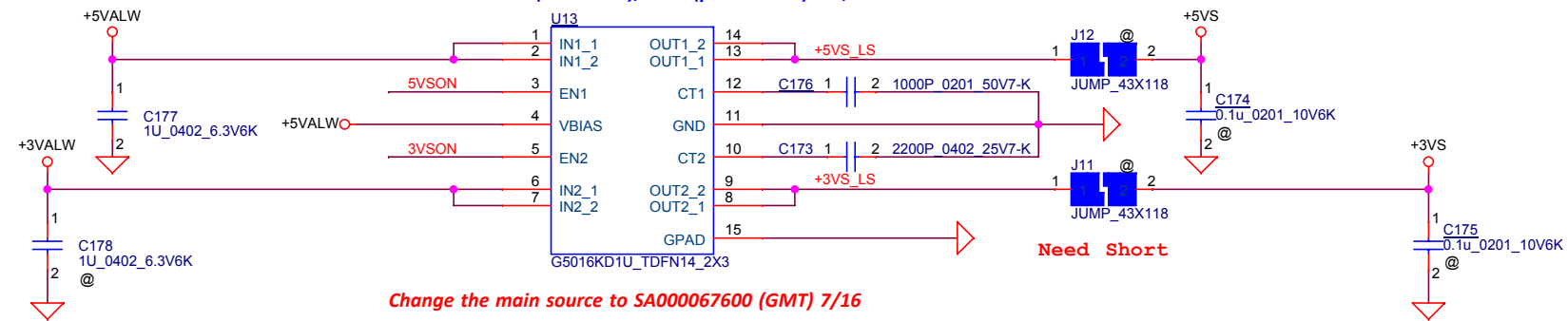
Security Classification		LC Future Center Secret Data		Title		
Issued Date		2015/08/20	Deciphered Date		2016/08/20	
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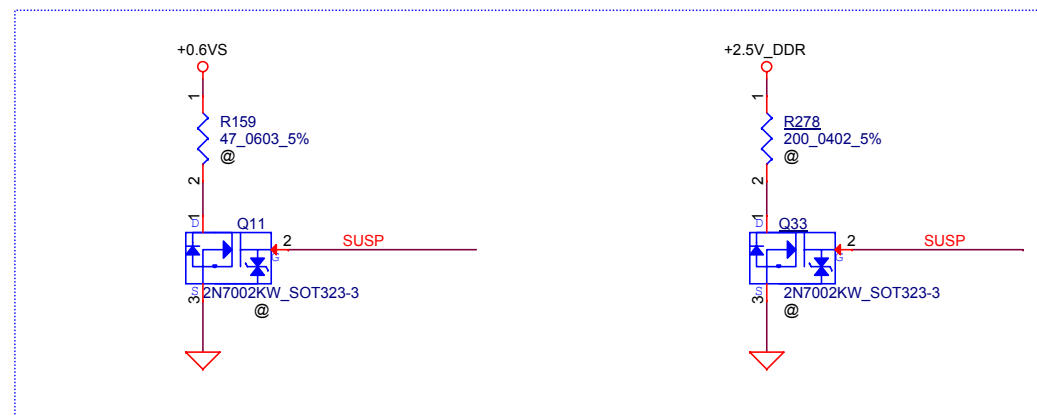
**Load Switch**  
**+5VALW To +5VS**  
**+3VALW To +3VS**

**+3VS, C173 --> 2.74ms**  
**+5VS, C176 --> 2.03ms**


VIN 5V and 3.3V (VBIAS=5V), IMAX(per channel)=6A, Rds=16mohm



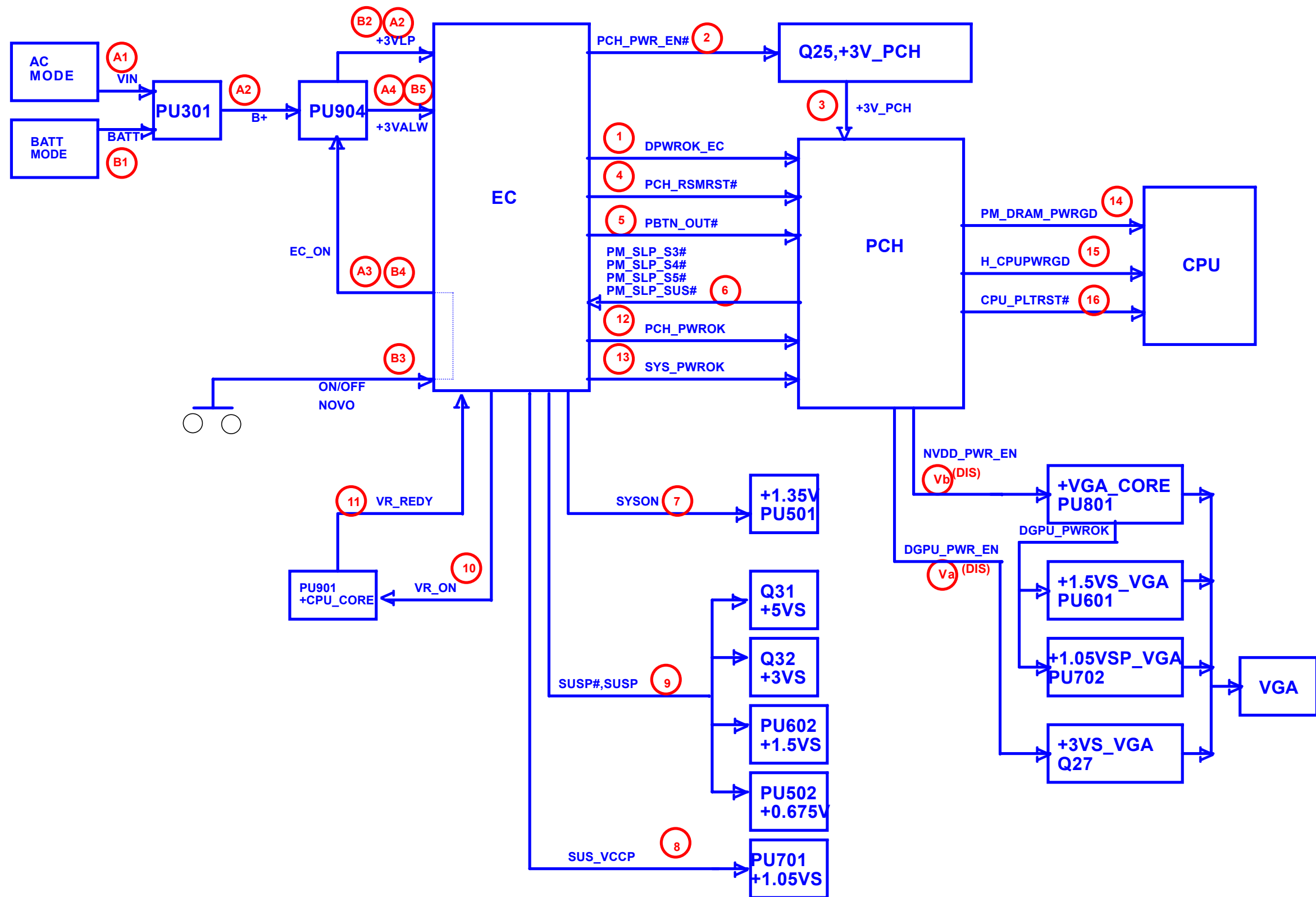
**For DisCharge**



08/29: Need double check enable signal and the resistance

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A								A	
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PCB Fedical Mark PAD

FD1

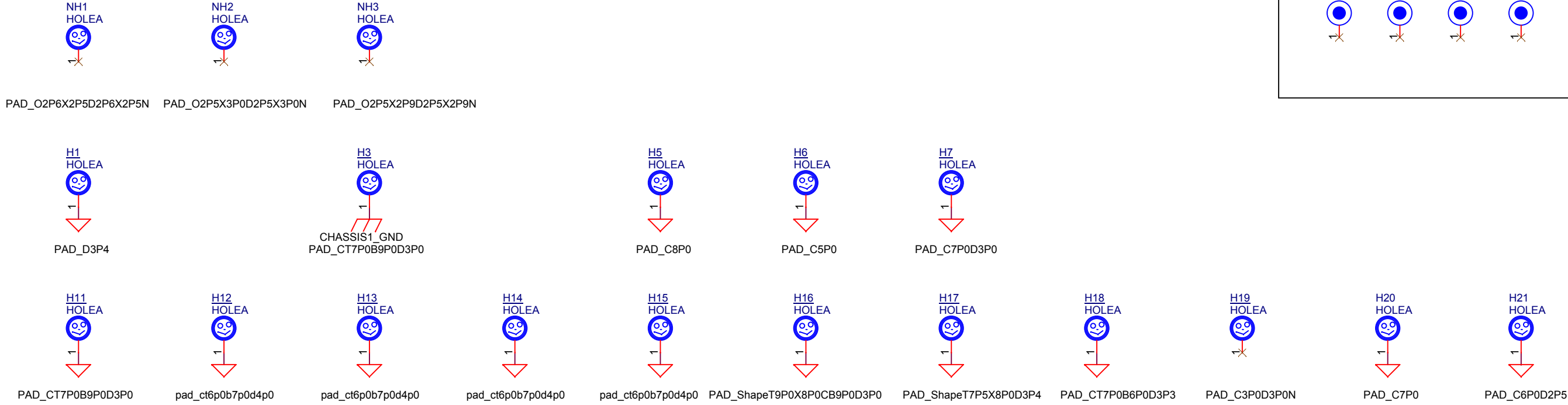
FD2

FD3

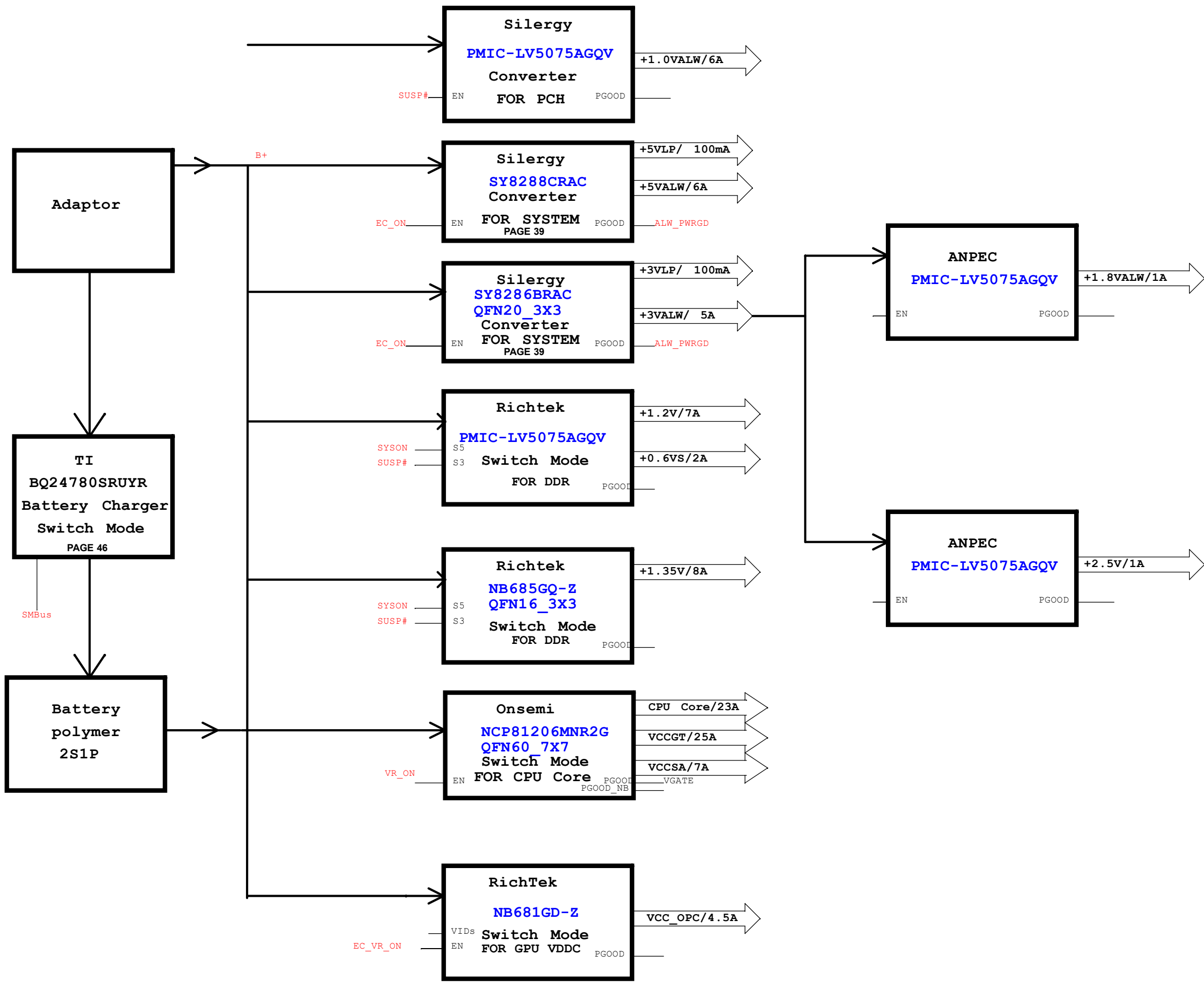
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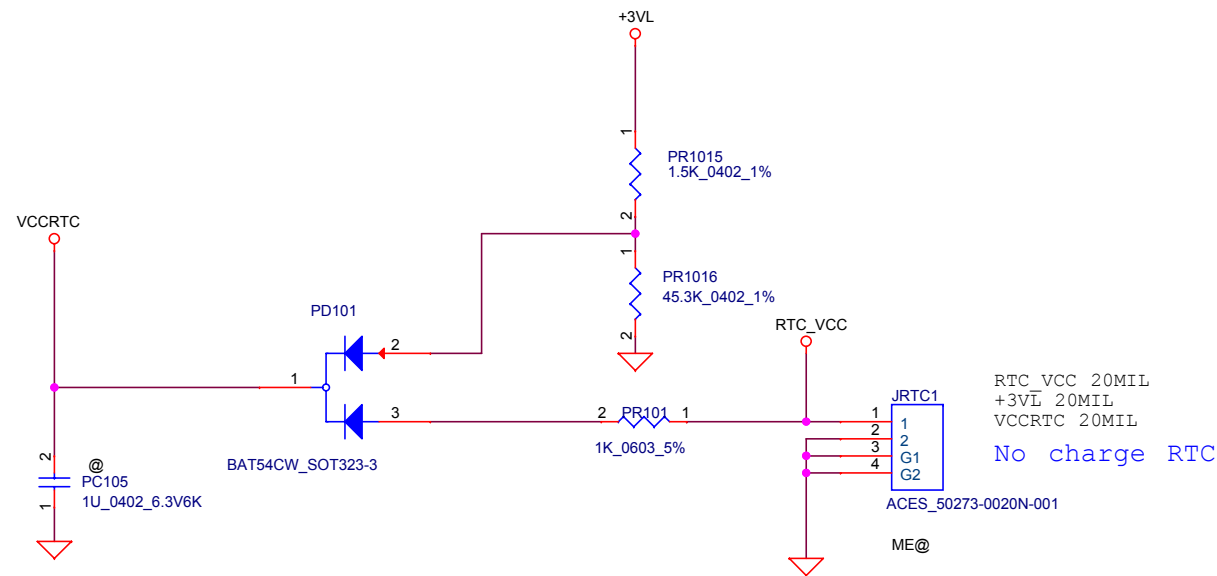
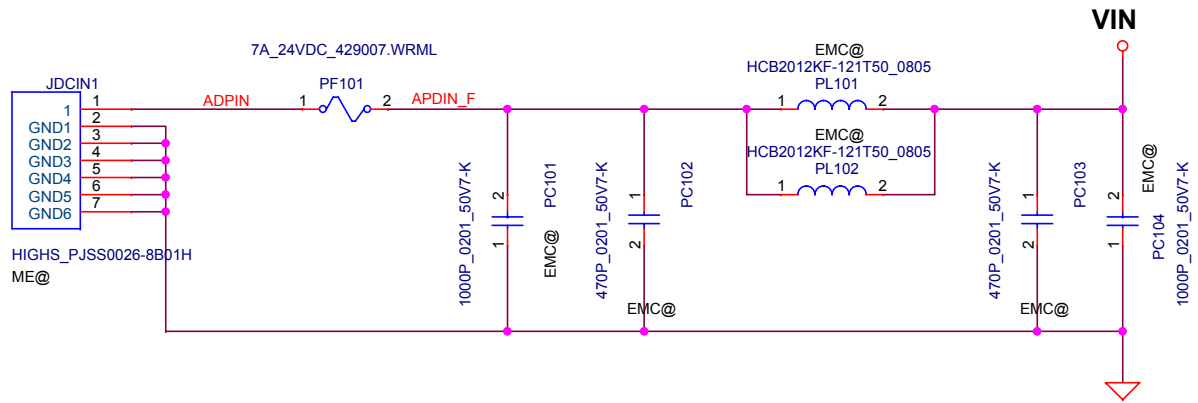
FD5


FD6



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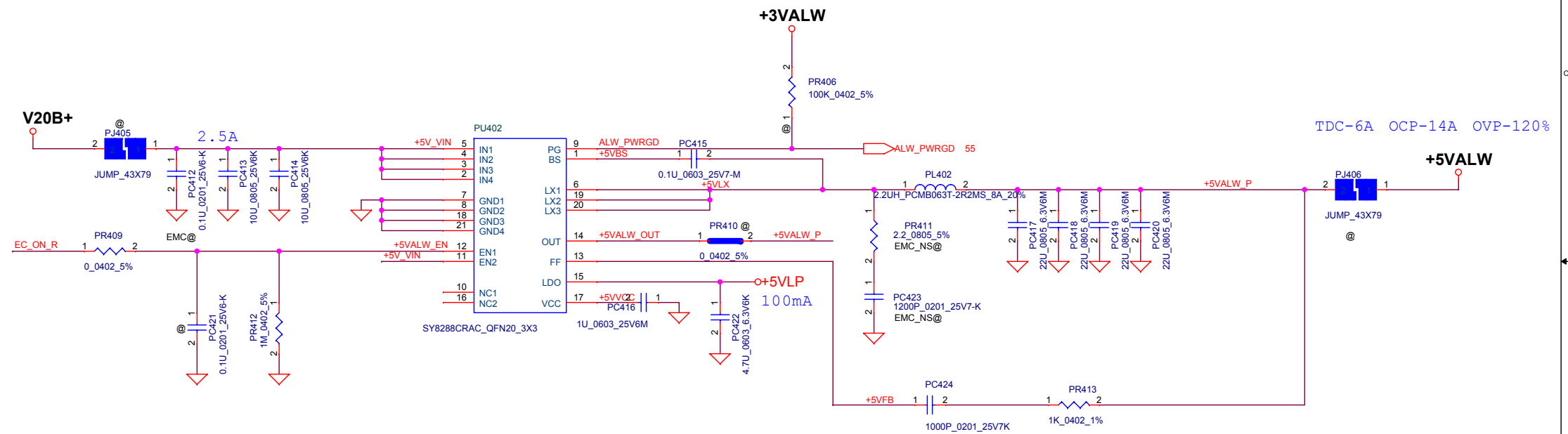
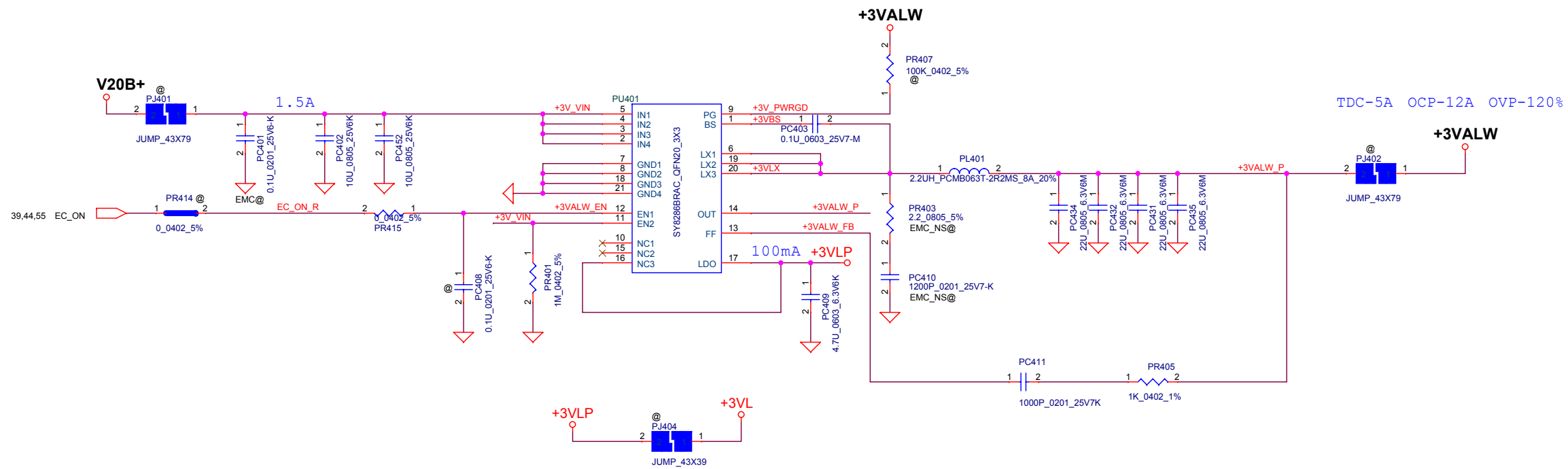




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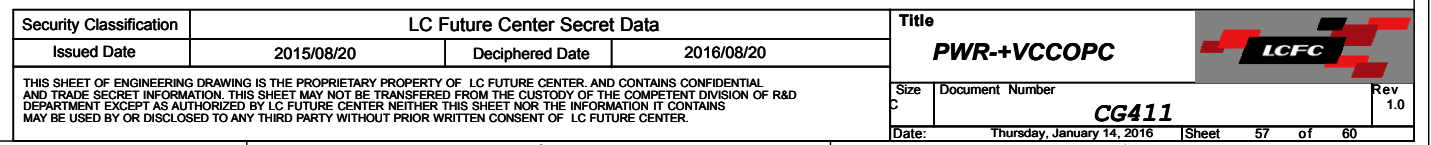
6800pf soft start 2ms  
47nf soft start 7ms

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