

SABRE Lite

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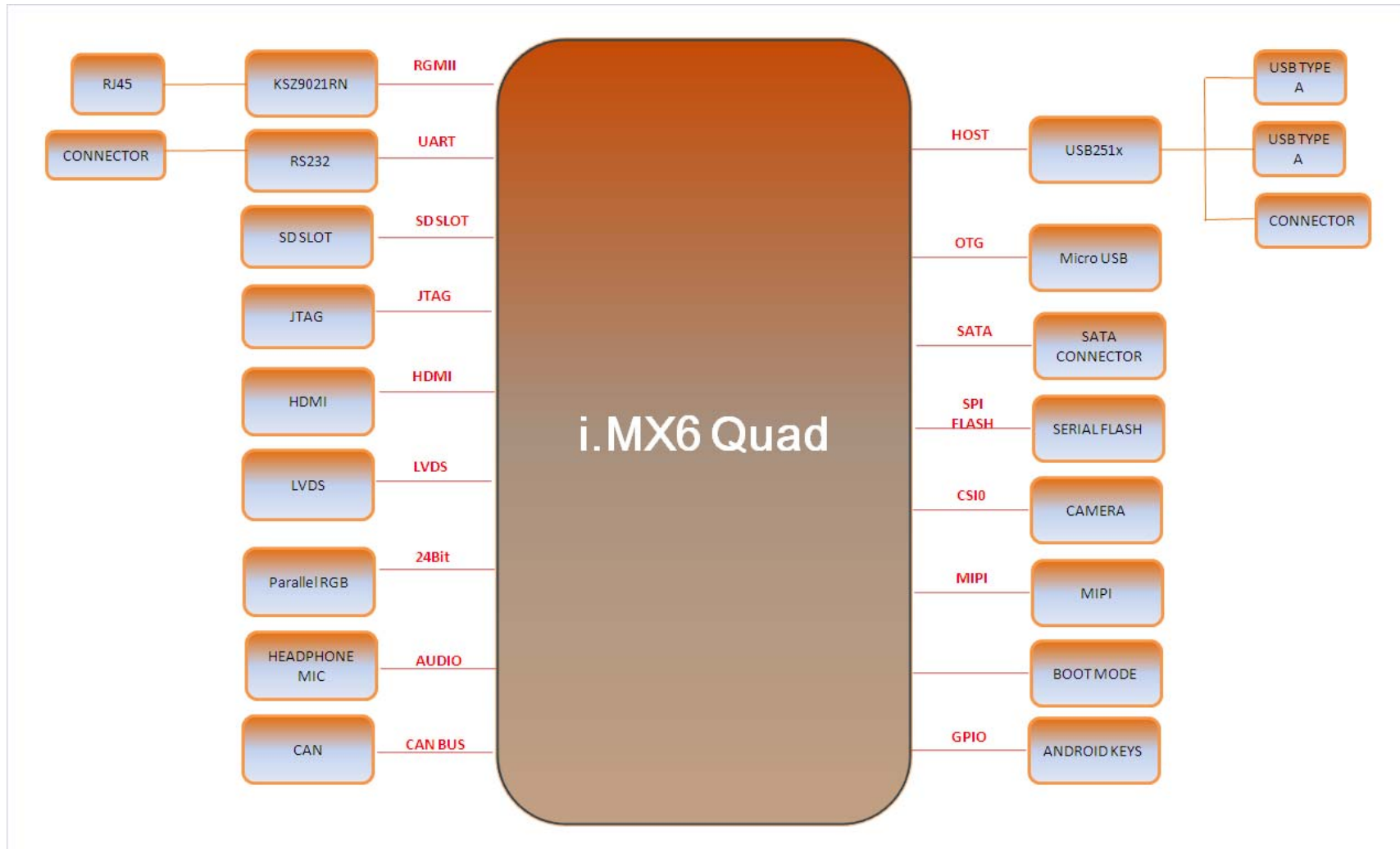
Schematic History

2012-07-09 Changes from SABRE Lite RevC

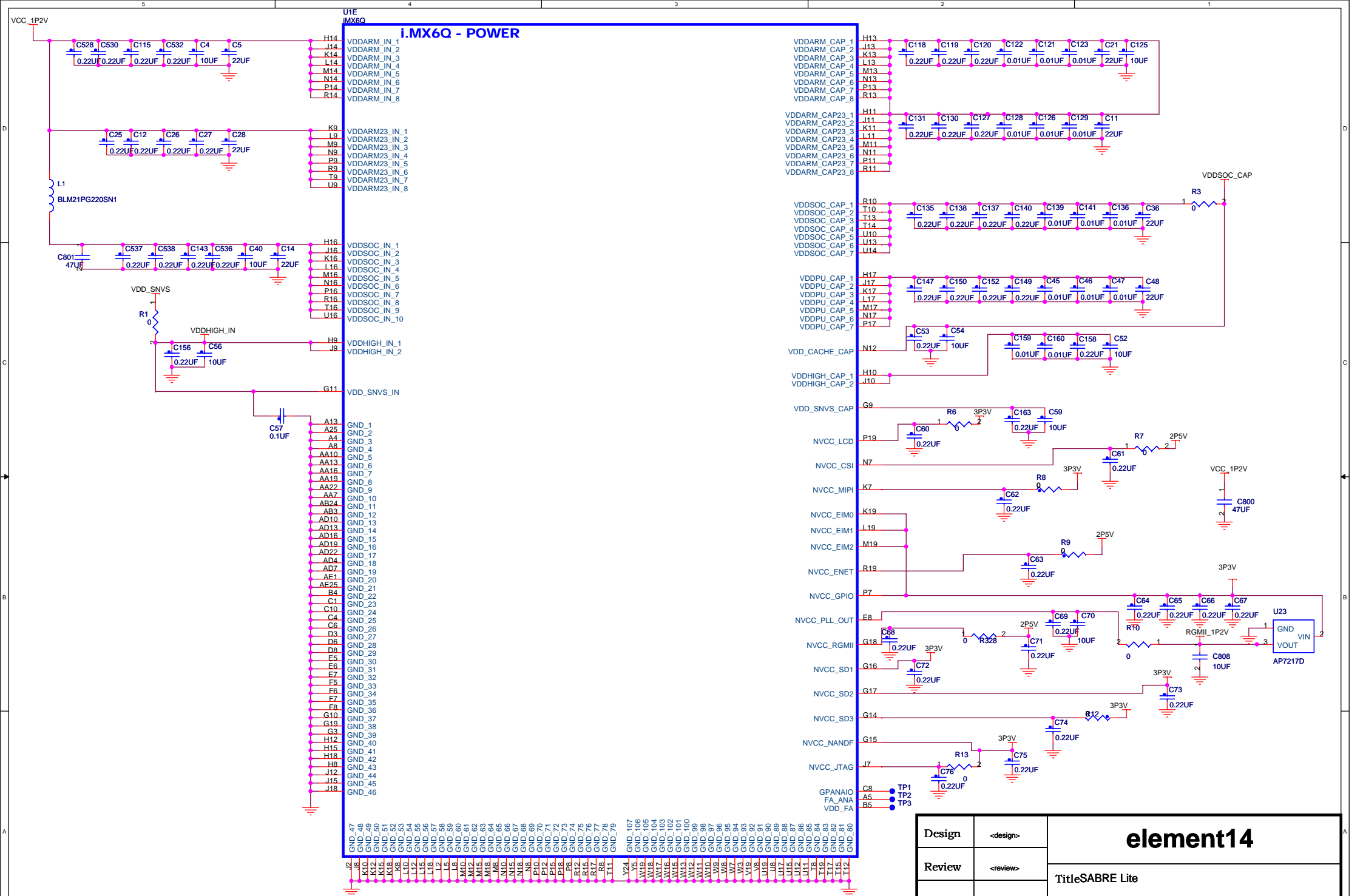
- 1.REPLACED THE 1.2 VOLT POWER FOR "NVCC_PLL_OUT" WITH LINEAR REGULATOR U23
- 2.REPLACED THE CAN CONTROLLER WITH NXP TJA1040T U18
- 3.MODIFIED J24A TO SUPPORT GIGA BIT ETHERNET

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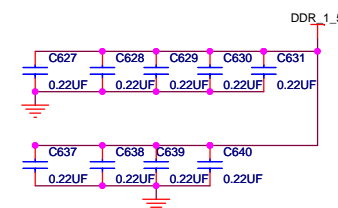
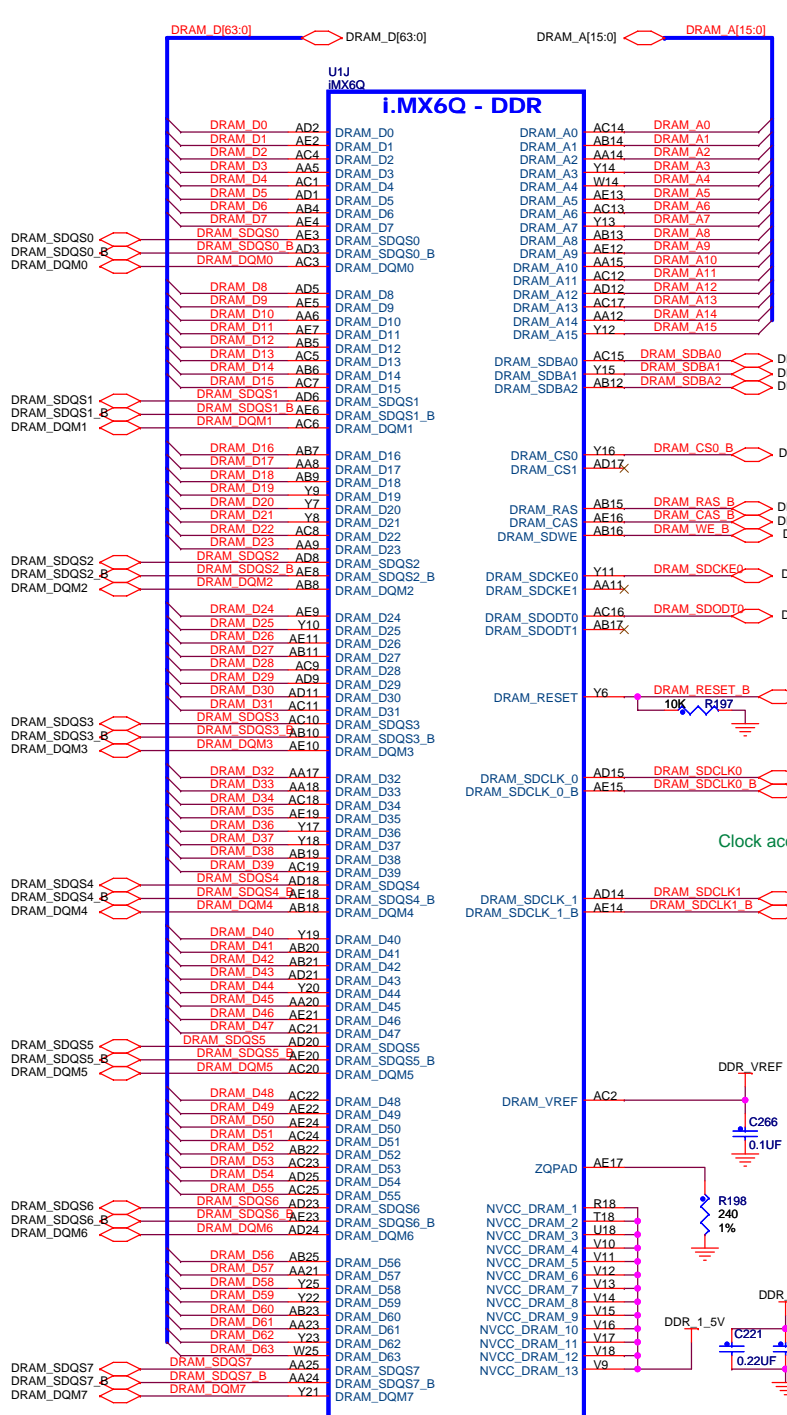
SABER Lite REV-D



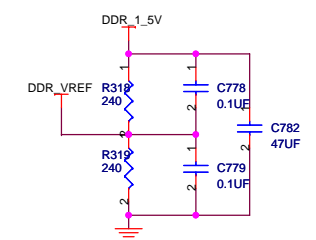
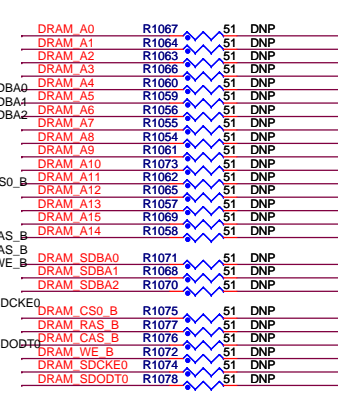
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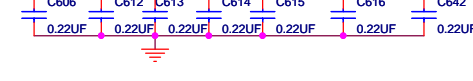
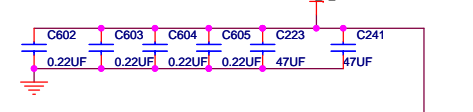
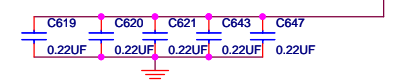
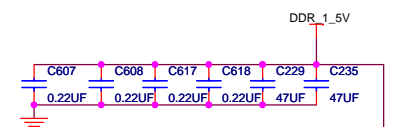
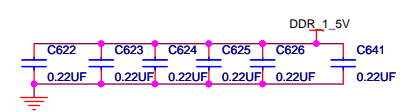
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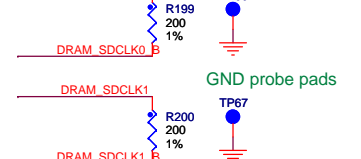
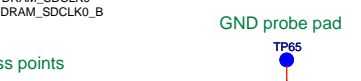
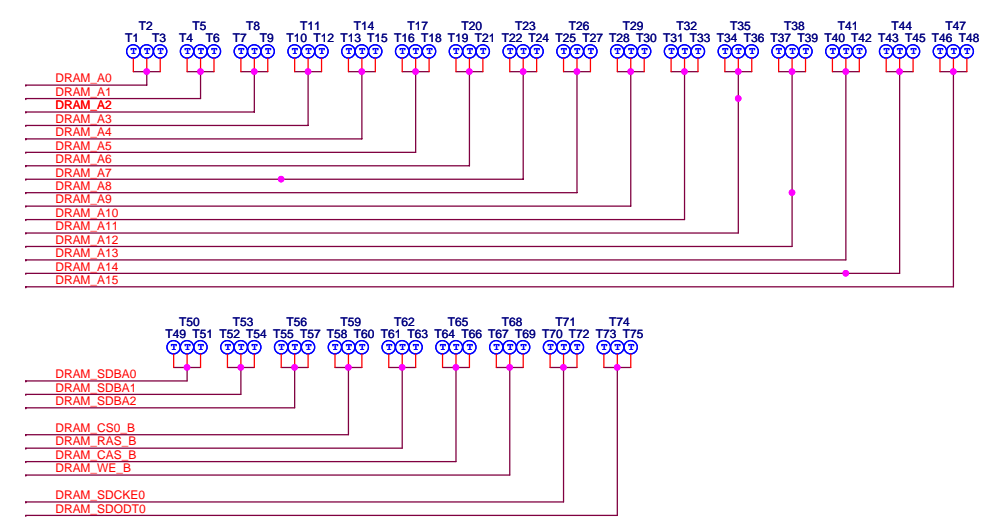
Termination Options



DDR_VTT supply requirements
 400mA worst case
 Supply needs to sink and source DDR_VTT
 $(25 * (0.75V/51ohms)) = 368 \text{ mA}$

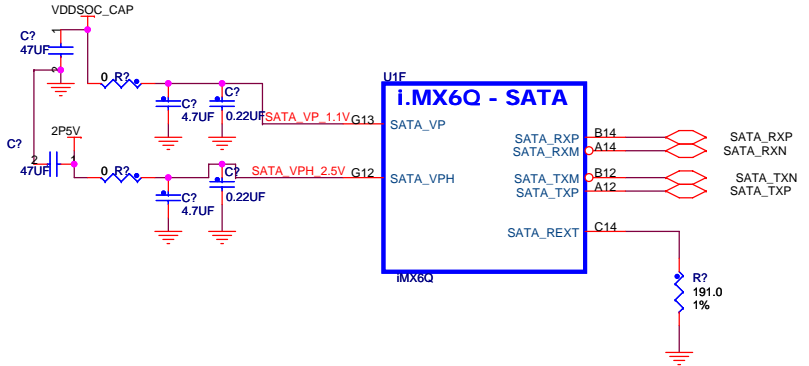
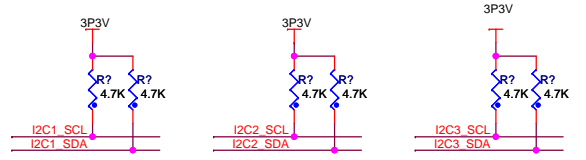
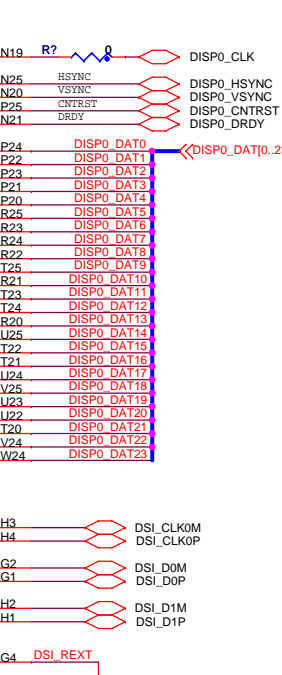
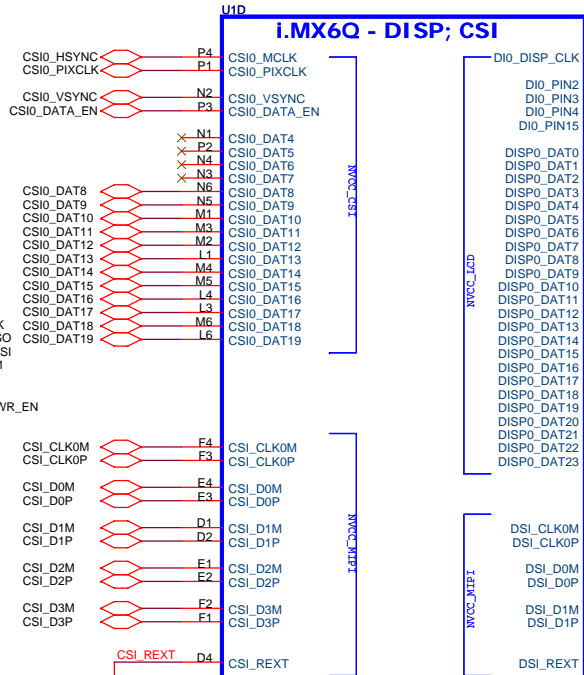
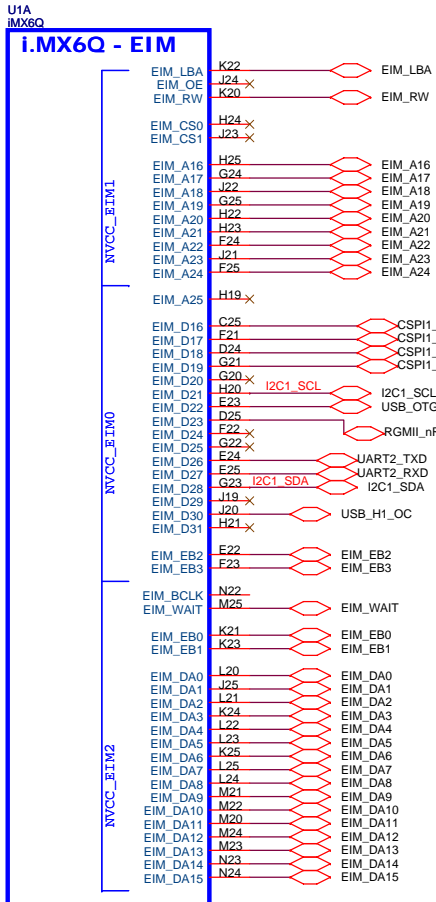


Butler Tpoint routing area

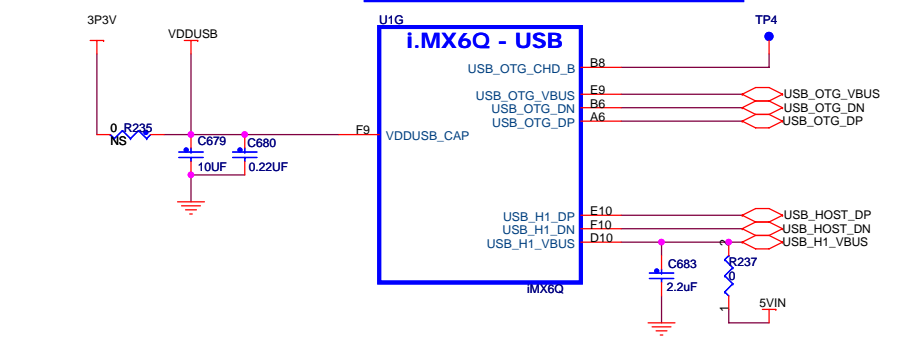
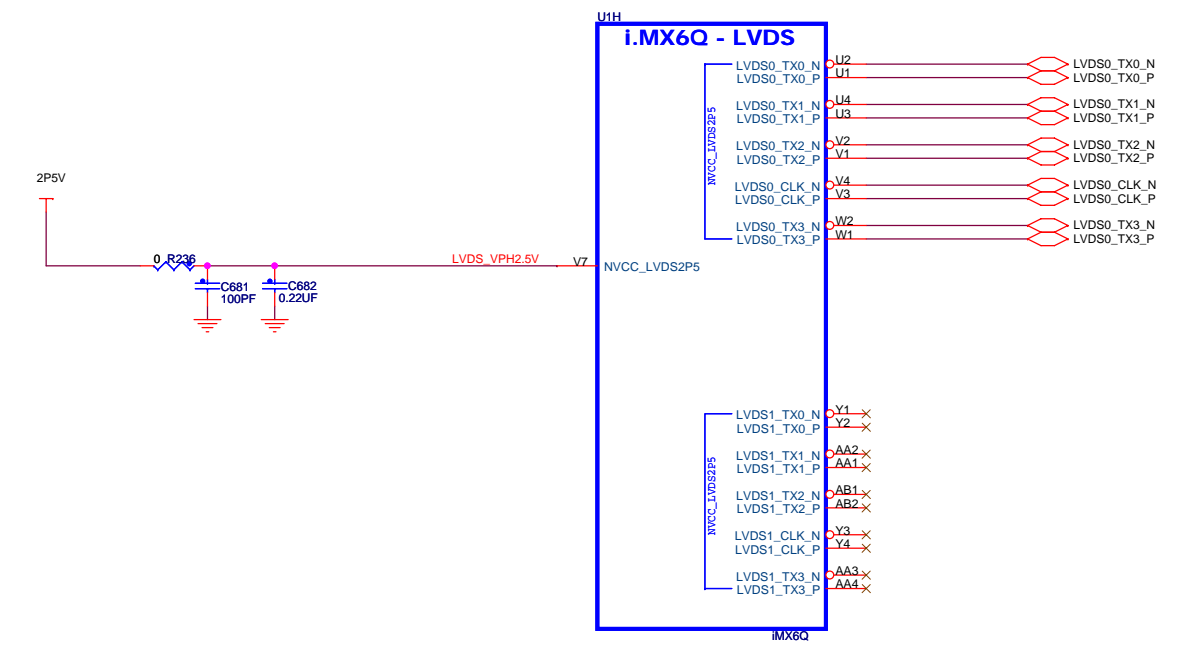
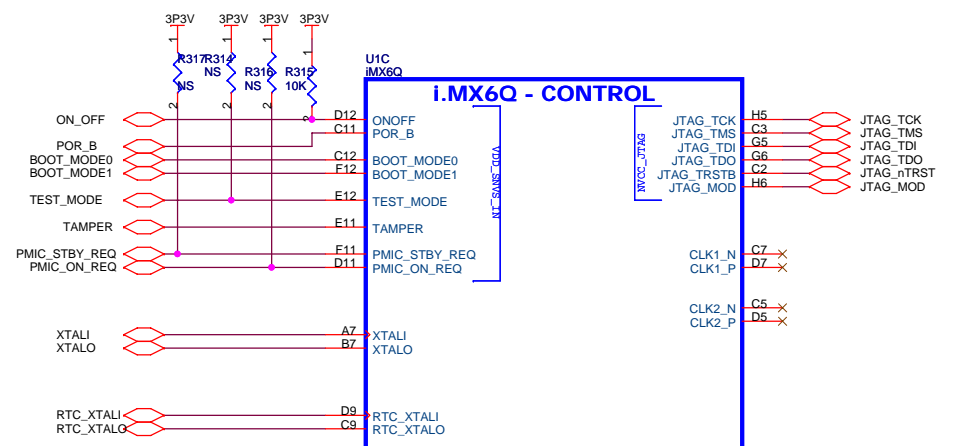
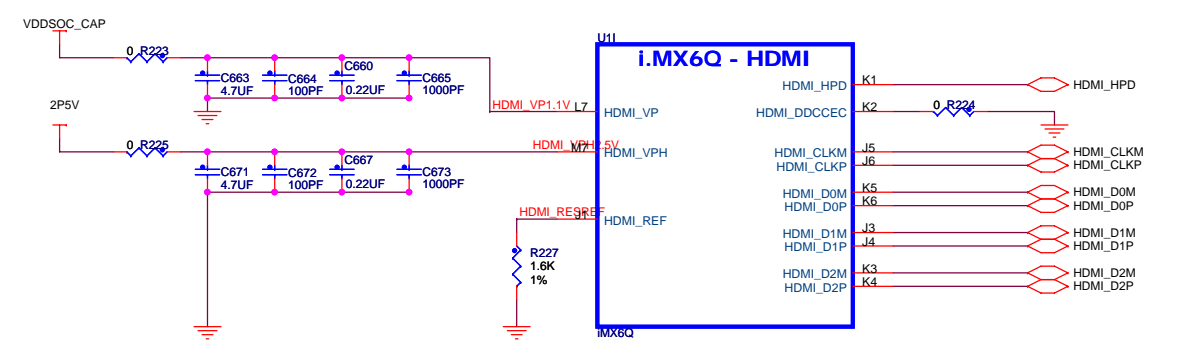
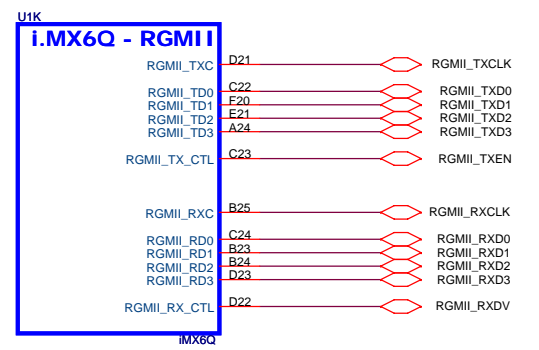
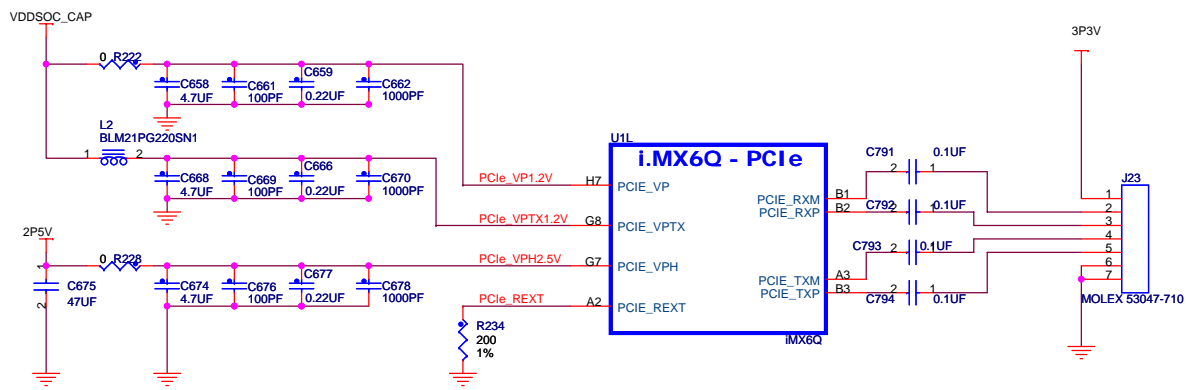


NOTES:
 Using bit swapping for DATA bus to allow easy pcb routing.
 When using data bit swapping the low order bit of each byte must reside at bit 0 of the byte. The remaining 7 data bits can be swapped freely. This restriction is for write leveling calibration.
 Example D0 to D0 or D0 to D8, and D1-7 can be swapped.
 When swapping byte lanes on 16-bit memories, remember to move the DQMx, DQSx, and DQSx_B signals for that byte lane.

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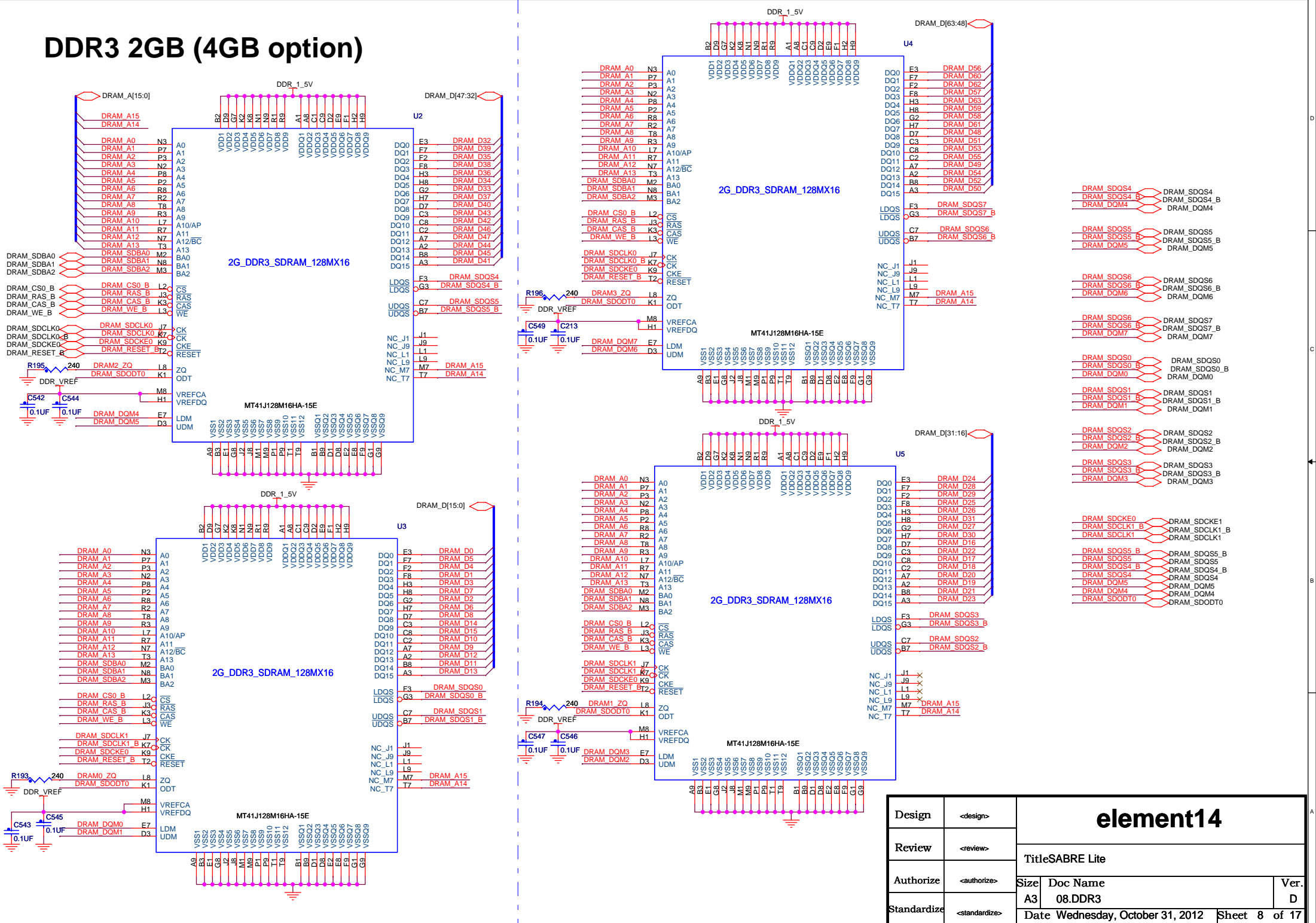


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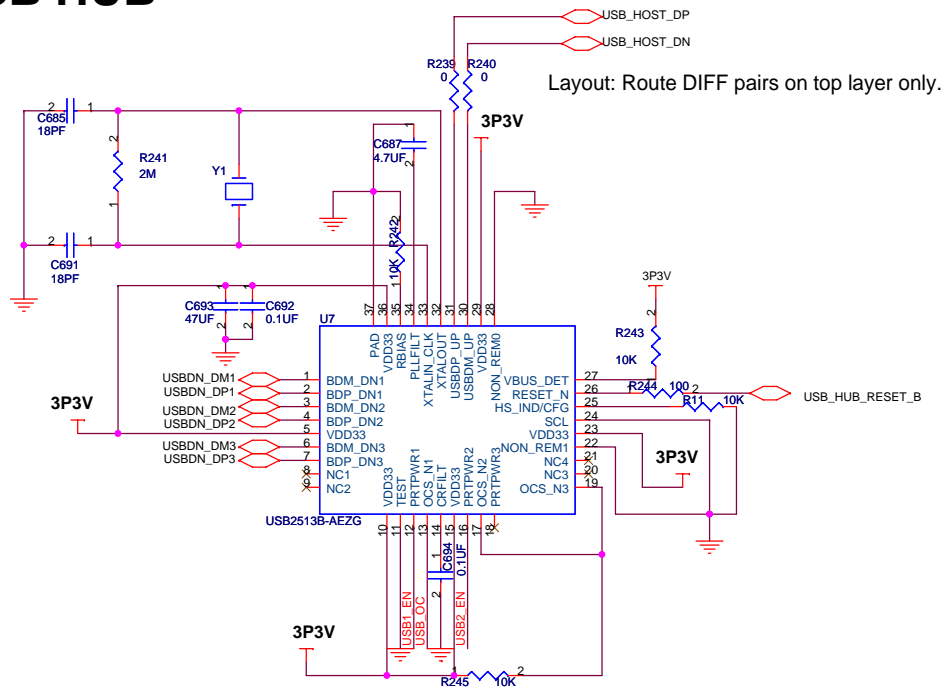
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DDR3 2GB (4GB option)

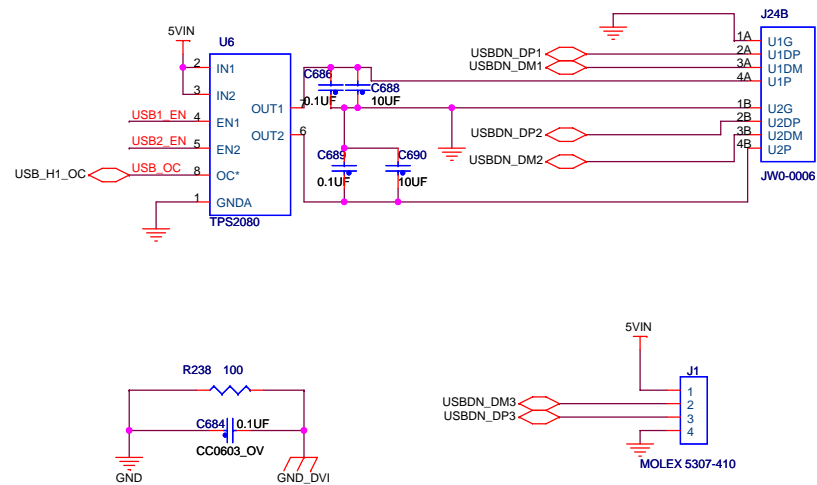


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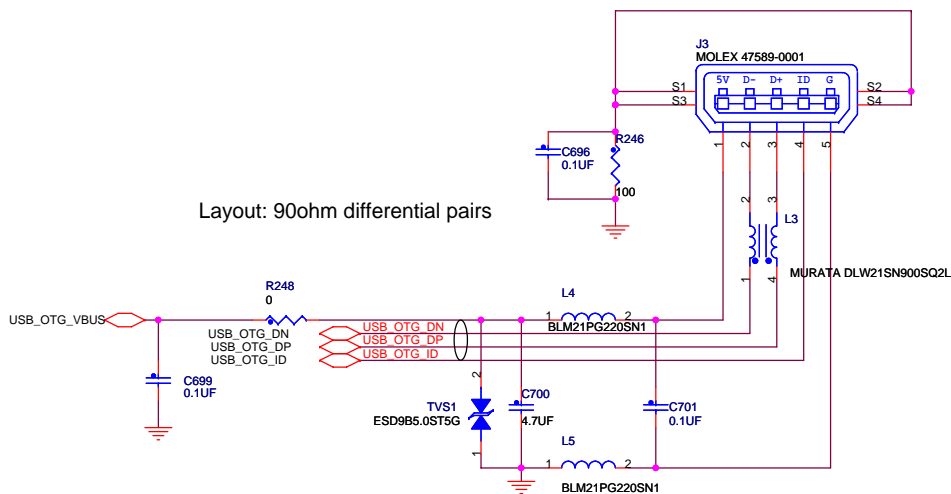
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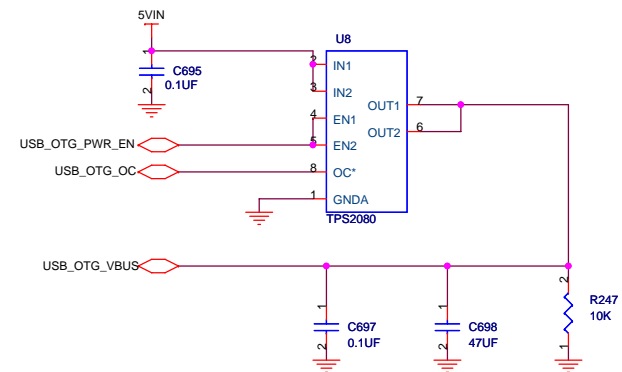
USB HOST



USB OTG

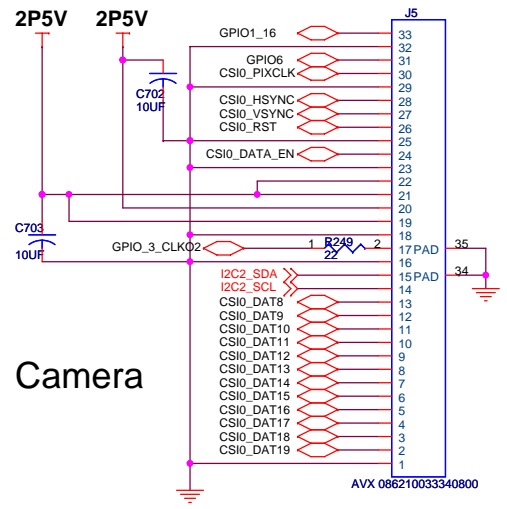


USB POWER SWITCH



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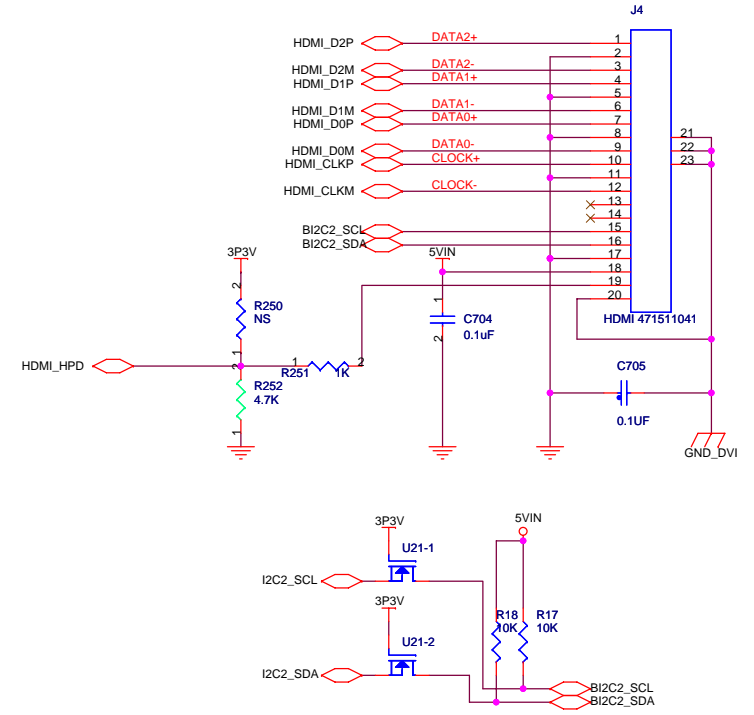
CMOS Sensor



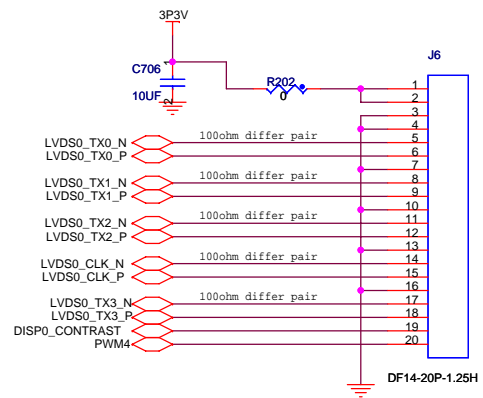
Camera

HDMI

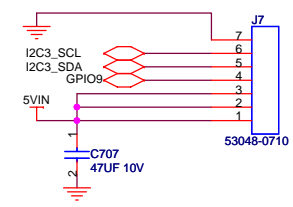
Layout: HDMI 100 ohm differential pairs



LVDS

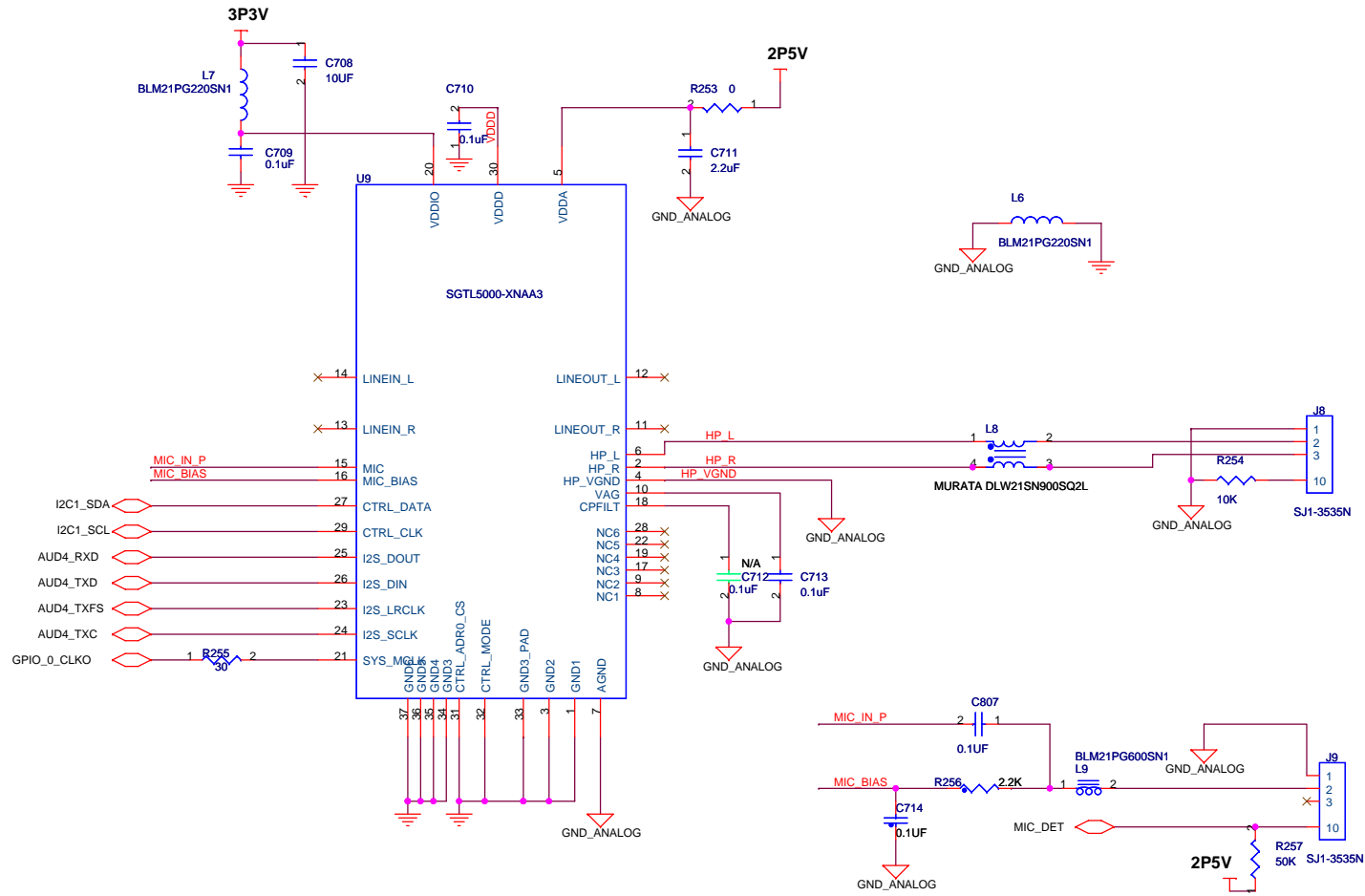


I2C FOR TOUCH



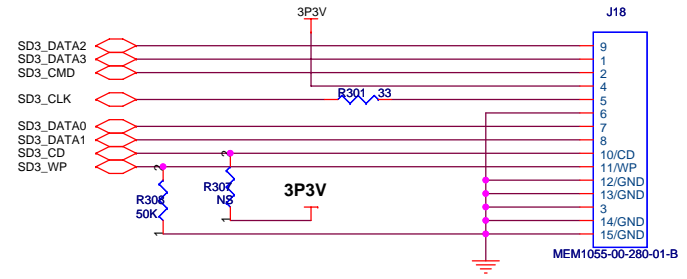
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AUDIO

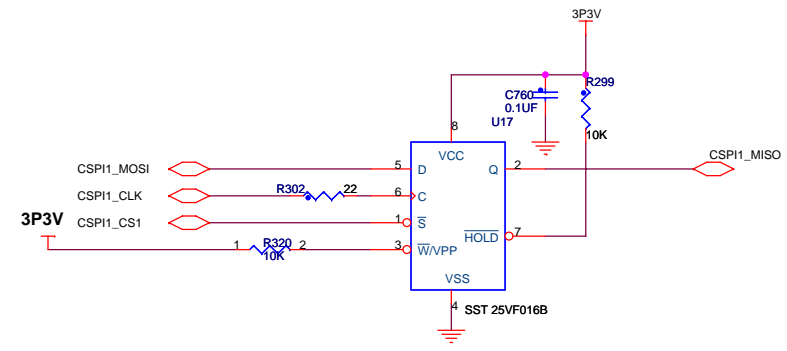


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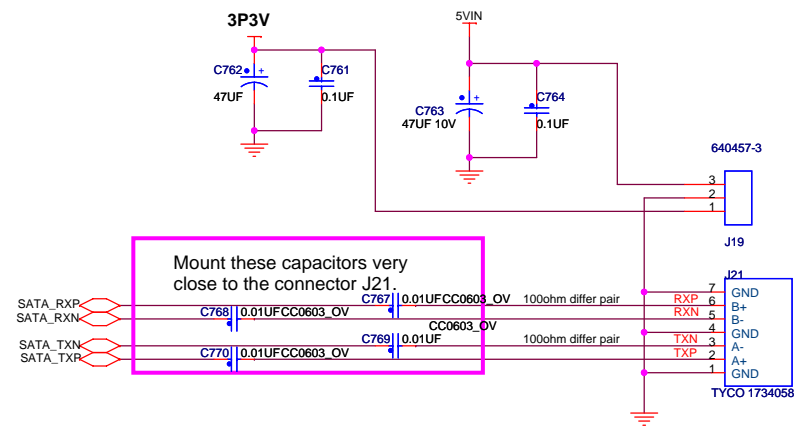
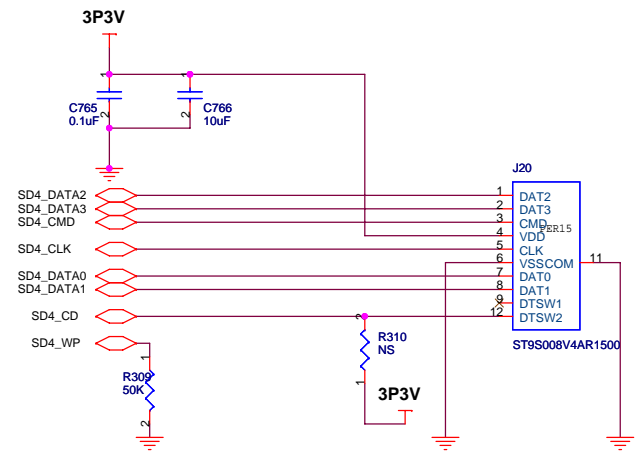
SD/MMC CARD



SPI FLASH



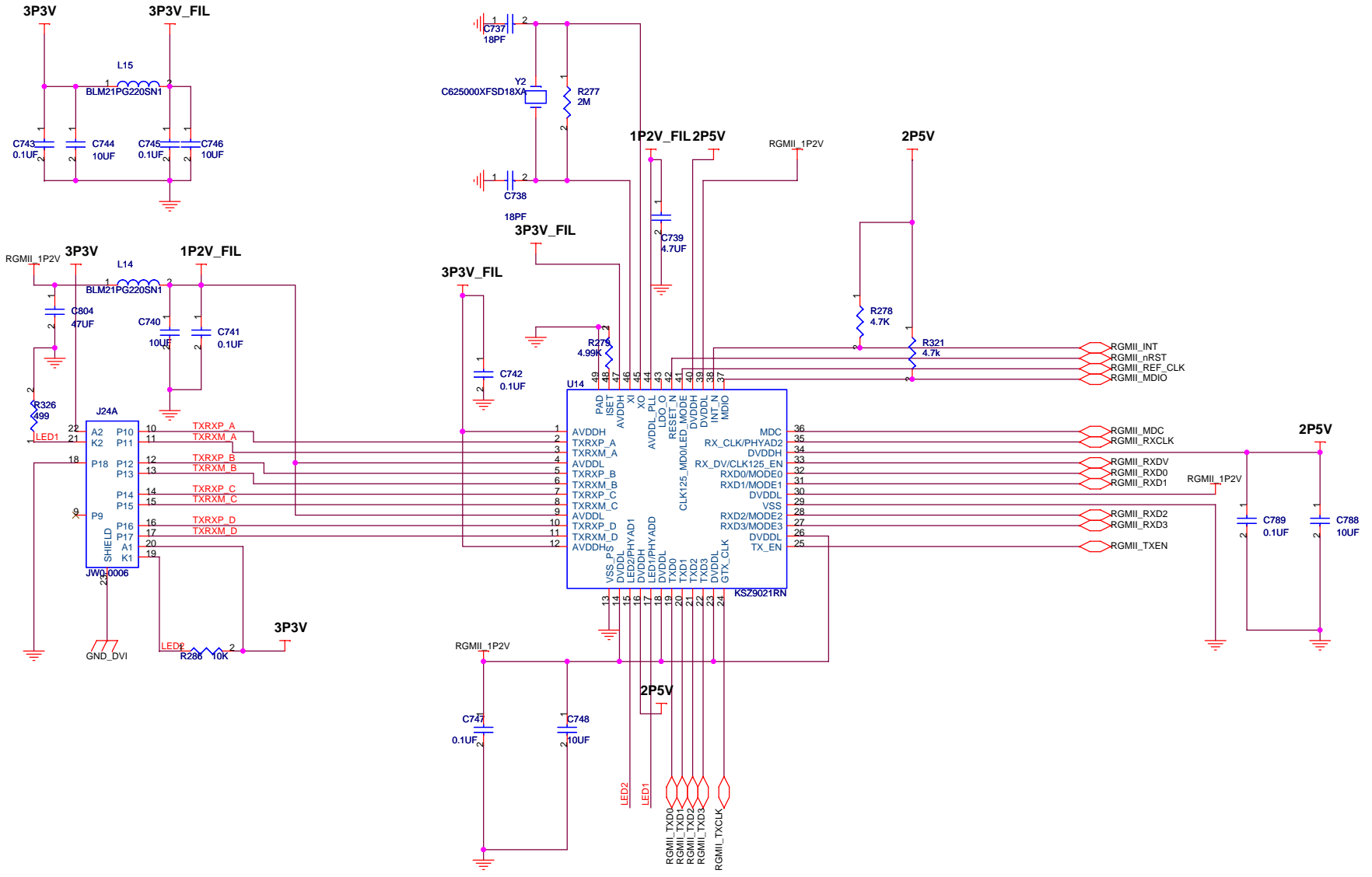
SATA



Layout:
50ohm, SD singals(SD_DATAx, SD_CMD, SD_CLK) length equal

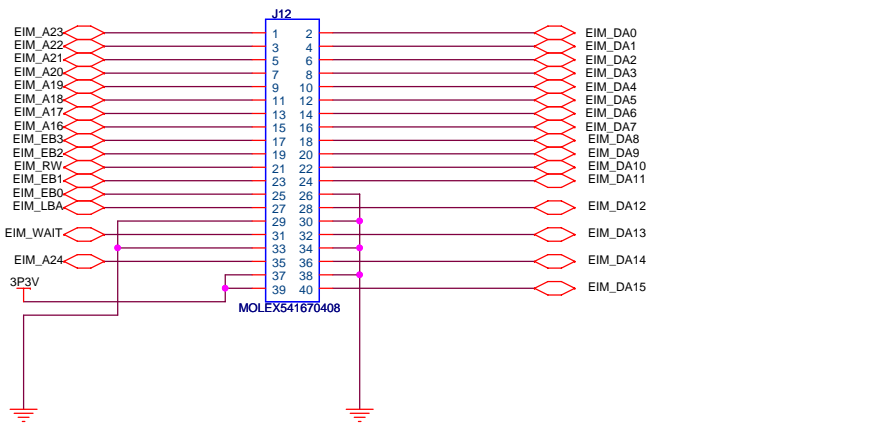
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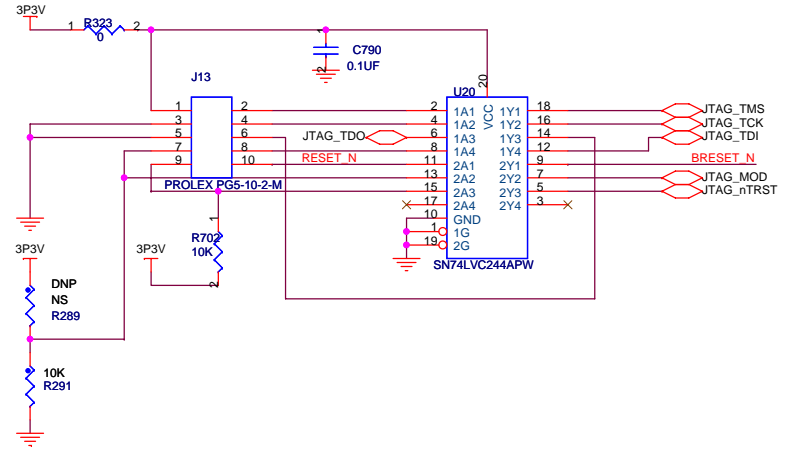


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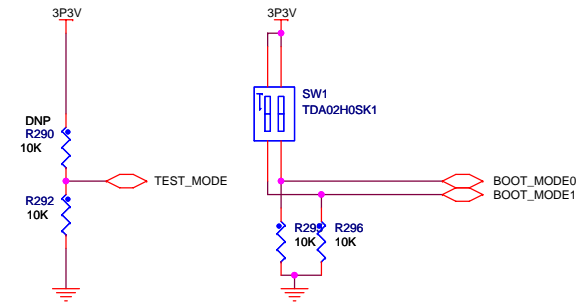
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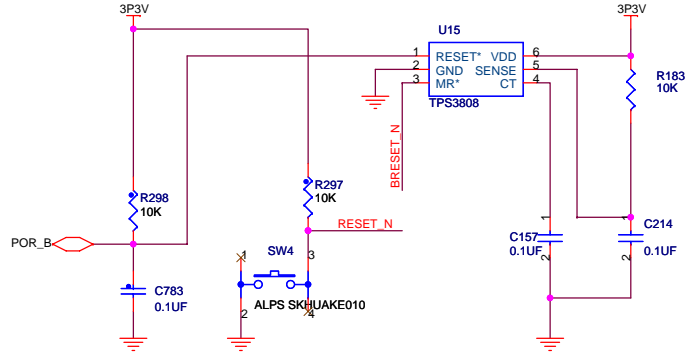
JTAG CONNECTOR



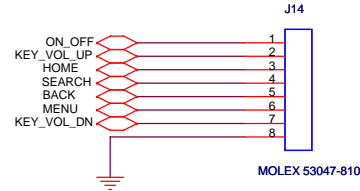
BOOT MODE



POWER MONITOR

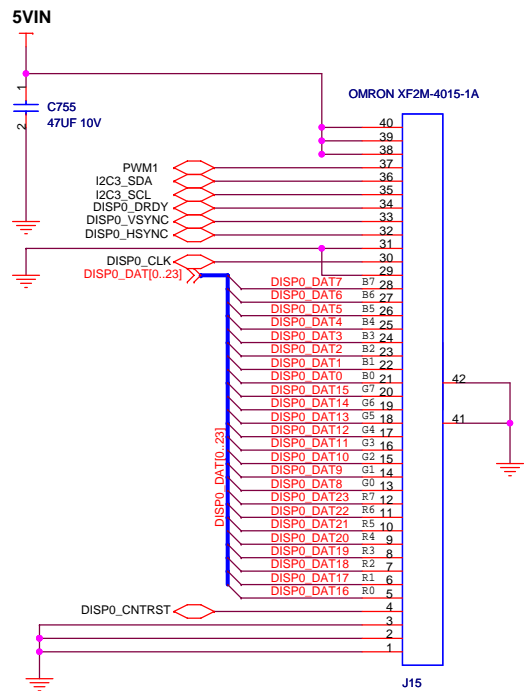


ANDROID BUTTONS

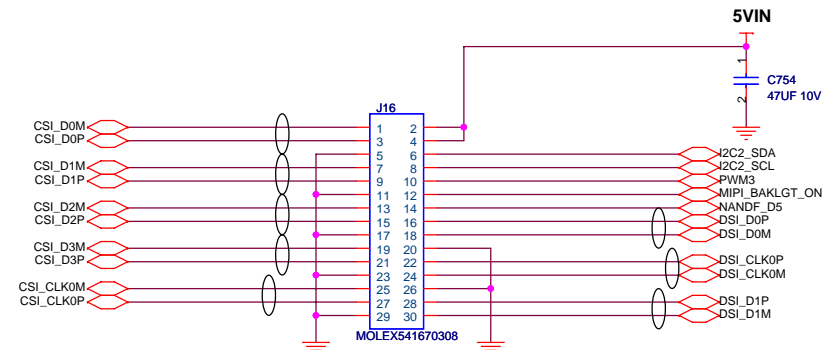


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PARALEL RGB INTERFACE

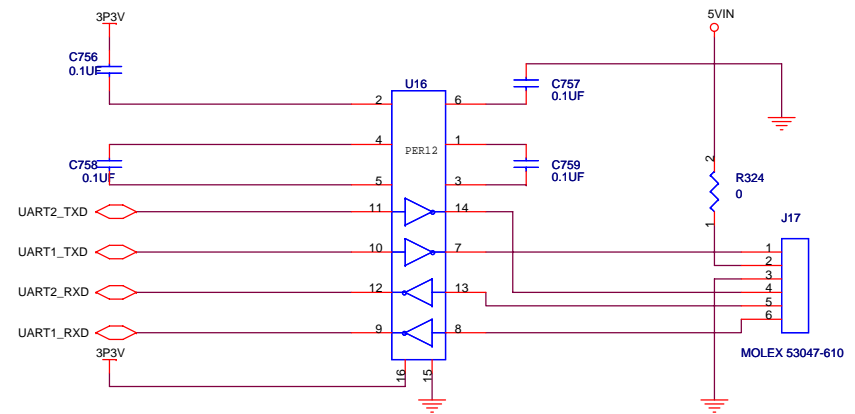


MIPI INTERFACE



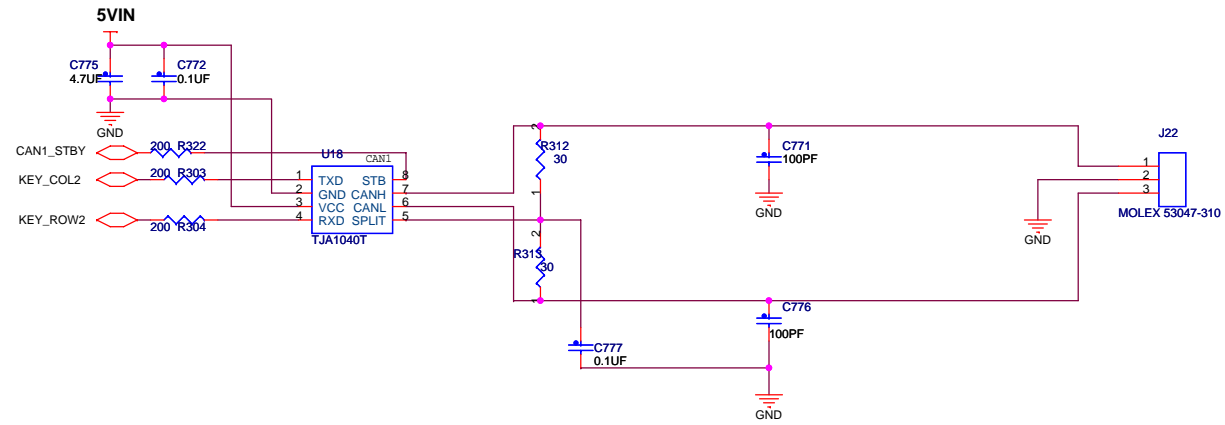
Layout: 100 ohm differential pairs

RS232 INTERFACE



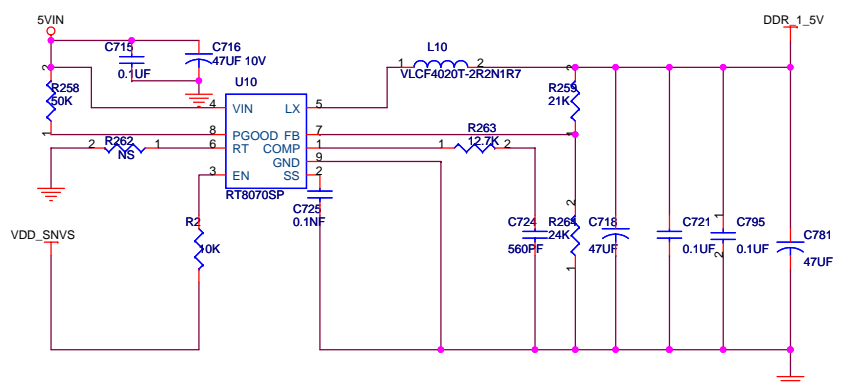
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CAN INTERFACE

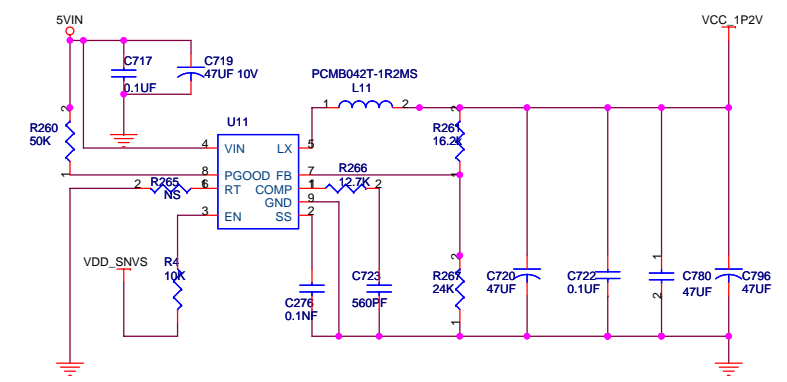


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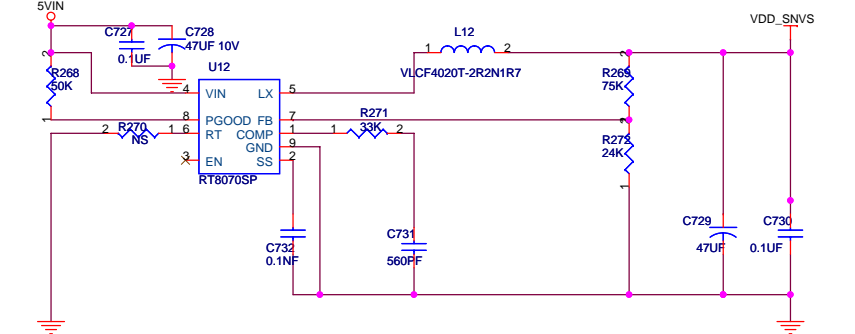
POWER DDR 1.5V



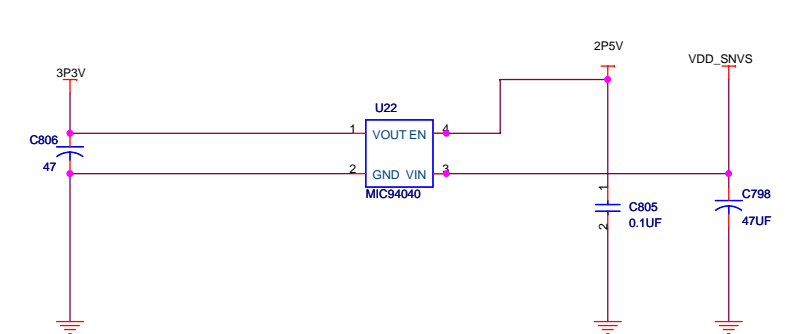
POWER 1.2V



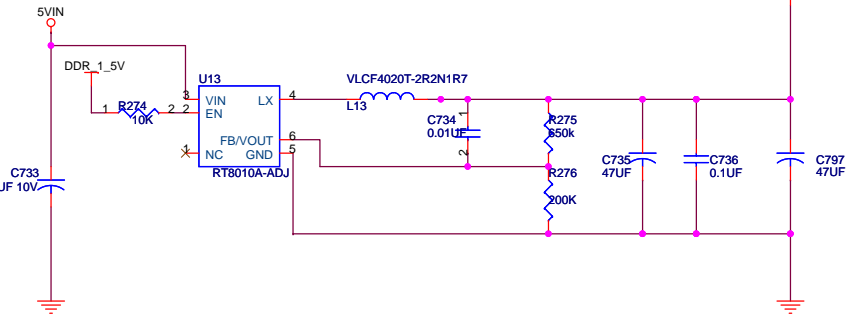
POWER 3.3V



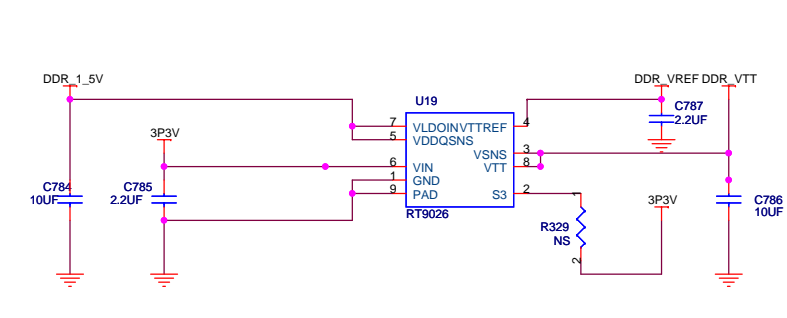
POWER 3.3V



POWER 2.5V



NI



POWER INPUT



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