

5

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D

D

C

C

B

B

A

A

| <b>SCHEMATIC</b> | <b>CONTENT</b>                                 | <b>PAGE</b> |
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| COVER PAGE       | COVER PAGE                                     | 01          |
| DIAGRAM          | PCB DIAGRAM                                    | 02          |
| POWER            | VCC3P3, VCC5P0, VCC2P5, VCC1P8, VCC1P2, VCC0P9 | 03~05       |
| FPGA-1           | MIPI, SPI-FLASH, SPI                           | 06          |
| FPGA-2           | SDI HDMI                                       | 07          |
| FPGA-3           | LVDS/MIPI, USB-JTAG, OSC, RST                  | 08          |
| FPGA-4           | Type-C   | 09          |
| FPGA-5           | FPGA POWER&GND                                 | 10          |
|                  |  |             |
|                  |  |             |
|                  |  |             |

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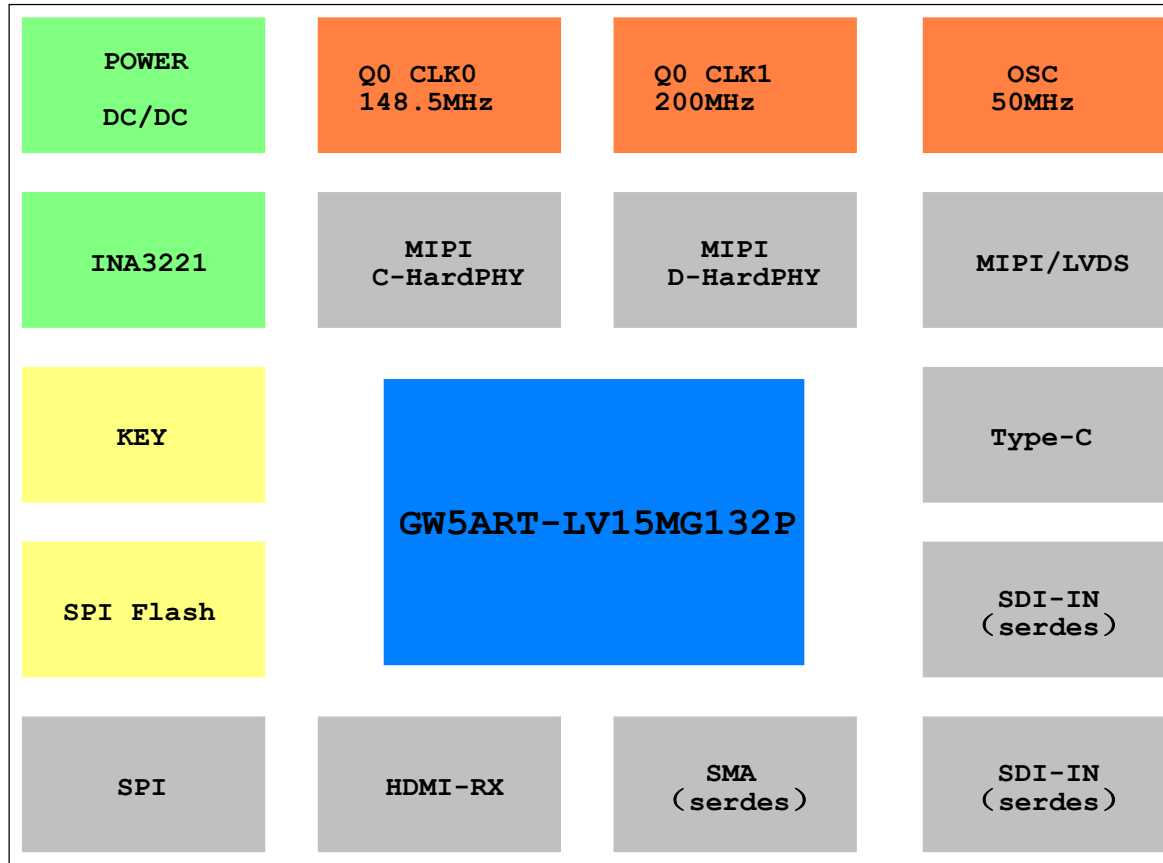
2

1

D

D

# PCB DIAGRAM



C

C

B

B

A

A

|                               |                           |       |         |
|-------------------------------|---------------------------|-------|---------|
| Title                         |                           |       |         |
| DK_USB_GW5ART-LV15MG132P_V1.1 |                           |       |         |
| Size                          | Document Number           | Rev   |         |
| A3                            | DIAGRAM                   | V1.1  |         |
| Date:                         | Tuesday, January 14, 2025 | Sheet | 2 of 10 |

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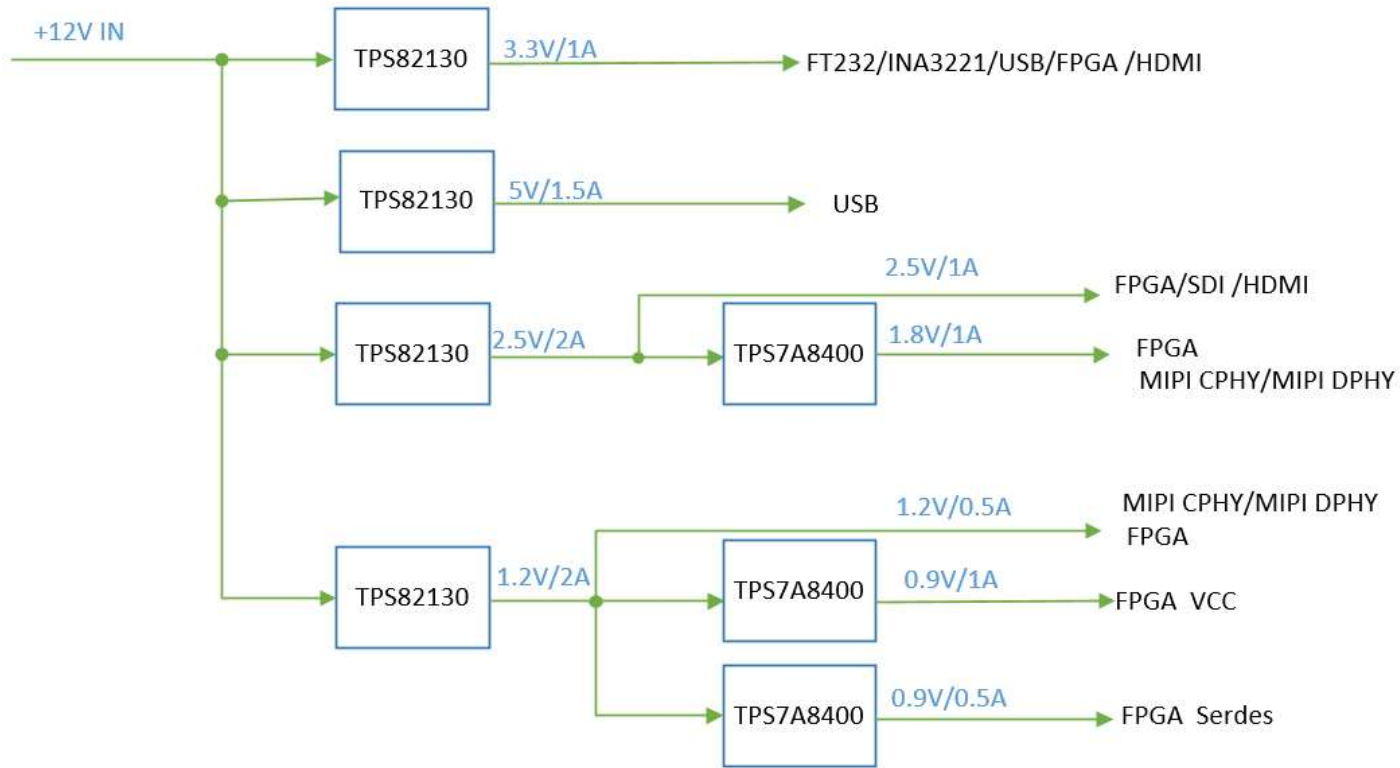
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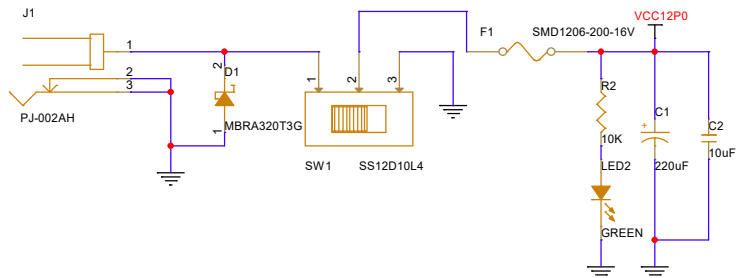
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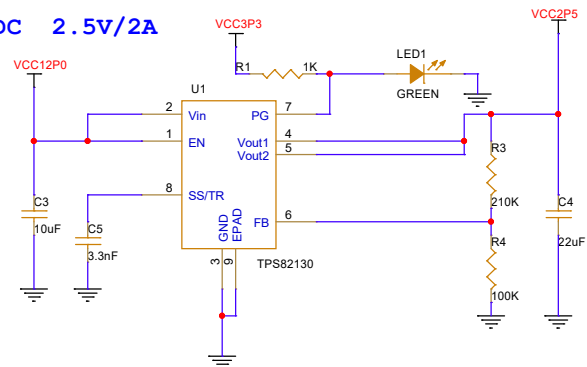
# POWER TREE



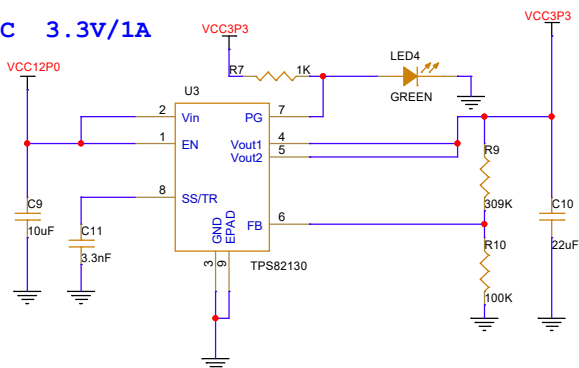
12V INPUT



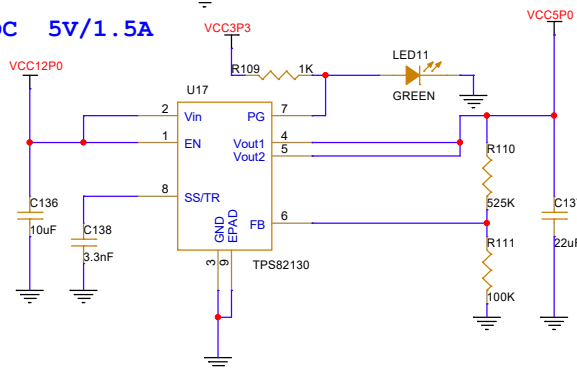
DC/DC 2.5V/2A



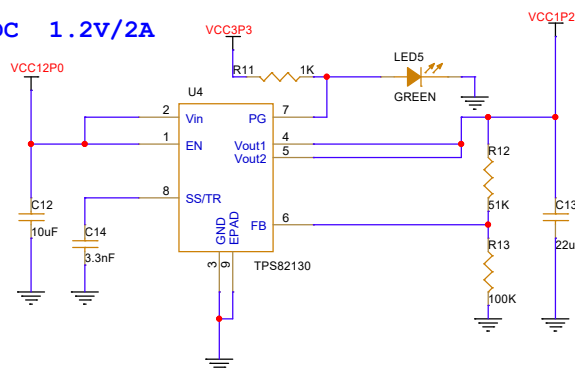
DC/DC 3.3V/1A



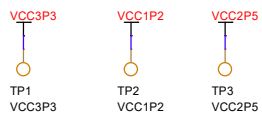
DC/DC 5V/1.5A



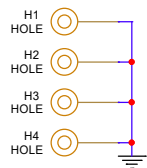
DC/DC 1.2V/2A



Power Test Hole



Mounting Hole

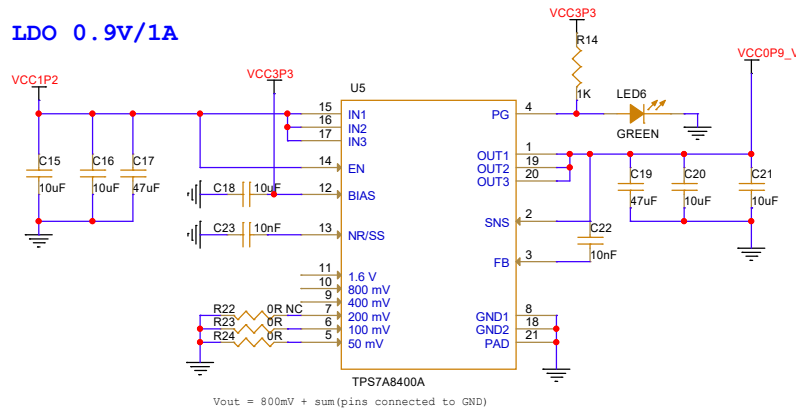


Mark

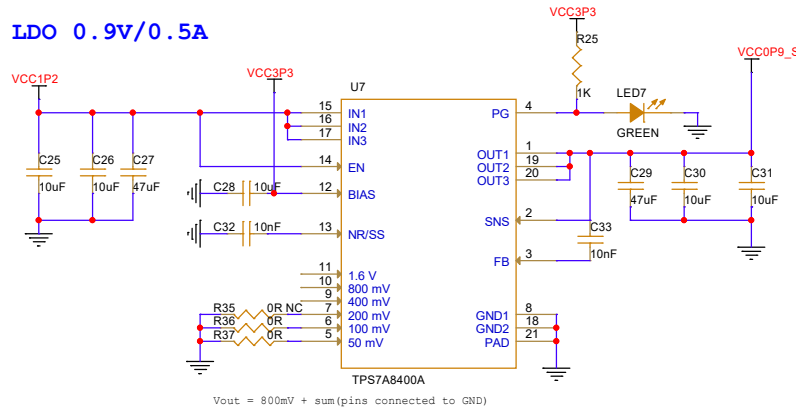


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| DK_USB_GW5ART-LV15MG132P_V1.1 |                             |               |
| Size                          | Document Number             | Rev           |
| A3                            | POWER I                     | V1.1          |
| Date:                         | Thursday, November 21, 2024 | Sheet 4 of 10 |

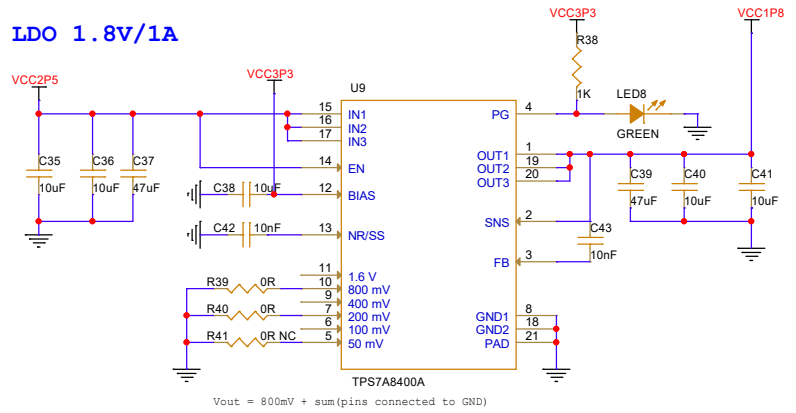
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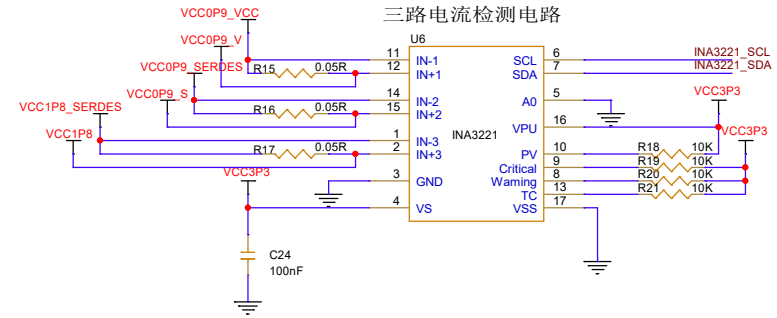
### LDO 0.9V/0.5A



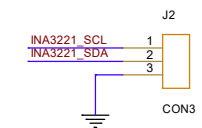
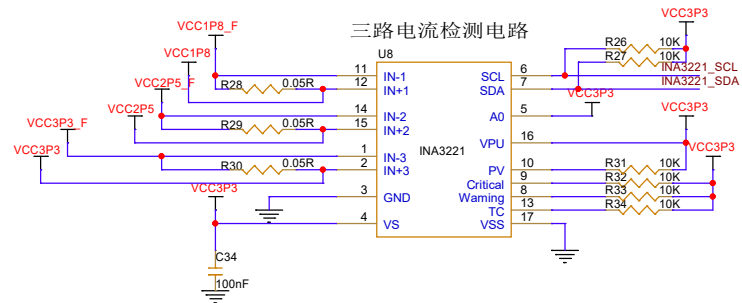
### LDO 1.8V/1A



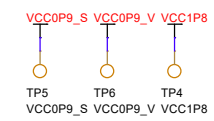
### 三路电流检测电路



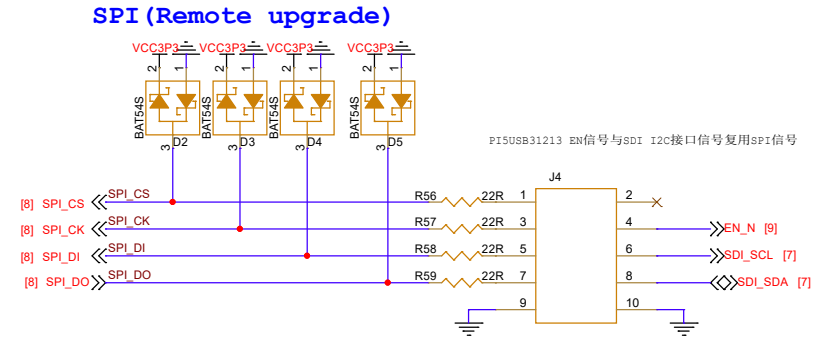
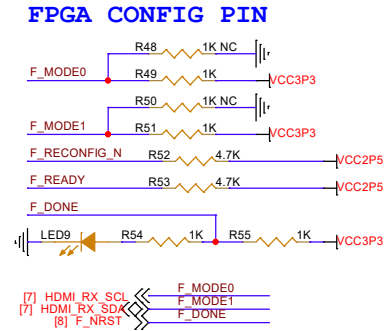
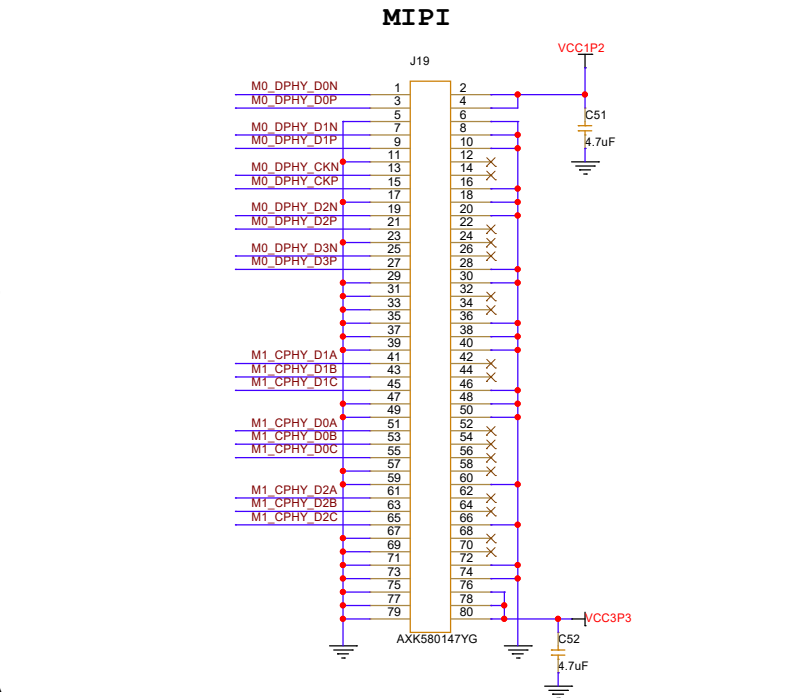
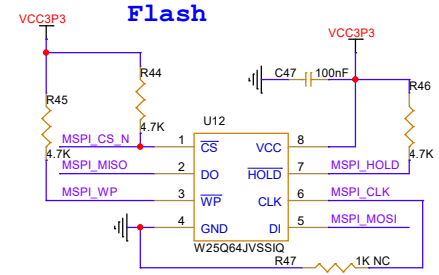
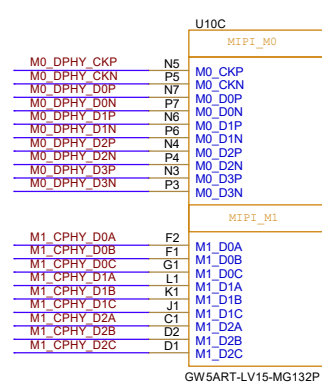
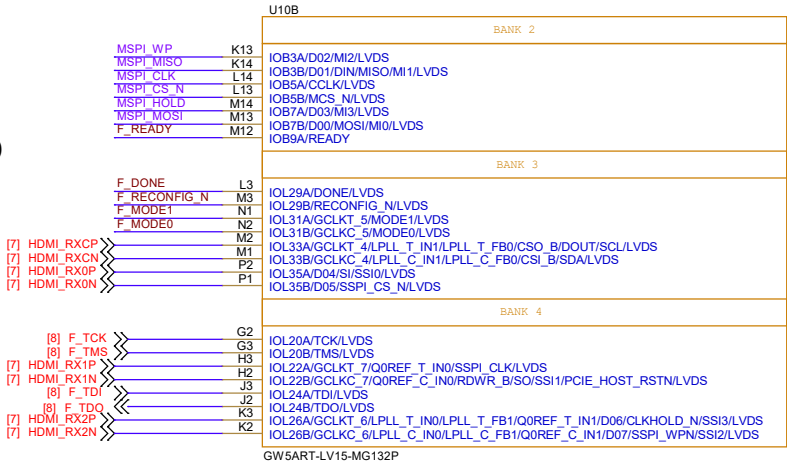
### 三路电流检测电路

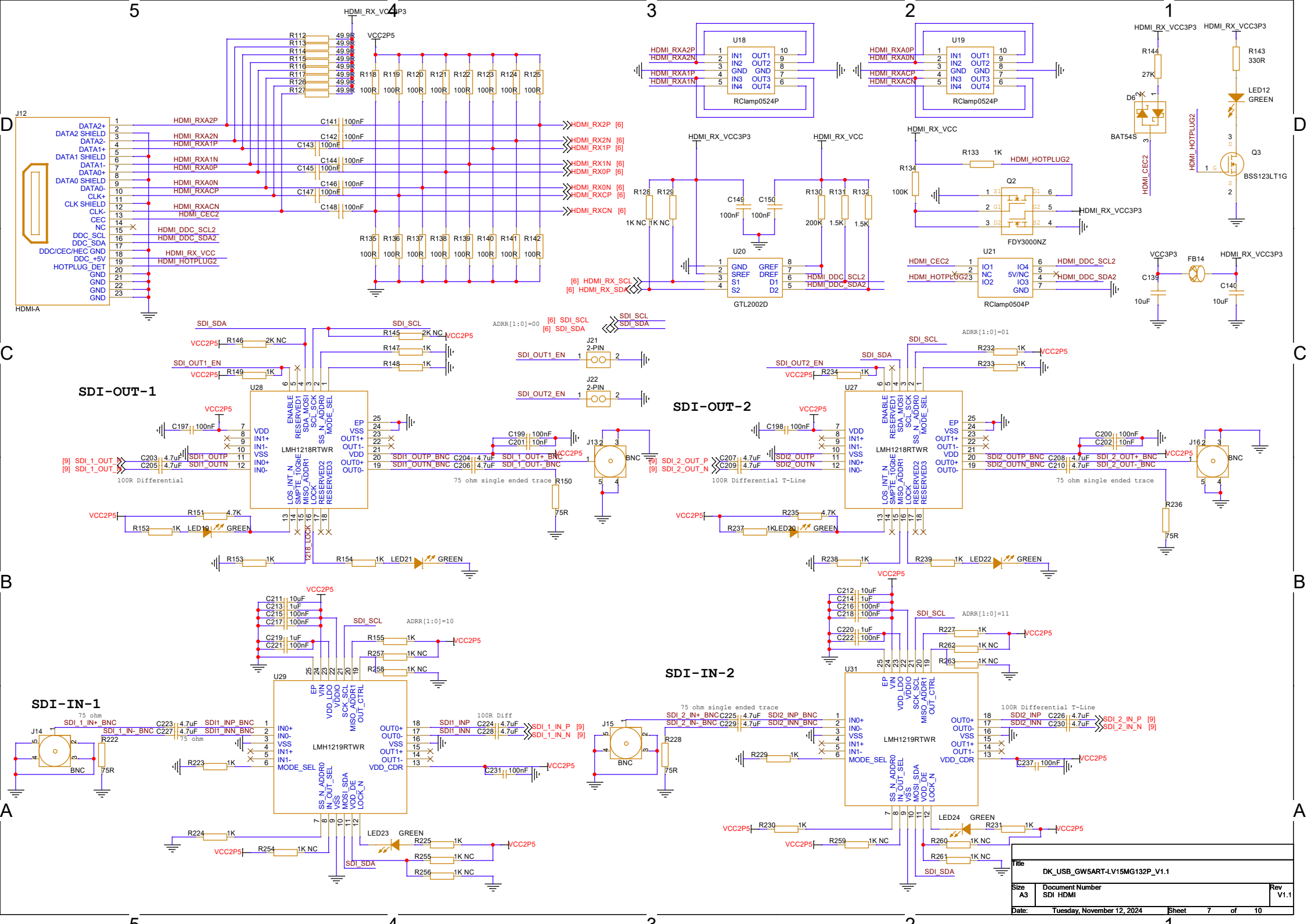


### Power Test Hole

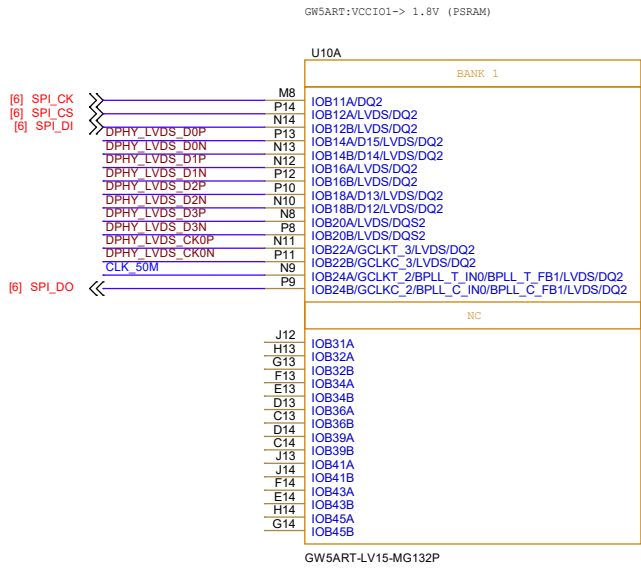


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| DK_USB_GW5ART-LV15MG132P_V1.1 |                             |               |
| Size                          | Document Number             | Rev           |
| A3                            | POWER II                    | V1.1          |
| Date:                         | Thursday, November 21, 2024 | Sheet 5 of 10 |

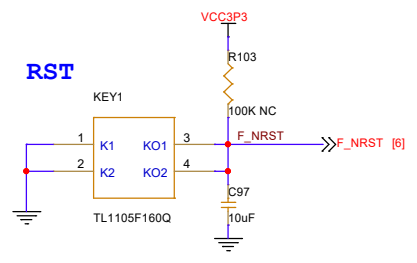
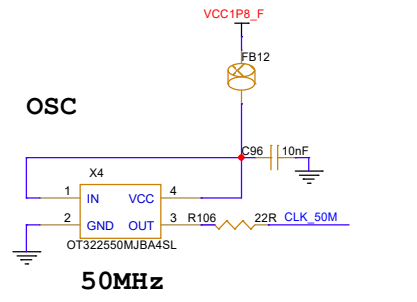
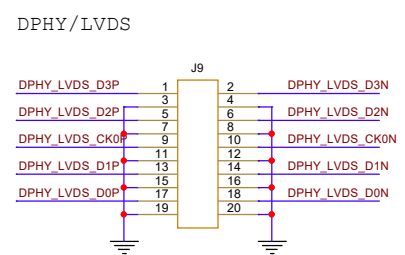
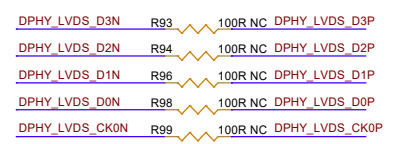
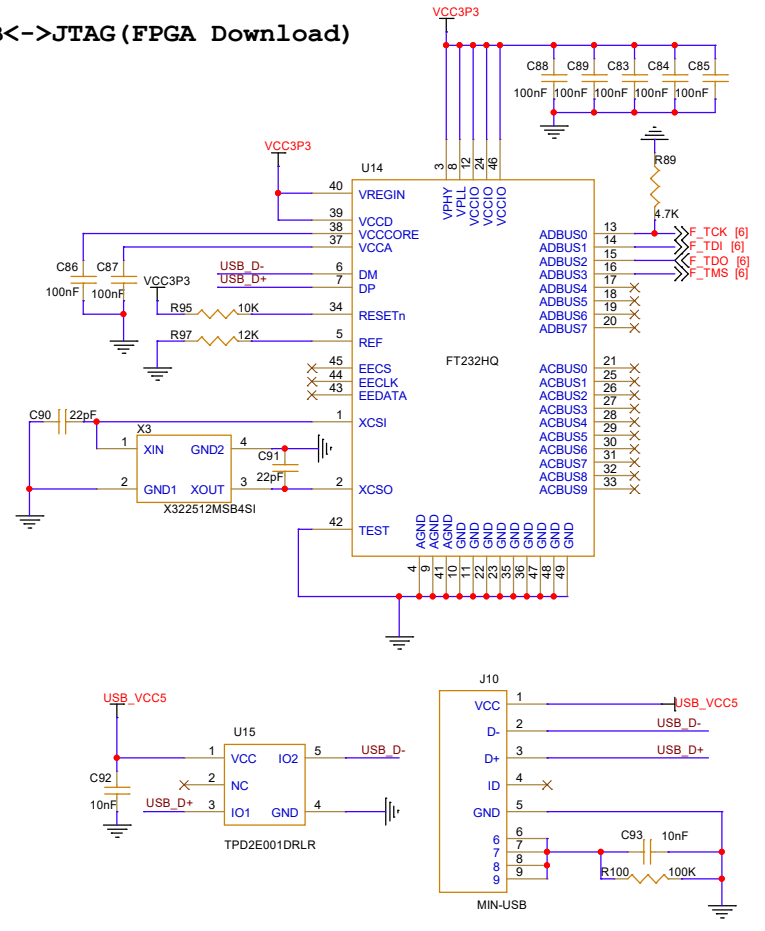




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| Size | A3                         | Document Number | SDI HDMI                      |   | Rev   |
| Date | Tuesday, November 12, 2024 |                 | Sheet                         | 7 | of 10 |

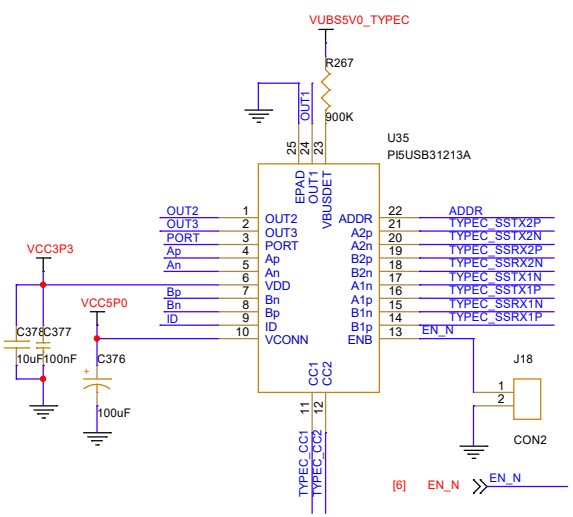
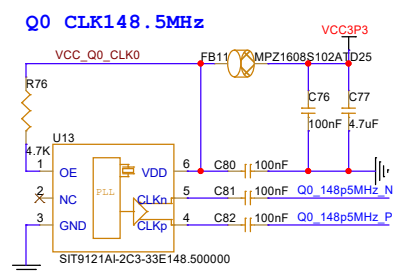
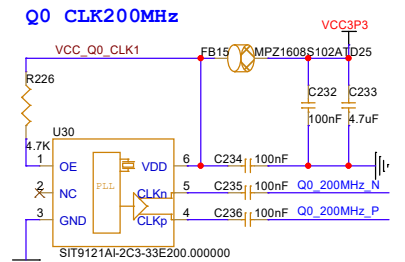
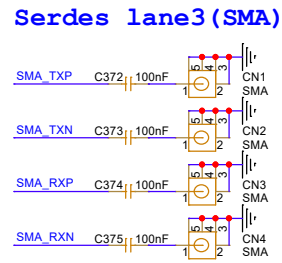
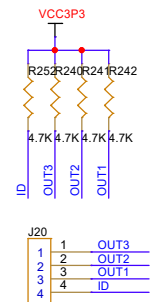
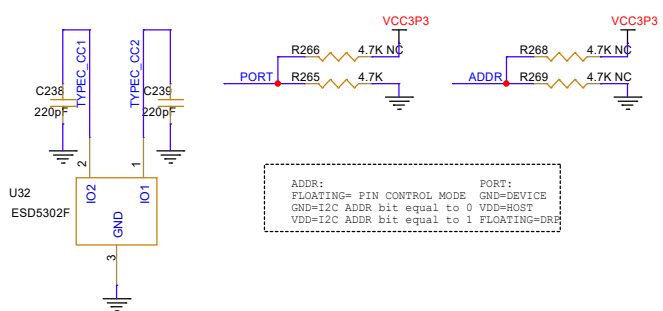
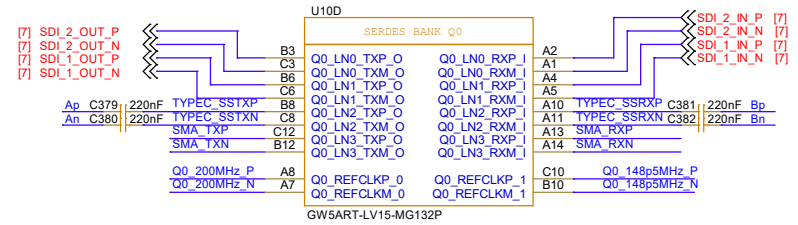
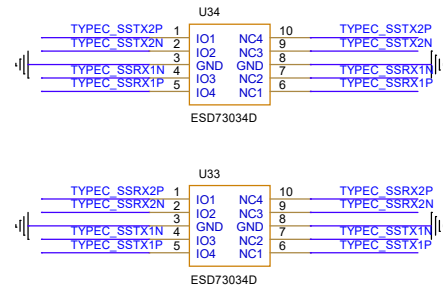
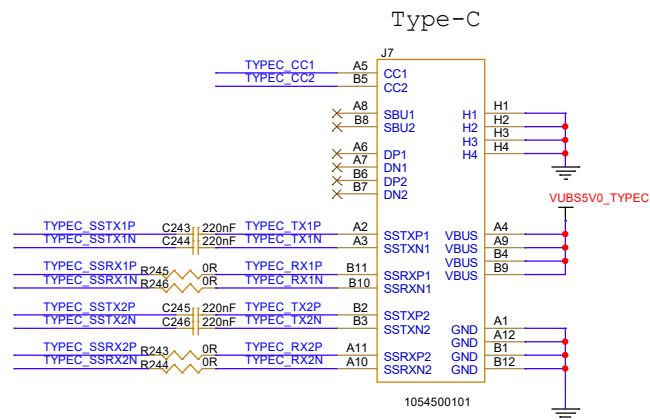


### USB<->JTAG (FPGA Download)



|                               |                            |               |
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| File                          |                            |               |
| DK_USB_GW5ART-LV15MG132P_V1.1 |                            |               |
| Size                          | Document Number            | Rev           |
| A3                            | LVDSMIP/USB-JTAG           | V1.1          |
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|                               |                           |               |
|-------------------------------|---------------------------|---------------|
| File                          |                           |               |
| DK_USB_GW5ART-LV15MG132P_V1.0 |                           |               |
| Size                          | Document Number           | Rev           |
| A3                            | Type-C                    | V1.1          |
| Date:                         | Tuesday, January 14, 2025 | Sheet 9 of 10 |

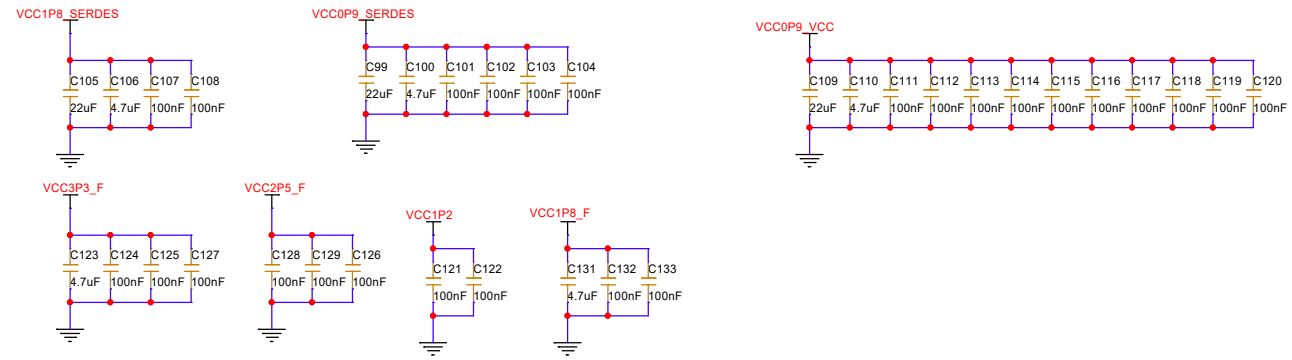
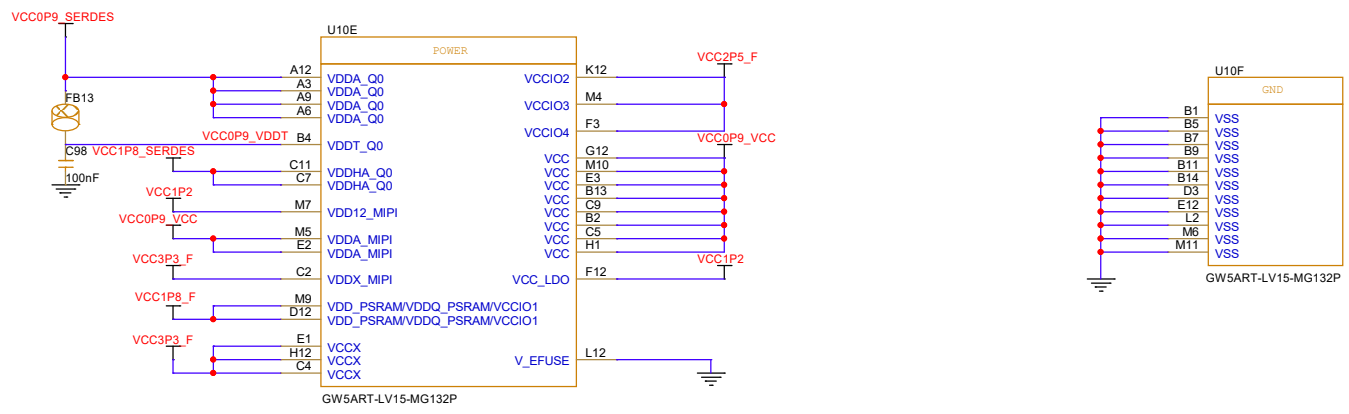
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|-------------------------------|----------------------------|----------------|
| File                          |                            |                |
| DK_USB_GW5ART-LV15MG132P_V1.1 |                            |                |
| Size                          | Document Number            | Rev            |
| A3                            | FPGA-POWER&GND             | V1.1           |
| Date:                         | Thursday, October 31, 2024 | Sheet 10 of 10 |