



Regarding the usage of our schematics and alike documentation for Trenz module TE0720.

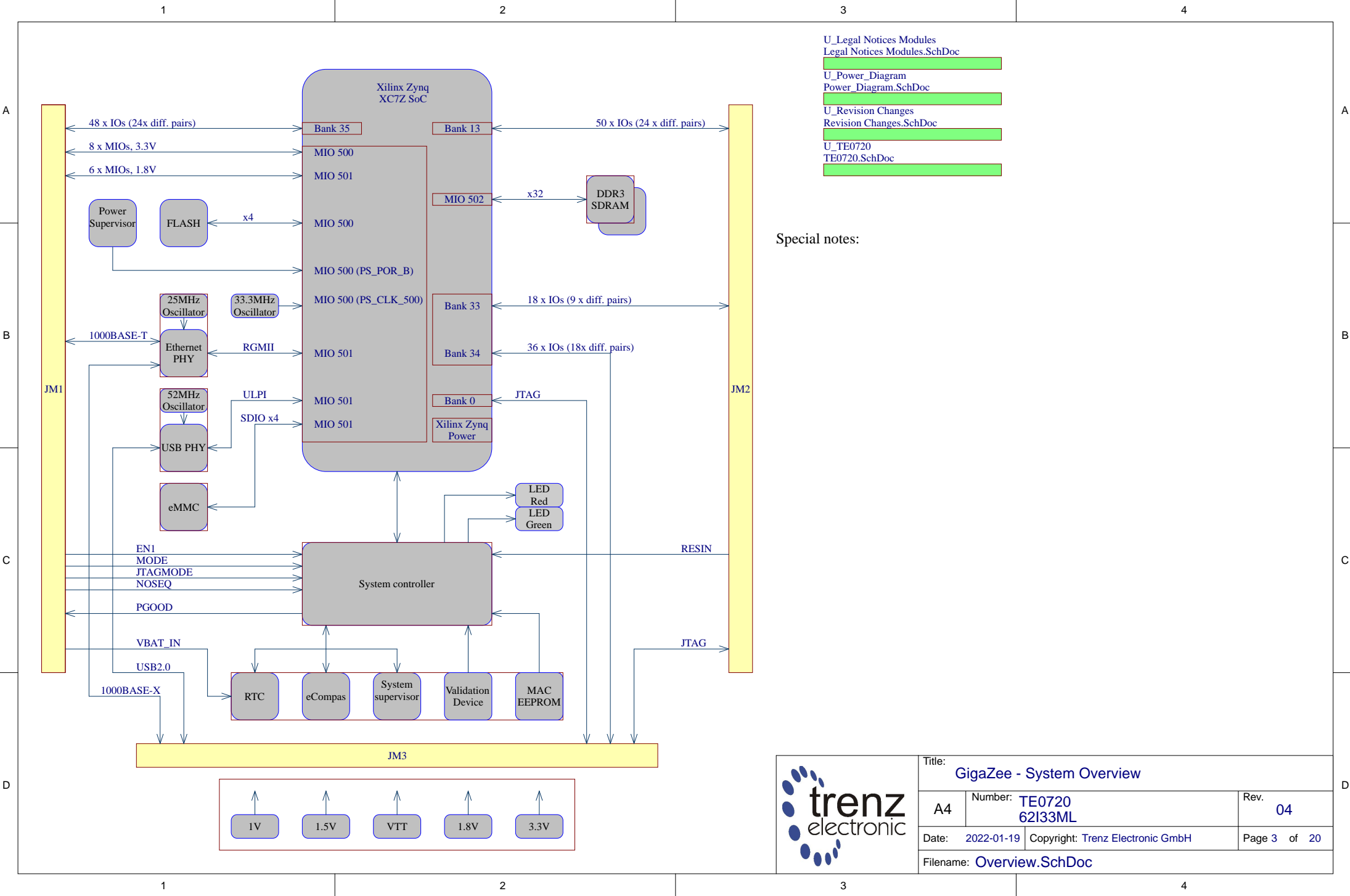
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Schematics and other handouts serve for informational purposes only!

| | | | |
|---|---|--|----------------------------|
|  | Title: GigaZee | | |
| | A4 | Number: TE0720 62133ML | Rev. 04 |
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| | Filename: Legal Notices Modules.SchDoc | | |


| REV | Description | |
|------|--|----|
| -01 | Initial revision | |
| -02 | | |
| -03 | | |
| -04 | <p>1. Revised power supply circuit, replaced next components:</p> <ul style="list-style-type: none"> - EN6347QI (U1) by MPM3840QV-Z, - EP53F8QI (U2, U3) by MPM3834CGPA, - TPS27082LDDCR (Q1) by MP5077GG-Z. <p>2. Added power supervisor BD39040MUF (U27). Next signal connected to system controller:</p> <ul style="list-style-type: none"> - PG_All (U27 - U19.C12) with pull-up resistor R67; - WDEN (U27.13 - U19.C6) with pull-down resistor R80; - WDIN (U27.14 - U19.N8); - WDOUT (U27.16 - U19.M3). <p>3. Signal MIO8 (U5.E5) connected to system controller (U19.N7)</p> <p>4. Added pull-down resistors R64 (net ON_1V0) and R65 (net ON_1V8)</p> <p>5. Revised voltage supervisor U26 circuit: U26.6 (VDD) connected to 3.3VIN, Added protection diode D3 to U26.3 (#MR input)</p> <p>6. Replaced BKP0603HS (L1, L2, L3, L4, L5, L7, L8) by MPZ0603S121HT000</p> <p>7. Auxiliary information has been added on Samtec B2B connectors page</p> <p>8. PCB: Revised layout of power supplies</p> <p>9. PCB: Revised layout of Samtec B2B signals. The length of the tracks has been changed. Pinout of Samtec B2B connectors not affected</p> <p>10. PCB: Added option to install Heatsink SuperGrip (c)</p> <p>11. Added capacitors C7, C8 (100uF, 1V)</p> <p>12. Changed voltage divider resistors (R21, R61) to set the threshold for U26.</p> | VY |
| -04A | 1. Added note regarding VCCIO34, page B2B-Connectors | VY |

| | | | |
|---|--|-----------------------------------|---------------------------|
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| Drawn by: VY | | | |



- U_Legal Notices Modules
Legal Notices Modules.SchDoc
- U_Power_Diagram
Power_Diagram.SchDoc
- U_Revision Changes
Revision Changes.SchDoc
- U_TE0720
TE0720.SchDoc

Special notes:

| | | | | |
|---|-----------------------------------|----------------------------------|---|--|
|  | | | Title: GigaZee - System Overview | |
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| Filename: Overview.SchDoc | | | | |

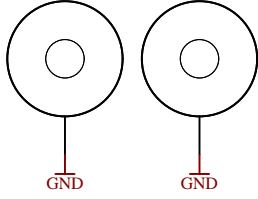
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2

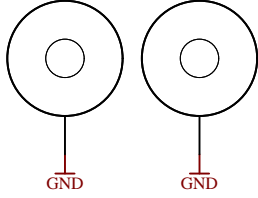
3

4

Mount.Hole 3.2mmMount.Hole 3.2mm



Mount.Hole 3.2mmMount.Hole 3.2mm



- 1V ○ TP1 ● Testpoint 0.8mm
- VIN ○ TP2 ● Testpoint 0.8mm
- 1.5V ○ TP3 ● Testpoint 0.8mm
- 1.8V ○ TP4 ● Testpoint 0.8mm
- VTT ○ TP5 ● Testpoint 0.8mm
- VTTREF ○ TP6 ● Testpoint 0.8mm
- 3.3VIN ○ TP7 ● Testpoint 0.8mm
- 3.3V ○ TP8 ● Testpoint 0.8mm
- VCCIO13 ○ TP9 ● Testpoint 0.8mm
- VCCIO33 ○ TP10 ● Testpoint 0.8mm
- VCCIO34 ○ TP11 ● Testpoint 0.8mm
- VCCIO35 ○ TP12 ● Testpoint 0.8mm
- AVCC ○ TP13 ● Testpoint 0.8mm
- AVREF ○ TP14 ● Testpoint 0.8mm
- AGND | TP15 ● Testpoint 0.8mm
- GND | TP16 ● Testpoint 0.8mm
- GND | TP17 ● Testpoint 0.8mm
- GND | TP18 ● Testpoint 0.8mm
- GND | TP19 ● Testpoint 0.8mm
- GND | TP20 ● Testpoint 0.8mm

A

A

B

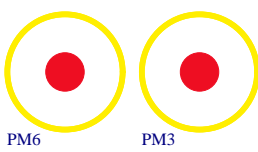
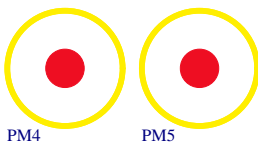
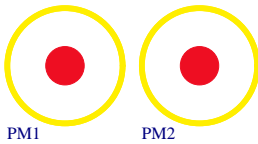
B

C

C

D

D



Serial

 Serialnumber 6,3 x 6.3mm

| | |
|------------------|------------|
| Assembly variant | 62I33ML |
| Created by | MR |
| Modified by | MR |
| Modified at | 2021-06-07 |
| SVN Revision | 13140 |



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1

2

3

4

B35 48 IO, 24 LVDS Pairs
 MIO0 8 IO, 3.3V
 MIO1 6 IO 1.8V
 ETH MDI Copper

B34 36 IO, 18 LVDS Pairs
 USB OTG
 ETH SGMI I

B33 18 IO, 9 LVDS Pairs
 B13 48 IO, 24 LVDS Pairs
 B13 2 IO

VCCIO34 must be connected to power even if the signals of this bank are not used externally.

A

A

B

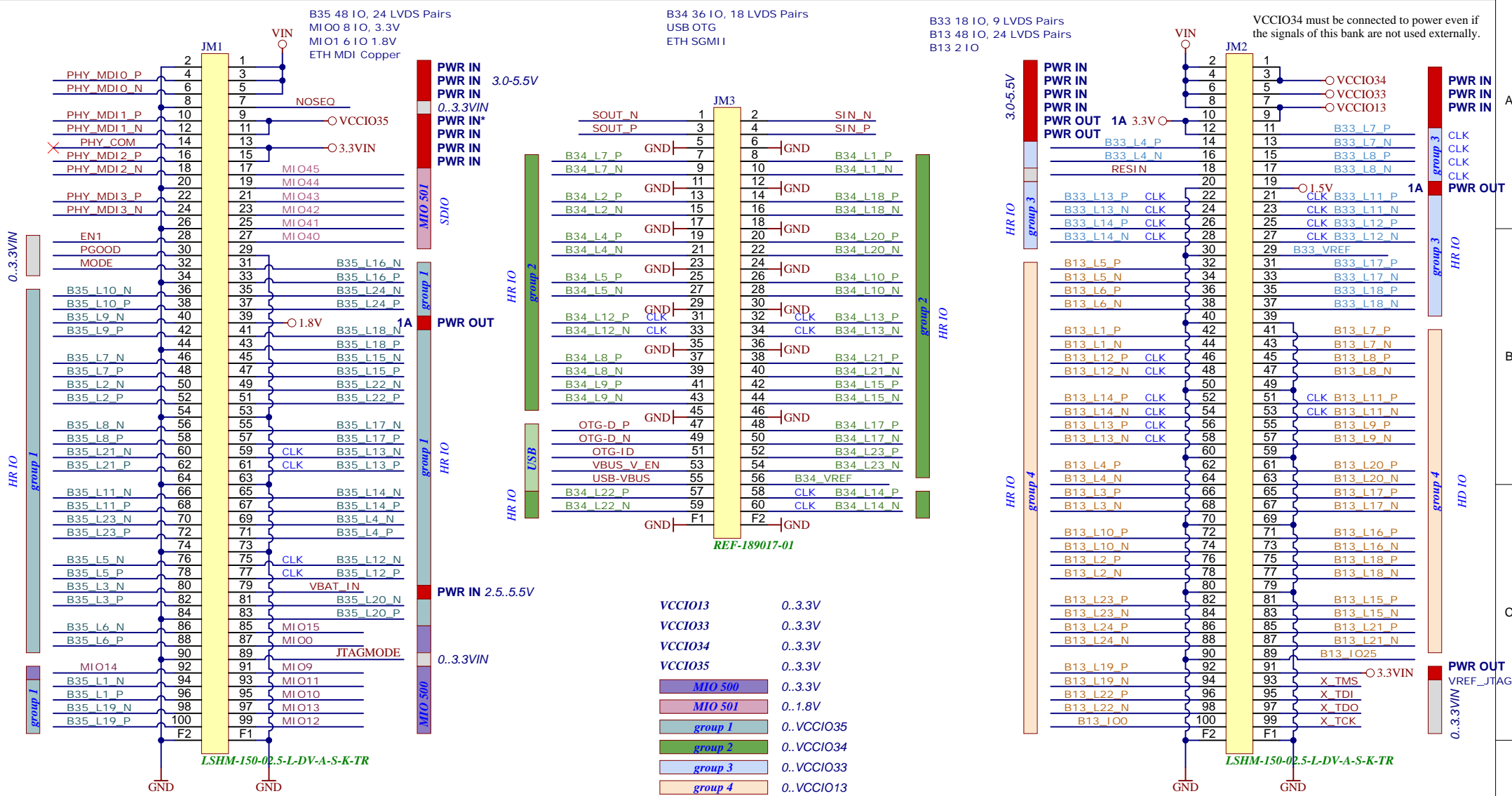
B

C

C

D

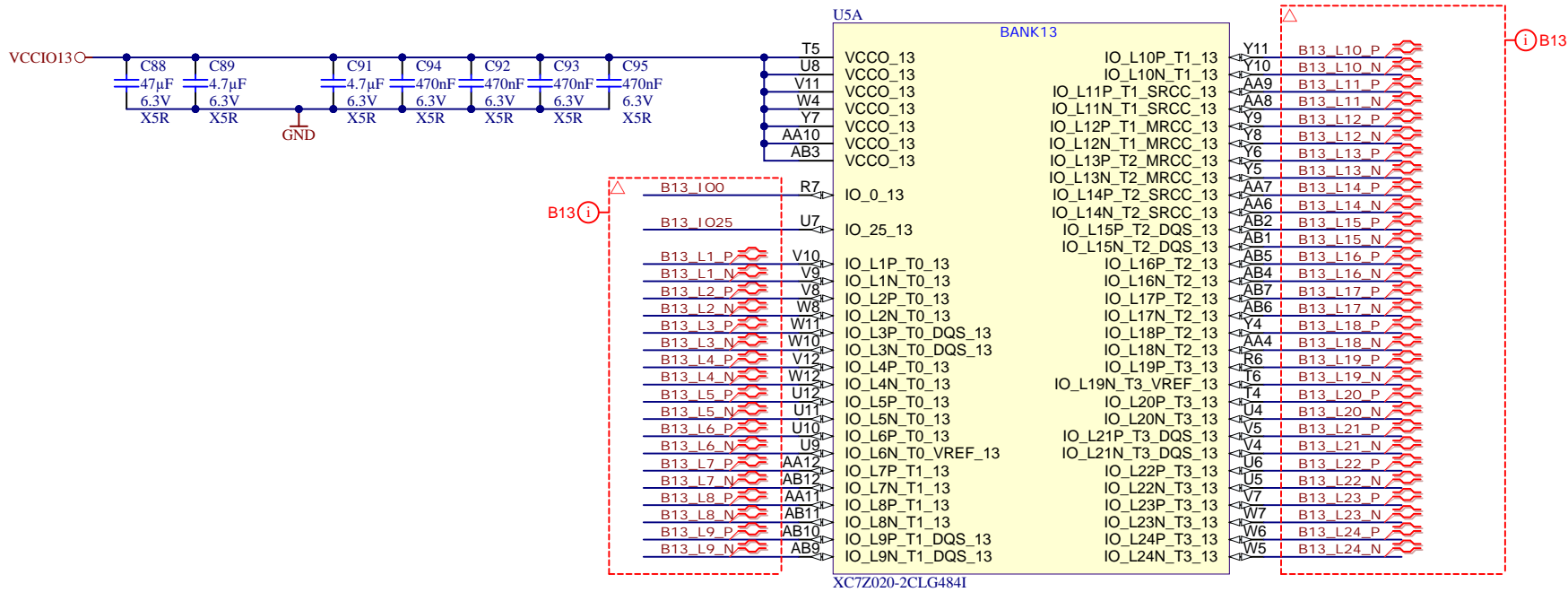
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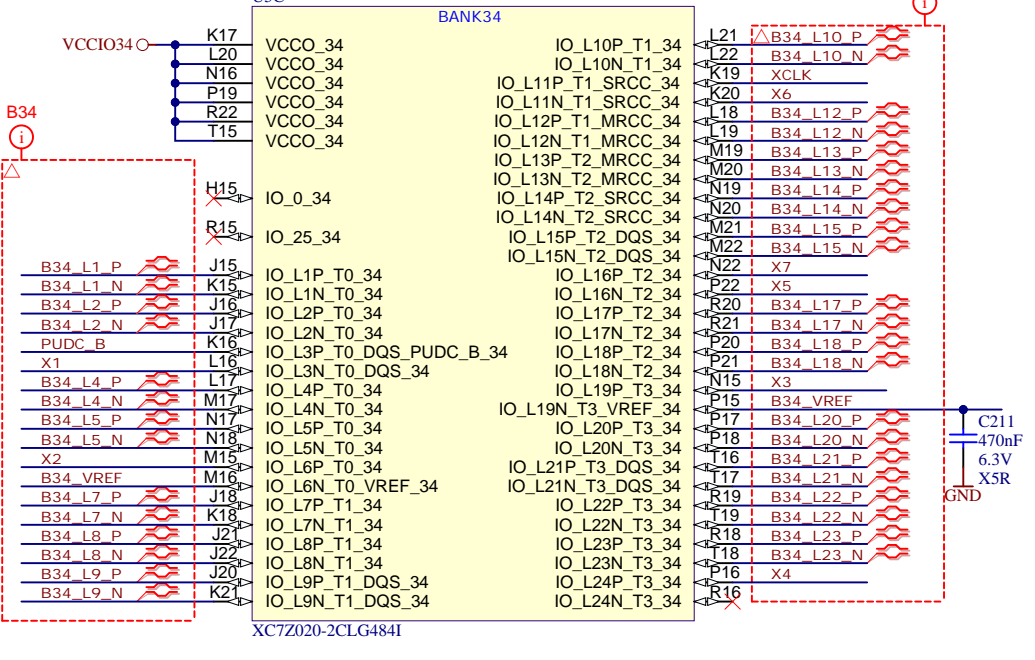
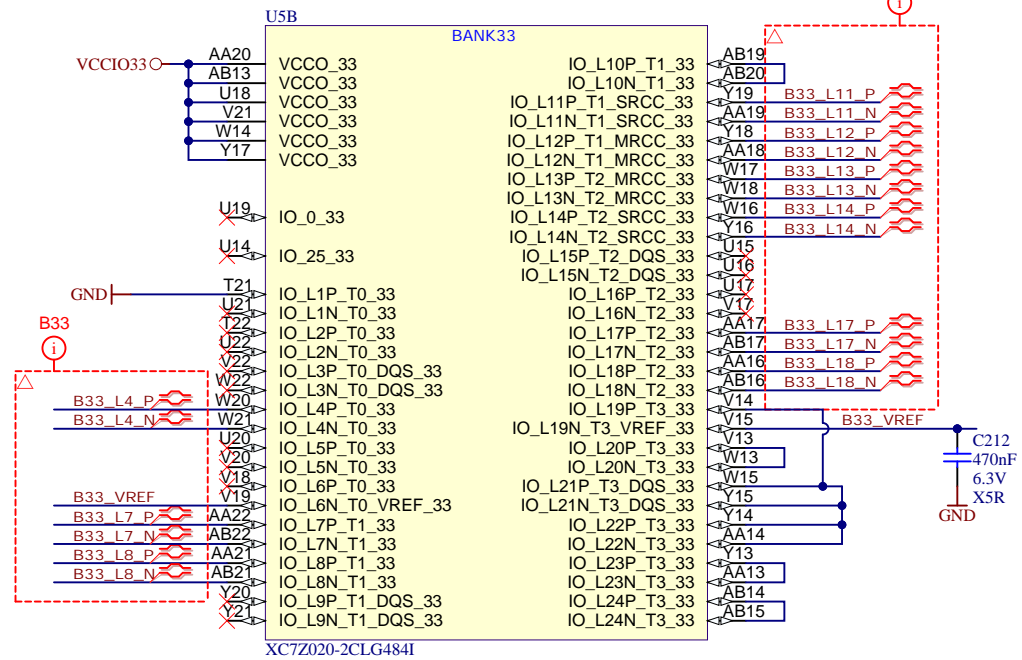
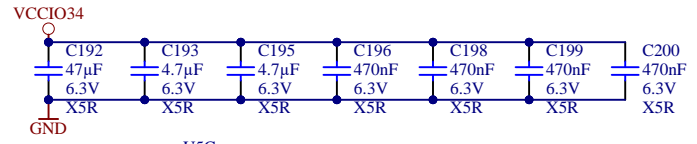
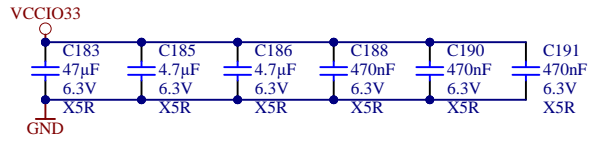
- VCCIO13 0..3.3V
- VCCIO33 0..3.3V
- VCCIO34 0..3.3V
- VCCIO35 0..3.3V
- MIO 500 0..3.3V
- MIO 501 0..1.8V
- group 1 0..VCCIO35
- group 2 0..VCCIO34
- group 3 0..VCCIO33
- group 4 0..VCCIO13



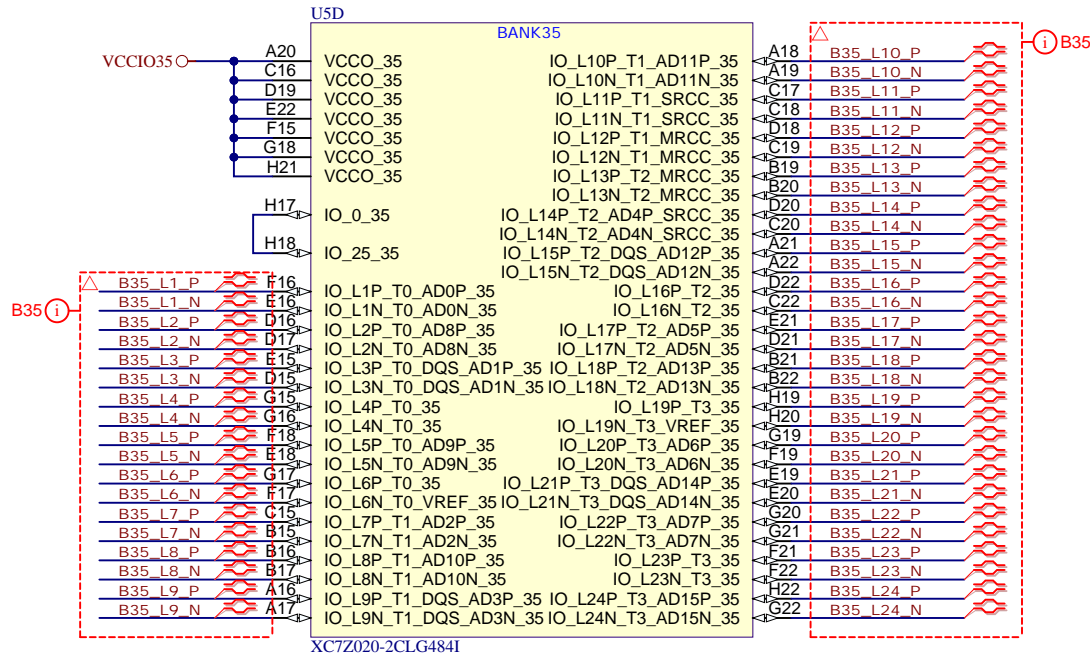
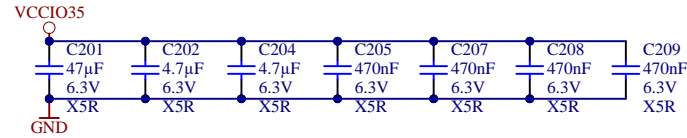
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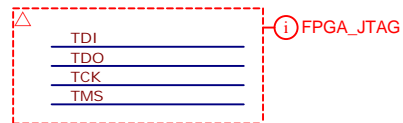
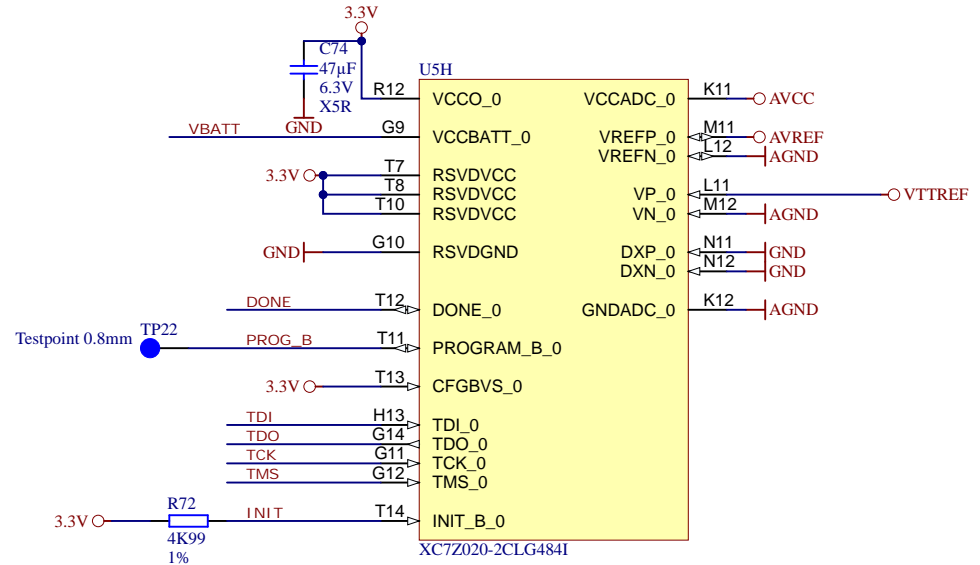
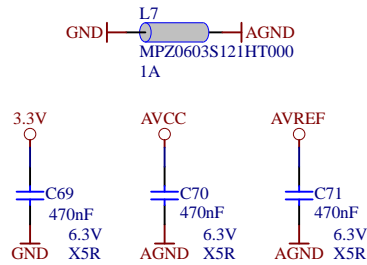
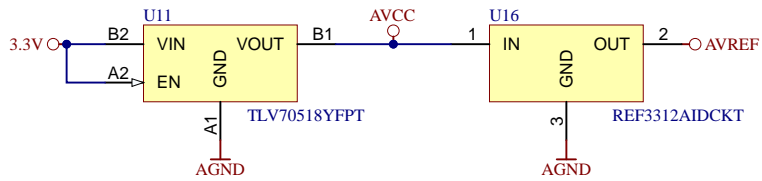
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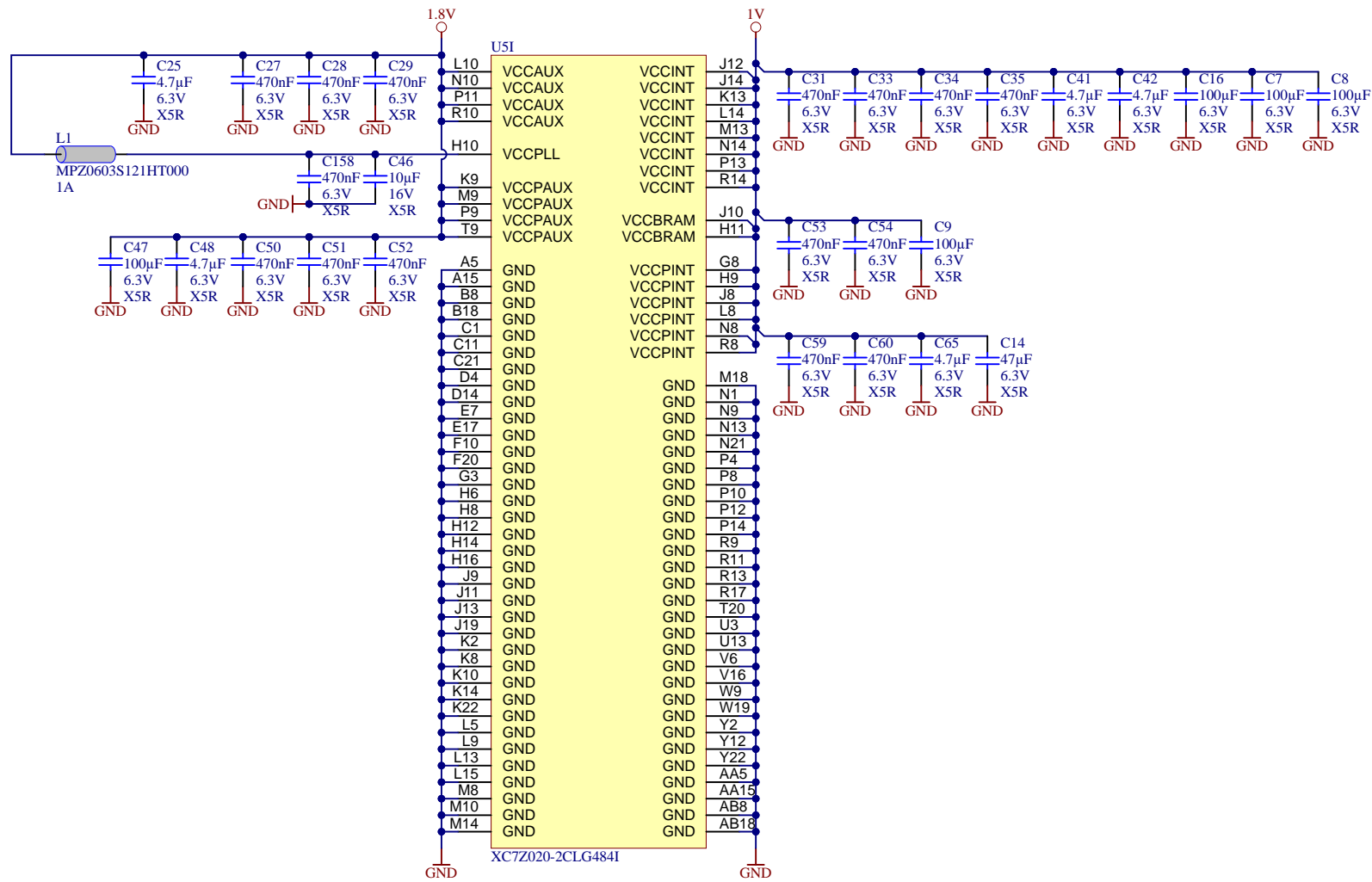
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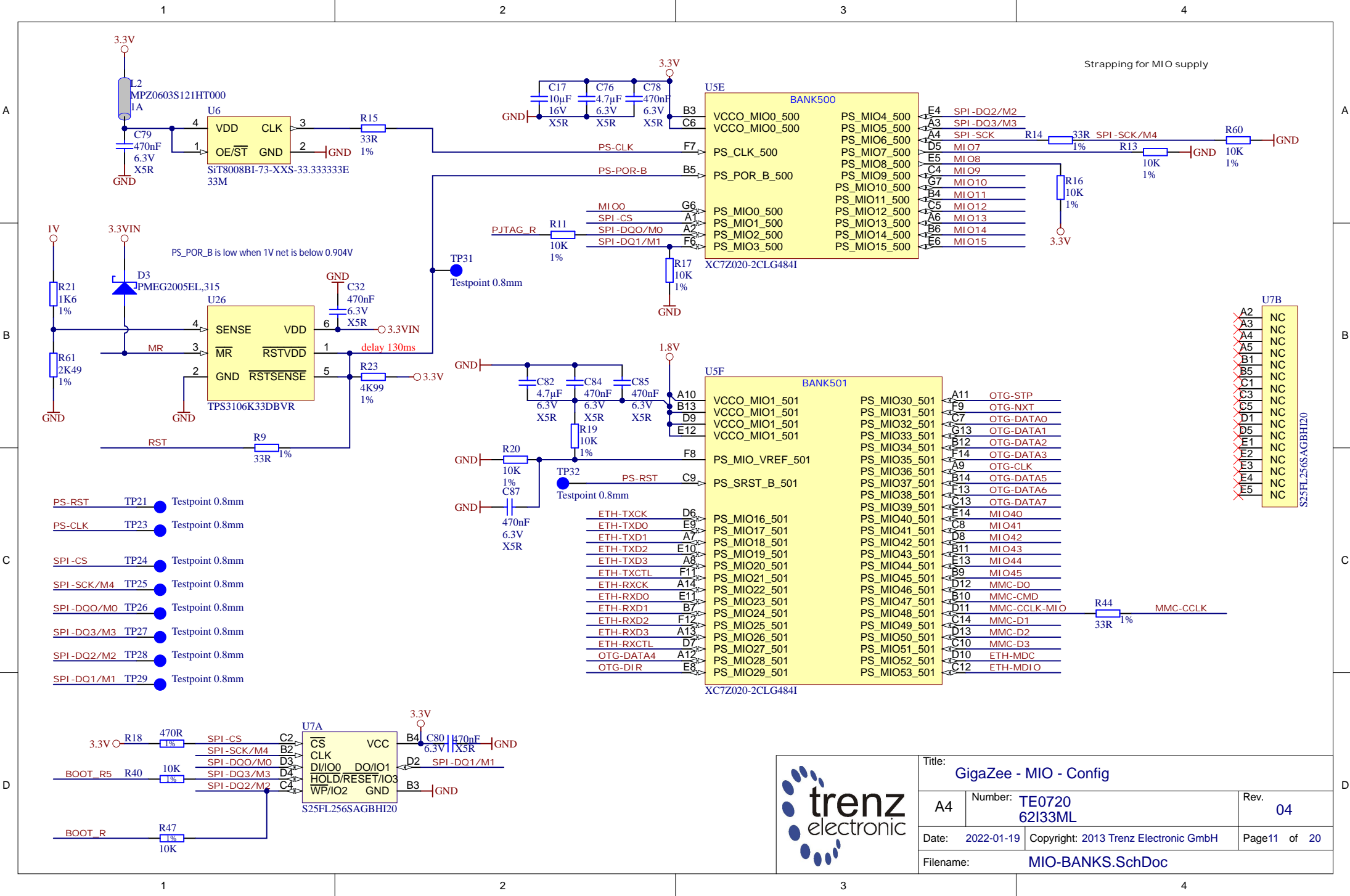
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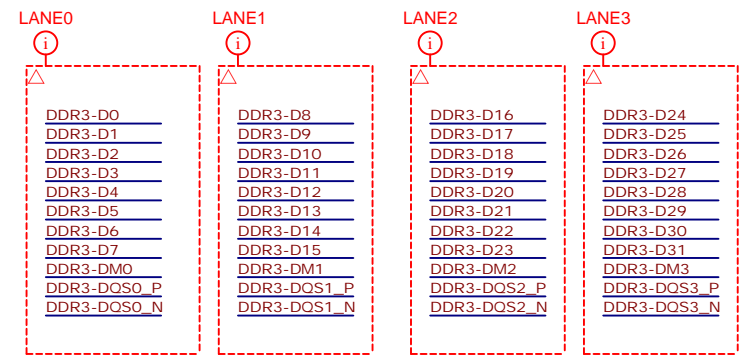
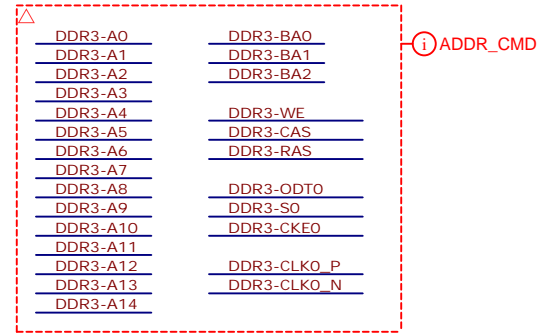
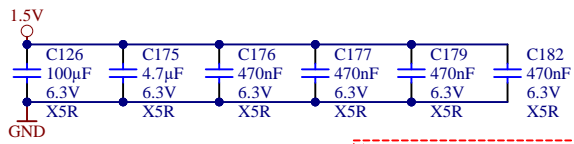
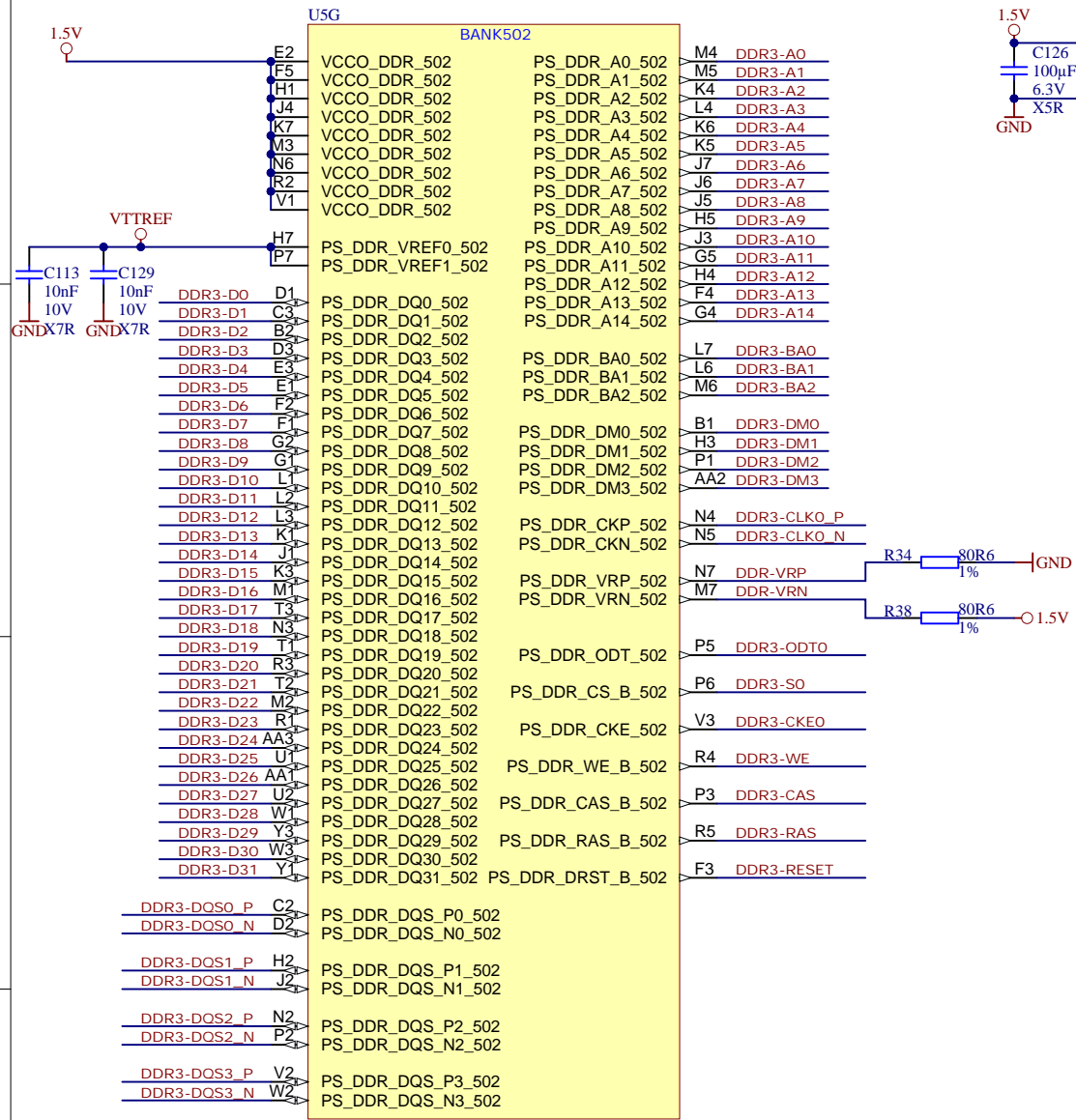
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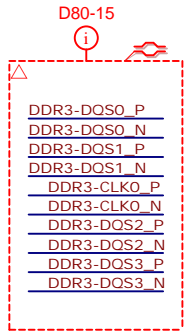
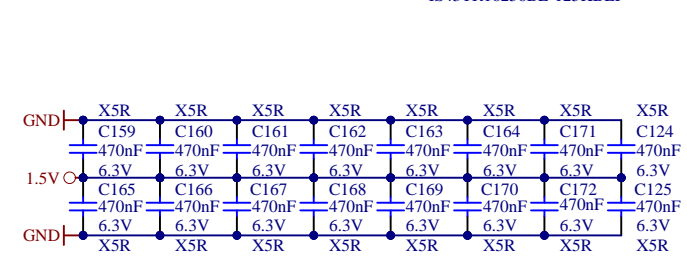
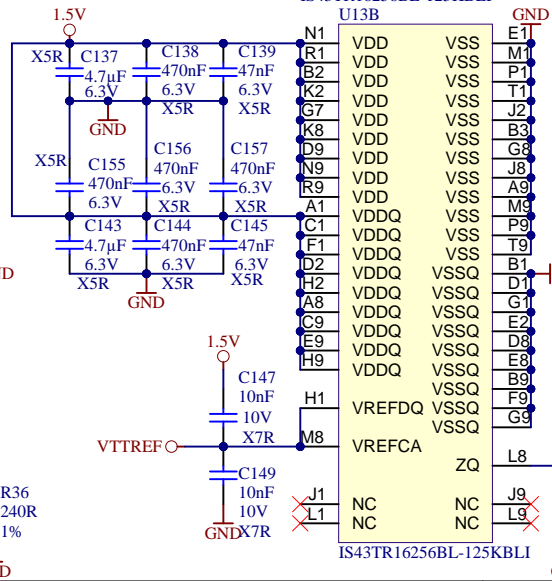
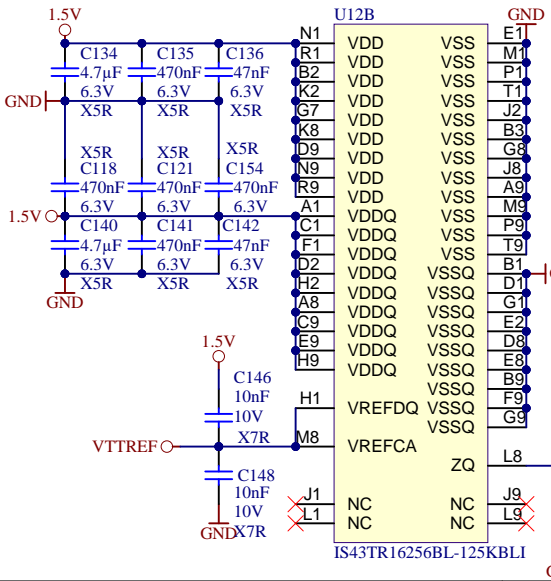
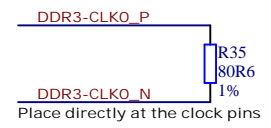
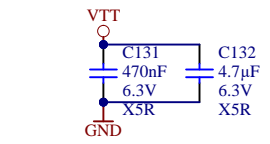
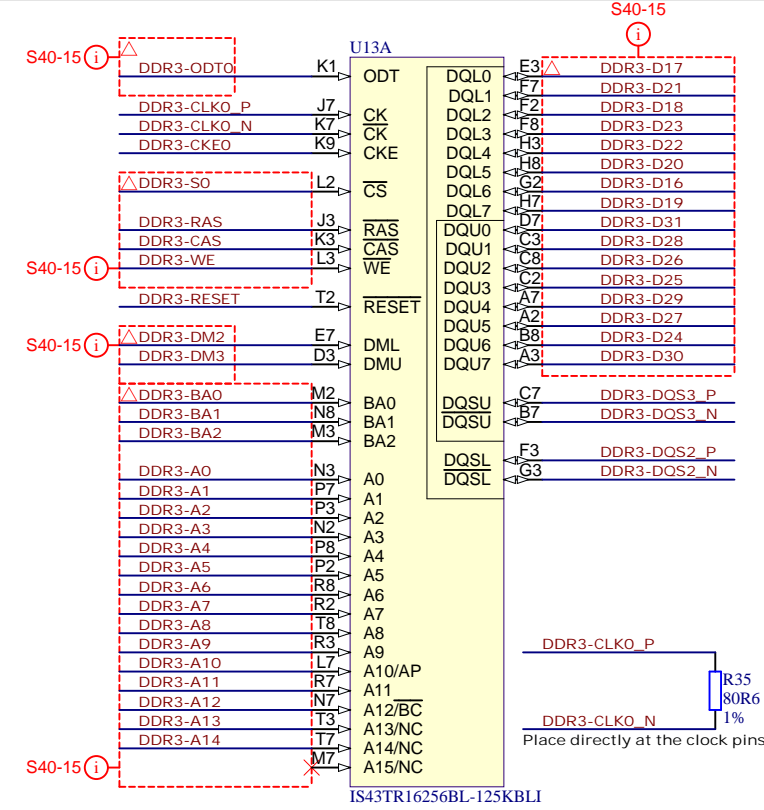
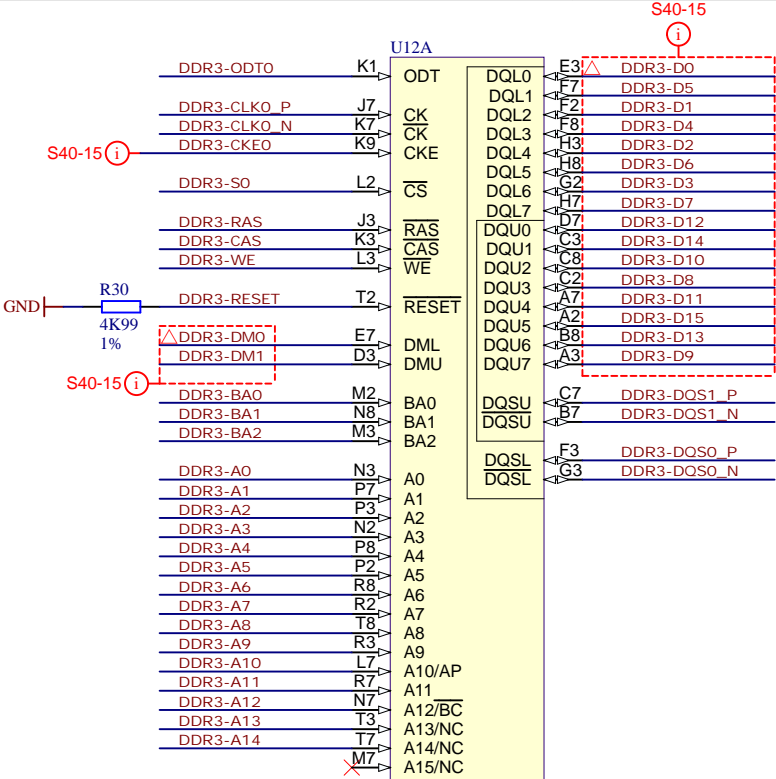
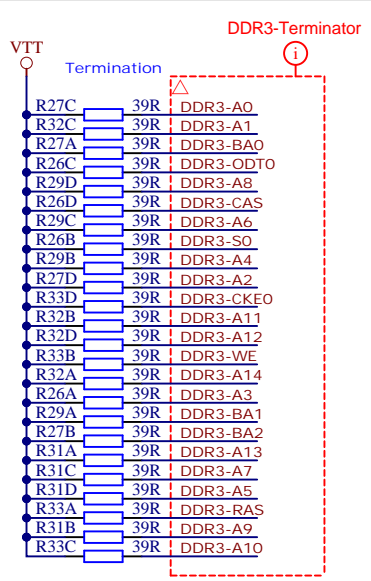
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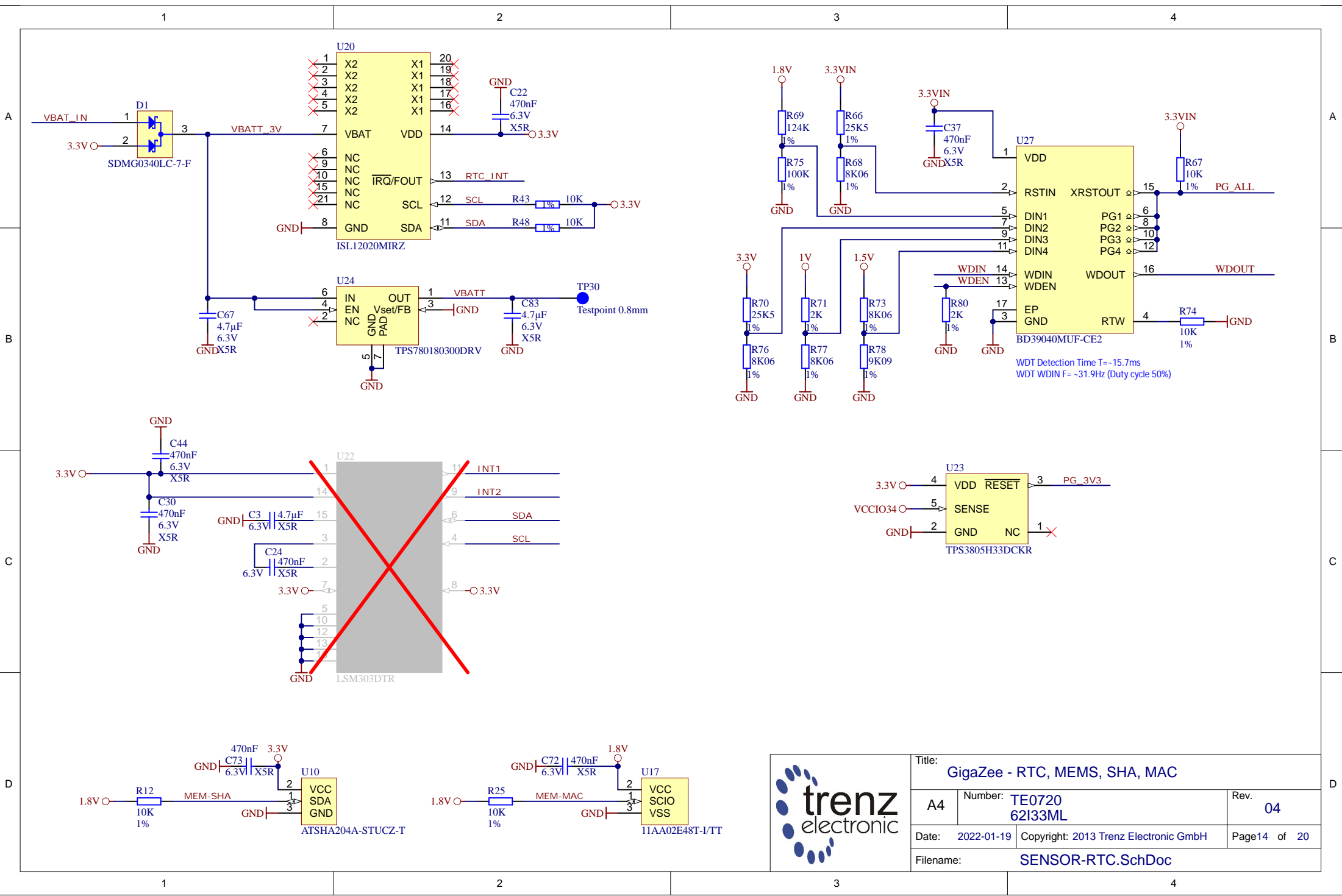
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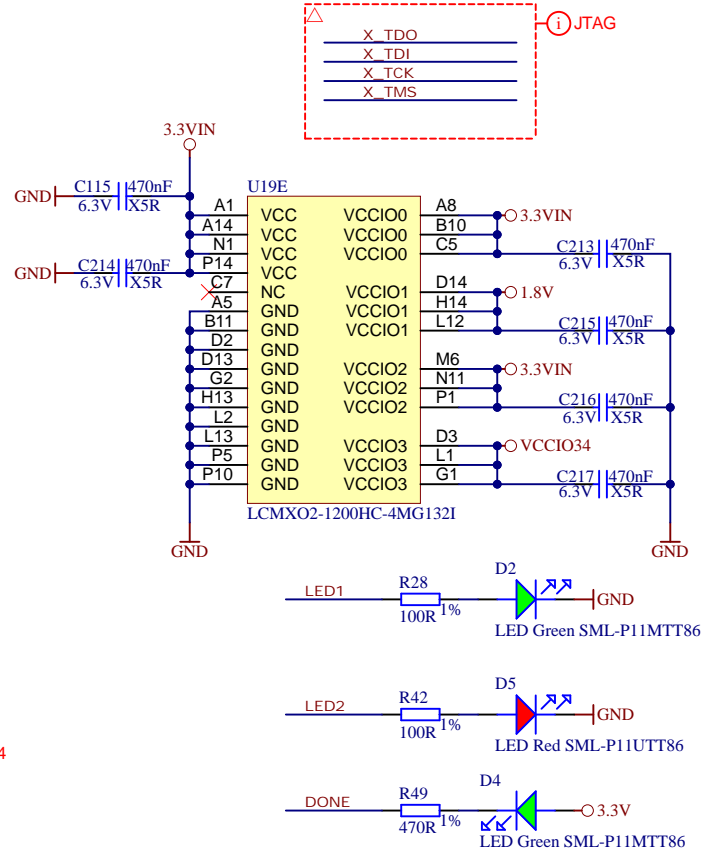
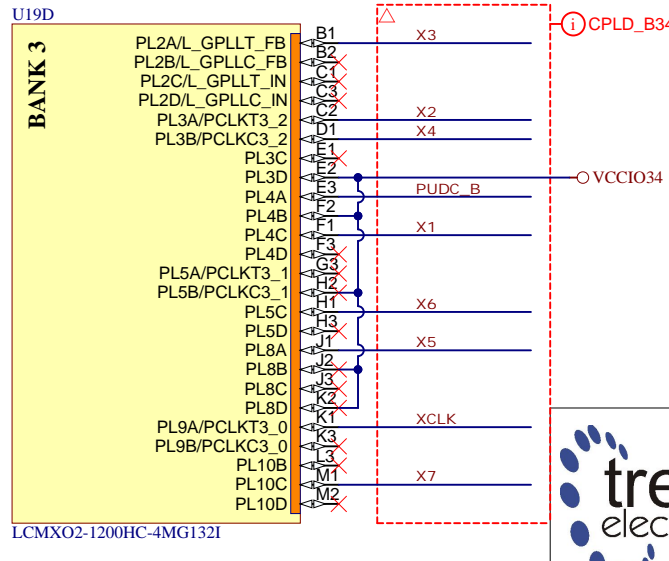
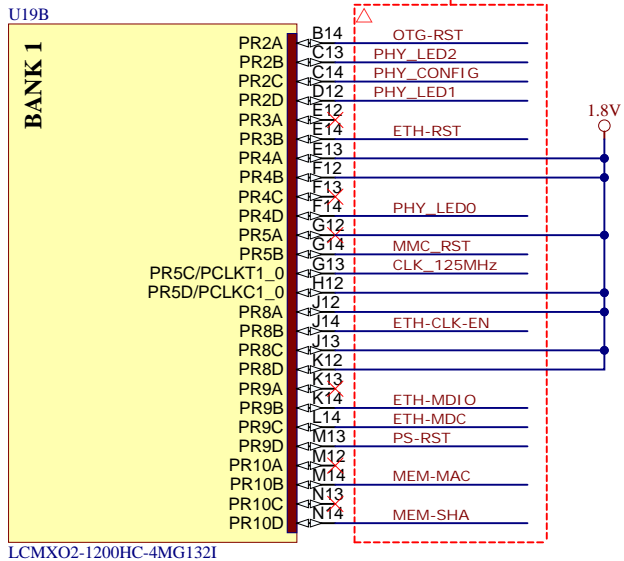
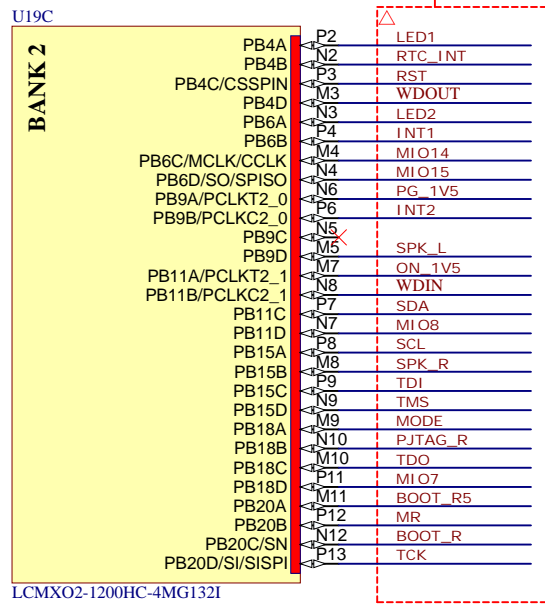
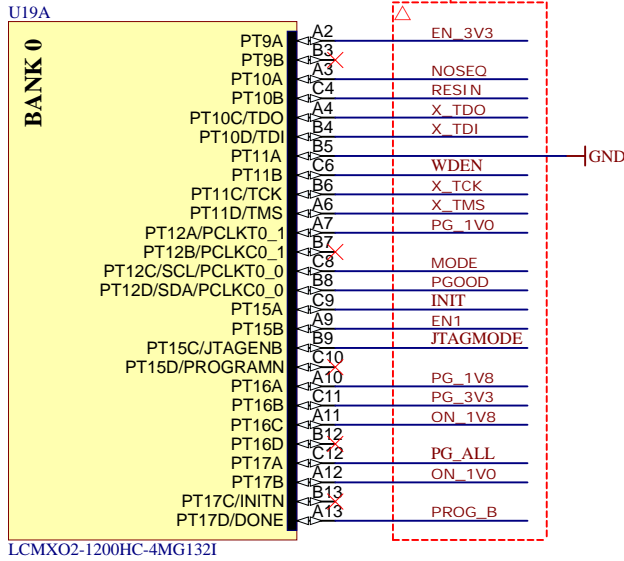
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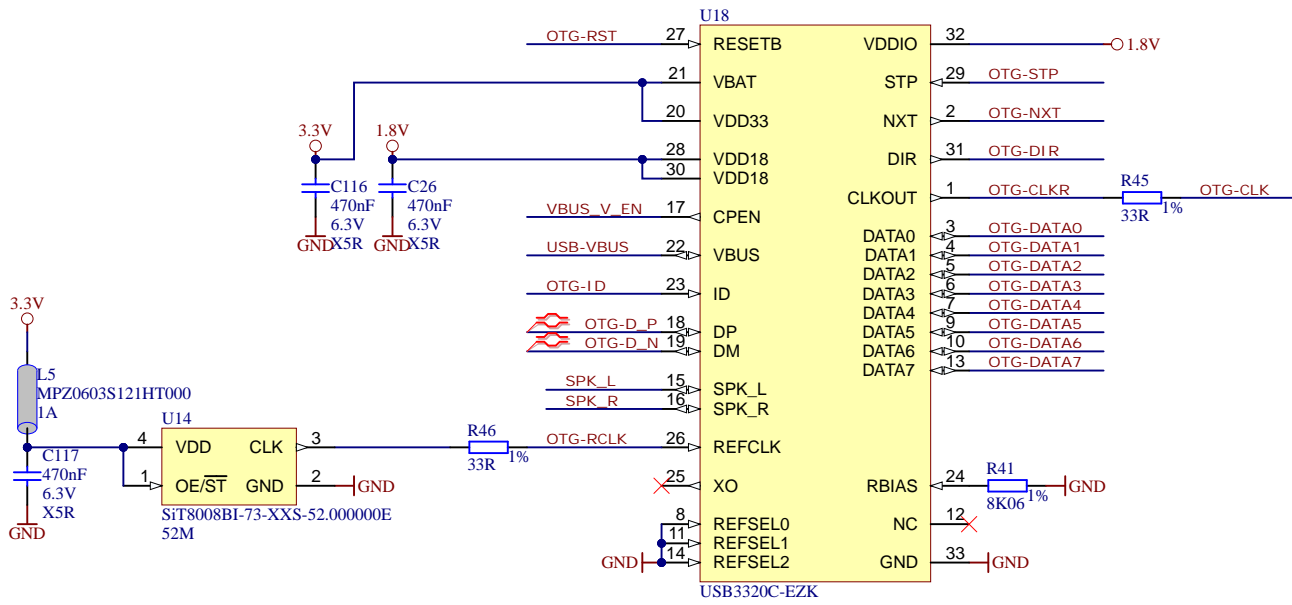
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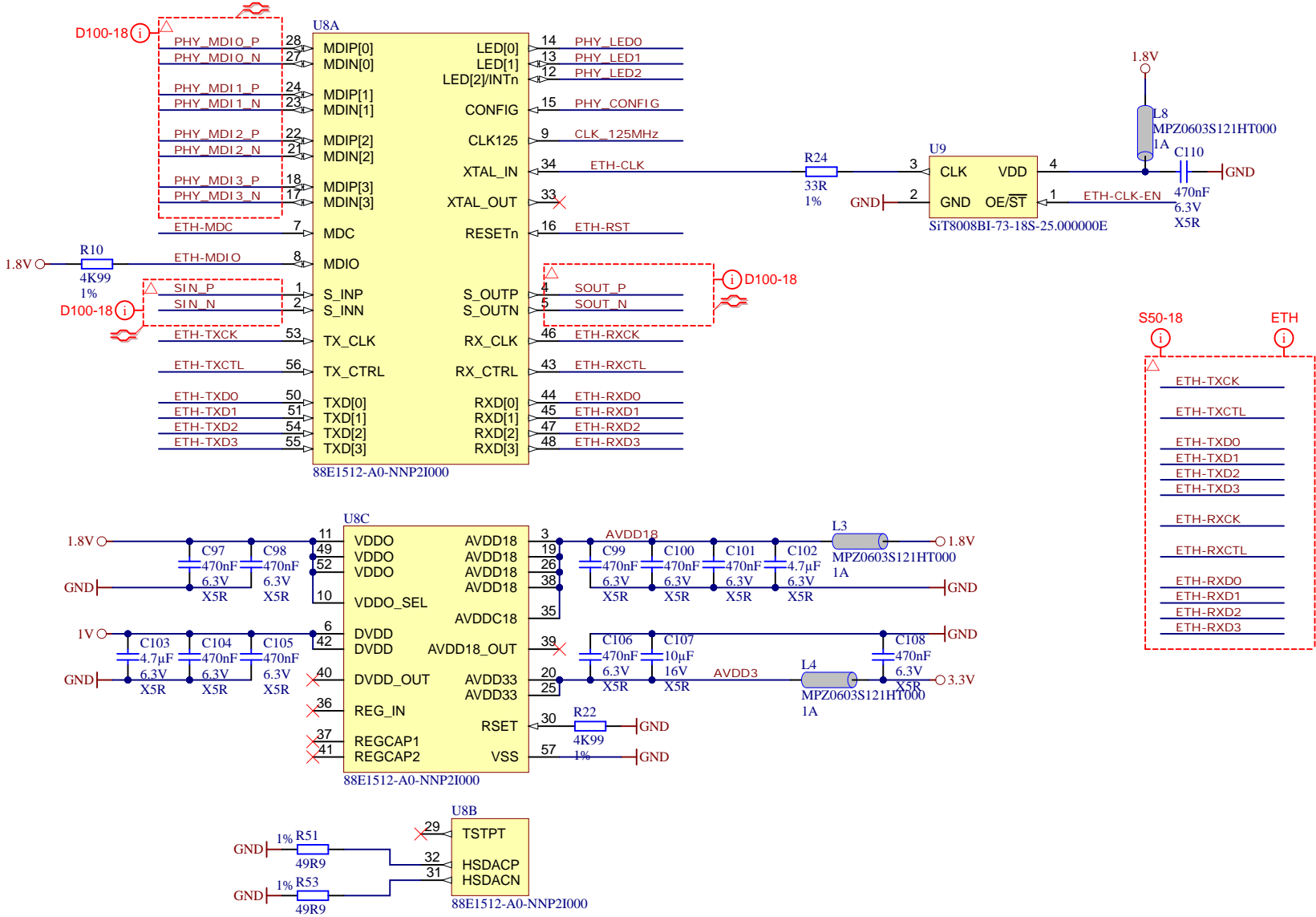
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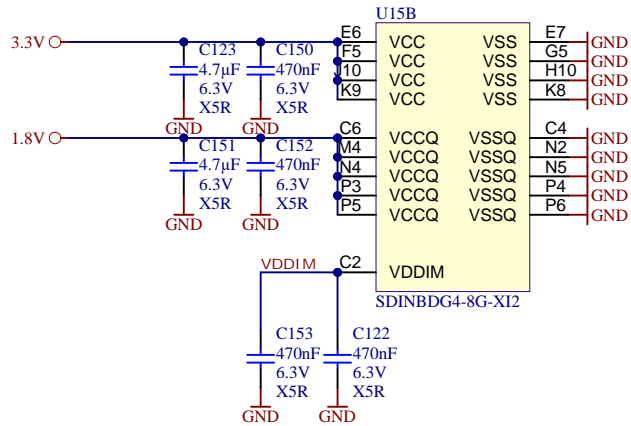
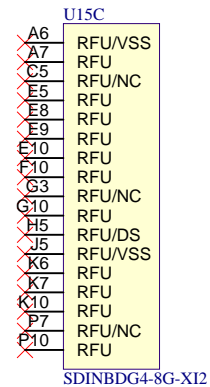
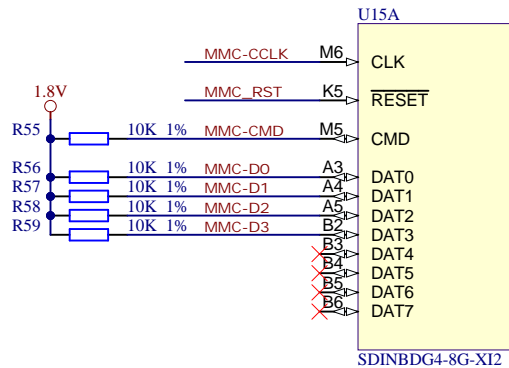
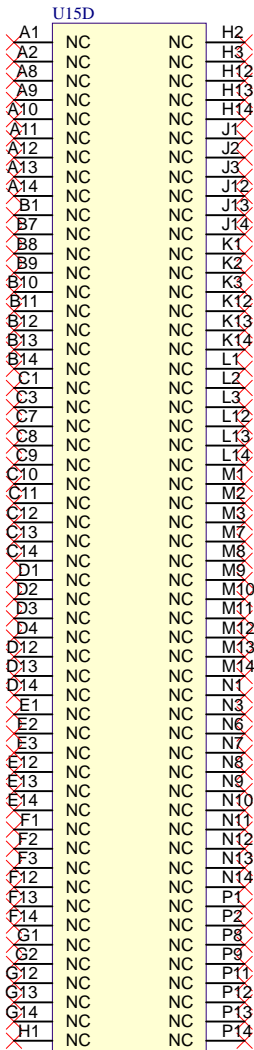
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|  | Title: GigaZee - USB | | |
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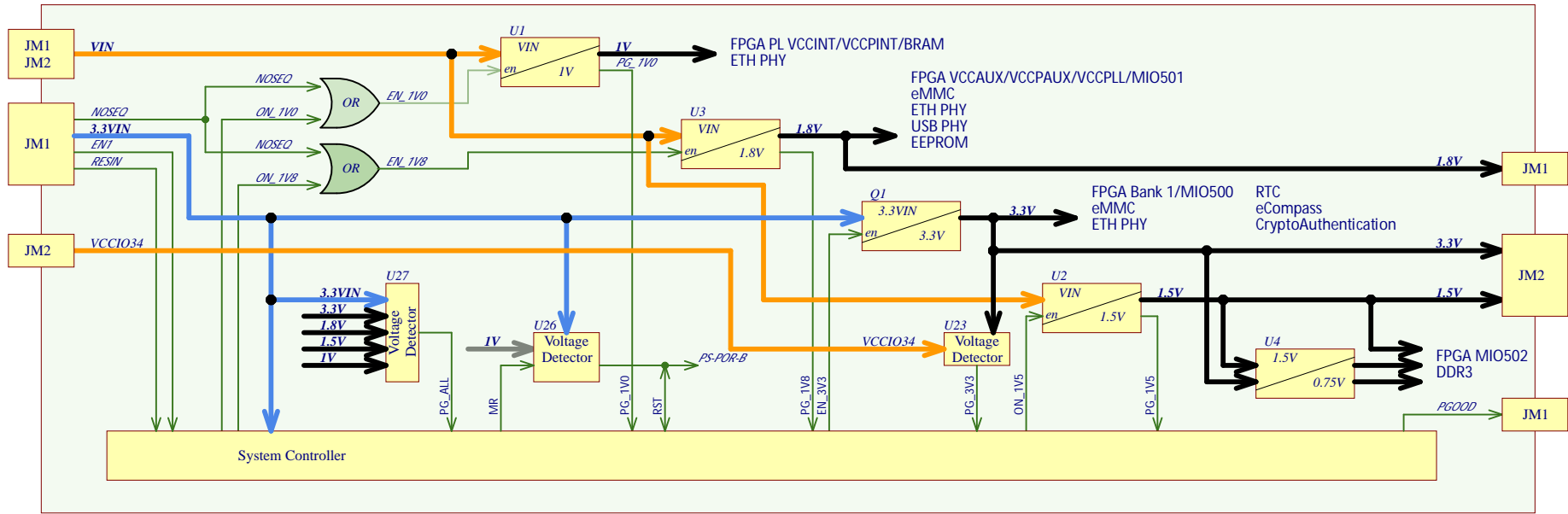


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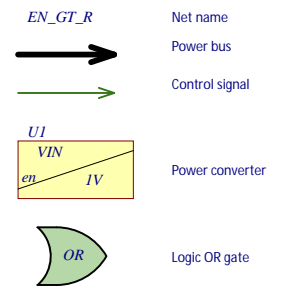
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Power-on sequencing:



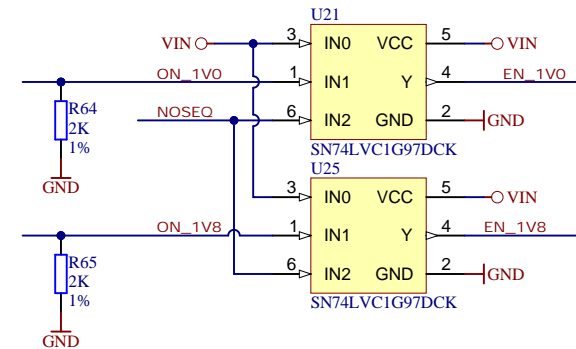
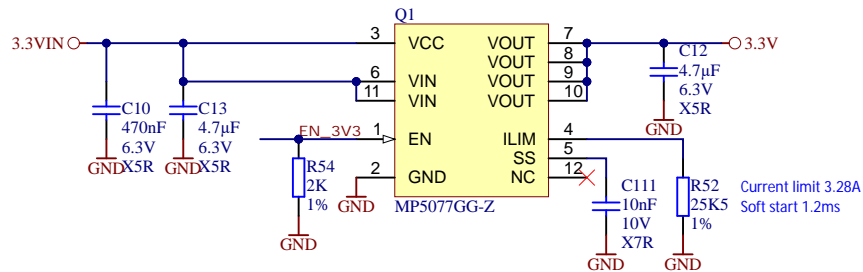
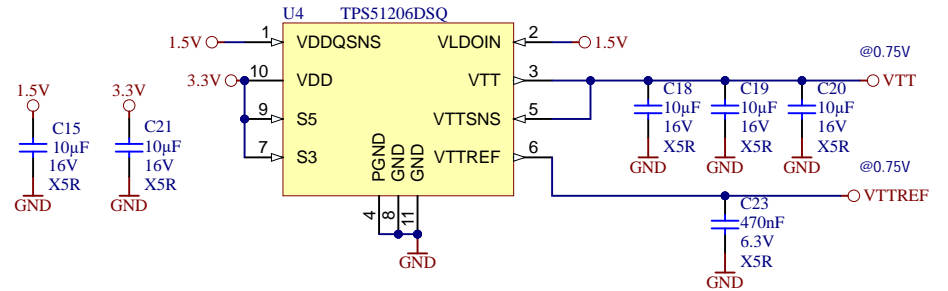
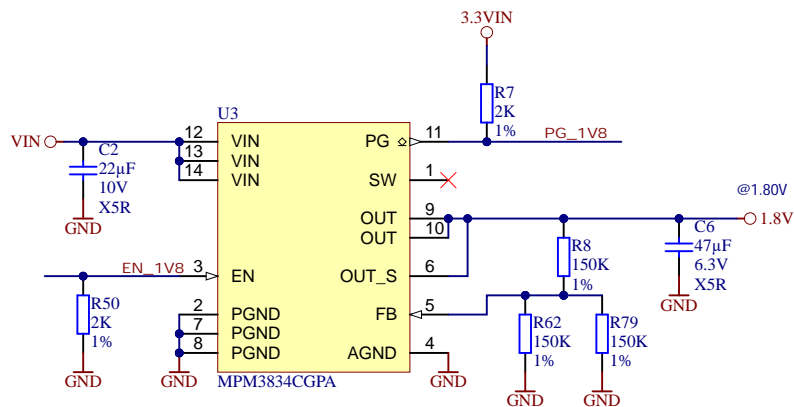
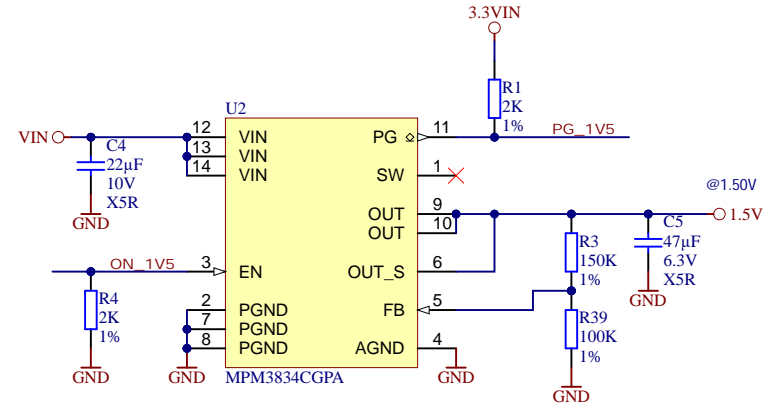
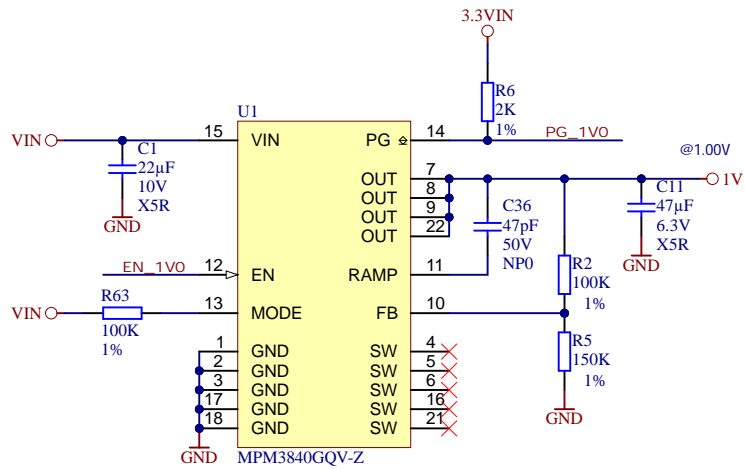
Recommended Operating Conditions

| Power Rail | Direction | Range | Tolerance | Description | Note |
|------------|-----------|------------|-----------|----------------------------|---------------------|
| VIN | IN | 3.3 - 5V | +/-5% | Micromodule Power | Mandatory |
| 3.3VIN | IN | 3.3V | +/-5% | Micromodule Power | Mandatory |
| VCCIO13 | IN | 1.2 - 3.3V | +/-5% | HR IO Bank13 | Mandatory |
| VCCIO33 | IN | 1.2 - 3.3V | +/-5% | HR IO Bank33 | - |
| VCCIO34 | IN | 1.2 - 3.3V | +/-5% | HR IO Bank34 | Mandatory |
| VCCIO35 | IN | 1.2 - 3.3V | +/-5% | HR IO Bank35 | - |
| VBAT_IN | IN | 2.5 - 5V | +/-5% | RTC | - |
| 1.8V | OUT | 1.8V | +/-5% | For Carrier card Periphery | - |
| 3.3V | OUT | 3.3V | +/-5% | For Carrier card Periphery | - |
| DDR_PWR | OUT | 1.5V | +/-5% | For Carrier card Periphery | - |
| VREF_JTAG | OUT | 3.3V | +/-5% | For Carrier card Periphery | Connected to 3.3VIN |



Title: **GigaZee - Power Diagram**

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