



Renesas Electronics Corporation delivers trusted embedded design innovation with complete semiconductor solutions that enable billions of connected, intelligent devices to enhance the way people work and live. A global leader in microcontrollers, analog, power, and SoC products, Renesas provides comprehensive solutions for a broad range of automotive, industrial, infrastructure, and IoT applications that help shape a limitless future.



Würth Elektronik eiSos is one of the leading manufacturers of electronic and electromechanical components in Europe. The product portfolio includes: EMC Components, EMC Filters, Capacitors, Inductors, RF Inductors and LTCC Components, Resistors, Quartz, Oscillators, Transformers, Components for Circuit Protection, Power Modules, LEDs, Connectors, Switches, High-Power Contacts, Assembly Technique, Wireless Connectivity and Sensors.



SEGGER has over twenty-five years of experience in Embedded Systems, producing cutting-edge RTOS and Software Libraries, and offering a full set of hardware tools (for development and production) and software tools. The J-Link debug probes, with Ozone the accompanying debugger and performance analyzer, and Embedded Studio the powerful cross platform C/C++ IDE, are available to support developers in creating their own embedded systems.



AP Memory is a memory IC design company focusing on Low to Mid density RAM solutions, providing a full range of IoT RAM (low pin count QSPI/OPI-PSRAM), ADMUX RAM (CellularRAM), low power DRAM (LPDDR2/LPDDR3), as well as innovative solution for AI such as UHS OPI and more... Partnering with an advanced DRAM technology foundry, AP Memory provides world class performance, supply longevity, quality and cost, including high volume and customer oriented innovative and customized solutions, in both KGD and package form.


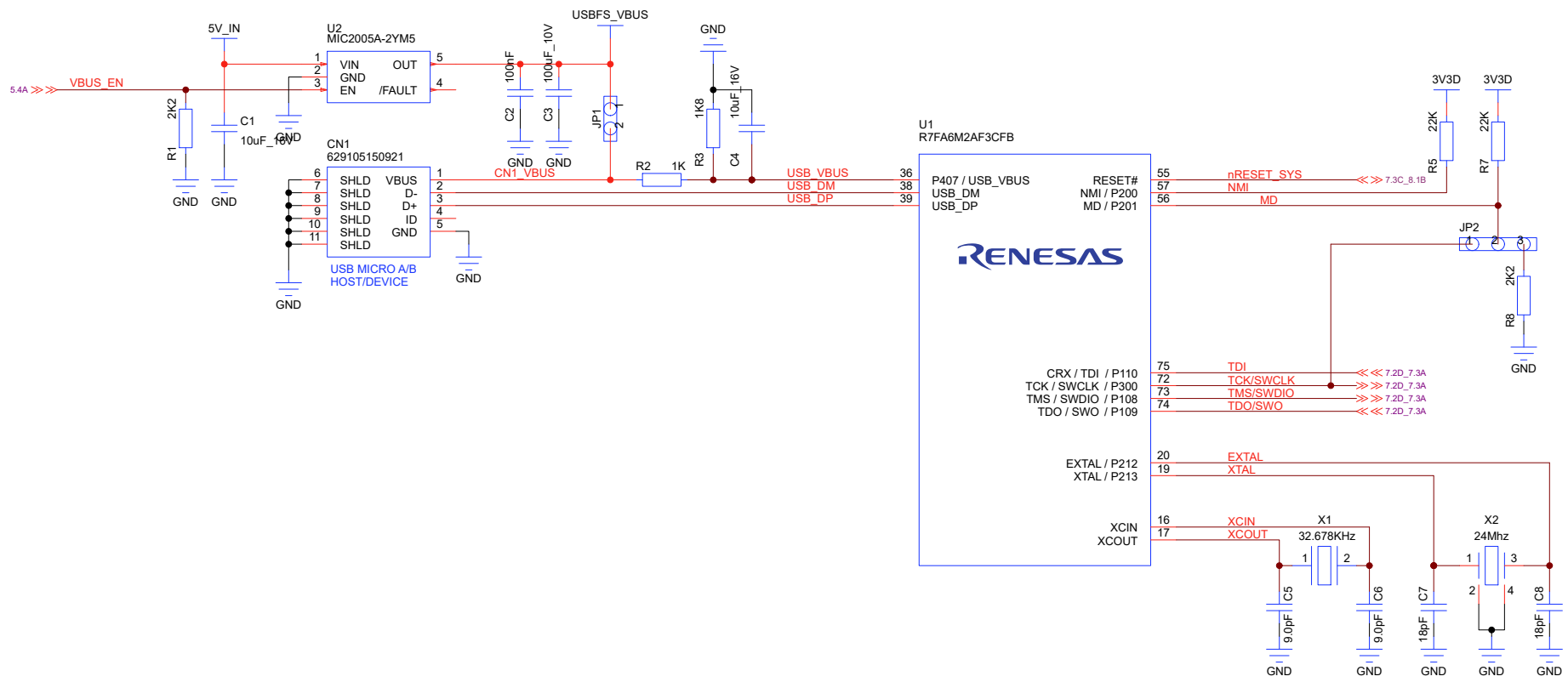
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| | PRODUCT | M13-RA6M2-EK (Evaluation Board) | | | DRAWN BY | PATRICK S. | DATE | 2022.09.13 |
| | PAGE | Technology Partners | | | APPROVED BY | TONY P. | DATE | 2023.03.21 |
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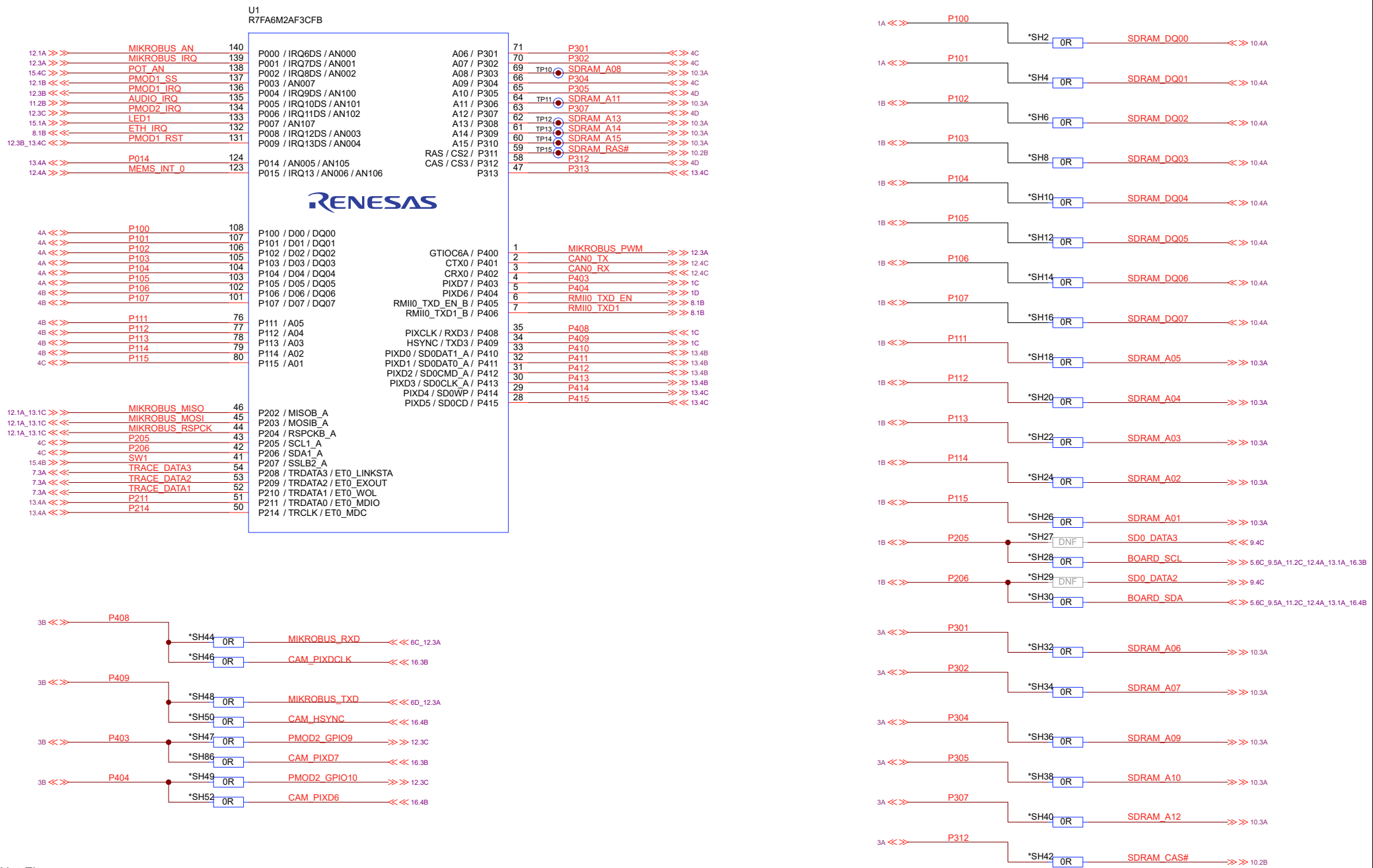
| PAGE | DESCRIPTION |
|------|----------------------------|
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| 2 | Table of Content |
| 3 | RA6M5 / System |
| 4 | RA6M5 / GPIO1 |
| 5 | RA6M5 / GPIO2 |
| 6 | RA6M5 / Power |
| 7 | Debug, Virtual COM & Reset |
| 8 | Ethernet |
| 9 | QSPI, EEPROM, Micro-SD |
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| PAGE | Content | | | APPROVED BY | TONY P. | DATE | 2023.03.21 |
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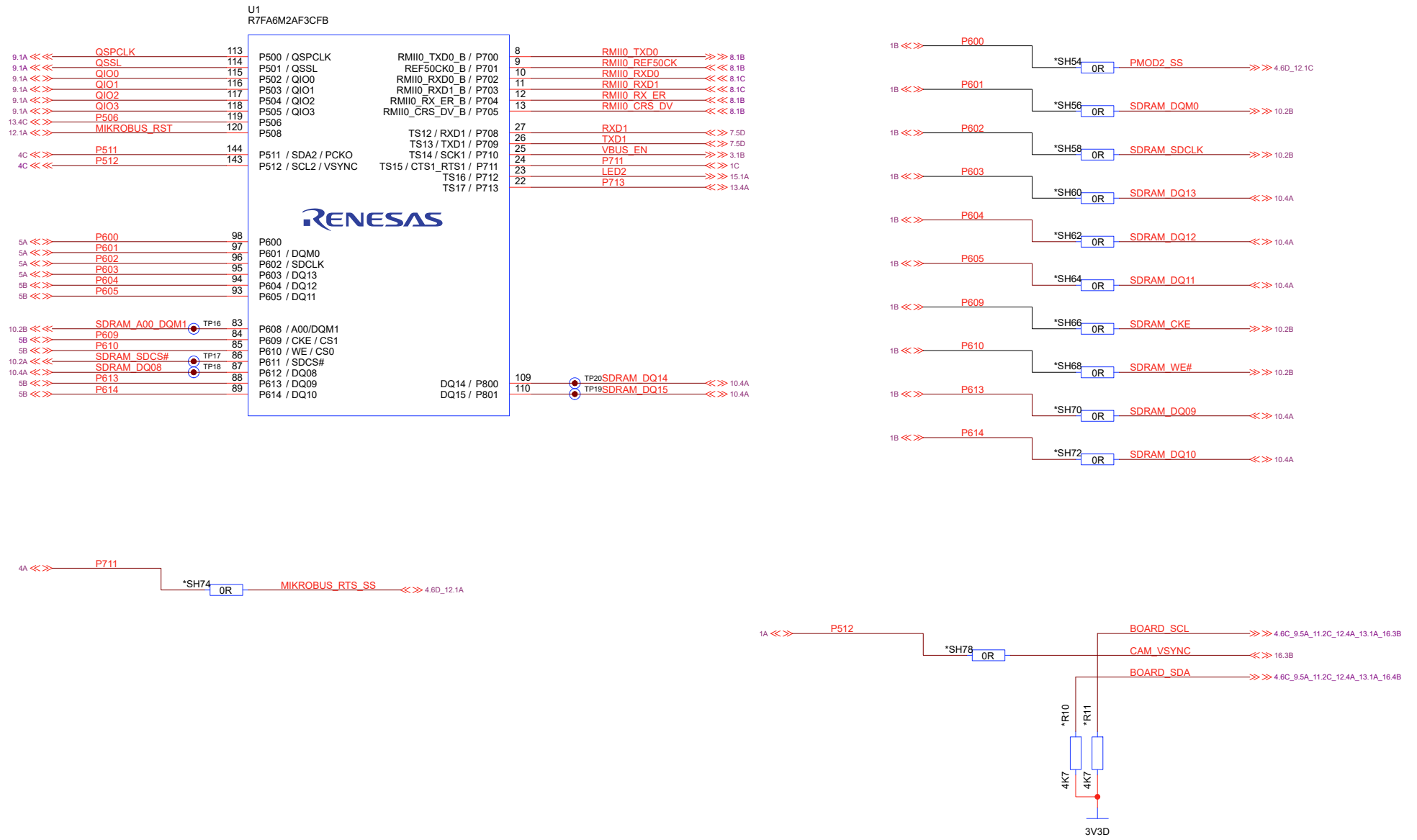
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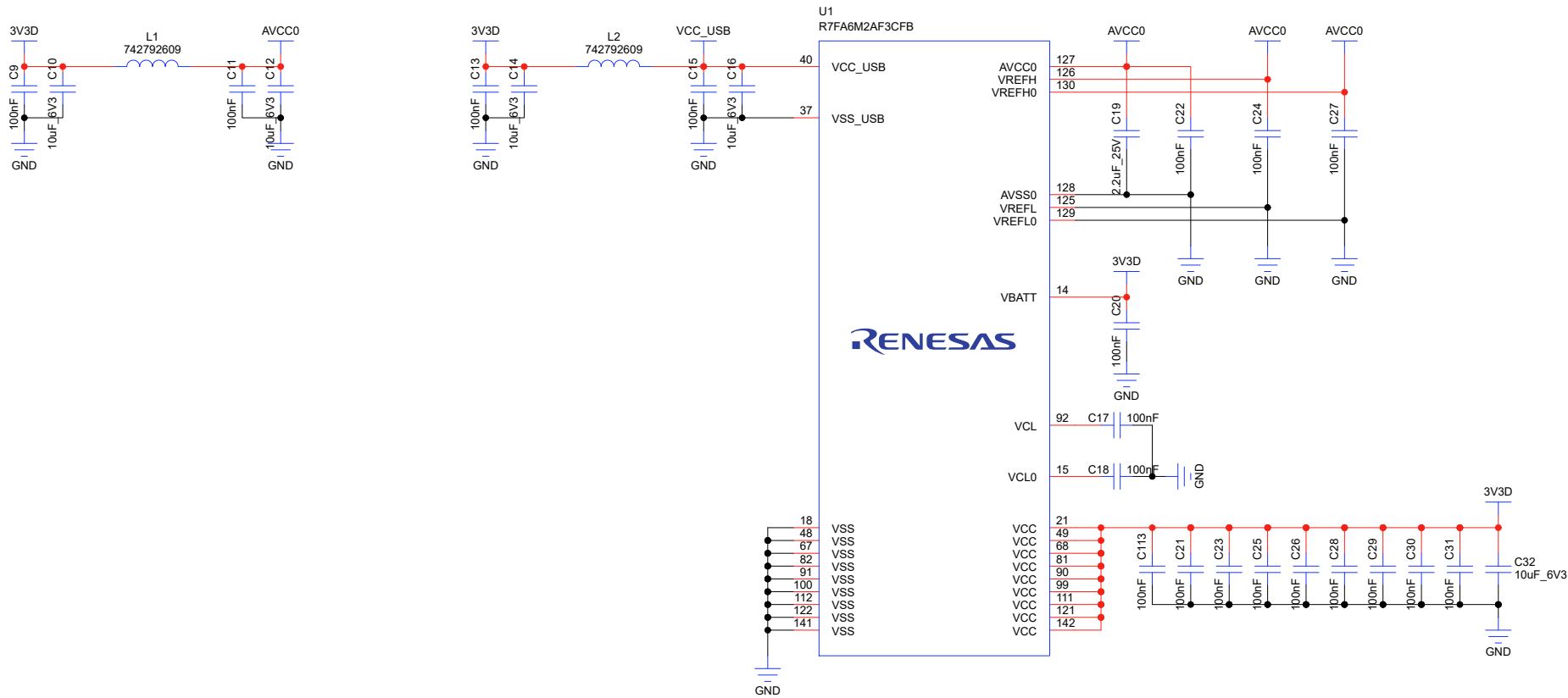


*DNF: Do Not Fit

| | | | | | | | | | | | | |
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| PAGE | | RA6M2 GPIO1 | | | APPROVED BY | | TONY P. | | DATE | | 2023.03.21 | |
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PRODUCT M13-RA6M2-EK (Evaluation Board)

PAGE RA6M2 Power

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DATE 2022.09.13

APPROVED BY TONY P.

DATE 2023.03.21



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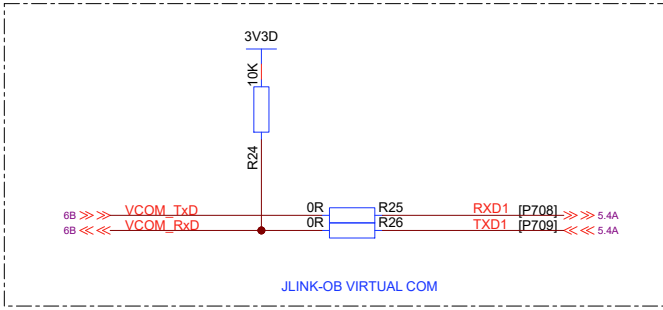
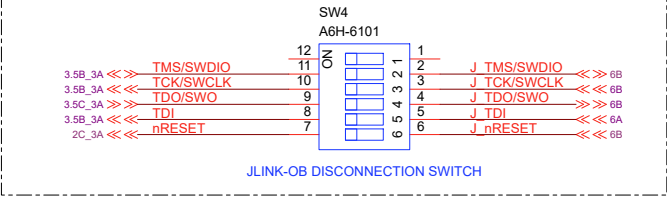
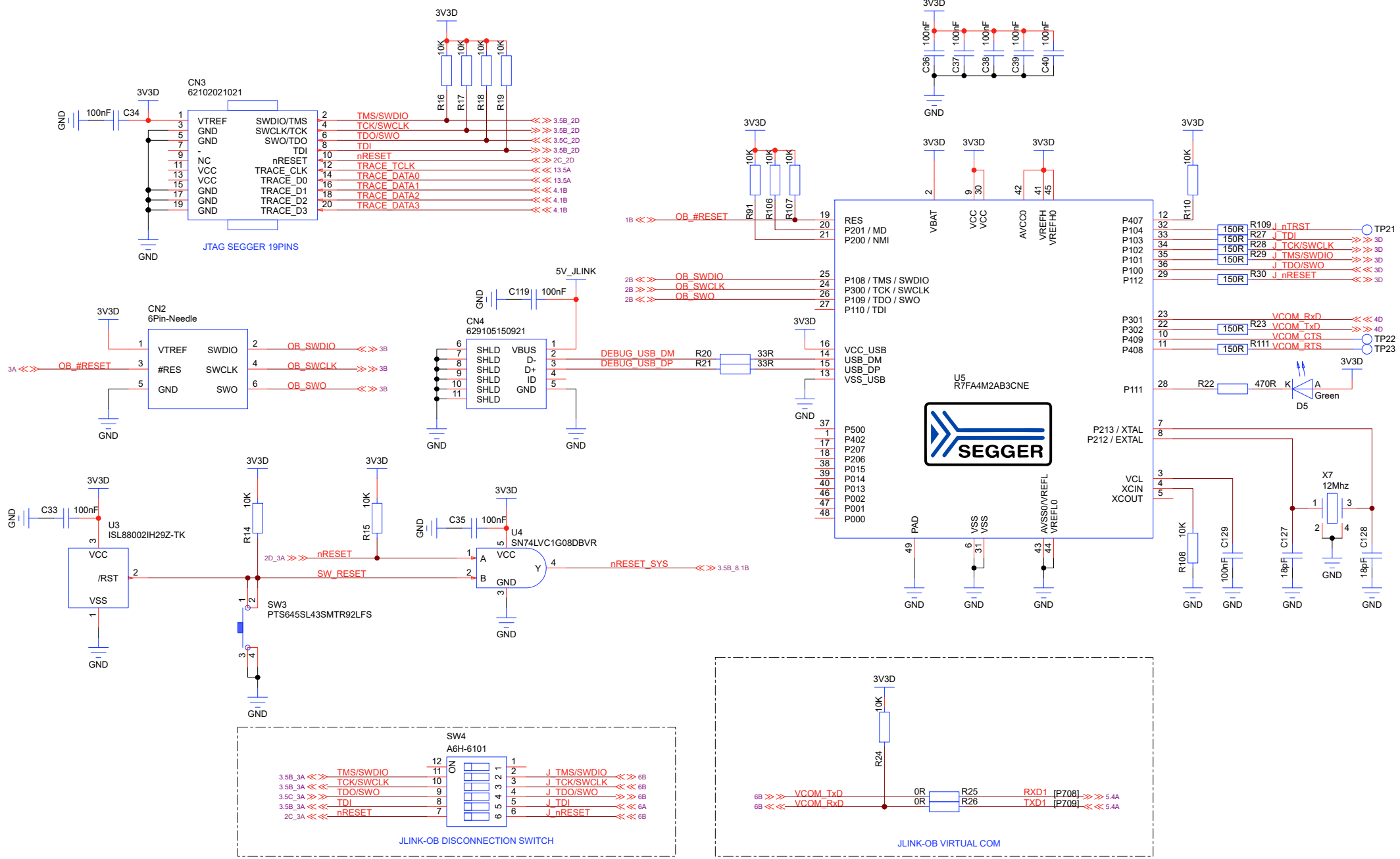
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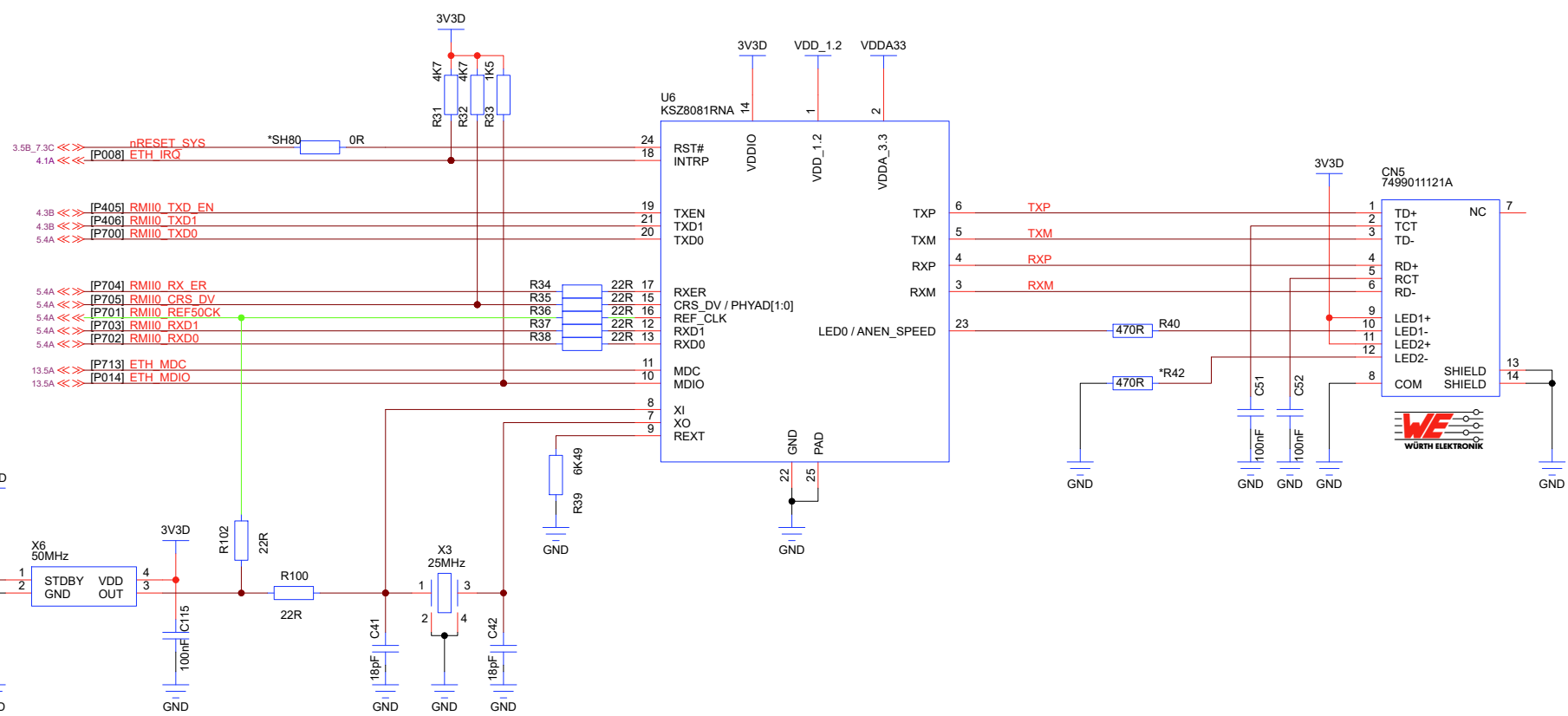
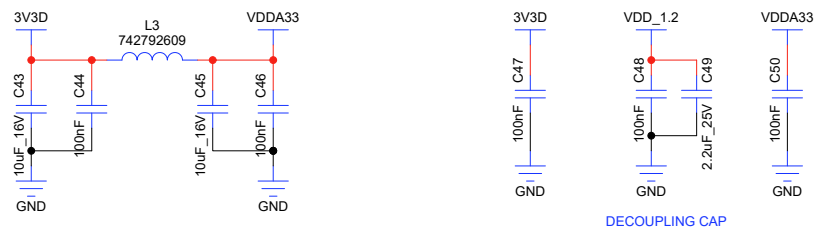
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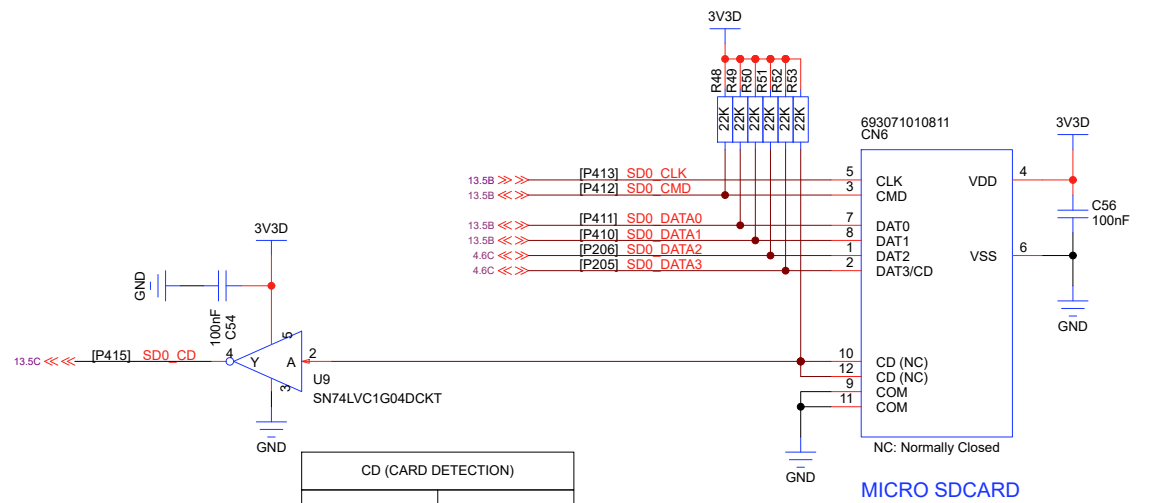
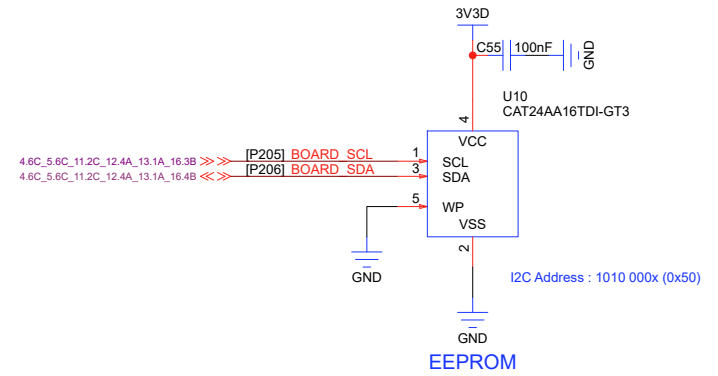
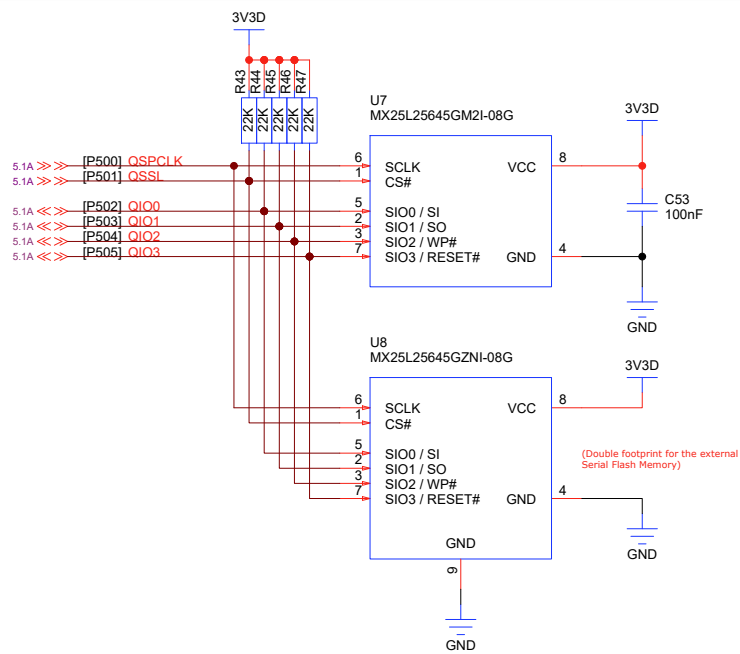


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|------------|----|-----|-----|----|-----|------|------|------|------|
| | X3 | C41 | C42 | X6 | R36 | R100 | R101 | R102 | C115 |
| KSZ8081RNA | F | F | F | NF | F | NF | NF | NF | NF |
| KSZ8081RND | NF | NF | NF | F | NF | F | F | F | F |

NF: Not Fitted
F: Fitted

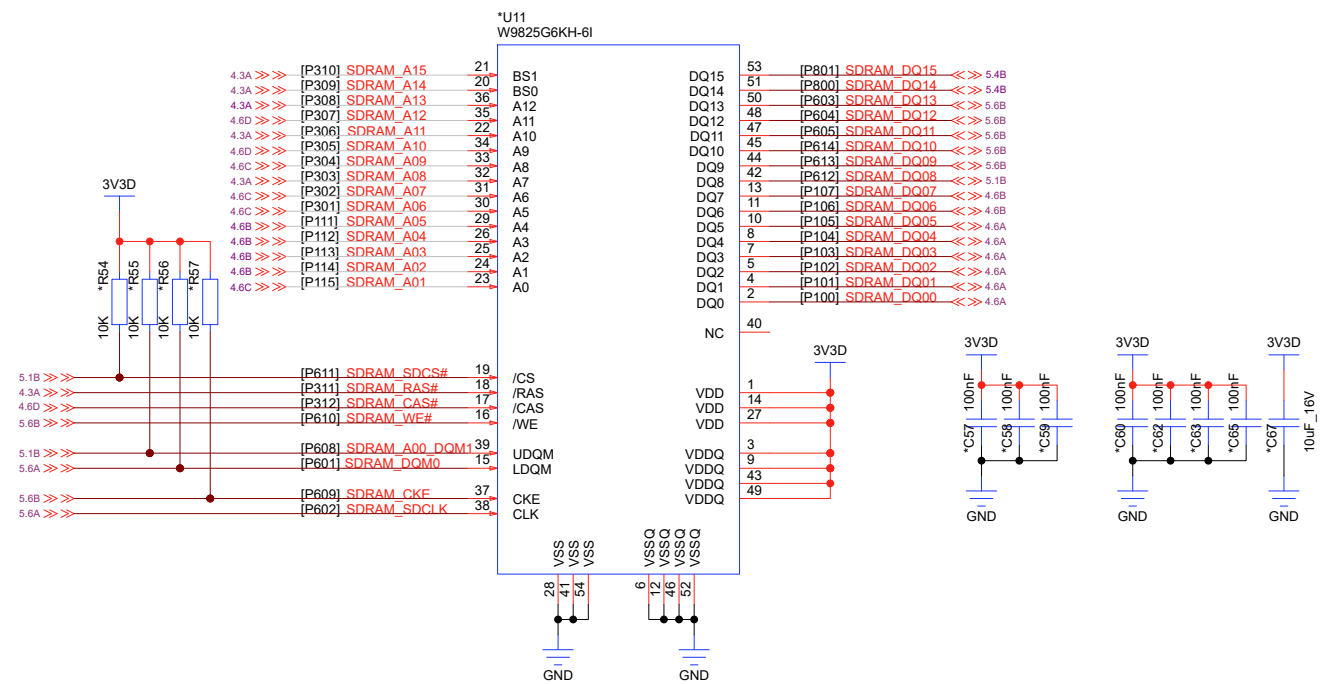
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| PAGE | Ethernet | | | | APPROVED BY | TONY P. | DATE | 2023.03.21 |
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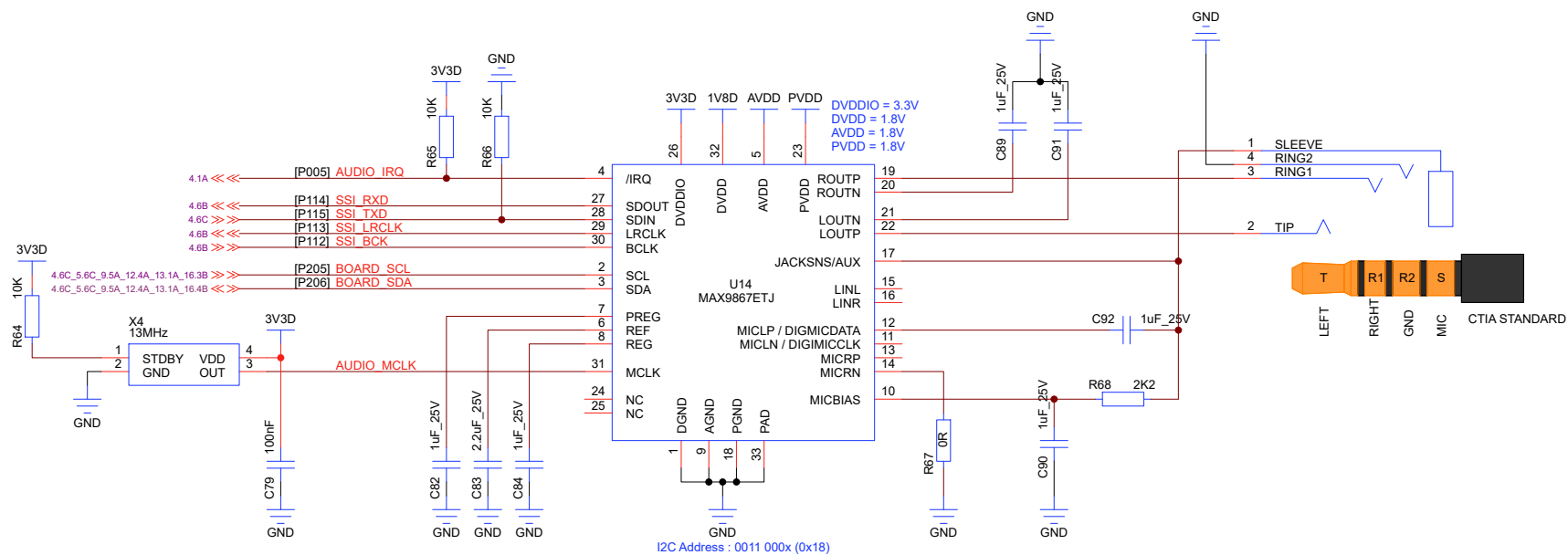
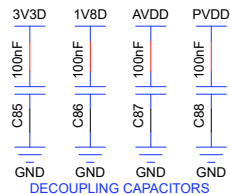
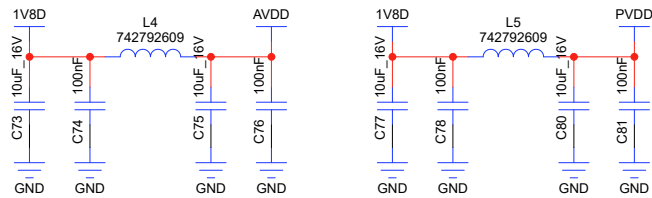
| CD (CARD DETECTION) | |
|---------------------|---------------|
| CARD REMOVED | CARD INSERTED |
| CLOSE | OPEN |
| SD0_CD = 1 | SD0_CD = 0 |





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| | PAGE | SDRAM | | | | APPROVED BY | | TONY P. |
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PRODUCT M13-RA6M2-EK (Evaluation Board)

PAGE Audio CODEC

DRAWN BY

PATRICK S.

DATE

2022.09.13

APPROVED BY

TONY P.

DATE

2023.03.21



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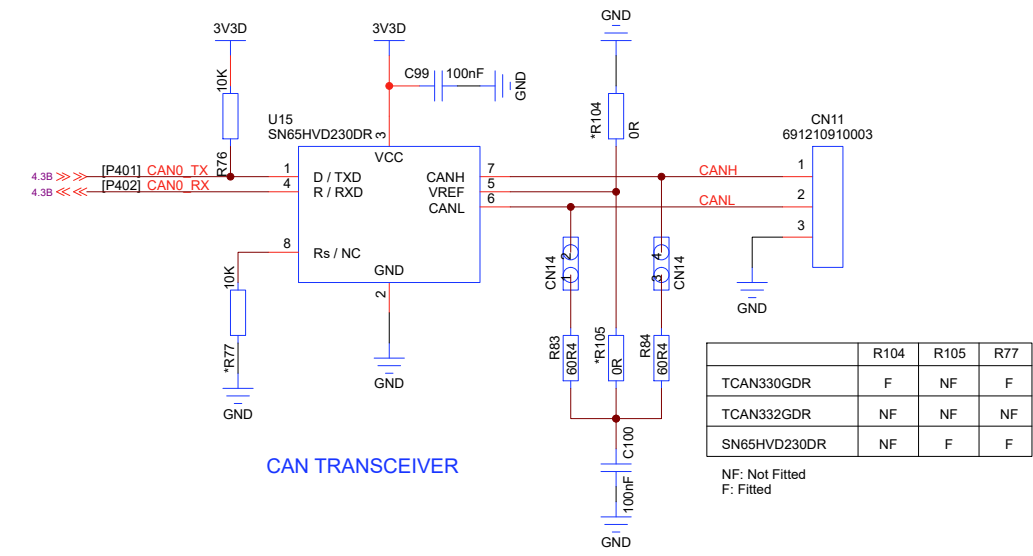
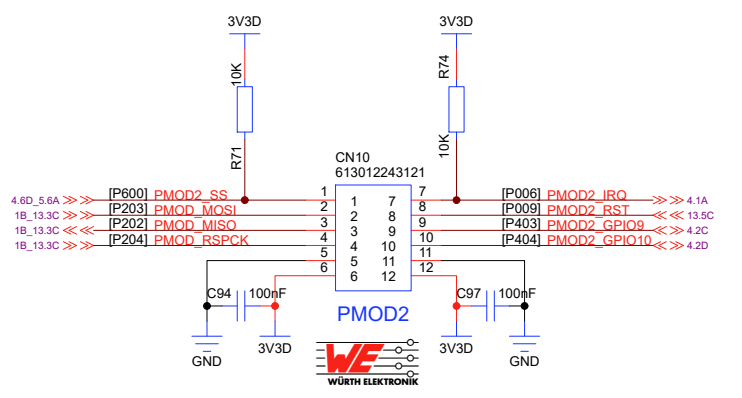
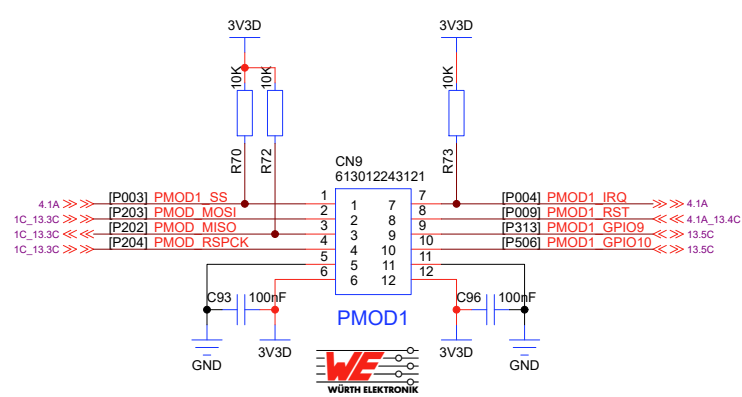
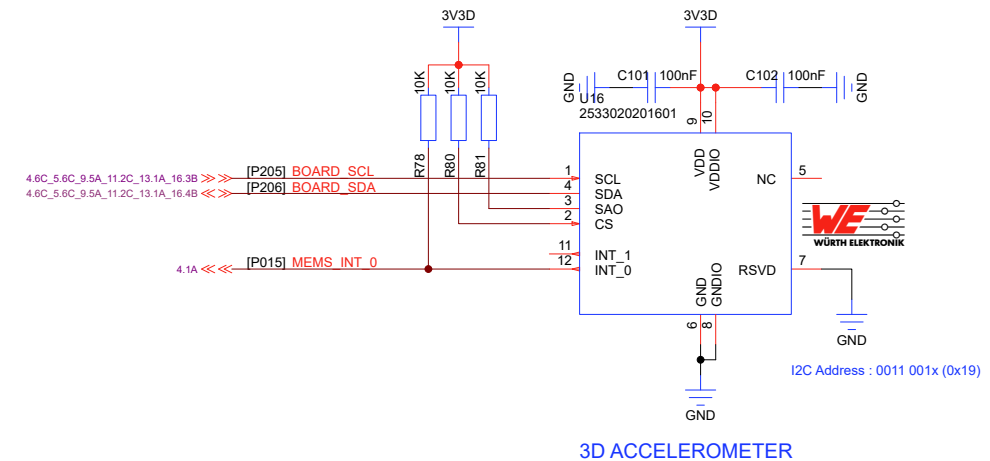
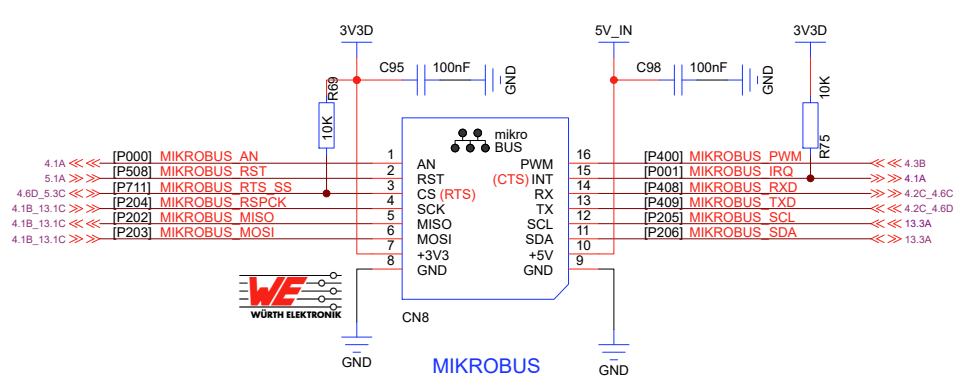
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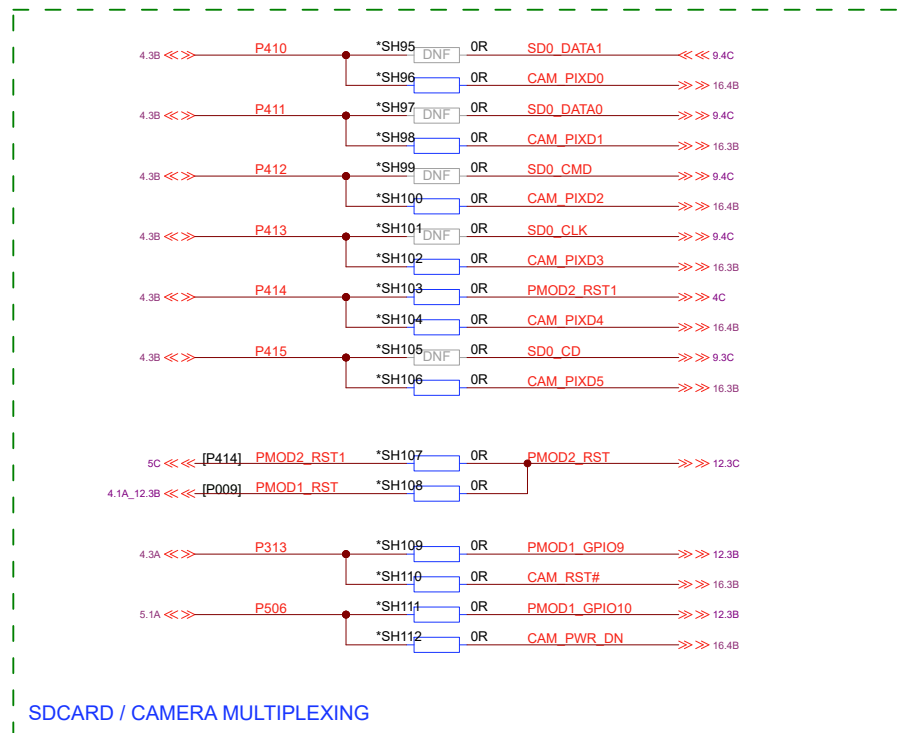
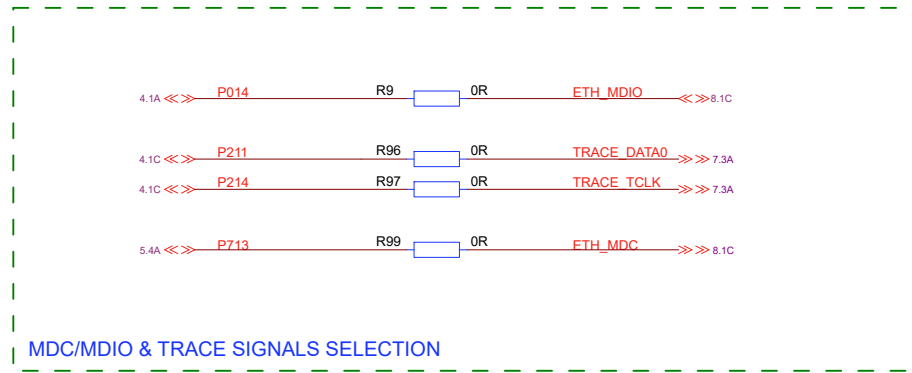
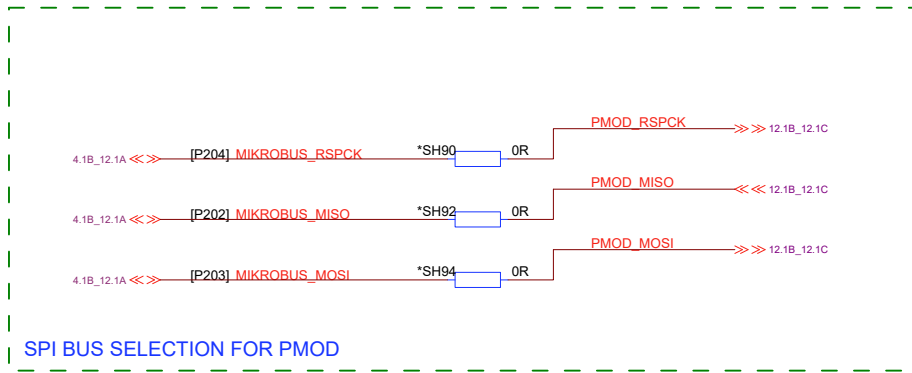
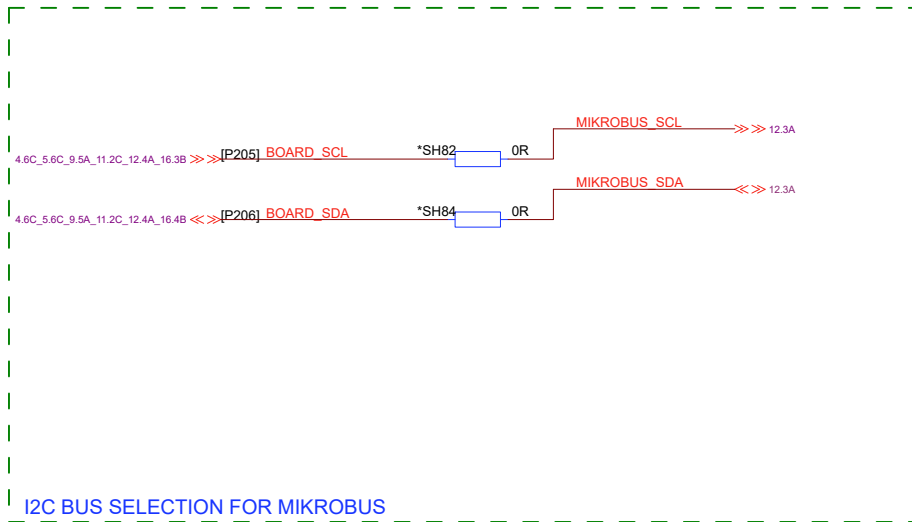
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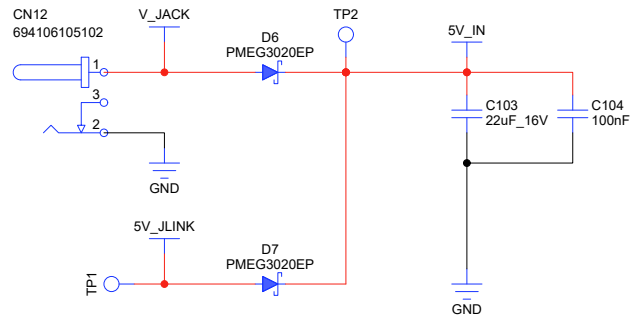
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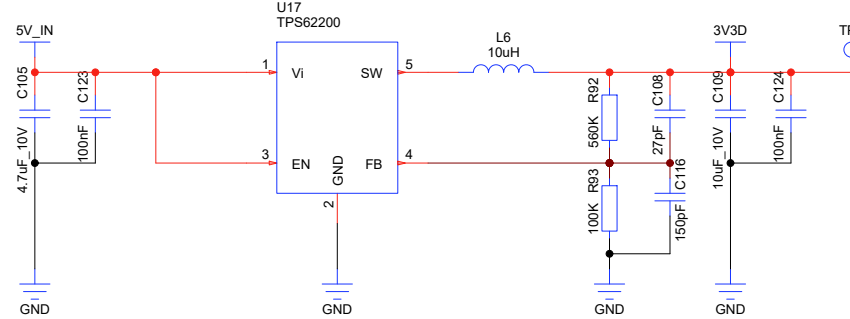
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| | PAGE | GPIO Distribution | | | APPROVED BY | TONY P. | DATE | 2023.03.21 |
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JACK POWER SUPPLY MUST BE STRICTLY 5V

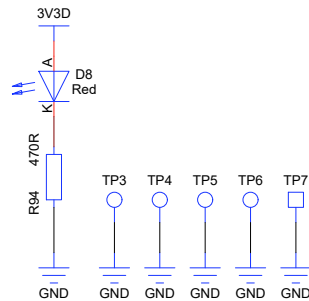
5V POWER SOURCE



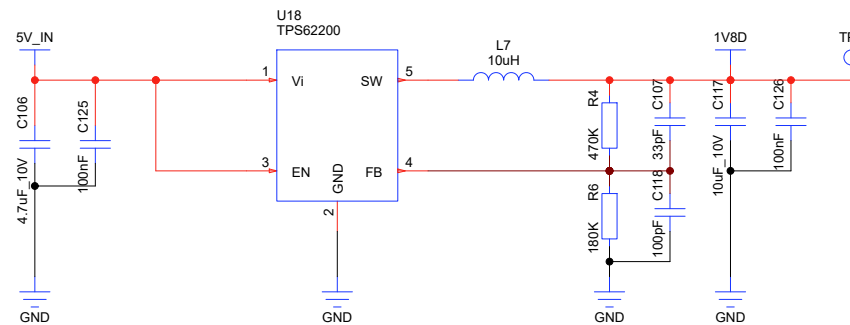
5V TO 3V3 Digital



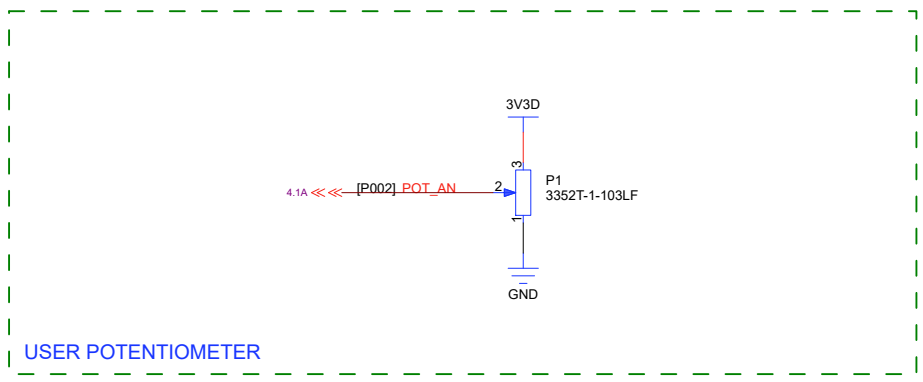
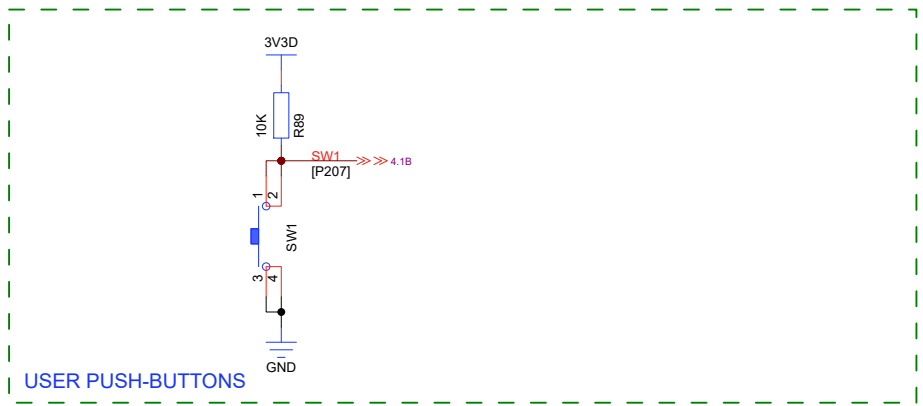
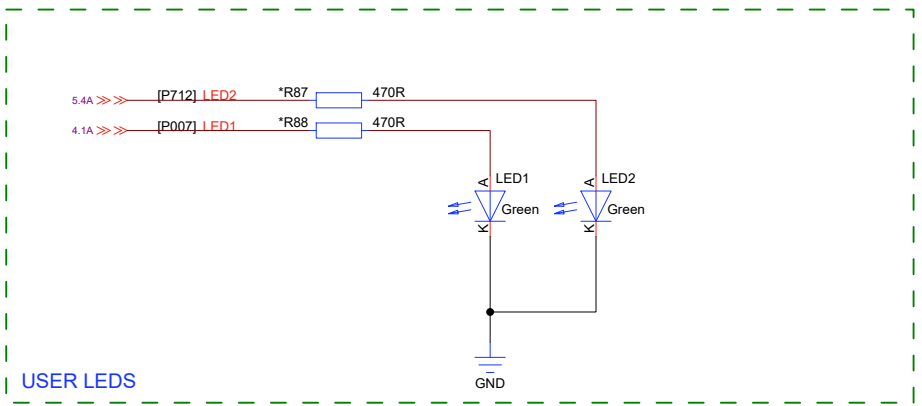
POWER ON LED




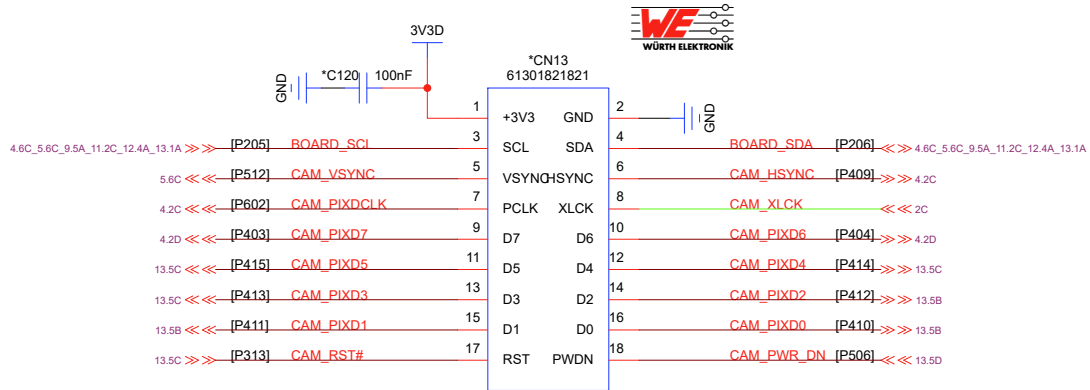
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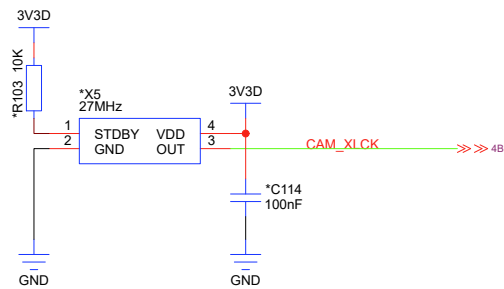
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I2C Address : Depend on Camera Module
ARDUCAM 8-BIT INTERFACE CAMERA



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| REVISION HISTORY | | |
|------------------|---------|-------------|
| DATE | VERSION | CHANGES |
| 2023.03.21 | V1.0 | First draft |
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