

| Title | | |
|-------|---|----------|
| Size | Number | Revision |
| A4 | | |
| Date: | 7/22/2024 | Sheet of |
| File: | E:\SoftData\...\MainBoard in ROV.SchDoc Drawn By: | |

A

B

C

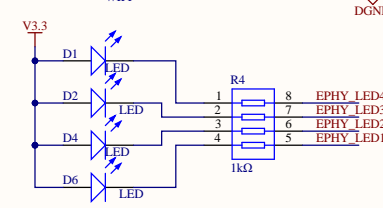
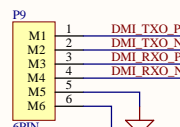
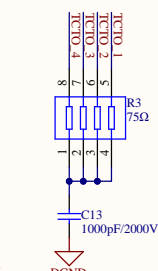
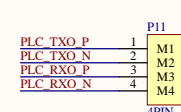
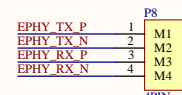
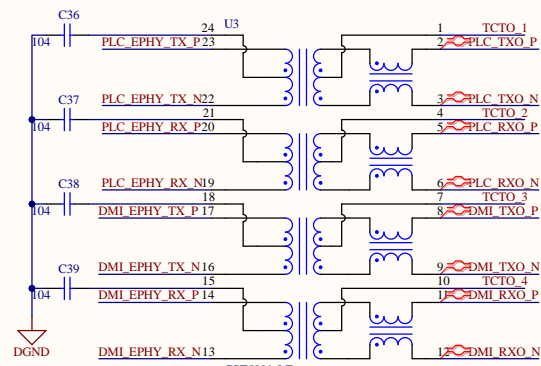
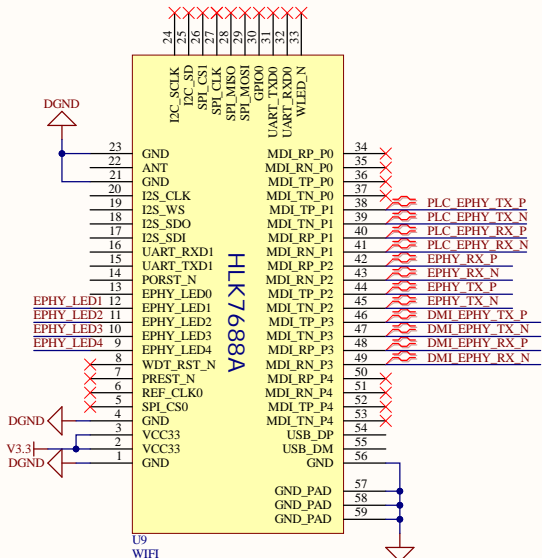
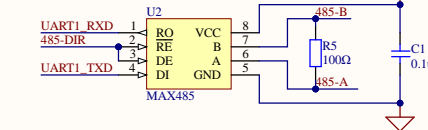
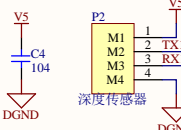
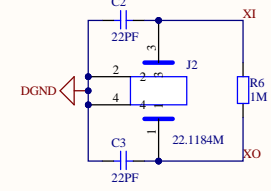
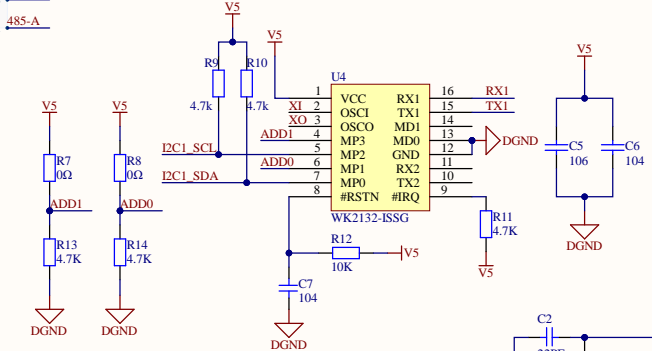
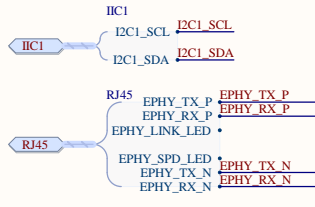
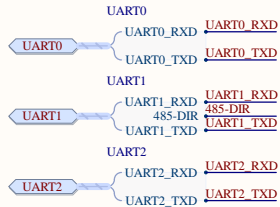
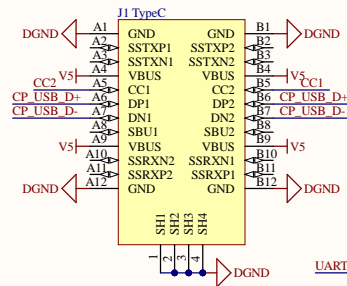
D

A

B

C

D



| Title | | |
|-------|---|-----------|
| Size | Number | Revision |
| A3 | | |
| Date: | 7/22/2024 | Sheet of |
| File: | E:\SoftData\...\Conversion circuit.SchDoc | Drawn By: |

A

B

C

D

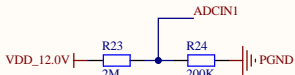
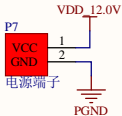
A

B

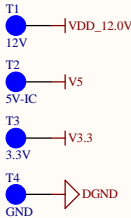
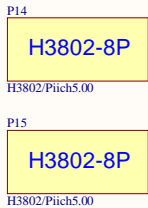
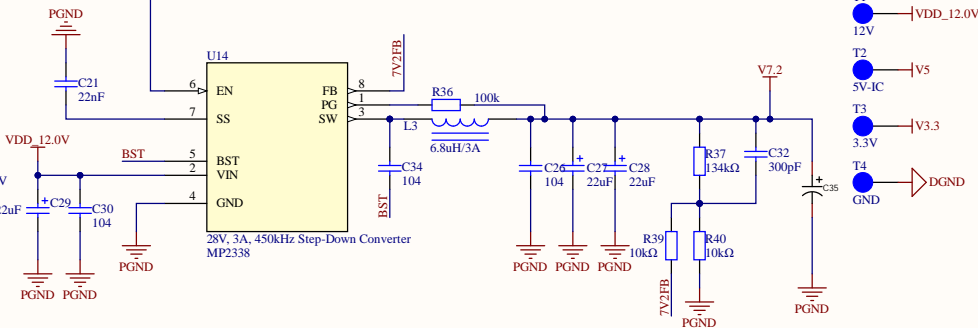
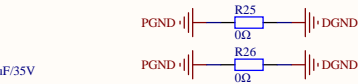
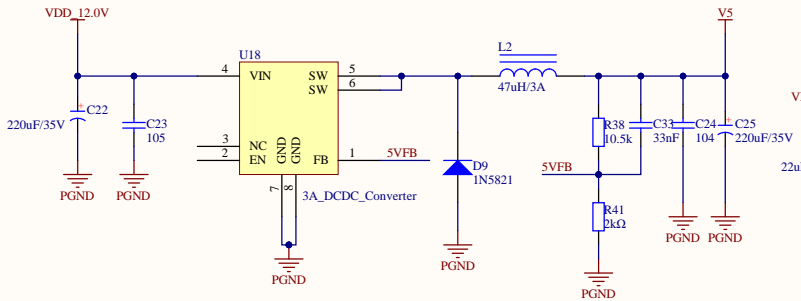
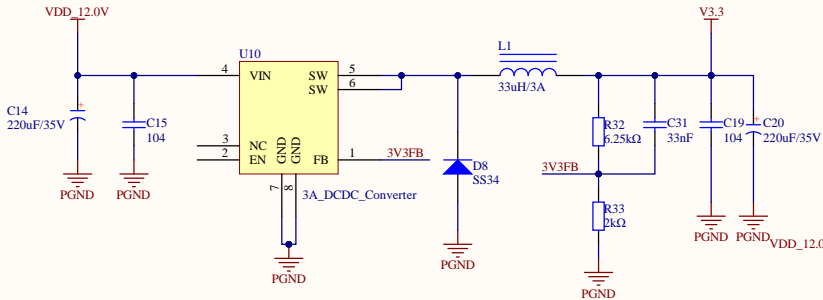
C

D

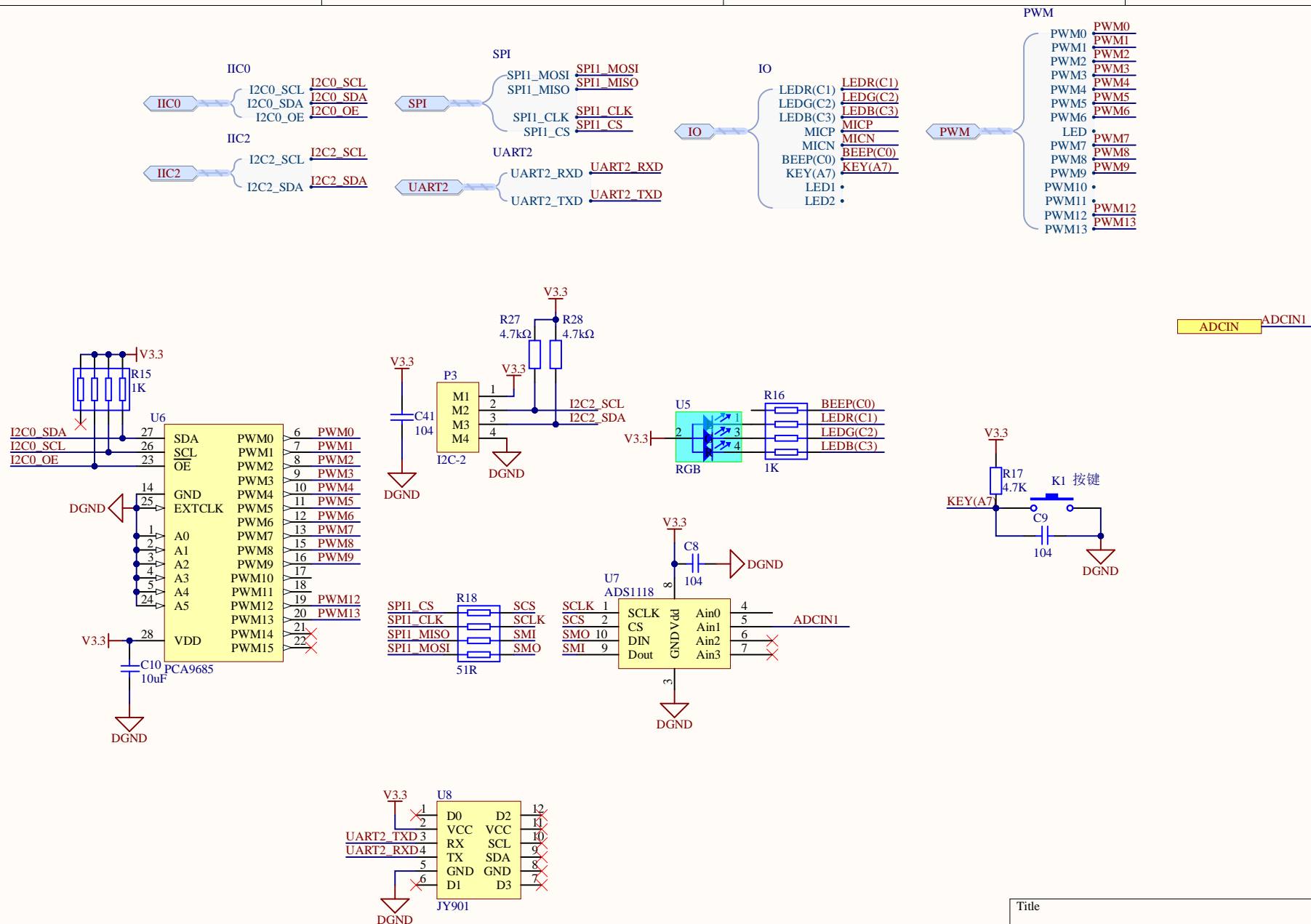
ADCIN ADCIN1



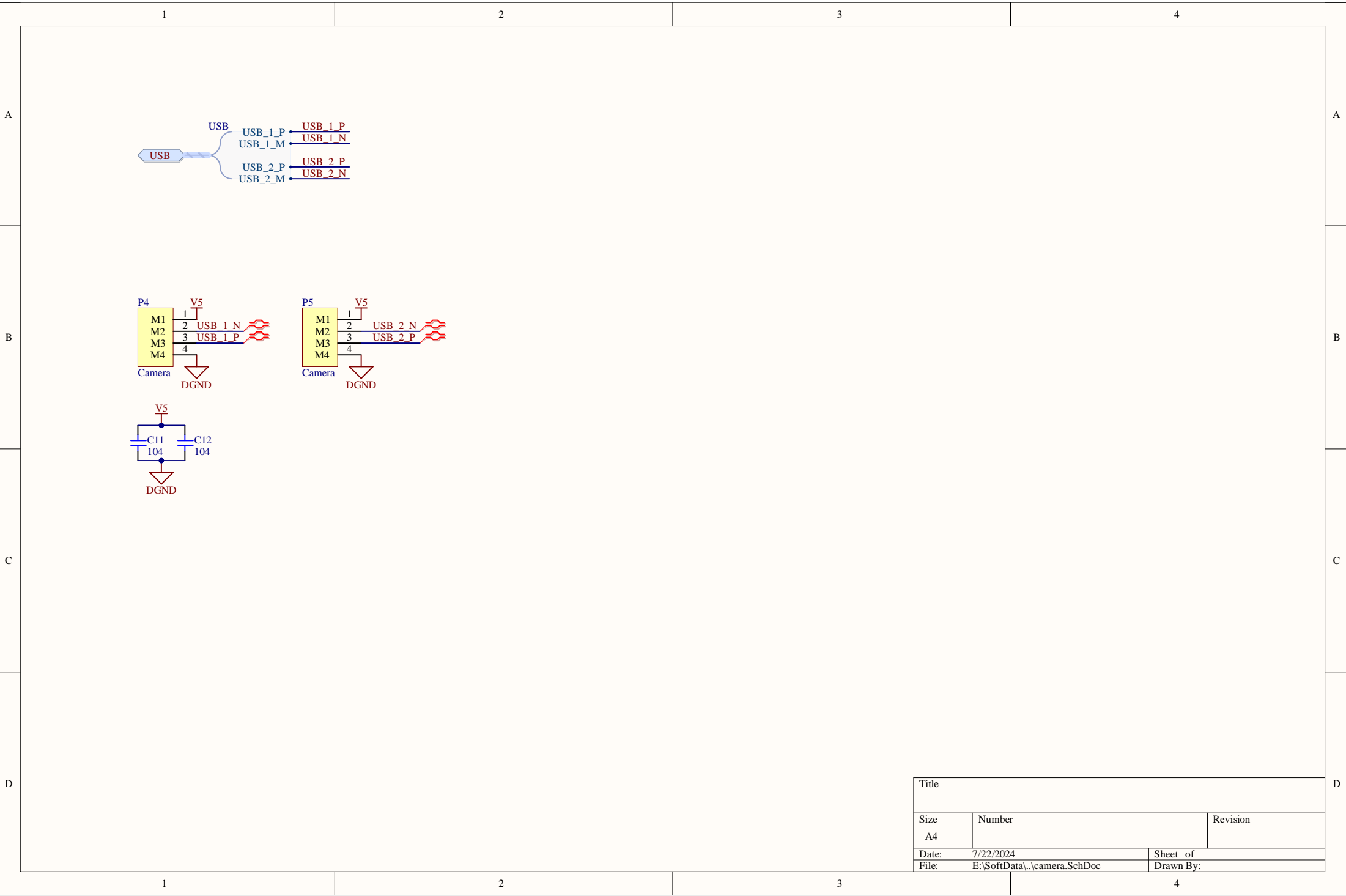
电压采样



| Title | | |
|--------------------------------|-----------|----------|
| Size A3 | Number | Revision |
| Date: 7/22/2024 | Sheet of | |
| File: E:\SoftData\Power.SchDoc | Drawn By: | |



| Title | | |
|-------|-------------------------------|-----------|
| Size | Number | Revision |
| A4 | | |
| Date: | 7/22/2024 | Sheet of |
| File: | E:\SoftData\...\sensor.SchDoc | Drawn By: |



| | | |
|------------|-------------------------------|-----------|
| Title | | |
| Size A4 | Number | Revision |
| Date: | 7/22/2024 | Sheet of |
| File: | E:\SoftData\...\camera.SchDoc | Drawn By: |

1

2

3

4

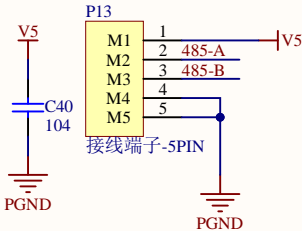
A

A



B

B



C

C

D

D

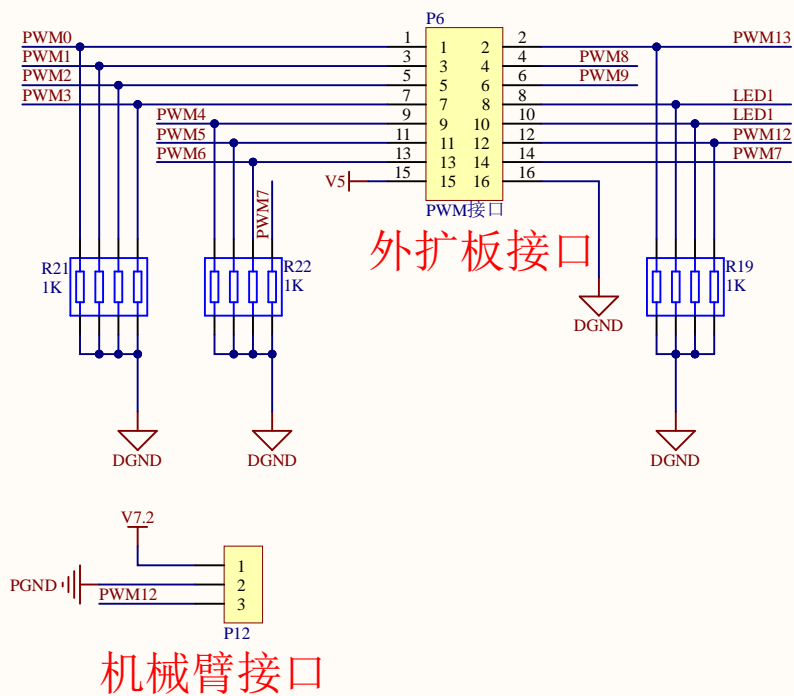
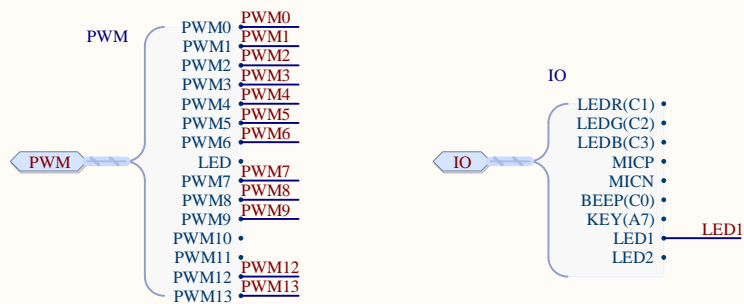
| | | |
|-------|--------------------------------|-----------|
| Title | | |
| Size | Number | Revision |
| A4 | | |
| Date: | 7/22/2024 | Sheet of |
| File: | E:\SoftData\...\connect.SchDoc | Drawn By: |

1

2

3

4



| Title | | |
|-------|---------------------------------------|-----------|
| Size | Number | Revision |
| A4 | | |
| Date: | 7/22/2024 | Sheet of |
| File: | E:\SoftData\...\light coupling.SchDoc | Drawn By: |



| Line # | Name | Description | Designator | Quantity | Manufacturer 1 | Manufacturer Part Number 1 | Manufacturer Lifecycle 1 | Supplier 1 | Supplier Part Number 1 | Supplier Unit Price 1 | Supplier Subtotal 1 |
|--------|-------------------------------------|---|---|----------|----------------|----------------------------|--------------------------|------------|------------------------|-----------------------|---------------------|
| | 0.1uF | 无极贴片电容 | C1 | 1 | | | | | | | |
| | 22PF | 无极贴片电容 | C2, C3 | 2 | | | | | | | |
| | 104 | 无极贴片电容 | C4, C7, C8, C9, C11, C12 | 6 | | | | | | | |
| | 106 | 贴片电容 | C5 | 1 | | | | | | | |
| | 104 | 贴片电容 | C6, C15, C16, C17, C18, C19, C24, C26, C30, C34, C36, C37, C38, C39, C40, C41 | 16 | | | | | | | |
| | 10uF | 无极贴片电容 | C10 | 1 | | | | | | | |
| | 1000pF/2000V | 贴片电容 | C13 | 1 | | | | | | | |
| | 220uF/35V | 贴片电解电容 | C14, C20, C22, C25 | 4 | | | | | | | |
| | 22nF | 贴片电容 | C21 | 1 | | | | | | | |
| | 105 | 贴片电容 | C23 | 1 | | | | | | | |
| | 22uF | 钽电容 | C27, C28, C29 | 3 | | | | | | | |
| | 33nF | 贴片电容 | C31, C33 | 2 | | | | | | | |
| | 300pF | 贴片电容 | C32 | 1 | | | | | | | |
| | 2200uF | 插件电容 | C35 | 1 | | | | | | | |
| | LED | 发光二极管 | D1, D2, D4, D6 | 4 | | | | | | | |
| | L3N | 二极管30V/2A | D3 | 1 | | | | | | | |
| | SS34 | 通用二极管 | D8 | 1 | | | | | | | |
| | 1N5821 | 通用二极管 | D9 | 1 | | | | | | | |
| | TypeC | | J1 | 1 | | | | | | | |
| | 22.1184M | | J2 | 1 | | | | | | | |
| | 按键 | 轻触开关 | K1 | 1 | | | | | | | |
| | 33uH/3A | 功率电感 | L1 | 1 | | | | | | | |
| | 47uH/3A | 功率电感 | L2 | 1 | | | | | | | |
| | 6.8uH/3A | 功率电感 | L3 | 1 | | | | | | | |
| | DEBUG | 排针 | P1 | 1 | | | | | | | |
| | 深度传感器 | 4PIN | P2 | 1 | | | | | | | |
| | I2C-2 | 4PIN | P3 | 1 | | | | | | | |
| | Camera | 4PIN | P4, P5 | 2 | | | | | | | |
| | PWM接口 | | P6 | 1 | | | | | | | |
| | 电源端子 | | P7 | 1 | | | | | | | |
| | 4PIN | 4PIN | P8, P11 | 2 | | | | | | | |
| | 6PIN | 6PIN | P9 | 1 | | | | | | | |
| | HDR-1X3 | 3P接插件 | P12 | 1 | | | | | | | |
| | 接线端子-5PIN | 接线端子-5PIN | P13 | 1 | | | | | | | |
| | H3802/Pilch5.00 | 15APowerConnector | P14, P15 | 2 | | | | | | | |
| | 0Ω | 电阻 | R1, R2, R7, R8 | 4 | | | | | | | |
| | 75Ω | 贴片排阻 | R3 | 1 | | | | | | | |
| | 1kΩ | 贴片排阻 | R4 | 1 | | | | | | | |
| | 100Ω | 电阻 | R5 | 1 | | | | | | | |
| | 1M | 电阻 | R6 | 1 | | | | | | | |
| | 4.7k | 电阻 | R9, R10 | 2 | | | | | | | |
| | 4.7K | 电阻 | R11, R13, R14, R17, R20, R30 | 6 | | | | | | | |
| | 10K | 电阻 | R12 | 1 | | | | | | | |
| | 1K | 排阻 | R15, R16, R19, R21, R22 | 5 | | | | | | | |
| | 51R | 排阻 | R18 | 1 | | | | | | | |
| | 2M | 电阻 | R23 | 1 | | | | | | | |
| | 200K | 电阻 | R24 | 1 | | | | | | | |
| | 0Ω | 贴片电阻 | R25, R26 | 2 | | | | | | | |
| | 4.7kΩ | 贴片电阻 | R27, R28 | 2 | | | | | | | |
| | 6.25kΩ | 贴片电阻 | R32 | 1 | | | | | | | |
| | 2kΩ | 贴片电阻 | R33, R41 | 2 | | | | | | | |
| | 140kΩ | 贴片电阻 | R34 | 1 | | | | | | | |
| | 100kΩ | 贴片电阻 | R35 | 1 | | | | | | | |
| | 100k | 贴片电阻 | R36 | 1 | | | | | | | |
| | 134kΩ | 贴片电阻 | R37 | 1 | | | | | | | |
| | 10.5k | 贴片电阻 | R38 | 1 | | | | | | | |
| | 10kΩ | 贴片电阻 | R39, R40 | 2 | | | | | | | |
| | 12V | 测试点 | T1 | 1 | | | | | | | |
| | 5V-IC | 测试点 | T2 | 1 | | | | | | | |
| | 3.3V | 测试点 | T3 | 1 | | | | | | | |
| | GND | 测试点 | T4 | 1 | | | | | | | |
| | CP2102 | USB转串口芯片 | U1 | 1 | | | | | | | |
| | MAX485 | | U2 | 1 | | | | | | | |
| | GST5009-LF | Network | U3 | 1 | | | | | | | |
| | WK2132-ISSG | | U4 | 1 | | | | | | | |
| | RGB | | U5 | 1 | | | | | | | |
| | PCA9685 | | U6 | 1 | | | | | | | |
| | ADS1118 | | U7 | 1 | | | | | | | |
| | JY901 | | U8 | 1 | | | | | | | |
| | WiFi | | U9 | 1 | | | | | | | |
| | 3A_DCDC_Converter | 3A 380KHz 28V Buck DC to DC Converter | U10, U18 | 2 | | | | | | | |
| | 电调外框 | | U11, U12, U13, U15, U16, U17 | 6 | | | | | | | |
| | 28V, 3A, 450kHz Step-Down Converter | High-Efficiency, 28V, 3A, 450kHz, Synchronous Step-Down Converter In SOT583 Package | U14 | 1 | | | | | | | |
| | NanoPi NEO Core | | U21 | 1 | | | | | | | |