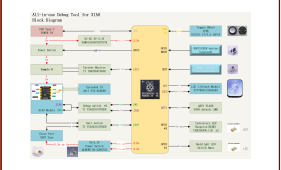


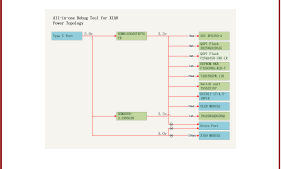
	1	2	3	4	5	6	7	8
A								
B								
C								
D								
E								
F								

Block Diagram



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Power Topology



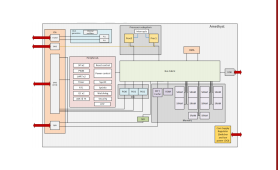
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change list



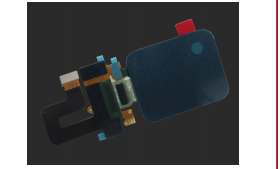
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ESP32S3&Type C Power IN



File: RP2350&Type C Power IN.kicad_sch

LCD&XIAO Interface



File: LCD&XIAO Interface.kicad_sch

Indicator&Backlight LEDS

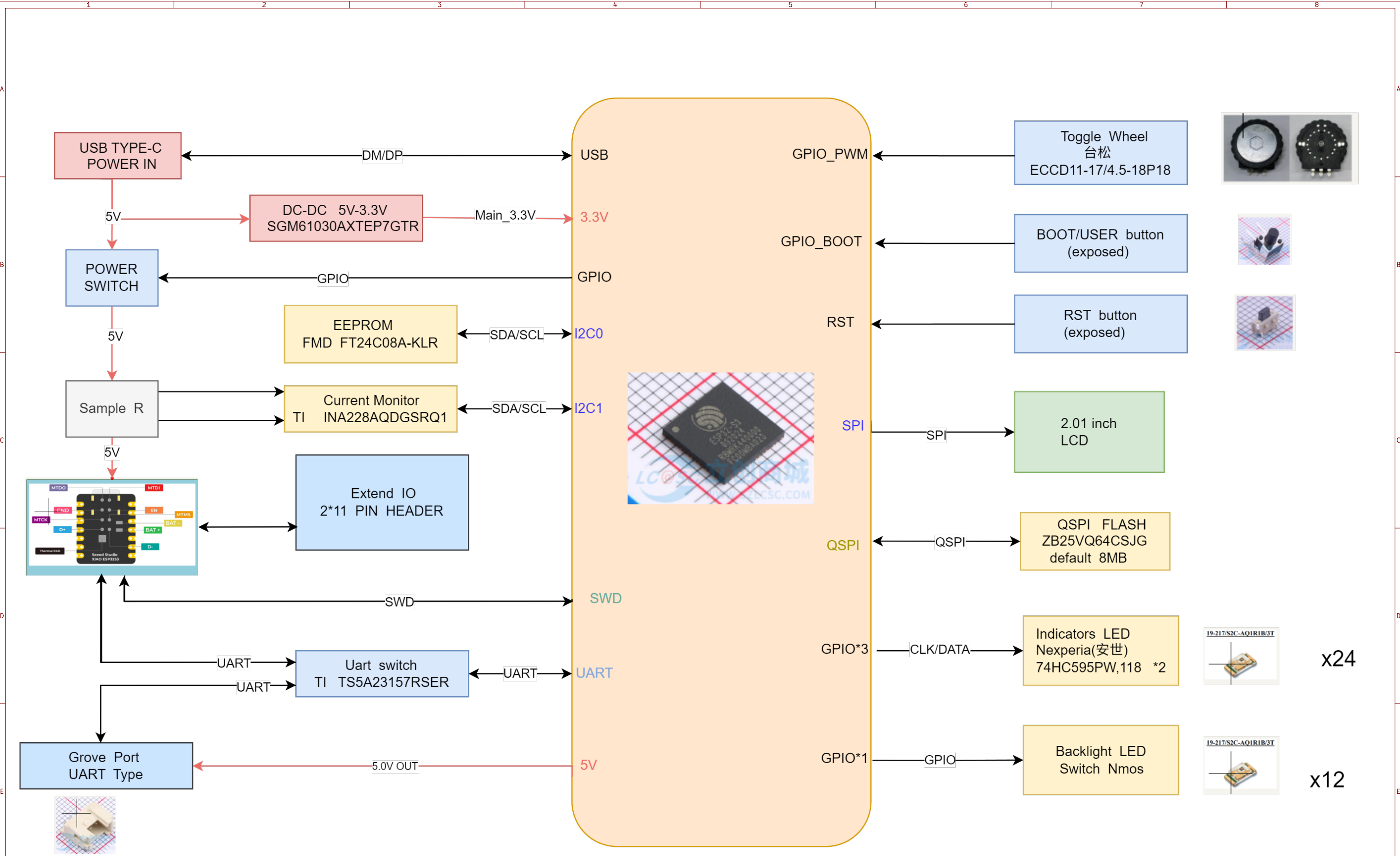


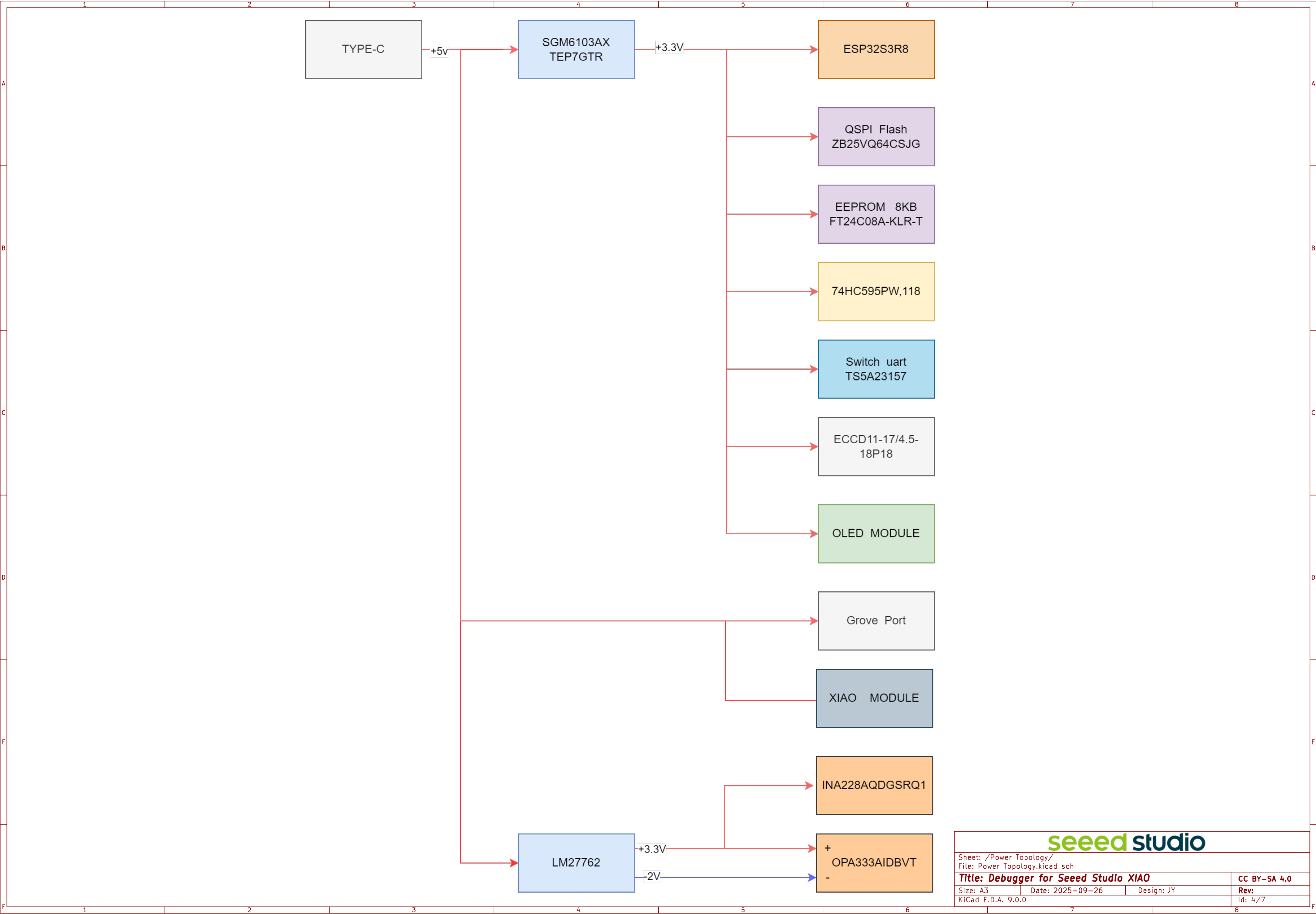
File: Indicator&Backlight LEDS.kicad_sch

1	2	3	4	5	6	7	8
A							
B							
C							
D							
E							
F	1	2	3	4	5	6	8

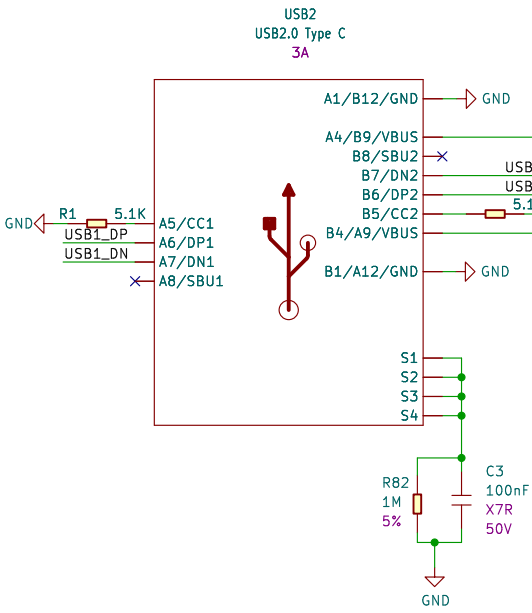
Revision History

DATE	REVISION	DESCRIPTION
2025/02/15	v1.0	1.Initial

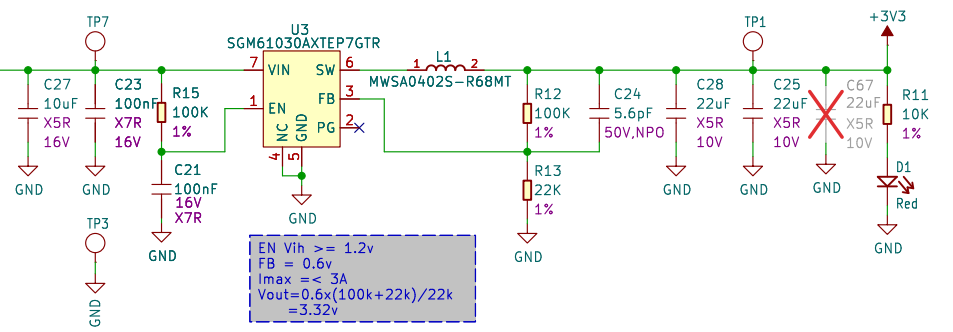




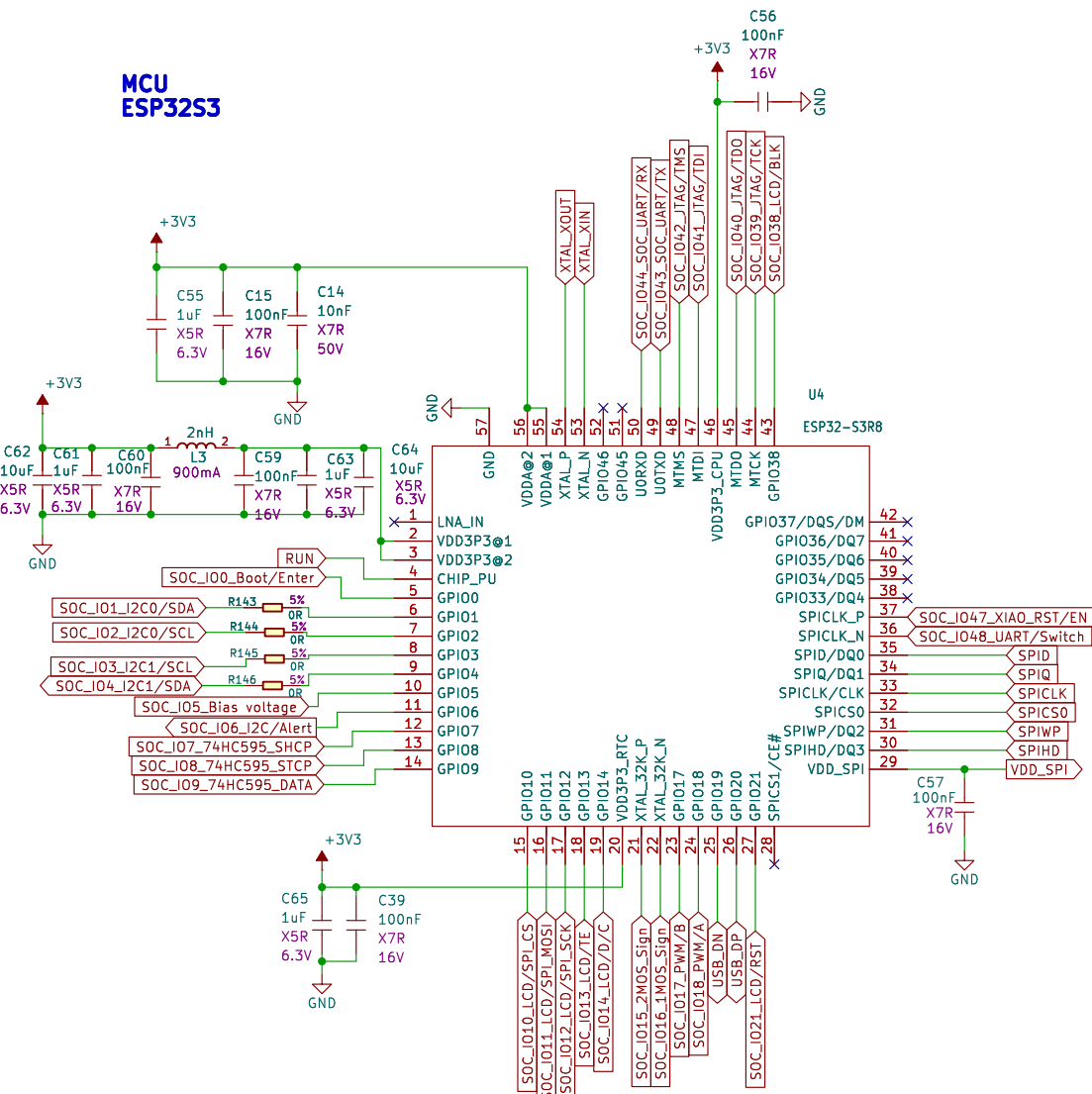
USB-C
POW IN/DATA



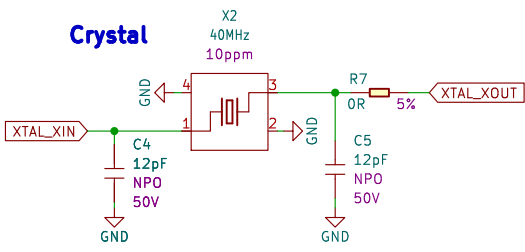
DC-DC
5V -> 3.3V



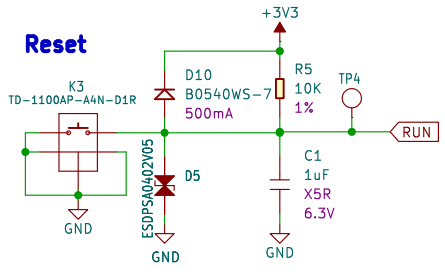
MCU
ESP32S3



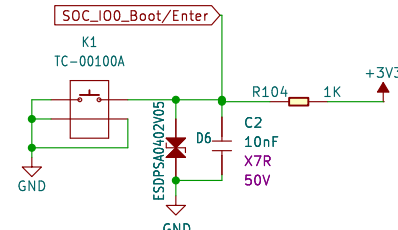
Crystal



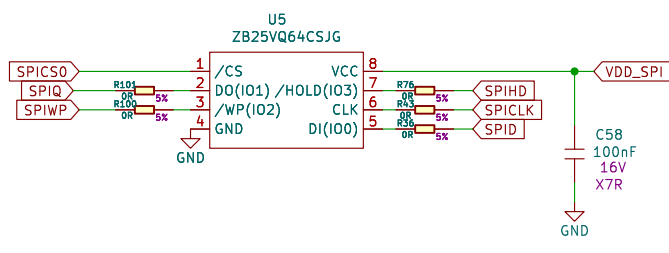
Reset



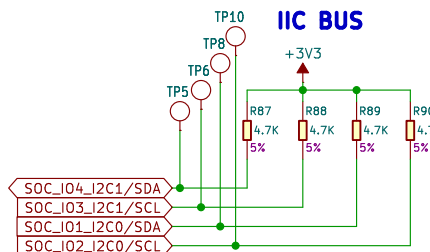
Boot & User
BUTTON



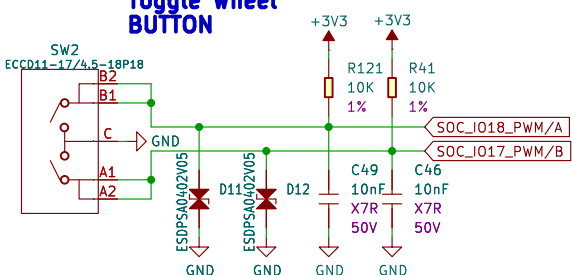
Flash



IIC BUS

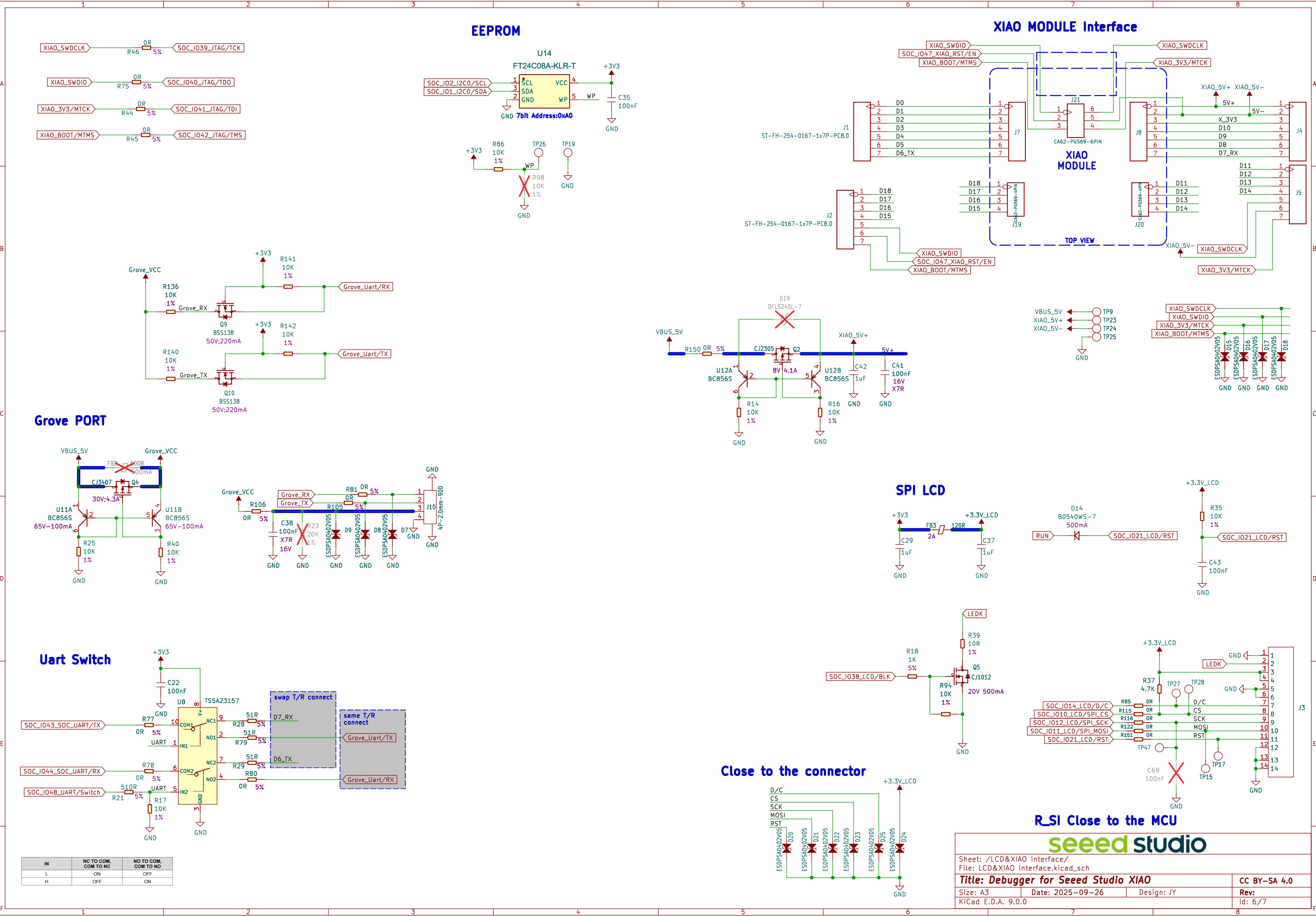


Toggle Wheel
BUTTON

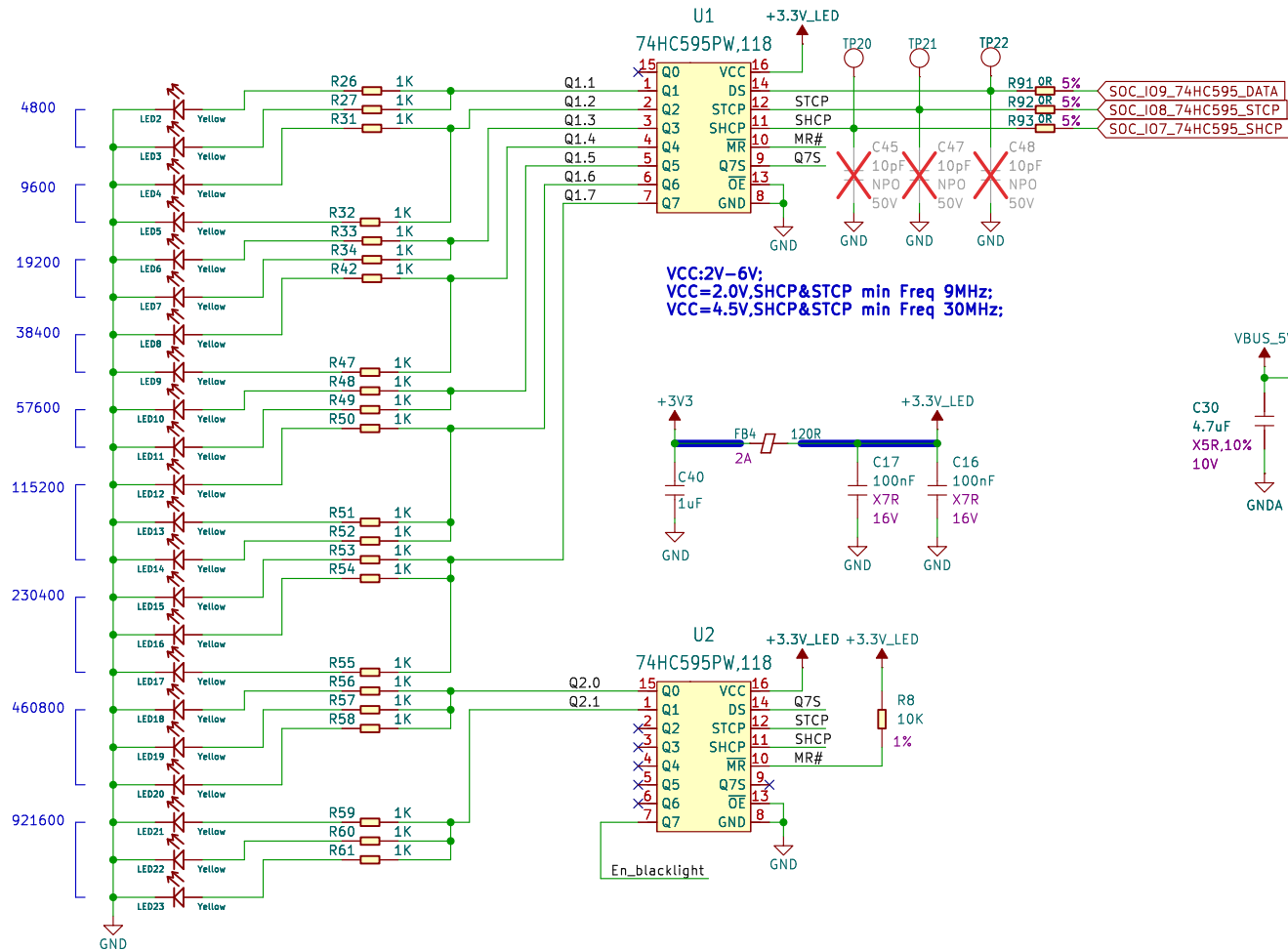


seeed studio

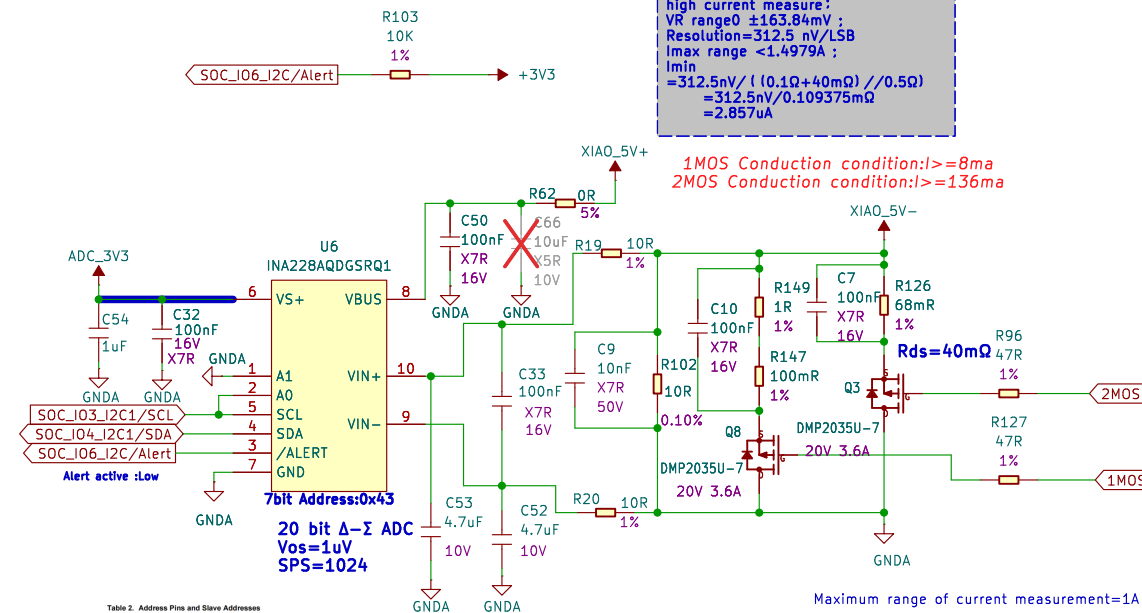
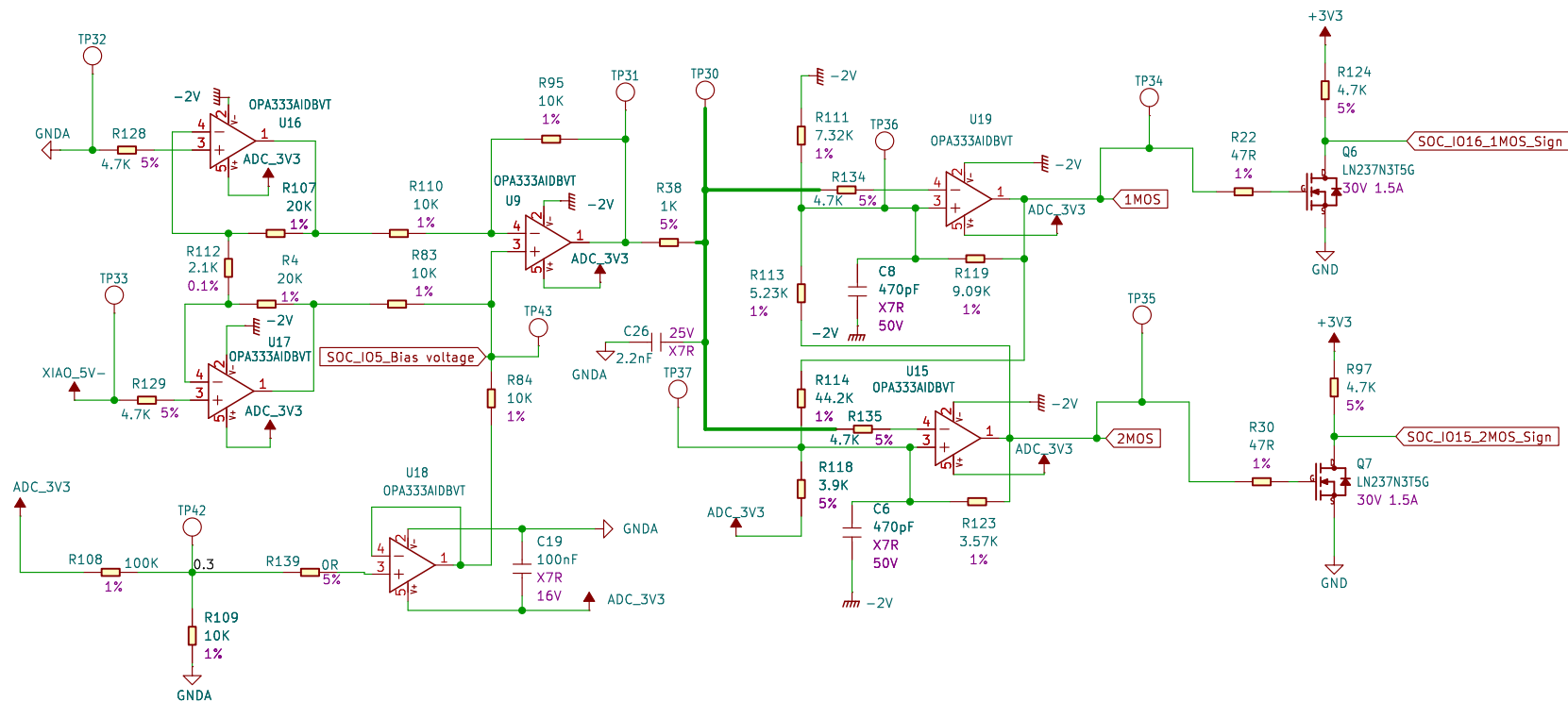
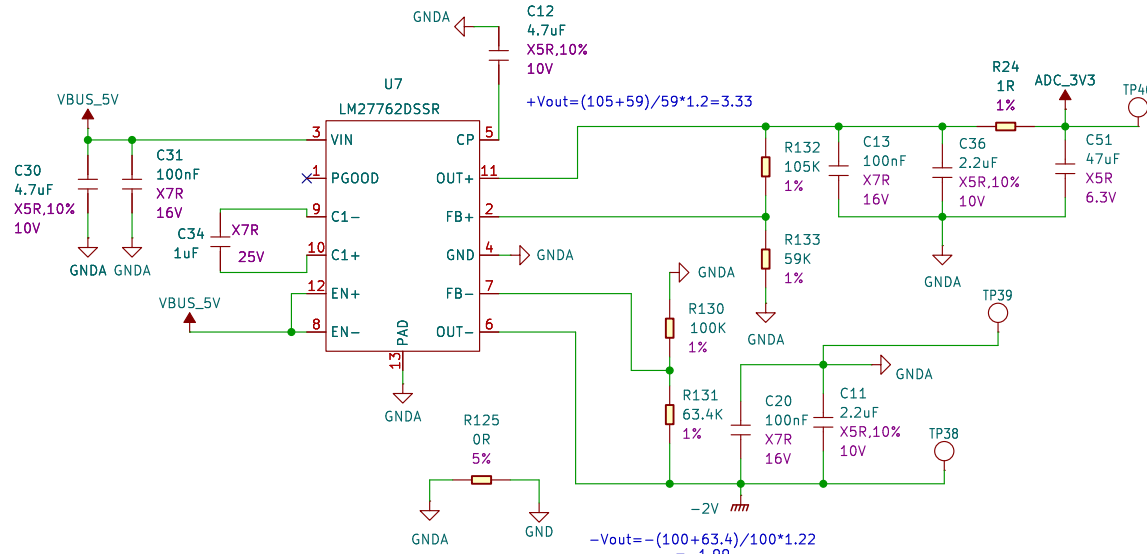
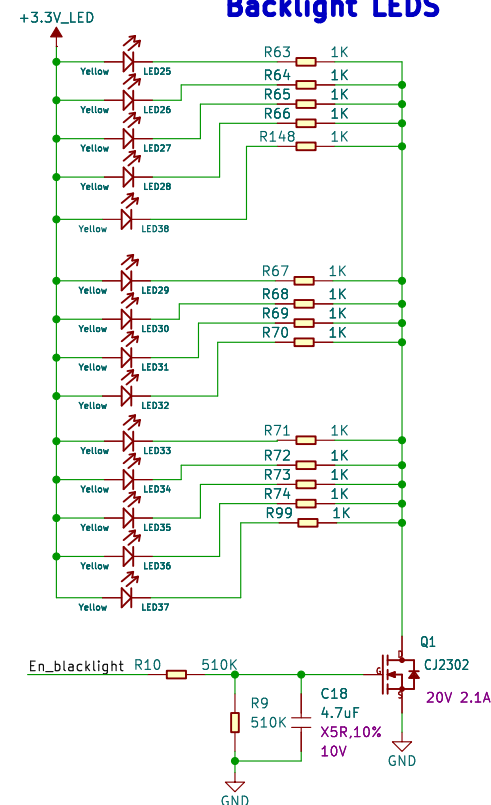
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Title: Debugger for Seeed Studio XIAO		CC BY-SA 4.0	
Size: A3	Date: 2025-09-26	Design: JY	Rev:
KiCad E.D.A. 9.0.0		Id: 5/7	



Indicator LEDS



Backlight LEDS



When SOC_I012_Change_R = low, for low current measure:
VR range0 ±40.96mV;
Resolution=78.125 nV/LSB
Imax range <0.08192A;
Imin =78.125nV/0.5Ω
=156.25nA

When SOC_I012_Change_R = high, for high current measure:
VR range0 ±163.84mV;
Resolution=312.5 nV/LSB
Imax range <1.4979A;
Imin =312.5nV/(0.1Ω+40mΩ)/(0.5Ω)
=312.5nV/0.109375mΩ
=2.857uA

1MOS Conduction condition: I>=8ma
2MOS Conduction condition: I>=136ma

Maximum range of current measurement=1A

seeed studio

Sheet: /Indicator&Backlight LEDS/
File: Indicator&Backlight LEDS.kicad_sch

Title: Debugger for Seeed Studio XIAO

Size: A3
KiCad E.D.A. 9.0.0

Date: 2025-09-26

Design: JY

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Rev:

Id: 7/7