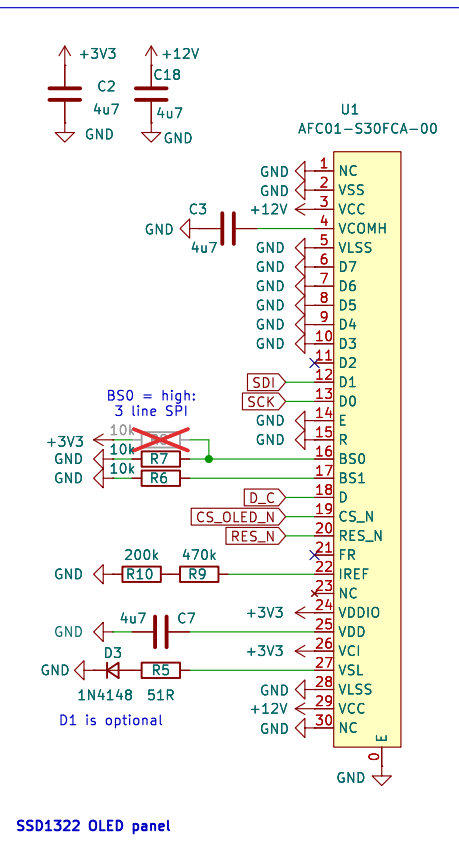


Use IDC ribbon-cable to get a 1:1 connection to a PMOD2A host

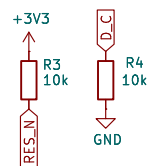
When plugging the display directly into a PMOD port, be aware that the columns (even and odd pin numbers) will be swapped compared to the PMOD standard

For a matching cable, search for: FC-FD DC4 IDC 2.54mm pitch Male to Female connector

VCC: 3 V .. 12 V  
Signal levels: 3.3 V

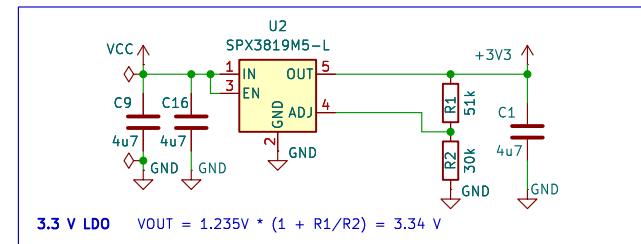


SSD1322 OLED panel

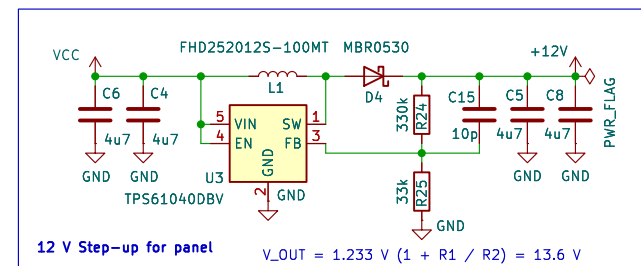


#### Switches and LEDs

File: switches.kicad\_sch



3.3 V LDO  $V_{OUT} = 1.235V * (1 + R1/R2) = 3.34 V$



12 V Step-up for panel  $V_{OUT} = 1.233 V * (1 + R1 / R2) = 13.6 V$



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Sheet: /  
File: ui\_board\_1u.kicad\_sch

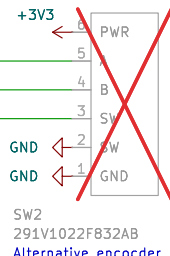
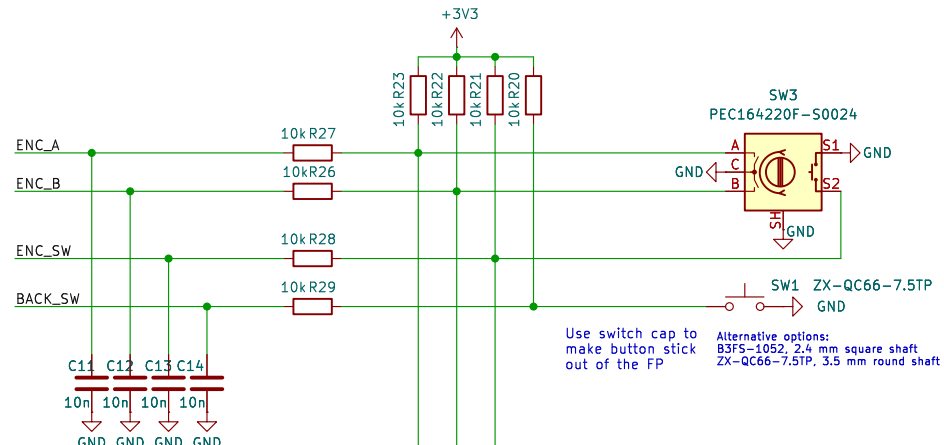
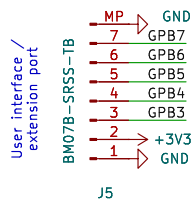
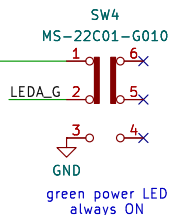
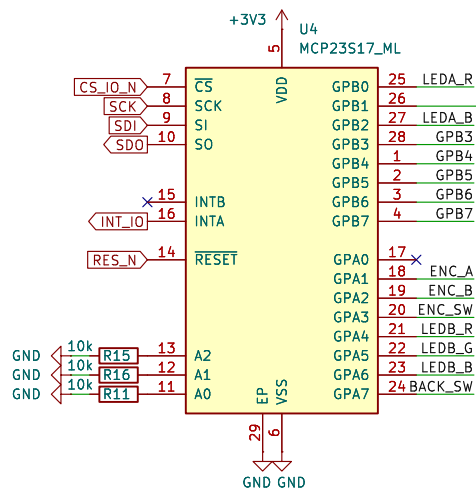
Title: ui\_board\_1u - User interface board

Size: A4 Date: 2025-12-17

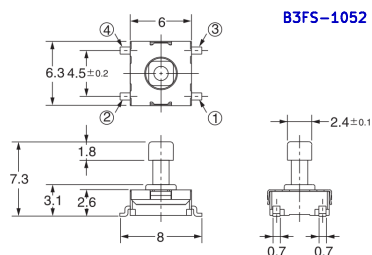
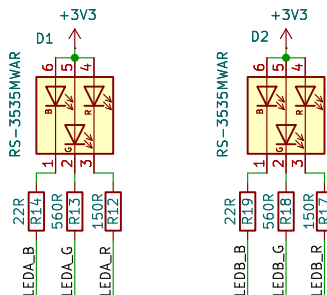
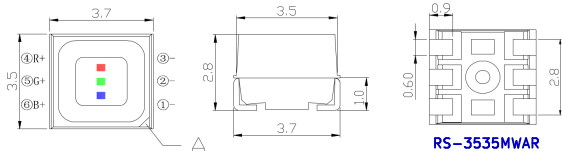
KiCad E.D.A. 9.0.0-rc3-dirty

H16 D2.7 H17 D2.7 H21 D2.7 H22 D2.7  
H1 D2.7 H12 D2.7 H32 D2.7 H40 D2.7

Rev: -  
Id: 1/2



| RS-3535MMWR       | R     | G     | B    |
|-------------------|-------|-------|------|
| Lum @ 20 mA [mcd] | 950   | 2200  | 500  |
| Lum target [mcd]  | 400   | 400   | 400  |
| I target [mA]     | 8.0   | 1.8   | 13.0 |
| V FWD [V]         | 2.0   | 2.3   | 3.0  |
| R [Ohm]           | 162.5 | 555.6 | 25.4 |
| R chosen [Ohm]    | 150   | 560   | 22   |



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Sheet: /Switches and LEDs/  
File: switches.kicad\_sch

**Title: ui\_board\_1u – User interface board**

|                              |                   |
|------------------------------|-------------------|
| Size: A4                     | Date: 2025-12-17  |
| KiCad E.D.A. 9.0.0-rc3-dirty | Rev: –<br>Id: 2/2 |