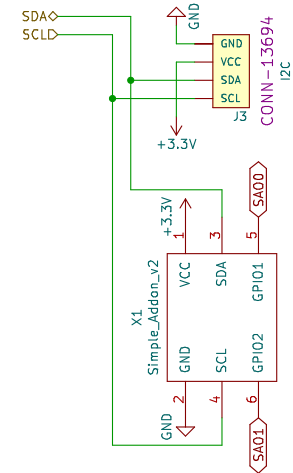
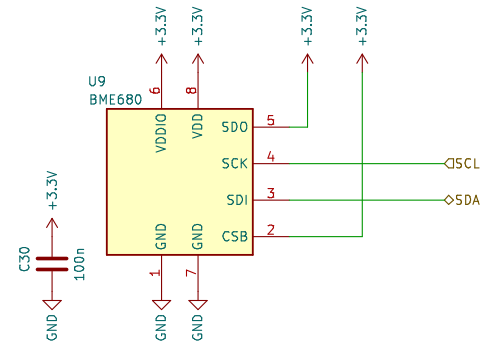
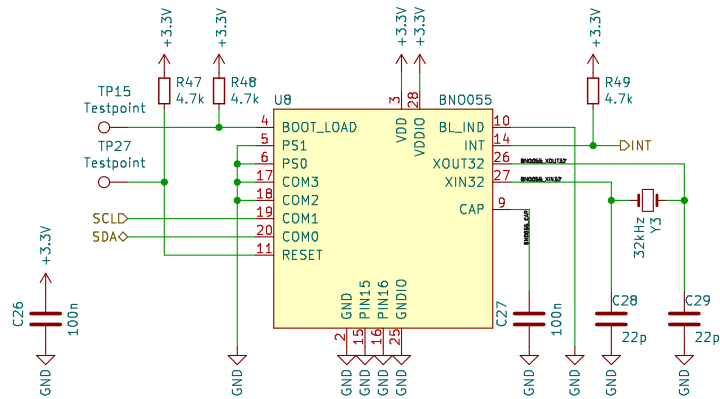


- I2C peripherals
- BOSCH BNO055
 - BOSCH BME680
 - SAO expansion header
 - Qwiic expansion header



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Sheet: /I2C peripherals/		
File: bosch.kicad_sch		
Title: MCH2022 badge – BOSCH		
Size: A4	Date: 2022-04-24	Rev: Final
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A



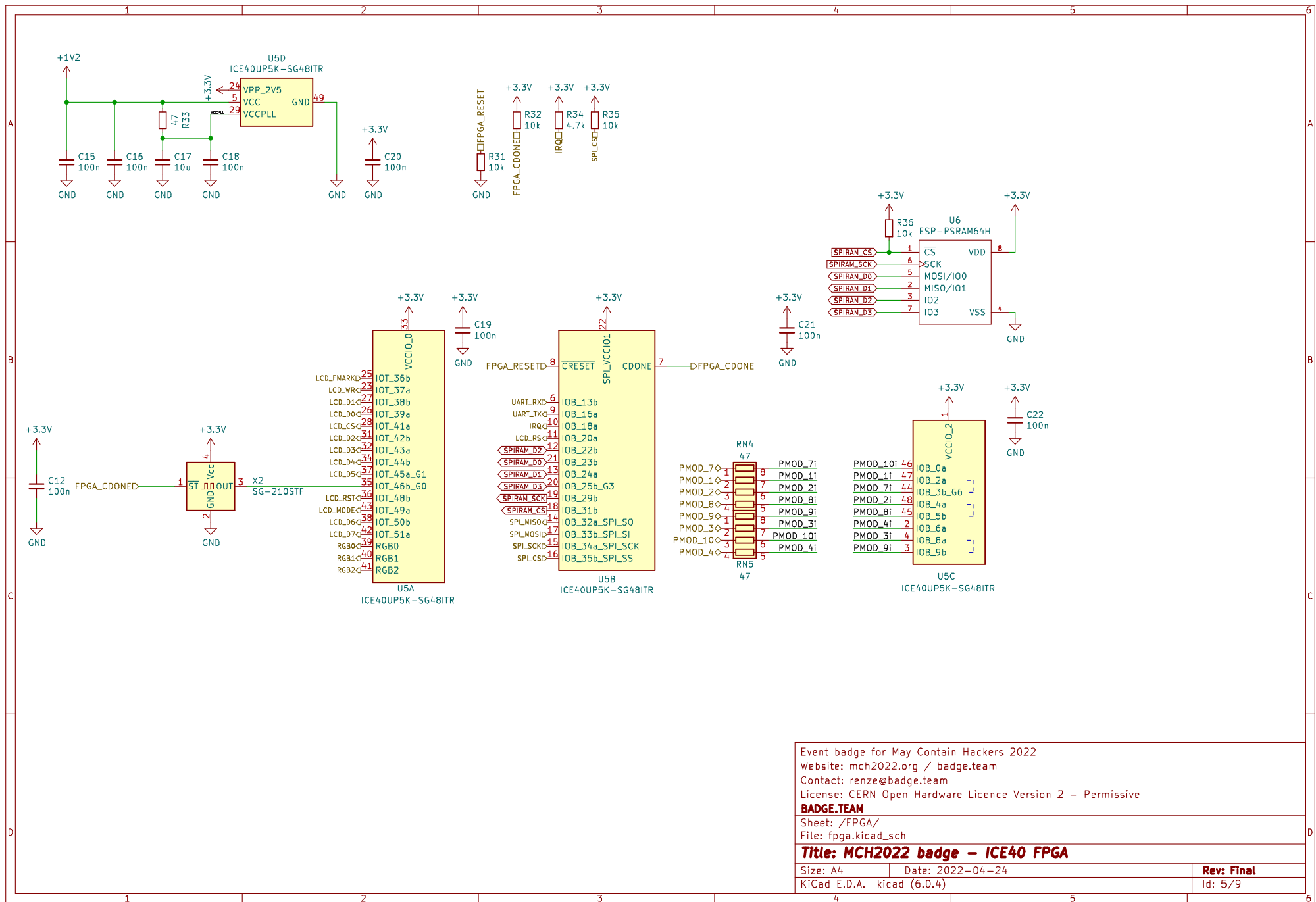
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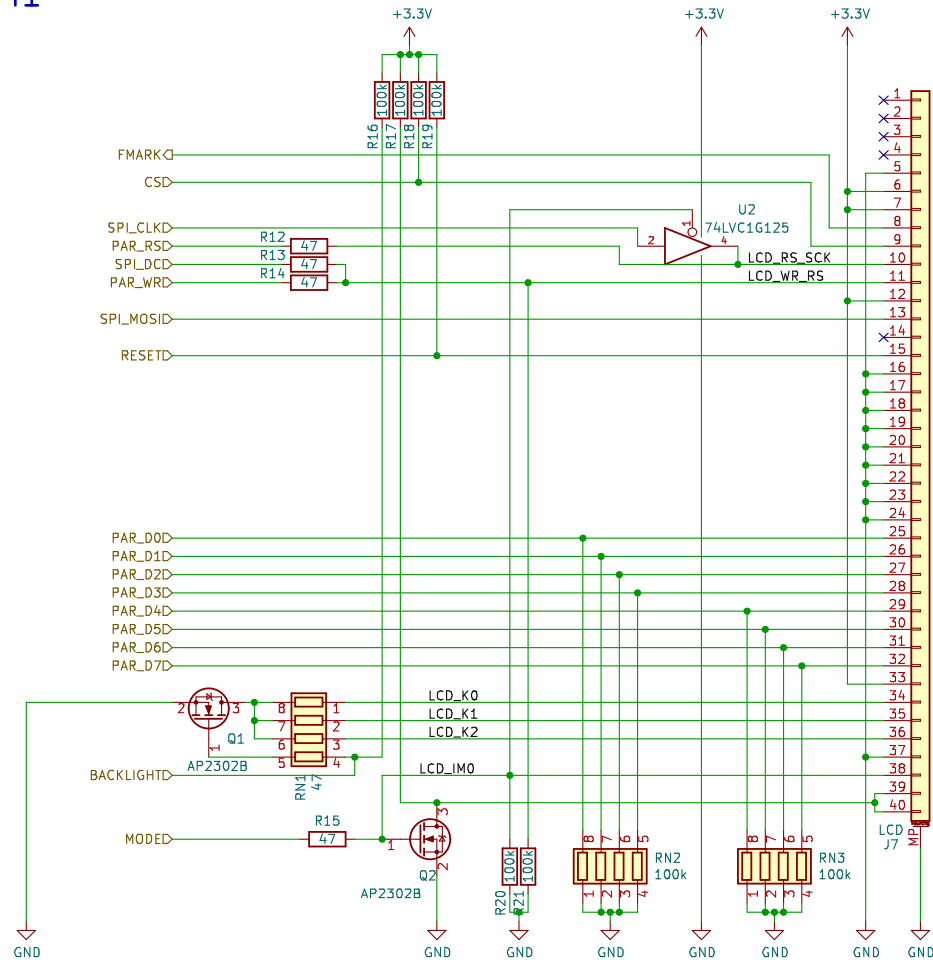
C

D

6



LCD
Type: Z240IT008
Controller: ILI9341
Size: 2.4 inch



Note: LCD pin numbering on the flatflex cable is reversed compared to the connector so pin 40 here is pin 1 on the LCD itself!

SPI: IM0 = 0, IM1 = 1, IM2 = 1
PAR: IM0 = 1, IM1 = 0, IM2 = 0

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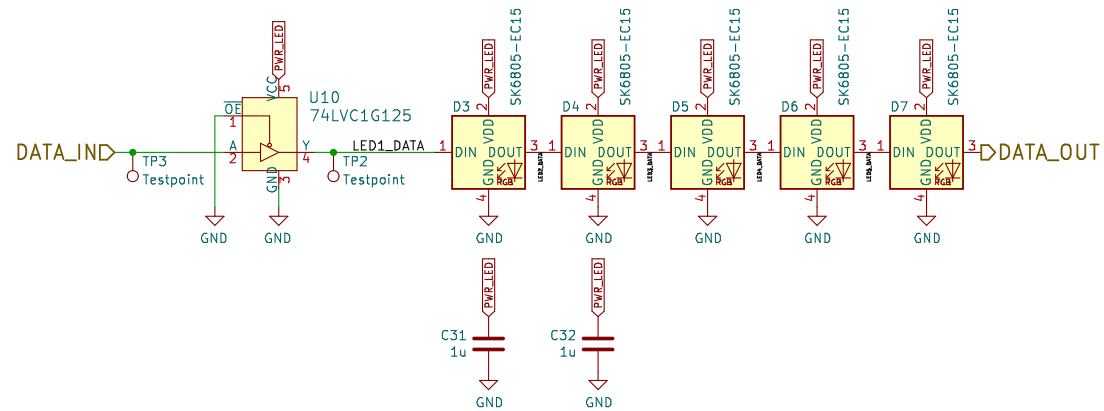
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Size: A4 Date: 2022-04-24
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WS2812B LEDs

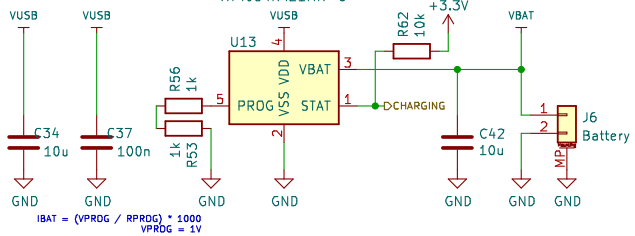


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Size: A4	Date: 2022-04-24	Rev: Final
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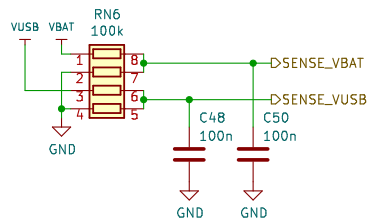
Battery & battery charger

CHARGING is an open-drain output that gets pulled low when the charger is active (charging the battery).

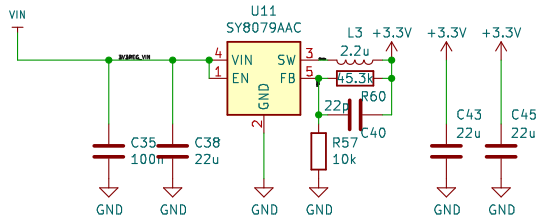
XT4054K421MR-G



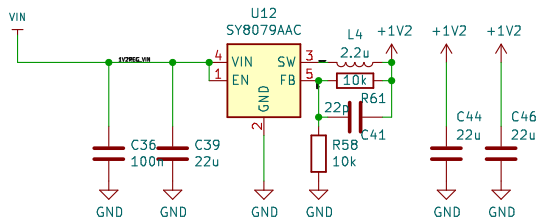
Voltage sensing



3.3v voltage regulator

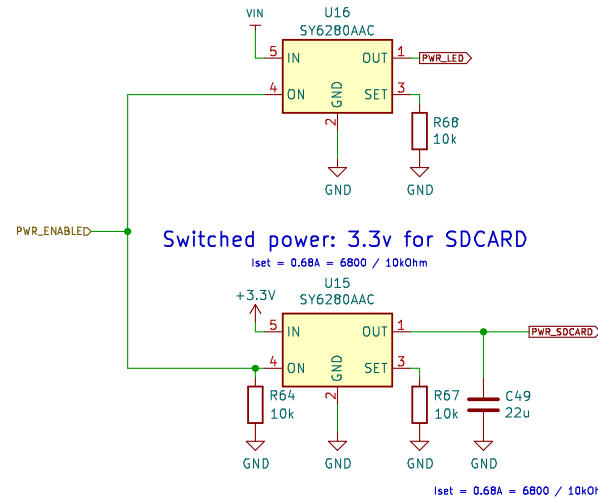


1.2v voltage regulator



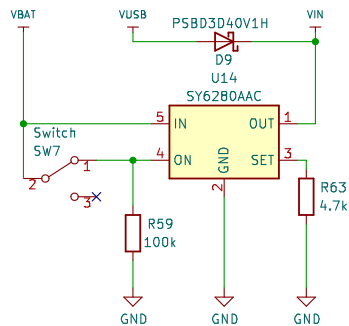
Switched power: V_{in} for LEDs

$$I_{set} = 0.68A = 6800 / 10k\Omega$$



Power switch

$$I_{set} = 1.44A = 6800 / 4700$$



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Sheet: /POWER/

File: power.kicad_sch

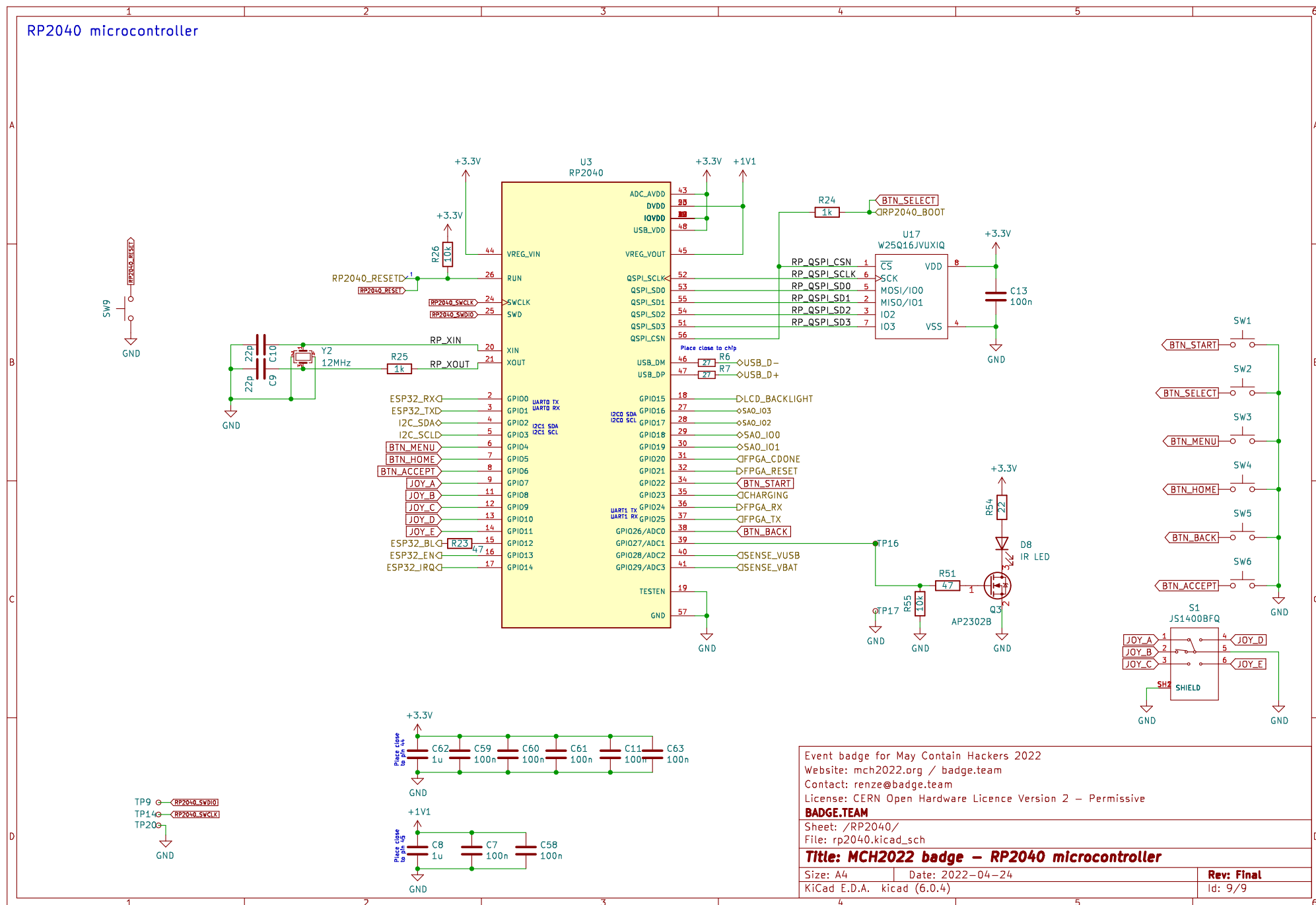
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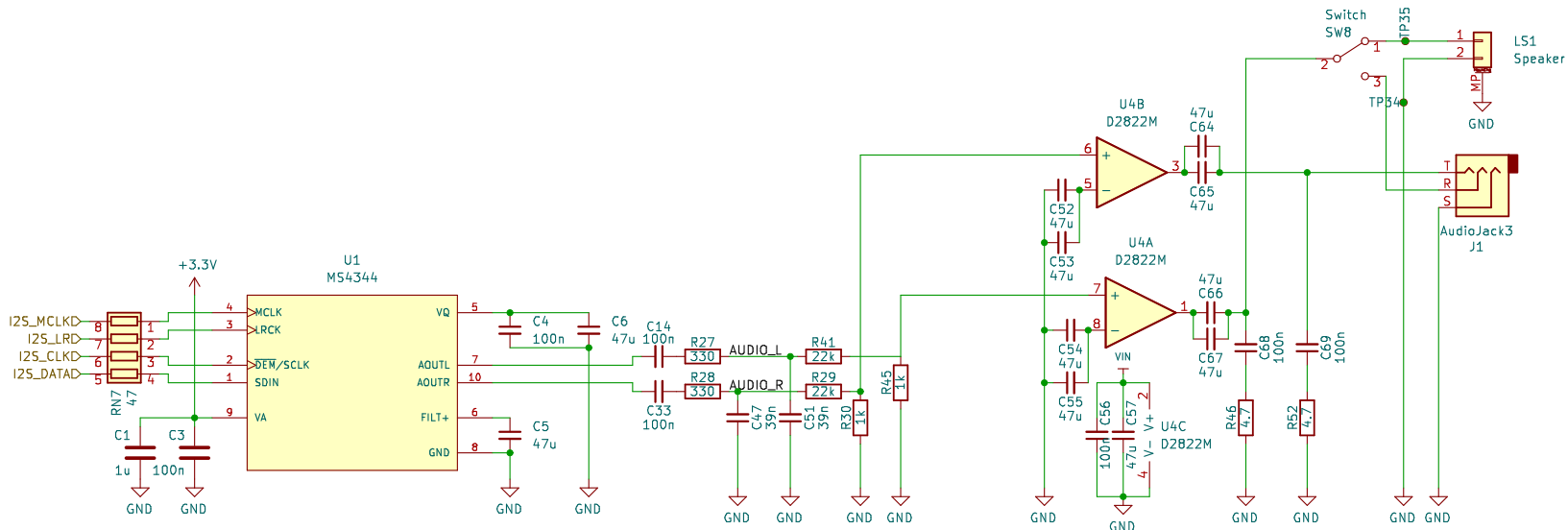
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Sheet: /AUDIO/
 File: audio.kicad_sch

Title:

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