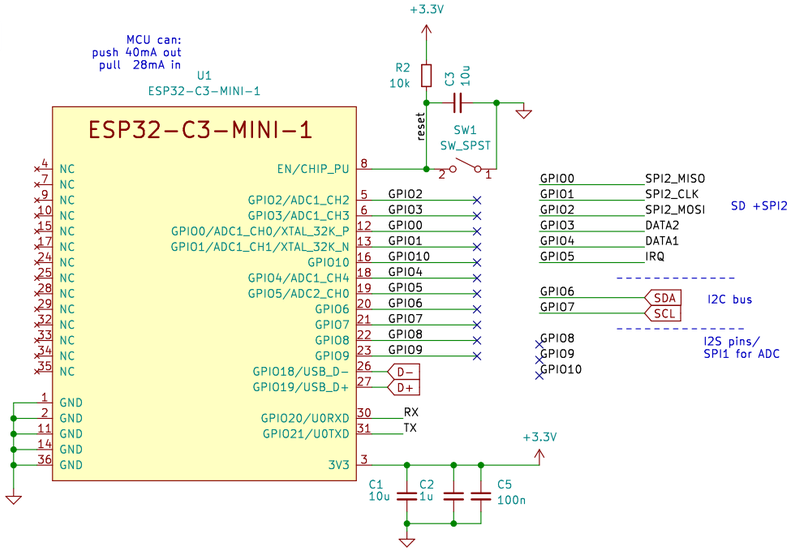
acording to DC doc:
https://docs.espressif.com/projects/esp-idf/en/latest/esp32/api-reference/peripherals/sdmmc_host.html

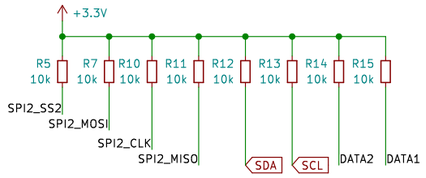
https://www.espressif.com/sites/default/files/documentation/esp32-c3_hardware_design_guidelines_en.pdf
anteena is on the left
pull up/down resitors are 45k

MCU

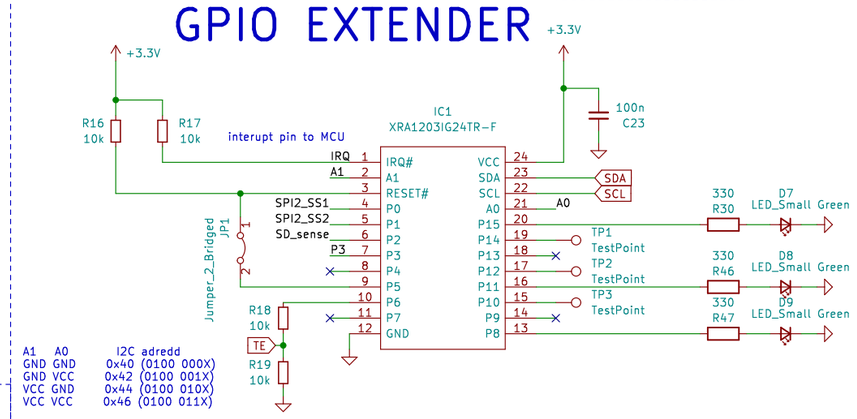
MCU can:
push 40mA out
pull 28mA in



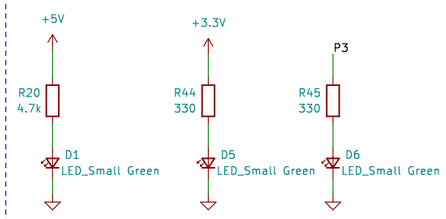
Pull ups



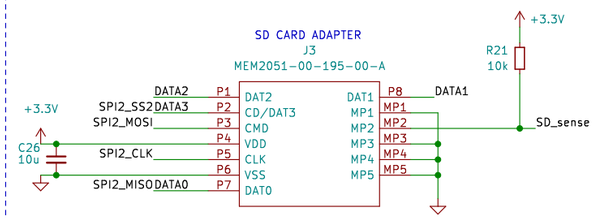
GPIO EXTENDER



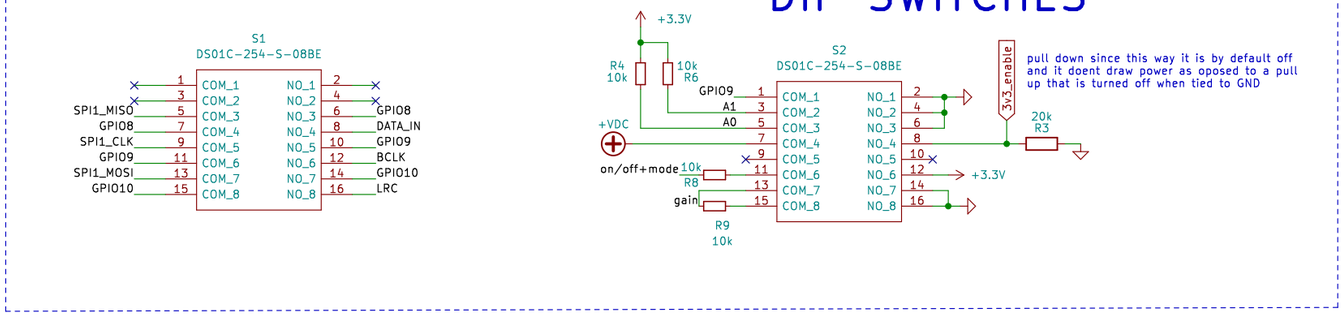
Power indicator leds

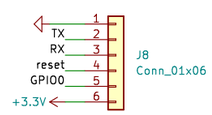


SD CARD

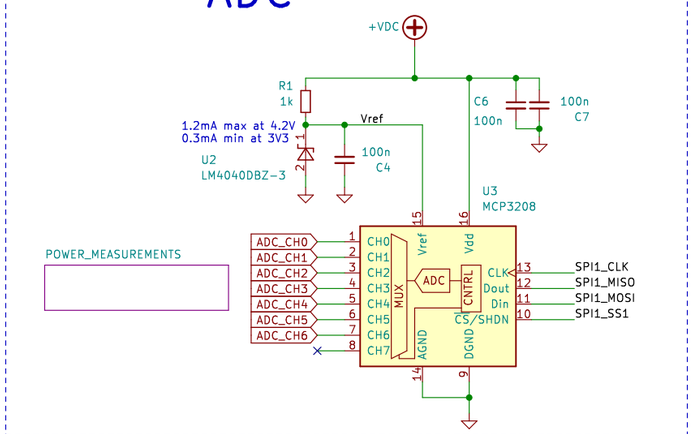


DIP SWITCHES

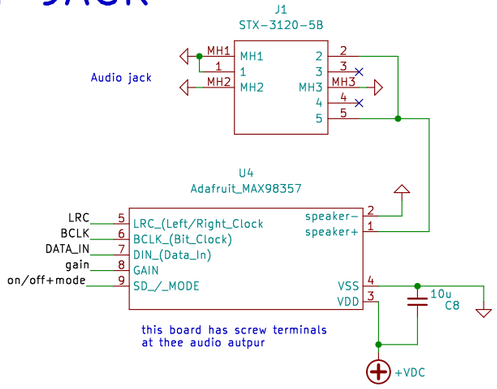




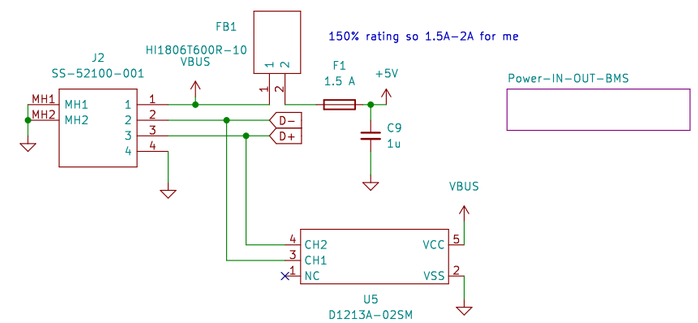
ADC



AUDIO Board + JACK



USB POWER+DATA



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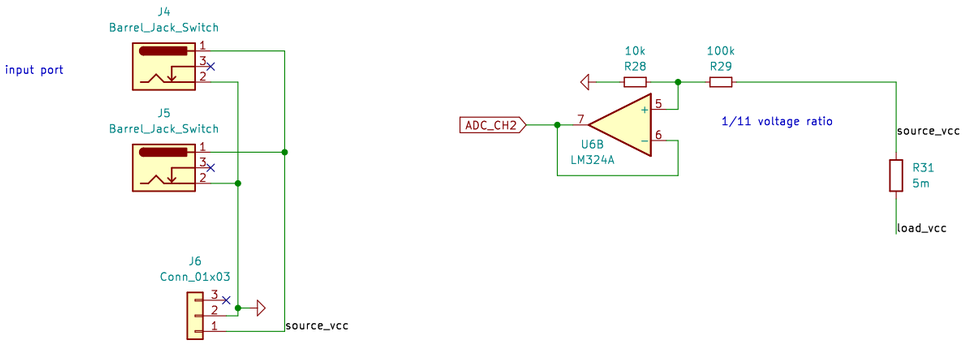
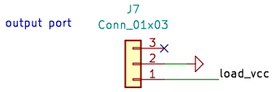
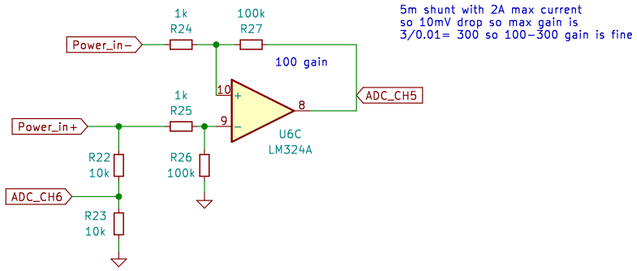
Title: ESP32 audio power meter SD dataloger

Size: A3	Date:	**Rev: 1**
KiCad E.D.A. kicad (6.0.4)		Id: 1/4

LARGE CURRENT
24V 3A MAX

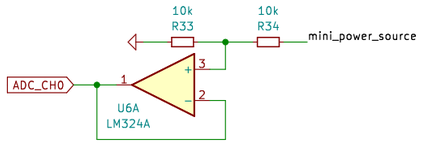




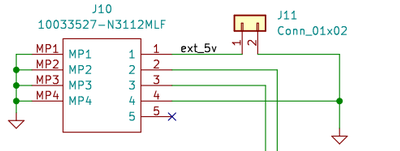


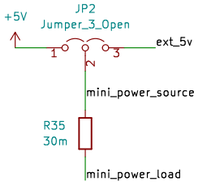
5m shunt with 2A max current
so 10mV drop so max gain is
3/0.01= 300 so 100−300 gain is fine

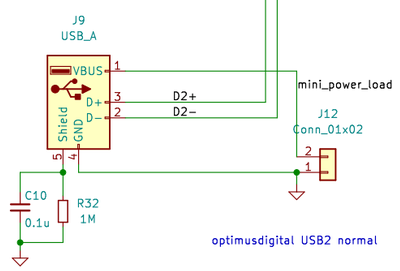
SMALL CURRENT
5V OR LESS



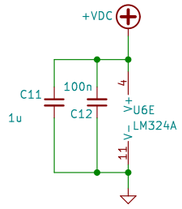
USB input for power only

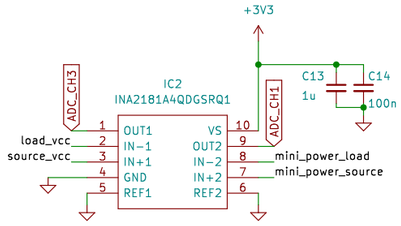






optimusdigital USB2 normal





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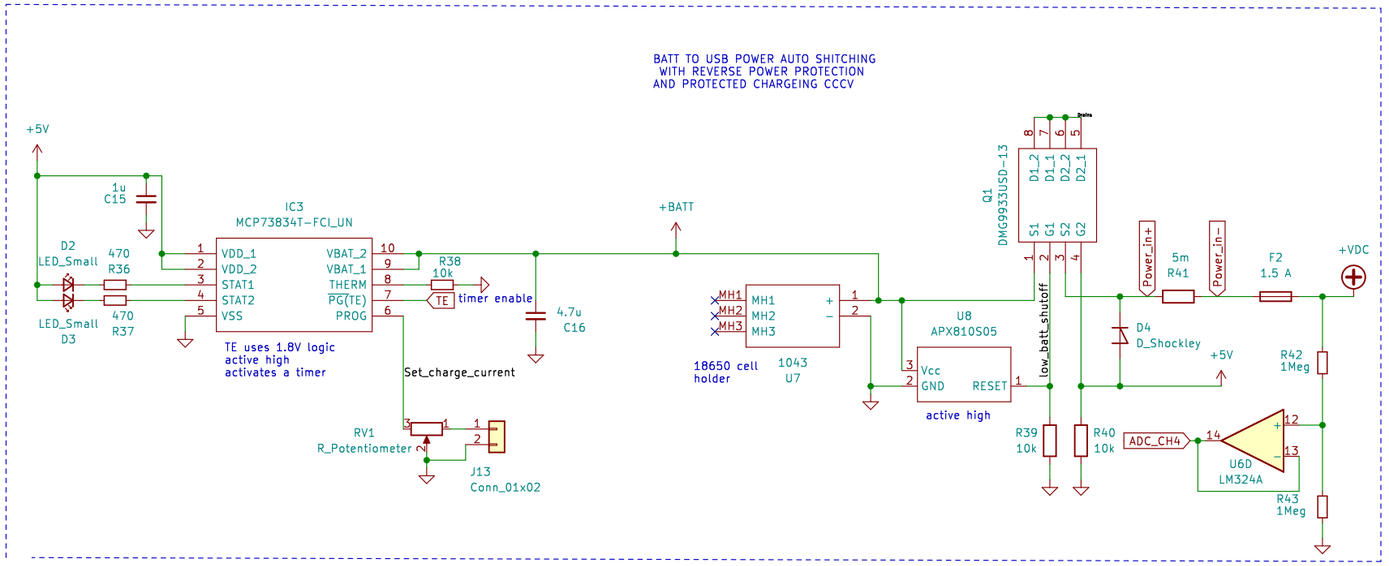
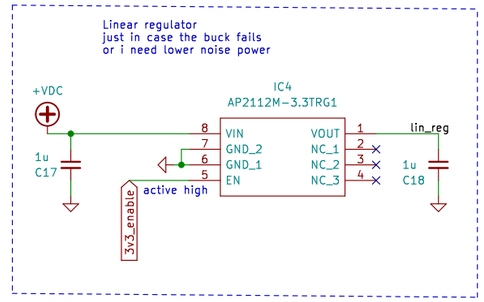
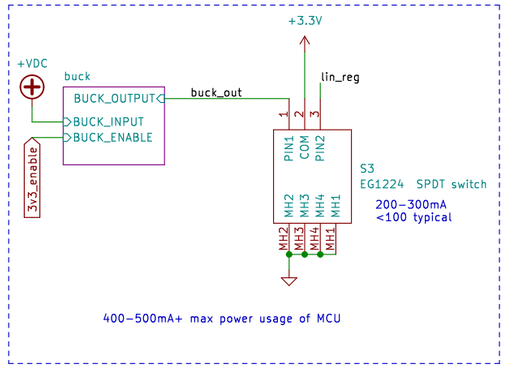
Title: ESP32 audio power meter SD dataloger

Size: A3	Date:	**Rev: 1**
KiCad E.D.A. kicad (6.0.4)		Id: 2/4

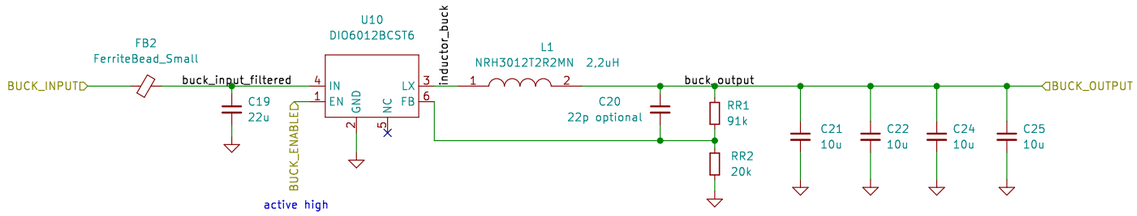
Power







Sheet: /Power-IN-OUT-BMS/		
File: Power-IN-OUT-BMS.kicad_sch		
Title: ESP32 audio power meter SD dataloger		
Size: A3	Date:	**Rev: 1**
KiCad E.D.A. kicad (6.0.4)		Id: 3/4



RR2=0.6*RR1/(Vout−0.6)

RR1	RR2	
81.81k	18.19k	−100k pot
100k	450k	
222k	1M	
47k	211.5k	
10k	2k22	
47k	10k444	
91k	20k222	

for rr1 47k and rr2 10k we have : 3.42V

for rr1 91k and rr2 20k we have : 3.33V

Sheet: /Power−IN−OUT−BMS/buck/
File: buck.kicad_sch

Title: ESP32 audio power meter SD dataloger

Size: A3 | Date: | **Rev: 1**

KiCad E.D.A. kicad (6.0.4) | Id: 4/4