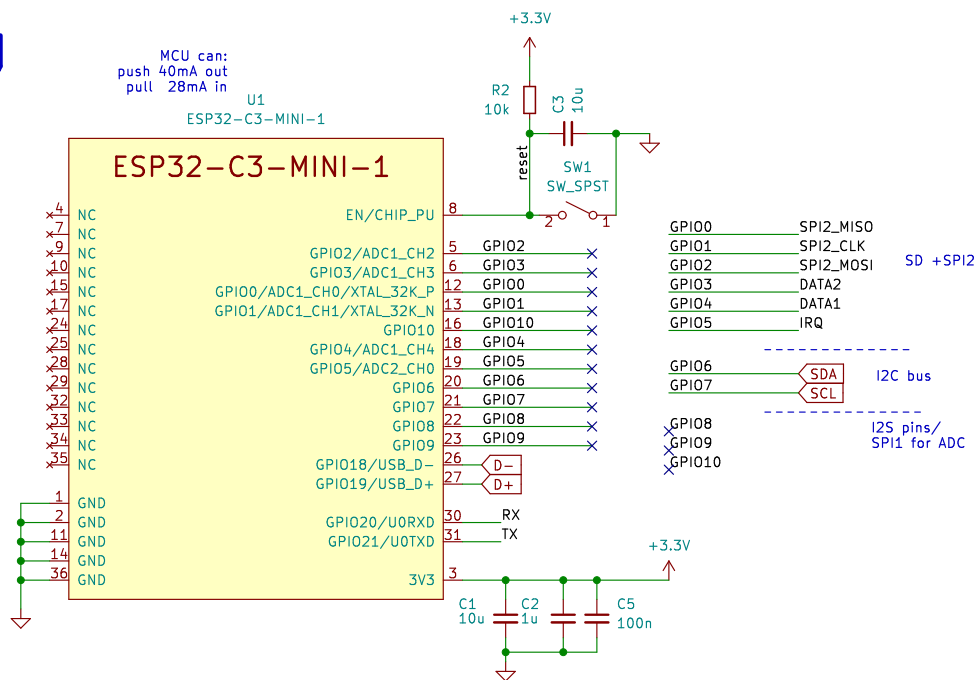


https://www.espressif.com/sites/default/files/documentation/esp32-c3_hardware_design_guidelines_en.pdf
antenna is on the left
pull up/down resistors are 45k

MCU can:
push 40mA out
pull 28mA in

ESP32-C3-MINI-1

ESP32-C3-MINI-1

[illegible][illegible]

S1
D501C-254-S-08BE

×	1	COM_1	NO_1	2	×
×	3	COM_2	NO_2	4	×
SPI1_MISO	5	COM_3	NO_3	6	×
GPIO8	7	COM_4	NO_4	8	DATA_IN
SPI1_CLK	9	COM_5	NO_5	10	GPIO9
GPIO9	11	COM_6	NO_6	12	BCLK
SPI1_MOSI	13	COM_7	NO_7	14	GPIO10
GPIO10	15	COM_8	NO_8	16	LRC

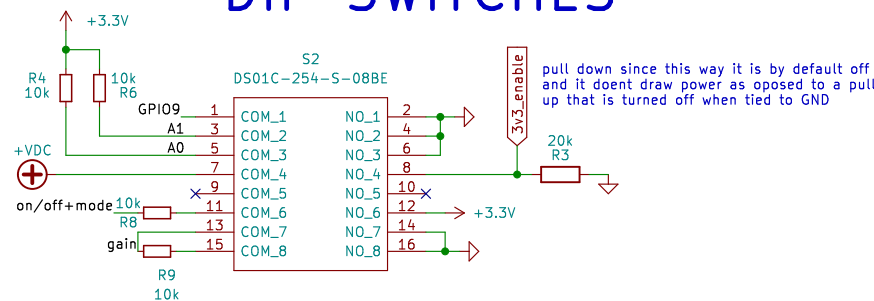
[illegible]

Diagram illustrating the connection of an Adafruit MAX98357 amplifier module (U4) to an audio jack (J1) and a speaker.

Audio Jack (J1) Connections:

- MH1 (Pin 1) connects to LRC_ (Left/Right Clock) (Pin 5).
- MH2 (Pin 2) connects to BCLK_ (Bit Clock) (Pin 6).
- MH3 (Pin 3) connects to DATA_IN_ (Data In) (Pin 7).
- MH4 (Pin 4) connects to gain_ (Gain) (Pin 8).
- MH5 (Pin 5) connects to on/off+mode_ (on/off+mode) (Pin 9).

Amplifier Module (U4) Connections:

- speaker+ (Pin 2) connects to the positive terminal of the speaker.
- speaker- (Pin 1) connects to the negative terminal of the speaker.
- VSS (Pin 4) connects to ground.
- VDD (Pin 3) connects to +VDC.

Power and Grounding:

- A 10uF capacitor is connected between VDD and ground.
- The ground connection is also labeled +VDC.

Notes:

- STX-3120-5B is noted near the audio jack.
- Adafruit_MAX98357 is the module identifier.
- Pin 1 of the module is labeled LRC_ (Left/Right Clock).
- Pin 2 is labeled BCLK_ (Bit Clock).
- Pin 3 is labeled DATA_IN_ (Data In).
- Pin 4 is labeled gain_ (Gain).
- Pin 5 is labeled on/off+mode_ (on/off+mode).
- Pin 6 is labeled SD_/_MODE.

150% rating so 1.5A~2A for me

Power-IN-OUT-BMS

VBUS

U5
D1213A-025M
ESD protection IC

Title: ESP32 audio power meter SD datalogger

Size: A3

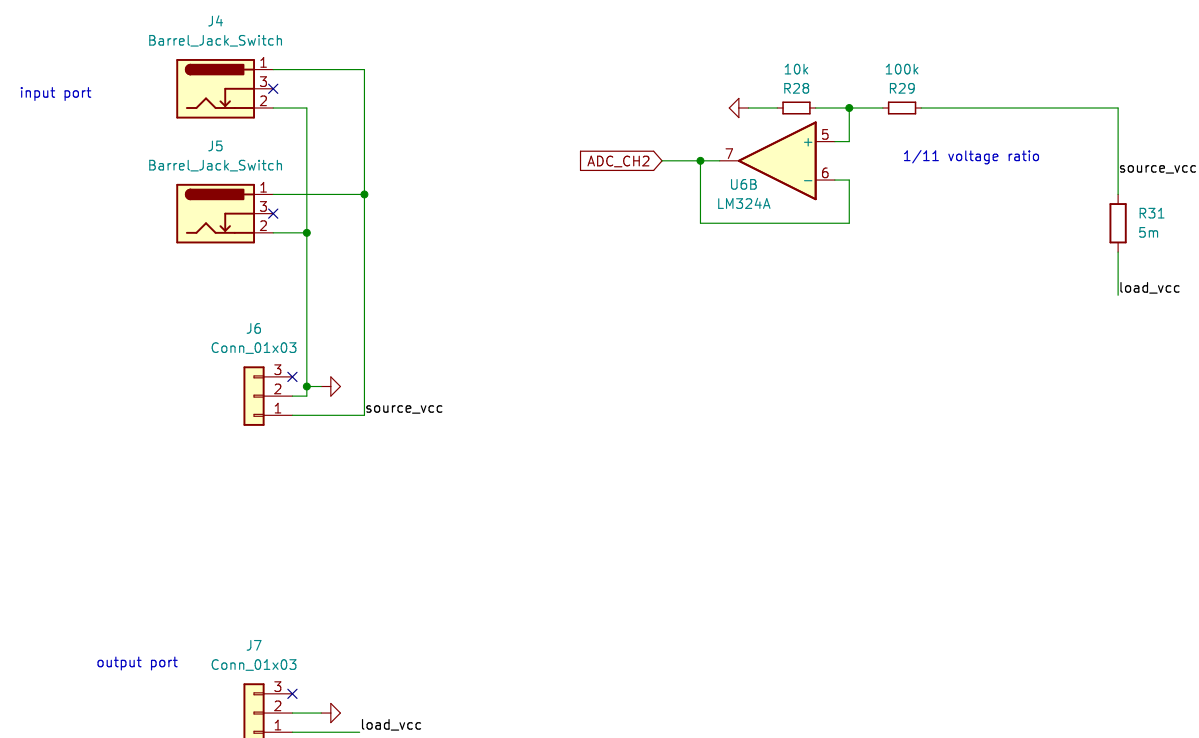
Date:

Size: A5	Date:
KiCad E.D.A.	kicad (6.0.4)

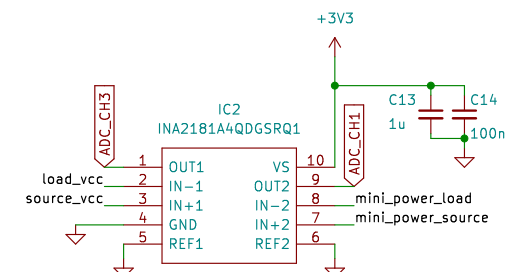
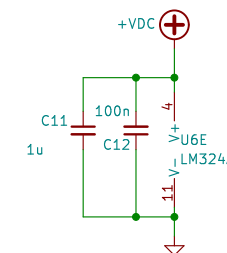
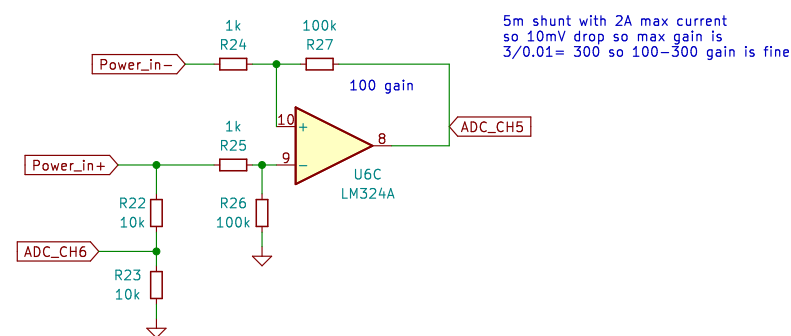
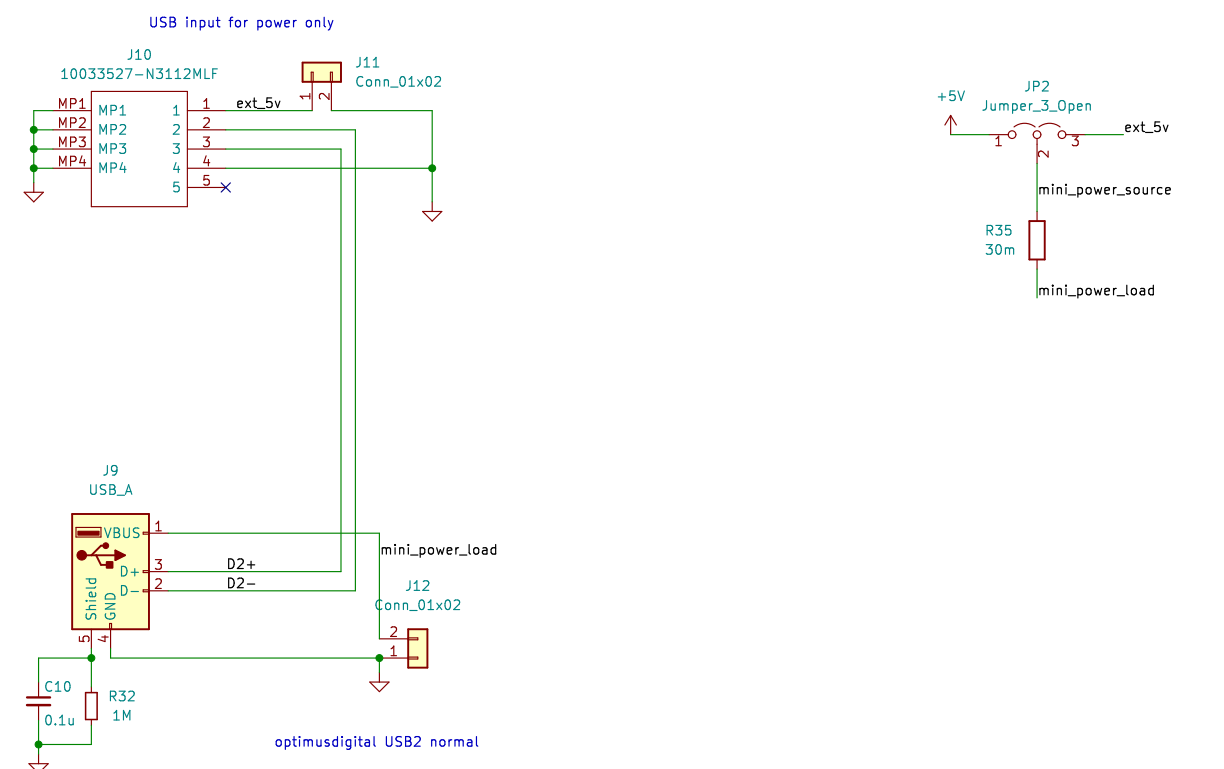
Rev: 1

Id: 1/4

LARGE CURRENT 24V 3A MAX



SMALL CURRENT 5V OR LESS



Sheet: /POWER_MEASUREMENTS/
File: untitled.kicad_sch

Title: ESP32 audio power meter SD datalogger

Size: A3

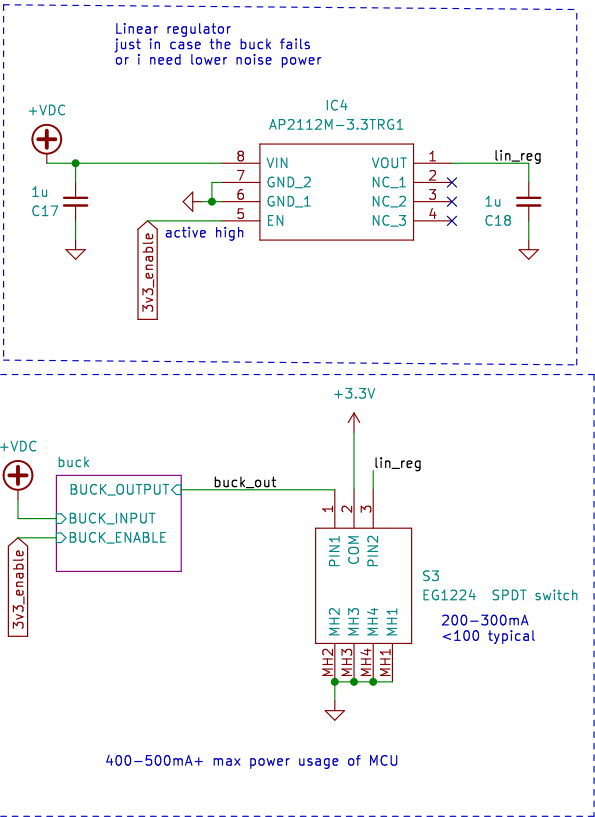
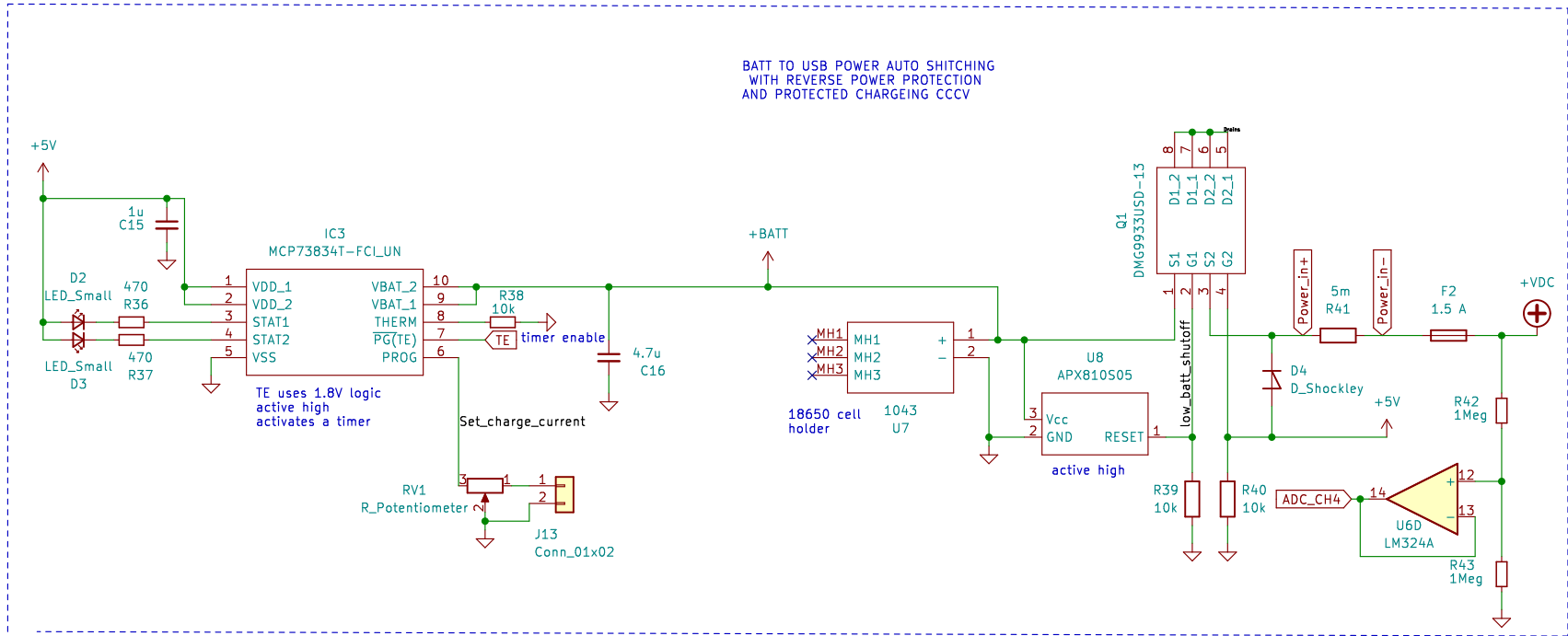
Date:

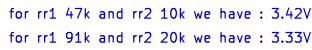
KiCad E.D.A. kicad (6.0.4)

Rev: 1

Id: 2/4

Power





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