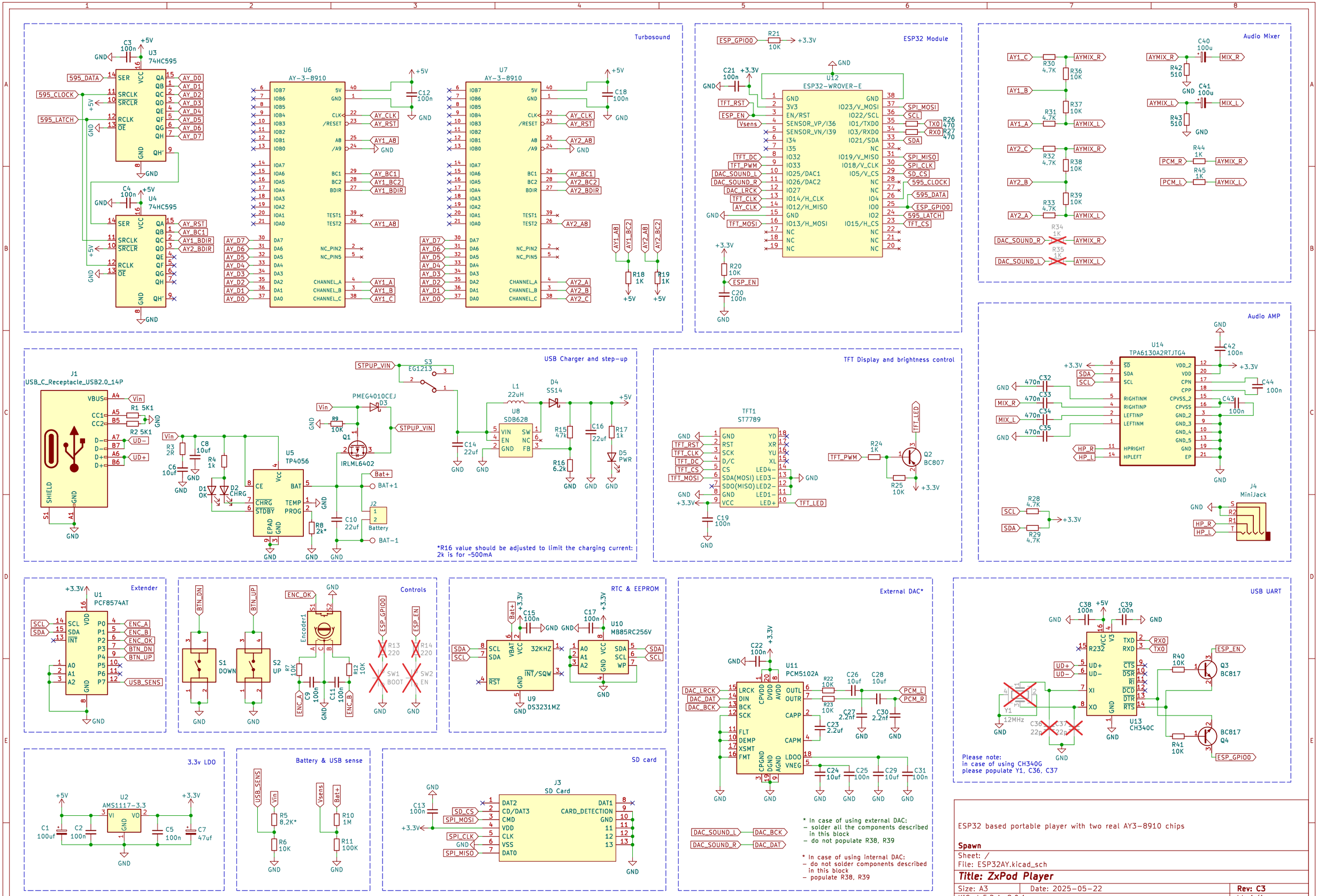
Turbosound
U3 74HC595
U4 74HC595
U6 AY-3-8910
U7 AY-3-8910
ESP32 Module
U12 ESP32-WROVER-E
Audio Mixer
Audio AMP
U14 TPA6130A2RTJTG4
J4 MiniJack
USB Charger and step-up
J1 USB_C_Receptacle_USB2.0_14P
U5 TP4056
U8 SDB628
TFT Display and brightness control
TFT1 ST7789
Extender
U1 PCF8574AT
Controls
RTC & EEPROM
U10 MB85RC256V
U9 DS3231MZ
External DAC*
U11 PCM5102A
USB UART
U13 CH340C
3.3v LDO
U2 AMS1117-3.3
Battery & USB sense
SD card
J3 SD Card
*R16 value should be adjusted to limit the charging current: 2k is for -500mA
* In case of using external DAC:
– solder all the components described in this block
– do not populate R38, R39
* In case of using internal DAC:
– do not solder components described in this block
– populate R38, R39
Please note:
in case of using CH340G
please populate Y1, C36, C37
ESP32 based portable player with two real AY3-8910 chips
Spawn
Sheet: /
File: ESP32AY.kicad_sch
Title: ZxPod Player
Size: A3
Date: 2025-05-22
Rev: C3
KiCad E.D.A. 9.0.1
Id: 1/1