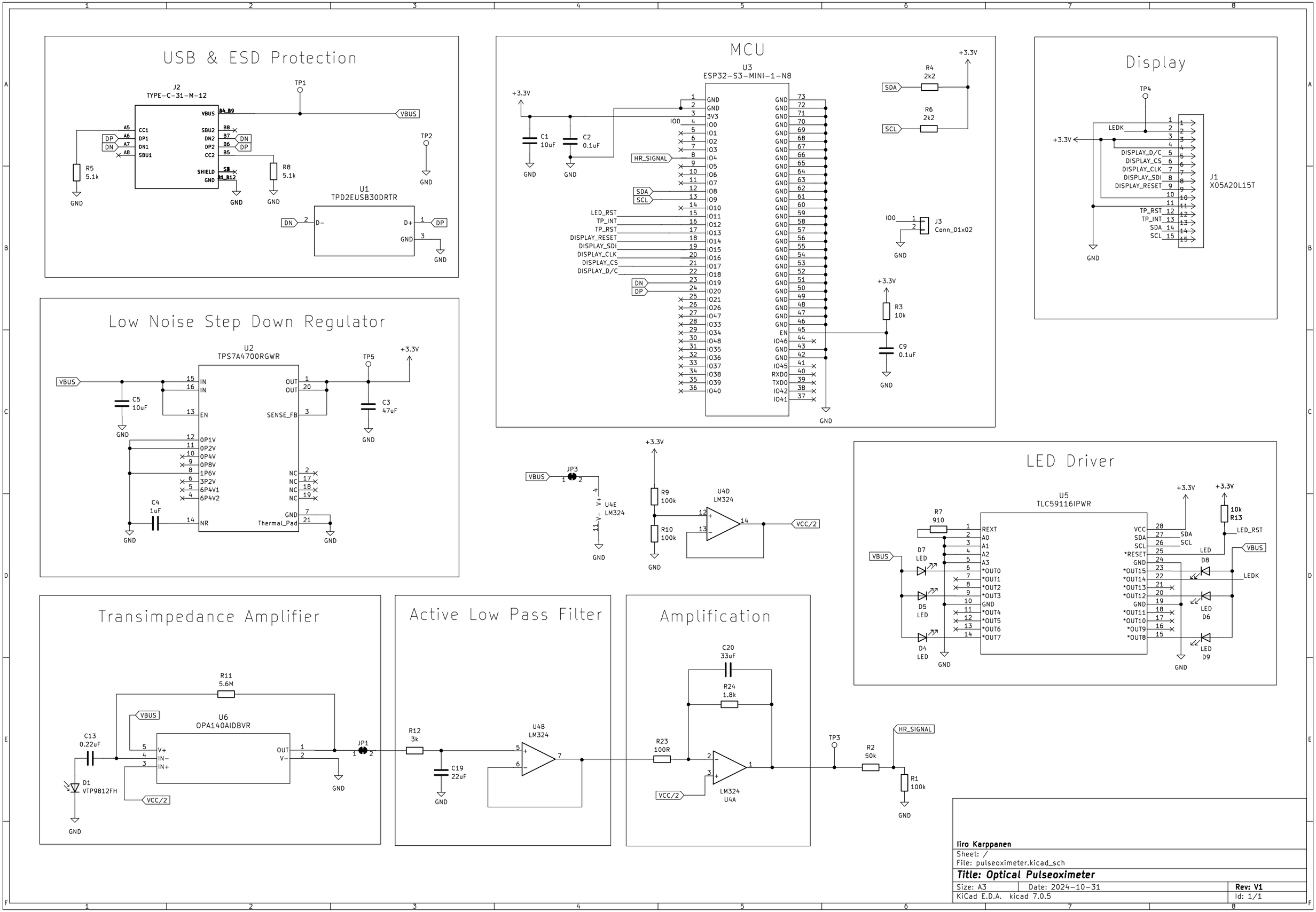
USB & ESD Protection
J2
TYPE-C-31-M-12
TP1
VBUS
TP2
R5
5.1k
R8
5.1k
U1
TPD2EUSB30DRTR
MCU
U3
ESP32-S3-MINI-1-N8
+3.3V
C1
10uF
C2
0.1uF
R4
2k2
R6
2k2
SDA
SCL
HR_SIGNAL
LED_RST
TP_INT
TP_RST
DISPLAY_RESET
DISPLAY_SDI
DISPLAY_CLK
DISPLAY_CS
DISPLAY_D/C
J3
Conn_01x02
R3
10k
C9
0.1uF
Display
TP4
LEDK
J1
X05A20L15T
Low Noise Step Down Regulator
U2
TPS7A4700RGWR
TP5
C5
10uF
C3
47uF
C4
1uF
SENSE_FB
Thermal_Pad
JP3
U4E
LM324
R9
100k
R10
100k
U4D
LM324
VCC/2
LED Driver
U5
TLC59116IPWR
R7
910
D7
LED
D5
LED
D4
LED
D8
D6
D9
10k
R13
Transimpedance Amplifier
R11
5.6M
U6
OPA140AIDBVR
C13
0.22uF
D1
VTP9812FH
JP1
Active Low Pass Filter
R12
3k
C19
22uF
U4B
LM324
Amplification
C20
33uF
R24
1.8k
R23
100R
LM324
U4A
TP3
R2
50k
R1
100k
Iiro Karppanen
Sheet: /
File: pulseoximeter.kicad_sch
Title: Optical Pulseoximeter
Size: A3
Date: 2024-10-31
Rev: V1
KiCad E.D.A. kicad 7.0.5
Id: 1/1