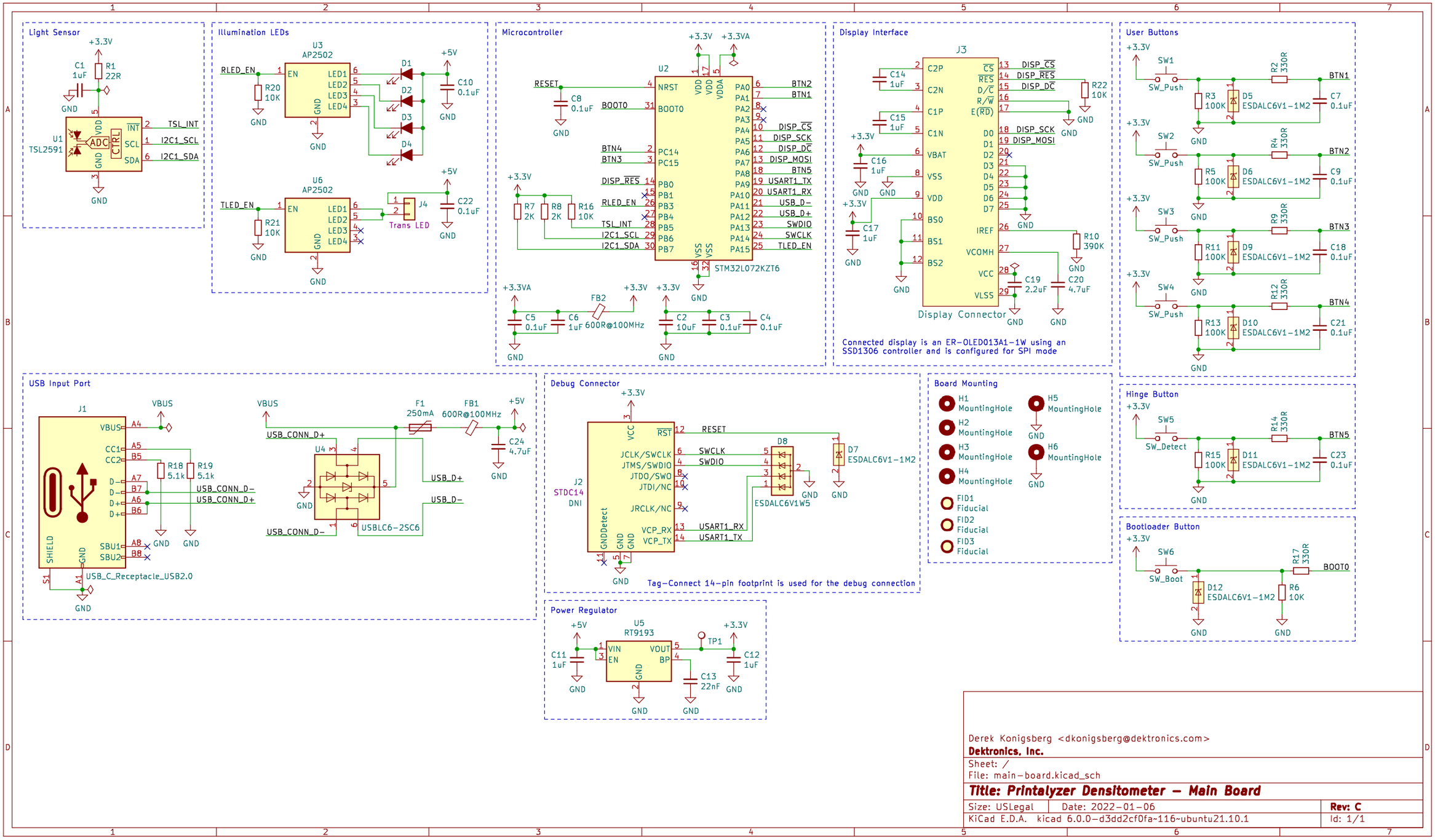
Light Sensor
U1 TSL2591
C1 1uF
R1 22R
TSL_INT
I2C1_SCL
I2C1_SDA
Illumination LEDs
U3 AP2502
U6 AP2502
RLED_EN
TLED_EN
R20 10K
R21 10K
C10 0.1uF
C22 0.1uF
J4 Trans LED
Microcontroller
U2 STM32L072KZT6
RESET
BOOT0
BTN4
BTN3
DISP_RES
RLED_EN
TSL_INT
I2C1_SCL
I2C1_SDA
BTN2
BTN1
DISP_CS
DISP_SCK
DISP_DC
DISP_MOSI
BTN5
USART1_TX
USART1_RX
USB_D-
USB_D+
SWDIO
SWCLK
TLED_EN
FB2 600R@100MHz
Display Interface
J3 Display Connector
DISP_CS
DISP_RES
DISP_DC
DISP_SCK
DISP_MOSI
Connected display is an ER-OLED013A1-1W using an SSD1306 controller and is configured for SPI mode
User Buttons
SW1 SW2 SW3 SW4
SW_Push
BTN1 BTN2 BTN3 BTN4
D5 D6 D9 D10 ESDALC6V1-1M2
Hinge Button
SW5 SW_Detect
BTN5
D11 ESDALC6V1-1M2
Bootloader Button
SW6 SW_Boot
BOOT0
D12 ESDALC6V1-1M2
USB Input Port
J1 USB_C_Receptacle_USB2.0
VBUS
USB_CONN_D-
USB_CONN_D+
R18 5.1k
R19 5.1k
F1 250mA
FB1 600R@100MHz
C24 4.7uF
U4 USBLC6-2SC6
Debug Connector
J2 STDC14 DNI
RESET
SWCLK
SWDIO
USART1_RX
USART1_TX
D8 ESDALC6V1W5
D7 ESDALC6V1-1M2
Tag-Connect 14-pin footprint is used for the debug connection
Board Mounting
H1 MountingHole
H2 MountingHole
H3 MountingHole
H4 MountingHole
H5 MountingHole
H6 MountingHole
FID1 Fiducial
FID2 Fiducial
FID3 Fiducial
Power Regulator
U5 RT9193
C11 1uF
C12 1uF
C13 22nF
TP1
Derek Konigsberg <dkonigsberg@dektronics.com>
Dektronics, Inc.
Sheet: /
File: main-board.kicad_sch
Title: Printalyzer Densitometer - Main Board
Size: USLegal
Date: 2022-01-06
Rev: C
KiCad E.D.A. kicad 6.0.0-d3dd2cf0fa~116~ubuntu21.10.1
Id: 1/1