

Pulse Oximeter

01. Table of Contents

02. +12V Input

03. +12V Telemetry

04. +3.3V Power Supply

05. +3.3V Telemetry

06. +1.8V Power Supply

07. +1.8V Telemetry

08. PIC32MZ Programming

09. PIC32MZ Bypass

10. PIC32MZ Clocking

11. PIC32MZ

12. USB UART Bridge

13. USB Telemetry

14. Platform ETC

15. POX Sensor

16. Display

17. Pushbuttons

Sheet: +12V Input

File: POS12_Input.sch

Sheet: +12V Telemetry

File: POS12_Telemetry.sch

Sheet: +3.3V Power Supply

File: POS3P3_Power_Supply.sch

Sheet: +3.3V Telemetry

File: POS3P3_Telemetry.sch

Sheet: +1.8V Power Supply

File: POS1P8_Power_Supply.sch

Sheet: +1.8V Telemetry

File: POS1P8_Telemetry.sch

Sheet: PIC32MZ Programming

File: PIC32MZ_Programming.sch

Sheet: PIC32MZ Bypass

File: PIC32MZ_Bypass.sch

Sheet: PIC32MZ Clocking

File: PIC32MZ_Clocking.sch

Sheet: PIC32MZ

File: PIC32MZ.sch

Sheet: USB UART Bridge

File: USB_UART_Bridge.sch

Sheet: USB Telemetry

File: USB_Telemetry.sch

Sheet: Platform ETC

File: Platform_ETC.sch

Sheet: POX Sensor

File: POX_Sensor.sch

Sheet: Display

File: Display.sch

Sheet: Pushbuttons

File: Pushbuttons.sch

18. PGOOD LEDs

19. Status LEDs

20. Misc Circuits

21. Mechanical

Sheet: PGOOD LEDs

File: PGOOD_LEDs.sch

Sheet: Status LEDs

File: Status_LEDs.sch

Sheet: Misc Circuits

File: Misc_Circuits.sch

Sheet: Mechanical

File: Mechanical.sch

Drew Maatman

Sheet: /

File: Pulse_Oximeter.sch

Title: Pulse Oximeter

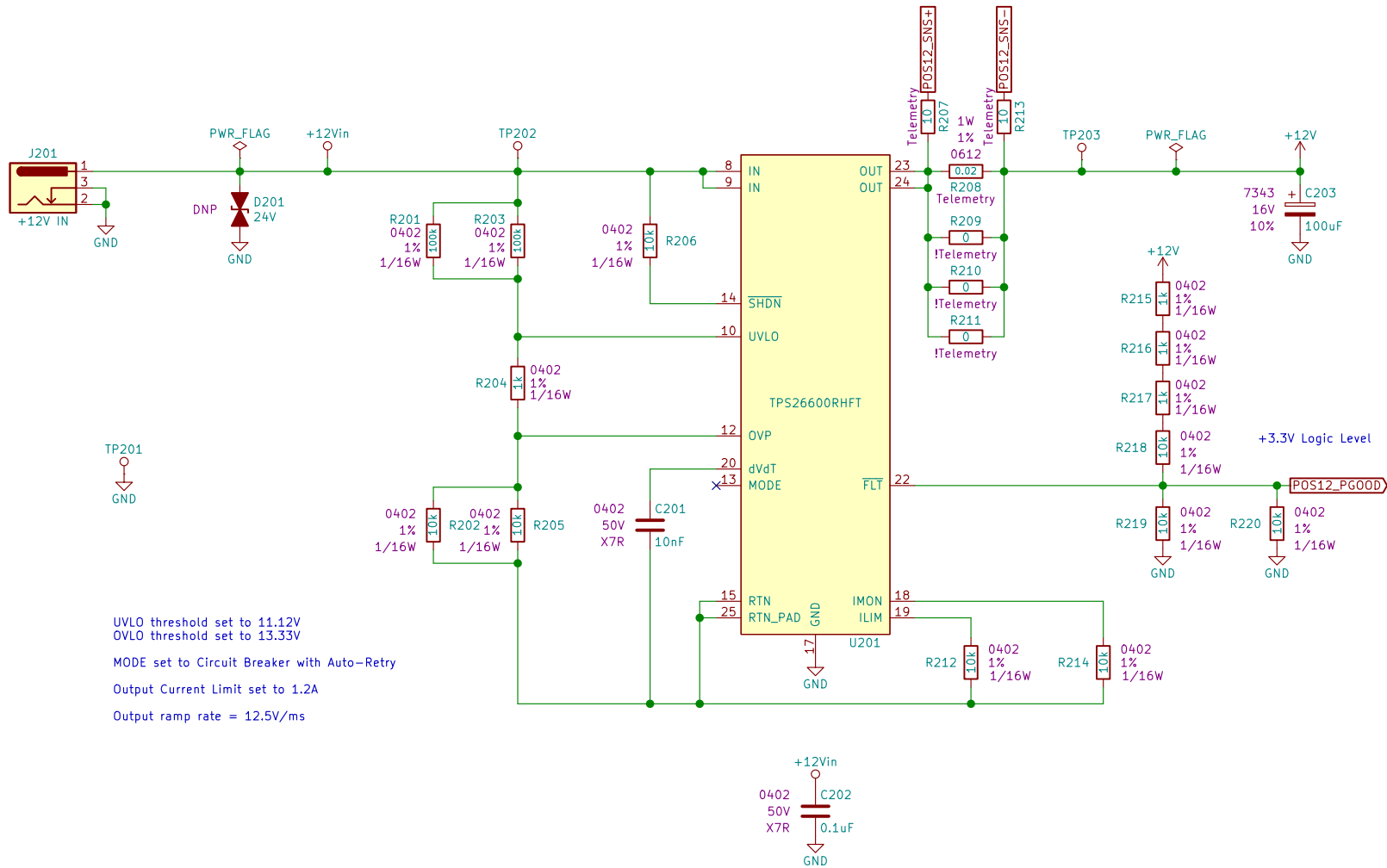
Size: A

Date: 2020-12-09

Rev: B

KiCad E.D.A. kicad (5.1.8)-1

Id: 1/21



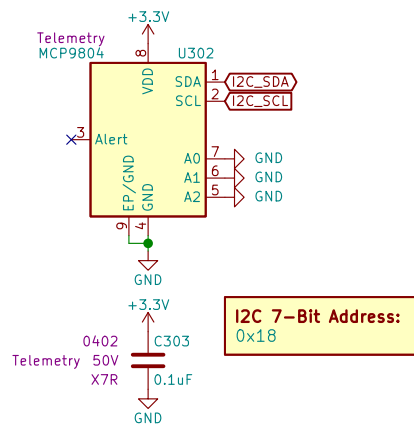
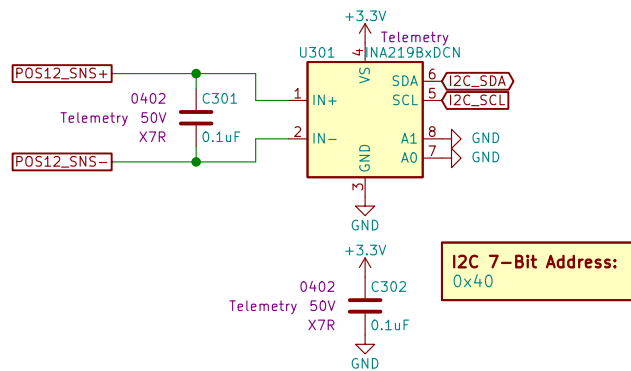
Drew Maatman

Sheet: /+12V Input/
 File: POS12_Input.sch

Title: Analog Clock

Size: A Date: 2020-08-15
 KiCad E.D.A. kicad (5.1.8)-1

Rev: A
 Id: 2/21



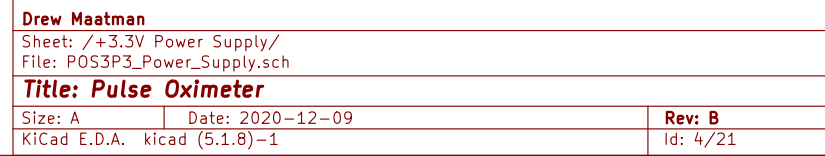
Drew Maatman

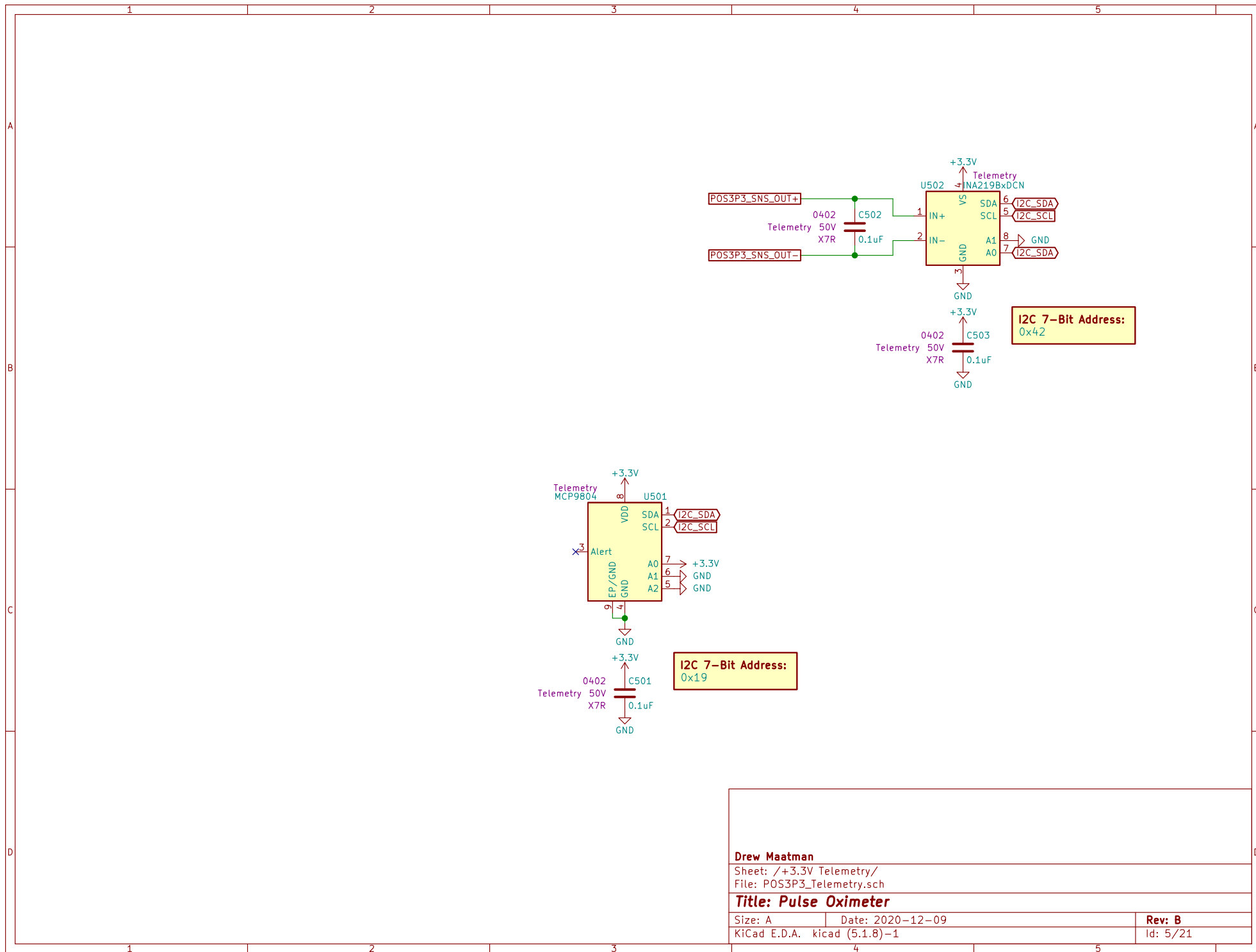
Sheet: /+12V Telemetry/
File: POS12_Telemetry.sch

Title: Pulse Oximeter

Size: A Date: 2020-12-09
KiCad E.D.A. kicad (5.1.8)-1

Rev: B
Id: 3/21





Drew Maatman

Sheet: /+3.3V Telemetry/
File: POS3P3_Telemetry.sch

Title: Pulse Oximeter

Size: A Date: 2020-12-09
KiCad E.D.A. kicad (5.1.8)-1

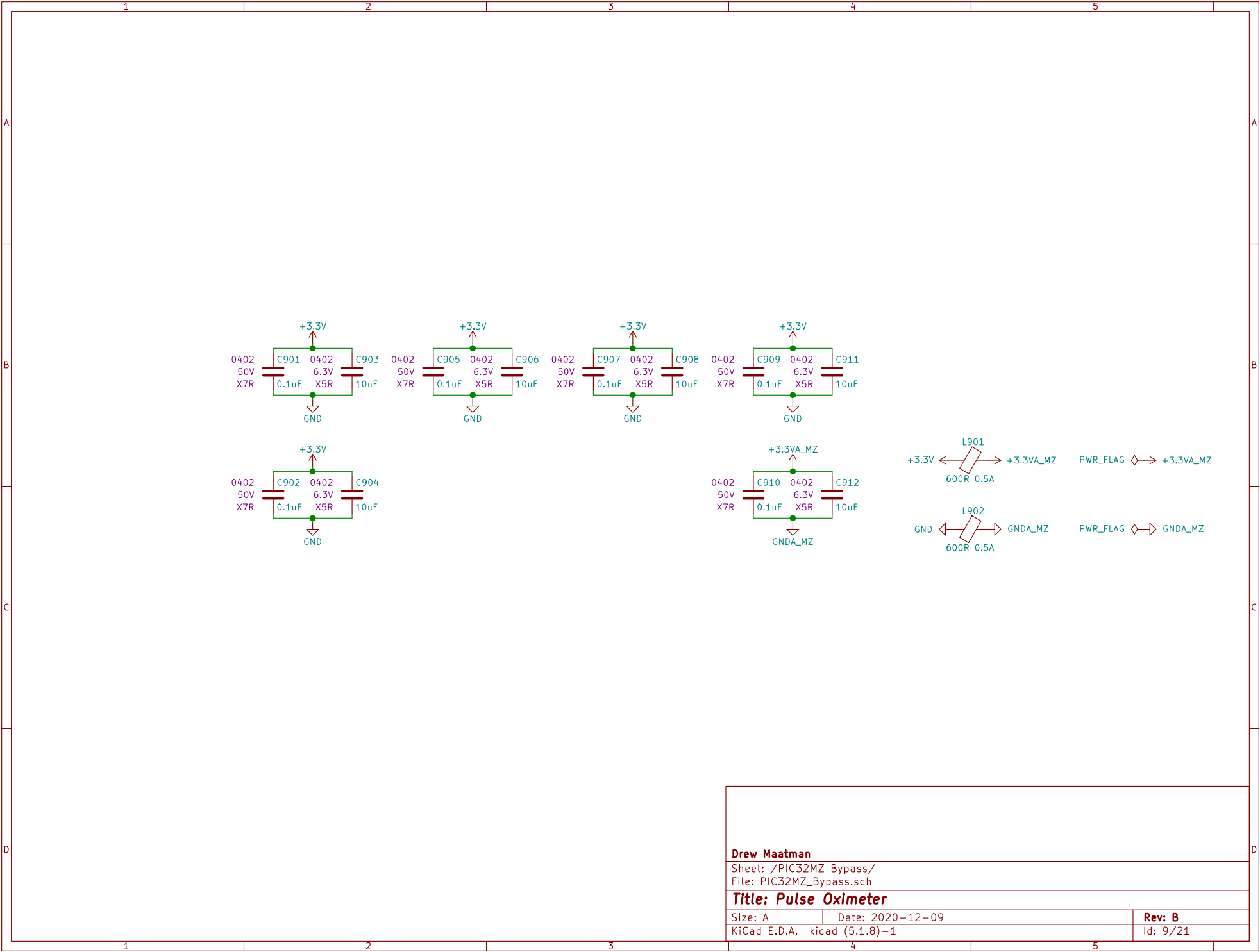
Rev: B
Id: 5/21

Rev: B
Id: 6/21



Rev: B
Id: 7/21





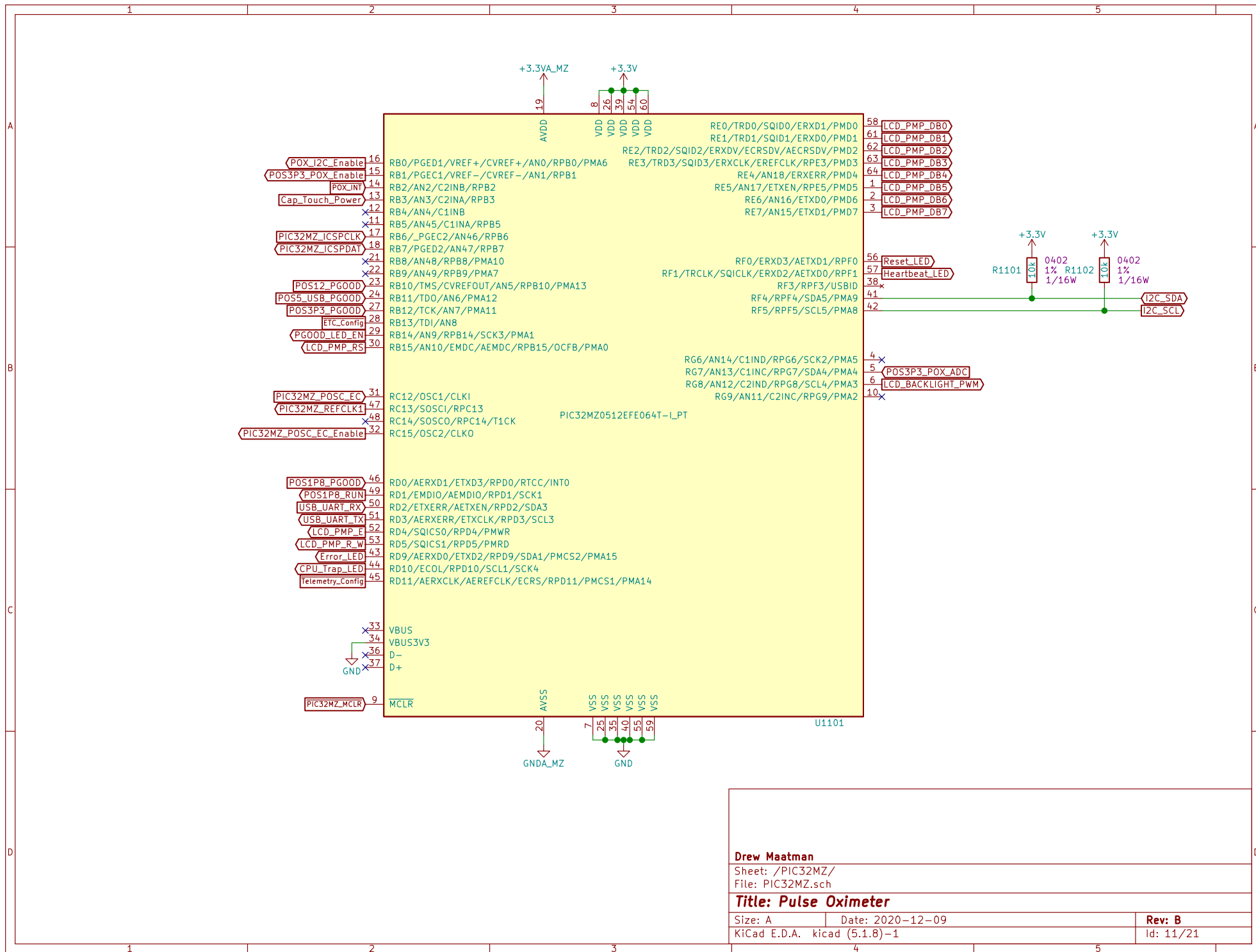
Drew Maatman

Sheet: /PIC32MZ Bypass/
File: PIC32MZ_Bypass.sch

Title: Pulse Oximeter

Size: A Date: 2020-12-09
KiCad E.D.A. kicad (5.1.8)-1

Rev: B
Id: 9/21



Drew Maatman

Sheet: /PIC32MZ/
File: PIC32MZ.sch

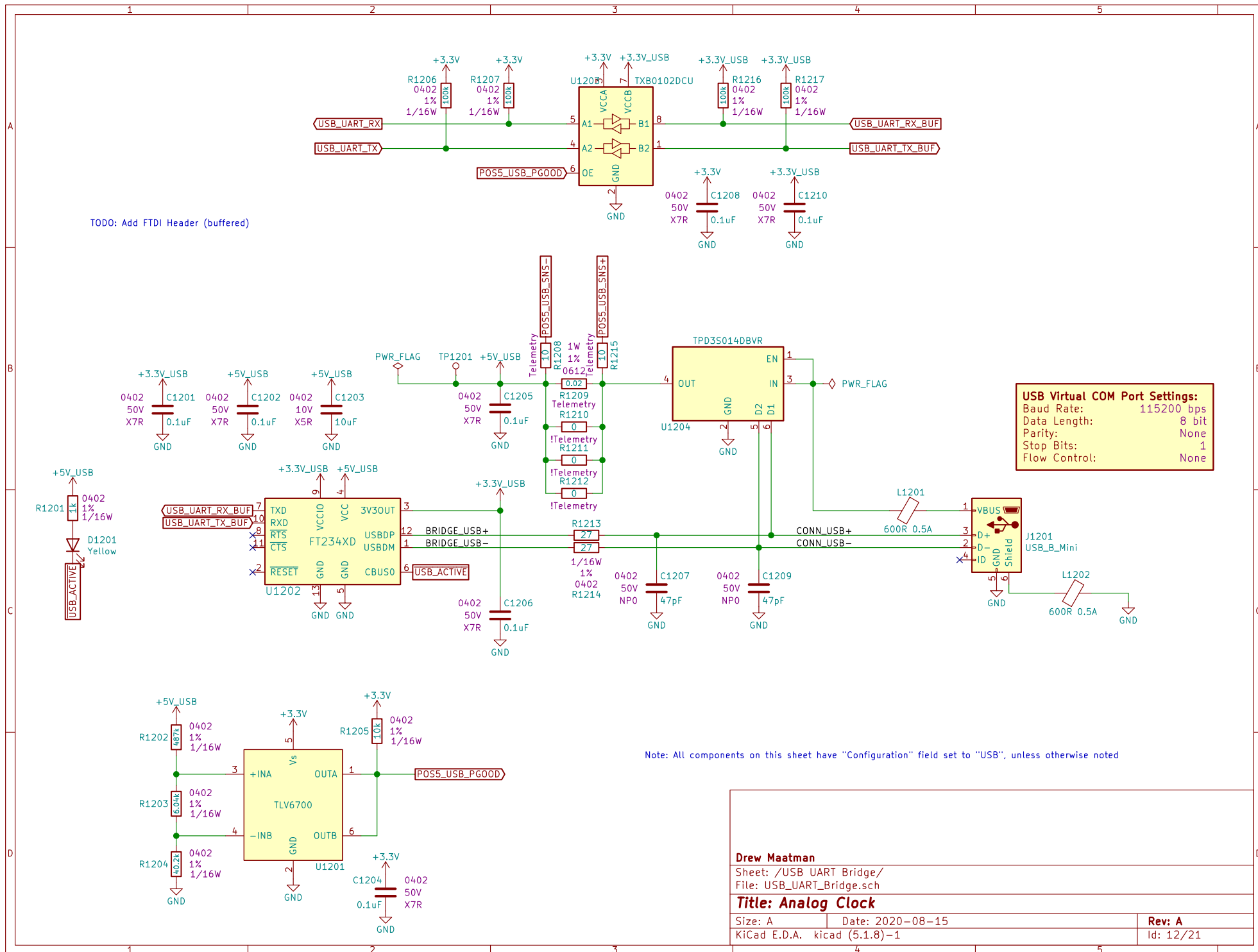
Title: Pulse Oximeter

Size: A Date: 2020-12-09

KiCad E.D.A. kicad (5.1.8)-1

Rev: B

Id: 11/21



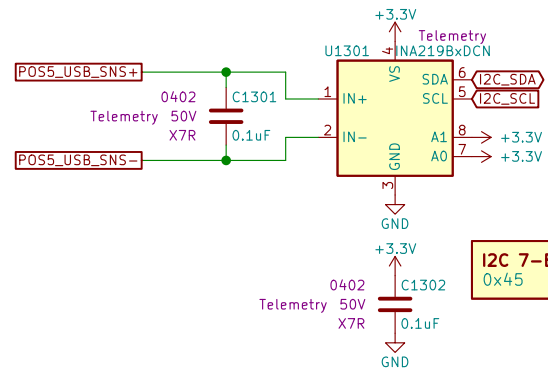
Drew Maatman

Sheet: /USB UART Bridge/
 File: USB_UART_Bridge.sch

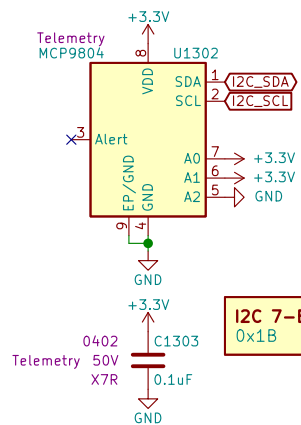
Title: Analog Clock

Size: A Date: 2020-08-15
 KiCad E.D.A. kicad (5.1.8)-1

Rev: A
 Id: 12/21



I2C 7-Bit Address:
0x45



I2C 7-Bit Address:
0x1B

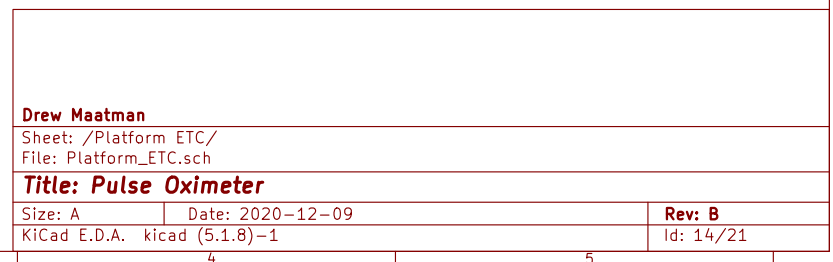
Drew Maatman

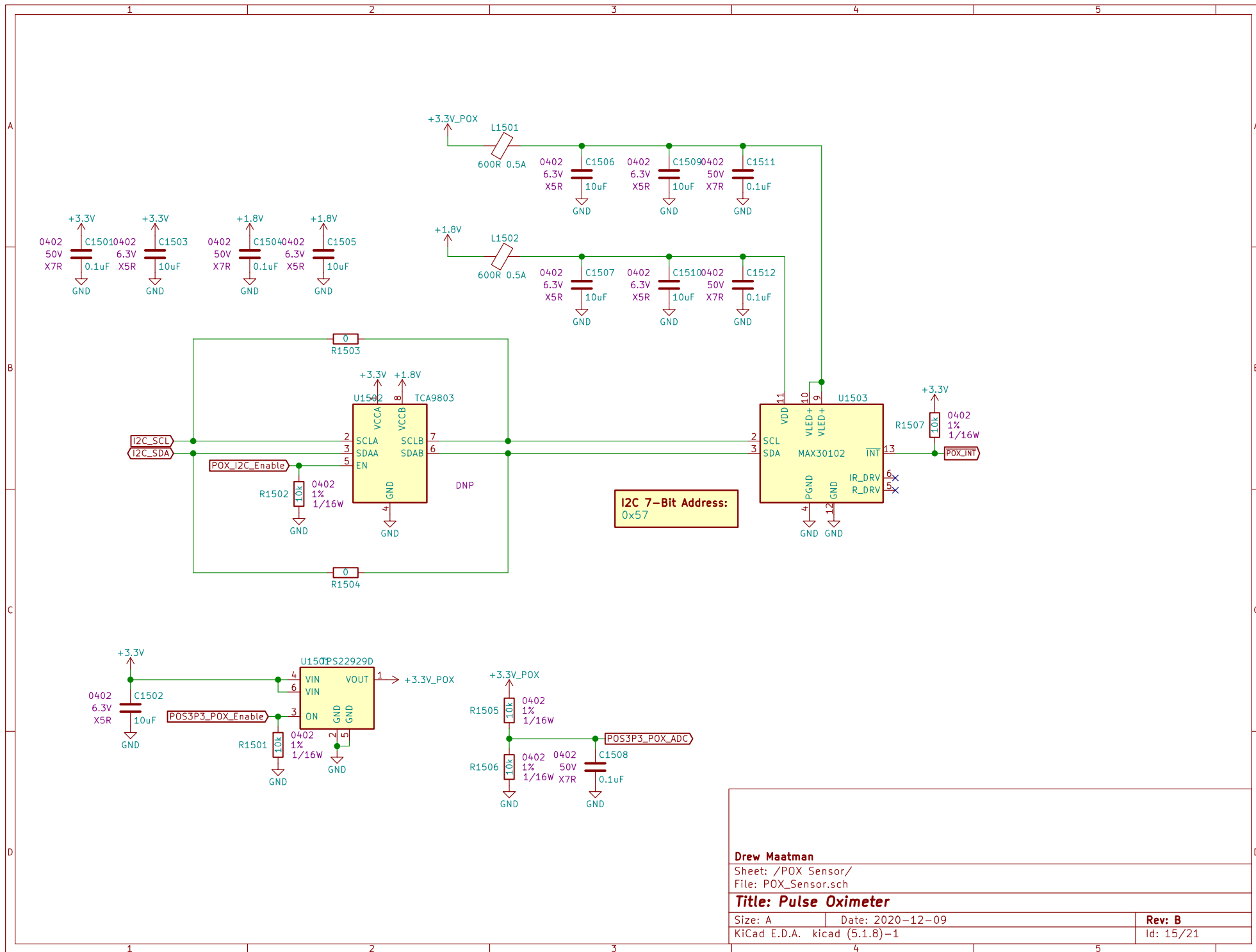
Sheet: /USB Telemetry/
File: USB_Telemetry.sch

Title: Pulse Oximeter

Size: A Date: 2020-12-09
KiCad E.D.A. kicad (5.1.8)-1

Rev: B
Id: 13/21





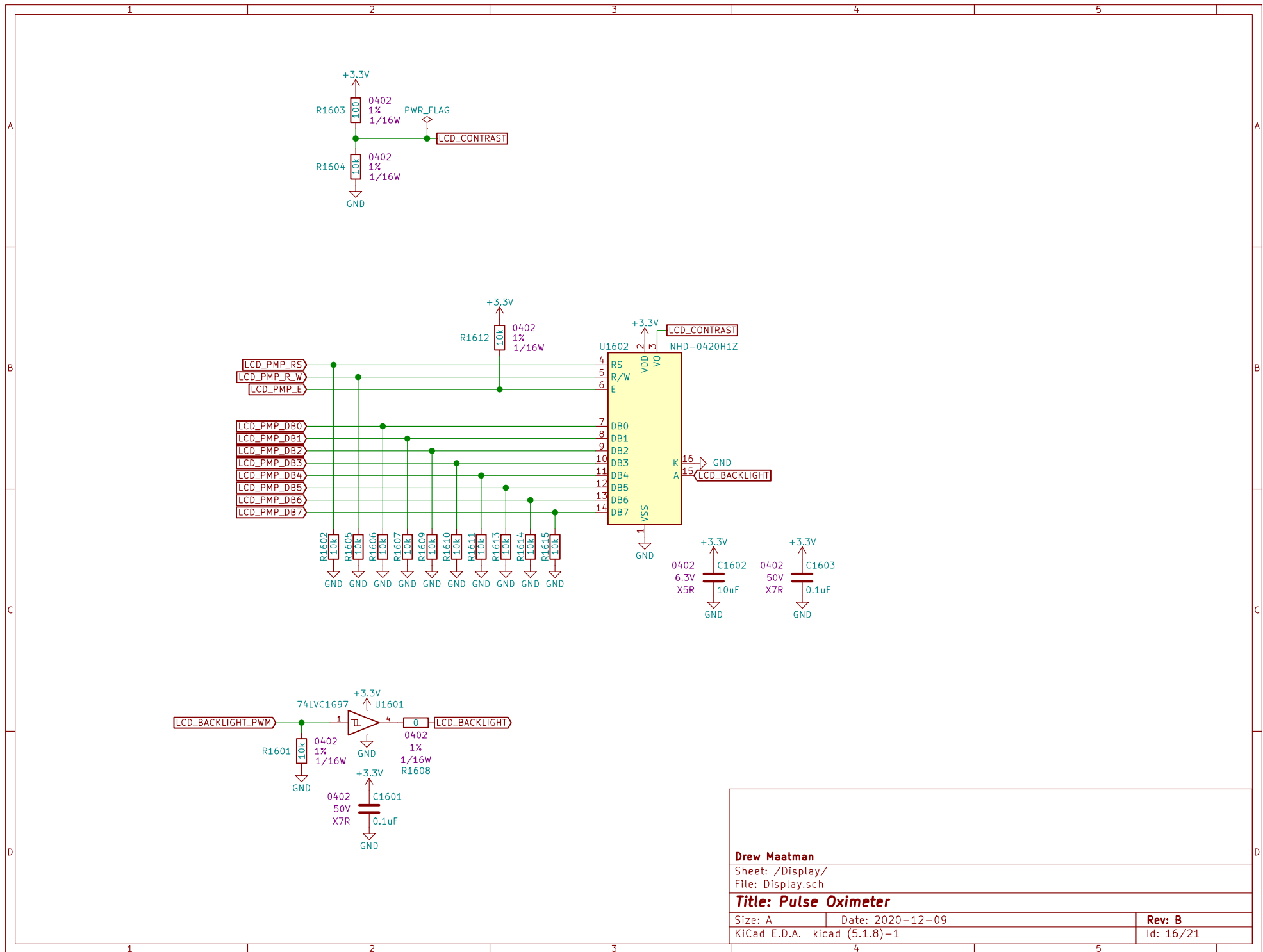
Drew Maatman

Sheet: /POX Sensor/
File: POX_Sensor.sch

Title: Pulse Oximeter

Size: A Date: 2020-12-09
KiCad E.D.A. kicad (5.1.8)-1

Rev: B
Id: 15/21



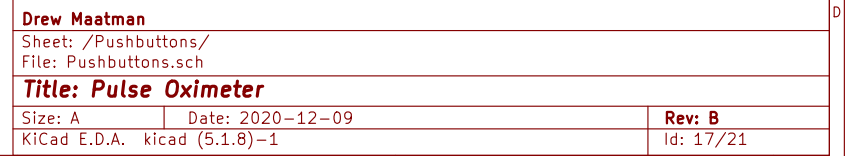
Drew Maatman

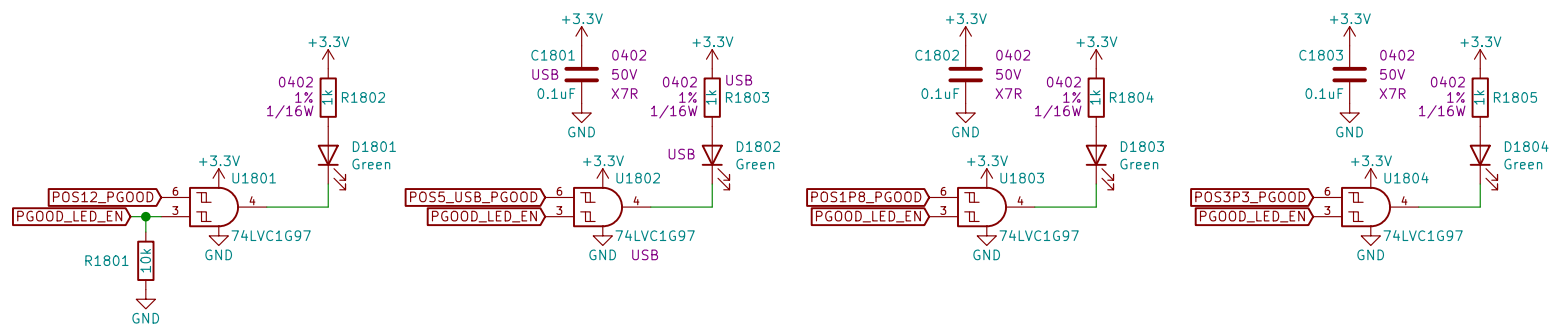
Sheet: /Display/
File: Display.sch

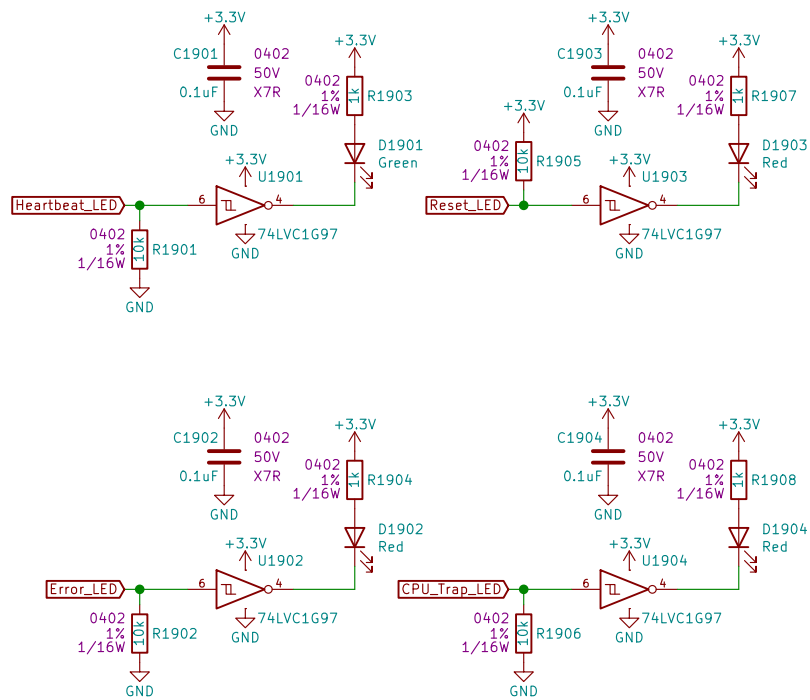
Title: Pulse Oximeter

Size: A Date: 2020-12-09
KiCad E.D.A. kicad (5.1.8)-1

Rev: B
Id: 16/21







Drew Maatman

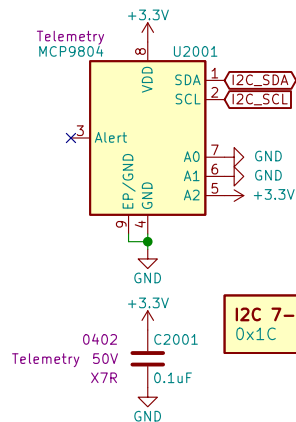
Sheet: /Status LEDs/
File: Status_LEDs.sch

Title: Pulse Oximeter

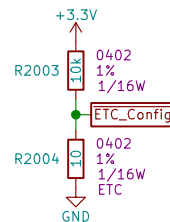
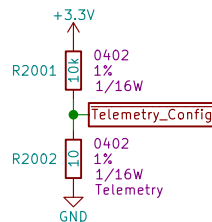
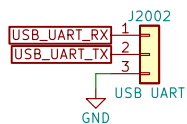
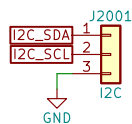
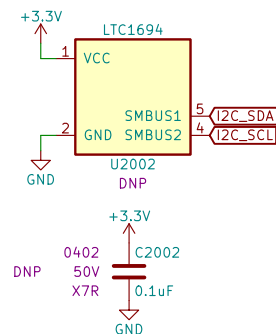
Size: A Date: 2020-12-09
KiCad E.D.A. kicad (5.1.8)-1

Rev: B
Id: 19/21

Ambient Temp Sense



I2C 7-Bit Address:
0x1C



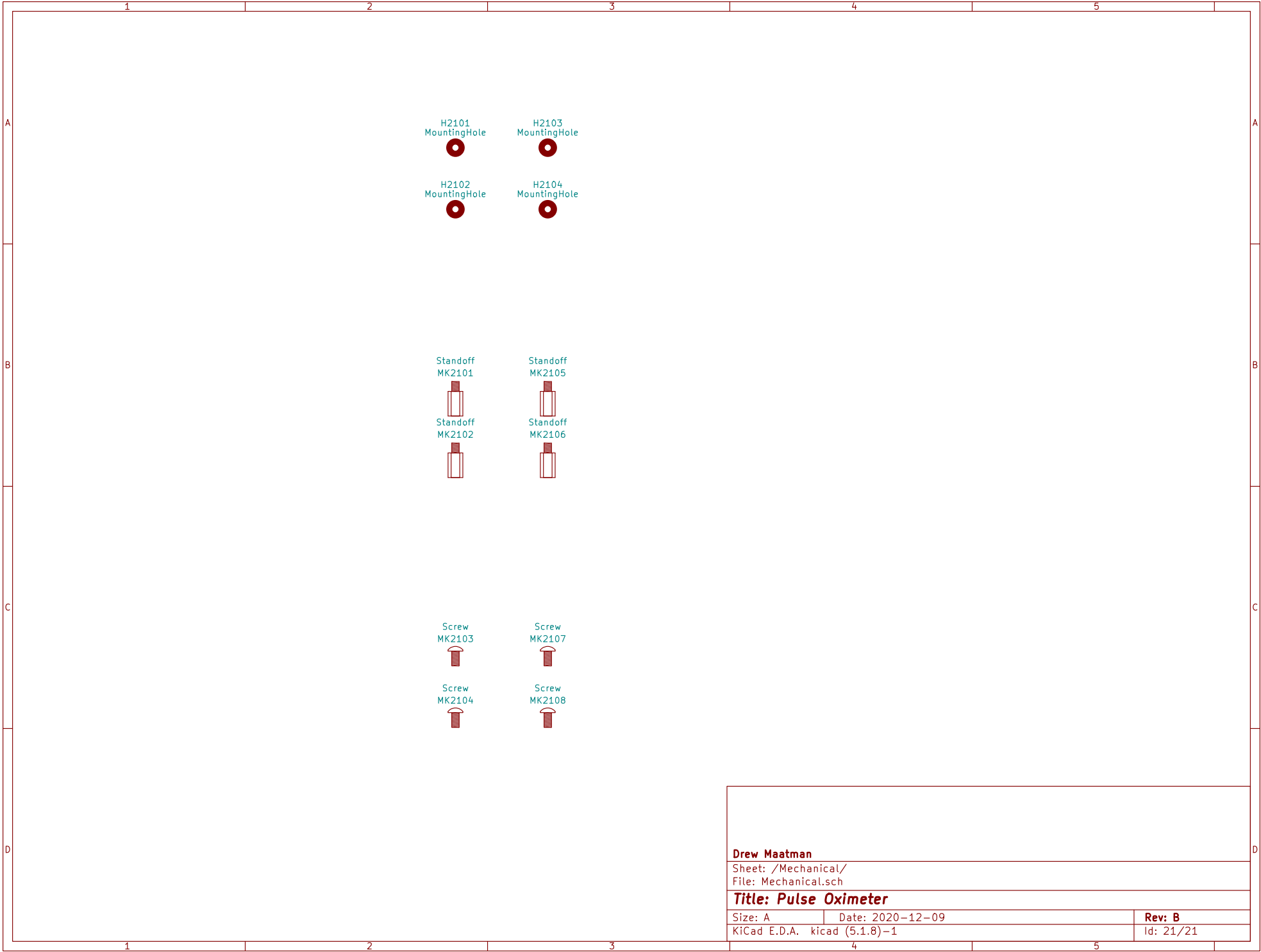
Drew Maatman

Sheet: /Misc Circuits/
File: Misc_Circuits.sch

Title: Pulse Oximeter

Size: A Date: 2020-12-09
KiCad E.D.A. kicad (5.1.8)-1

Rev: B
Id: 20/21



Drew Maatman		
Sheet: /Mechanical/ File: Mechanical.sch		
Title: Pulse Oximeter		
Size: A	Date: 2020-12-09	Rev: B
KiCad E.D.A. kicad (5.1.8)-1		Id: 21/21