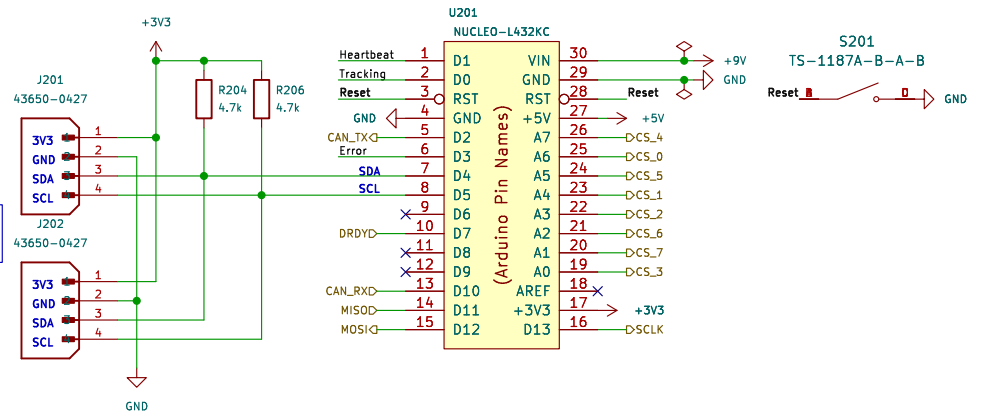


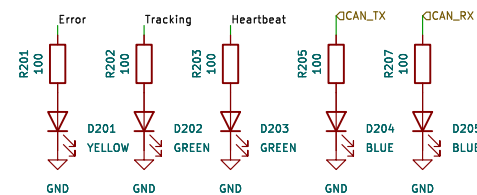
Controller

D2 and D10 are reserved for USB and CAN communication.
VIN can accept +7V-12V.

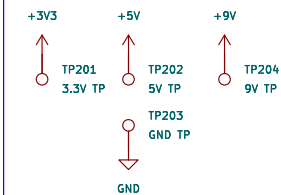
2 twisted pairs for
data and power
Wrapped together
and sheathed



LEDs



Testpoints



Gary Hallock
Matthew Yu
Jacob Giddens
LHR Solar

Sheet: /controller/
File: controller.kicad_sch

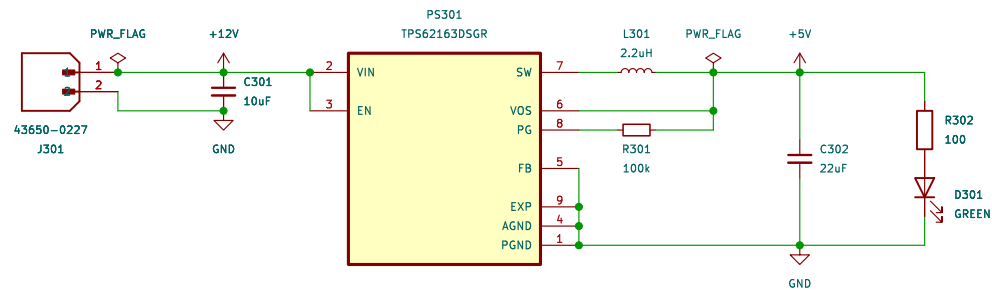
Title: Blackbody A

Size: A4 Date: 2023-07-16
KiCad E.D.A. kicad 7.0.6-7.0.6-ubuntu22.04.1

Rev: v0.2.0
Id: 2/13

Power Regulation

12V to 5V. Nonisolated.



Gary Hallock
Matthew Yu
Jacob Giddens
LHR Solar

Sheet: /power_reg/
File: power_reg.kicad_sch

Title: Blackbody A

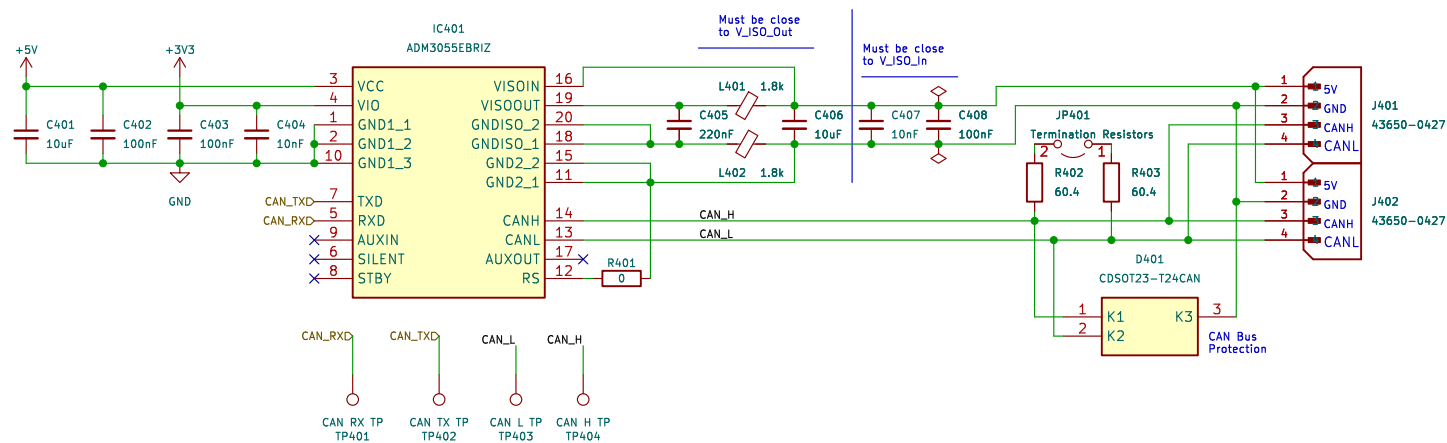
Size: A4 Date: 2023-07-16

KiCad E.D.A. kicad 7.0.6-7.0.6-ubuntu22.04.1

Rev: v0.2.0

Id: 3/13

CAN



Gary Hallock
Matthew Yu
Jacob Giddens
LHR Solar

Sheet: /comm_can/
File: comm_can.kicad_sch

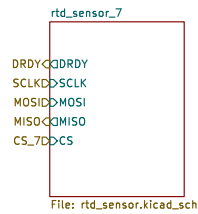
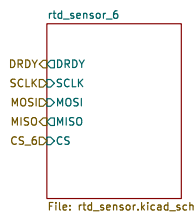
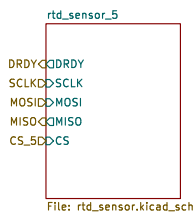
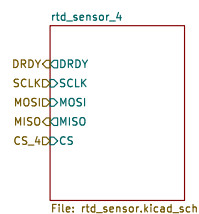
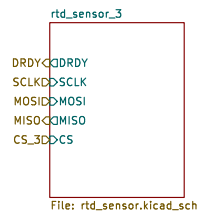
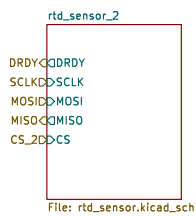
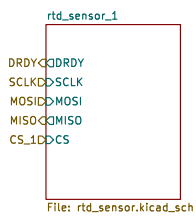
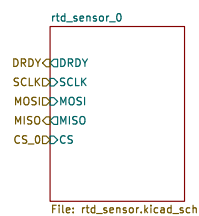
Title: Blackbody A

Size: A4 Date: 2023-07-16
KiCad E.D.A. kicad 7.0.6-7.0.6-ubuntu22.04.1

Rev: v0.2.0
Id: 4/13

RTD Sensors

For a maximum of 8, we tie SPI MOSI/MISO/SCLK/DRDY for all of them and use the CS pin for controlling which ones get to send across data on the bus.



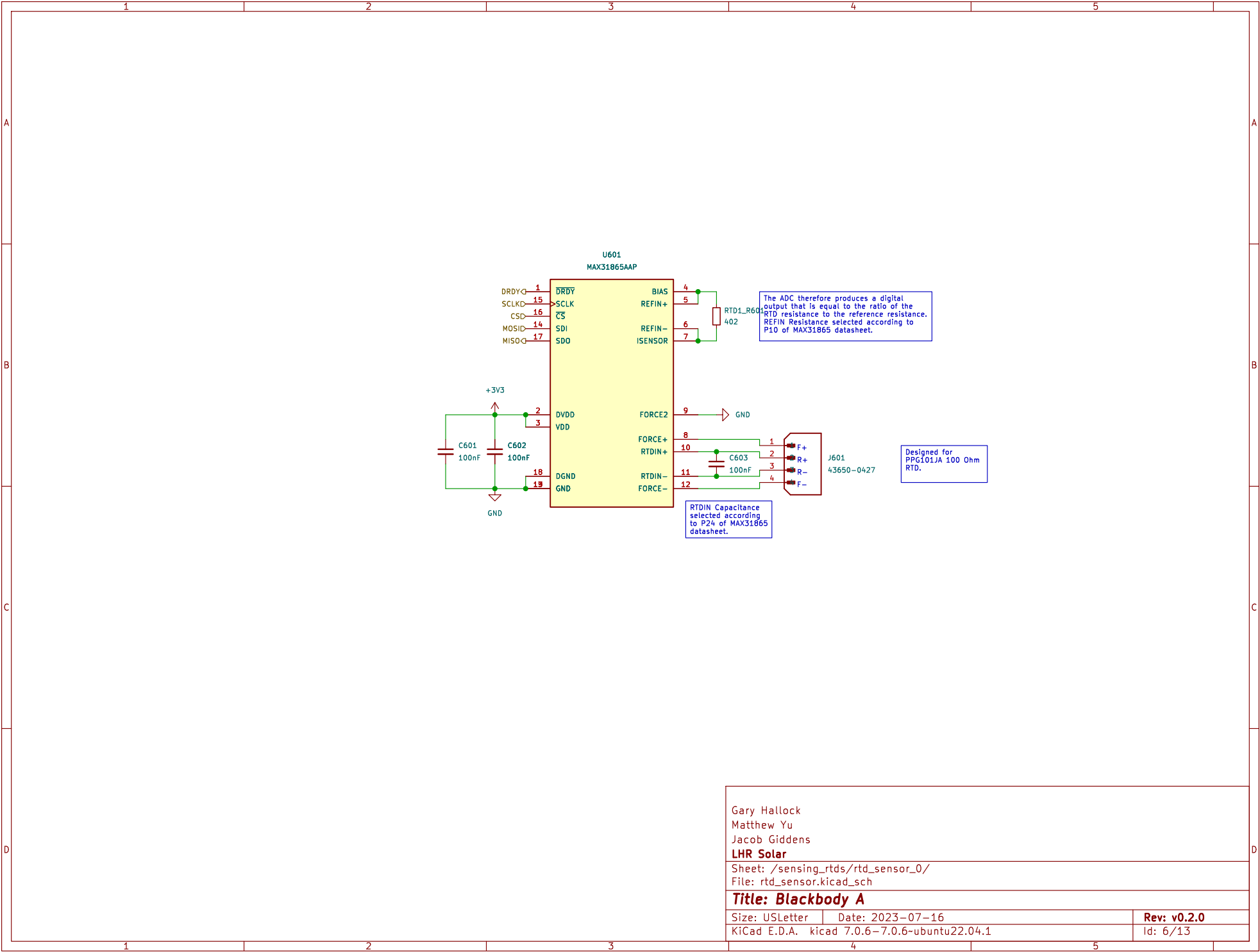
Gary Hallock
Matthew Yu
Jacob Giddens
LHR Solar

Sheet: /sensing_rtds/
File: sensing_rtds.kicad_sch

Title: Blackbody A

Size: A4 Date: 2023-07-16
KiCad E.D.A. kicad 7.0.6-7.0.6-ubuntu22.04.1

Rev: v0.2.0
Id: 5/13



Gary Hallock
Matthew Yu
Jacob Giddens

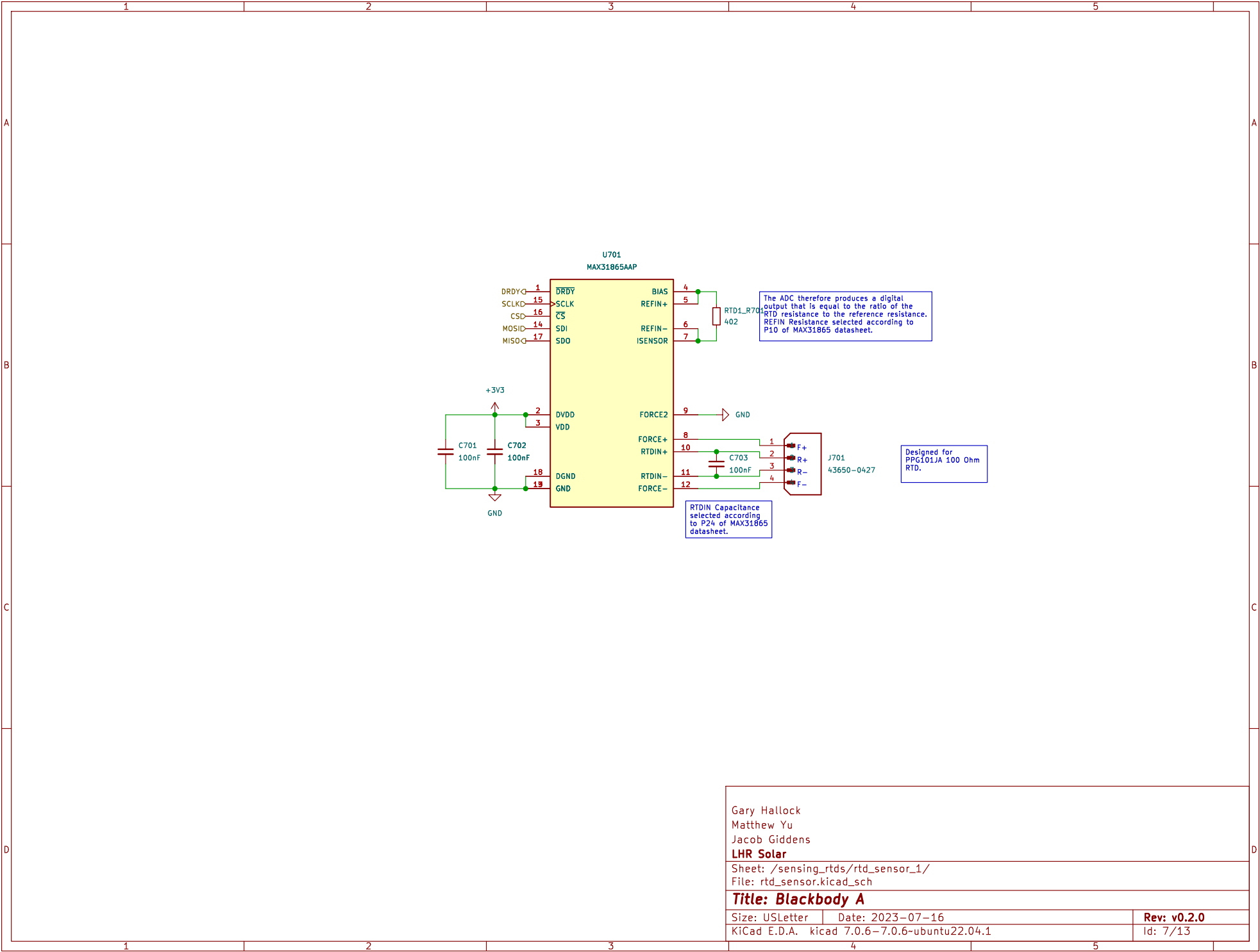
LHR Solar

Sheet: /sensing_rtds/rtd_sensor_0/
File: rtd_sensor.kicad_sch

Title: Blackbody A

Size: USLetter	Date: 2023-07-16
KiCad E.D.A. kicad 7.0.6-7.0.6-ubuntu22.04.1	Id: 6/13

Rev: v0.2.0



Gary Hallock
Matthew Yu
Jacob Giddens

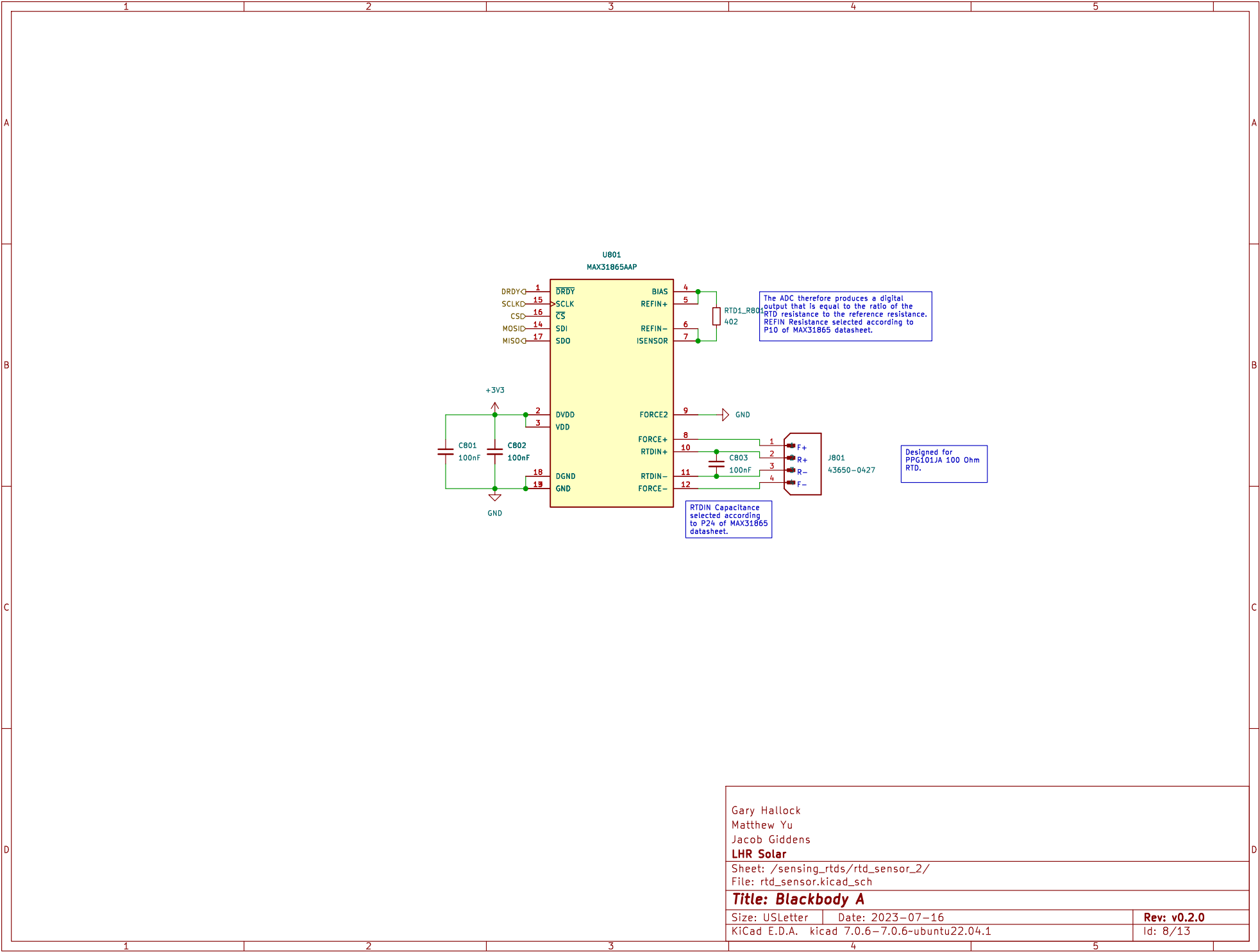
LHR Solar

Sheet: /sensing_rtds/rtd_sensor_1/
File: rtd_sensor.kicad_sch

Title: Blackbody A

Size: USLetter Date: 2023-07-16
KiCad E.D.A. kicad 7.0.6-7.0.6-ubuntu22.04.1

Rev: v0.2.0
Id: 7/13



Gary Hallock
Matthew Yu
Jacob Giddens

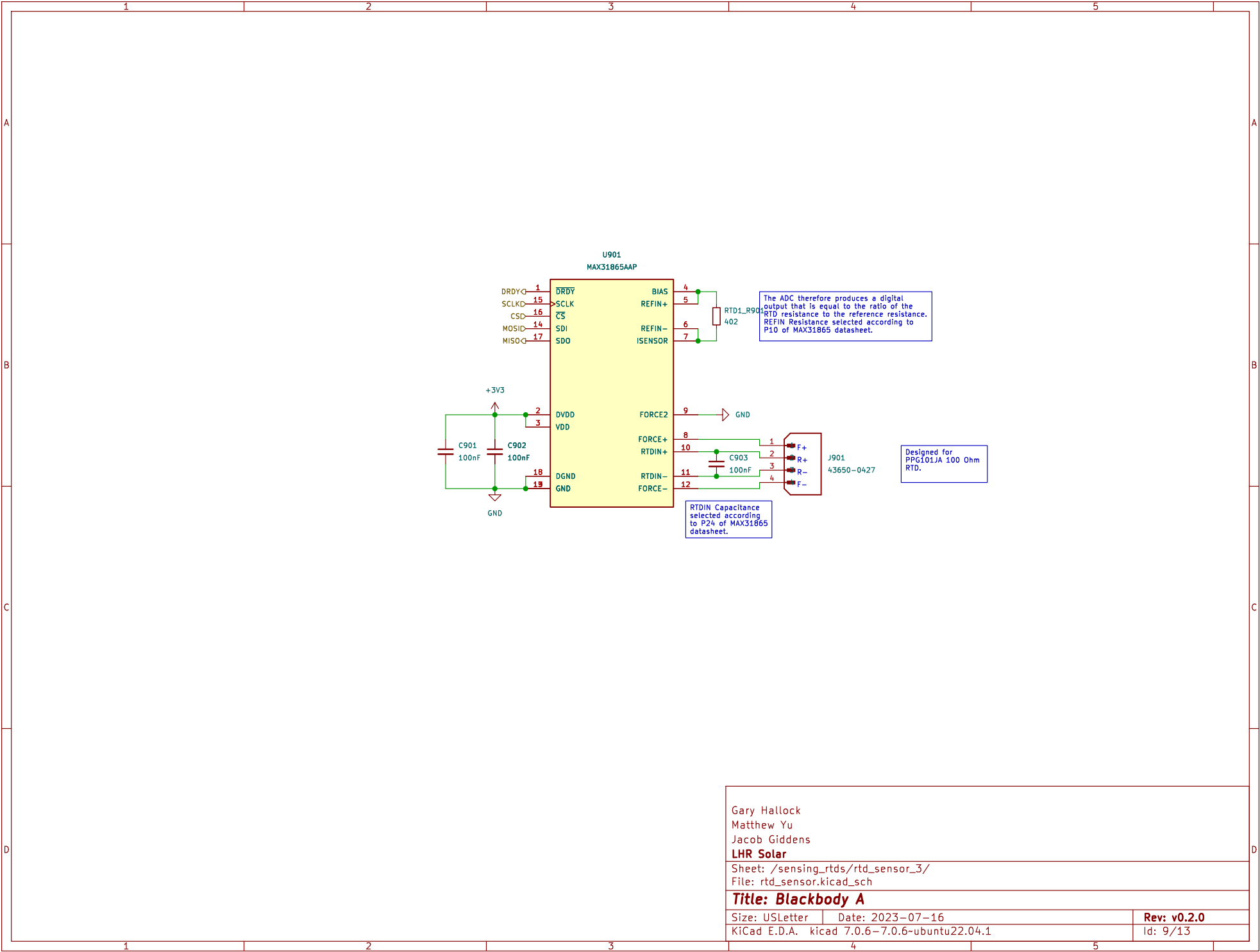
LHR Solar

Sheet: /sensing_rtds/rtd_sensor_2/
File: rtd_sensor.kicad_sch

Title: Blackbody A

Size: USLetter Date: 2023-07-16
KiCad E.D.A. kicad 7.0.6-7.0.6-ubuntu22.04.1

Rev: v0.2.0
Id: 8/13



Gary Hallock
Matthew Yu
Jacob Giddens

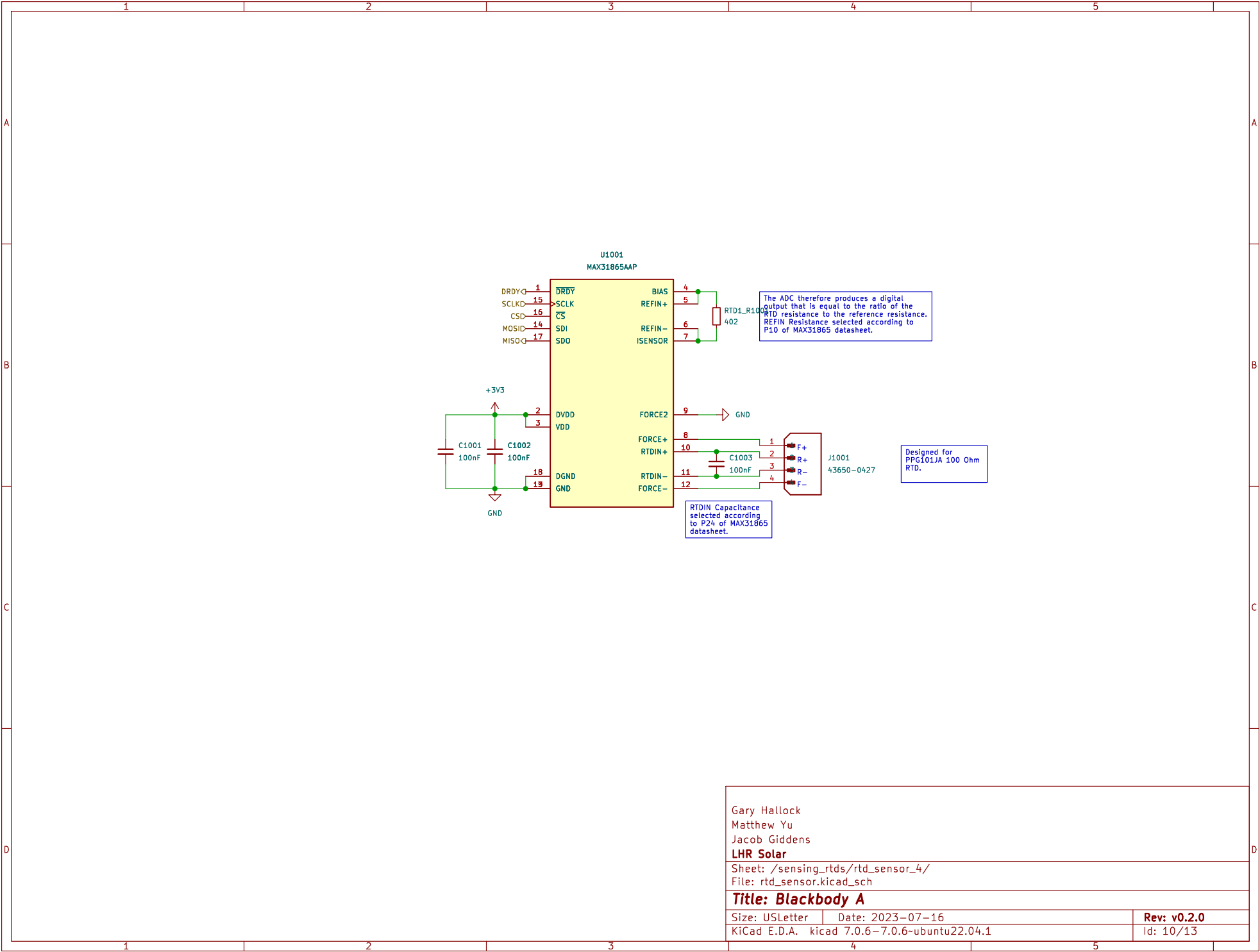
LHR Solar

Sheet: /sensing_rtds/rtd_sensor_3/
File: rtd_sensor.kicad_sch

Title: Blackbody A

Size: USLetter	Date: 2023-07-16
KiCad E.D.A. kicad 7.0.6-7.0.6-ubuntu22.04.1	Id: 9/13

Rev: v0.2.0
Id: 9/13



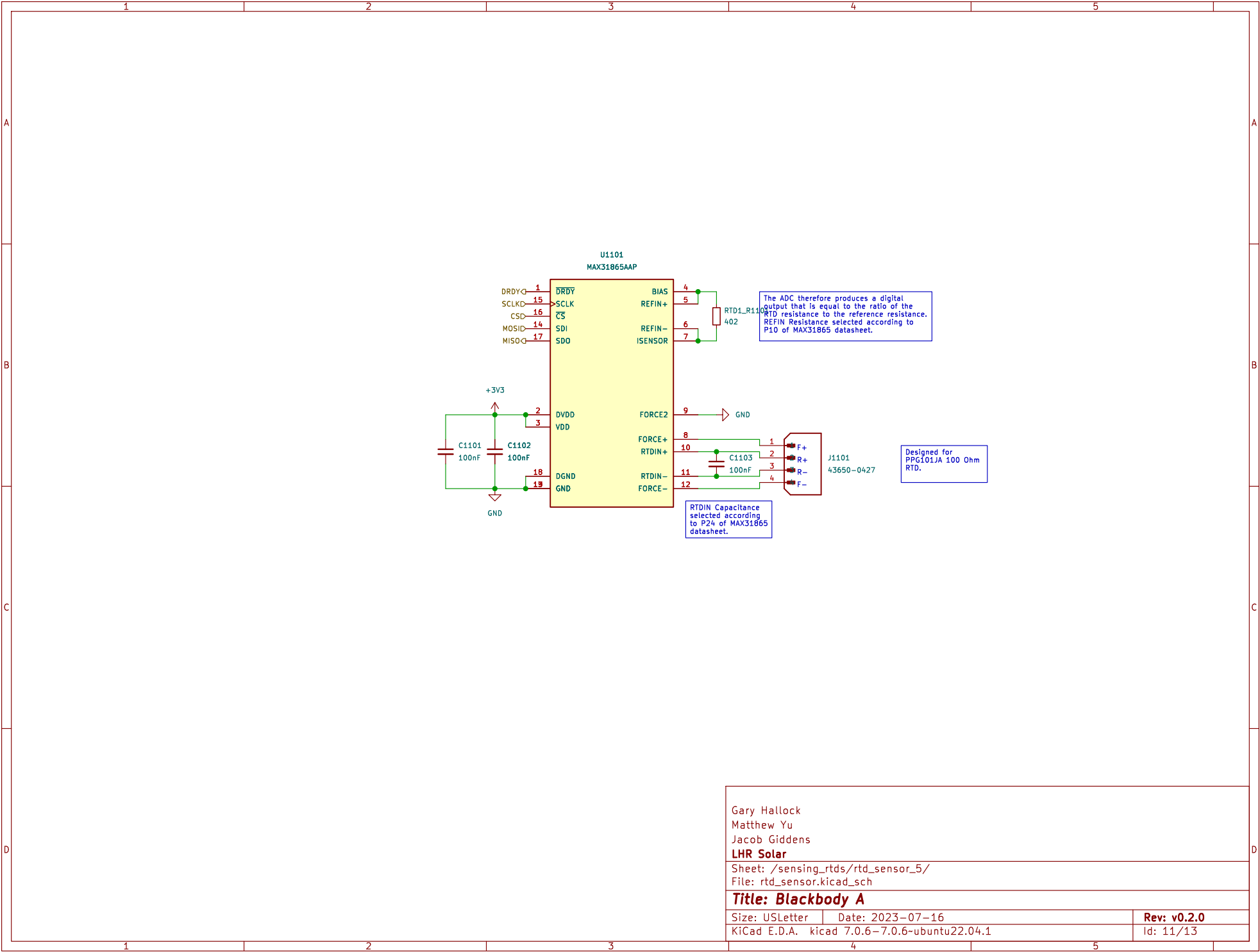
Gary Hallock
Matthew Yu
Jacob Giddens

LHR Solar

Sheet: /sensing_rtds/rtd_sensor_4/
File: rtd_sensor.kicad_sch

Title: Blackbody A

Size: USLetter	Date: 2023-07-16	Rev: v0.2.0
KiCad E.D.A.	kicad 7.0.6-7.0.6-ubuntu22.04.1	Id: 10/13



Gary Hallock
Matthew Yu
Jacob Giddens

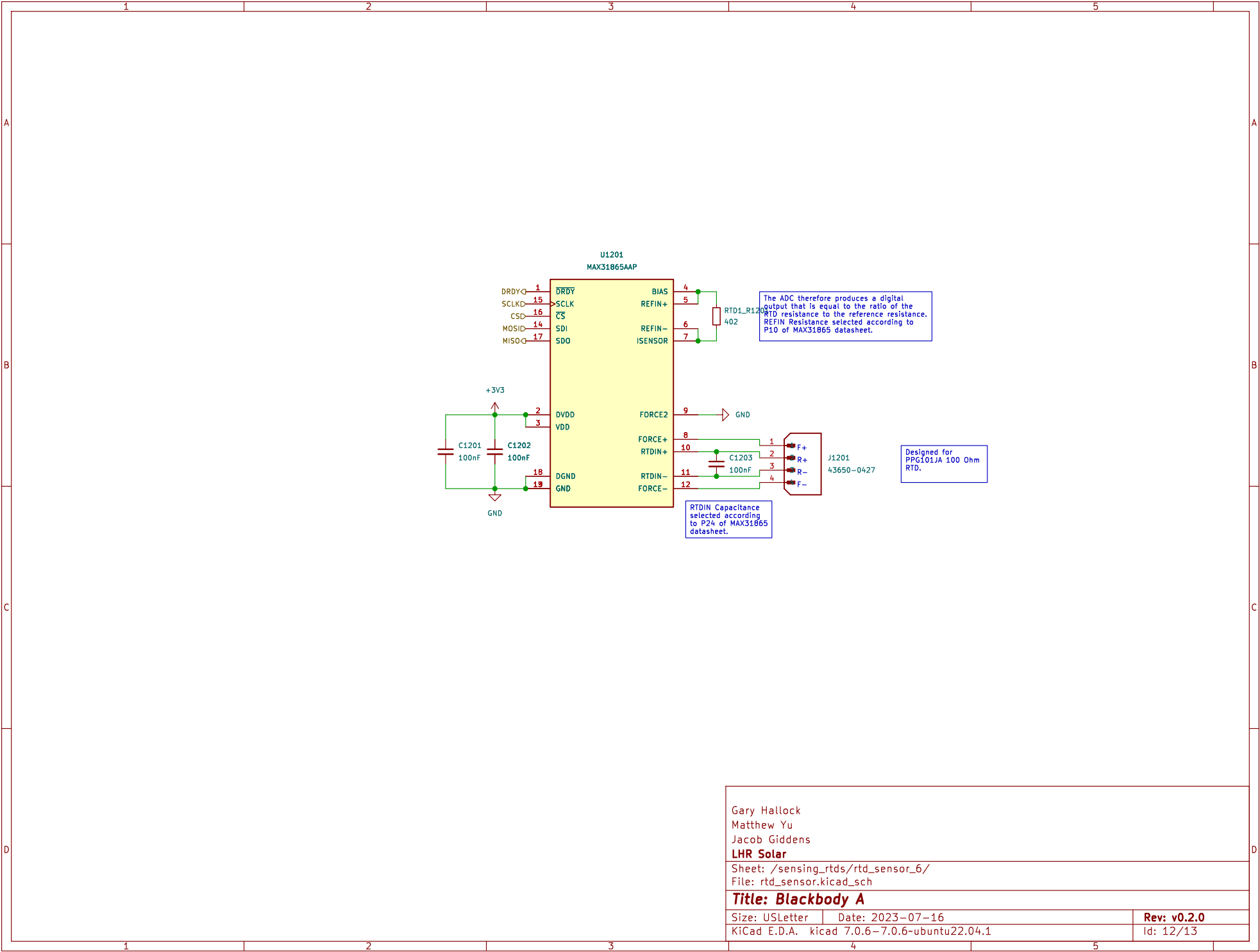
LHR Solar

Sheet: /sensing_rtds/rtd_sensor_5/
File: rtd_sensor.kicad_sch

Title: Blackbody A

Size: USLetter	Date: 2023-07-16
KiCad E.D.A. kicad 7.0.6-7.0.6-ubuntu22.04.1	

Rev: v0.2.0
Id: 11/13



Gary Hallock
Matthew Yu
Jacob Giddens

LHR Solar

Sheet: /sensing_rtds/rtd_sensor_6/
File: rtd_sensor.kicad_sch

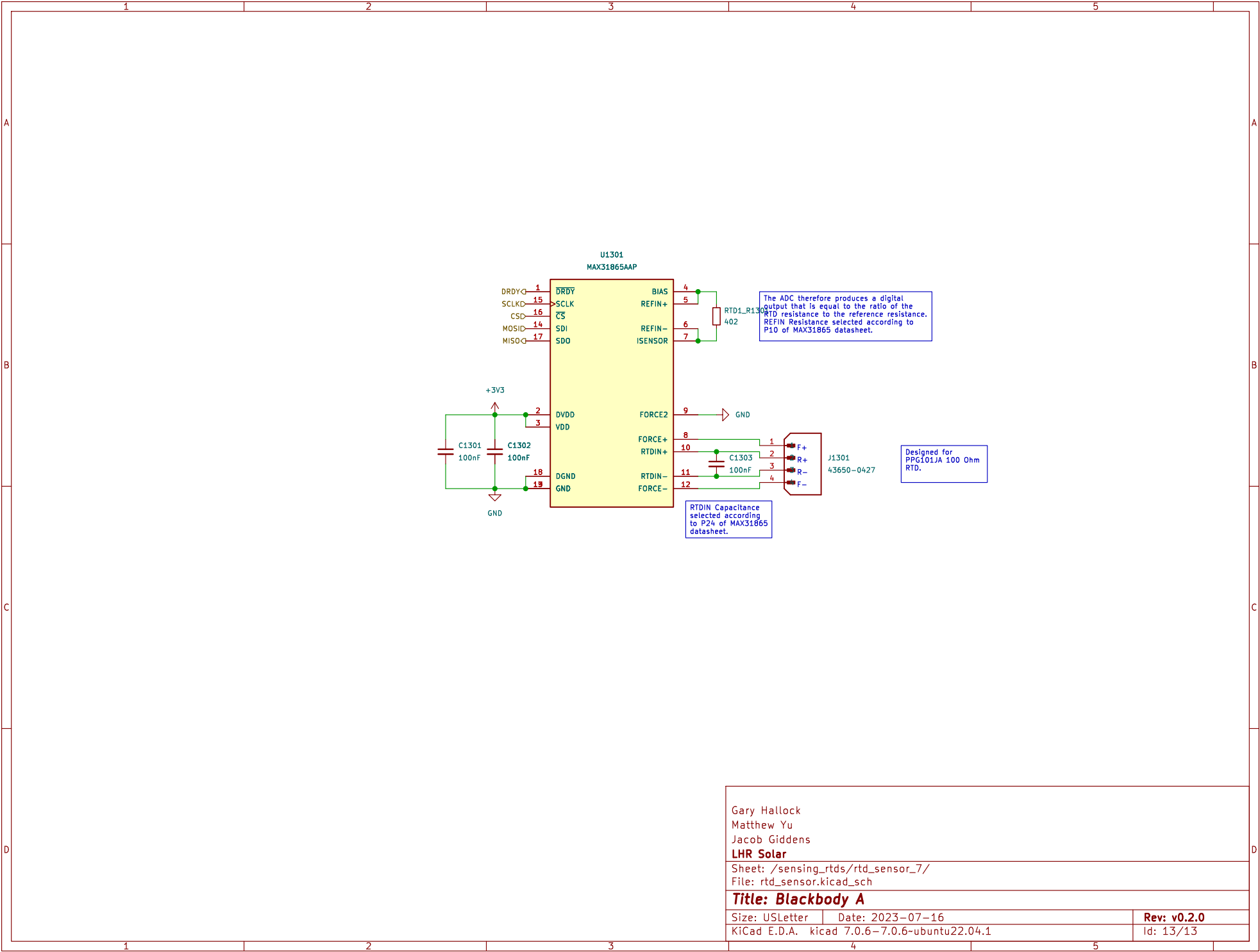
Title: Blackbody A

Size: USLetter Date: 2023-07-16

KiCad E.D.A. kicad 7.0.6-7.0.6-ubuntu22.04.1

Rev: v0.2.0

Id: 12/13



Gary Hallock
Matthew Yu
Jacob Giddens

LHR Solar

Sheet: /sensing_rtds/rtd_sensor_7/
File: rtd_sensor.kicad_sch

Title: Blackbody A

Size: USLetter	Date: 2023-07-16
KiCad E.D.A. kicad 7.0.6-7.0.6-ubuntu22.04.1	

Rev: v0.2.0
Id: 13/13