

BE-IIS-HAT++MODBUS-I2C-Rev.B

Brechel Electronic

Industrie Interface Solutions

www.be-iis.eu



Brechel Electronic
Industrial Interface Solutions
Designed by Philipp Brechel (Germany)
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contact@be-iis.eu

Sheet: /
File: BRECHEL_HAT_MODBUS.kicad_sch

Title: BE-IIS-HAT++Modbus

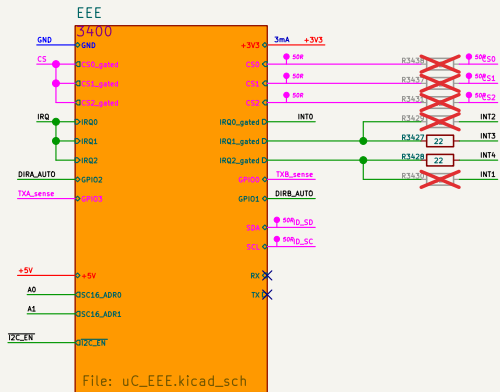
Size: A4 Date: 2026-03-25

KiCad E.D.A. 10.0.1

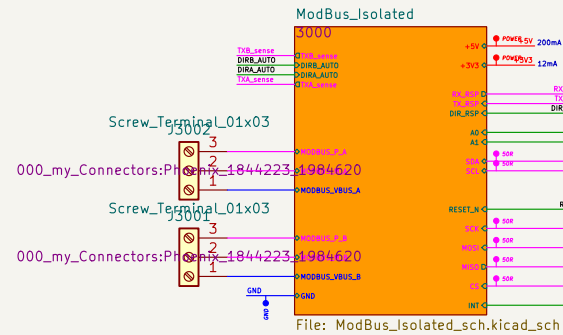
Rev: B - final

Id: 1/10

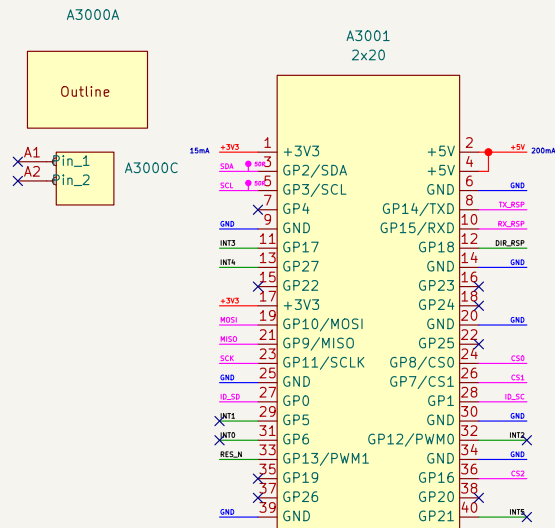
HAT+ EEprom



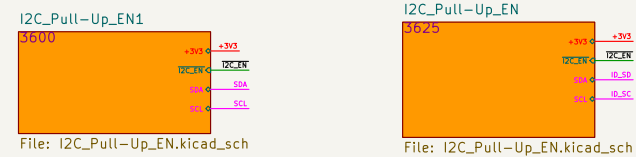
Modbus



Pi Pinout



I2C Pullups



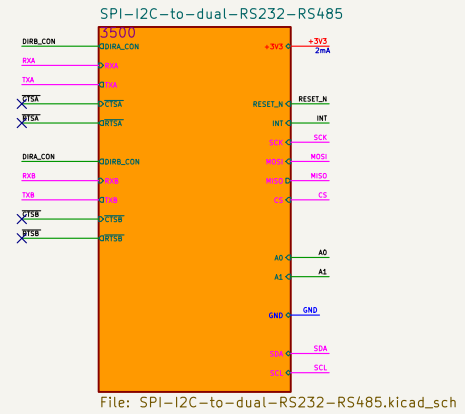
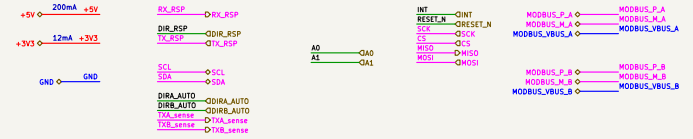
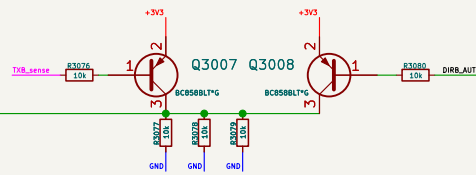
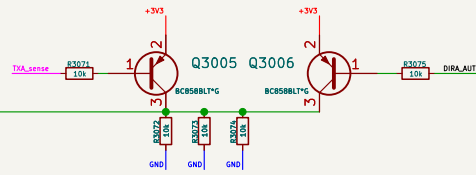
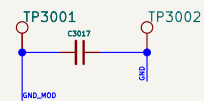
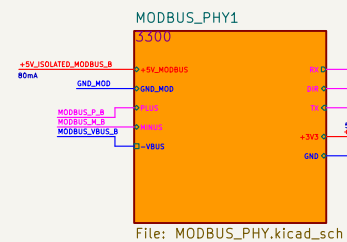
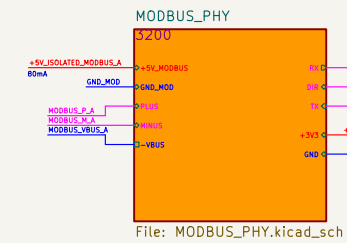
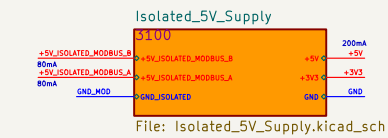
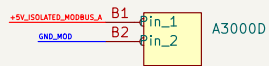
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Sheet: /Modbus Top/
 File: Modbus_top.kicad_sch

Title: Pi-HAT+; MODBUS

Size: A4 Date: 2026-03-25
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Sheet: /Modbus Top/ModBus_Isolated/
 File: ModBus_Isolated_sch.kicad_sch

Title: Pi-HAT+: MODBUS

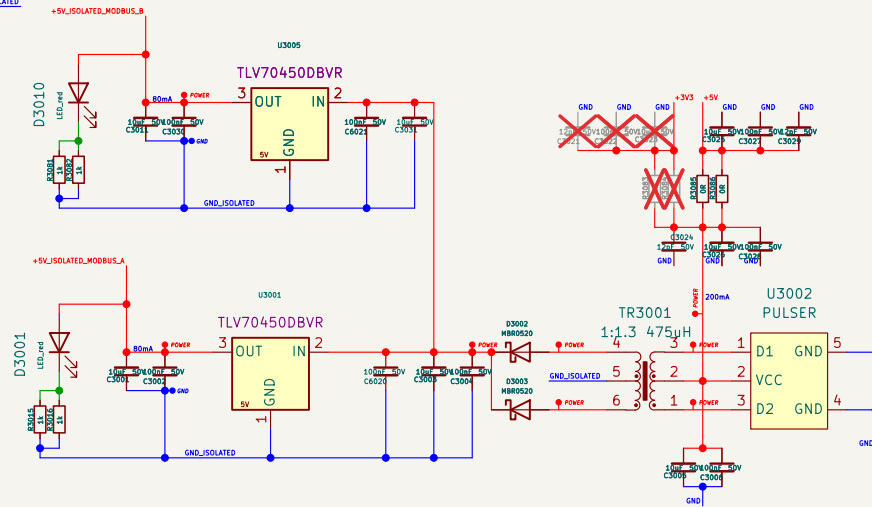
Size: A4 Date: 2026-03-25
 KiCad E.D.A. 10.0.1

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 Id: 3/10

+5V_ISOLATED_MODBUS_B — +5V_ISOLATED_MODBUS_B
 +5V_ISOLATED_MODBUS_A — +5V_ISOLATED_MODBUS_A

GND_ISOLATED — GND_ISOLATED

GND — GND
 +5V — +5V
 +3V3 — +3V3



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Sheet: /Modbus_Top/ModBus_Isolated/Isolated_5V_Supply/
 File: Isolated_5V_Supply.kicad_sch

Title: Pi-HAT+: isolated 5V supply

Size: A4 Date: 2026-03-25

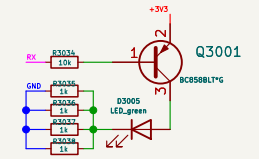
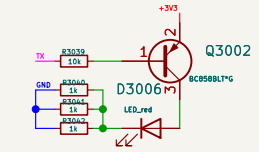
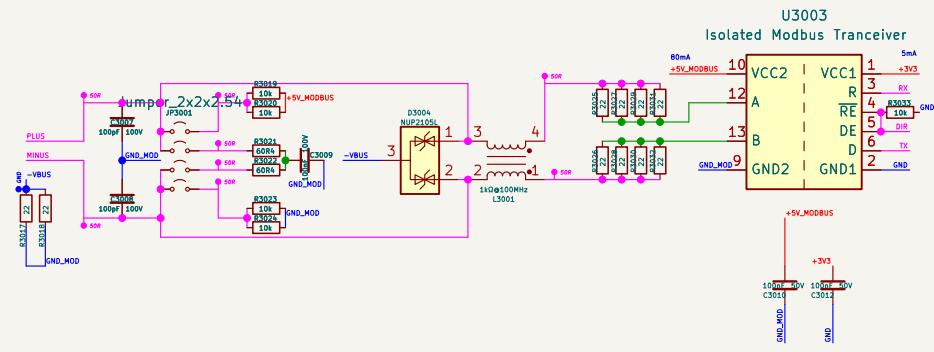
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PLUS ○ PLUS
 MINUS ○ MINUS
 -VBUS □ -VBUS
 +5V_MODBUS ○ +5V_MODBUS
 GND_MOD ○ GND_MOD

RX ○ RX
 DIR ○ DIR
 TX ○ TX
 +3V3 ○ +3V3
 GND ○ GND



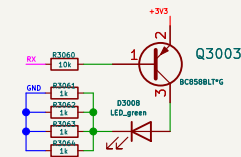
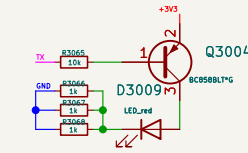
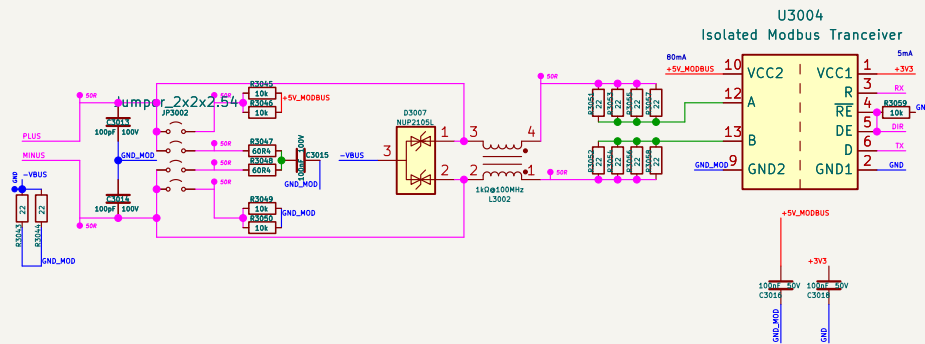
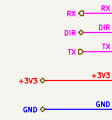
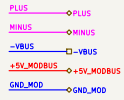
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Sheet: /Modbus Top/ModBus_Isolated/MODBUS_PHY/
 File: MODBUS_PHY.kicad_sch

Title: Pi-HAT+: MODBUS - PHY

Size: A4 Date: 2026-03-25
 KiCad E.D.A. 10.0.1

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 Id: 23/10



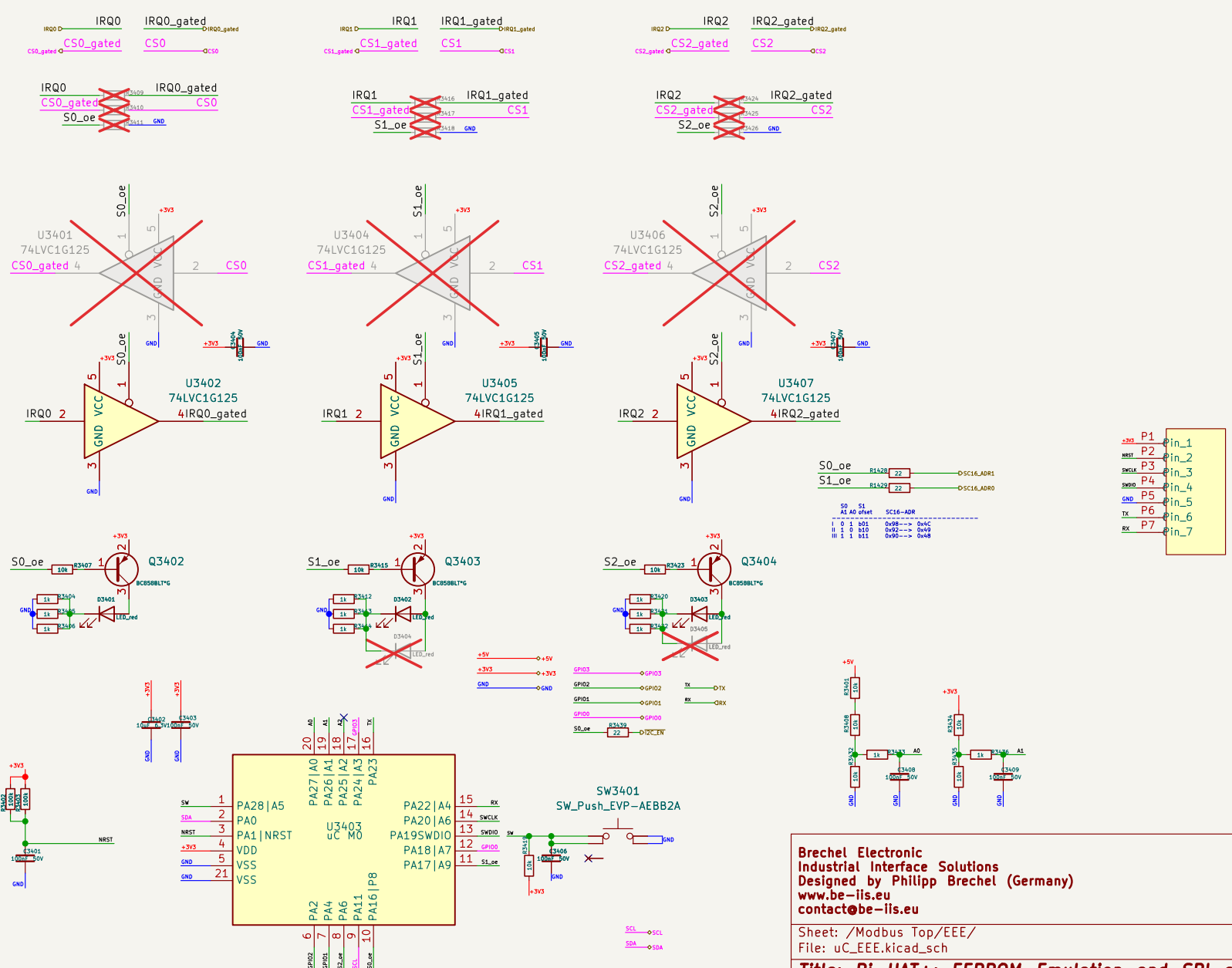
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Sheet: /Modbus Top/ModBus_Isolated/MODBUS_PHY1/
 File: MODBUS_PHY.kicad_sch

Title: Pi-HAT+: MODBUS - PHY

Size: A4
 Date: 2026-03-25
 KiCad E.D.A. 10.0.1

Rev: B - final
 Id: 24/10



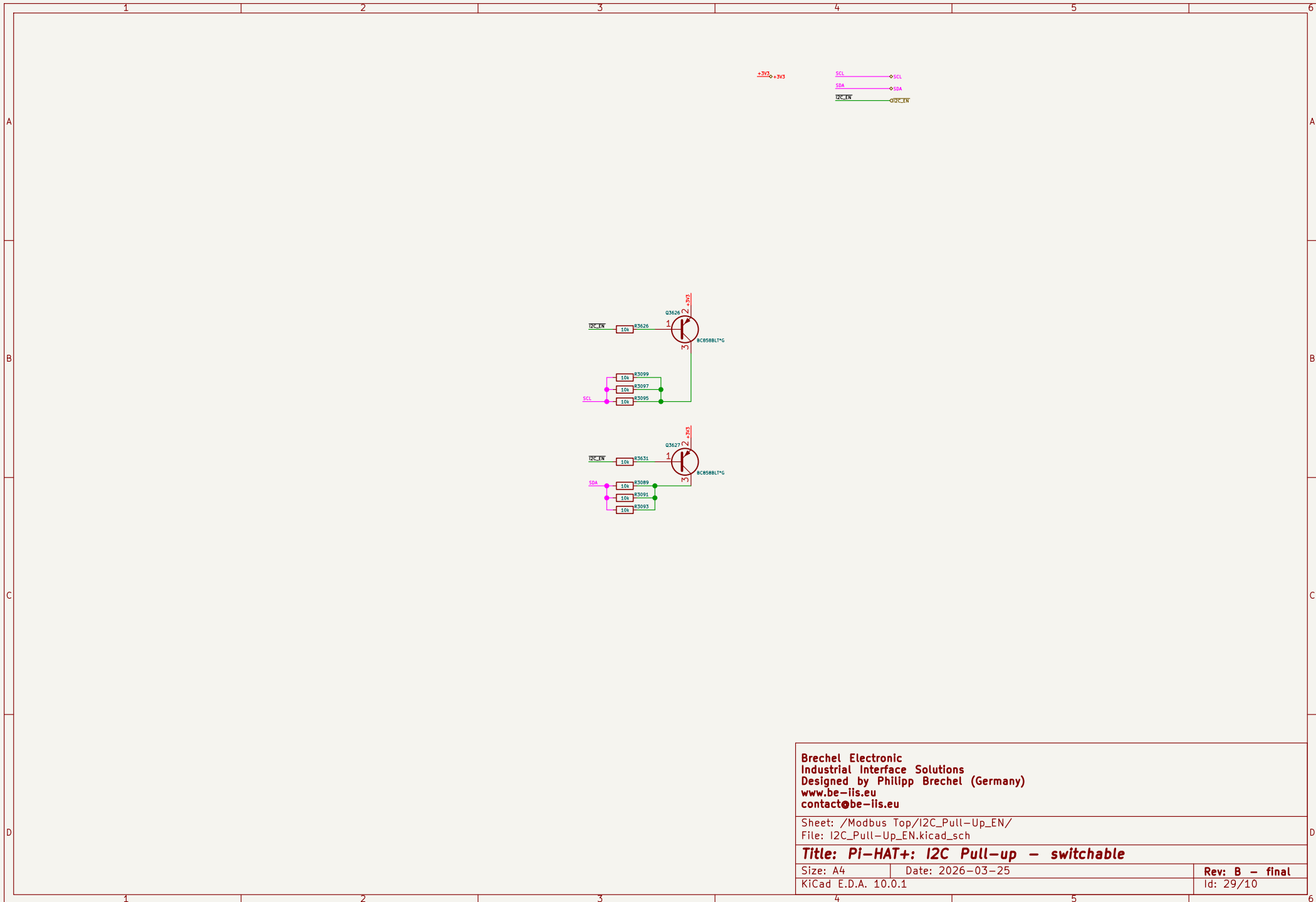
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Sheet: /Modbus Top/EEE/
 File: uC_EEE.kicad_sch

Title: Pi-HAT+; EEPROM-Emulation and SPI configuration

Size: A4 Date: 2026-03-25
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Rev: B - final
 Id: 18/10

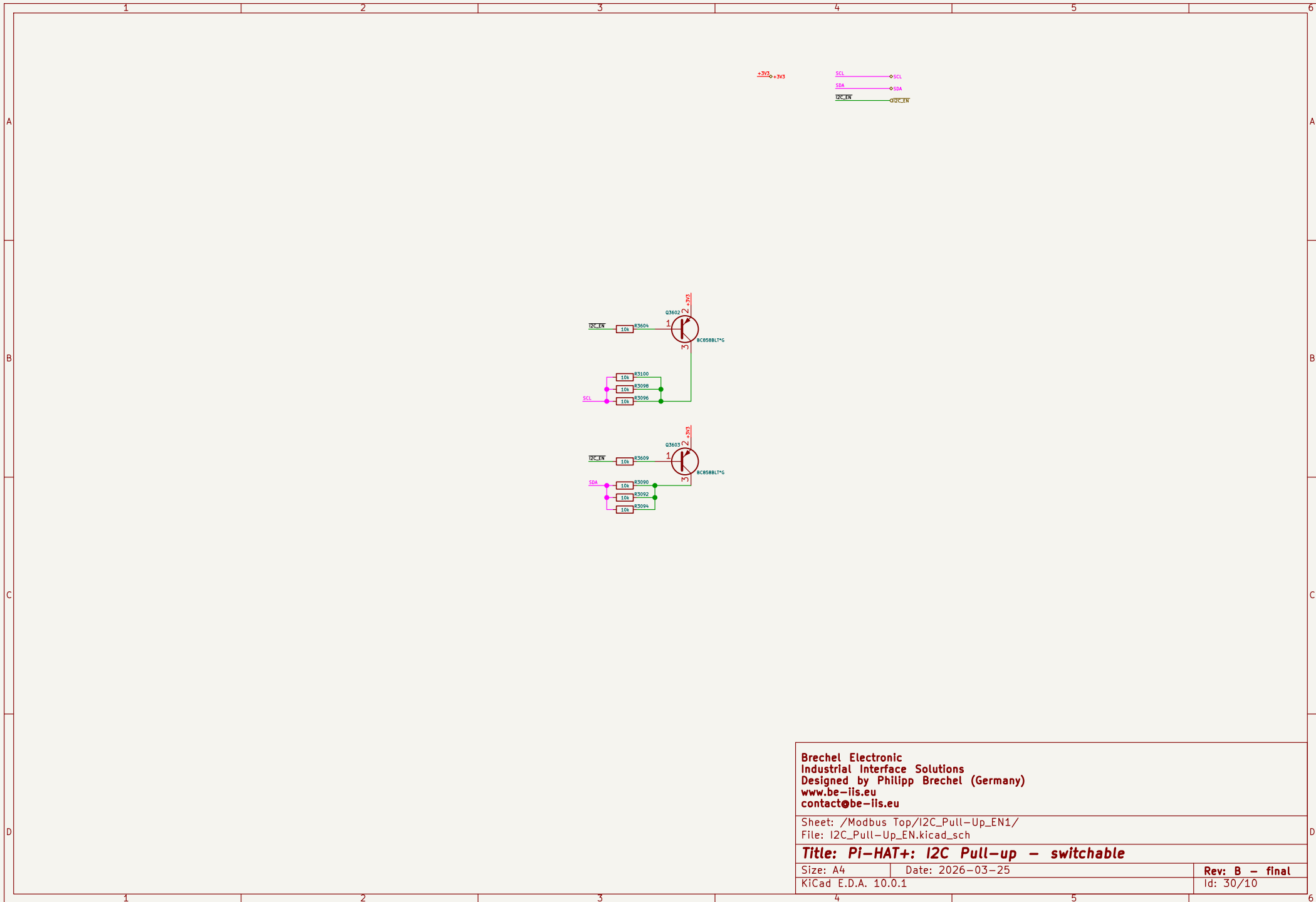


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Sheet: /Modbus Top/I2C_Pull-Up_EN/
 File: I2C_Pull-Up_EN.kicad_sch

Title: Pi-HAT+: I2C Pull-up - switchable

Size: A4	Date: 2026-03-25	Rev: B - final
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Sheet: /Modbus Top/I2C_Pull-Up_EN1/
 File: I2C_Pull-Up_EN.kicad_sch

Title: Pi-HAT+: I2C Pull-up - switchable

Size: A4	Date: 2026-03-25	Rev: B - final
KiCad E.D.A. 10.0.1		Id: 30/10