BE-IIS-HAT++CAN-FD-SIC-Rev.B
Brechel Electronic
Industrie Interface Solutions
www.be-iis-eu

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Designed by Philipp Brechel (Germany)
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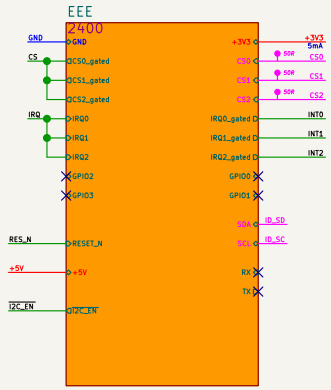
contact@be-iis.eu

Sheet: /
File: BRECHEL_HAT_CAN.kicad_sch

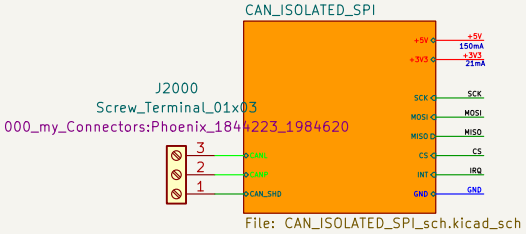
Title: Pi-HAT+: CAN-FD-SIC

Size: A4	Date: 2026-03-25	**Rev: B – final**
KiCad E.D.A. 10.0.3		Id: 1/8

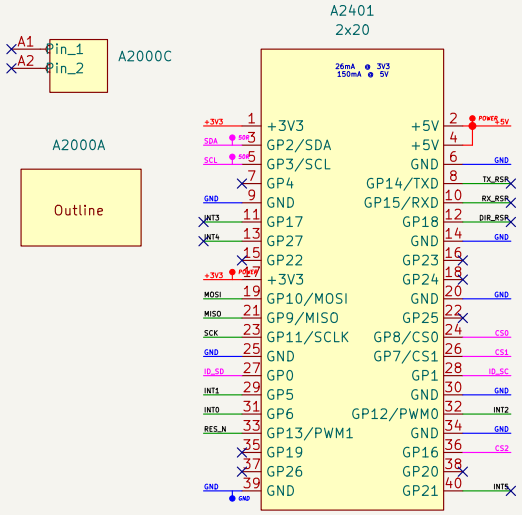
HAT+ EEprom



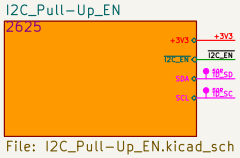
CAN-FD-SIC

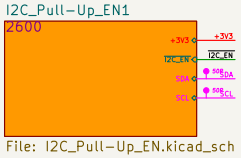


Pi Pinout



I2C Pullups





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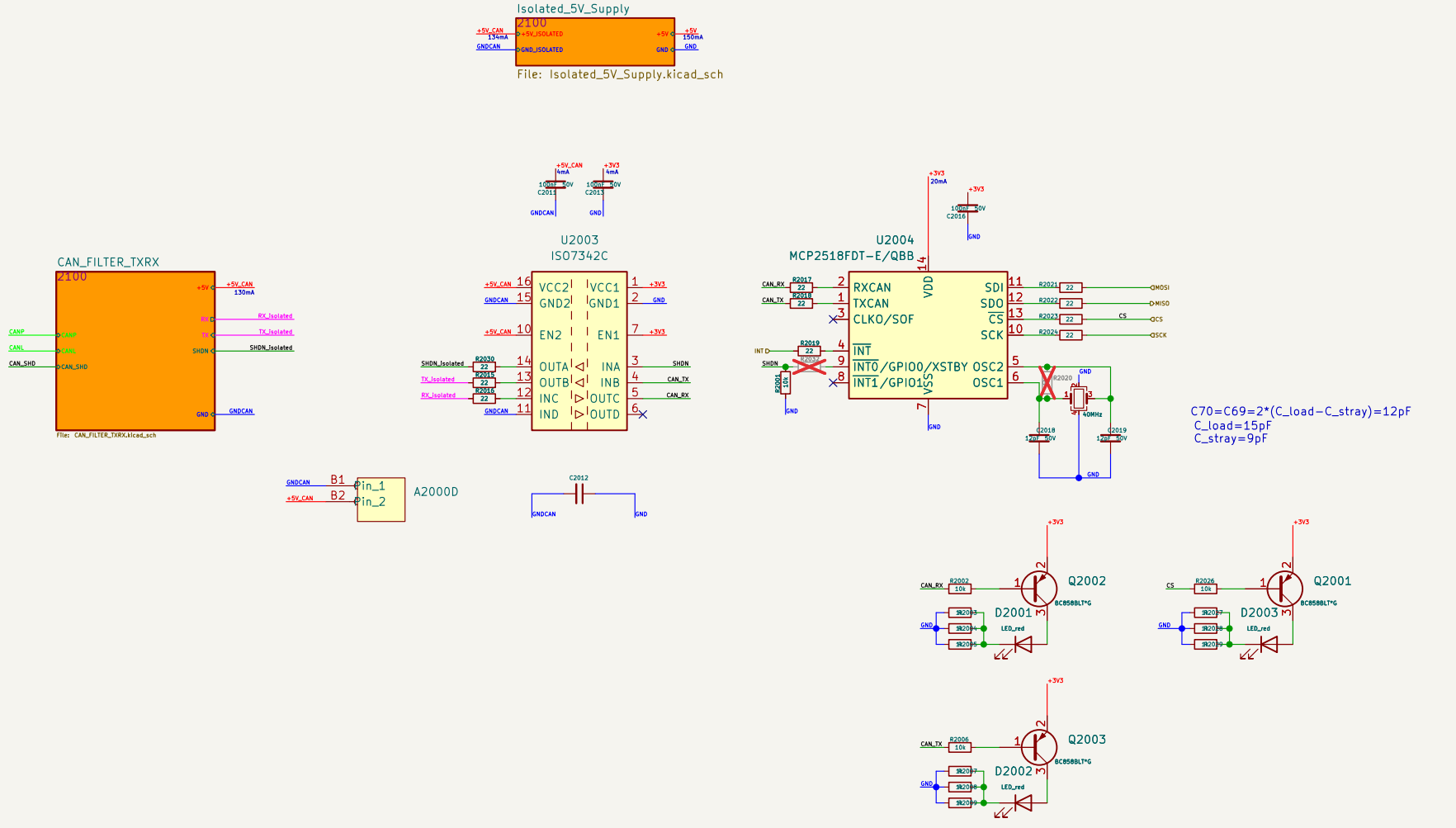
Sheet: /CAN Top/
File: CAN_top.kicad_sch

Title: Pi-HAT+: CAN-FD-SIC

Size: A4	Date: 2026-03-25	**Rev: B - final**
KiCad E.D.A. 10.0.3		Id: 12/8


Isolated_5V_Supply
2100
+5V_CAN
134mA
GNDCAN
+5V_ISOLATED
GND_ISOLATED
+5V
150mA
GND
File: Isolated_5V_Supply.kicad_sch
CANP
CANL
CAN_SHD
CAN_FILTER_TXRX
2100
+5V_CAN
130mA
RX_Isolated
TX_Isolated
SHDN_Isolated
GNDCAN
File: CAN_FILTER_TXRX.kicad_sch
U2003
ISO7342C
VCC2
GND2
EN2
OUTA
OUTB
INC
IND
VCC1
GND1
EN1
INA
INB
OUTC
OUTD
SHDN_Isolated
TX_Isolated
RX_Isolated
SHDN
CAN_TX
CAN_RX
U2004
MCP2518FDT-E/QBB
RXCAN
TXCAN
CLKO/SOF
INT
INT0/GPIO0/XSTBY
INT1/GPIO1
VDD
VSS
SDI
SDO
CS
SCK
OSC2
OSC1
MOSI
MISO
SCK
40MHz
C70=C69=2*(C_load-C_stray)=12pF
C_load=15pF
C_stray=9pF
A2000D
Pin_1
Pin_2
Q2002
Q2001
Q2003
D2001
D2003
D2002
LED_red
BC858BLT*G
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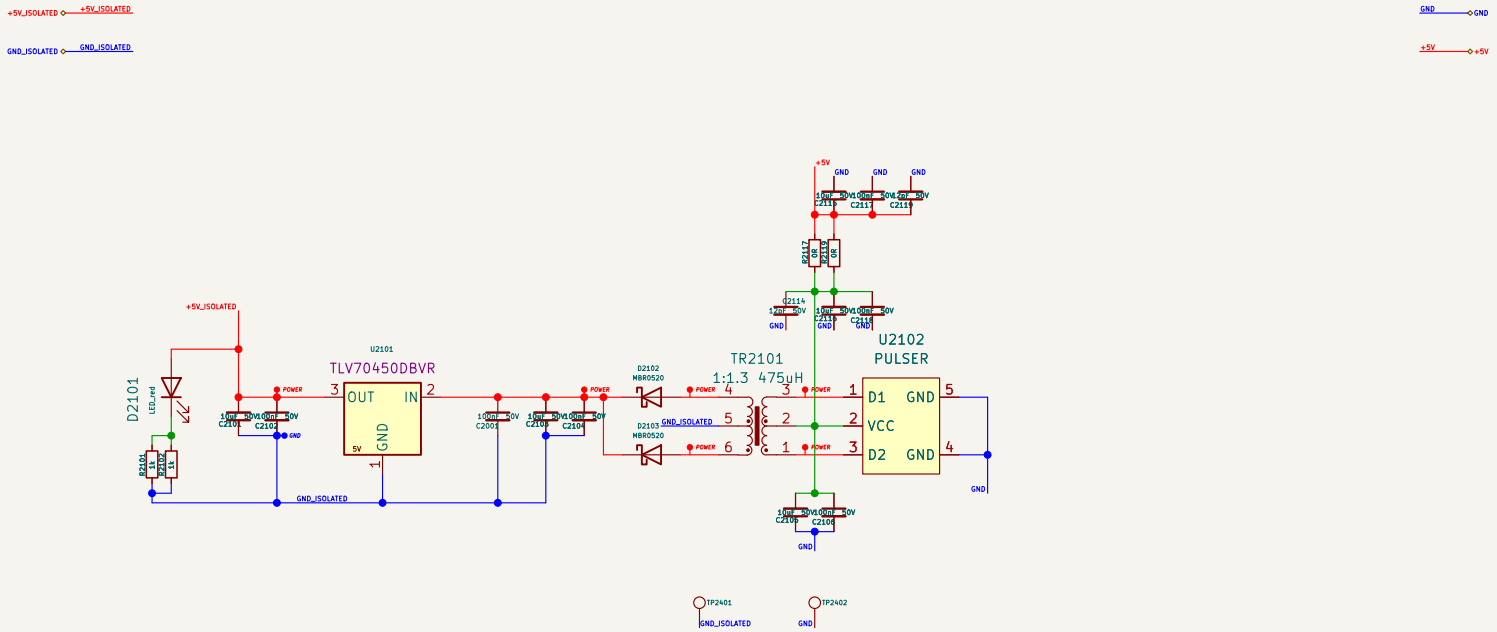
Sheet: /CAN Top/CAN_ISOLATED_SPI/
File: CAN_ISOLATED_SPI_sch.kicad_sch
Title: Pi-HAT+: CAN-FD-SIC
Size: A4
Date: 2026-03-25
KiCad E.D.A. 10.0.3
Rev: B - final
Id: 2/8



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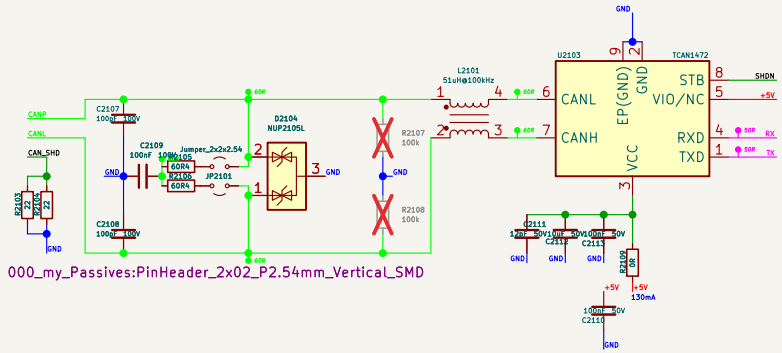
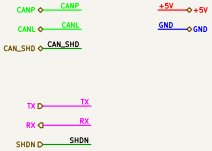
Sheet: /CAN Top/CAN_ISOLATED_SPI/Isolated_5V_Supply/ File: Isolated_5V_Supply.kicad_sch	
Title: Pi-HAT+: isolated 5V supply	
Size: A4	Date: 2026-03-25
KiCad E.D.A. 10.0.3	**Rev: B – final** Id: 27/8





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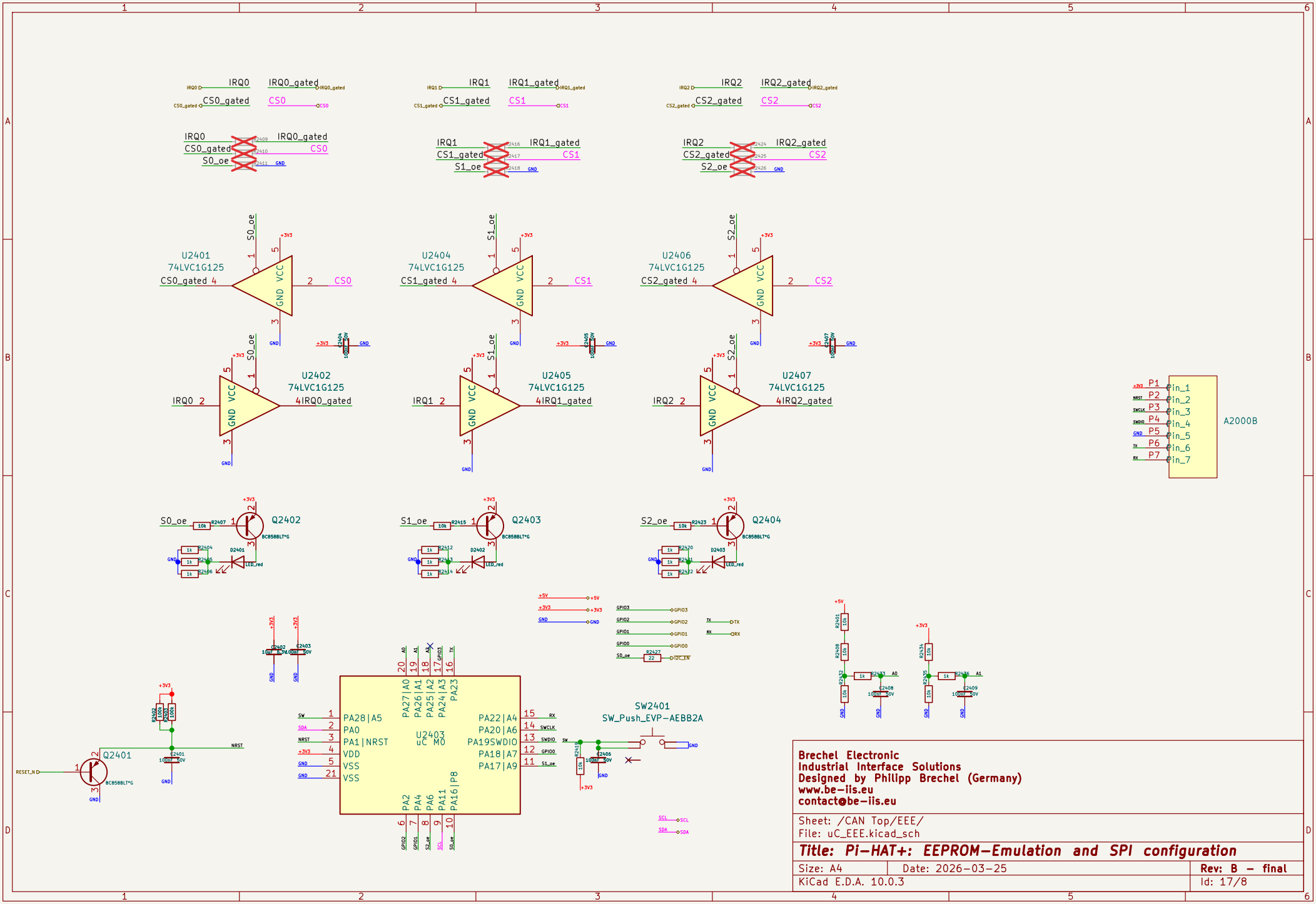
Sheet: /CAN Top/CAN_ISOLATED_SPI/CAN_FILTER_TXRX/
File: CAN_FILTER_TXRX.kicad_sch

Title: Pi-HAT+: CAN - PHY

Size: A4	Date: 2026-03-25	**Rev: B - final**
KiCad E.D.A. 10.0.3		Id: 28/8


IRQ0
IRQ0_gated
CS0_gated
CS0
IRQ1
IRQ1_gated
CS1_gated
CS1
IRQ2
IRQ2_gated
CS2_gated
CS2
S0_oe
S1_oe
S2_oe
U2401
74LVC1G125
U2402
U2404
U2405
U2406
U2407
A2000B
Q2401
Q2402
Q2403
Q2404
U2403
uC M0
SW2401
SW_Push_EVP-AEBB2A
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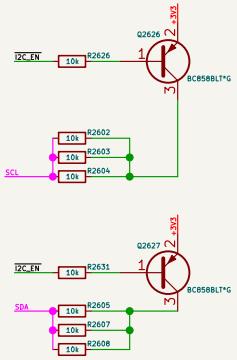
Sheet: /CAN Top/EEE/
File: uC_EEE.kicad_sch
Title: Pi-HAT+: EEPROM-Emulation and SPI configuration
Size: A4
Date: 2026-03-25
Rev: B - final
KiCad E.D.A. 10.0.3
Id: 17/8



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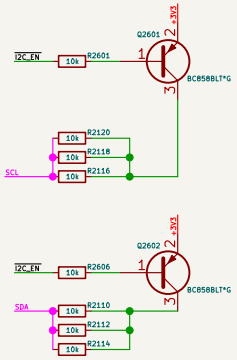
Sheet: /CAN Top/I2C_Pull-Up_EN/
File: I2C_Pull-Up_EN.kicad_sch

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

Size: A4	Date: 2026-03-25	**Rev: B - final**
KiCad E.D.A. 10.0.3		Id: 35/8



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Sheet: /CAN 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. 10.0.3		Id: 38/8