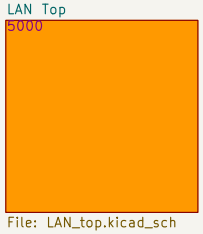
BE-IIS-HAT++LAN-Rev.B
Brechel Electronic
Industrie Interface Solutions
www.be-iis.eu



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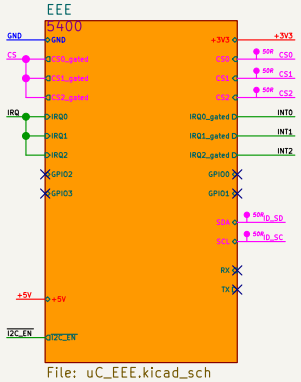
Designed by Philipp Brechel (Germany)

Sheet: /
File: BRECHEL_HAT_LAN.kicad_sch

Title: Pi-HAT+: LAN

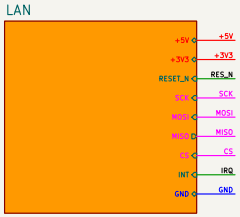
Size: A4	Date: 2026-3-25	**Rev: B**
KiCad E.D.A. 10.0.3		Id: 1/6

HAT+ EEprom



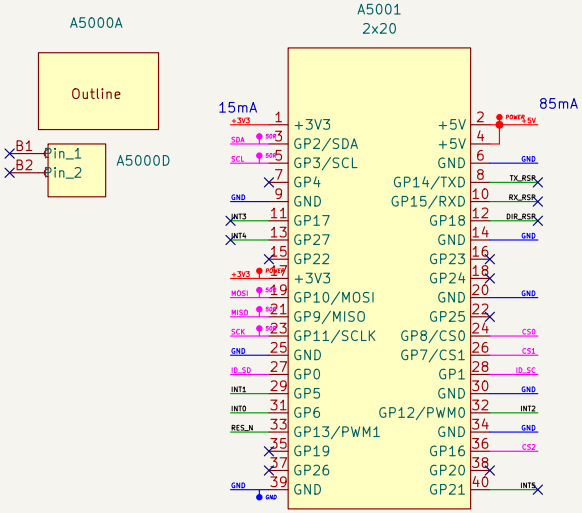
File: uC_EEE.kicad_sch

LAN

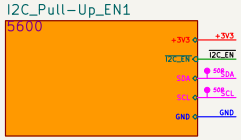


File: LAN.kicad_sch

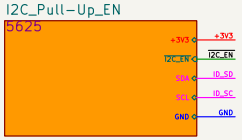
Pi Pinout



Pul-ups



File: I2C_Pull-Up_EN.kicad_sch



File: I2C_Pull-Up_EN.kicad_sch

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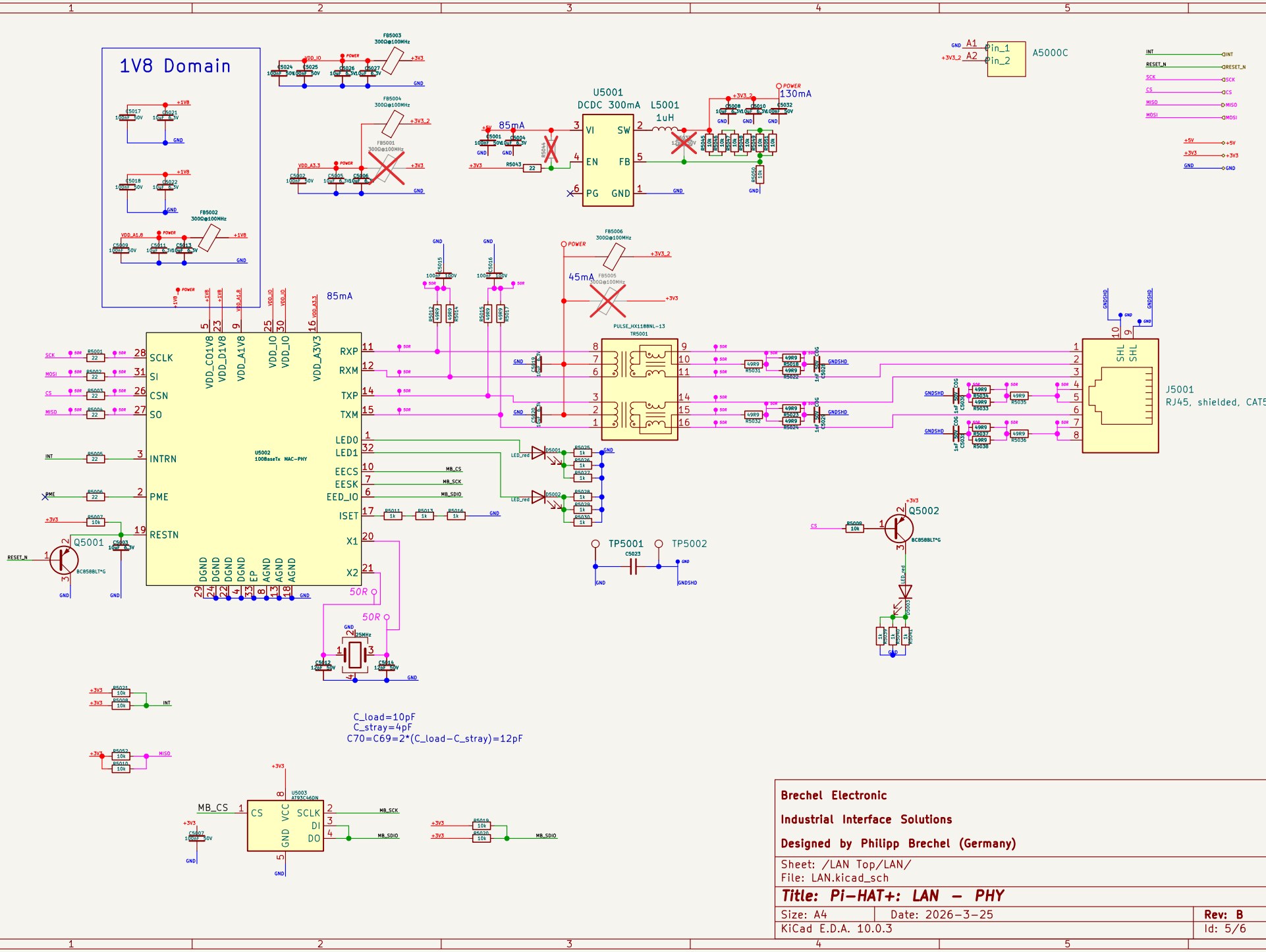
Sheet: /LAN Top/
File: LAN_top.kicad_sch

Title: Pi-HAT+: LAN

Size: A4	Date: 2026-3-25	**Rev: B**
KiCad E.D.A. 10.0.3		Id: 10/6


1V8 Domain
U5001
DCDC 300mA L5001
1uH
85mA
130mA
45mA
U5002
100BaseTx MAC-PHY
SCLK
SI
CSN
SO
INTRN
PME
RESTN
RXP
RXM
TXP
TXM
LED0
LED1
EECS
EESK
EED_IO
ISET
X1
X2
Q5001
Q5002
TR5001
PULSE_HX1188NL-13
J5001
RJ45, shielded, CAT5
A5000C
U5003
AT93C46DN
MB_CS
MB_SCK
MB_SDIO
C_load=10pF
C_stray=4pF
C70=C69=2*(C_load-C_stray)=12pF
TP5001
TP5002
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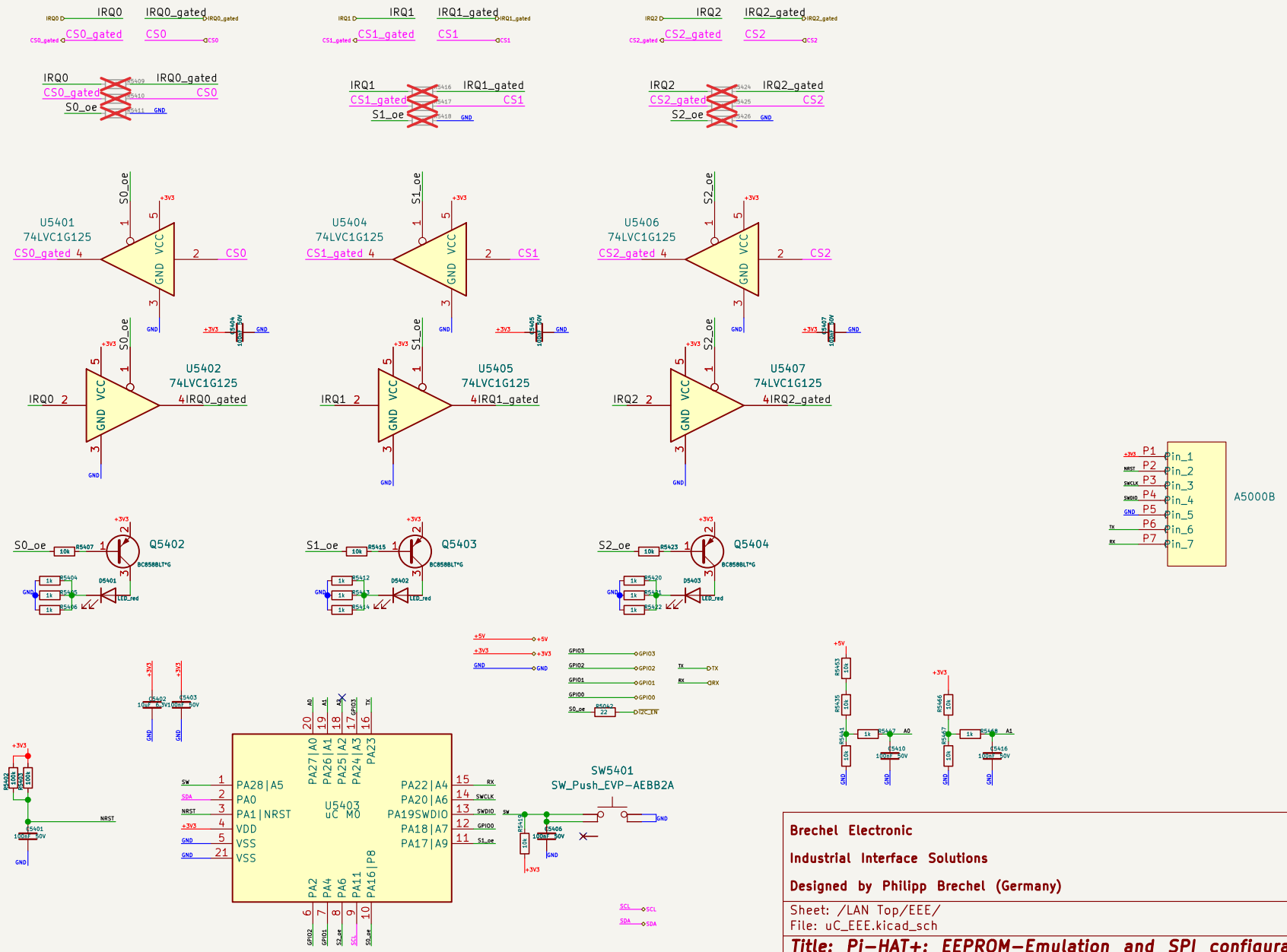
Sheet: /LAN Top/LAN/
File: LAN.kicad_sch
Title: Pi-HAT+: LAN - PHY
Size: A4
Date: 2026-3-25
Rev: B
KiCad E.D.A. 10.0.3
Id: 5/6


IRQ0
IRQ0_gated
CS0_gated
CS0
IRQ1
IRQ1_gated
CS1_gated
CS1
IRQ2
IRQ2_gated
CS2_gated
CS2
S0_oe
S1_oe
S2_oe
U5401
74LVC1G125
U5402
U5404
U5405
U5406
U5407
Q5402
Q5403
Q5404
BC858BLT*G
LED_red
A5000B
U5403
uC M0
SW5401
SW_Push_EVP-AEBB2A
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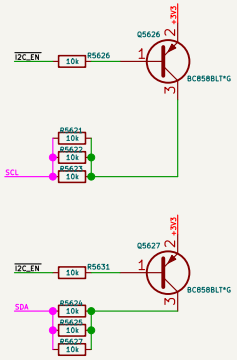
Designed by Philipp Brechel (Germany)
Sheet: /LAN Top/EEE/
File: uC_EEE.kicad_sch
Title: Pi-HAT+: EEPROM-Emulation and SPI configuration
Size: A4
Date: 2026-3-25
Rev: B
KiCad E.D.A. 10.0.3
Id: 16/6



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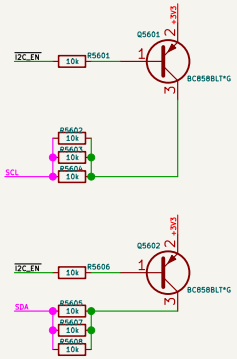
Sheet: /LAN Top/I2C_Pull-Up_EN/
File: I2C_Pull-Up_EN.kicad_sch

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

Size: A4	Date: 2026-3-25	**Rev: B**
KiCad E.D.A. 10.0.3		Id: 36/6



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Sheet: /LAN Top/I2C_Pull-Up_EN1/
File: I2C_Pull-Up_EN.kicad_sch

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

Size: A4	Date: 2026-3-25	**Rev: B**
KiCad E.D.A. 10.0.3		Id: 39/6