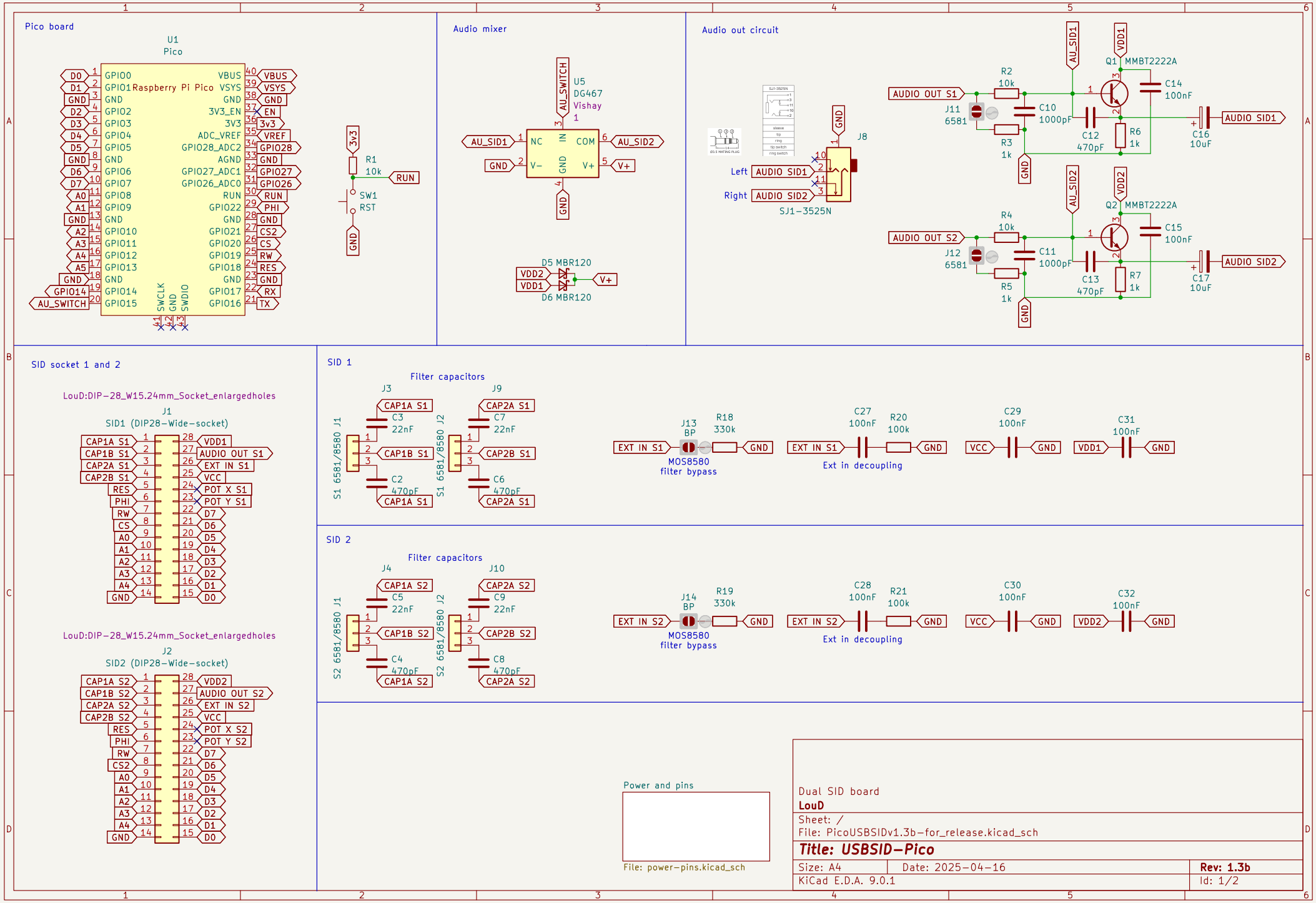
Pico board
U1
Pico
Raspberry Pi Pico
GPIO0 GPIO1 GND GPIO2 GPIO3 GPIO4 GPIO5 GND GPIO6 GPIO7 GPIO8 GPIO9 GND GPIO10 GPIO11 GPIO12 GPIO13 GND GPIO14 GPIO15
VBUS VSYS GND 3V3_EN 3V3 ADC_VREF GPIO28_ADC2 AGND GPIO27_ADC1 GPIO26_ADC0 RUN GPIO22 GND GPIO21 GPIO20 GPIO19 GPIO18 GND GPIO17 GPIO16
SWCLK GND SWDIO
D0 D1 GND D2 D3 D4 D5 GND D6 D7 A0 A1 GND A2 A3 A4 A5 GND GPIO14 AU_SWITCH
VBUS VSYS GND EN 3v3 VREF GPIO28 GND GPIO27 GPIO26 RUN PHI GND CS2 CS RW RES GND RX TX
3v3
R1
10k
RUN
SW1
RST
GND
Audio mixer
U5
DG467
Vishay
AU_SWITCH
AU_SID1
GND
NC IN COM
V− GND V+
AU_SID2
V+
D5 MBR120
D6 MBR120
VDD2
VDD1
Audio out circuit
SJ1-3525N
J8
Left AUDIO SID1
Right AUDIO SID2
AUDIO OUT S1
AUDIO OUT S2
J11 6581
J12 6581
R2 10k
R3 1k
R4 10k
R5 1k
C10 1000pF
C11 1000pF
C12 470pF
C13 470pF
R6 1k
R7 1k
Q1 MMBT2222A
Q2 MMBT2222A
C14 100nF
C15 100nF
C16 10uF
C17 10uF
AUDIO SID1
AUDIO SID2
SID socket 1 and 2
LouD:DIP-28_W15.24mm_Socket_enlargedholes
J1
SID1 (DIP28-Wide-socket)
CAP1A S1 CAP1B S1 CAP2A S1 CAP2B S1 RES PHI RW CS A0 A1 A2 A3 A4 GND
VDD1 AUDIO OUT S1 EXT IN S1 VCC POT X S1 POT Y S1 D7 D6 D5 D4 D3 D2 D1 D0
LouD:DIP-28_W15.24mm_Socket_enlargedholes
J2
SID2 (DIP28-Wide-socket)
CAP1A S2 CAP1B S2 CAP2A S2 CAP2B S2 RES PHI RW CS2 A0 A1 A2 A3 A4 GND
VDD2 AUDIO OUT S2 EXT IN S2 VCC POT X S2 POT Y S2 D7 D6 D5 D4 D3 D2 D1 D0
SID 1
Filter capacitors
J3
J9
S1 6581/8580 J1
S1 6581/8580 J2
CAP1A S1
CAP1B S1
CAP2A S1
CAP2B S1
C3 22nF
C2 470pF
C7 22nF
C6 470pF
J13 BP
MOS8580 filter bypass
R18 330k
EXT IN S1
GND
C27 100nF
R20 100k
Ext in decoupling
C29 100nF
VCC
C31 100nF
VDD1
SID 2
Filter capacitors
J4
J10
S2 6581/8580 J1
S2 6581/8580 J2
CAP1A S2
CAP1B S2
CAP2A S2
CAP2B S2
C5 22nF
C4 470pF
C9 22nF
C8 470pF
J14 BP
MOS8580 filter bypass
R19 330k
EXT IN S2
C28 100nF
R21 100k
Ext in decoupling
C30 100nF
C32 100nF
VDD2
Power and pins
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Dual SID board
LouD
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Title: USBSID-Pico
Size: A4
Date: 2025-04-16
Rev: 1.3b
KiCad E.D.A. 9.0.1
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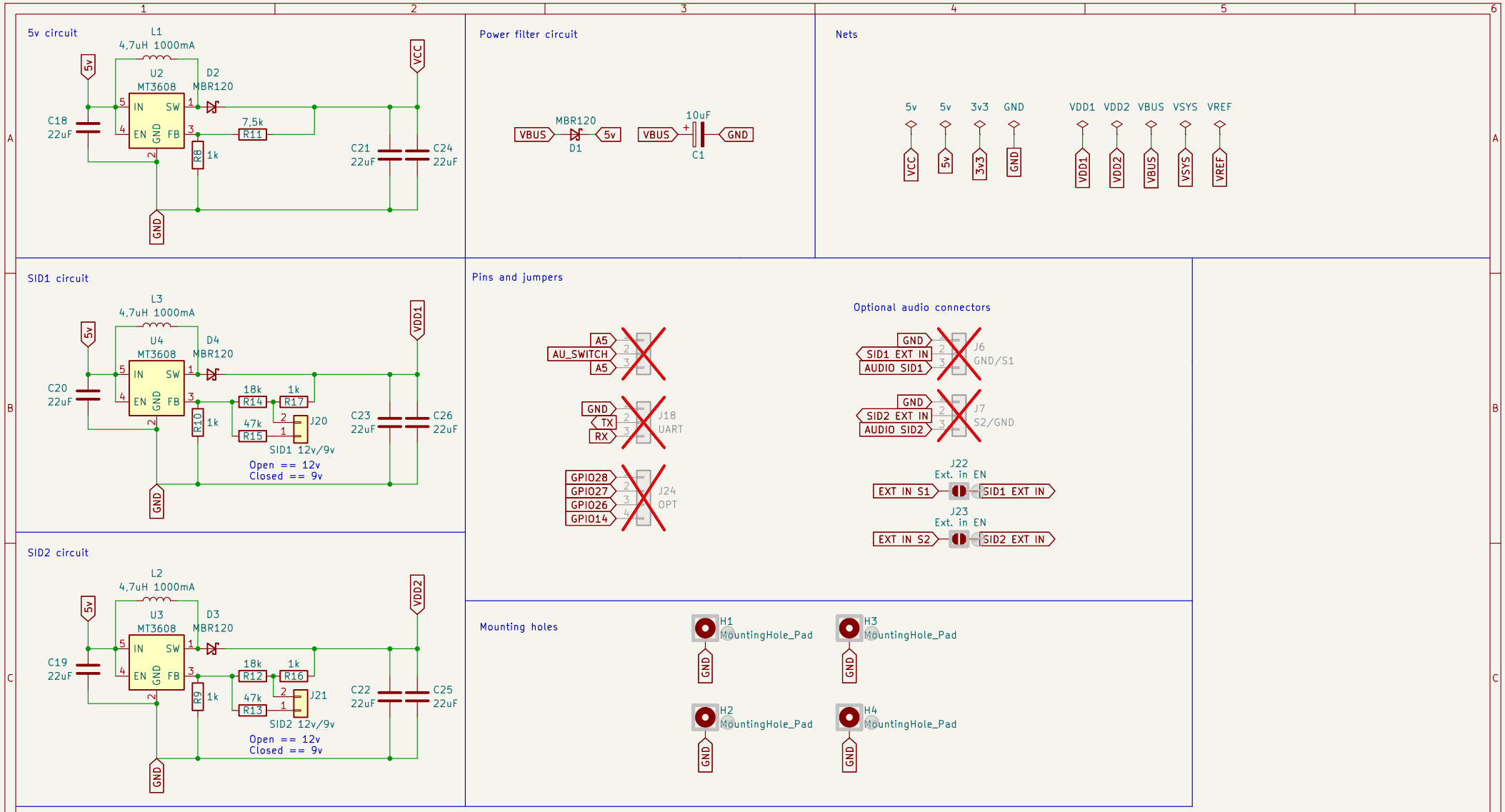

Dual SID board

LouD

Sheet: /Power and pins/

File: power-pins.kicad_sch

Title: USBSID-Pico

Size: A4	Date: 2025-04-16	**Rev: 1.3b**
KiCad E.D.A. 9.0.1		Id: 2/2