

Created By: C Sutton

Sheet: /VCA_SSI2164/VCA_RC_Network_L2/

File: vca_rc_network.kicad_sch

Title: Tiny4xPoweredStereoMixer

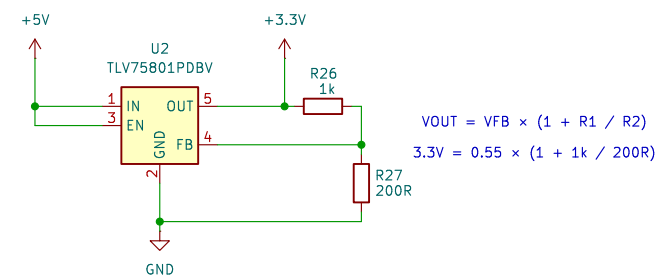
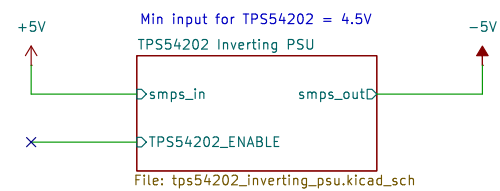
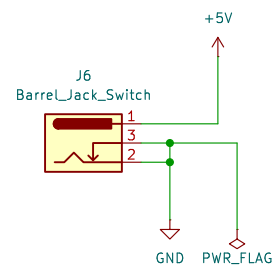
Size: A4

Date: 2024-10-22

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Created By: C Sutton

Sheet: /PSU/
File: PSU.kicad_sch

Title: *Tiny4xPoweredStereoMixer*

Size: A3

Date: 2024-10-22

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Size: A3	
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Power Sequencing

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See DAC7118 sheet

DVDD_ENABLE ☐

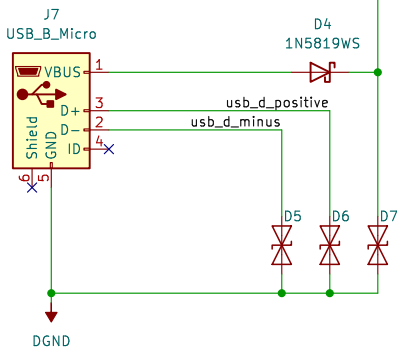
AVDD_ENABLE ☐

VREF_ENABLE ☐

JTAG SETUP:

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<https://docs.espressif.com/projects/esp-idf/en/stable/esp32s3/api-guides/jtag-debugging/configure-builtin-jtag.html>



ESPS3 SPI

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https://github.com/espressif/esp-idf/tree/v5.3.2/examples/peripherals/spi_master/lcd

DAC_SPI_CS ☐ FSPWP

DAC_SPI_MOSI ☐ FSPQ

DAC_SPI_CLK ☐ FSPCLK

DAC_WAKEUP ☐

DAC_RST ☐

DAC_LDAC ☐

DAC_CLR ☐

ESPS3 PCNT

=====

https://github.com/espressif/esp-idf/tree/v5.3.2/examples/peripherals/pcnt/rotary_encoder

ENCODER1_AD ☐

ENCODER1_BD ☐

ENCODER1_SWD ☐

ENCODER2_AD ☐

ENCODER2_BD ☐

ENCODER2_SWD ☐

ENCODER3_AD ☐

ENCODER3_BD ☐

ENCODER3_SWD ☐

ENCODER4_AD ☐

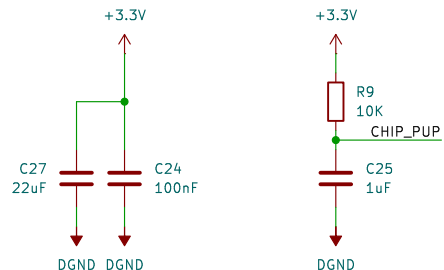
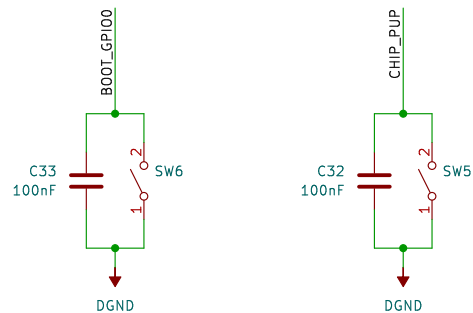
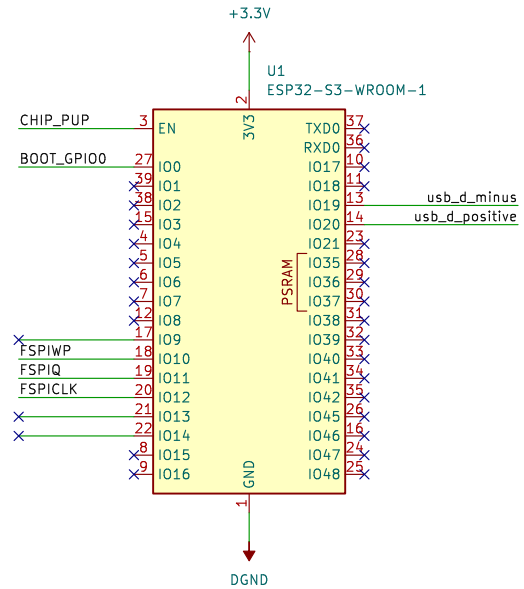
ENCODER4_BD ☐

ENCODER4_SWD ☐

ESP32-S3 datasheet

ESP32-S3-WROOM-1 datasheet

ESP32-S3-DevKitC-1_V1.1 Schematic



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Sheet: /ESP32-S3/

File: mcu.kicad_sch

Title: Tiny4xPoweredStereoMixer

Size: A4

Date: 2024-10-22

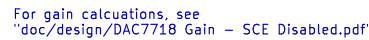
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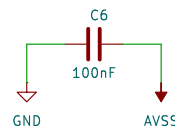
Id: 4/16

DAC7718 Datasheet

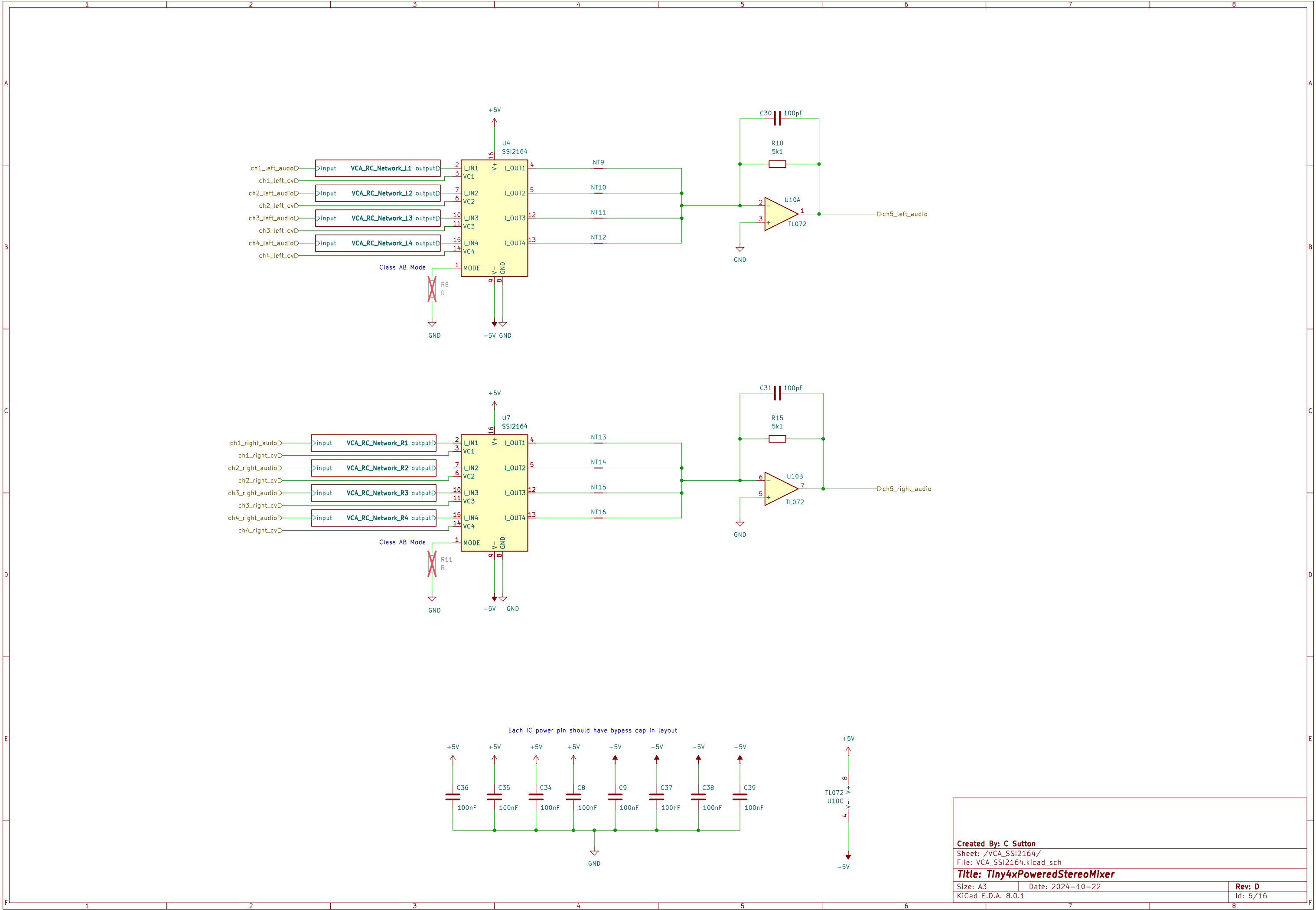
- IOVDD
- DVDD
- AVDD/AVSS
- reference voltage

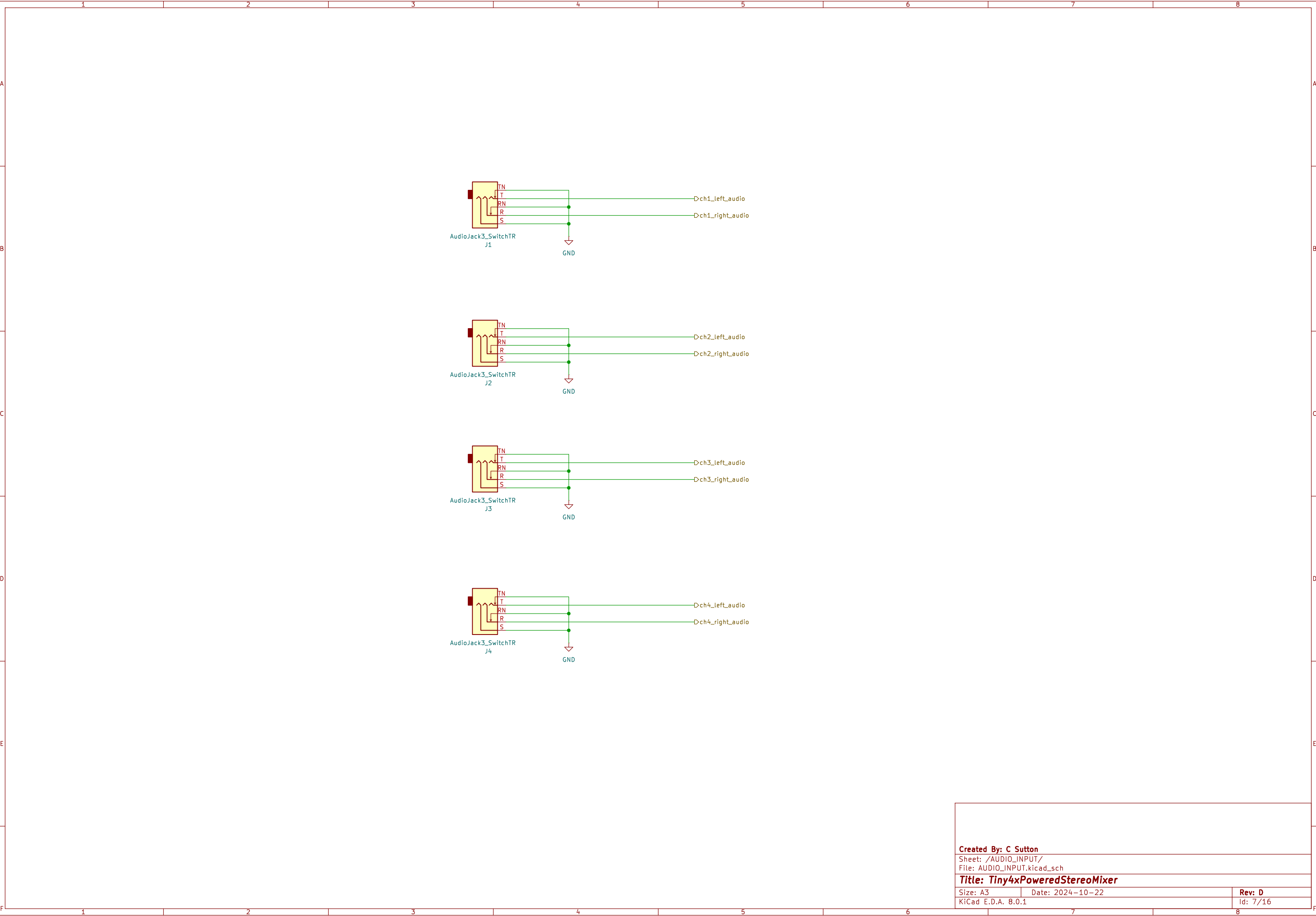


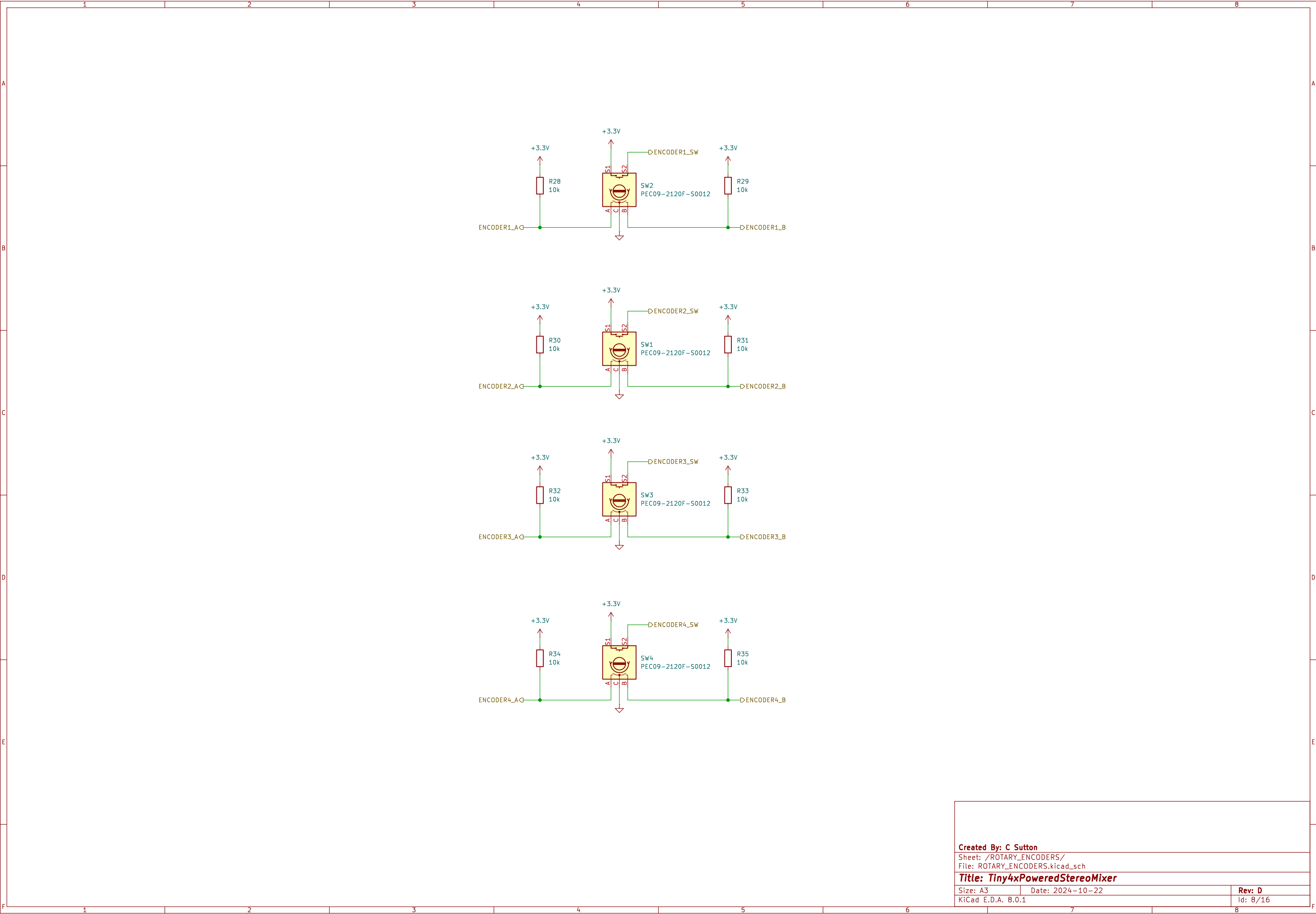
LDAC: Update DAC outputs. Join JP4 for async mode.
CS: SPI bus chip select
WAKEUP: Restore SPI from sleep mode
RSTSEL: $V_{out} = 0v$
or
 $V_{out} = -Fullscale$ (join JP1+JP3 and cut JP2)
CLR: All V_{out} pins connected to AGND

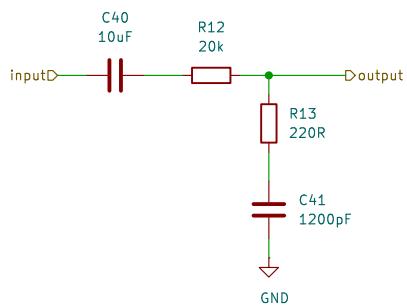


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Sheet: /VCA_SSI2164/VCA_RC_Network_L1/

File: vca_rc_network.kicad_sch

Title: Tiny4xPoweredStereoMixer

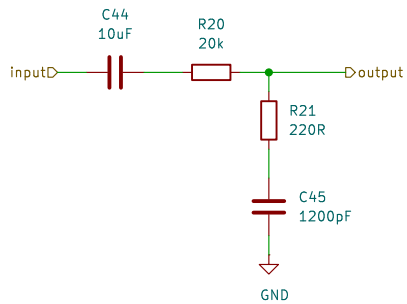
Size: A4

Date: 2024-10-22

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Id: 9/16



Created By: C Sutton

Sheet: /VCA_SSI2164/VCA_RC_Network_L3/
File: vca_rc_network.kicad_sch

Title: Tiny4xPoweredStereoMixer

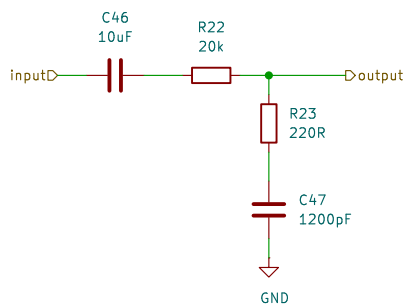
Size: A4

Date: 2024-10-22

Rev: D

KiCad E.D.A. 8.0.1

Id: 10/16



Created By: C Sutton

Sheet: /VCA_SSI2164/VCA_RC_Network_L4/

File: vca_rc_network.kicad_sch

Title: Tiny4xPoweredStereoMixer

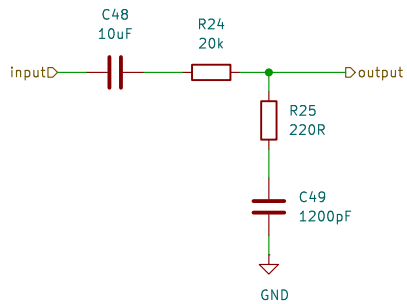
Size: A4

Date: 2024-10-22

Rev: D

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Id: 11/16



Created By: C Sutton

Sheet: /VCA_SSI2164/VCA_RC_Network_R1/
File: vca_rc_network.kicad_sch

Title: Tiny4xPoweredStereoMixer

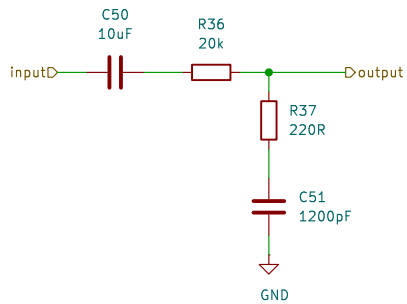
Size: A4

Date: 2024-10-22

Rev: D

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Id: 12/16



Created By: C Sutton

Sheet: /VCA_SSI2164/VCA_RC_Network_R2/

File: vca_rc_network.kicad_sch

Title: Tiny4xPoweredStereoMixer

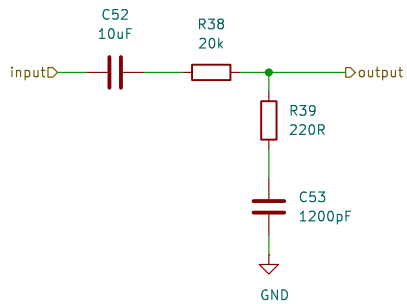
Size: A4

Date: 2024-10-22

Rev: D

KiCad E.D.A. 8.0.1

Id: 13/16



Created By: C Sutton

Sheet: /VCA_SSI2164/VCA_RC_Network_R3/
File: vca_rc_network.kicad_sch

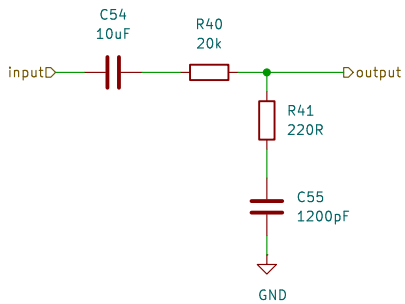
Title: Tiny4xPoweredStereoMixer

Size: A4 Date: 2024-10-22

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Rev: D

Id: 14/16



Created By: C Sutton

Sheet: /VCA_SSI2164/VCA_RC_Network_R4/
File: vca_rc_network.kicad_sch

Title: Tiny4xPoweredStereoMixer

Size: A4

Date: 2024-10-22

Rev: D

KiCad E.D.A. 8.0.1

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