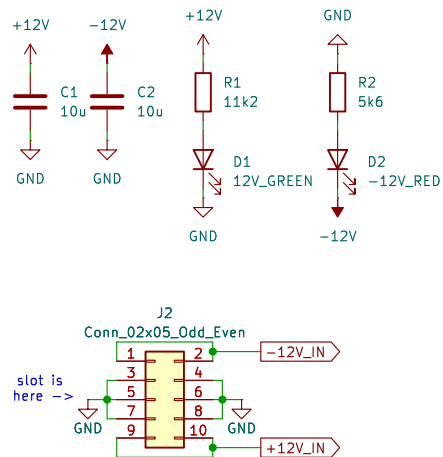
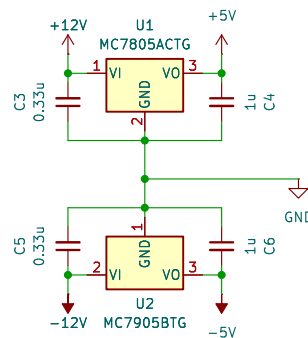


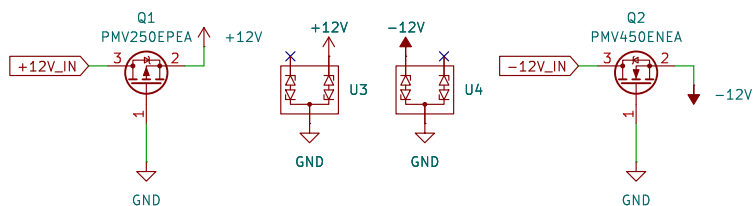
Power IN



+ -5V Power



Reverse Polarity Protection and Transient Protection



Input Power
Saal 2025

Sheet: /Power/
File: power.kicad_sch

Title: Analog Computer Math Module

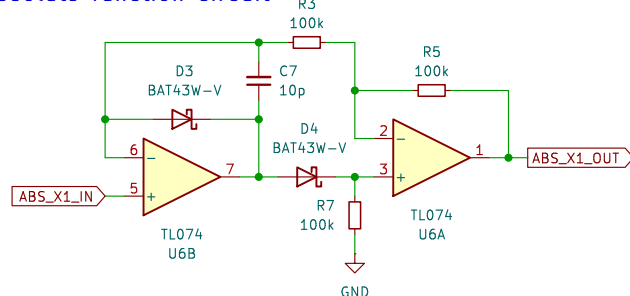
Size: A4 Date: 2025-01-29

KiCad E.D.A. 8.0.8

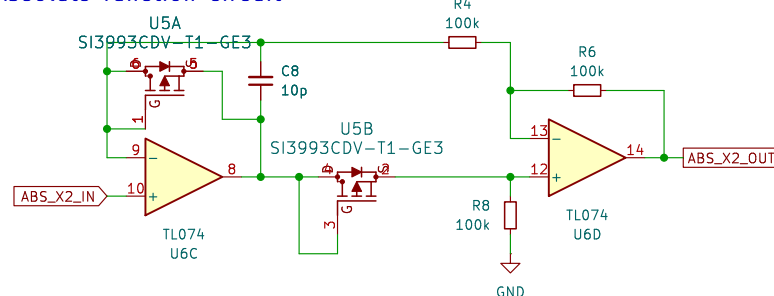
Rev: 1

Id: 2/6

Absolute function circuit

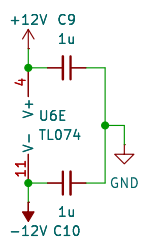


Absolute function circuit



I want to test, if couples mosfets on the same substrate perform better than diodes

Power



Absolute Function

Saal 2025

Sheet: /Absolute/

File: Absolute.kicad_sch

Title: Analog Computer Math Module

Size: A4

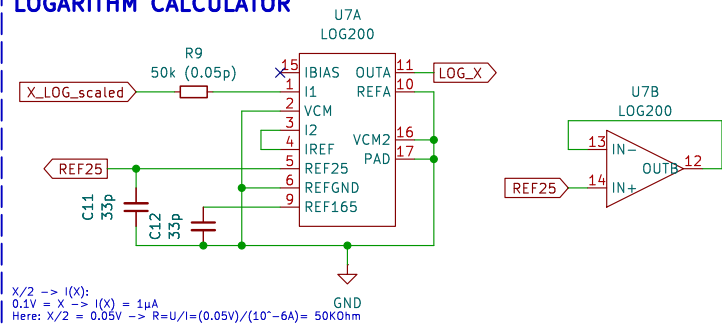
Date: 2025-01-29

Rev: 1

KiCad E.D.A. 8.0.8

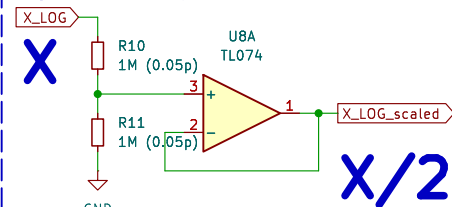
Id: 3/6

LOGARITHM CALCULATOR



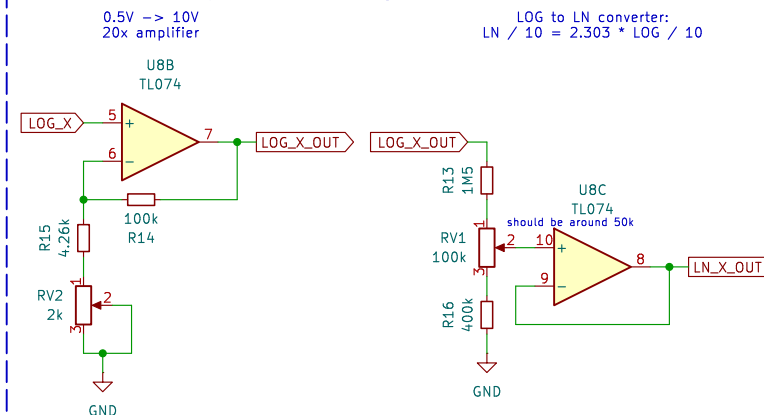
$X/2 \rightarrow I(X):$
 $0.1V = X \rightarrow I(X) = 1\mu A$ GND
 Here: $X/2 = 0.05V \rightarrow R = U/I = (0.05V)/(10^{-6}A) = 50K\Omega$

Signal IN, shape $\pm 10V \rightarrow \pm 5V$



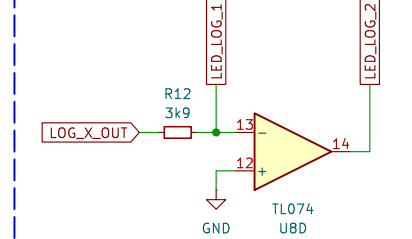
The LOG200 only accepts $\pm 5V$ on pins I1 and I2.

LOG and LN Output with scaling

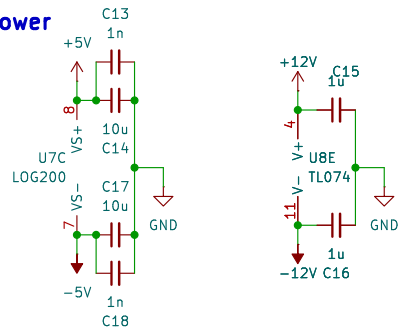


LOG to LN converter:
 $\text{LN} / 10 = 2.303 * \text{LOG} / 10$

LED indicator



Power



Logarithm Function

Saal 2025

Sheet: /Logarithm/

File: Logarithm.kicad_sch

Title: Analog Computer Math Module

Size: A4

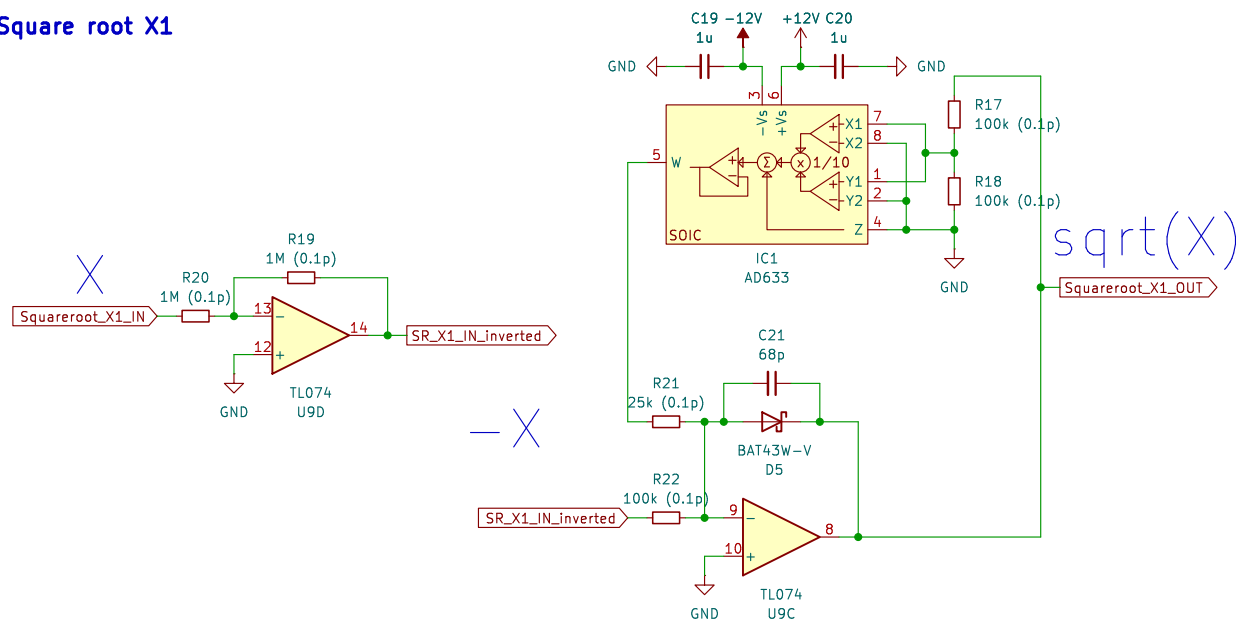
Date: 2025-01-29

KiCad E.D.A. 8.0.8

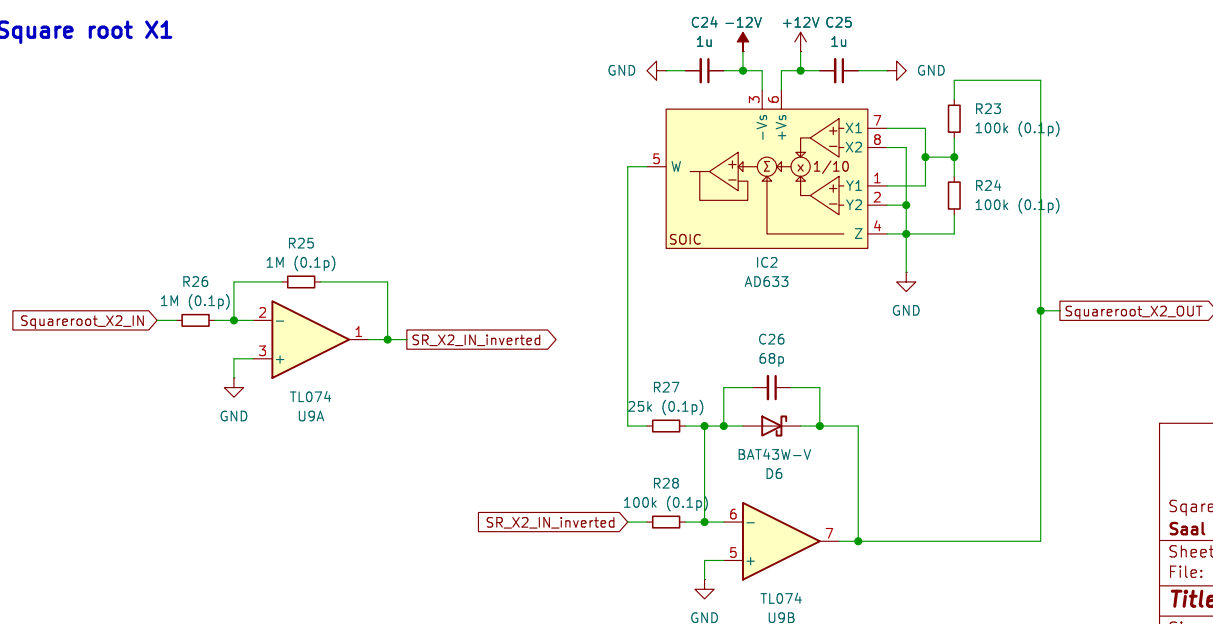
Rev: 1

Id: 4/6

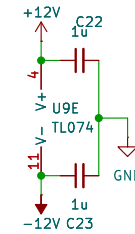
Square root X1



Square root X1



Power



Square-Root function
Saal 2025

Sheet: /Square-Root/
File: Squareroot.kicad_sch

Title: Analog Computer Math Module

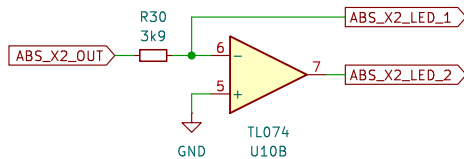
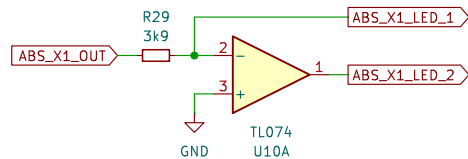
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KiCad E.D.A. 8.0.8

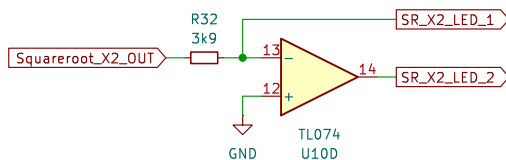
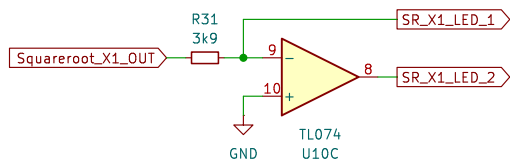
Rev: 1

Id: 5/6

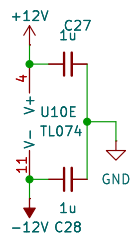
Absolute function Indicators



Squareroot function Indicators



Power



Saal 2025

Sheet: /Indicators_ABS_SR/

File: Indicators.kicad_sch

Title: Analog Computer Math Module

Size: A4

Date: 2025-01-29

Rev: 1

KiCad E.D.A. 8.0.8

Id: 6/6