

Current Transformers

J1 CT1 INPUT1
INP INN
OUTP OUTN
IP1 IN1
File: input.kicad_sch

J2 CT2 INPUT2
INP INN
OUTP OUTN
IP2 IN2
File: input.kicad_sch

J3 CT3 INPUT3
INP INN
OUTP OUTN
IP3 IN3
File: input.kicad_sch

J4 CT4 INPUT4
INP INN
OUTP OUTN
IP4 IN4
File: input.kicad_sch

J5 CT5 INPUT5
INP INN
OUTP OUTN
IP5 IN5
File: input.kicad_sch

J6 CT6 INPUT6
INP INN
OUTP OUTN
IP6 IN6
File: input.kicad_sch

J7 CT7 INPUT7
INP INN
OUTP OUTN
IP7 IN7
File: input.kicad_sch

J8 CT8 INPUT8
INP INN
OUTP OUTN
IP8 IN8
File: input.kicad_sch

J9 CT9 INPUT9
INP INN
OUTP OUTN
IP9 IN9
File: input.kicad_sch

J10 CT10 INPUT10
INP INN
OUTP OUTN
IP10 IN10
File: input.kicad_sch

Voltage Reference

J11 LINE
J14 NEUTRAL
T1 ZMPT107
R63 22K/1% R64 22K/1%
R65 22K/1% R66 22K/1% R67 22K/1%
R68 100/0.5% R69 1K/1% R70 1K/1%
C27 33nF C28 33nF
VN VP
GND

$$U2 = (U1 / R') * R$$

$$U2 = (230 / (22K * 5)) * 100$$

$$U2 = 0.209V \text{ RMS}, 0.295V \text{ Vpeak}$$
 Limit is $\pm 0.7V \text{ Vpeak}$

BL0910 Ten channel power metering

U1 BL-0910
C23 100nF
C24 100nF
C25 100nF
R61 0R
R62 2K
C26 1uF
+3.3V
GND
 NC: Uart 1: SPI
 IN1 IP1 IN2 IP2 IN3 IP3 IN4 IP4 IN5 IP5 IN6 IP6 IN7 IP7 IN8 IP8 IN9 IP9 IN10 IP10
 OUTP OUTN
 IRQ1 IRQ2 IRQ3 IRQ4 IRQ5 IRQ6
 SCLK SDI SDO CS1 CS2 CS3 CS4 CS5 CS6
 VPP VREF_I/O
 VP VN
 DVDD AVDD
 GND

Daisy chain interface

J12 Conn_02x10_Odd_Even
SDI SDO CS1 CS2 CS3 CS4 CS5 CS6
SCLK
GND
DaisyChain IN

J13 Conn_02x10_Odd_Even
SCLK SDO CS1 CS2 CS3 CS4 CS5 CS6
IRQ1 IRQ2 IRQ3 IRQ4 IRQ5 IRQ6
DaisyChain OUT

Linear Regulator

U3 AMS1117-3.3
C29 10uF C30 22uF
+5V +3.3V
GND

Capacitors

C21 100uF C31 100uF
+3.3V
GND

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Size: A4 Date: Rev:
KiCad E.D.A. 8.0.4 Id: 1/11

Daisy chain interface

Linear Regulator

Capacitors

$$U_2 = (U_1 / R') * R$$

$$U_2 = (230 / (22K * 5)) * 100$$

$$U_2 = 0.209V \text{ RMS}, 0.295V \text{ Vpeak}$$

Limit is $\pm 0.7V \text{ Vpeak}$

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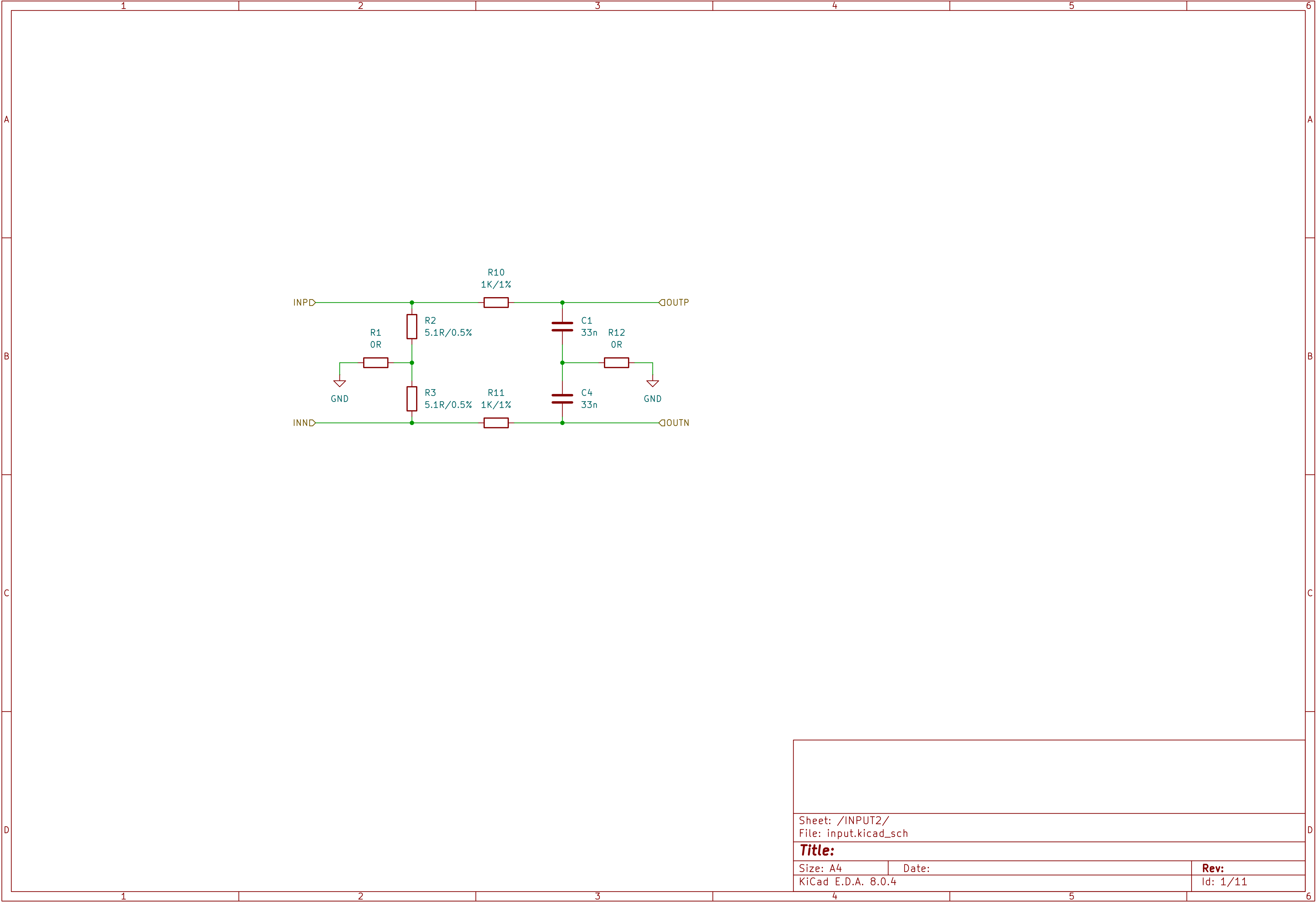
Title:

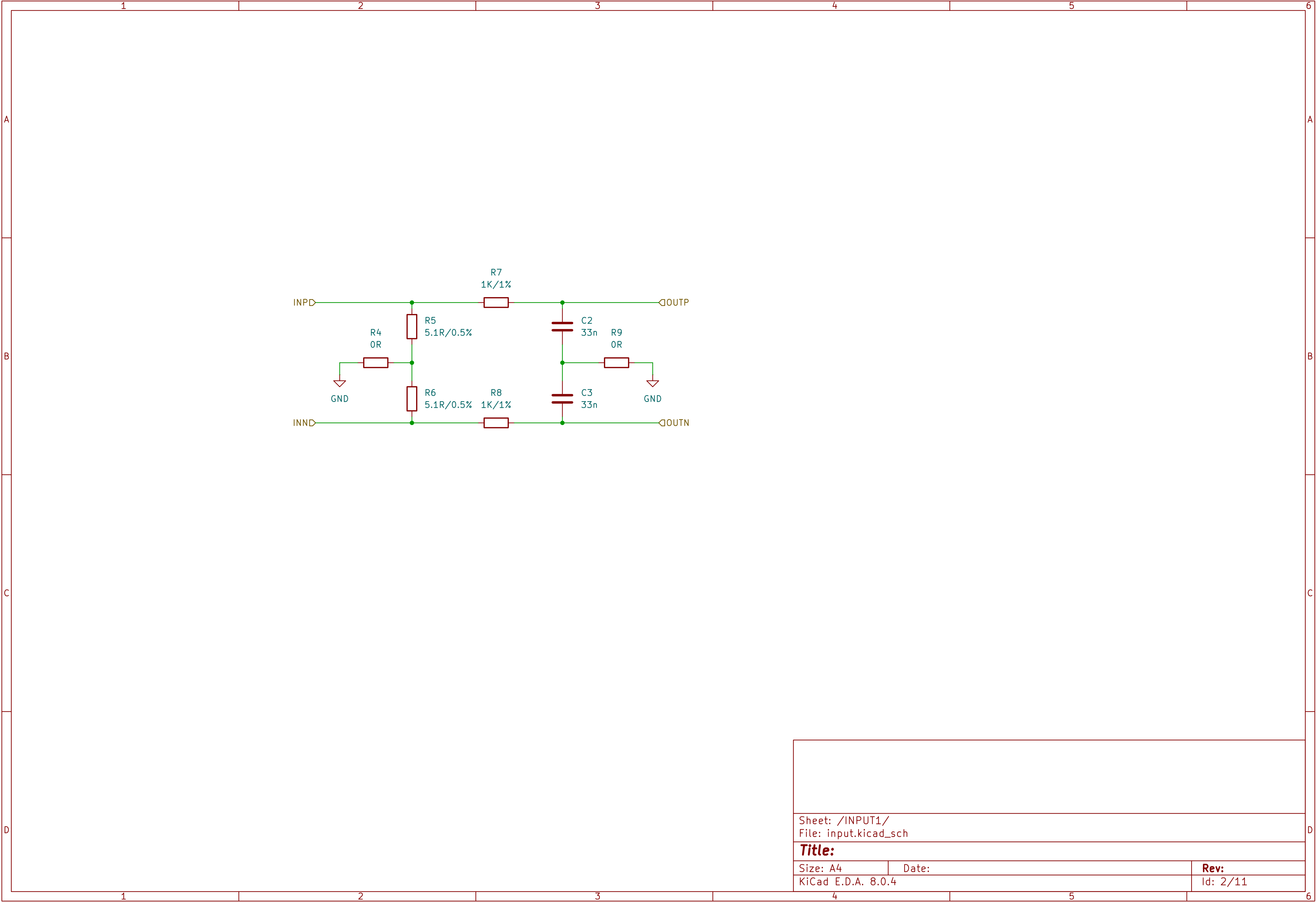
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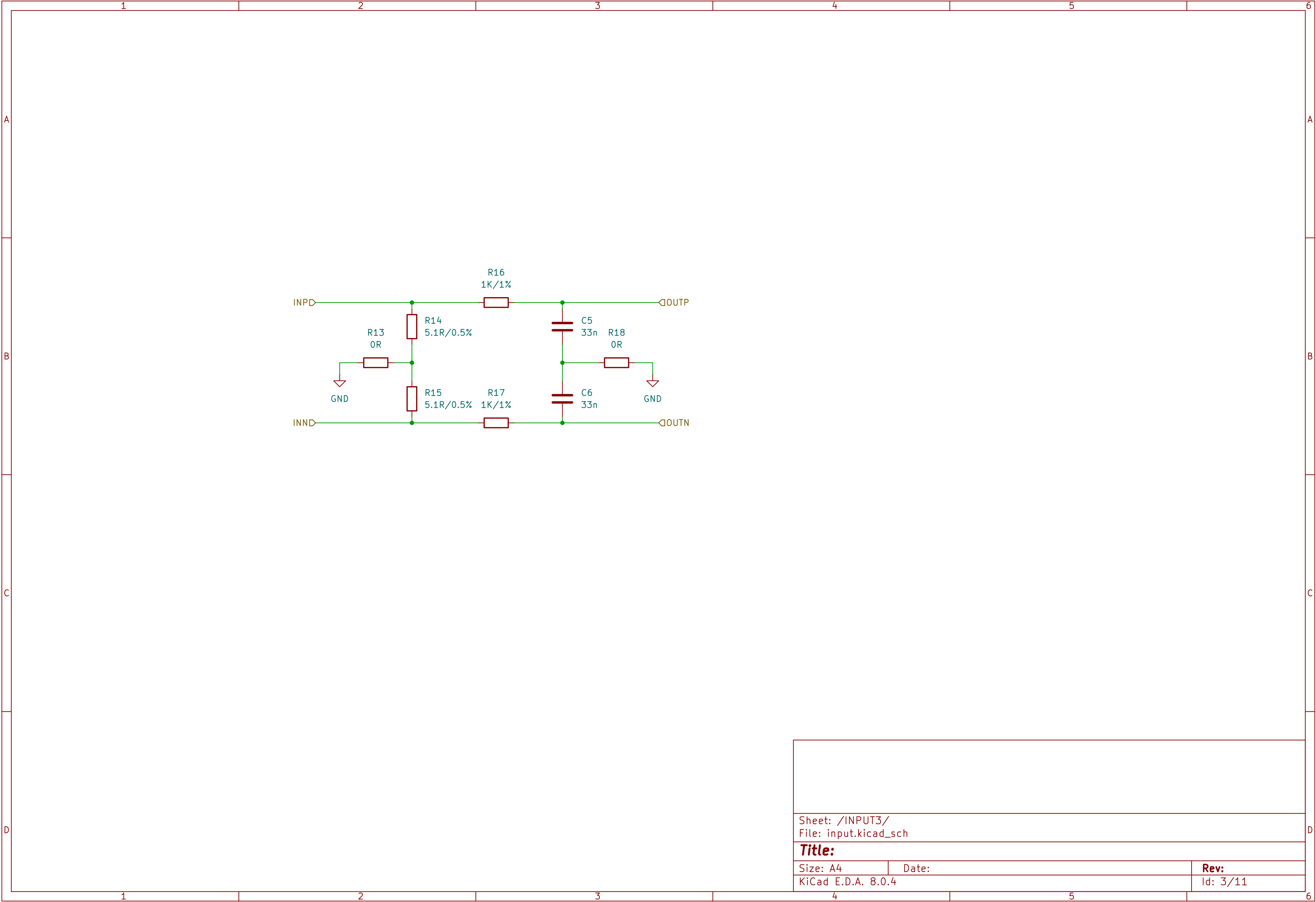
Date:

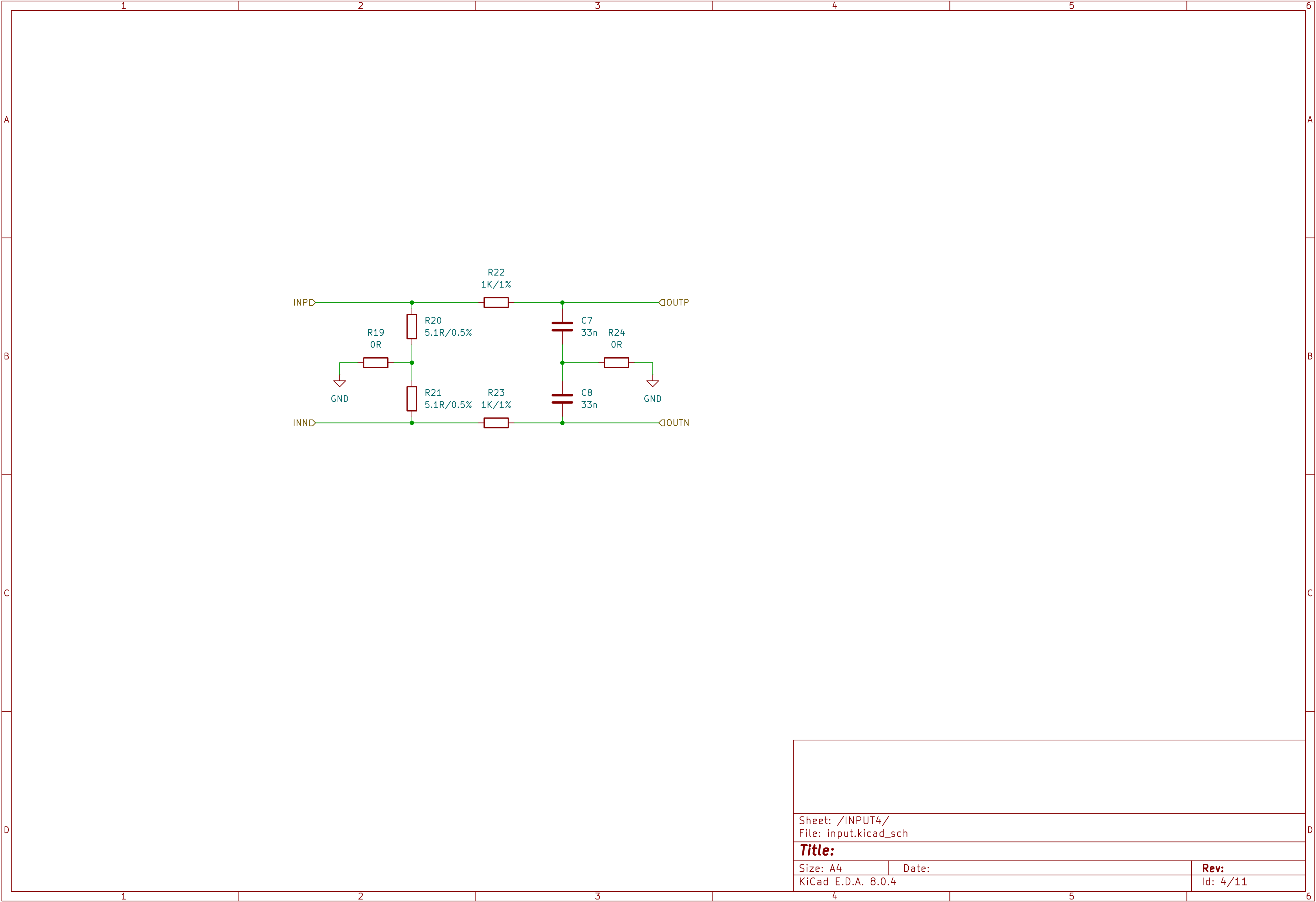
Rev:

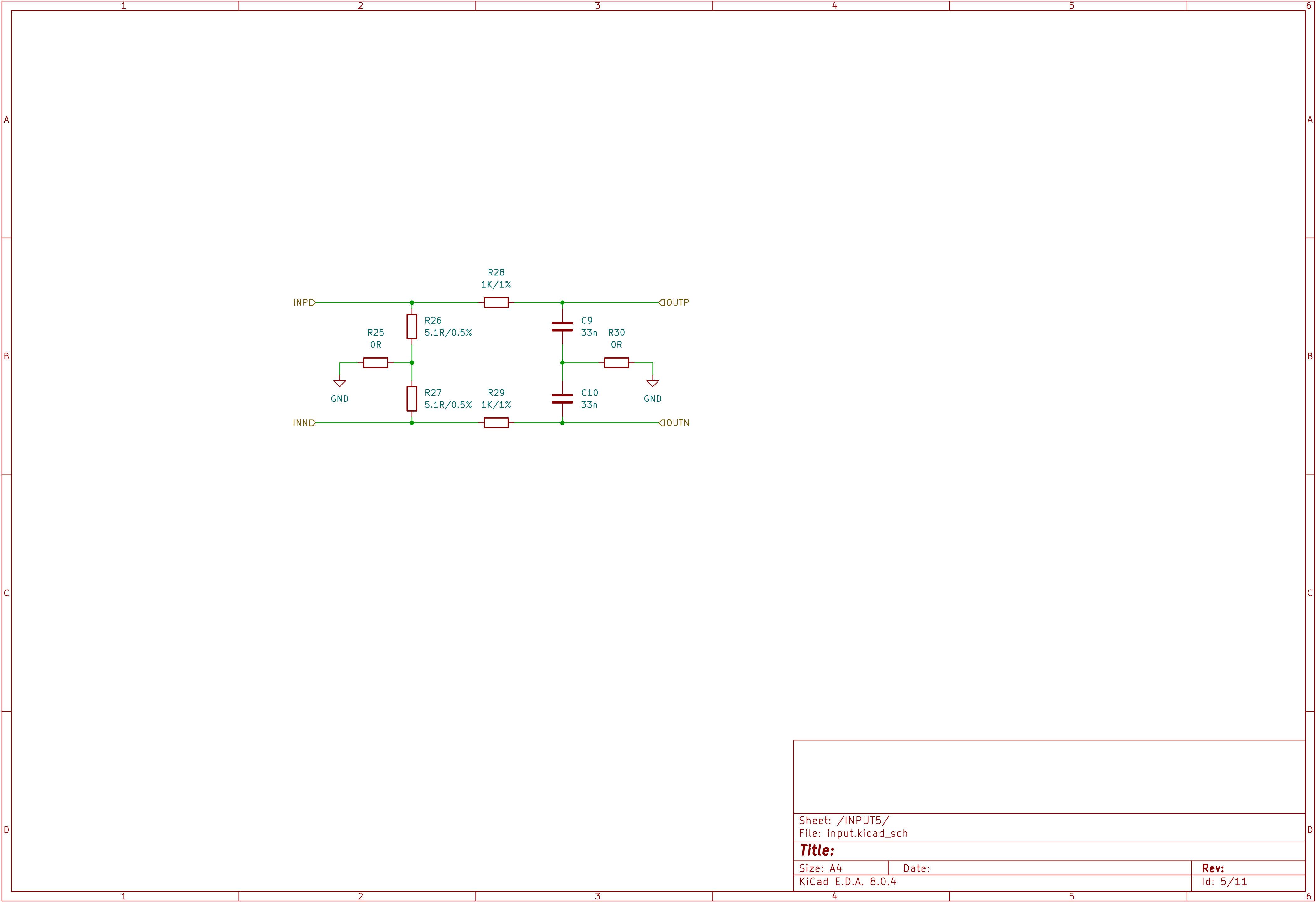
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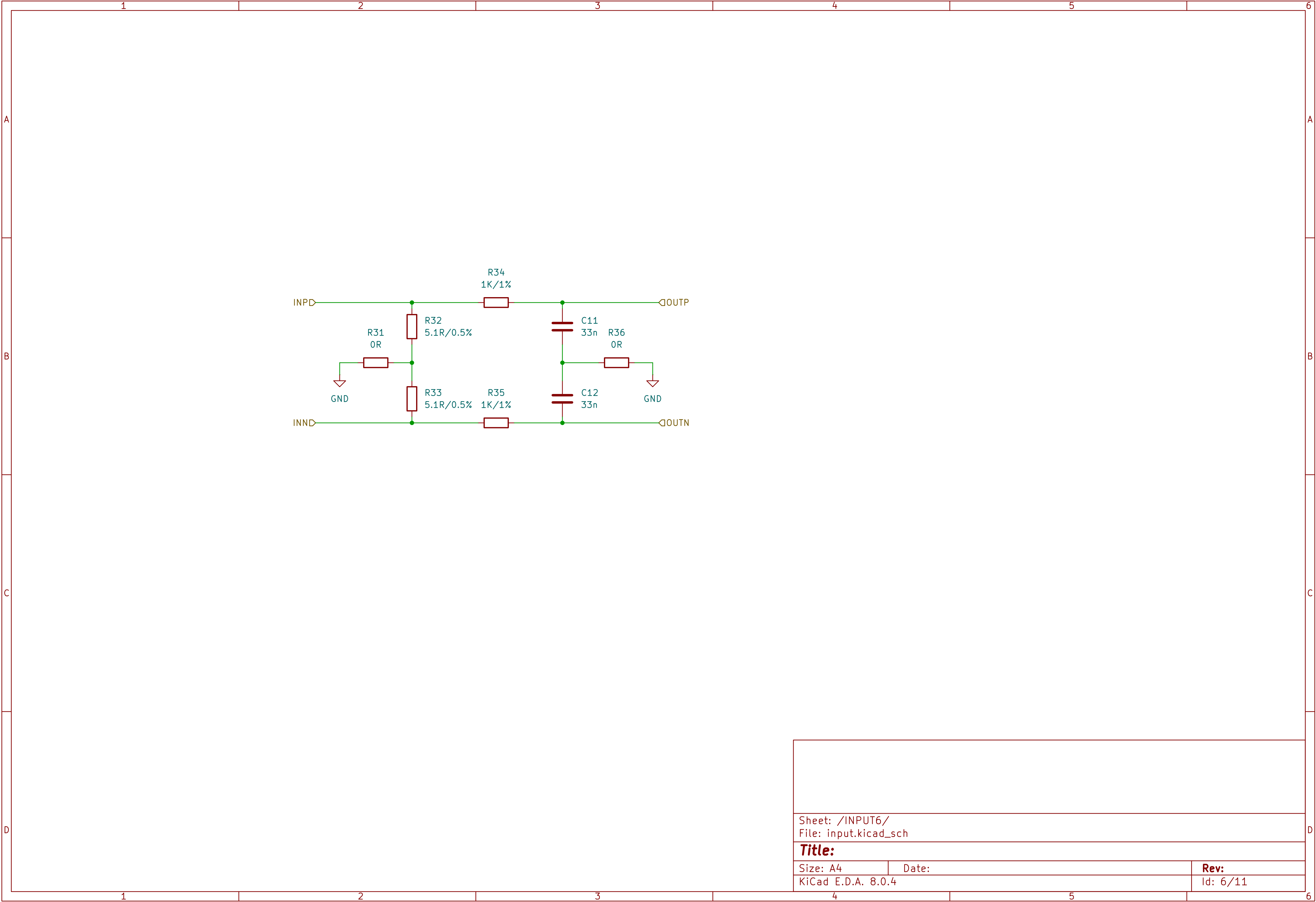


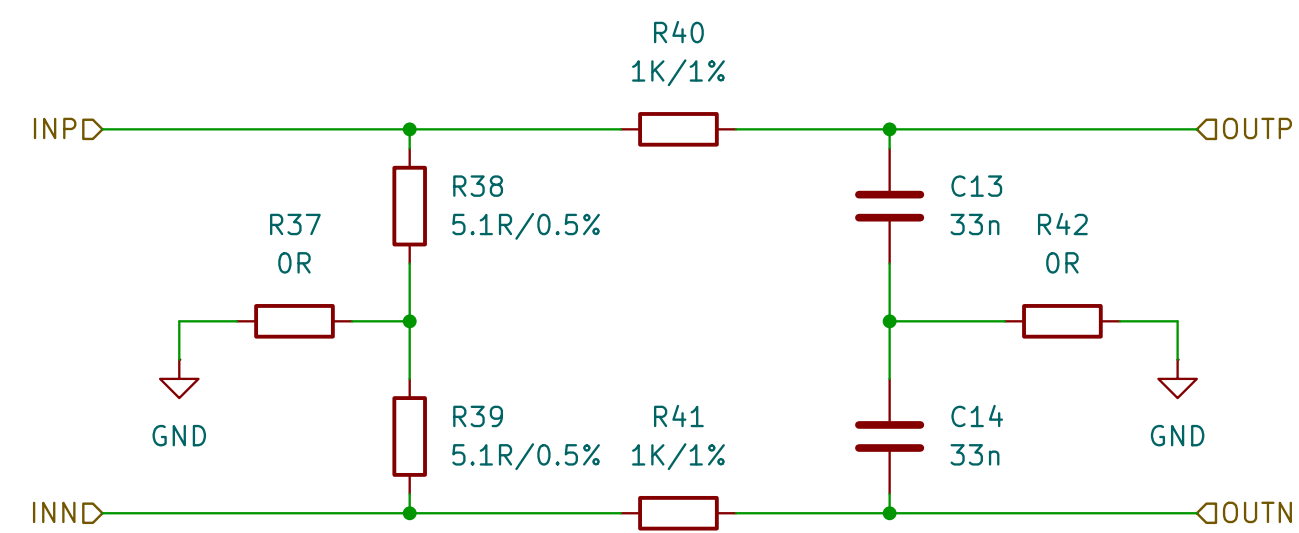












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