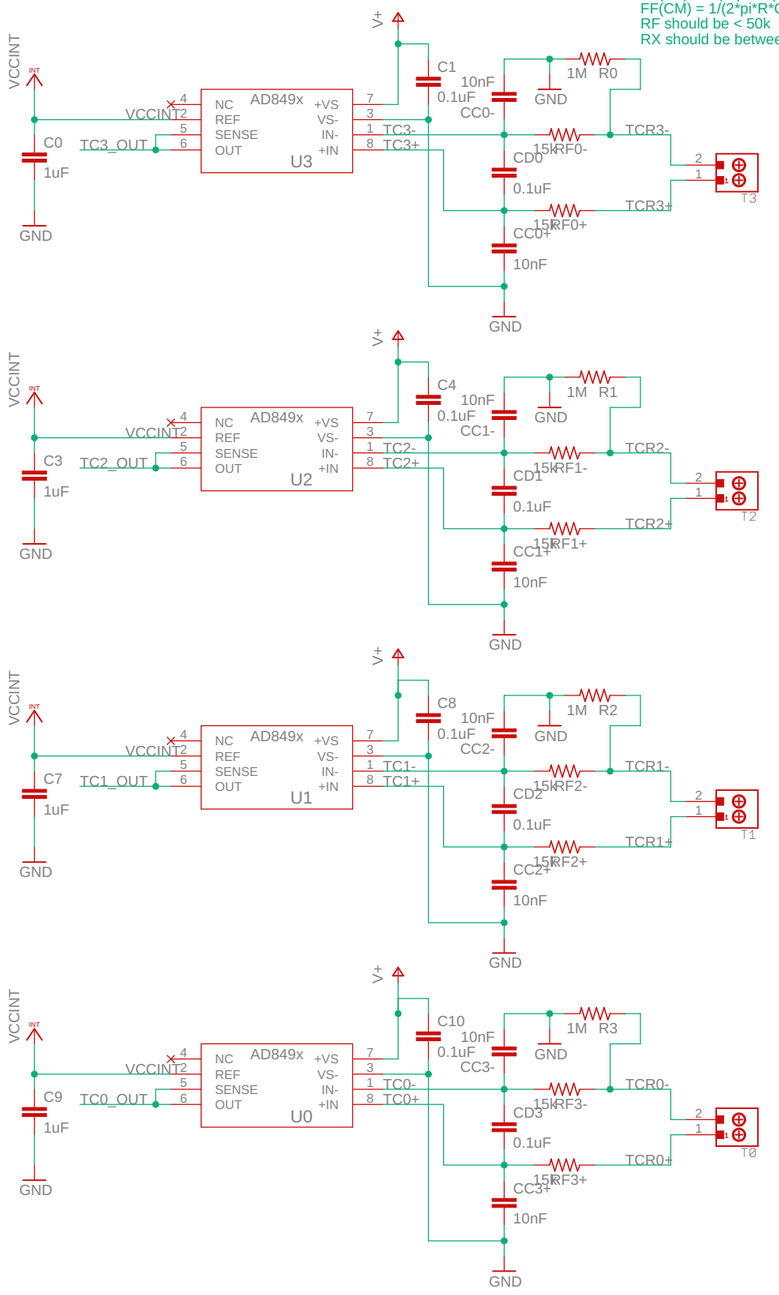
4-Channel Analog TC Linearization Interface
Cold-Junction Compensated, 0-10V output, 5-32V supply
Based on Analog Devices AD849x

FF(diff) = 1/(2*pi*R*(2CD + CC)) = 50Hz
FF(CM) = 1/(2*pi*R*Cc); Cd > 10Cc = 1060Hz
RF should be < 50k
RX should be between 100k and 1M



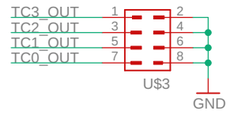
RF0- : R4
RF0+ : R5
CD0 : C11
CC0- : C12
CC0+ : C13

RF0- : R6
RF0+ : R7
CD0 : C14
CC0- : C15
CC0+ : C16

RF0- : R8
RF0+ : R9
CD0 : C17
CC0- : C18
CC0+ : C19

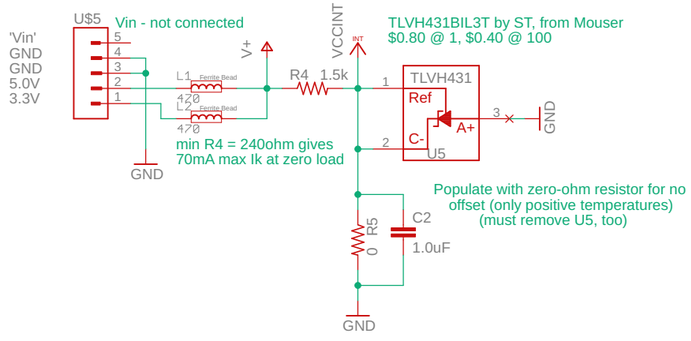
RF0- : R10
RF0+ : R11
CD0 : C20
CC0- : C21
CC0+ : C22

Signal Output Block



For connection to Arduino, the GND pins on this header do not need to be populated

TC Voltage Offset



TLVH431BIL3T by ST, from Mouser
$0.80 @ 1, $0.40 @ 100

min R4 = 240ohm gives
70mA max Ik at zero load

Populate with zero-ohm resistor for no offset (only positive temperatures) (must remove U5, too)

Resistor Z1 is populated by default. Corresponds to 5.0V output of Arduino Uno/Mega

Remove resistor Z1 and populate Z2 for connecting to 3.3V Arduinos

SO1 SO2 SO3 SO4

Playing With Fusion, Inc.	
TITLE: SEN-30103_R02_AD849x_QuadAnalogTC_min	
CREATOR: J. Steinlage	REVISION: 00
DATE: 10/3/2022 10:27 AM	SHEET: 1/1
LAST MODIFIED BY: J. Steinlage	