

# Arithmetic Module

8bit Arithmetic Module provides ADD, ADC, SUB, SBB, INC, DEC

DEC A: MUX\_SEL: 1, TC: 0, CI: 0

A - B: MUX\_SEL: 0, TC: 1, CI: 1

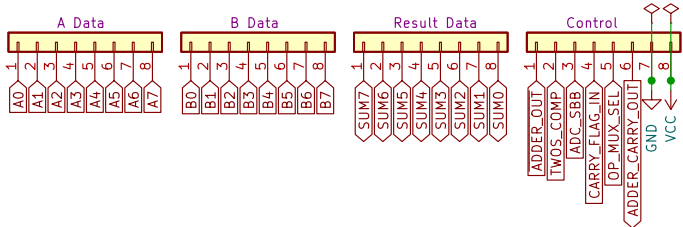
A + B: MUX\_SEL: 0, TC: 0, CI: 0

INC A: MUX\_SEL: 1, TC: 1, CI: 1

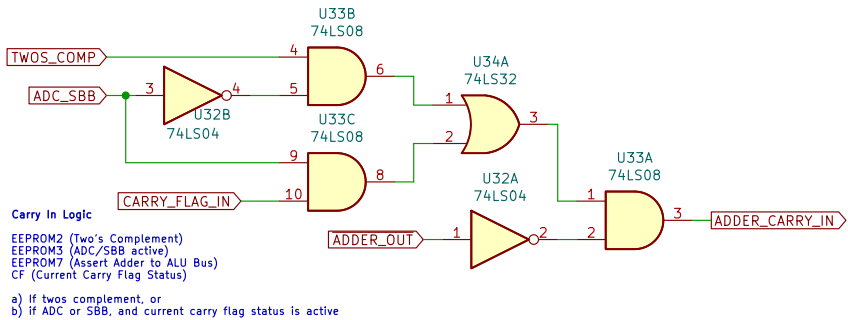
A - B - CI: MUX\_SEL: 0, TC: 1, CI: ?

A + B + Cf: MUX\_SEL: 0, TC: 0, CI: ?

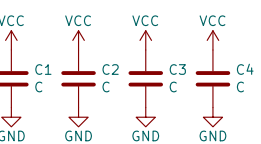
## Connectors



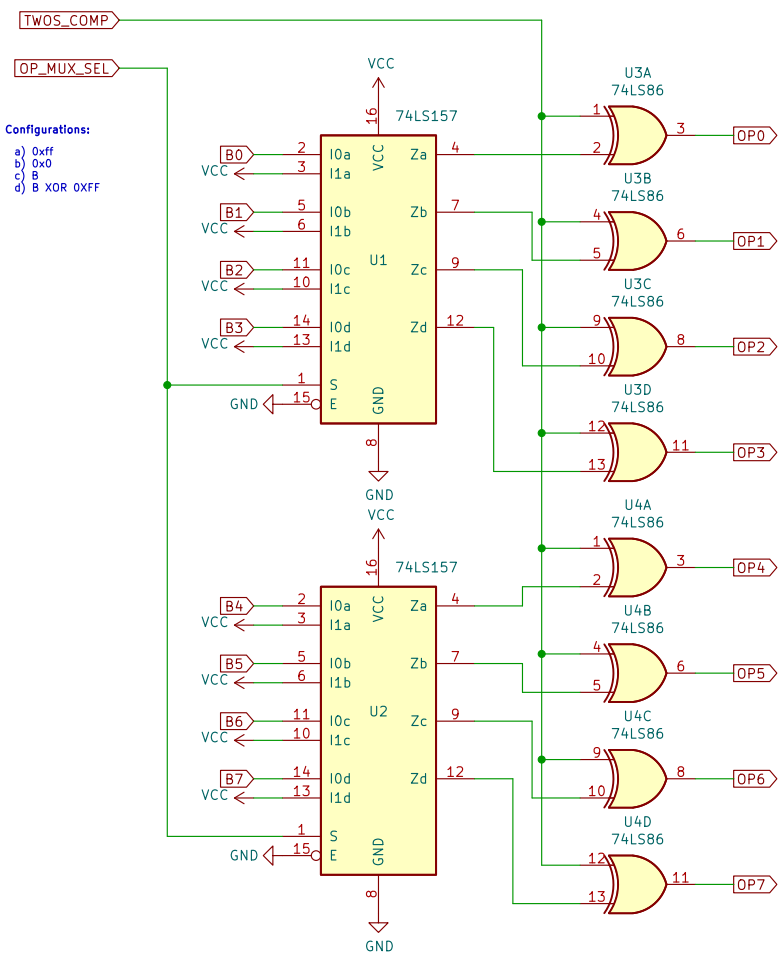
## Arithmetic Carry In Logic



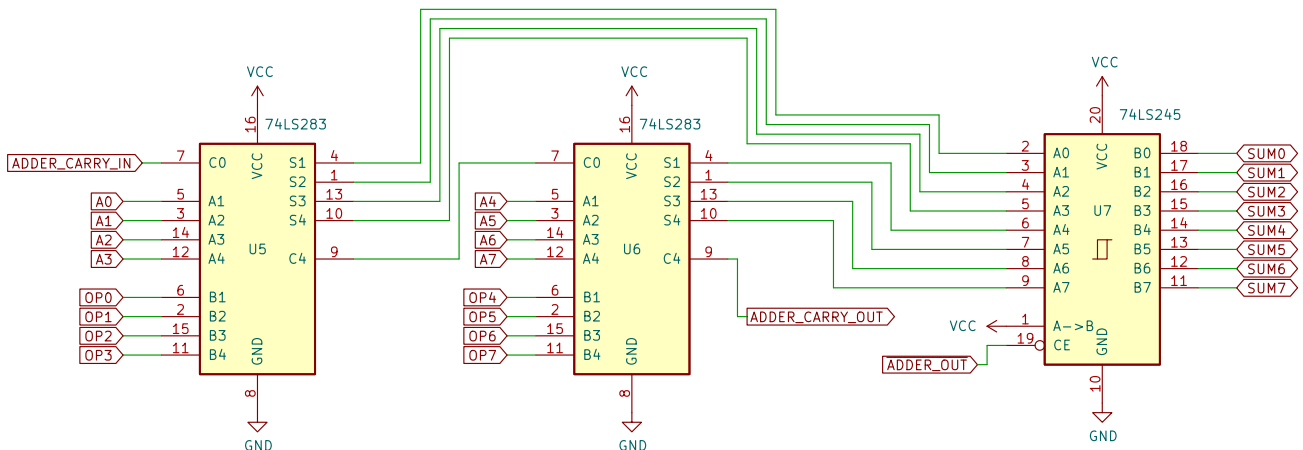
## Smoothing Caps



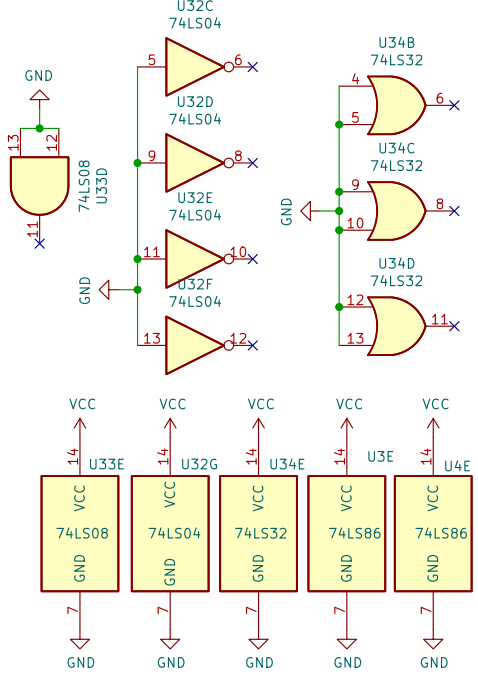
## Operand Multiplexer



## Full Adder w/ Carry



## Logic Power



ADD / SUB / ADC / SBB / INC / DEC

Sheet: /  
File: Arithmetic.kicad\_sch

**Title: Arithmetic Module**

Size: A3 Date:  
KiCad E.D.A. kicad (6.0.0-0)

Rev: 3  
Id: 1/1