

Zoxnoxious Engineering

Sheet: /

File: as3372.kicad\_sch

Title: Z3372 Signal Processing

Size: B

Date: 2022-11-27

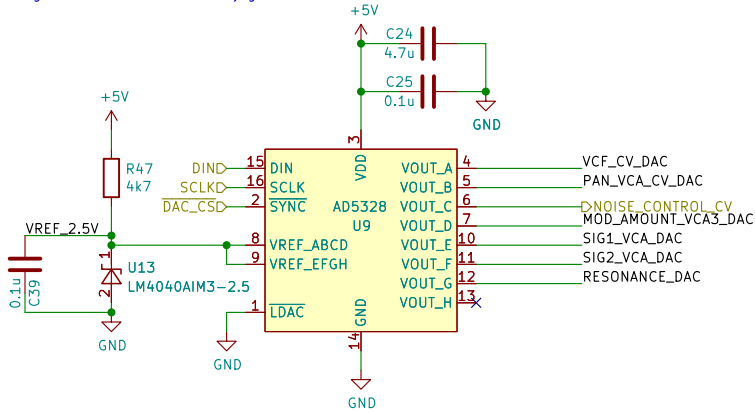
Rev: 0.1

KiCad E.D.A.

kicad (6.0.7-1)-1

Id: 1/3

AD5328: "B" version works fine.  
DAC: 2.5V Reference Voltage  
B, C, D grades of LM4040 are likely good 'nuff

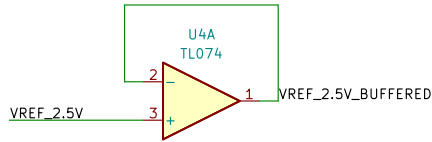


LM4040 resistor rough calc:  
I<sub>LM4040</sub> min: 70uA  
V<sub>ref</sub> input impedance: 10M (buffered)

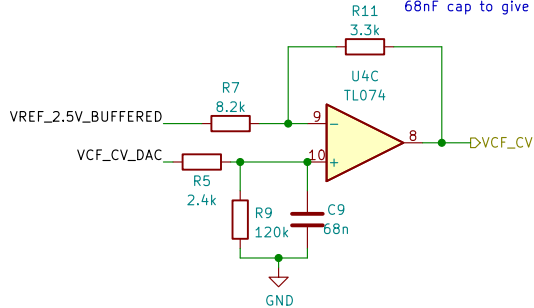
Control Voltage levels:  
Sig1 VCA CV: 0-5V  
Sig2 VCA CV: 0-5V  
VCA Mod Level CV: 0-5V  
Res CV: 0-5V  
VCF CV: -1 - +6V  
Pan VCA CV: -2.5 - +2.5V

The latter two use opamps to scale; everything else can be straight from DAC. These are slightly outside datasheet specs of 0:5 and -2:+2 to allow for some offset from modulation.

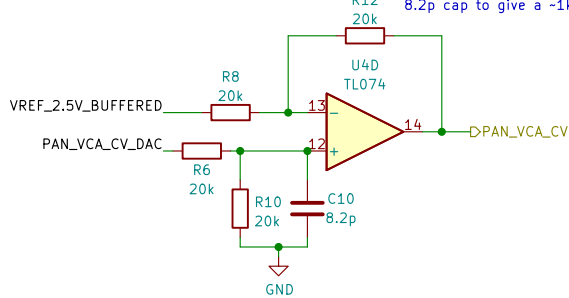
#### Decoupling



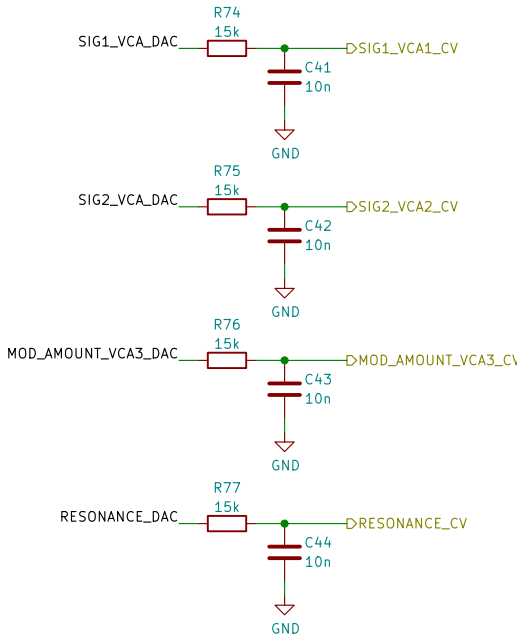
VCF Cutoff CV:  
Take 0V : 5V from DAC shift to -1V : 6V output  
68nF cap to give a -1kHz low pass filter



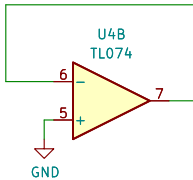
Pan CVA CV:  
Take 0V : 5V from DAC shift to -2.5V : 2.5V output  
8.2p cap to give a -1kHz low pass filter



#### RC lowpass at ~1kHz



#### Unused



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Sheet: /DAC/  
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