

The SOLX 452 Extras



After playing with the SOLX452 for some time I realized that even though the EMS envelope shaper is interesting, for some musical projects an ADSR envelope was needed.

There was some space in the housing so I decided to put in a high pass filter to complement the low pass filter in the main unit. There is a multicore cable supplying the power along with some control voltages.

The other small unit is a self-contained 4 channel mixer with 4 mono inputs and 2 stereo outputs.

The ADSR

This is based on a tried and tested design using a 555 timer and works very well. I also included a FET VCA as in the EMS circuit.

The High Pass Filter

I used the design from the early Synthi 100 which is a diode matrix circuit with an 18dB/oct. response.

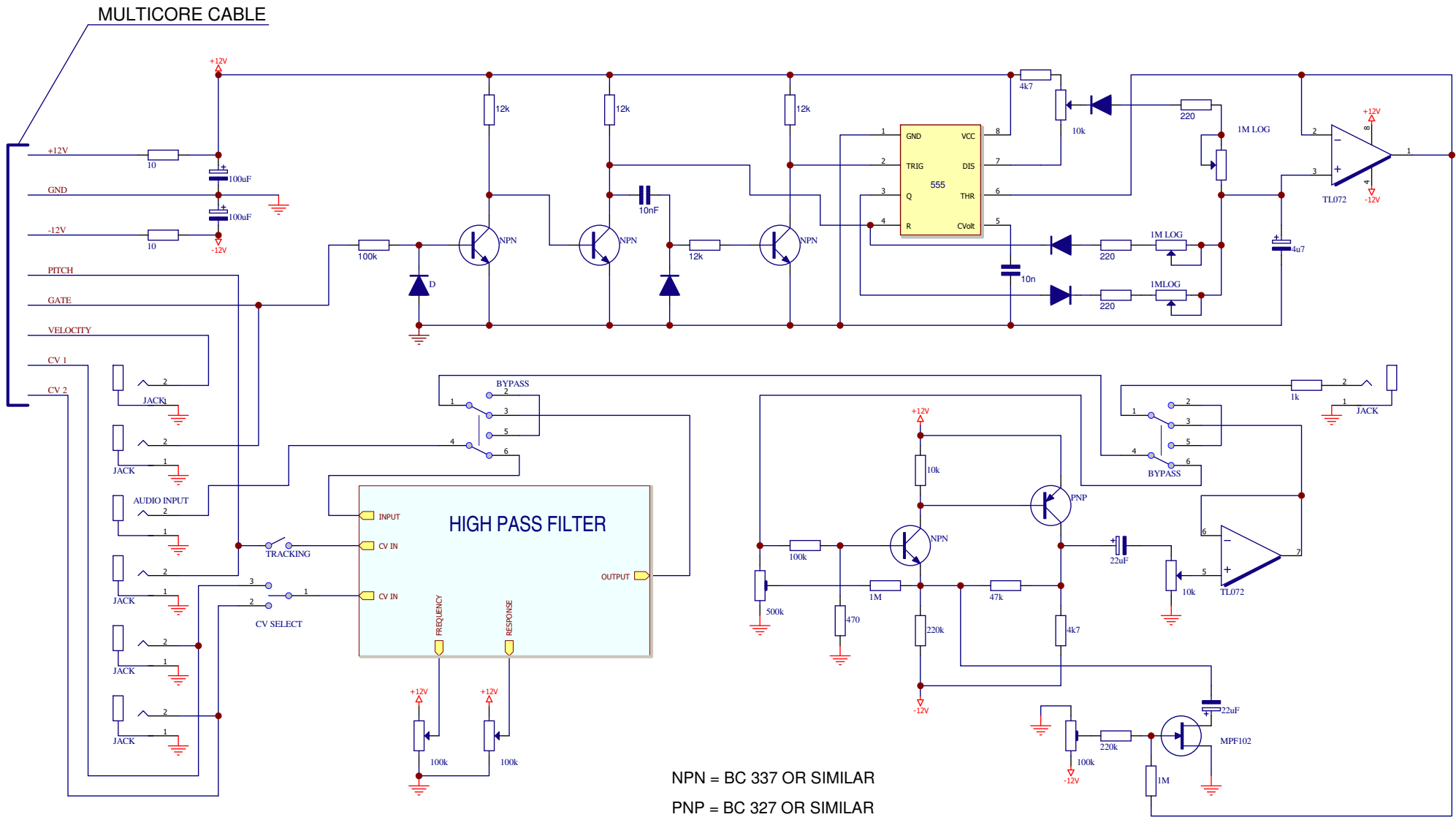
Unfortunately I can't show the schematics because it is not in the public domain and is currently being sold as a dual 19 inch unit from UK based company "Digitana".

<https://www.synthi.co.uk/synthi-100-mk1-dual-high-pass-filter-rack-module/>

The Synthi 100 however later used a state variable filter with 12dB/oct. response. This could be used instead.

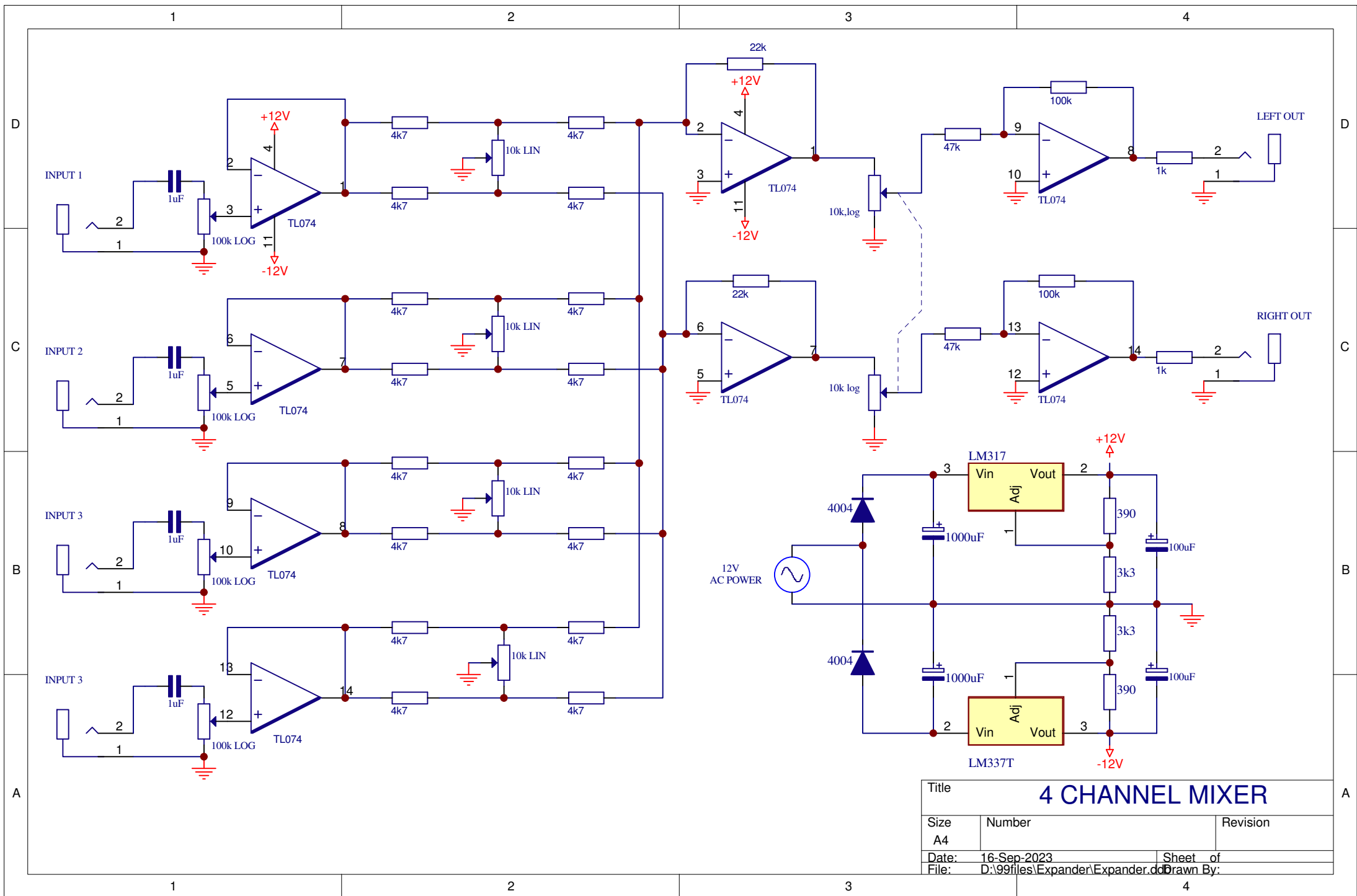
The Mixer

This is a standard design with input level controls, pan pots and output level Pots.



NPN = BC 337 OR SIMILAR
 PNP = BC 327 OR SIMILAR
 JFET = MPF102 OR SIMILAR
 DIODES = 1N4148

Title		
ENVELOPE SHAPER		
Size	Number	Revision
A3		
Date:	16-Sep-2023	Sheet of
File:	D:\99files\Expander\Expander.ddb	Drawn By:



Title			4 CHANNEL MIXER		
Size	Number	Revision			
A4					
Date:	16-Sep-2023	Sheet of			
File:	D:\99files\Expander\Expander.doc	Drawn By:			