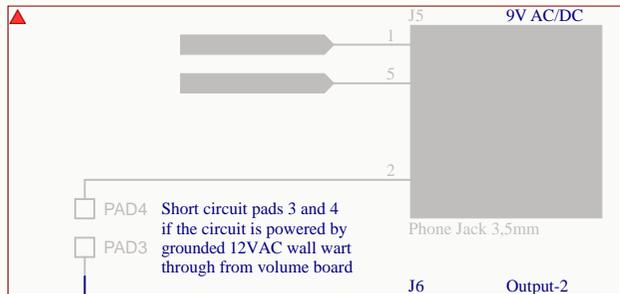
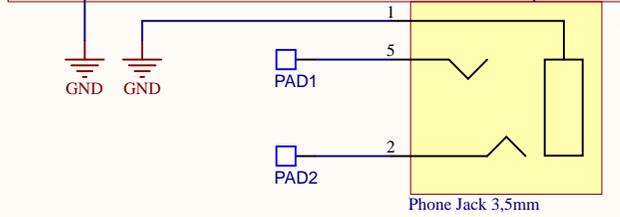
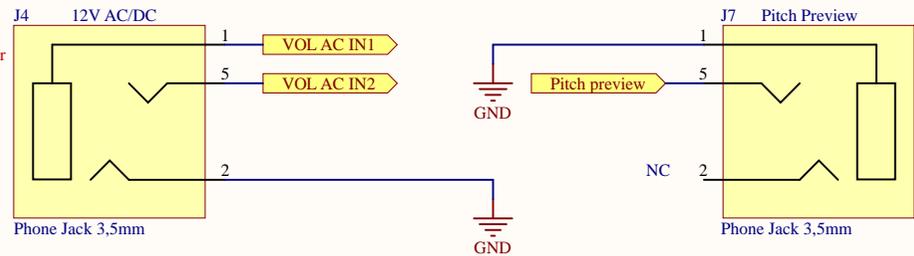


PITCH BOARD

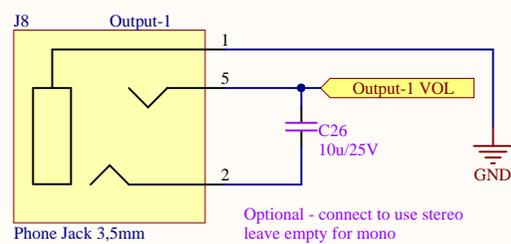
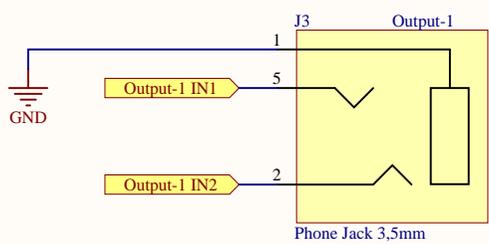
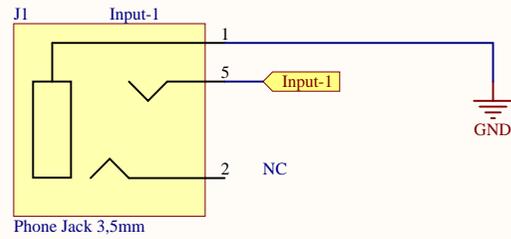
VOLUME BOARD



This connector should be replaced by a standard power connector. TRS jack is not really appropriate for supplying power



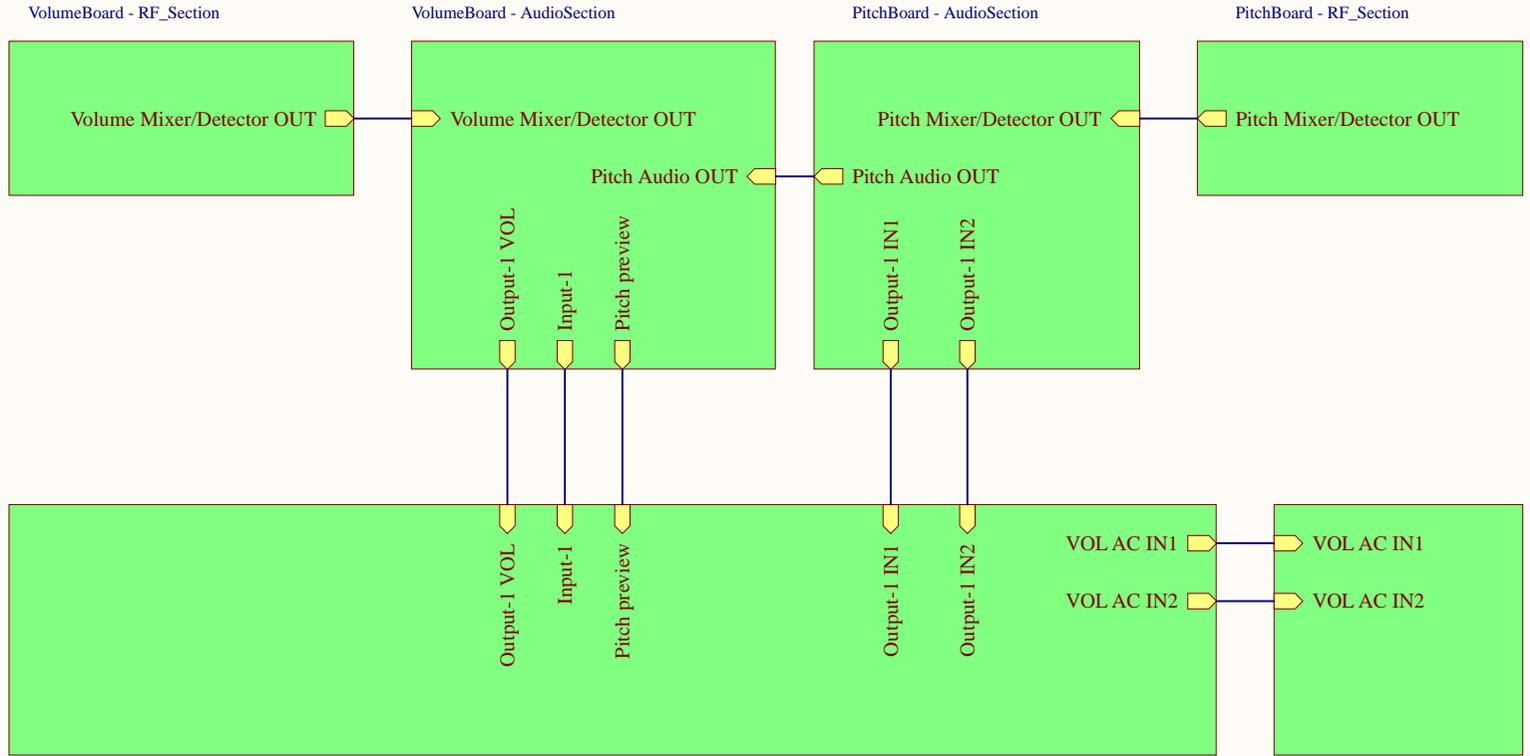
Connection for an accessory Output from NE555 or unmodified sound before transformer can be fed here



Title		
Phoenix Theremin 2020 - Front panel		
Size	Number	Revision
A4	Humorous words of wisdom ...	1.07.19A
Date:	21. 01. 2019	Sheet of
File:	H:\FAKS\...FrontPanel.SchDoc	Drawn By:

Volume board

Pitch board



Power ports for pitch board are not mandatory and are only needed in the case of pitch board being used separately, without the volume board. In that case the pitch board needs it's own power supply.

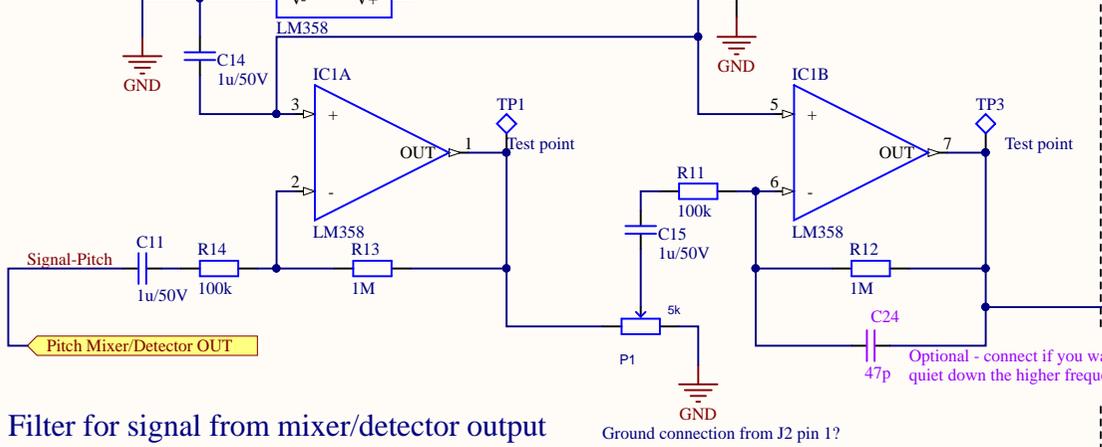
Front panel connections

Power supply

This field will be edited once I figure out how to change the layout of the black area

Title			
Size	Number		Revision
A4			
Date:	21. 01. 2019	Sheet	of
File:	H:\FAKS\...\Phoenix.SchDoc		Drawn By:

ADDED - 1u/50V Blocking capacitor for OPAMP voltage stabilisation. Capacitor value is standard



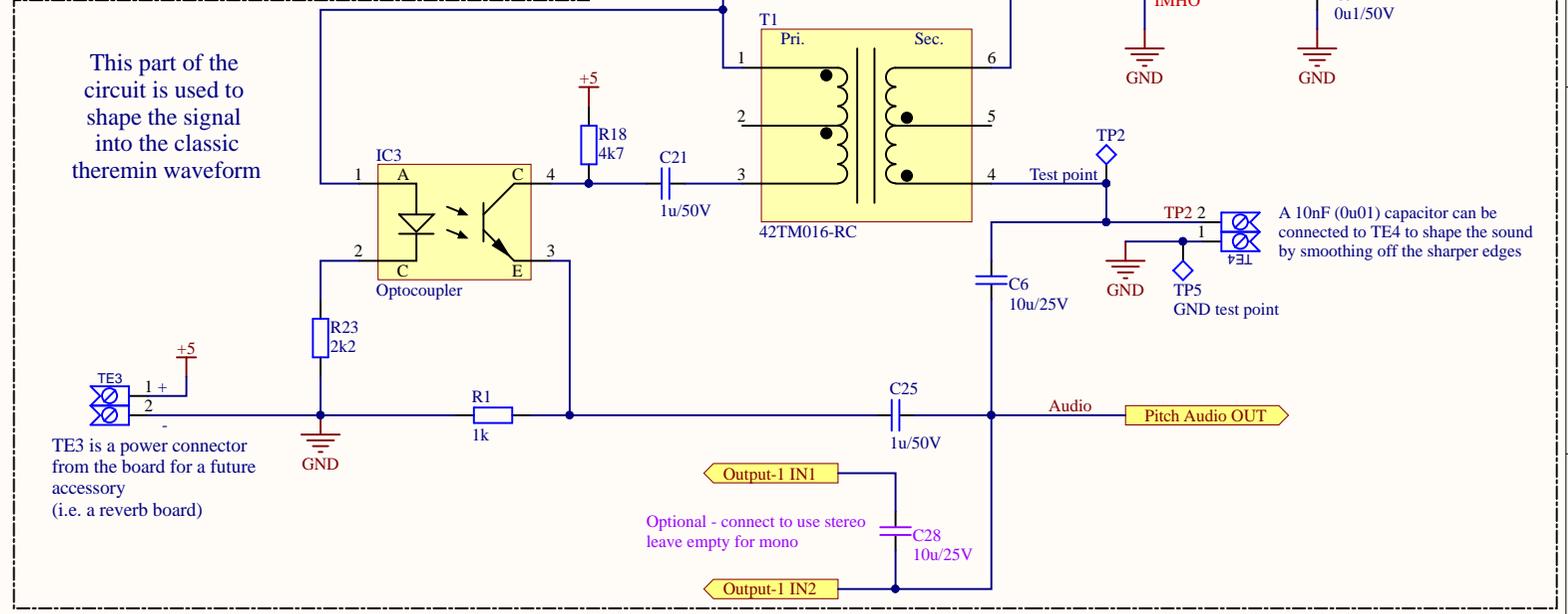
Filter for signal from mixer/detector output

Ground connection from J2 pin 1?

Optional - connect if you want to quiet down the higher frequency sounds

PITCH BOARD

This part of the circuit is used to shape the signal into the classic theremin waveform



Title		
Phoenix Theremin 2020 - Pitch board, audio section		
Size	Number	Revision
A4	... from our faculty:	1.07.19A
Date:	21. 01. 2019	Sheet of
File:	H:\FAKS\...\PitchBoard - AudioSection.Sch	

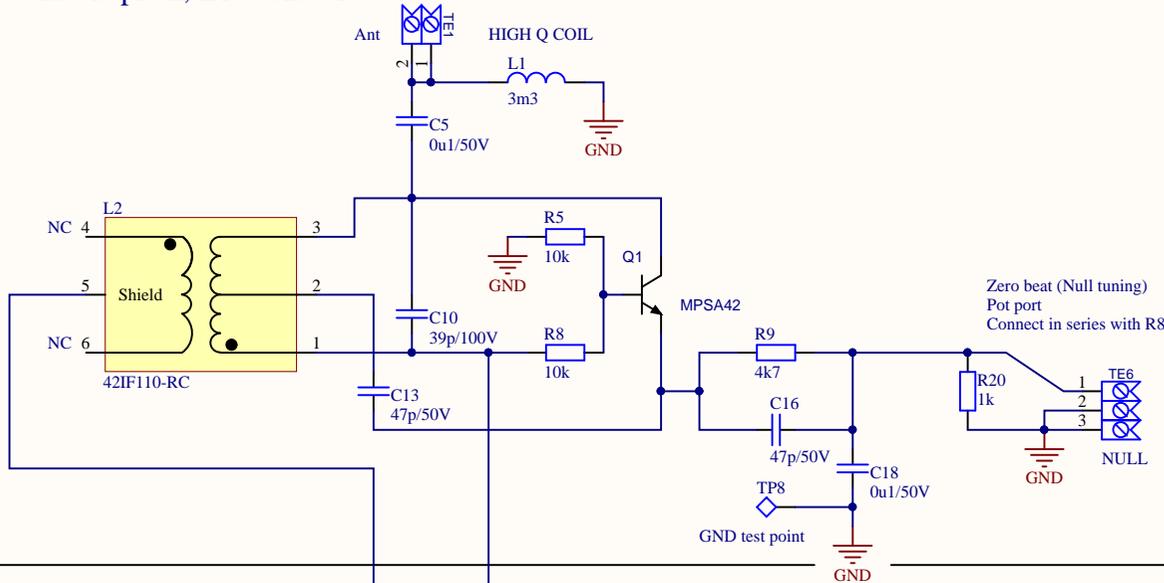
Optional - connect to use stereo leave empty for mono

This looks nicer IMHO

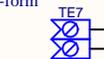
The transformer T1 to resistor R4 makes the sound a bit more buzzy

LED2 NULL indicator OFF == NULL

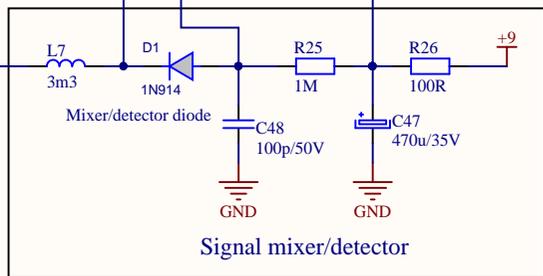
Variable pitch, L1 oscillator



A 47k resistor can be mounted on the terminal from ports A to C or A to D to shape the signal wave-form

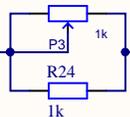


Terminal 1



Signal mixer/detector

Pitch Mixer/Detector OUT

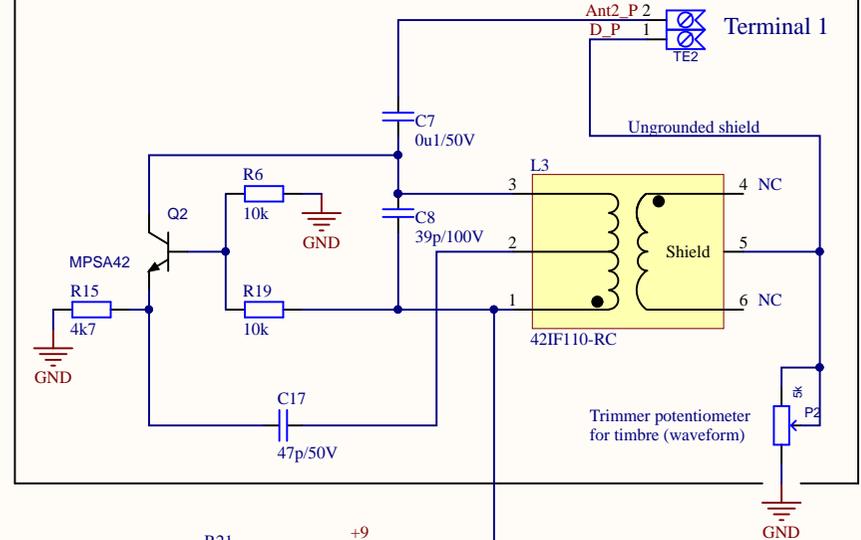


Fixed pitch, L2 oscillator

f = 900KHz

How should I name the connector in the place of Ant2_P? This is the marking I see on the website.

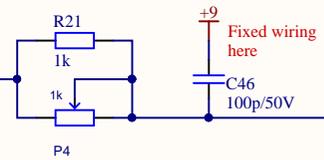
C-D is a port for panel mounted 2k potentiometer P5A used for signal waveform adjustment. P5A is mounted in parallel to P5



Terminal 1

Ungrounded shield

Trimmer potentiometer for timbre (waveform)



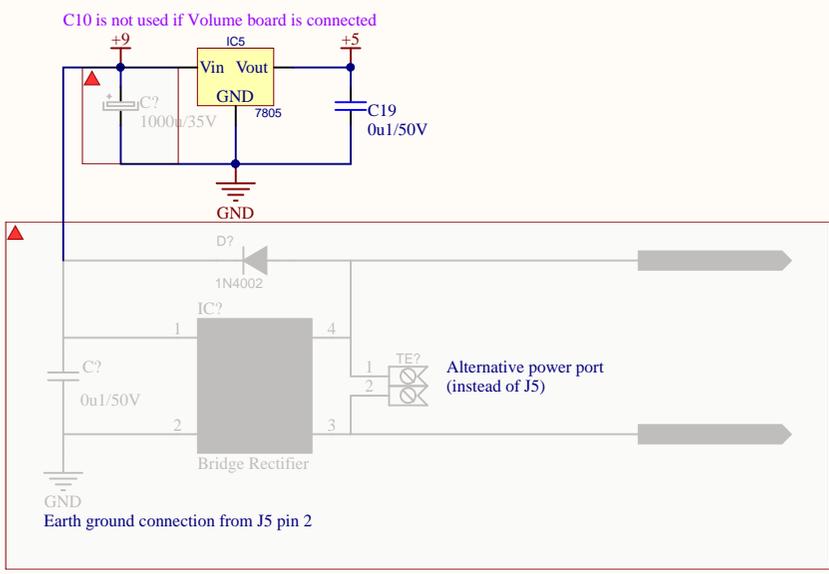
Fixed wiring here

P2 and P3 are used to balance thermal drift they are not mandatory however and may be left out, as they will be bypassed by R9 and R27.

Title		
Phoenix Theremin 2020 - Pitch board, RF section		
Size	Number	Revision
A4	Theoretically speaking, ...	1.07.19A
Date:	21. 01. 2019	Sheet of
File:	H:\FAKS\PitchBoard - RF_Section.Sch Drawn By:	

This part of the circuit is placed on the pitch board

This part of the circuit is placed on the volume board

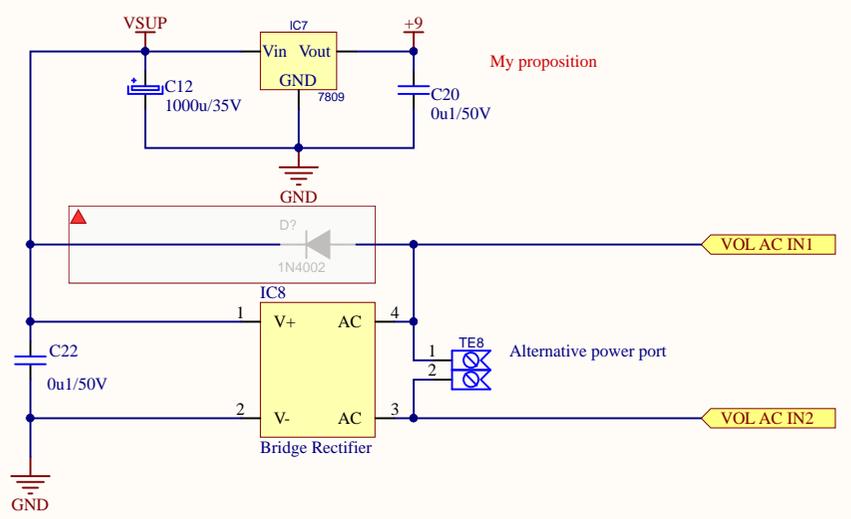


I will remove the greyed out areas.
 I will however, make a separate schematic for the 2 board variant and leave the appropriate parts of the circuit on the schematic.

FIDUCIAL MARKS -
 they play no role in how the circuit works whatsoever.
 They are used if anyone intends to send gerber files to a company that produces printed circuit boards so the machines that etch the board (and possibly place the parts) can orient what is their position over the board.

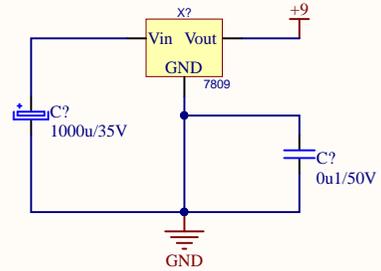


They are seen in the corners of the PCB, placed on top (red) side.



Earth ground connection from J4 pin 2

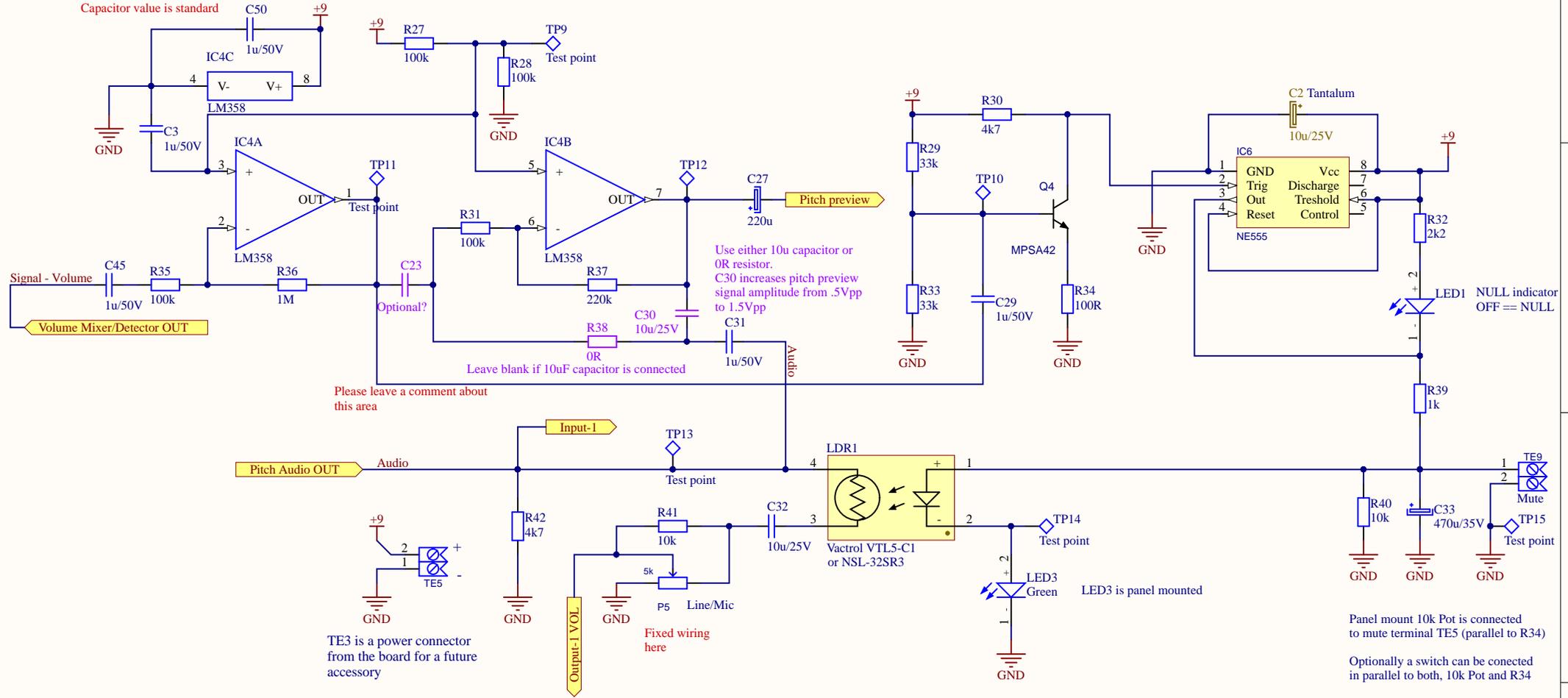
I still see this and it doesn't look right to me.
 Did you forgot to reupload a new image
 Or is this intended?



Title		
Phoenix Theremin 2020 - Power supply		
Size	Number	Revision
A4	... practice and theory ...	1.07.19A
Date:	21. 01. 2019	Sheet of
File:	H:\FAKS\...\PowerSupply.SchDoc	Drawn By:

VOLUME BOARD

ADDED - 1u/50V Blocking capacitor for OPAMP voltage stabilisation.
Capacitor value is standard

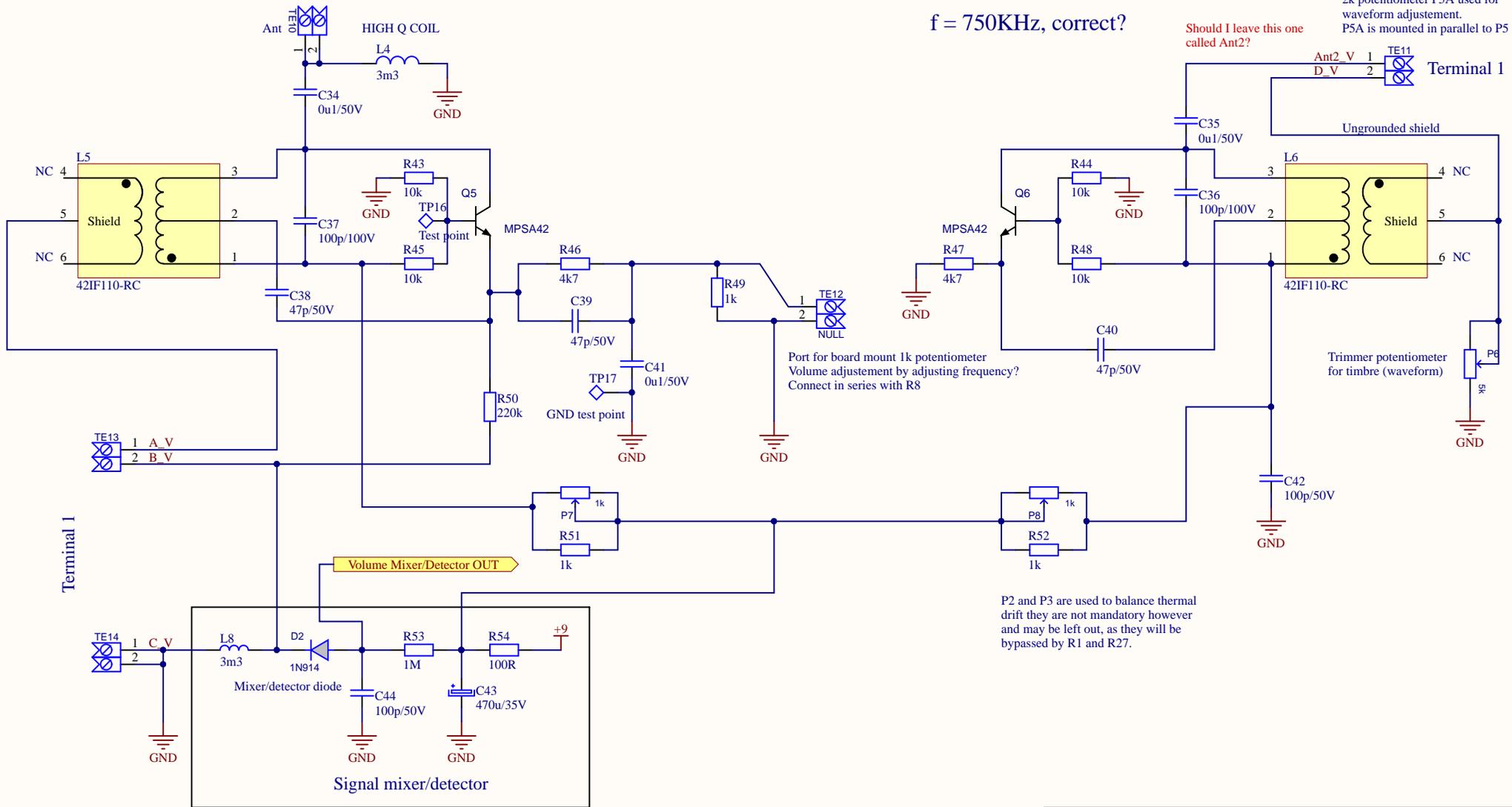


VOLUME BOARD

TE3 is a power connector from the board for a future accessory

Fixed wiring here

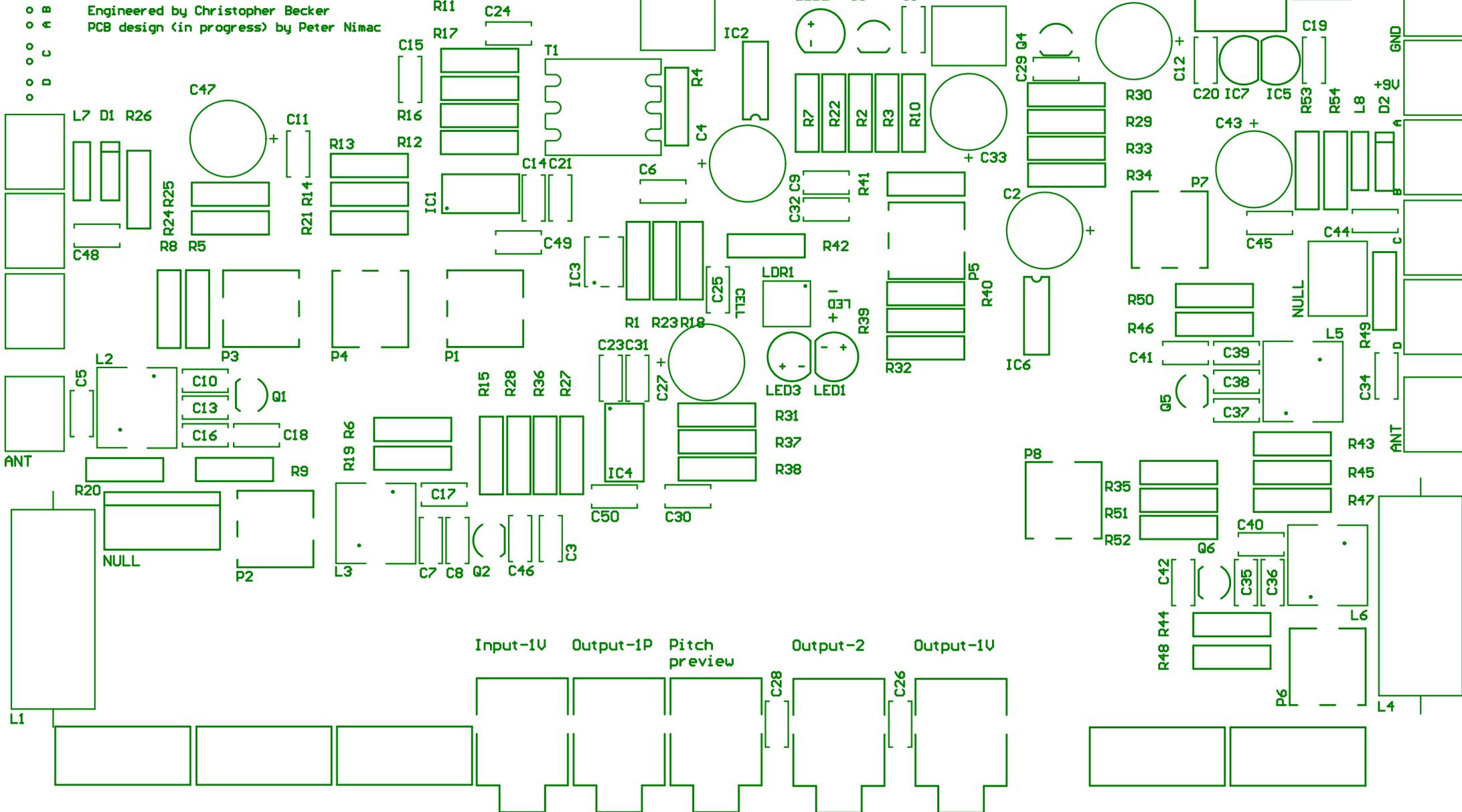
Title		
Phoenix Theremin 2020 - Volume board, Audio section		
Size	Number	Revision
A4	... are both ...	1.07.19A
Date:	21. 01. 2019	Sheet of
File:	H:\FAKS\VolumeBoard - AudioSection\Sheet By:	



Title		
Phoenix Theremin 2020 - Volume board, RF section		
Size	Number	Revision
A4	... the same thing.	1.07.19A
Date:	21. 01. 2019	Sheet of
File:	H:\FAKS\...\VolumeBoard - RF_Section.SchDoc	

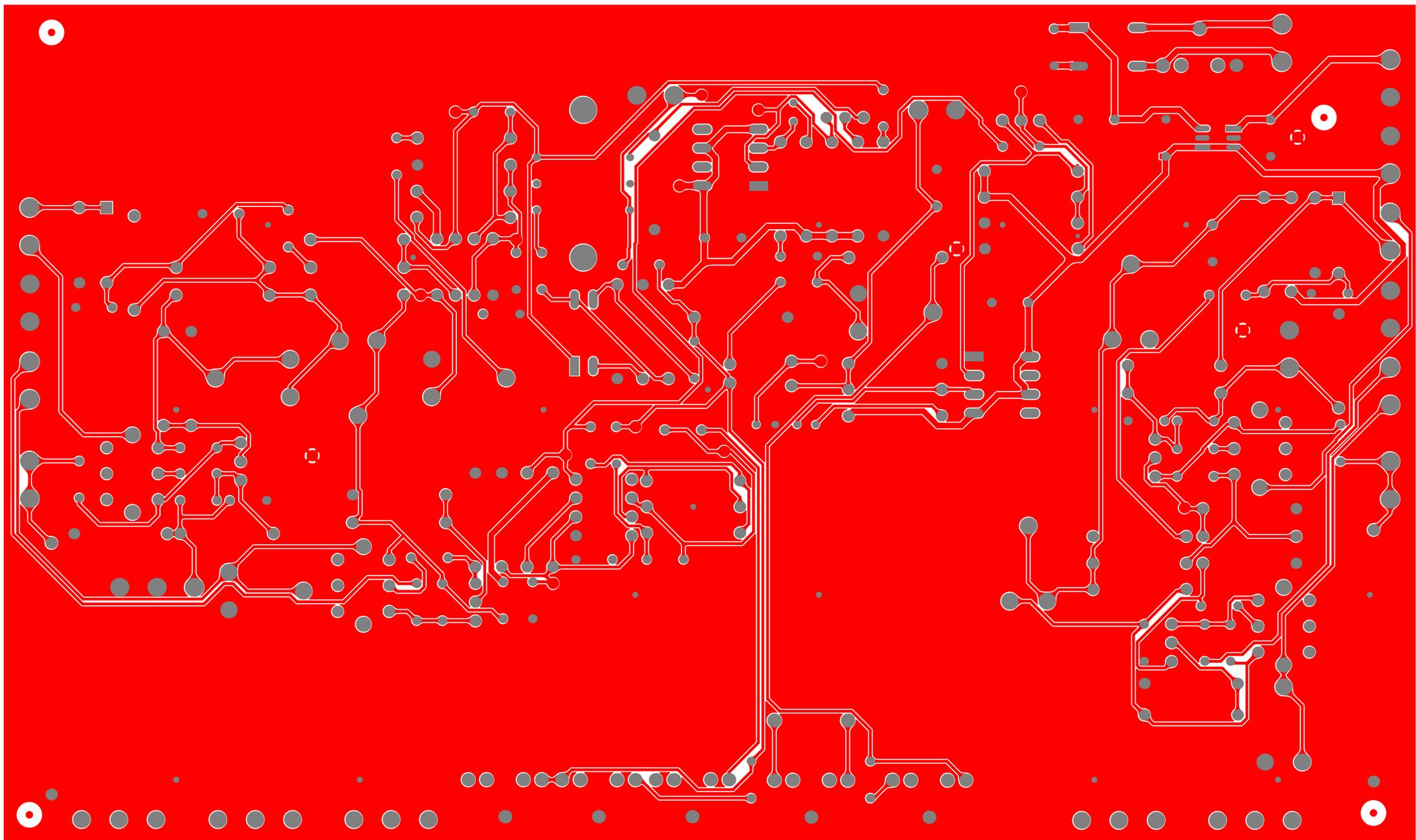
Phoenix theremin 2020
 Prototype for a single board revision
 (revision B1)

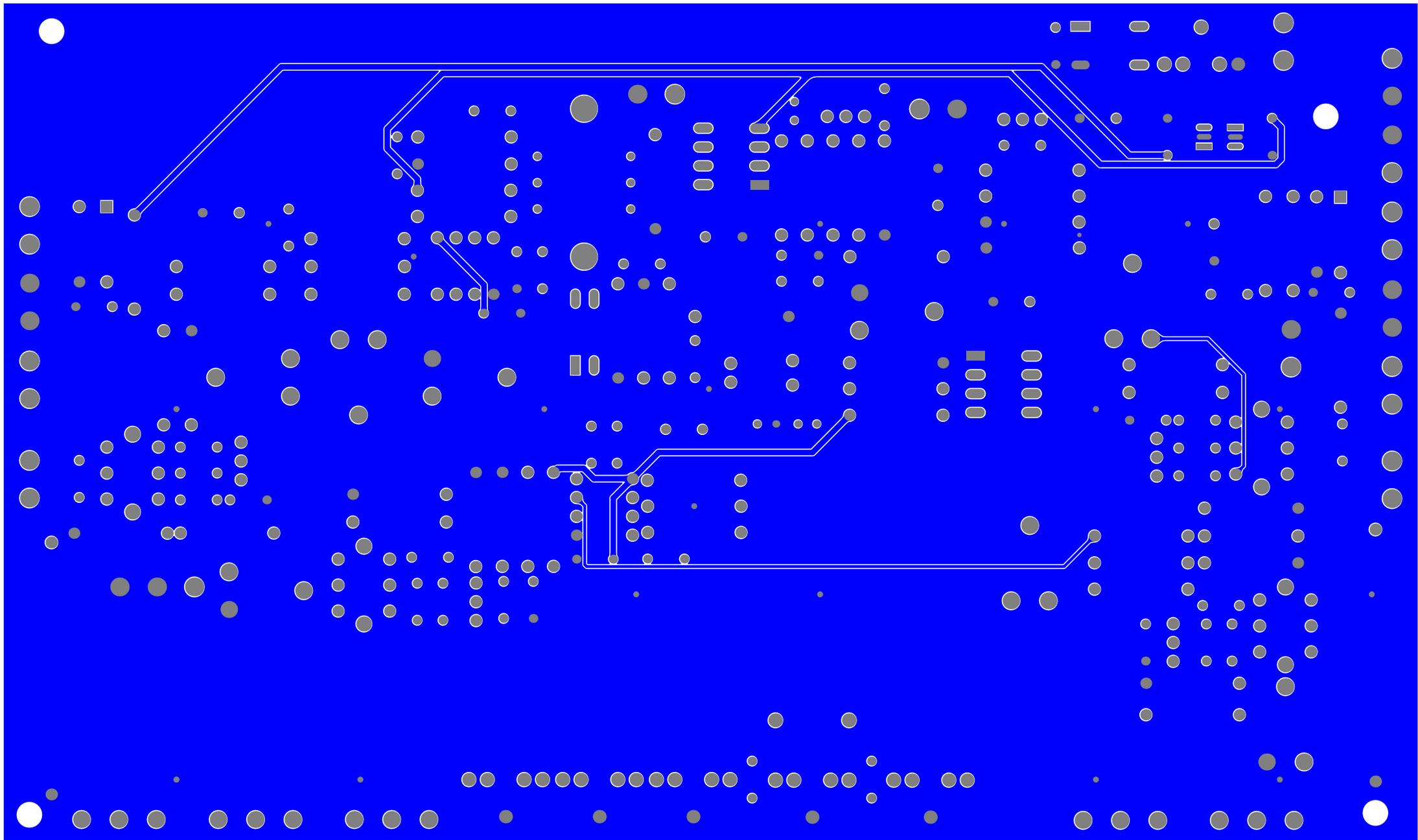
Engineered by Christopher Becker
 PCB design (in progress) by Peter Nimac



Phone Vol Volume Pitch

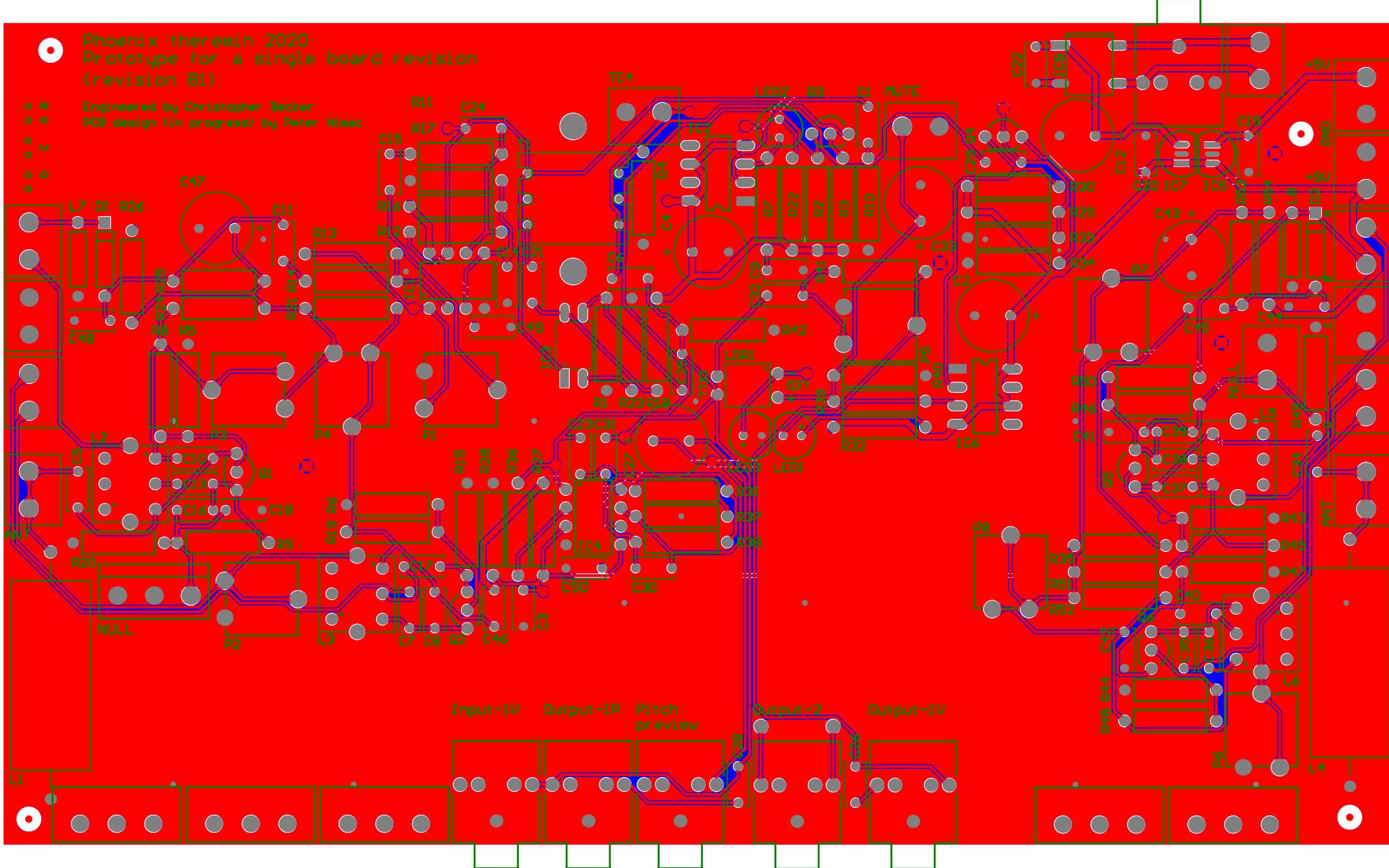
Waveform Brightness





Phoenix theremin 2020
Prototype for a single board revision
(revision B1)

Engineered by Christopher Becker
PCB design (in progress) by Peter Nimač



Phone Vol

Volume

Pitch

Waveform

Brightness