

STELLAx4



4x 8Bit Soundchips/TIA's on a 10x10cm PCB,

controlled from a STM32F4 Microcontroller [dipcoref4](#), based on [Antichambre's TIA Module](#), with [AD9833's](#) as External programmable Clock, the Frequency-range is expandet...

The Board acts a Motherboard, for

- 4x Soundchip... AND:

also like the [stm32f4_module](#) it provides:

- Midi-IO - 1x IN, 1x OUT > 3,5Jacks/TRS
- µSD-Card - 2 Save Patches
- µController-Socket - 2 Plug the [dipcore_f4](#) in, ask [antichambre](#) to get one!
- J19>[AoutNG](#) - to connect VCF or VCAs...
- J8/9>[DOUT](#) & [DIN](#) - 4 the UI
- J15 (JLCD1) which handle from Stock 4x SPI-Displays (SSD1306), - 4 the UI
- J1>chain a nother STELLAx4 as "SLAVE" to it, to expand polyphony

ready for Pick and Place



-all SMD-Parts are on one SIDE and are presoldered..

Features

- * Summed or Individual Audio-Outs, selectable via normal Jumpers
- * NTSC or PAL > select via SMD-Solder-Jumper
- * User-Interface is C-Language-Programmable

Hardware Requirements

- [dipcoref4](#)
- 4 x [TIA/STELLA](#) [PAL or NTSC...]
- Soldering Iron - with a Dip that can Handle Thruhole-Parts, solder Paste...
- 5V from Mini-USB-Plug, or 5V at a 2Pin-Header connected to example a Eurorack Power Source (+5VDC!)
- dont forget Midi TRS Cables

Schematic

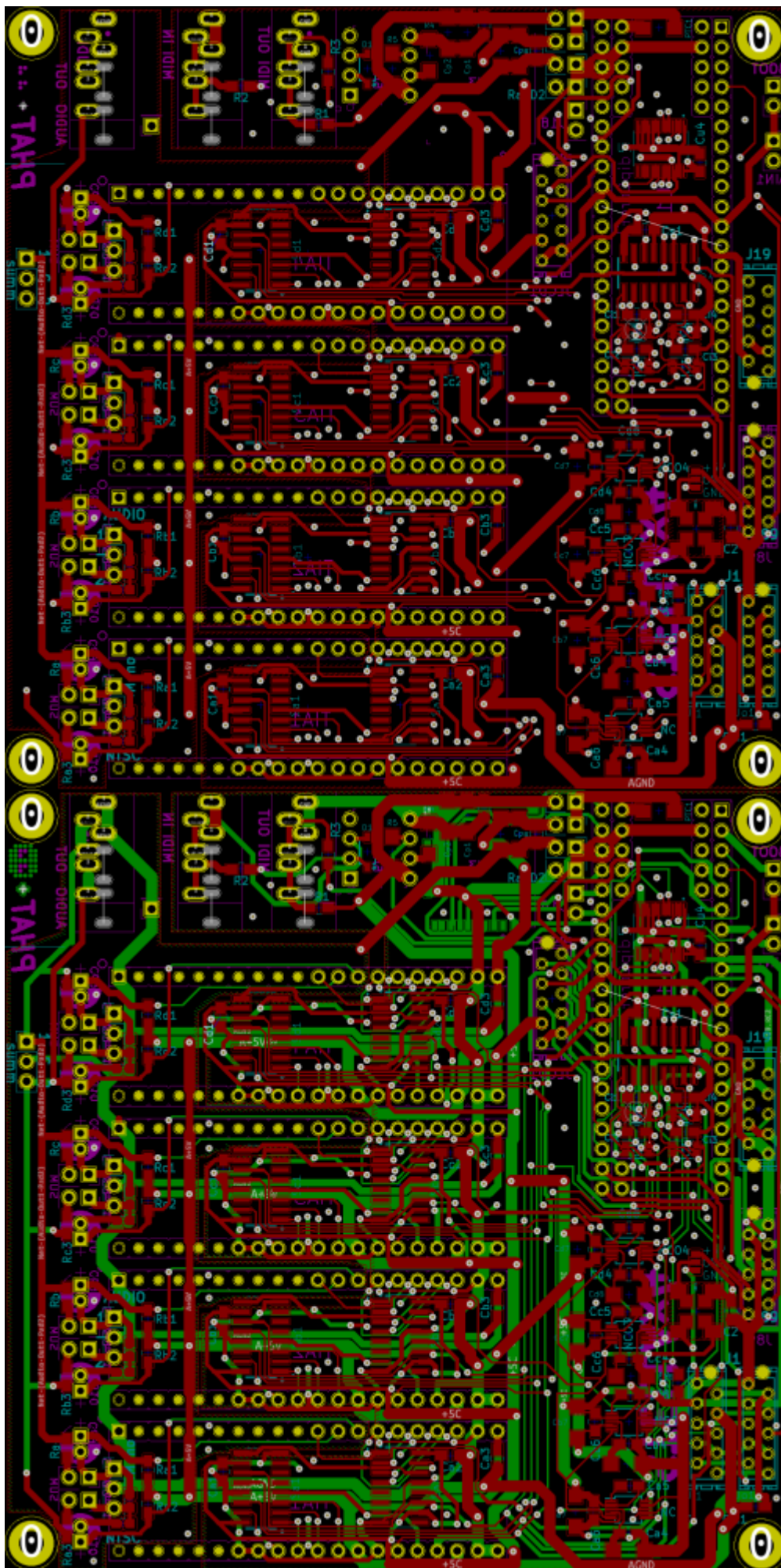
Rev.A

[stellax4-schematic.pdf](#)



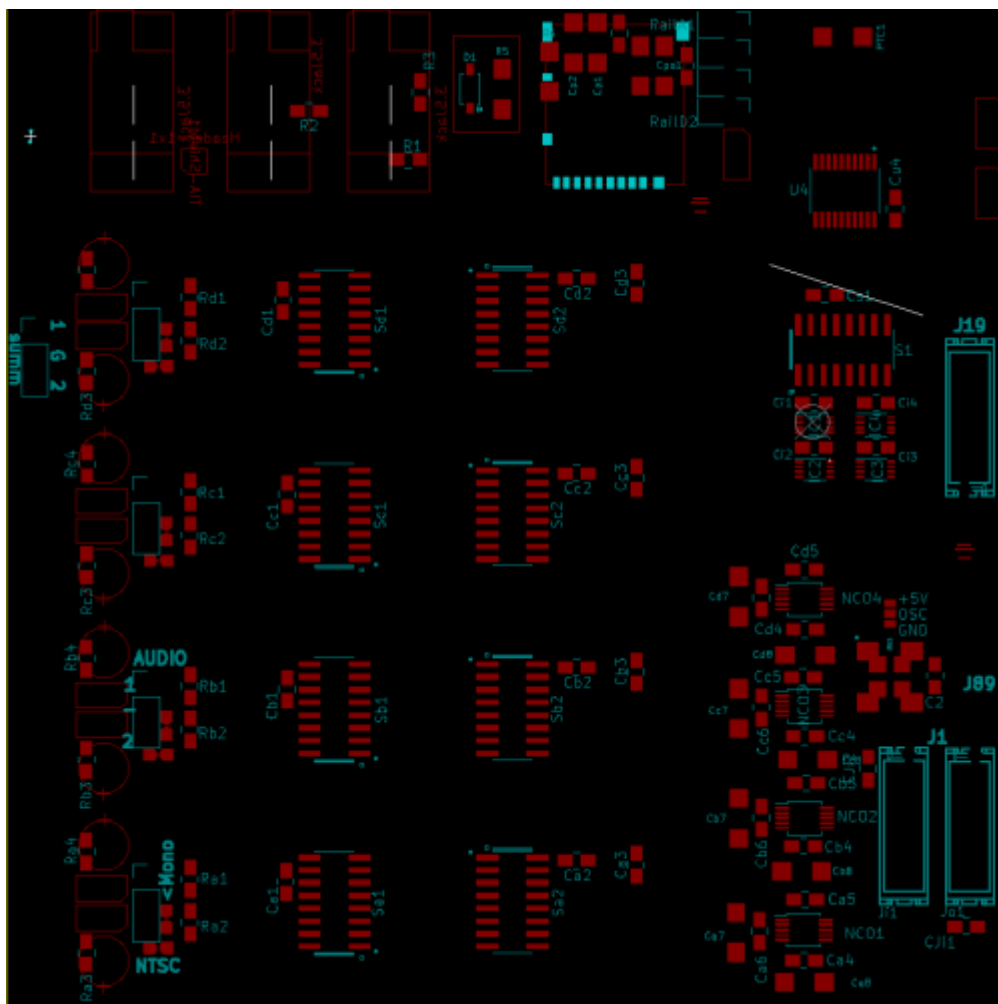
Rev.B





Comment	Designator	Mouser Part Nr	
6N138	U2	512-6N138M & 575-1104730841001000	1
DIPCOREF4_52P	U1	200-CES12001TS	3
Header-1x2-JUMPER	SumA-SumD2SumB2RailD2RailA2	649-68000-220HLF + 151-8010-E	12
Header-1x3	AUDIO1SUMMED1AUDIO2AUDIO3AUDIO4	649-68000-220HLF	1
Header-2x5-Micromatch	JLCD1,Jo1,ji1,J19,J89	571-1-2178710-0	5
Oscillator-5032u7050	OSC1	732-5032CC25.0HJGA3	1
PinHead-1x2	JBOOT1AIN1J18	649-68000-220HLF	1
TIA	TIA1TIA2TIA3TIA4	575-1104764041001000	4
uSD_DM3ATDM3AT	U3	798-DM3AT-SF-PEJM5	1

PART Locations



To Do

- waiting for christmas
- UI-PCBs
- Debugging First Version

Community users working on it

- **Phatline** = PCB & Schematic, UI-Programming, Documentation...
- **antichambre** = Schematic, Porting 8>32Bit, Programming...

Just let a Private message on the forum to user already involved.

Community users interested on it

- **sajtron** = Chip composer who maybe wanna buy one...

From:

<https://www.midibox.org/dokuwiki/> - **MIDIbox**

Permanent link:

<https://www.midibox.org/dokuwiki/doku.php?id=stellax4&rev=1617743275>

Last update: **2021/04/06 21:07**

