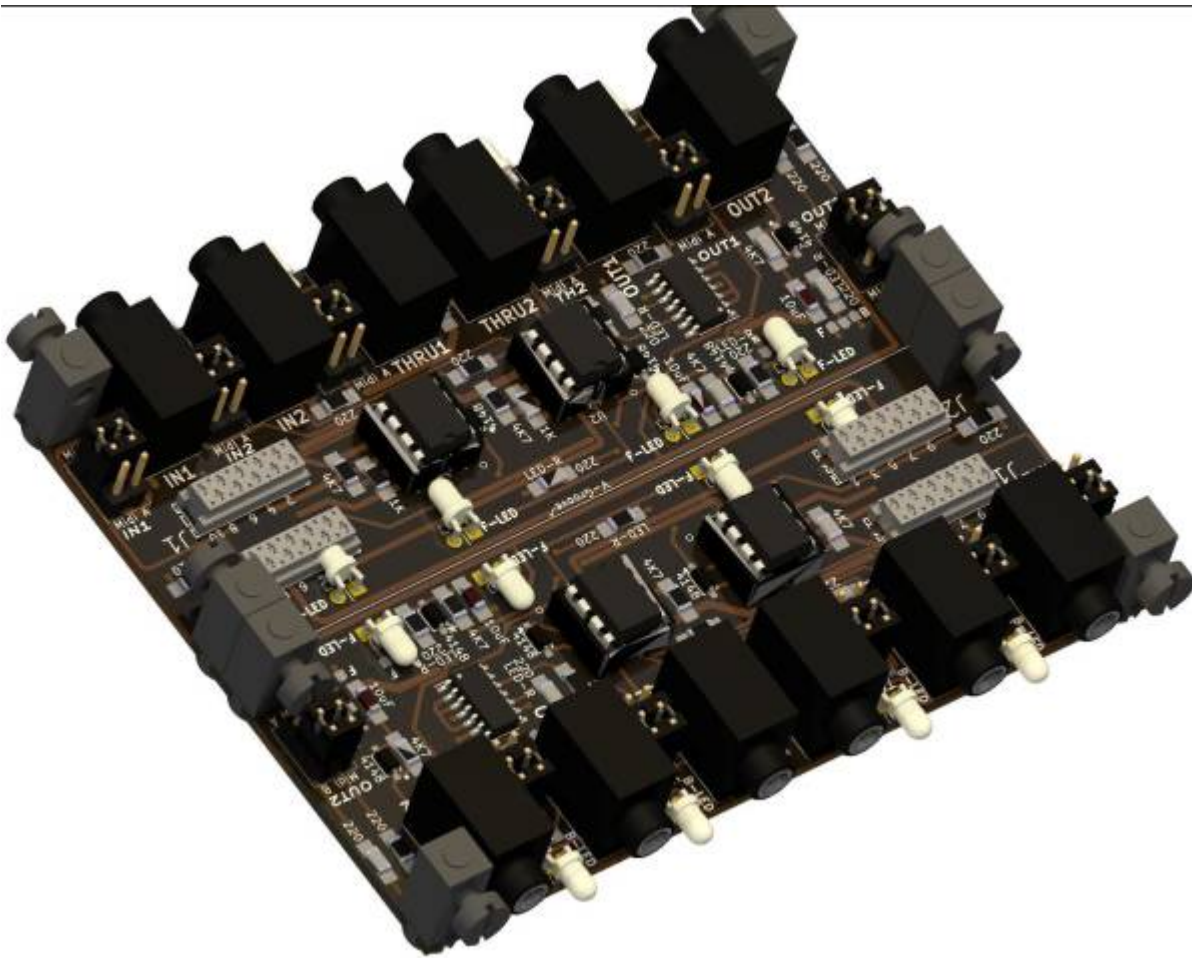
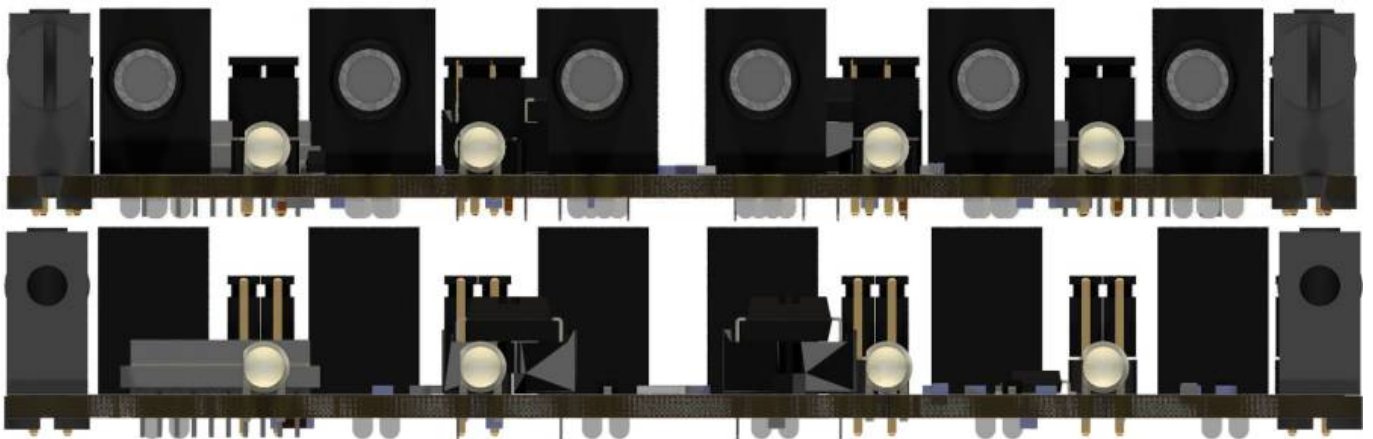
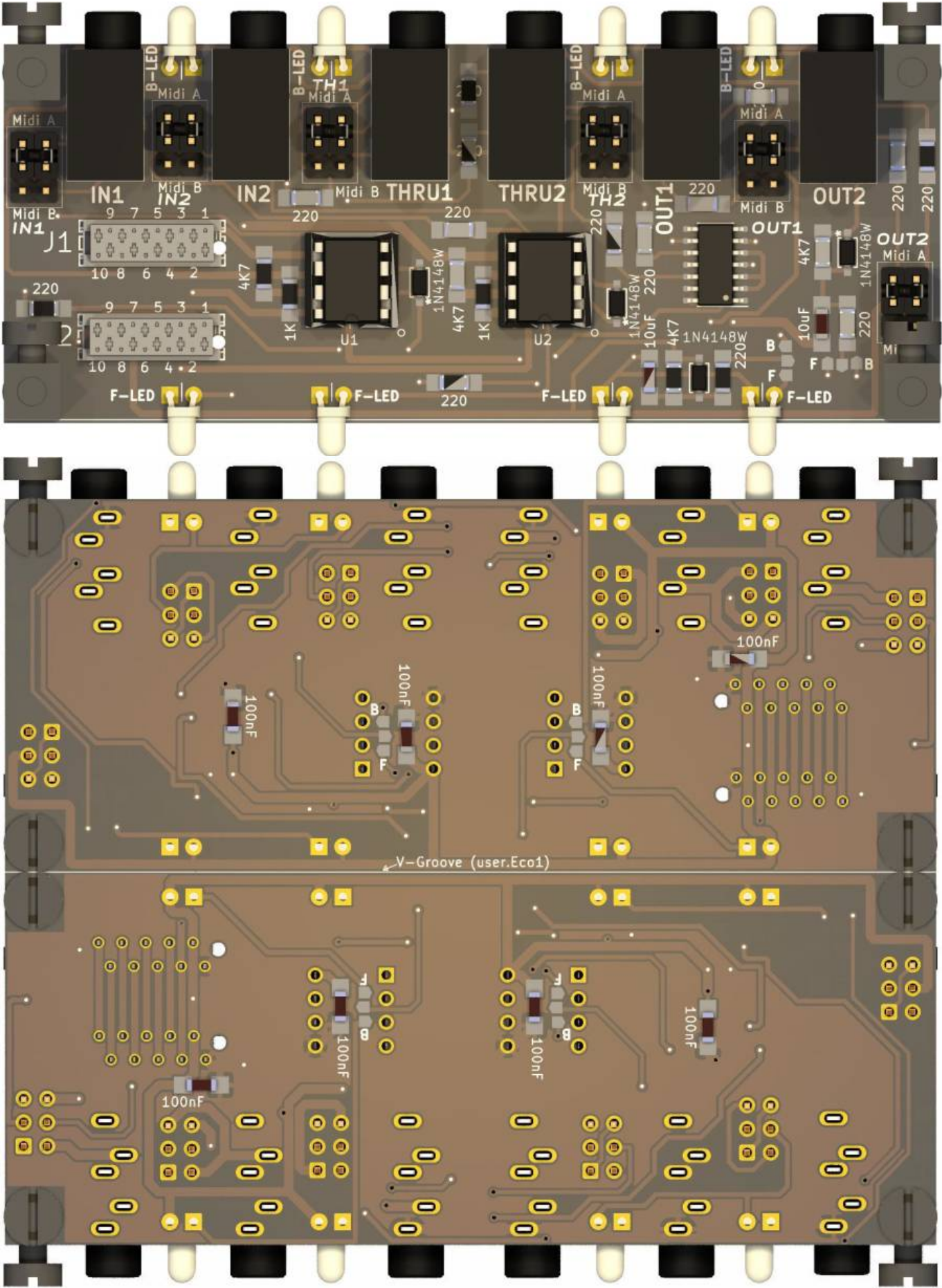


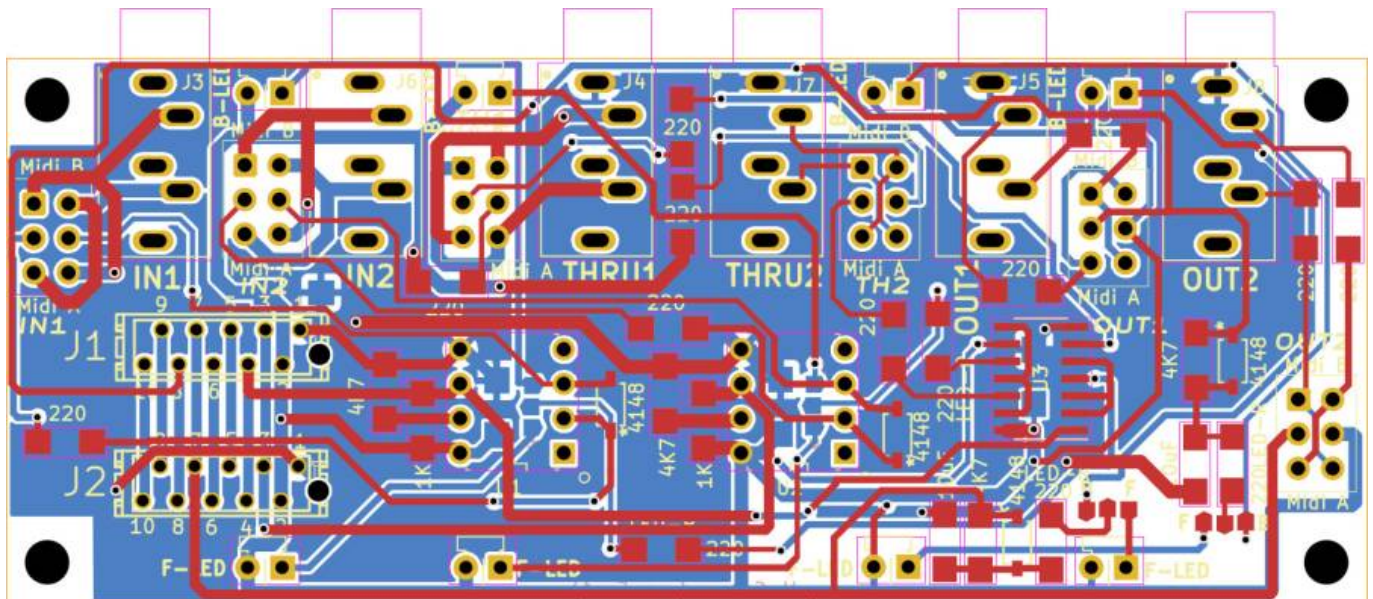
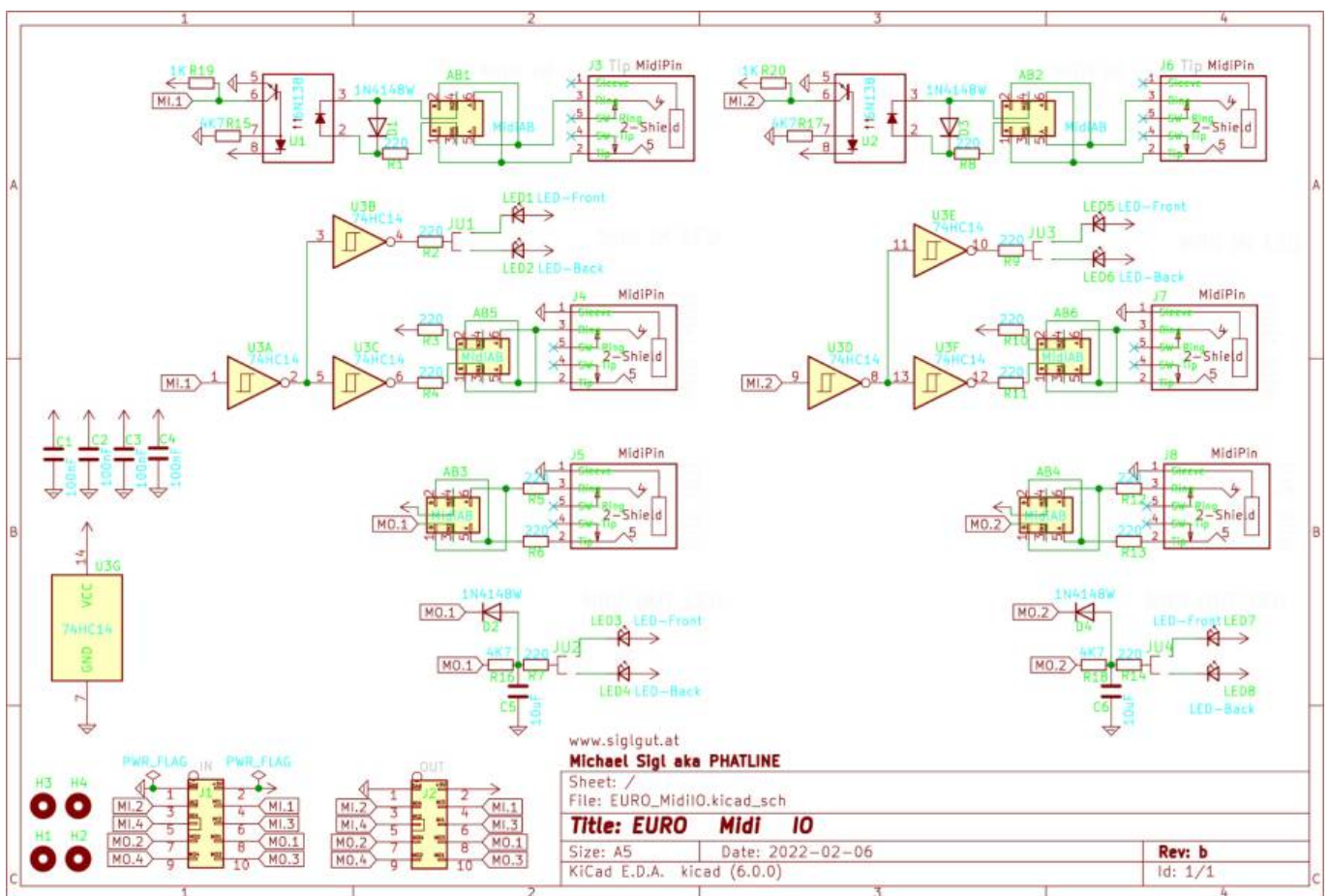
# EuroRack - Midi IO - Board



**PCB Size is 100x40mm**







## Hardware Requirements

- Soldering Iron - with a Dip that can Handle Thruhole-Parts and 1206 SMDs, solder Paste...
- The other Parts from the BOM
- a Midibox Core32

# Building and BOM

All necessary Information is printed on the PCB, but also check the Schematic...

## Mouser:

| Ref         | Q  | mouser               | Type                 | Footprint                        | Description                        |
|-------------|----|----------------------|----------------------|----------------------------------|------------------------------------|
| AB1 - AB6   | 1  | 649-1012938192001BLF | 2x20 Pin Header      | 2x3 Pin Header 2.54 * 2.54 Pitch | to set Midi A-B Standard           |
| Jumper      | 12 | 571-8815451          | JUMPER               | Jumper                           | to set Midi A-B Standard           |
| C1 - C4     | 4  | 187-CL31B104KBCNNND  | 100nF unolarized     | 1206 inch - 3216 metric          | Unpolarized! > 10V                 |
| C5 - C6     | 2  | 963-TMK316AB7106KLHT | 10uF unpolarized     | 1206 inch - 3216 metric          | Unpolarized! > 10V                 |
| D1 - D4     | 4  | 241-1N4148W_R1_00001 | 1N4148W              | SOD123-DIODE                     | doesn't draw much current          |
| J1 - J2     | 2  | 571-12150790         | TE Connectivity      | 2x5P Micromatch Female           | To solder in the PCB               |
| J1 - J2     | 4  | 571-1-2178712-0      | TE Connectivity      | 2x5P Micromatch Male             | Crimp Connector for Flat-Cables    |
| J3 - J8     | 6  | 490-SJ1-3535NG       | CUI 3.5mm Audio Jack | 3.5mm Jack                       | those you know from PC-Mobos       |
| LED1 - LED2 | 2  | 696-SSL-LX30FT4ID    | LED ROT              | LED_3mm                          | there are 8 LEDs you use only 4... |
| LED3 - LED4 | 2  | 696-SSL-LX30FT4GD    | LED GRÜN             | LED_3mm                          | ... front or back soldered         |
| R1 - R14    | 14 | RC1206FR-07220RL     | 220                  | 1206 inch - 3216 metric          | 5 10% doesn't matter               |
| R15 - R18   | 4  | CR1206-JW-472ELF     | 4K7                  | 1206 inch - 3216 metric          | 5 10% doesn't matter               |
| R19 - R20   | 2  | AC1206FR-071KL       | 1K                   | 1206 inch - 3216 metric          | 5 10% doesn't matter               |
| U1 - U2     | 2  | 630-6N138-000E       | 6N138                | DIP-8                            | Optocoupler                        |
| U1 - U2     | 2  | 437-1108730441001101 | IC Socket 2x 4 Pin   | DIP-8                            | Socket for Optocoupler             |
| U3          | 1  | 771-74HC14D-T        | 74HC14               | SOIC-14                          | SOLDER SKILLS                      |
| Cable       | 1  | 617-09180407001      | Flat                 |                                  | a quantity forEver                 |

**copy following Lines in the box - and make a new project**

```
649-1012938192001BLF|1
571-8815451|12
187-CL31B104KBCNNND|4
963-TMK316AB7106KLHT|2
241-1N4148W_R1_00001|4
571-12150790|2
571-1-2178712-0|4
490-SJ1-3535NG|6
696-SSL-LX30FT4ID|2
696-SSL-LX30FT4GD|2
```

RC1206FR-07220RL|14  
CR1206-JW-472ELF|4  
AC1206FR-071KL|2  
630-6N138-000E|2  
437-1108730441001101|2  
771-74HC14D-T|1  
617-09180407001|1

then decide **how often you want to order all off**, the BOM Quantity is for **1Module**

On one PCB you have 2 ident MidilIO-Modules, on JLCPCB you order typically 5 PCB, so your quantity may be 10x

BUT dont buy multiple Flatbandcables... these are hundrets of meter!

**1 times: 45€** 25€ parts and 20€ shipping...shipping excl fat

if you go over 50€ shipping is free.

lets take a look if we order it

**5 times: 95€** incl free shipping excl vat

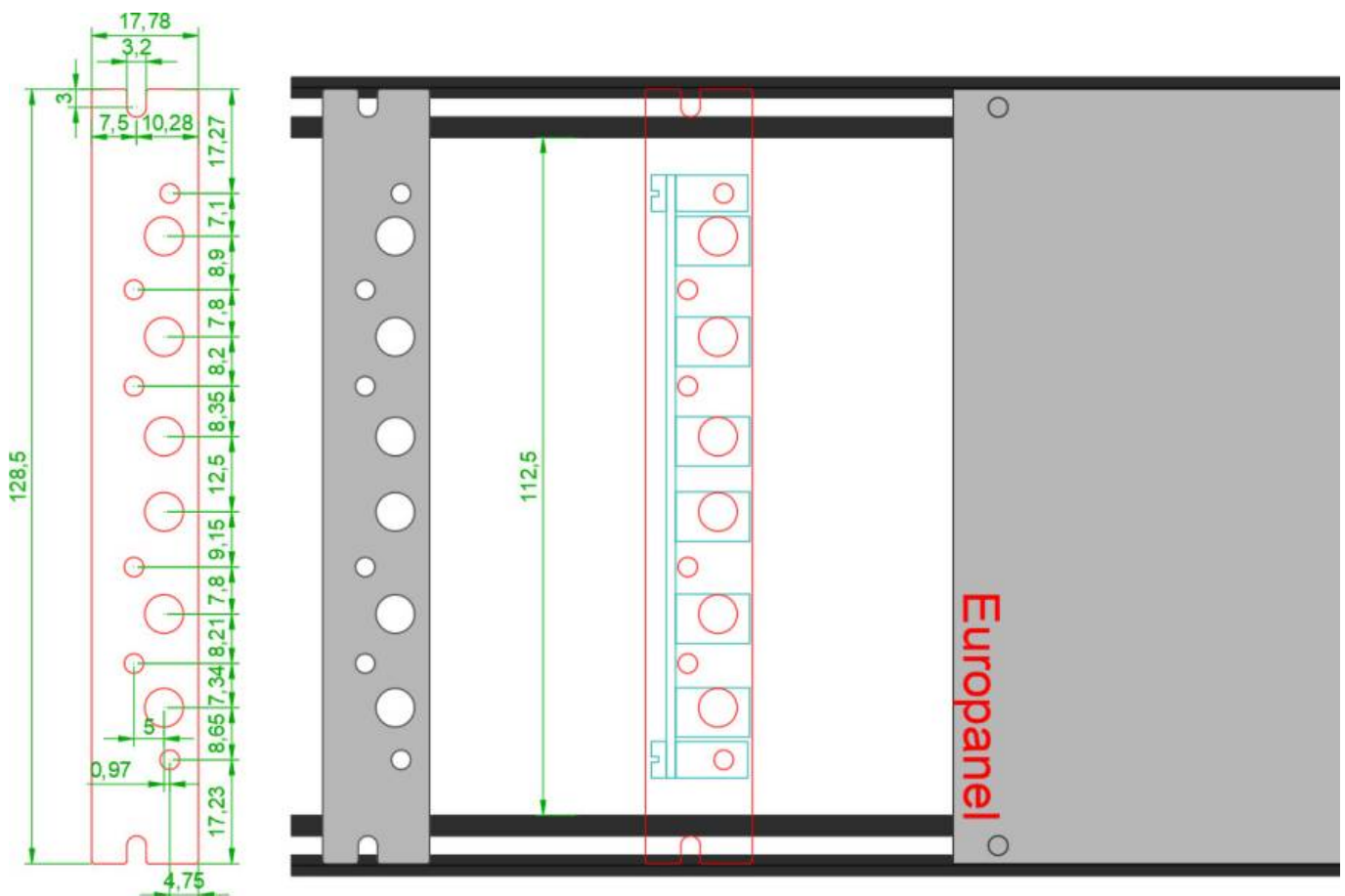
**10times:176€** incl free shipping excl vat

4x (or 20x) [Leiterplatten Montageblock aka Standoffs](#) 100x summed 30€

You will also need M3 Screws - 2 off them...

Also here it is clever to order 100 pieces for a cheaper price - you will need this on all my projects...

## Frontpanel

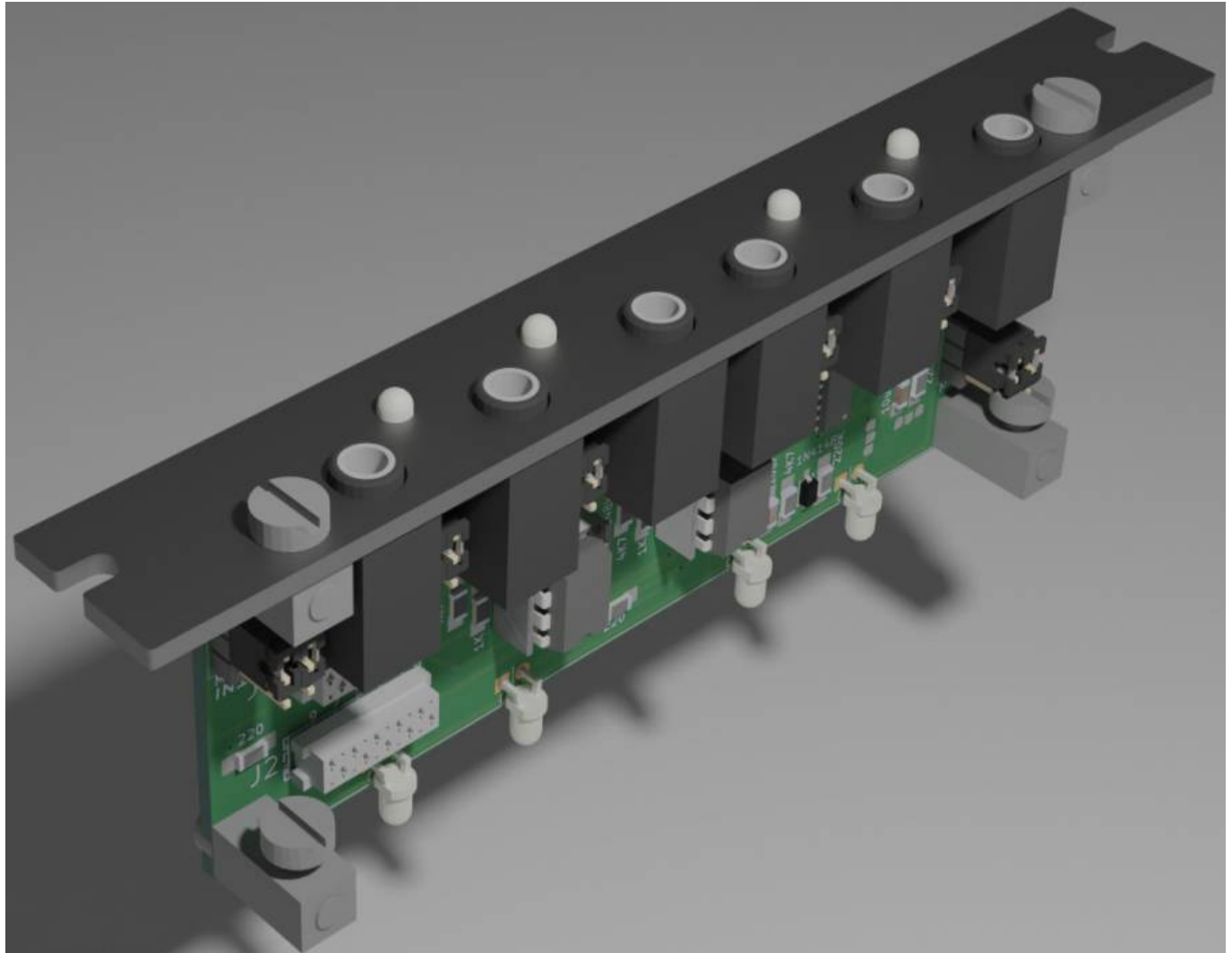


**I made a DXF File which you can print, and drill it DIY or****you can send to:** (once the prototype state is gone)[frontpanels.de in germany](#) 17,08€ a panel (5x-10%, 10x-20%, 20x-30%, 30x-40%, 100x-50%[The Beast - UK](#)[Schaeffer-ag.de](#)**Recommend Material**

2mm x 128.5 x 17.78 Aluminium, anodised

[frontpanel-euromidi.zip](#) - NOT TESTET**A cheaper way is: order a 1,6mm thick Aluminium PCB as Frontpanel:**

I will test this... this are the gerbers:



## To Do

Since i already debugged Rev.A - and this is the overworked Rev.B - there should not be much to do, except to test the gerber filers... i am happy with Rev.A (have still PCBs so no check of RevB in near future!)

# Community users working on it

- **Phatline** = PCB & Schematic, Documentation...

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

From:

<http://wiki.midibox.org/> - **MIDIbox**

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