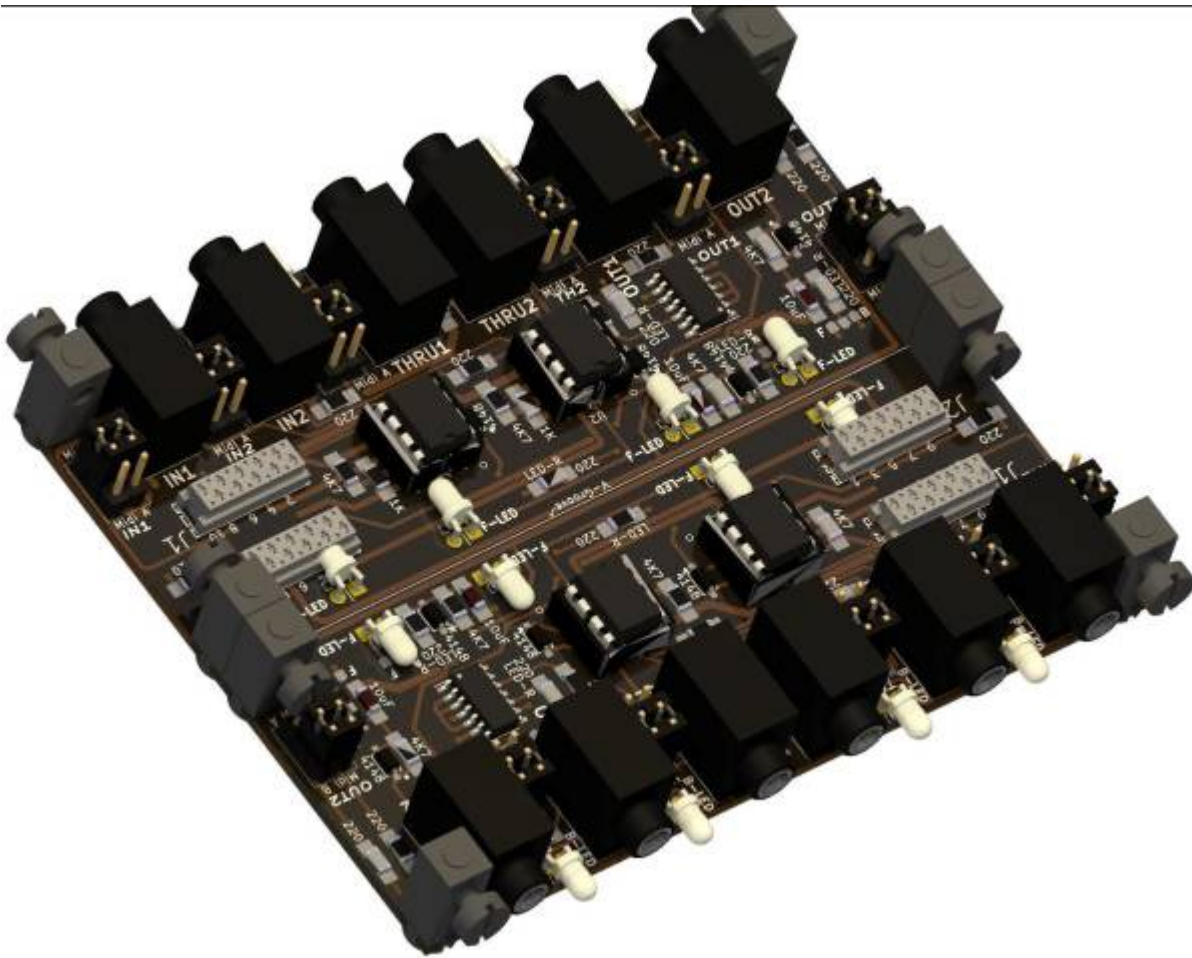
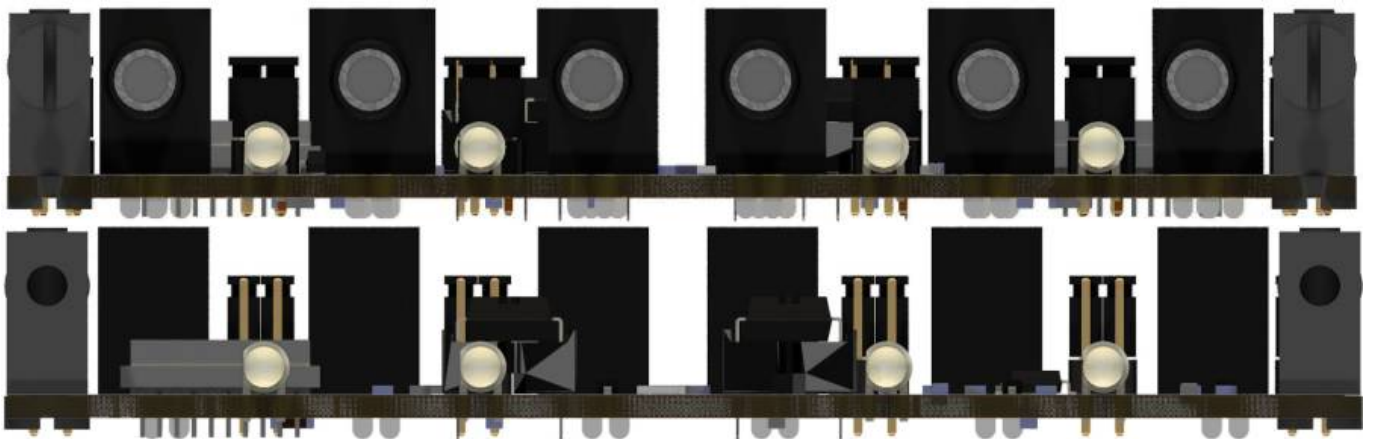
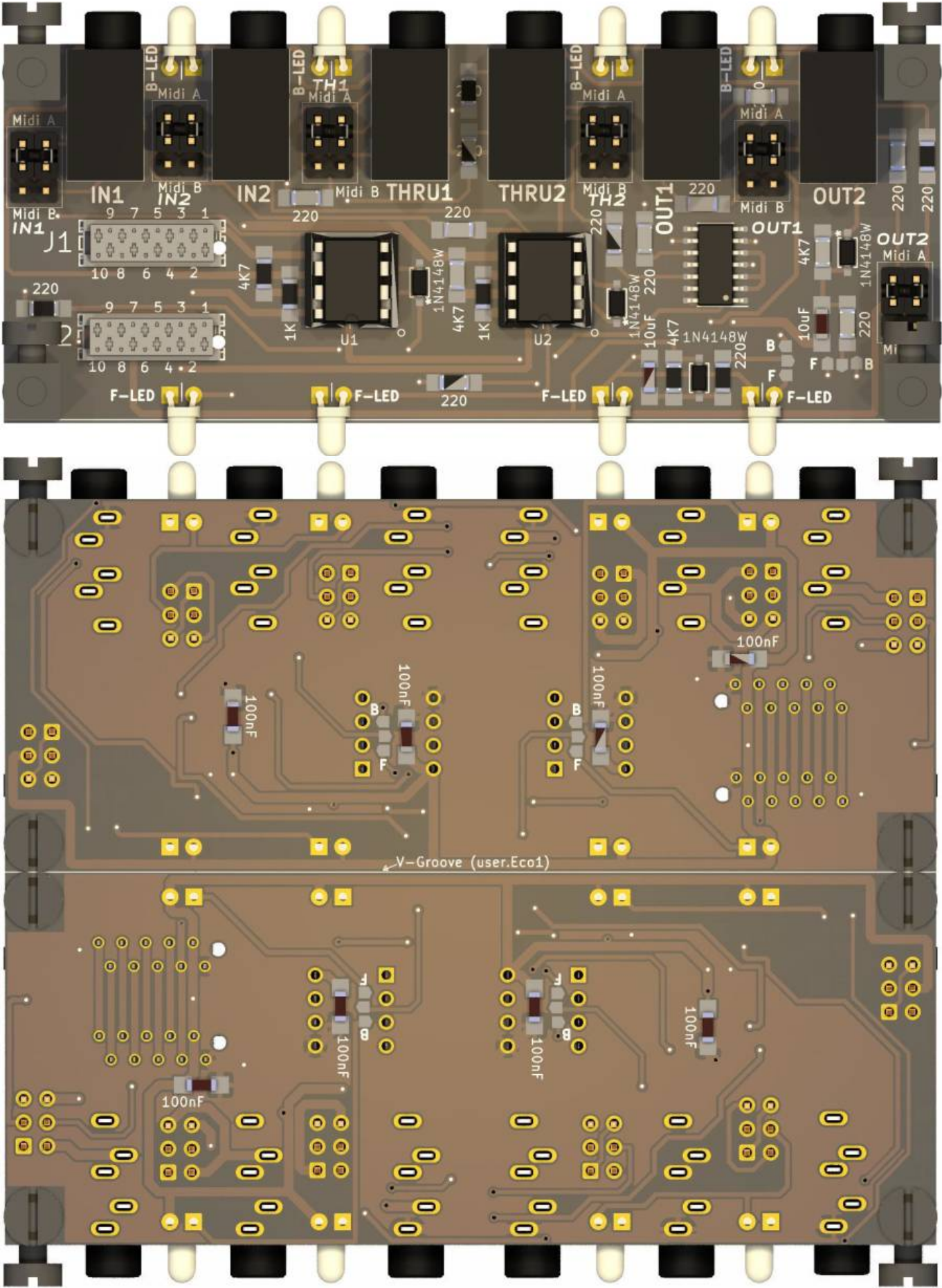


# EuroRack - Midi IO - Board

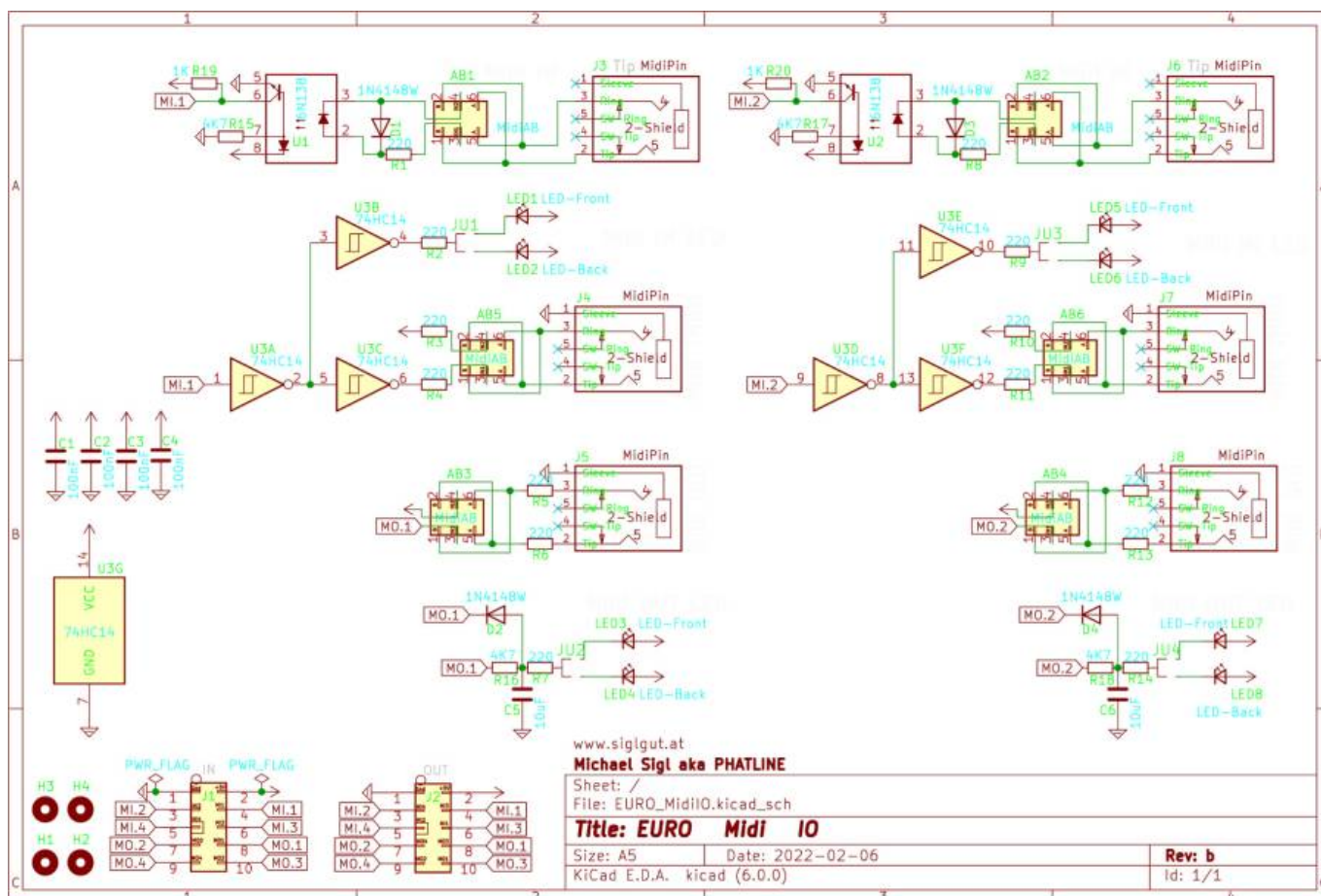


**PCB Size is 100x40mm**









 - The Connection from J1 to J2 is wrong - its 1:1 but it has to be crossed.

## 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       |

| Ref         | Q  | mouser               | Type                 | Footprint               | Description                        |
|-------------|----|----------------------|----------------------|-------------------------|------------------------------------|
| 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

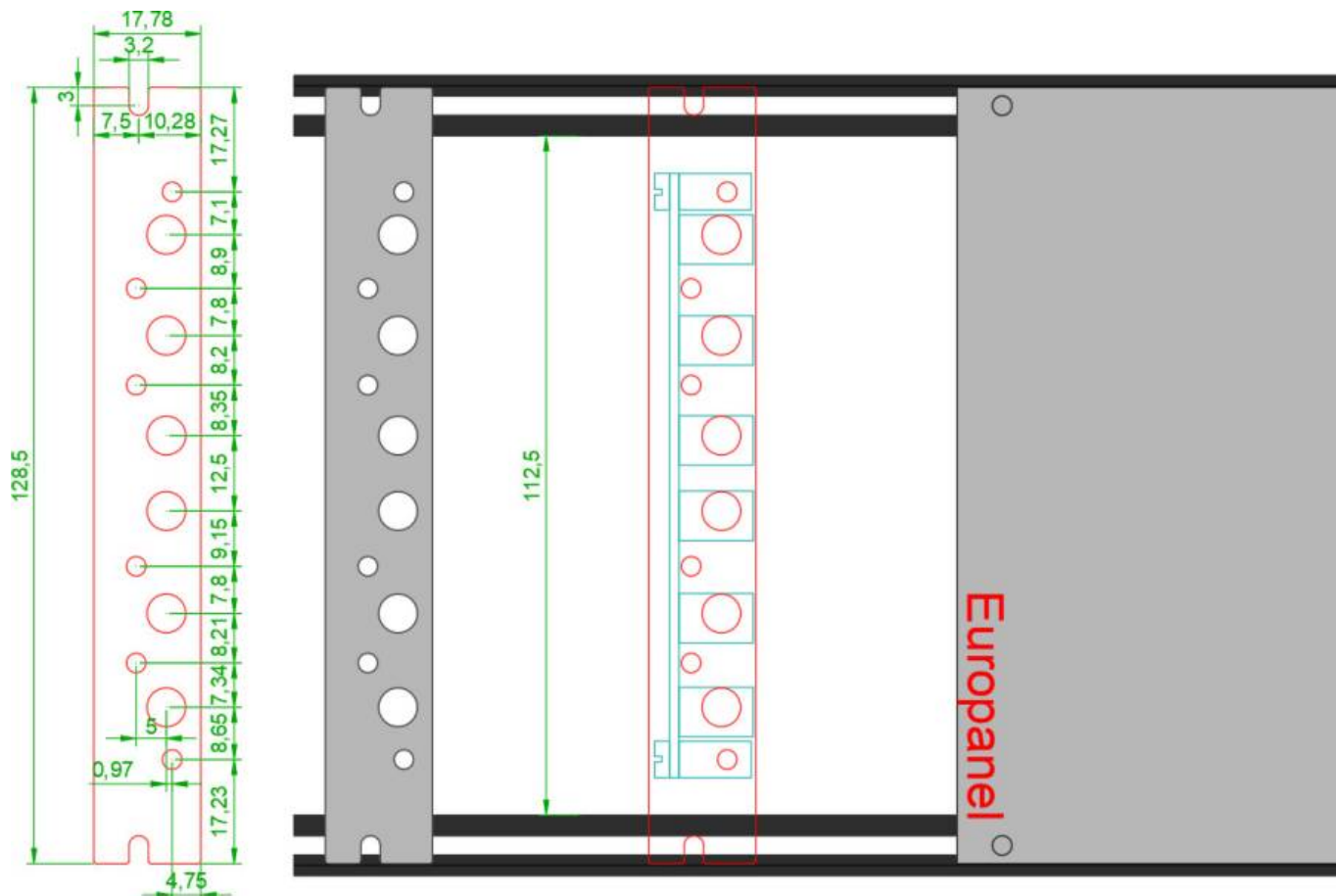
```

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

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

BUT don't buy multiple Flatbandcables... these are hundreds of meter!





I made a **DXF**File which you can print, and drill it DIY or you can send to:

[frontpanels.de](http://frontpanels.de) in germany 17,08€ a panel (5x-10%, 10x-20%, 20x-30%, 30x-40%, 100x-50%)

I tested one with them - and yes they looking good - and they fit!:

another good guy: [The Beast - UK](#)

### Recommend Material

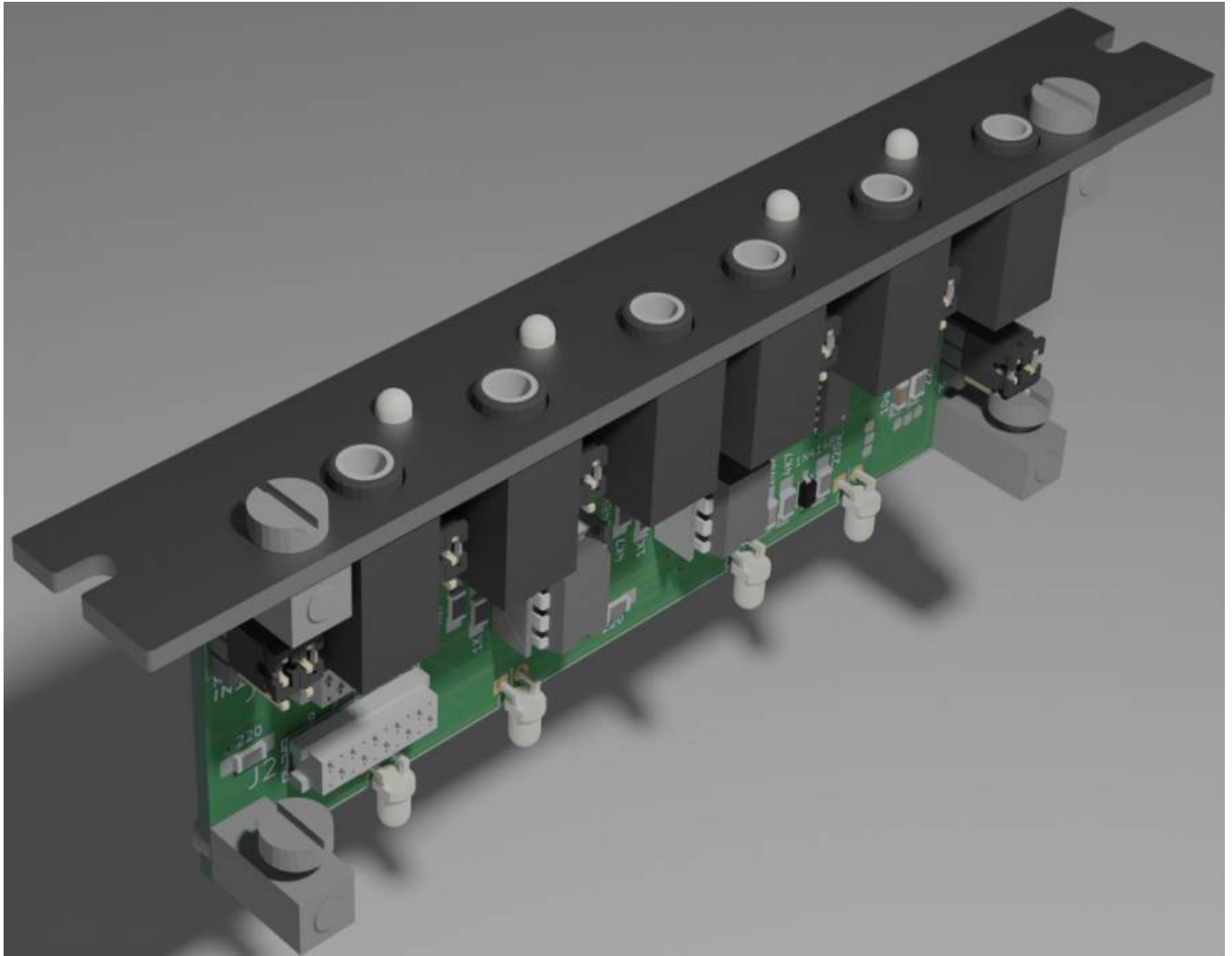
2mm x 128.5 x 17.78 Aluminium, anodised

**A cheaper way is: order a 1,6mm thick Aluminium PCB as Frontpanel:**

this are the gerbers:

[gerber-euro\\_midiiio\\_fp.zip](#)

I have testet it, and this 1.6mm Aluminium from JLCPCB is too thin, i endet up by sandwith 2 off them togehter - so its strong enough, since the Labels are reversed when use the PCB reversed - i now removed them in this gerber file!



## 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://www.midibox.org/dokuwiki/> - **MIDIbox**

Permanent link:

<http://www.midibox.org/dokuwiki/doku.php?id=euro-midi-io&rev=1644592909>

Last update: **2022/02/11 15:21**

