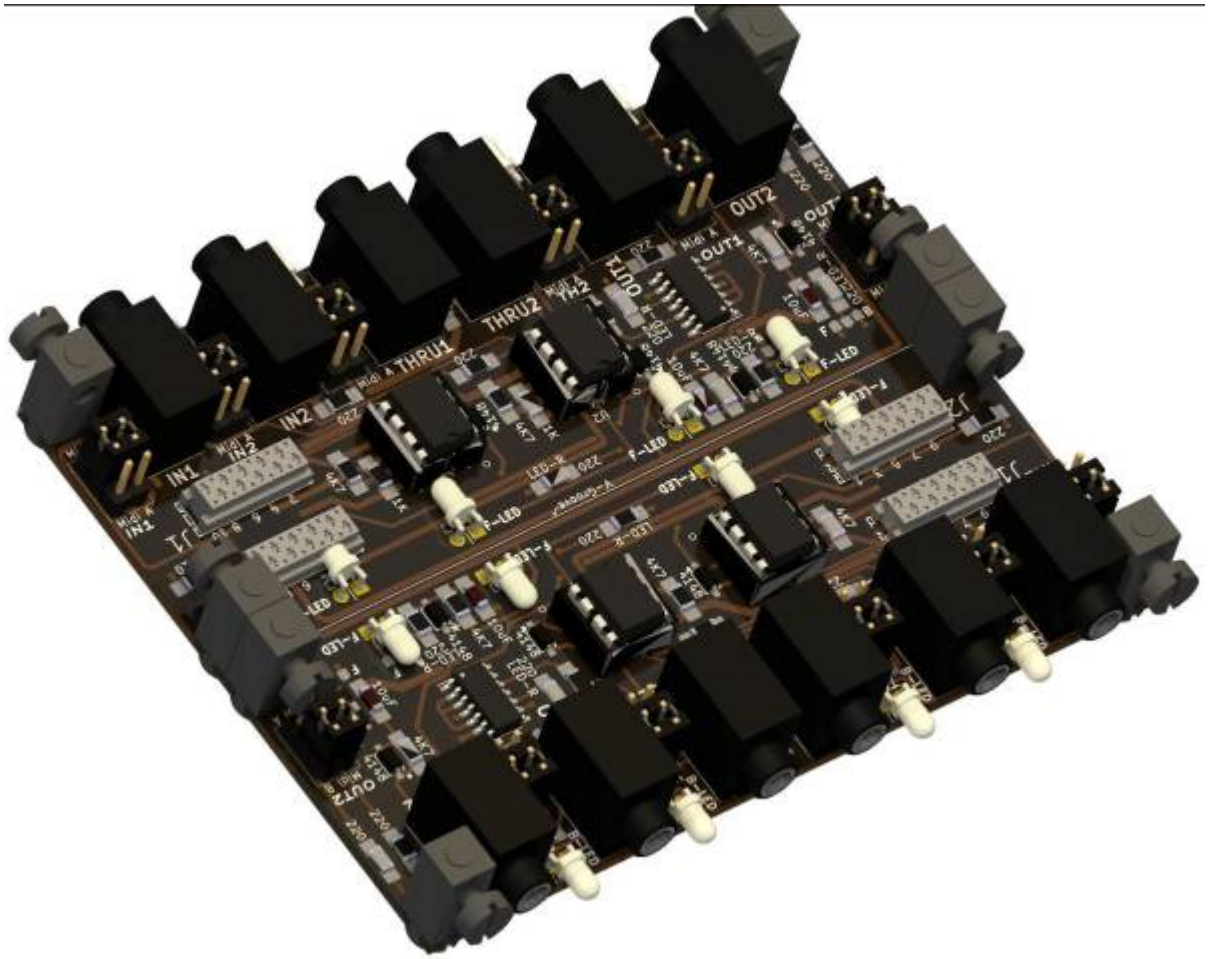
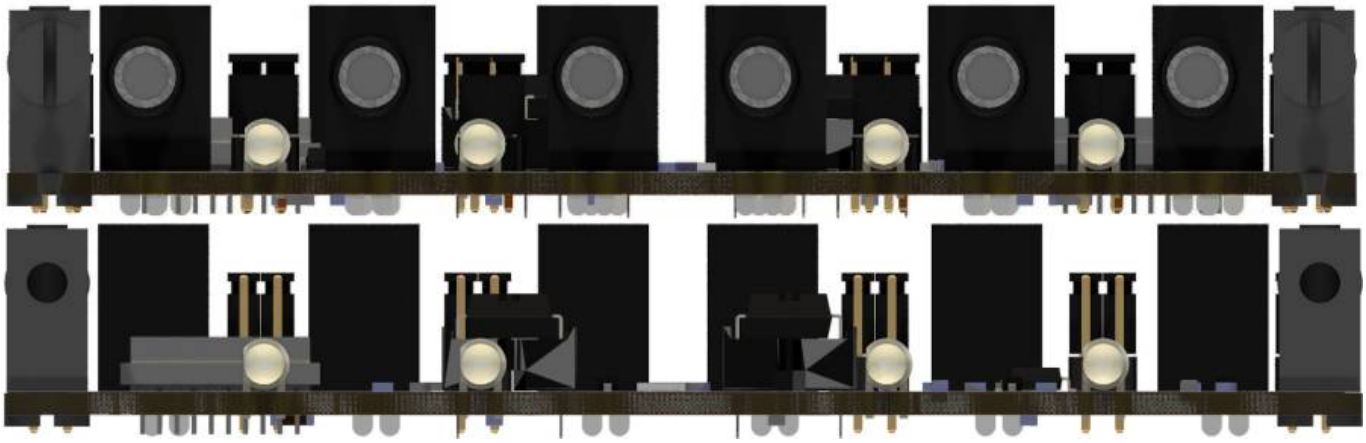
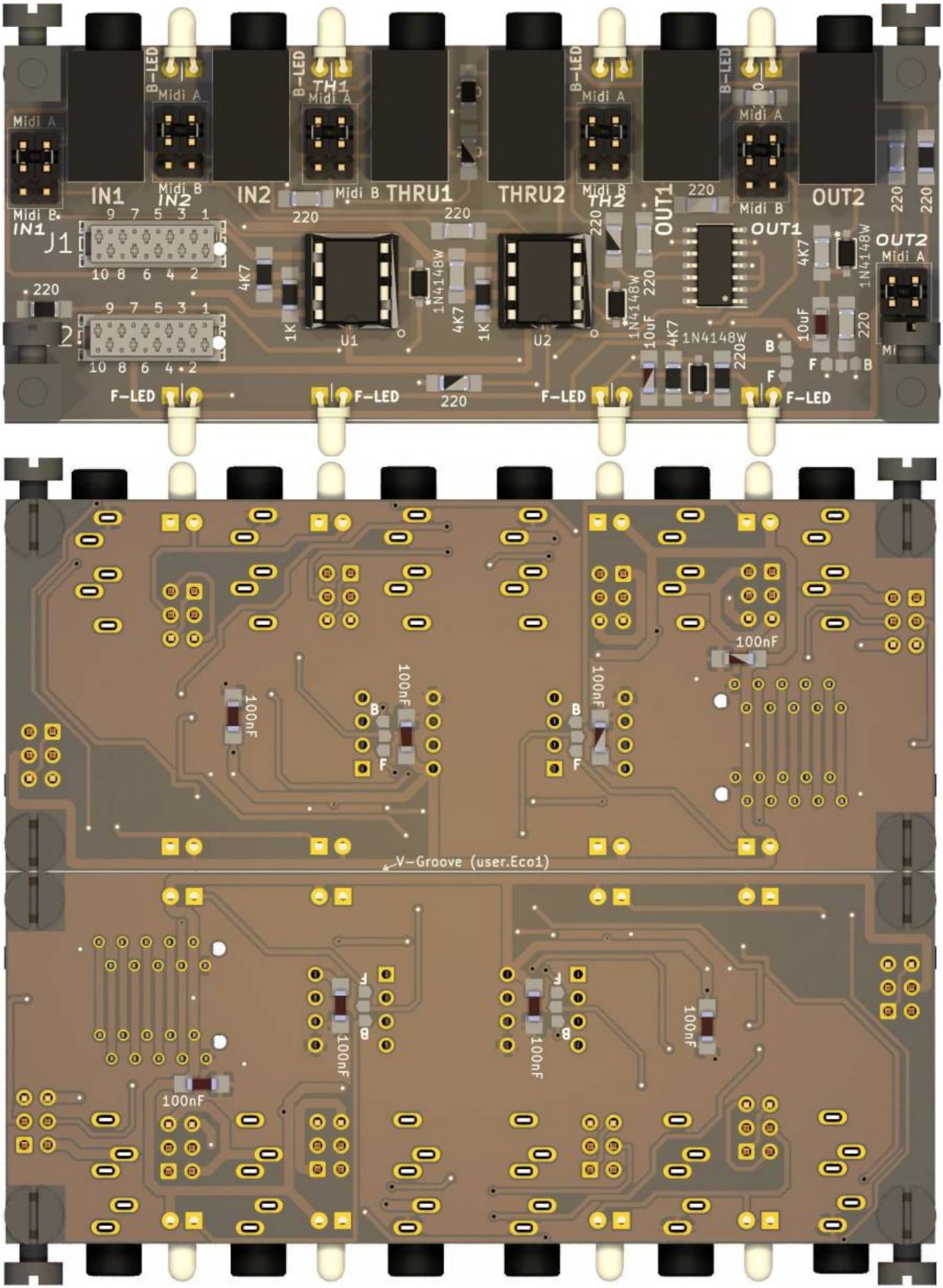
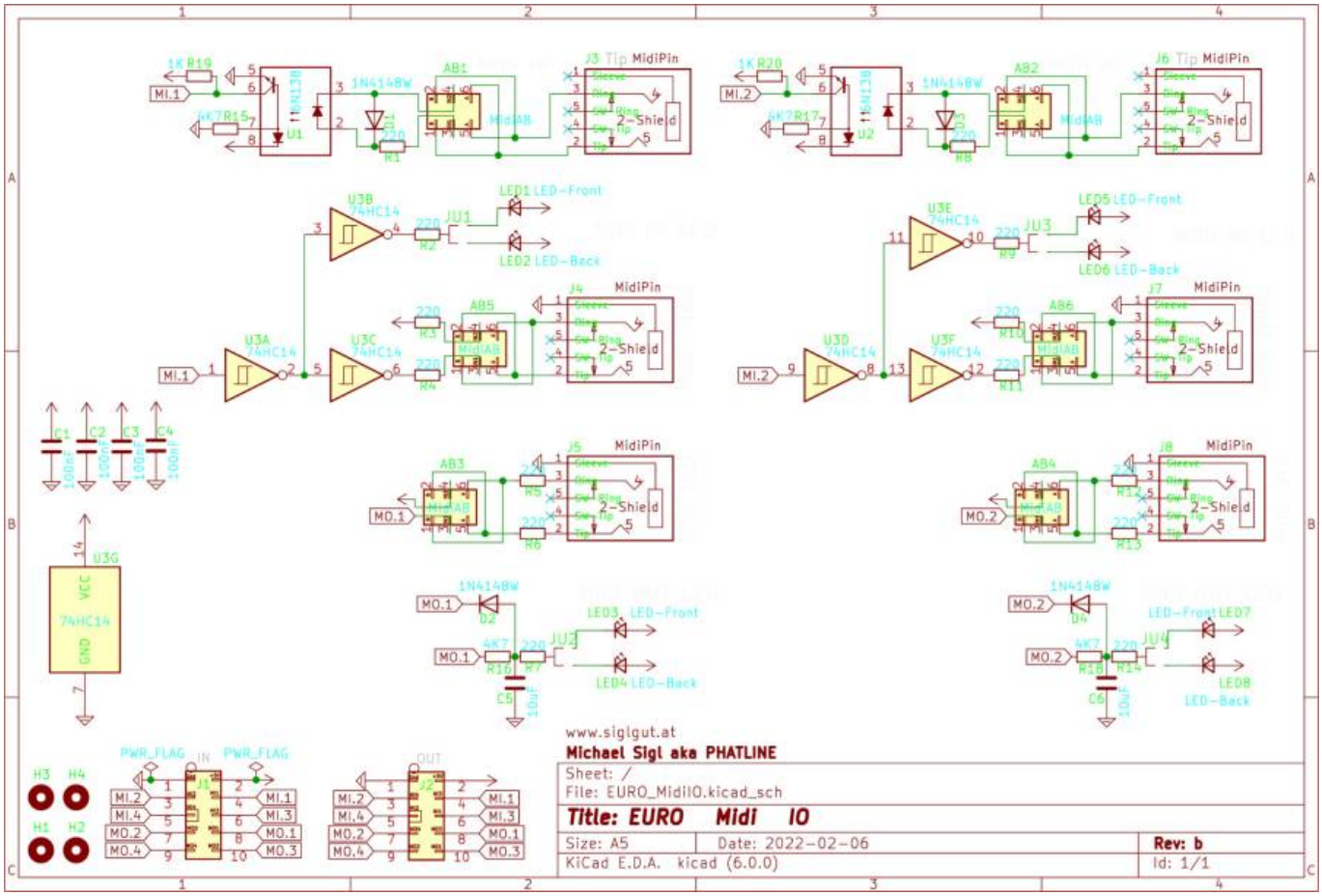
# EuroRack - Midi IO - Board

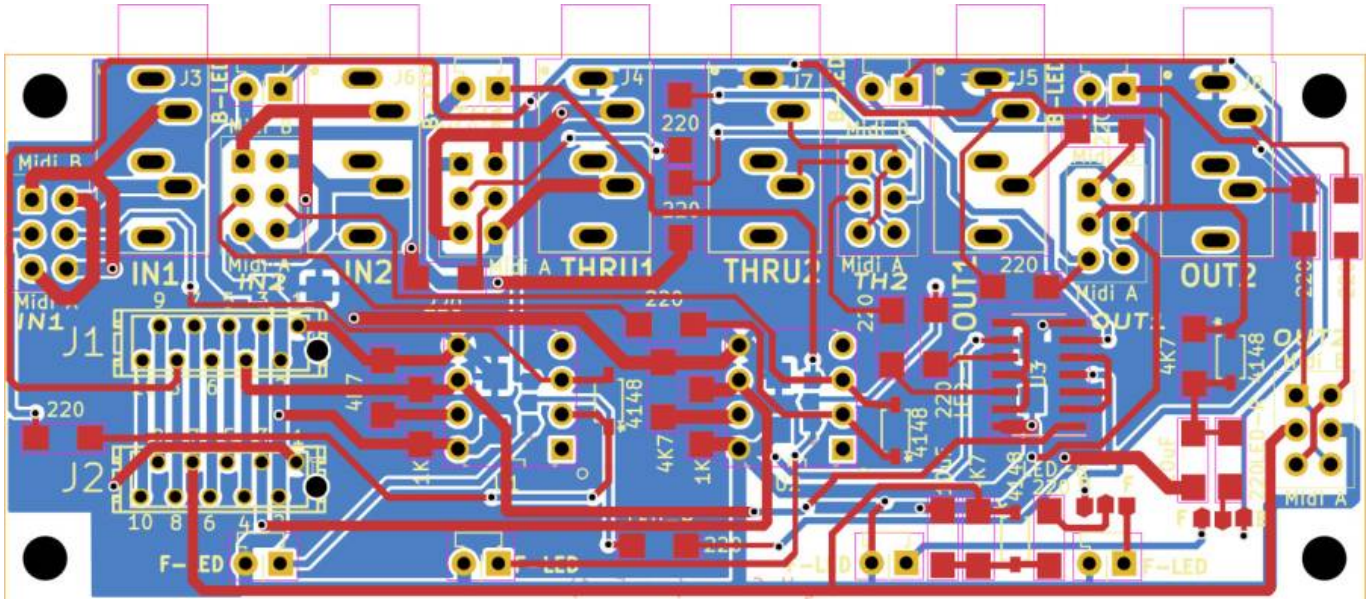



**PCB Size is 100x40mm**




IN1
IN2
THRU1
THRU2
OUT1
OUT2
TH1
TH2
Midi A
Midi B
B-LED
F-LED
J1
J2
U1
U2
1N4148W
4K7
1K
220
10uF
100nF
V-Groove (user.Eco1)




# 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 necessery Information is printet on the PCB, but also check the Shematic...
**Mouser:**

| Ref | Q | mouser | Type | Footprint | Description |
|---|---|---|---|---|---|
| AB1 - AB6 | 1 | 649-1012938192001BLF | 2×20 Pin Header | 2×3 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 | doesnt draw much current |
| J1 – J2 | 2 | 571-12150790 | TE Connnectivity | 2x5P Micromatch Female | To solder in the PCB |
| J1 – J2 | 4 | 571-1-2178712-0 | TE Connnectivity | 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% doesnt matter |
| R15 – R18 | 4 | CR1206-JW-472ELF | 4K7 | 1206 inch - 3216 metric | 5 10% doesnt matter |
| R19 - R20 | 2 | AC1206FR-071KL | 1K | 1206 inch - 3216 metric | 5 10% doesnt 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

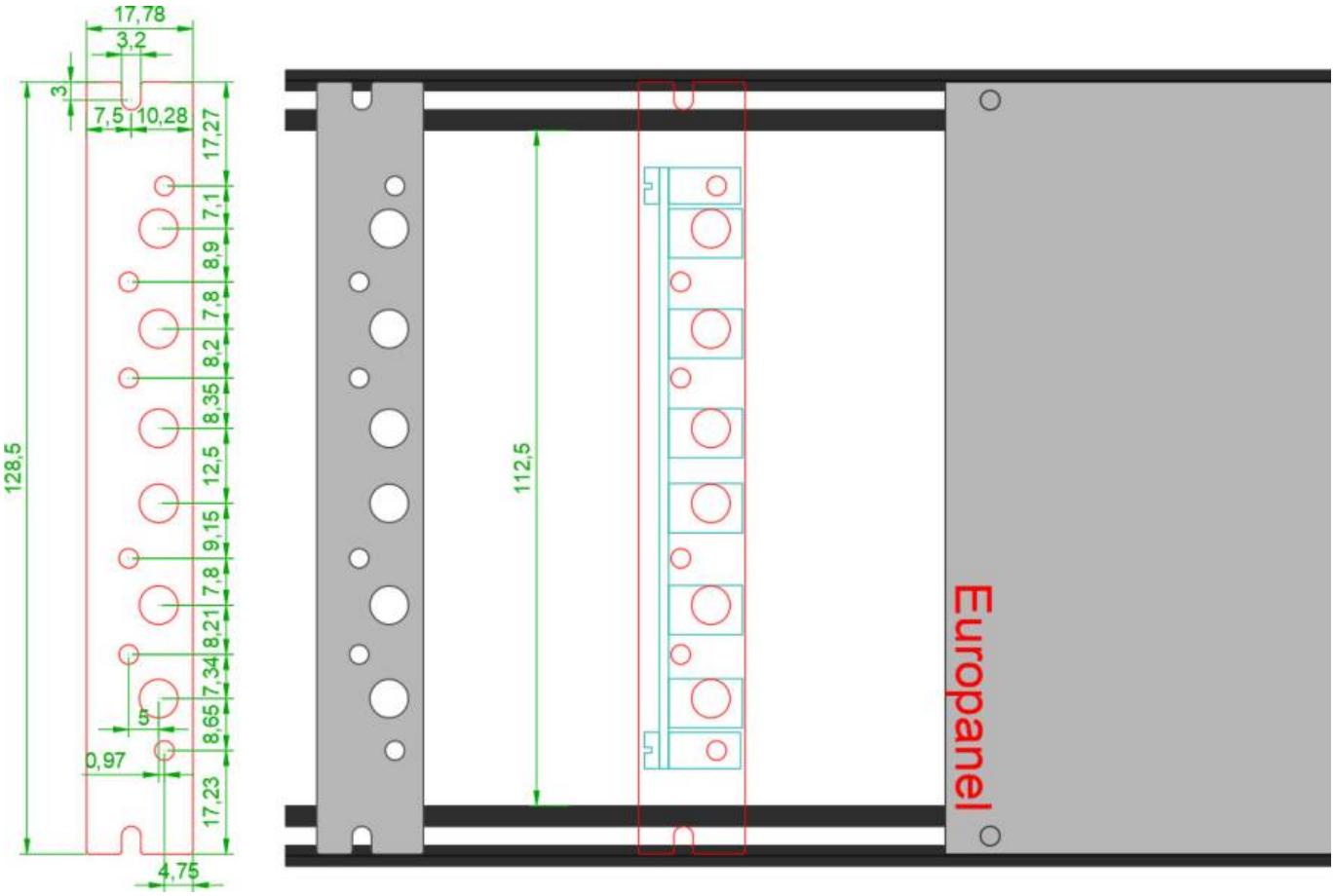
RC1206FR-07220RL|14
CR1206-JW-472ELF|4
AC1206FR-071KL|2
630-6N138-000E|2
437-1108730441001101|2
771-74HC14D-T|1
617-09180407001|1

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 typicaly 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 fat
**10times:176€** incl free shipping excl fat

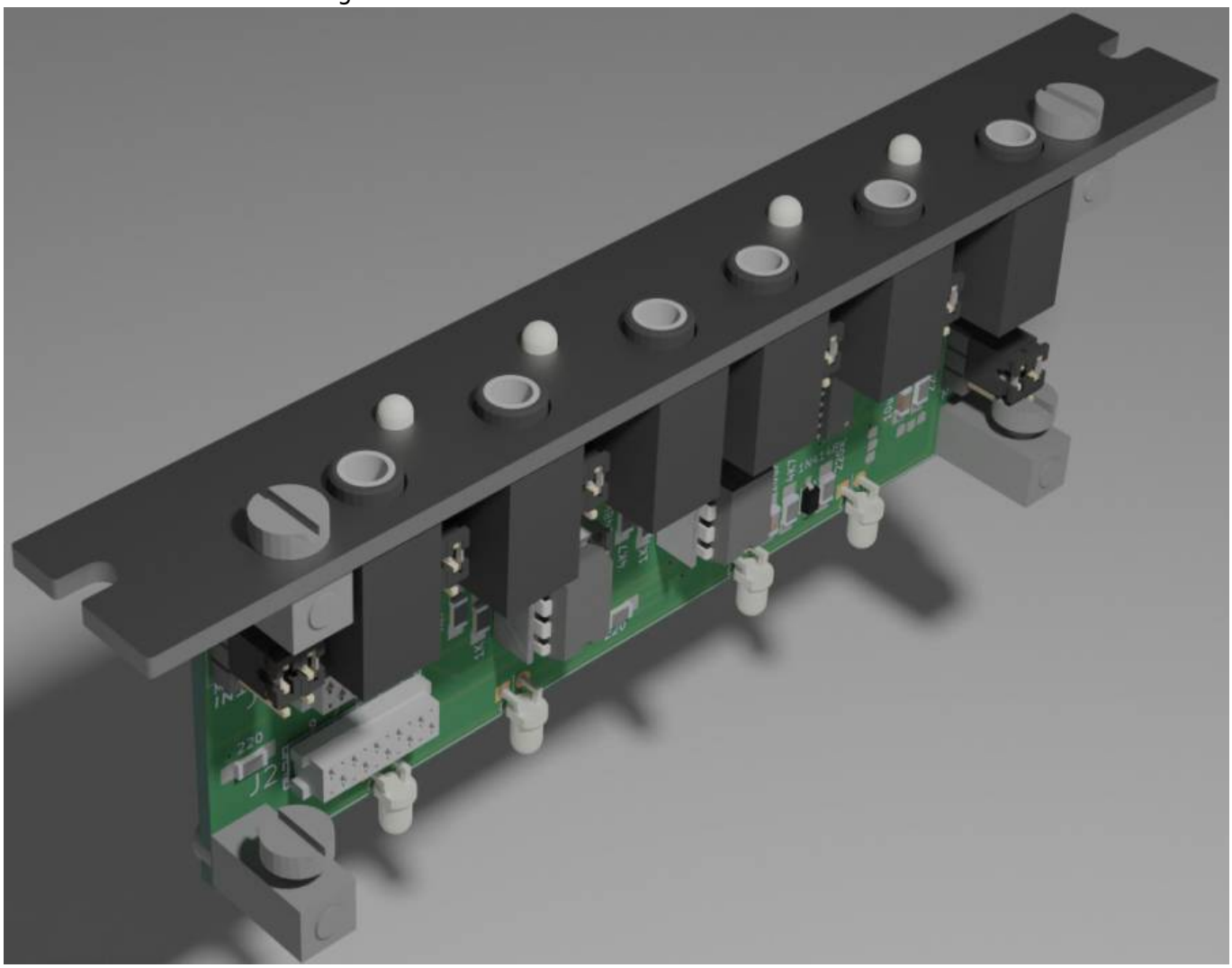
4x (or 20x) Leiterplatten Montageblock aka Standoffs 100x summed 30€
You will also need M3 Screws - 2 off them...
Also here it is clever to order 100 pieces for a cheaper price - you will need this on all my projects...

# Frontpanel



**I made a DXF File which you can print, and drill it DIY or**
**you can send to:** (once the prototypestate 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 & Shematic, Documentation...

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

From:
https://midibox.org/dokuwiki/ - **MIDIbox**

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Last update: **2022/02/06 06:20**