Yo MidiBox Peeps!

I just started working on this page, but it will be the future home of the boards and designs I have made over the course of making my own projects. You can also visit my website for stuff regarding my MidiBox projects, other hobbies, and my random blog posts about nothing :)

Boards

All these boards (and schematics) were created with the free version of EagleCAD. Some designs have been marked up with some custom layers requires for BatchPCB (specifically the silk-screening process). I'm always open to ideas if you know how to make the designs better! Otherwise, they are here for the taking to do with as you please. I only ask that you give credit where credit is due if you plan on making your own modifications. This is just a request, however, and isn't required :)

C64 Optimized PSU

This board is a re-creation of the power section of the C64 Optimized PSU schematic from ucapps. The nice thing is that it's quite tiny, although the regulator may tend to get hot my original design didn't account for adding a heatsink. For small setups, though, it should work.

Details about this board can be found on this forum post. I'll eventually add the schematics and board layout as a direct download from my website.

BankStick 7-1

I built this board partly because I was having trouble building it on a prototype board. I based it off of the BankStick x8 schematic available from ucapps with minor modifications. I call it 7-1 because 7 chips can be placed on the board itself, with an optional header to make it possible to hook up an external BankStick.

The only problem I ran into with this board was that my design rules didn't exactly match those from BatchPCB and, as a result, my ground plane was split. It was easy to fix, however - I just soldered a wire from the GND of one of the chips to the GND on my DIL header. Since it's on the bottom, the aesthetics are preserved, although if I end up making another one of these you can bet I'll be fixing that ;)

Details can be found in this forum post.

SID-PWR

This is a work-in-progress. I wanted to build a power supply that could efficiently power my MidiBox SID and did NOT use a C64 power supply. No offense to them as they work well but they are next to impossible to get into if a fuse blows, etc. While I may not be able to make a better power supply, I can make one that I can at least work on :)

My design basically uses a center-tapped 10V transformer so that I can use it to generate 10V and 5V AC. Each half is converted to DC and regulated, but I also added pico-fuses and some additional caps.

Some of the cap choices were black magic voodoo, I'll admit, but I figure more caps can't hurt (apart from adding a bit more resistance).

I have not tested this board yet (parts are in the mail so I can build it on a protoboard) so we'll see how it goes ;) I'm a bit worried about the headroom needed for the 7805. 5 * 1.414 = 7.07 which should be about enough. If it doesn't work, I'll have to go to a 12VCT transformer, which might be tolerable since I'm planning on using heatsinks.

More information about this board can be found in this forum post.

ModMatrix

This is another situation where I figured it would be easier to have a board printed than try to wire something up on a protoboard. This board is for the Modulation Matrix part of the MidiBox-SID control surface. At the time of this writing, I have not yet had this board printed as I'm waiting to take more measurements, settle on a front-panel design, etc. While it's untested, you can find the board layouts, schematic, and more info in this post.