MIDIbox FM

Intro

MIDIBox FM Synthesiser is a project that uses OPL3 FM soundchips (found from many old soundcards) controlled by MIDIBox as a standalone synthesizer.

Features

List 'em

Skills / Equipment Required

Tools

Soldering

Hardware

What modules do I need?

Adjust List as required:

Core Module

OPL3 Module

LCD Module

Bankstick Module

DIN Module

DOUT Module

AOUT Module —or— AOUT_NG Module

Parts List

List of pots, buttons, faders and blah - suggestions on good parts and where to buy them + how to hook them up - links

Where to buy Parts

Soundcards

A list of soundcards with YMF262 and/or YAC512 chips

Soundcards

Connections

Connection diagrams

Control Cable Timing Issue

It was been noted on this forum article that errors can surface if the control cable between CORE and OPL3 boards is too long.

- The error shown in the forum article was found when running the testtone application.
- The specific error in the forum article that tone can be heard on outputs 1&2, but not outputs 3&4, however there is no guarantee that this is the only such error that could arise from long cable.
- The error was solved by shortening the control cable between CORE and OPLE3 boards. The cause was confirmed by switching back to a longer cable, at which point the error re-surfaced.
- The error was shown to be on the control cable (RS/A0/A1/WR), not the data cable (D0-D7), however it is advisable to make both these cables as short as is practicable.

Enclosure / Case

Enclosure ideas - link to case construction tips? / provide space to encourage other users to wikify their case designs

Enclosure References

Constructing Enclosures

Software

Setting Up

We recommend you read software before you continue.

Download

Links

Setup Instructions

Up to you

Extra

Usage Manual

Yamaha's Definition of FM Synthesis and How it Works

Overview [uCApps]

User Manual [uCApps]

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