## **MIDIbox FM V2.1**

See http://midibox.org/forums/topic/19073-midibox-fm-v21-on-stm32f4/ and http://midibox.org/forums/topic/18282-midibox-fm-v20-on-lpc17/

This is a synth by Sauraen constructed in 2014-2015. It's as finished as it ever will be, but it was never documented for others to try to replicate... until now!

Please note that this is still not a complete, well-documented project, and certainly not for beginners. I do not guarantee that all the information you will need is available here. Please comment on the MIDIbox FM V2.1 thread to ask for more information when necessary.

## Connection of OPL3 module to STM32F4 core

(Information from

http://svnmios.midibox.org/filedetails.php?repname=svn.mios32&path=%2Ftrunk%2Fmodules%2Fopl 3%2FReadme.txt)

The OPL3's Reset line must be buffered to 5 volts; all the other inputs may be driven by 3.3 volts. Pinout:

- OPL3 D7:0 → PE15:8 (J10A D7:0)
- OPL3 A1:0 → PE7:6 (J10B D15:14)
- OPL3 RS (#IC) → PB8 (J19:RC2)
- First OPL3 WR (#CS, #WR) → PE5 (J10B D13)
- Second OPL3 WR (#CS, #WR) → PE4 (J10B D12)

The pins used for RS and the two CS pins may be changed by defining the appropriate things in your mios32\_config.h file. See the README from the OPL3 module above. (Or just use the MIDIbox FM V2.1 code and hook the wires up as shown here.)

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