



## ALM023 / mmMidi

### TECHNICAL SPECIFICATIONS

Power: +12V 30ma / -12V 0ma  
Size: 4HP  
Depth: 38mm  
Resolution: 12Bit 0-8V via CV  
outputs. +5v via gates

### Module Installation

With your modular synth powered **off** connect the 10 pin end of the supplied standard eurorack power connector cable to the 10 pin power connector on the rear of the module.

The red stripe on the cable should be orientated to match the text 'RED' marked on the rear of the module near the power connector (this is -12V). Connect the other 16 pin end of the cable to your eurorack bus board (Refer to your bus board documentation for the correct orientation).

You are now safe to power up your modular synth. If the module fails to power up check you have the power cable correctly orientated and have carefully read this manual.

# mmMidi

<http://busycircuits.com/alm023>

The mmMidi is a simple & compact MIDI interface for your Eurorack synthesiser. It translates both MIDI clock and 2 Channels of MIDI note, velocity and gate information to corresponding voltage control signals. The mmMidi is quick to set up and requires minimal configuration.

Easily MIDI control a couple of synth voices, sync clocks to MIDI clock and trigger drum or sample modules with the optional expander.

### PANEL OVERVIEW

#### MIDI TRS INPUT

Use included TRS to DIN adaptor cable (Type B) to connect mmMidi to MIDI controller.

#### LEARN BUTTON

Used for channel setup.

#### ACTIVITY LED

Highlights when MIDI activity is received for configured channels 1 & 2.

#### CLOCK OUTPUT

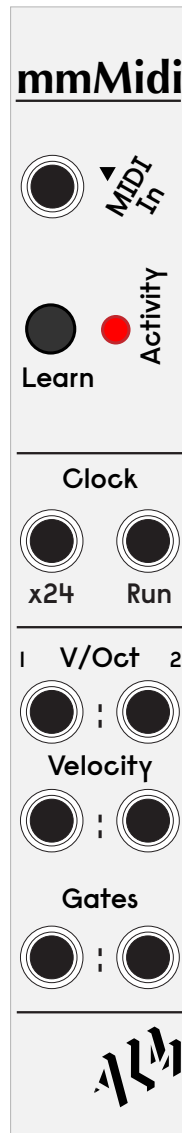
If a MIDI clock is present a 24 PPQN clock will output from the x24 jack and a gate from the Run output. The RUN output is high when the MIDI clock is playing. Note, this is the default clock format ALM's Pamelas NEW Workout expects.

#### OUTPUTS

Voltage outputs for channels 1 and 2.

V/Oct & Velocity are 0-8V range.

Gates are +5V



### CHANNEL SETUP

• Connect mmMidi to your MIDI controller (DAW, keyboard etc - a MIDI device you can set the channel and send key presses). Set the required MIDI channel on the controller corresponding to the first voltage output channel of the mmMidi.

• Hold the 'Learn' button for approx 1 second until activity light starts flashing rapidly.

• On MIDI controller press a key so a MIDI note is sent to mmMidi. The activity light should now flash faster indicating mmMidi has 'learnt' the channel.

• Now change the MIDI channel on the controller for the second voltage output channel and again press a key to send another note. mmMidi activity LED flashes faster again, acknowledging second MIDI channel is now set.

• Finally select a third MIDI channel (*for optional expander - even if it's not present*) and press a key on MIDI controller. The LED will stop flashing and mmMidi is now ready to use with the configured MIDI channels. Setup is remembered across power cycles.

#### NOTE:

- From the factory mmMidi is configured to MIDI channels 1,2 & 3.
- You can cancel setup anytime by pressing 'Learn' again for 1 sec.
- The same MIDI channel number can be used across all outputs.



### OPTIONAL EXPANDER

The 'mmT' is an optional 3HP expander which connects directly to the 'expand' socket on the rear of the mmMidi using supplied cable. It maps the third configured MIDI channel key presses to corresponding trigger/gate outputs as shown on the mmT front panel.

It's useful for controlling drum modules and in particular the ALM Squid Sample.

### Firmware Updates

Firmware updates can be sent over sysex using a program like 'Sysex Librarian' on Mac or 'MIDI0X' on Windows. Load the firmware sysex file and power on the mmMidi with 'Learn' button held down (Activity LED will light and remain lit indicating it is ready to receive Sysex data). Release button and then send firmware data from your sysex program. Activity LED will flash to indicate progress. When all data received mmMidi will reboot with updated firmware installed.

### Support

Need help? Email your questions to [help@busycircuits.com](mailto:help@busycircuits.com)

For the latest news, additional info, downloads and firmware updates please visit the ALM website at <http://busycircuits.com> and follow @busycircuits on Twitter and Instagram.

### Limited Warranty

From the date of manufacture this device is guaranteed for a period of 2 years against any manufacturing or material defects. Any such defects will be repaired or replaced at the discretion of ALM. This does not apply to:

- Physical damage arising from mistreating (i.e dropping, submerging etc).
- Damage caused by incorrect power connections.
- Overexposure to heat or direct sunlight.
- Damage caused by inappropriate or misuse.
- Use of incorrect or non official firmware

No responsibility is implied or accepted for harm to person or apparatus caused through operation of this product. By using this product you agree to these terms.