IMP-THRU
Installation and Usage

This document describes the installation and usage of the Imp-THRU. For a description of the product, its features and further information visit https://oscillatordevices.com/imp

Electrical Properties

Electrical Properties	Min	Typ	Max	
Supply Voltage (+9V Terminal)	7	9	20	VDC
Current Consumption	3		20	mA

The Imp-THRU has reverse polarity protection at the +9V terminal. Be careful nonetheless to not reverse polarity upon installation, as long as other wires are connected. Negative currents could flow through the microcontroller and damage it.

Attention: Digital signals, such as MIDI signals, can lead to crosstalk on other lines. This particularly applies to effects with multiple gain stages (distortion, fuzz, etc.). Pay attention to keep the MIDI wires as far away from the analog circuit as possible. Otherwise it can happen that a click can be heard in the audio signal with every MIDI command. To further reduce possible crosstalk, use shielded wires.

Mechanical Properties

Overview

The Imp-THRU splits the MIDI signal on its input to four MIDI outputs. The input is shielded according to MIDI 1.0 standard. The latency between input and output is less than 1µs.
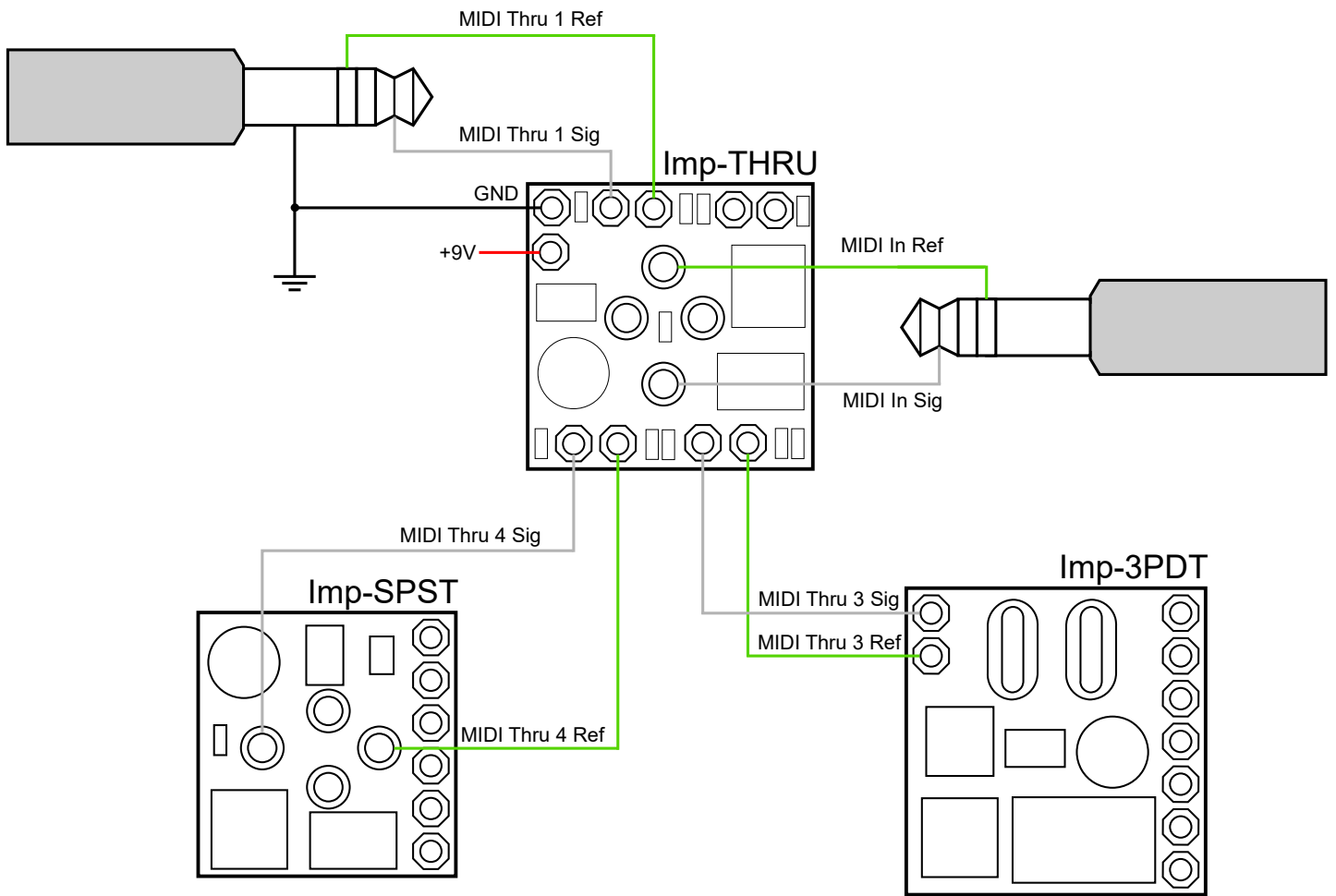
- **+9V/GND**: This is the power supply.
- **MIDI In Sig**: This is the active MIDI input signal. It is connected to **Pin 5** of a DIN 5-PIN MIDI Connector, or **Tip** if a TRS connector according to MIDI standard (Type A) is used.
- **MIDI In Ref**: This is the reference MIDI input signal. It is connected to **Pin 4** of a DIN 5-PIN MIDI Connector, or **Ring** if a TRS connector according to MIDI standard (Type A) is used.
- **THRU1/2/3/4:** These are the MIDI Thru ports, with Sig and Ref like the input. For an output according to the MIDI standard, every MIDI port needs an additional GND connection.

Imp-THRU with signals
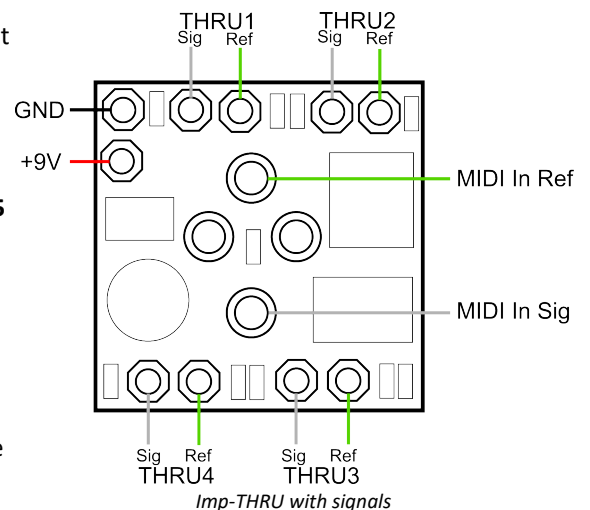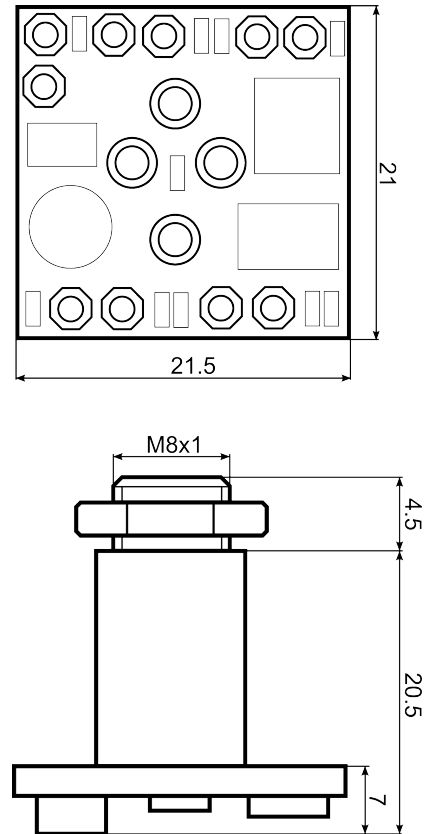
Wiring

Following, the wiring for a MIDI Input and a MIDI Thru on MIDI Thru port 1, according to MIDI TRS Type A. Also an Imp-3PDT (MIDI Thru 3) and an Imp-SPST (MIDI Thru 4).

MIDI Thru 1 Ref

MIDI Thru 1 Sig

Imp-THRU

GND

+9V

MIDI In Ref

MIDI In Sig

MIDI Thru 4 Sig

Imp-SPST

Imp-3PDT

MIDI Thru 3 Sig

MIDI Thru 3 Ref

MIDI Thru 4 Ref

This is the pinout, when using DIN 5-Pin connectors:

MIDI Thru Ref

MIDI Thru Sig

GND

+9V

MIDI In Ref

MIDI In Sig