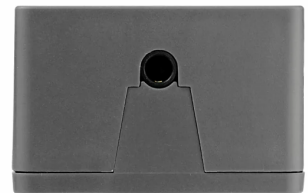


Unit MIDI

SKU:U187





Description

Unit MIDI is a channel control and audio synthesis unit based on the MIDI interface. It allows you to set the left/right MIDI port's pass-through mode using the toggle switch on the front of the product. In Bypass mode, the left/right ports are directly connected, while in Separate mode, the left/right ports are separated. Both left/right MIDI ports support standard 5-pin DIN interfaces and 3.5mm headphone jacks. The TXD on the Grove port is connected to the left MIDI port signal, and the RXD on the Grove port is connected to the digital input of the internal audio synthesizer SAM2695. This allows the external M5 host to listen or output MIDI signals through the Grove interface while simultaneously outputting synthesized audio. The audio signal is output via a 3.5mm headphone jack. This product is suitable for electronic music creation and production, live music control, interactive music installations, and more.

Mode Description

Separate Mode:

Unit MIDI RX (controller's TX pin) is connected to the SAM2695 synthesizer chip and OUTPUT interface.

Unit MIDI TX (controller's RX pin) is connected to INPUT, but this pin is left floating and has no effect.

Bypass Mode:

Unit MIDI RX (controller's TX pin) is connected only to the SAM2695 synthesizer chip.

Unit MIDI TX (controller's RX pin) receives the MIDI signal from INPUT, and INPUT and OUTPUT are directly connected.

Features

- SAM2695 audio synthesis chip
- Serial communication
- Standard MIDI 1.0 protocol (16 channels)
- Standard 3.5mm audio interface and DIN female socket
- Optocoupler isolation
- Bypass/Separate mode switching

Includes

- 1 x Unit MIDI
- 1 x HY2.0-4P Grove cable (20cm)

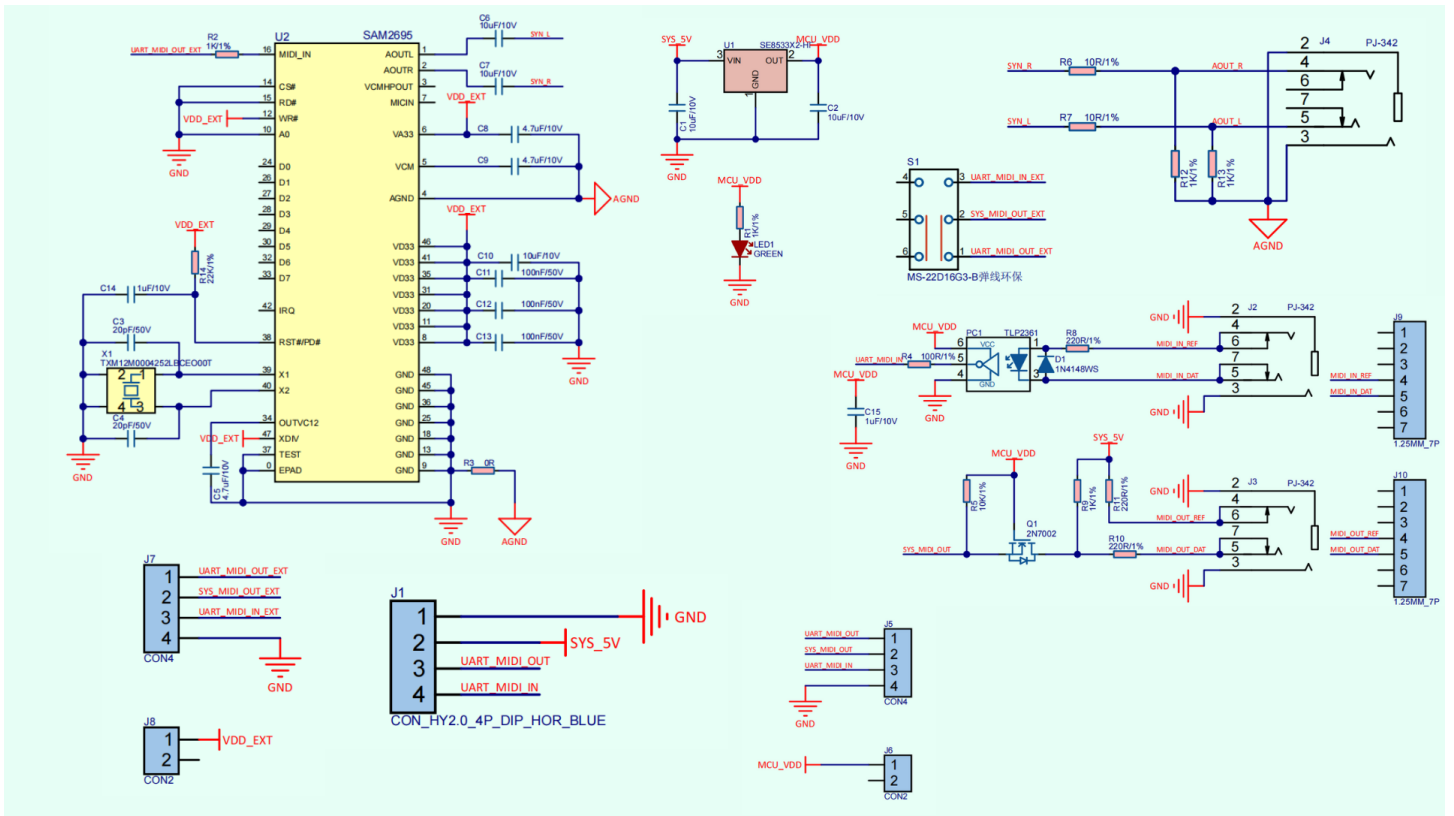
Applications

- Electronic musical instruments
- Band performance equipment
- Music education and research
- Interactive music installations

Specifications

Specification	Parameter
MIDI Processing Chip	SAM2695
Communication Protocol	MIDI 1.0 standard protocol (16 channels)
Polyphony	64 voices (without effects) / 38 voices (with effects)
Communication Interface	Serial communication (UART) Baud rate: 31520 bps
Audio Output Interface	3x3.5mm stereo headphone jack + 2xDIN 5-pin female socket
Standby Current	DC 5V@18.59mA
Operating Temperature	0 ~ 40°C
Product Size	48.0 x 40.0 x 25.0mm
Product Weight	28.2g
Package Size	138.0 x 93.0 x 26.0mm
Gross Weight	33.1g

Schematics

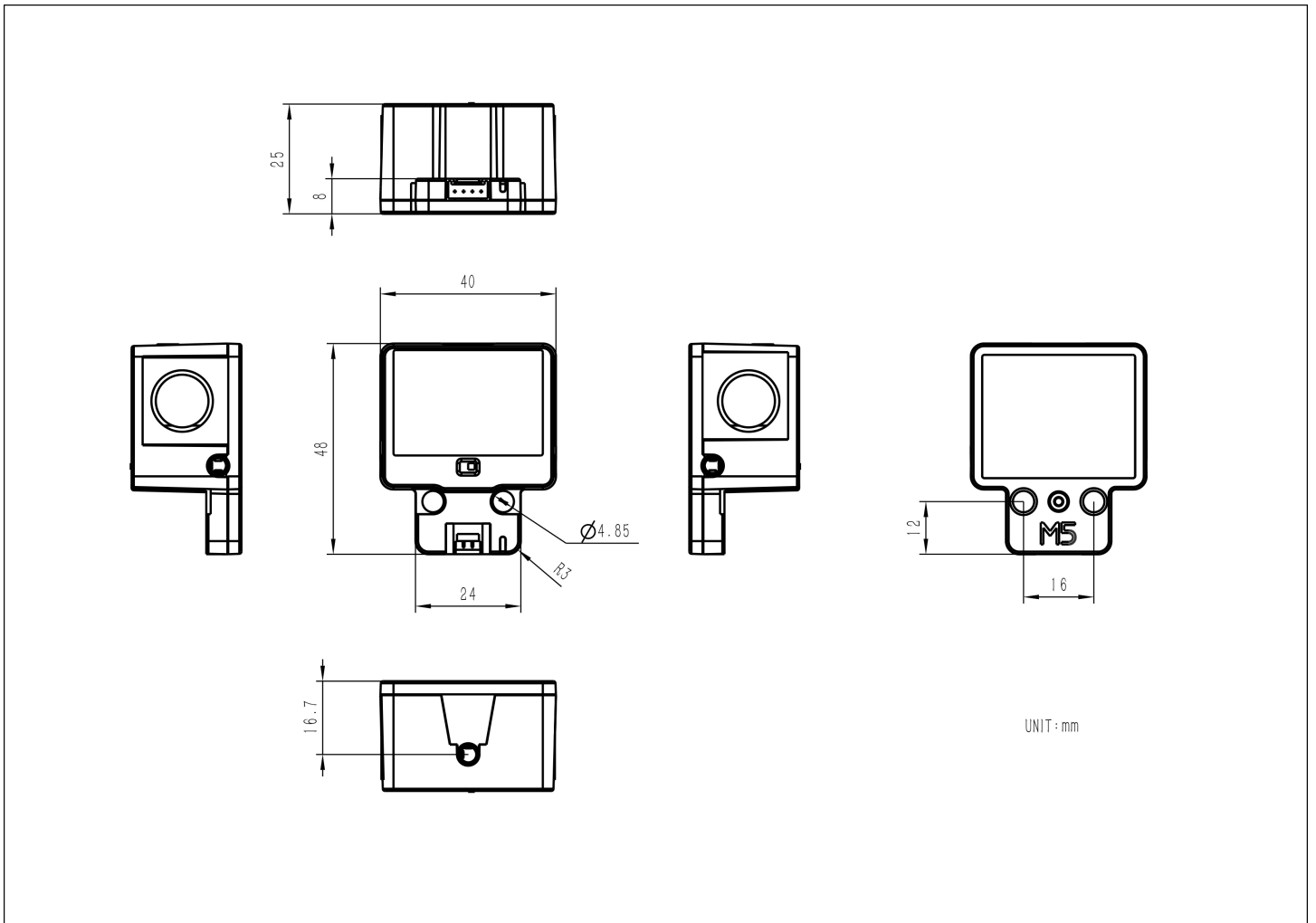


PinMap

Unit MIDI

HY2.0-4P	Black	Red	Yellow	White
PORT.C	GND	5V	UART_RX	UART_TX

Model Size



Datasheets

- [MIDI Audio Synthesis Chip SAM2695](#)

Softwares

Arduino

- [Unit MIDI Arduino Library](#)
- [Unit MIDI Drum Example](#)
- [Unit MIDI Piano Example](#)

UiFlow2

- [Unit MIDI UiFlow2 Docs](#)

Video

- [Unit MIDI Product Introduction](#)

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