Grove - Recorder

Release date： 9/20/2015

Version： 1.0

Wiki: http://www.seeedstudio.com/wiki/Grove_-_Recorder

Bazaar: http://www.seeedstudio.com/depot/Grove-Recorder-p-1825.html

Document Revision History

Revision	Date	Author	Description
1.0	Sep 21, 2015	Victor.He	Create file

Contents

Disclaimer

For physical injuries and possessions loss caused by those reasons which are not related to product quality, such as operating without following manual guide, natural disasters or force majeure, we take no responsibility for that.

Under the supervision of Seeed Technology Inc., this manual has been compiled and published which covered the latest product description and specification. The content of this manual is subject to change without notice.

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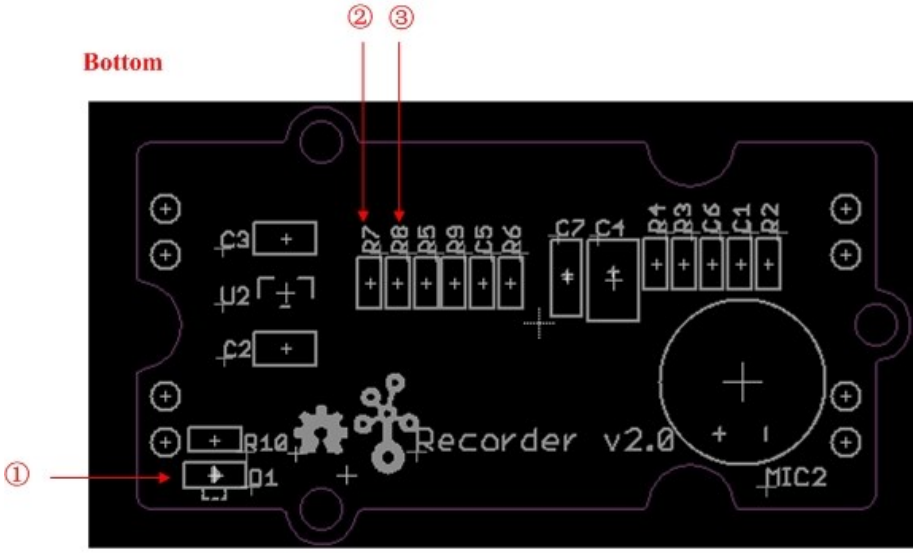
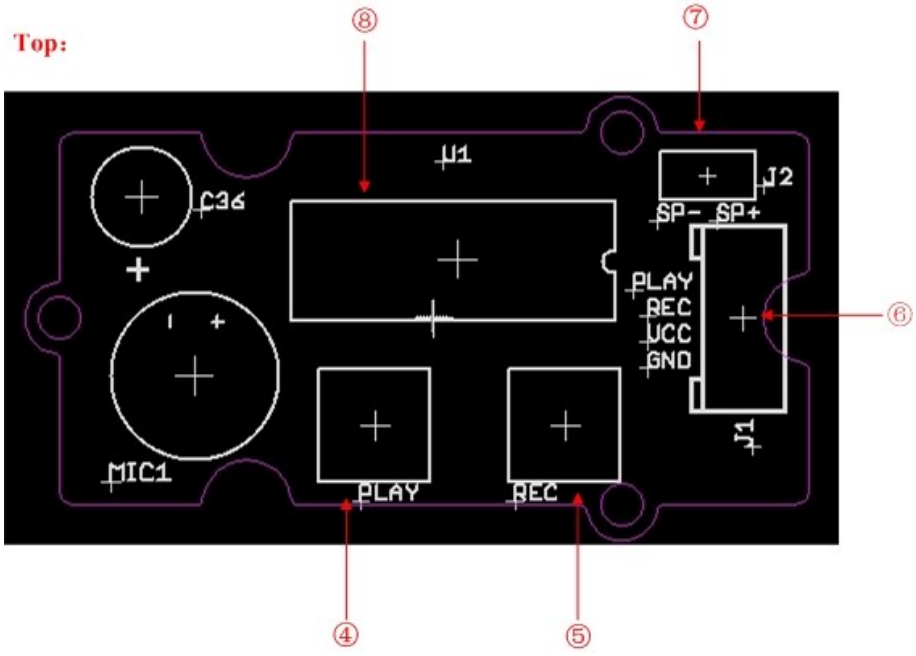
1. Introduction

Grove - Recorder is based on the ISD1820P chip, and can record 8-20 secs of audio. It offers true single-chip voice recording and provides non-volatile storage. The recording time can be varied by changing the sampling resistor (R6) on the module's PCB. By default, the resistor on-board has a value of 100KΩ and thus the module offers a default recording time of 10 secs. The audio recording can be directly controlled by the on-board push button or by a micro-controller such as a Seeeduino.

2. Interface function





① LED Indicator

Modes:

Record: Red LED light stays ON from the beginning of the recording duration until the end.

Playback: Red LED flashes to signal end of audio playback.

② Sampling resistor

You can set the recording duration and sampling rate by change sampling resistor (R6) based on the following table:

ROSC	Duration	Sampling Frequency	Input Bandwidth
80 KΩ	8 secs	8.0 KHz	3.4 KHz
100 KΩ (default)	10 secs	6.4 KHz	2.6 KHz
120 KΩ	12 secs	5.3 KHz	2.3 KHz
160 KΩ	16 secs	4.0 KHz	1.7 KHz
200 KΩ	20 secs	3.2 KHz	1.3 KHz

③ Playback resistor

Modes:

Cycle: R8 is place 0Ω resistor

Single: R8 is not place resistor

④ Play Key

Not used currently

⑤ REC Key

⑥ Grove Interface

⑦Loudspeaker Interface

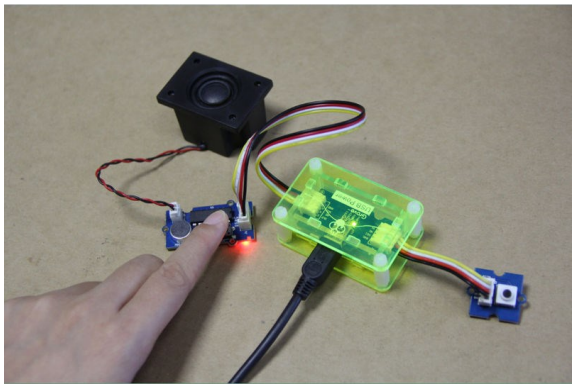
⑧ REC IC：ISD1820P

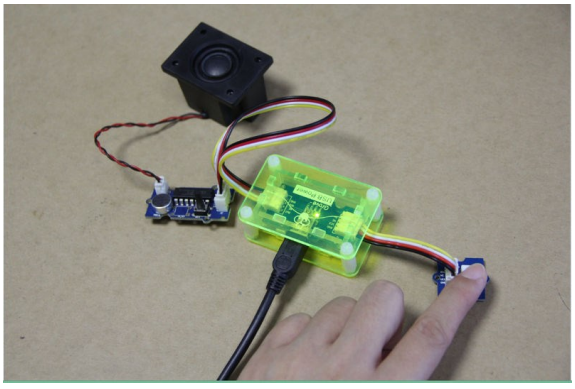
3. Usage

Follow these steps to build a sample circuit using the **Grove - Recorder** module:

1. Connect the recorder module to the output side of the Grove circuit (to the right of the power module). On the input side of the circuit, you may use a Grove - Button or a Grove - Slide Potentiometer module.
2. Power up the circuit.
3. Press and hold down the REC button on the recorder module and start recording the audio. The on-board red LED will turn ON. Continue to record the audio until the red LED gets turned OFF. The LED getting turned OFF is indicative of the fact that the recording time is now over.
4. To play back the audio segment that has been recorded, press and hold down the Grove - Button. You should now hear the audio segment you recorded being played back. Continue to press and hold down the Grove - Button until you see the red LED on-board the recorder module flash. The flash indicates that playback of audio is now complete. If instead of a Grove - Button, you are using a Grove - Slide Potentiometer, simply move the slider from GND to VCC position to hear the playback at any time.
5. To override the recorded audio, simply repeat step 3 above. The new message will override the old one.

Below is an illustration of a Grove circuit built using the Grove - USB Power power module:





If you do not have the Grove - USB Power module, use the Grove - DC Jack Power module instead.

4. Availability

This Grove module is available as part of the following Grove Kit Series:

- Grove Mixer Pack V2

Alternatively, it can be bought stand-alone at the Seeed Studio Bazaar.

5. Resources

Grove - Recorder v1.0 Schematics (Eagle files)

Grove - Recorder v1.0 Schematics (pdf)

Datasheet ISD1820P.pdf (Chinese)

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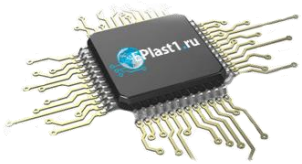
- Подбор аналогов;
- Консультации по применению компонента;
- Поставка образцов и прототипов;
- Техническая поддержка проекта;
- Защита от снятия компонента с производства.



Как с нами связаться

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