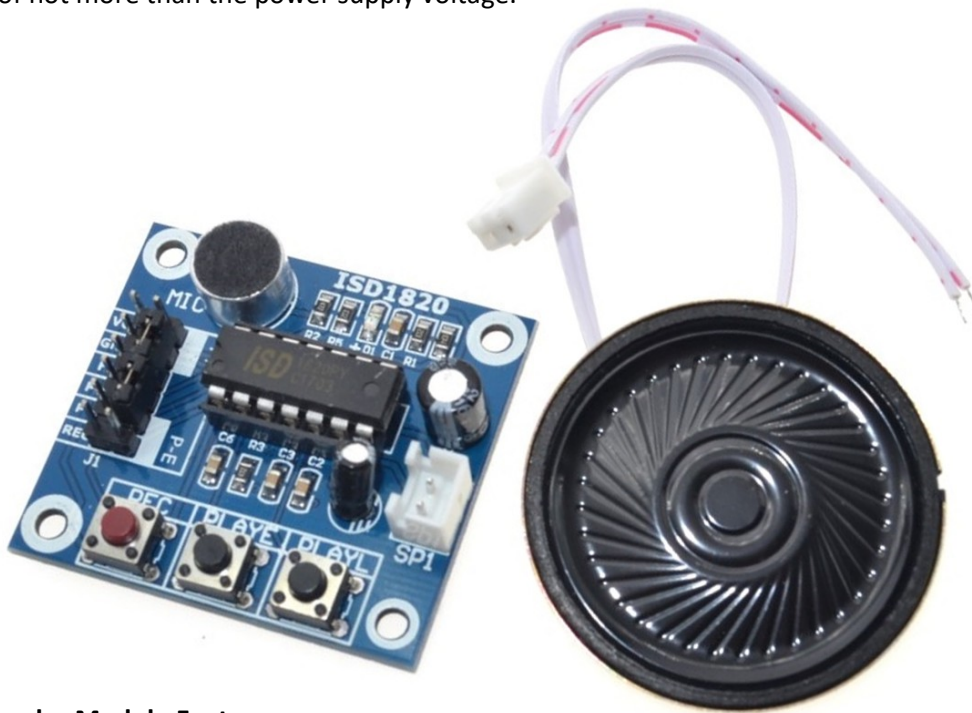


ISD1820 Voice Recorder Module Overview:

This Voice Recording Module is based on the ISD1820 single chip voice recorder, featuring audio recording and playback of multiple clips with a total length of 20 seconds (factory default is 10s and 6.4kHz sample rate).

Record and playback functions can be activated using the push buttons on the module. The functions can also be controlled by a micro controller or auxiliary contacts.

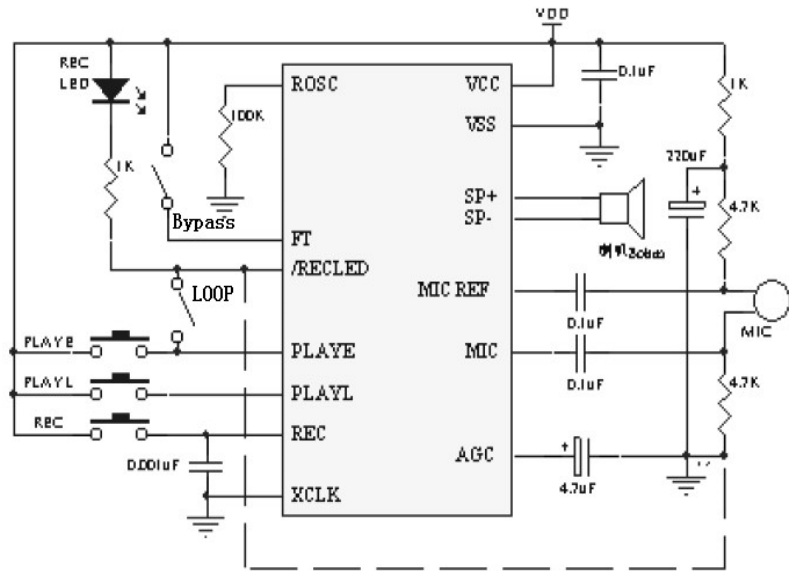
The ISD1820 works on a supply voltage of 2.7 to 4.5V and can be directly controlled from a 3.3V micro controller. To use it with a 5V micro controller like Arduino UNO, Nano or Mega, we recommend the use of voltage dividers (2 resistors) to ensure input level of not more than the power supply voltage.



ISD1820 Voice Recorder Module Features:

- Push-button activated functions
- External controlled functions
- Automatic power-down mode
- On-chip 8Ω speaker amplifier
- 2.7-4.5V Power Supply
- Sample rate and recording time adjustable by adding a resistor
- Record up to 20 seconds of audio
- Dimensions: 39 x 42 mm

Schematic:



Picture shows a general example of a circuit with the ISD1820, not the actual module.

Sample rate and max. duration for recording can be set by changing the value of resistor R4 on the circuit board, following the information in the table:

ROSC	Duration	Sample Rate	Bandwidth
80K Ω	8 secs	8.0KHz	3.4KHz
100K Ω	10 secs	6.4KHz	2.6KHz
120K Ω	12 secs	5.3KHz	2.3KHz
160K Ω	16 secs	4.0KHz	1.7KHz
200K Ω	20 secs	3.2KHz	1.3KHz

Controls and functions:

- VCC – Power Supply 2.7 to 4.5V
- GND – Ground
- REC – Set to HIGH for recording
- PLAYE – Playback, Edge-activated. A HIGH pulse triggers playback until the next end-of-message marker.
- PLAYL – Playback, Level-activated. Only plays as long the signal is HIGH.
- SP1– Speaker output, min. impedance 8 Ohm.
- MIC – On-board microphone with pre-amplifier.
- FT – Feed Through. Function to use the module just like a Microphone amplifier to drive the speaker.
- P-E – Play all recorded files continuously.