## MitchElectronics Ltd.

### SOUND SENSE

Electronic Kit | Data Sheet

PRODUCT IMAGE	SCAN FOR INSTRUCTIONS PAGE	SCAN FOR RESOURCE PAGE

MANUFACTURER	MitchElectronics
COUNTRY OF ORIGIN	United Kingdom
ROHS / REACH COMPLIANT	Yes
PRODUCT DESCRIPTION	The Sound Sense is a small sound-sending module in kit form which converts sound waves into an electric signal. Powered by voltages between 3V to 5.5V, the Sound Sense provides two outputs; one digital and one analogue.
	The digital output is connected to a comparator that outputs a logic signal when the sound level crosses a threshold defined by the potentiometer. This makes the digital output ideal for applications that only need to detect the presence of sound. The analogue output is raw audio output from the microphone, but because this kit uses a single supply voltage, only half of the waveform is preserved.

#### **PRODUCT SPECIFICATION:**

- Component Count: 12
- Operating Voltage: 3V to 5.5V
- Output Voltage (Digital): VCC 1.7V
- Operating Frequency: N/A

- Dimensions (PCB): 40mm x 20mm
- Mounting Holes: Yes
- Prebuilt: No Kit form
- Batteries Not Included

# itchElectronics Ltd.

#### PARTS INCLUDED:

- 1 x LM358
- 1 x 8 DIP Socket
- 1 x Electret Microphone
- 1 x 1KΩ Resistor
- 2 x 10KΩ Resistor
- 1 x 47KΩ Resistor

- 1 x 100nF Capacitor
- 1 x 10µF Capacitor
- 1 x 10KΩ Potentiometer
- 1 x 1N4148
- 1 x 4-Way Socket

#### APPLICATIONS

The Sound Sense is ideal for those creating circuits that need to detect sound, with one common example being clapper switches. The onboard potentiometer can be used to change the sensitivity of the microphone (i.e., a loud clap), and a second circuit can be used to identify claps from other loud sounds. This also means that the Sound Sense can be used as a sound monitor in security circuits that listen out for unexpected noises (i.e., people breaking into a home via smashing windows). At the same time, the Sound Sense can also detect wind, and this can enable the sensor to be used as a basic air flow detector. Finally, the analogue output of the Sound Sense can be amplified to be played on a speaker, but the single-rail supply of this kit means that only half the waveform is preserved.

#### KIT INSTRUCTIONS

https://mitchelectronics.co.uk/resources/sound-sense-kit-instructions/

#### ELECTRONICS CONSTRUCTION MANUAL

https://www.mitchelectronics.co.uk/documents/electronicsConstructionManual.pdf

#### NOTES

Note that product specifics such as output frequency depend on the tolerance of the components. The numbers provided here are an approximation only. Also take note that the estimated delivery is not guaranteed (unless special delivery is chosen) and free delivery has a maximum waiting time of two weeks. Any product that is returned which is built using lead solder is ineligible for a refund.

All parts sold by MitchElectronics are compliant with RoHS and REACH directives which ensure that they can be used in commercial environments as well as complying with environmental laws.