seeed studio

INDUSTRIAL PRODUCT DATASHEET

Sound Event Detection Module D1 - Sensor/Audio Board for XIAO

A compact edge audio board delivers real-time sound event detection with strong privacy protection.

SKU	UPDATED	PRICE
100049596	2026-11-11 09:29:51	$18.90(Excl. VAT)



Overview



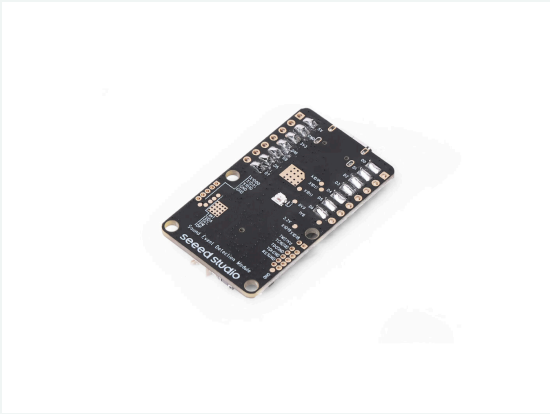
A compact edge audio board delivers real-time sound event detection with strong privacy protection. It detects five abnormal sound events — Baby Cry, Glass Break, Gunshot, T3/T4 Alarms, and Snore, enabling immediate response and reliable early warning. Seamless compatibility with XIAO, easy integration for native ESPHome and Home Assistant, ideal for home security monitoring or responsive automation triggers.

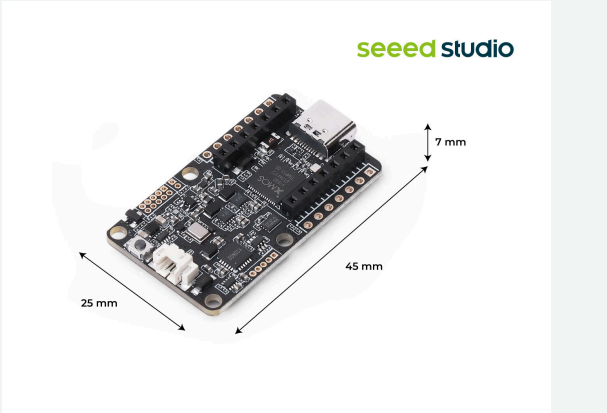
Product Gallery



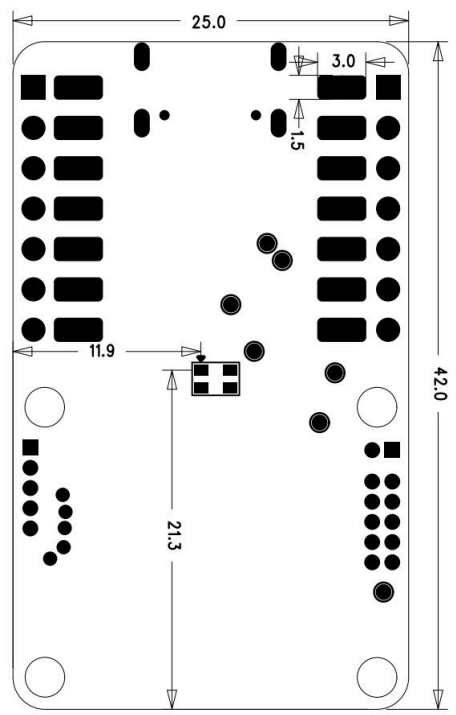


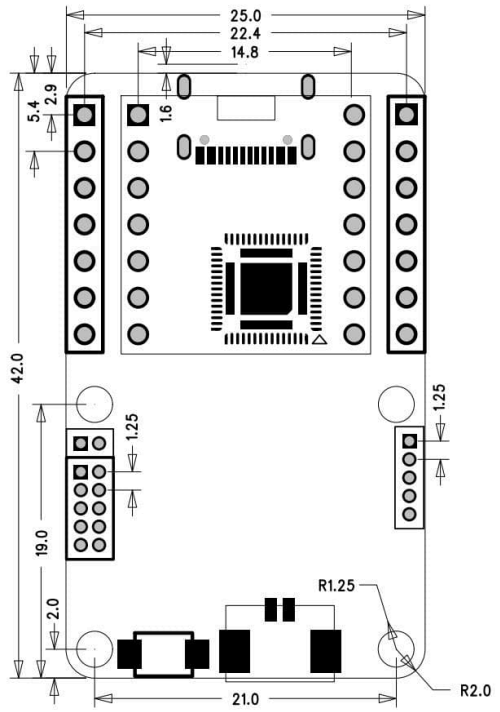






Hardware Overview





Applications

- **Smart Home Automation:** Detect abnormal sound events such as baby crying, glass breaking, or snoring to automatically trigger smart home actions.
- **For example,**
- **Baby cry detected - parents receive instant notifications + gentle lullaby is played**
- **Glass breaking detected - activate an alarm:** Snoring detected - logged to help track frequency over time, supporting follow-up health insights and personalized adjustments
- **With fully local processing and no audio recording, it ensures privacy-focused monitoring for everyday environments.**
- **Seamless integration with Home Assistant enables users to easily customize detection types and sensitivity based on real-world needs.**
- **Security & Intrusion Detection:** In residential, office, or remote environments with periods of unattended operation, this sound event detection audio board provides low-power, long-duration, and precise sound monitoring.
- **It complements traditional vision-based security systems by covering blind spots where cameras may be limited, delivering more comprehensive and reliable protection.**
- **Office & Workspace Safety:** Deploy in offices or shared spaces to detect emergency alarm sounds (T3/T4) and trigger automated workflows or alert systems.
- **Edge AI Prototyping & Integration:** Integrate with microcontrollers and automation platforms (e.g., ESPHome, Home Assistant) for custom IoT solutions requiring lightweight, on-device sound intelligence.

Resource Links

- https://www.seeedstudio.com/Sound-Event-Detection-Module-D1-p-6652.html
- reSpeaker Series Flyer

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