

AXIOMETRIX SOLUTIONS

Acoustic Source Localization & Identification

Axiometrix Solutions

APPLICATION NOTE // By Lars Winberg

Acoustic Sensors for Source Localization & Identification

GRAS Sound & Vibration is a trusted supplier of high-performance acoustic sensors for advanced source localization and identification systems. With a deep understanding of sensor protection in diverse weather conditions, rapid customization capabilities, and scalable manufacturing, GRAS empowers defense organizations and contractors to develop and deploy reliable triangulation systems for surveillance and force protection.

Advanced Acoustic Sensors for Defense Applications

GRAS specializes in providing robust acoustic sensors designed for precise and reliable performance in demanding environments:

- **High-Precision Acoustic Sensors:** Engineered for use in triangulation systems, GRAS sensors deliver unmatched accuracy for locating and identifying acoustic sources such as vehicles, aircraft, weapons platforms, and sniper positions.
- **Weather-Resistant Designs:** GRAS sensors are designed to perform consistently in extreme weather conditions, including rain, snow, heat, and humidity, ensuring reliable operation in any environment.
- **Customizable Solutions:** We offer rapid prototyping and customization to meet the unique requirements of your acoustic source localization systems.
- **Scalable Manufacturing:** GRAS has the capacity to ramp up production to support large-scale deployments, ensuring timely delivery and seamless integration with your systems.

Applications in Acoustic Source Localization

GRAS sensors are trusted by leading defense companies for use in cutting-edge triangulation systems and other acoustic localization applications:

- **Triangulation Systems:** Enable precise detection and localization of sound sources, including vehicles, aircraft, and weapons platforms, with GRAS sensors integrated into advanced defense systems.
- **Sniper Position Detection:** Pinpoint the location of sniper fire and other small arms using GRAS sensors designed for high sensitivity and accuracy.
- **Surveillance and Force Protection:** Enhance situational awareness and perimeter security with reliable acoustic monitoring and source identification.
- **Weather-Resilient Operations:** Deploy systems that perform flawlessly in extreme weather conditions, ensuring operational continuity and effectiveness.



Why Choose GRAS for Acoustic Source Localization?

- **Proven Expertise:** GRAS has decades of experience in supplying acoustic sensors to prominent defense companies for advanced localization systems.
- **Robust and Reliable:** Our sensors are engineered for durability and consistent performance in extreme environments.
- **Rapid Customization and Prototyping:** We work closely with our customers to deliver tailored solutions quickly, ensuring your specific needs are met.
- **Scalable Manufacturing:** GRAS can ramp up production to meet the demands of large-scale deployments, ensuring timely delivery without compromising quality.
- **Global Defense Partnerships:** GRAS is a trusted supplier to leading defense organizations, contributing to the success of critical surveillance and force protection systems.

Supporting Innovation in Defense and Surveillance

GRAS Sound & Vibration is committed to advancing acoustic source localization technologies that enhance situational awareness and protect lives. Our high-performance sensors, backed by decades of expertise, empower you to develop systems that deliver exceptional accuracy, reliability, and scalability.

For more information or application-specific recommendations, please contact our team of specialists.

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About Axiometrix Solutions

Axiometrix Solutions is a global leader in advanced test and measurement solutions, supporting customers across aerospace, automotive, defense, audio, and electronics industries. With a strong focus on precision, reliability, and innovation, Axiometrix delivers technologies that enable accurate measurement and analysis in even the most demanding environments.

Axiometrix Solutions brings together three world-class brands:

- **GRAS Acoustics** – Specialists in high-precision measurement microphones and acoustic solutions, trusted for their accuracy, durability, and repeatability.
- **imc Test & Measurement** – Experts in intelligent data acquisition systems and real-time analysis for mechanical and mechatronic testing.
- **Audio Precision** – The industry standard in audio analyzers and electroacoustic test solutions.

Together, these brands provide a comprehensive portfolio of solutions that empower engineers and researchers worldwide to measure, analyze, and improve performance across a wide range of applications. Axiometrix Solutions operates globally through subsidiaries and distributors in more than 40 countries. Learn more at www.axiometrixsolutions.com