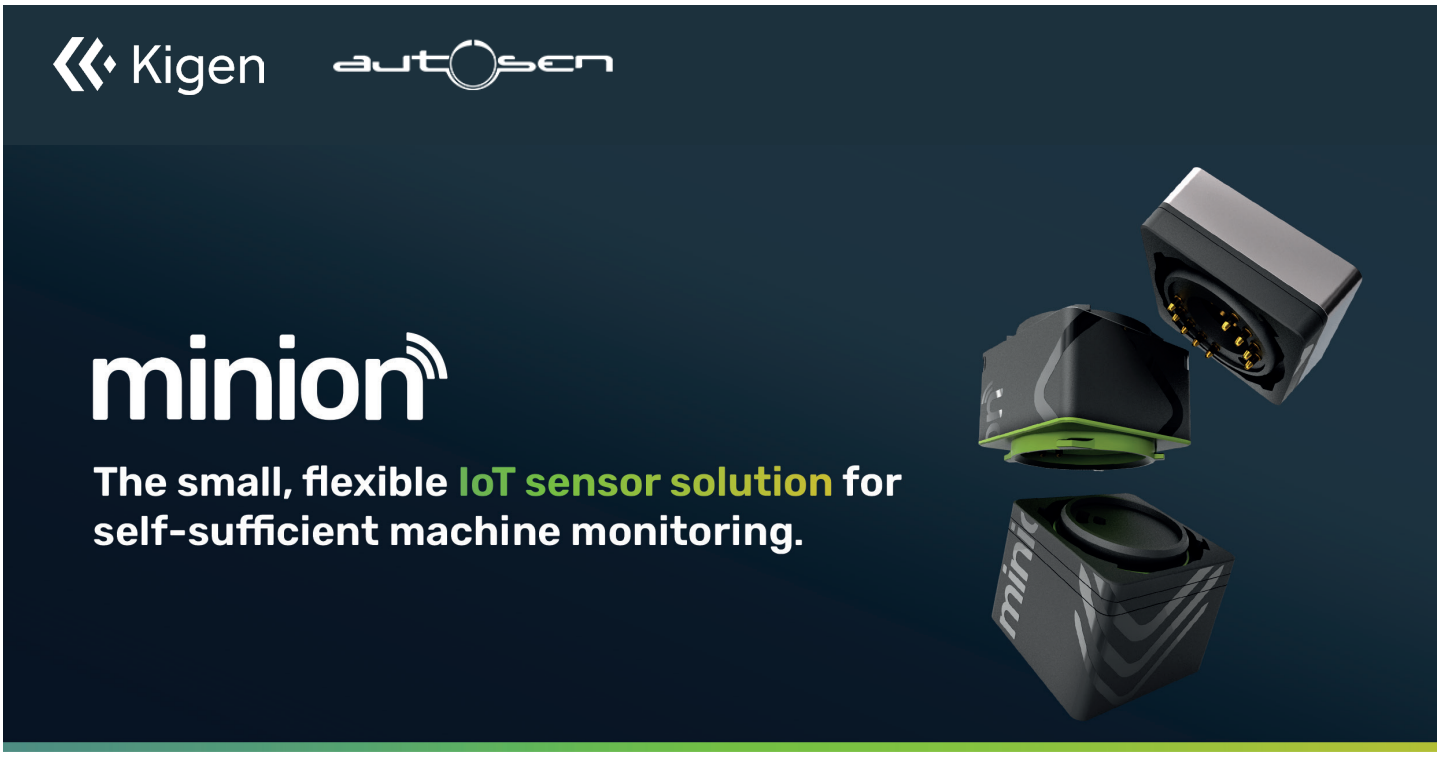

Innovative, modular vibration sensor that can unlock the retrofit market, built with iSIM technology.

iSIM Empowers autosen To Modernize Industrial Systems

autosen, a leading provider of connected sensor solutions for industrial IoT and automation, is addressing the challenge plant operators face when integrating IoT into existing production equipment or for facility maintenance.
This pioneer in automation and sensing from Essen has been trusted by 20,000 customers since 2011, and is driving a vision of a minimally invasive approach to upgrading brownfield environments to IoT.

Context

The market for industrial vibrational sensors, crucial for maintenance and predictive repair, is expected to experience substantial growth. In 2023, the global vibration sensor market was valued at approximately USD 4.5 billion.

From 2024 to 2028, the industrial vibration sensor market is estimated to grow by USD 4.11 billion, with a CAGR of 8.96% (IndustryARC).

To address this opportunity, autosen has developed a modular sensor unit called minion that includes essential functional units such as a vibration sensor, cellular/GPS gateway, and battery in a small, self-contained device.
This device is great for monitoring remote systems without requiring a network or power supply.

Any remote asset feels within reach – especially when such equipment can be critical to business operations. Owing to it's extreme miniaturization, it is easy to attach or design into systems to monitor health of outdoor heavy equipment, such as ski lifts, elevators, escalators, sea/airport equipment, or identifying issues with rotors, gearboxes, generators and more. It's an ideal addition that can even be used wherever there is no internet or power.

A truly future-forward device, the minion makes it easier to swap and develop individual components of the system in the future.

Drivers for iSIM adoption

Compact size within few cubic cms to enable device to be install the device in even the smallest areas.

Energy efficiency and low power to conserve battery life for a self-sufficient operation.

Out-of-the-box secure connectivity for resilient operation in deployment that does not have power or internet availability.

Building blocks of success

Autosen's minion device is enabled by **Kigen** iSIM OS, **Murata** Electronics 1SC iSIM module, **SONY** Altair 1250 on LTE Cat-M1 and NB-IoT networks. From sampling, to full mass production, Kigen supported the process through iSIM secure package delivery that allows Autosen to simplify the process of working with multiple contracts and sourcing components separately.

Kigen iSIM OS and iSIM secure package solutions are built with high-growth markets of Massive IoT, such that enterprises can leverage strong security even at the most constrained size, power, and cost envelopes. Through greater integration of components, longer battery life and tamper-proof protection can allow safeguarding IP and innovation for manufacturers. Kigen's iSIM OS enables industrial devices of all kinds with the leading global connectivity LPWAN networks.

“Kigen have been a great partner in helping us introduce the extremely innovative minion Sensor device, to address the increasing demand for monitoring industrial and autonomous systems. Kigen’s focus on simplifying how we prototype, source, and mature our product with iSIM technology gave us a significant edge in time to market.”

- Philipp Uebachs, Product Manager Wireless Sensors, Autosen

Looking forward

Miniaturization and connected wireless sensing solutions, built with iSIM technology, are an immediate boon to the growing focus on preventive maintenance and machine health in the industrial sector.

Equipment owners, plant managers, and maintenance operatives need timely data on the state of equipment to meet stringent safety regulations across various industries and reduce the likelihood of unexpected downtime and costly repairs.

This innovative approach to industrial sensing and automation has huge potential to support the increasing need for predictive maintenance, safety, and efficiency in sectors such as automotive, aerospace, infrastructure monitoring, industrial machinery, and consumer electronics. The ease of connectivity and modularity lend minion into further sectors that maintain diverse device estates such as smart cities and public sector uses. It’s ingenuity stands as a testimony of iSIM technology sparking innovation.

About Kigen

Kigen is the forerunner in eSIM and integrated SIM (iSIM) security-enabled IoT solutions built for scale. An Arm-founded company, Kigen flexibly empowers OEMs with the digital delivery of the secure iSIM package for out-of-the-box LPWAN connectivity from leading network providers in over 200 countries on the most trusted IoT chipsets and modules. As a pioneer of iSIM technology, our products and partnerships are behind some of the most innovative solutions transforming logistics, smart metering and energy, industrial automation and more. Stay up to date with the latest ***#FutureofSIM*** conversation on LinkedIn or contact our team today at kigen.com.

Kigen