

POLYN Technology to Highlight AI-enabled VibroSense™ Tire Monitoring Solution at IAA Mobility 2025

Tested with Leading Tire Manufacturers, the Neuromorphic Chip Enables Real-Time Insights for Safer, Smarter Driving

September 3, 2025 – POLYN Technology, a pioneer in neuromorphic analog signal processing, will highlight its groundbreaking VibroSense™ Tire Monitoring Solution at IAA Mobility 2025 in Munich, Germany. Designed for real-time analysis of tire-road friction, VibroSense TMS is currently being tested at standard, certified tracks on various tires and different road surfaces, demonstrating accurate detection of peak friction coefficient (PFC) changes.

VibroSense TMS introduces a new standard in AI-powered, ultra-low-power signal processing, enabling intelligent insights directly from raw tire vibration data. Designed for integration into existing TPMS (Tire Pressure Monitoring System) nodes, the solution operates on POLYN's proprietary Neuromorphic Analog Signal Processing (NASP) technology, providing on-chip analytics that include peak friction estimation, tire wear, and overload alerts.

By delivering actionable tire insights without requiring vehicle hardware modifications, VibroSense TMS enhances safety by sending valuable data on vehicle performance and supporting predictive tire maintenance.

Providing immediate, direct feedback on tire-road grip is essential for autonomous vehicles (AV) due to their stringent safety standards, as well as for ADAS systems.

Commercial fleets and electric and connected vehicles – where tire condition and grip have a strong impact on vehicle energy efficiency – also benefit from grip analysis by VibroSense TMS.

“We’re excited to bring VibroSense to IAA Mobility 2025 and share results from recent testing with global tire leaders,” said Aleksandr Timofeev, CEO of POLYN Technology. “This innovation transforms tire monitoring from pressure-and-temperature-only to full-surface intelligence, and does so right at the edge.”

POLYN Technology will be at the IAA Summit, Hall A2, Stand C12. To schedule a meeting or demo, please contact: info@polyn.ai

About POLYN Technology

POLYN Technology develops ultra-low-power neuromorphic chips that bring real-time AI processing to the edge. Its NASP technology performs local signal processing using analog computing principles, enabling smart sensing in automotive, industrial, and wearable applications.