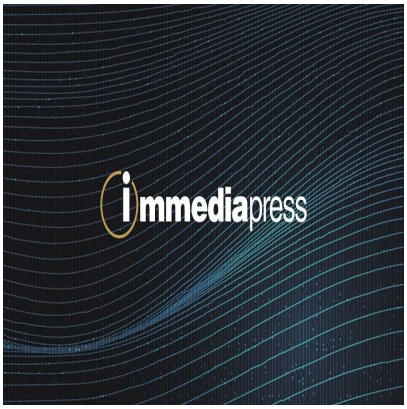

Nordic Semiconductor introduces precise, adaptive battery health-monitoring to enable smarter, longer-lasting IoT devices

Descrizione

COMUNICATO STAMPA â?? CONTENUTO PROMOZIONALE

New fuel gauge solution delivers State-of-Health reporting, adaptive battery modeling, and seamless fleet observability via nRF Cloud powered by Memfault

NUREMBERG, Germany, March 10, 2026 /PRNewswire/ â?? Nordic Semiconductor, a global leader in low-power wireless connectivity solutions, today announces Nordic Fuel Gauge v2.0, a major upgrade of its highly accurate software-based fuel gauge solution for the award-winning nPM1300, and nPM1304 Power Management ICS, at Embedded World 2026. The release adds sophisticated State-of-Health estimation, adaptive battery modeling, and long-term fleet analytics capabilities, extending advanced battery management to a wide range of power-constrained IoT products.

Nordic Fuel Gauge v2.0 will empower manufacturers to build more reliable, sustainable, and longer-lasting products while also meeting emerging battery-replacement mandates. This includes the European Union Batteries Regulation 2023/1542, which dictates that portable batteries be â??readily removable and replaceable by the end-user at any time during the lifetime of the product.â?• The release enables manufacturers to determine when batteries need to be replaced, supports right-to-repair initiatives, improves product reliability, and reduces warranty costs.

â??Battery behavior in the field rarely matches what you see in the lab,â?• said Geir Kjosavik, Product Director PMICs at Nordic Semiconductor. â??With Fuel Gauge v2.0, weâ??re bringing adaptive, real-world intelligence that was once exclusive to premium consumer electronics into the IoT space. Itâ??s a game changer for billions of battery-powered devices.â?•

Fleet-wide battery intelligence through nRF Cloud powered by Memfault

Fuel Gauge v2.0 integrates seamlessly with Nordicâ??s cloud lifecycle services â?? nRF Cloud powered by Memfault. Devices can automatically report State-of-Health, State-of-Charge, and battery-

performance metrics without requiring custom cloud infrastructure. This enables engineering and operations teams to monitor fleet-wide battery health, identify anomalies, optimize charging parameters, and improve future hardware designs using real-world data.

â??Memfault was built to make sophisticated device insights accessible to every hardware team,â?• says FranÃ§ois Baldassari, founder of Memfault and VP Software Services at Nordic Semiconductor. â??By connecting Fuel Gauge v2.0 seamlessly to nRF Cloud, we give companies a powerful, scalable way to understand and improve device behavior across entire fleets. Itâ??s the future of battery intelligence.â?•

New approach to battery monitoring gives accurate lifetime insights

Building on the proven State-of-Charge accuracy introduced in Fuel Gauge v1.0, version 2.0 introduces an adaptive model that continuously compares the original battery profile with the batteryâ??s actual behavior over time. This enables accurate State-of-Health estimation, tracks charge-cycle and long-term degradation trends, and ensures stable accuracy over the product lifetime, even as batteries age. For devices where users hold several batteries that are regularly swapped out, Nordicâ??s algorithm can handle multiple batteries, keeping track of the State-of-Health for each individual pack.

Traditional fuel-gauge ICs rely on fixed models or coulomb counting, which can drift over time. Nordicâ??s approach requires no dedicated fuel-gauge IC and instead uses the nPM1300â??s built-in voltage, temperature, and current measurements, together with a smart host-based algorithm. This will deliver dedicated IC-level accuracy at a lower system cost, with reduced Bill of Materials complexity, and consume no power during sleep â?? significantly saving power compared to competing solutions.

Fuel Gauge v2.0 runs on any host MCU or wireless System-on-Chip, including the nRF54 Series, nRF91 Series, and non-Nordic hosts, enabling Original Equipment Manufacturers to bring advanced battery intelligence to virtually any connected device.

Availability

The Nordic Fuel Gauge v2.0 is currently beta sampling to customers, with wider availability coming in June 2026.

Meet us at Embedded World 2026

The new solution will make its public debut at Embedded World 2026, showcasing real-time battery-health reporting from devices at different State-of-Health levels â?? powered by adaptive intelligence and nRF Cloud integration.

Visit Nordic for demonstrations and discussions at: â?¢ Embedded World 2026, Nuremberg â?? Hall 4A, Booth 310 (March 10â??12)

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