



## New NXP Analog Front-End Enables the Software-Defined Factory

November 14, 2022

- *Industry's most flexible analog front-end architecture with software-configurable universal analog inputs*
- *Improves factory productivity and product quality with enhanced conversion accuracy, precision, and speed*
- *Reduces factory downtime with advanced diagnostics for predictive maintenance and anomaly detection*

MUNICH, Germany, Nov. 14, 2022 (GLOBE NEWSWIRE) -- Electronica -- NXP Semiconductors (NASDAQ: NXPI) today announced its new NXP analog front-end (N-AFE) family for high-precision data acquisition and condition monitoring systems for factory automation. Designed as software-configurable universal analog input devices, the new N-AFE family helps enable the software-defined factory, making it easier for operators to configure a smart factory and adjust settings based on shifting market needs.

Even as factories have become smarter over time, adapting to rapidly shifting market trends has remained a challenge, often requiring large-scale equipment overhauls to reconfigure a factory to meet a new need. The addition of software-configurable components allows factory operators to be more nimble, enabling them to more quickly and easily make changes to the factory floor to address rapidly shifting trends.

"Software-defined factories are the next evolution of the Industry 4.0, and this software-configurable analog front-end family will help achieve that milestone," said Jens Hinrichsen, Executive Vice President and General Manager of Advanced Analog at NXP. "By combining configurability with enhanced accuracy and precision for improved product quality, as well as advanced diagnostics to identify issues before they occur to reduce downtime, this device enables a new era of the smart factory."

Schneider Electric has worked closely with NXP to incorporate the N-AFE family into its industrial solutions. The single-chip N-AFE solution helps to reduce the complexity of hardware design for the company, whose industrial customers benefit from the software configurability delivered by the N-AFE.

"The impact of a software-defined factory, both in terms of productivity and overall costs saved, is immeasurable," said Ralf Neubert, Vice President, Research & Development, Digital Factory, at Schneider Electric. "NXP's new analog front-end software configurability and high precision accelerate hardware design, improving time to market. The N-AFE family enables flexibility in our designs to allow our customers to quickly respond to market trends, but more importantly, it also helps to reduce unplanned downtime, enabling a more productive factory overall."

The N-AFE family of devices integrates up to eight universal analog inputs at a lower system cost for data acquisition systems in factory and process automation. It combines signal chain protection, precision amplification and high-speed data conversion, filters and highly accurate self-diagnostics to monitor factory conditions, helping to ensure a more consistent and repeatable quality of product. The device also integrates additional advanced diagnostics to reduce factory downtime with predictive maintenance and anomaly detection, while its factory calibration and self-calibration features help reduce test costs.

### N-AFE System Solution

The addition of the N-AFE Analog Front-End family of devices brings new analog capabilities to NXP's portfolio targeting industrial applications. Combined with NXP's MCU and power management portfolios, including devices such as [the i.MX RT1180 high-performance crossover MCU](#) and [PF5020](#) and [PCA9460](#) power management ICs (PMICs), the N-AFE devices expand the industrial system solution offering, while helping customers to accelerate development time and reduce time to market.

For more information on the family, please visit [NXP.com/NAFE](http://NXP.com/NAFE) or contact NXP Sales worldwide.

### About NXP Semiconductors

NXP Semiconductors N.V. (NASDAQ: NXPI) enables a smarter, safer and more sustainable world through innovation. As a world leader in secure connectivity solutions for embedded applications, NXP is pushing boundaries in the automotive, industrial & IoT, mobile, and communication infrastructure markets. Built on more than 60 years of combined experience and expertise, the company has approximately 31,000 employees in more than 30 countries and posted revenue of \$11.06 billion in 2021. Find out more at [www.nxp.com](http://www.nxp.com).

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A photo accompanying this announcement is available at <https://www.globenewswire.com/NewsRoom/AttachmentNg/a0a0e34b-fe86-4f09-a965-4ddeaa307fed>



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Source: NXP USA, Inc.