NXP Tackles Cost and Complexity of Automotive Software Development with New S32K3 MCUs

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- Security firmware and software from NXP maximize security and streamline development
- System level safety hardware and software simplify ASIL certification
- Free automotive grade drivers accelerate development and quality compliance
- Smart memory design enables fast, reliable and secure over-the-air updates

EINDHOVEN, The Netherlands, Nov. 09, 2020 (GLOBE NEWSWIRE) -- **NXP Semiconductors N.V. (NASDAQ: NXPI)** today announced the S32K3 microcontroller (MCU) family, the newest addition to its S32K product line. The S32K1 family, released in 2017, marked an important turning point in addressing software's central role in automotive development. The new S32K3 family, designed for automotive body electronics, battery management and emerging zone controllers, continues to simplify software development with an enhanced package that spans security, functional safety and low-level drivers.

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The S32K3 expands NXP's S32 automotive platform from gateway and domain control into zone control and edge nodes. Plus, it enables software reuse among multiple applications to reduce the complexity of vehicle software development and ease the burden for Tier 1s and carmakers.

"Software development is one of the central challenges in modern vehicle development and the S32K3 MCU family is designed to help customers meet it," said Ed Sarrat, director of product management, Automotive Processing at NXP. "It accelerates development with free automotive grade drivers, simplifies security and over the air updates, and streamlines safety compliance."

The S32K3 security solution includes the hardware security engine, designed to anticipate the ISO/SAE 21434 standard still in development and future OEM requirements. Beyond the hardware, NXP provides its own firmware and crypto driver, aiming to reduce the cost and complexity of engaging with third party providers. The firmware maximizes the performance of the hardware security engine, blocks rogue access to protect the integrity of the security subsystem, and is field upgradable to address evolving cyber security threats.

Customers will benefit from S32K3's system-level approach to functional safety including safety framework software, a core self-test library, and hardware features including lock-step cores, and clock/power/temperature monitors which ease compliance with ISO 26262 requirements. In addition, the S32K3 is being announced with the NXP FS26 safety power management IC. The combination includes the software driver, reference design and joint safety documentation to further accelerate customer development timelines for safety applications.

The unique Real Time Drivers (RTD) package combines low level drivers for both AUTOSAR and proprietary software architectures. This provides platform reuse to Tier1s and carmakers who no longer need to maintain separate architectures. The RTD package is production grade and will comply with the ISO 26262 standard, this can reduce the time required for customer code validation.

S32K3 is designed for secure over-the-air software updates. The smart memory design enables updates to be downloaded during normal runtime, while automatic address translation functionality eliminates the need for software reconfiguration. Together, these features enable an instant switchover to the new software version after reset, and the original software is preserved as a roll back option.

The S32K3 family offers scalability from 512KB -8MB of flash with up to 3 Arm® Cortex® M7 cores. Plus, it is the first NXP MCU to offer the breakthrough MaxQFP package which reduces the footprint compared to a standard QFP by up to 55%. The S32K3's combination of scalable hardware and easy to use software aims to accelerate innovation for next generation vehicle features.

Engineering samples, evaluation boards and a software package for the 1st product in S32K3 family are now available for alpha customers. Production of the lead device is planned for the fourth quarter of 2021. For more information visit www.nxp.com/S32K3 and FS26.

About NXP Semiconductors

NXP Semiconductors N.V. enables secure connections for a smarter world, advancing solutions that make lives easier, better, and safer. As the world leader in secure connectivity solutions for embedded applications, NXP is driving innovation 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 29,000 employees in more than 30 countries and posted revenue of $8.88 billion in 2019. Find out more at www.nxp.com.

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A photo accompanying this announcement is available at https://www.globenewswire.com/NewsRoom/AttachmentNg/4208dfff-8864-4c61-84f1-fa4b8de31712

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