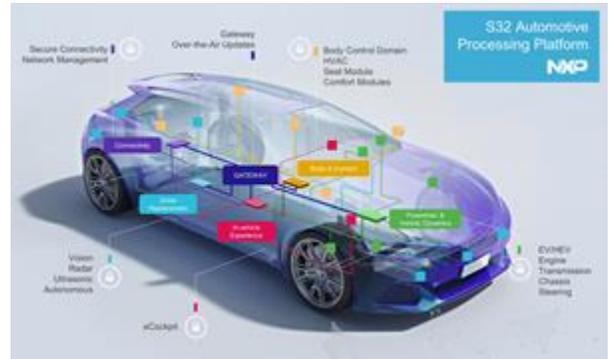![NXP logo]

NXP Announces New Automotive Processing Platform that Brings Future Vehicles to Market Faster

October 16, 2017

8 of the top 15 car makers have already adopted NXP S32 platform for upcoming models

- 10x the performance of today's best performing safe automotive platform[1]
- Reduces software development effort by 90 percent within application domains, and by more than 40 percent across application domains.[2]
- Delivers new levels of automotive safety, security and Over-the-Air (OTA) capabilities

NXP S32 Auto Processing Platform Image

SAN JOSE, Calif., Oct. 16, 2017 (GLOBE NEWSWIRE) -- NXP Semiconductors N.V. (NASDAQ:NXPI), the world's largest supplier of automotive semiconductors[3], has announced an all new control and compute concept for connected, electric and autonomous cars. The NXP S32 platform is the world's first fully-scalable automotive computing architecture.[4] Soon to be adopted by both premium and volume automotive brands, it offers a unified architecture of microcontrollers/microprocessors (MCU/MPU) and an identical software environment across application platforms. The NXP S32 architecture addresses the challenges of future car development with a host of architectural innovations designed to allow carmakers to bring rich in-vehicle experiences and automated driving functions to market much faster than before.

A photo accompanying this announcement is available at http://www.globenewswire.com/NewsRoom/AttachmentNg/e97b3106-d2a6-4e22-bdeb-e02962eff4f5.

A video accompanying this announcement is available at http://www.globenewswire.com/NewsRoom/AttachmentNg/409b4a89-9e50-4cc8-ad74-16e2c86ce844.

Modern cars are a complex mixture of applications and disparate software approaches that present significant integration challenges to the carmaker. Automotive industry estimates reveal there are more lines of code in an advanced vehicle than a modern passenger aircraft.[5] This complexity places carmakers and automotive suppliers under tremendous pressure to satisfy market expectations for higher electronic functionality within tightening time-to-market constraints.

NXP's new S32 platform addresses these challenges with the highest performance MCU[6] in the industry, a smooth transition to MPU performance and an identical software development environment across vehicle applications. The new software development environment allows developers to reuse costly research and development work[7] and therefore respond quicker to changing vehicle architectures and intense time-to-market demands. The platform is developed to deliver automotive quality, reliability and ASIL D performance across multiple application spaces.

"Traditional and disruptive automakers, even more than Tier 1s, seek a standardized way of working across vehicle domains, segments and regions to meet increasing performance demands while contemporarily ensuring fast time to market and control over skyrocketing development costs," said Luca DeAmbroggi, senior principal analyst, Automotive Electronics & Semiconductors at IHS Markit. "A common architecture and a scalable approach can cut development time for critical applications in domains like ADAS, autonomous driving or connectivity from both the HW and the SW perspective."

How the NXP S32 Architecture Changes Car Development

- ***Scalability across products*** – The S32 platform encompasses broadest-in-industry range of performance from small low power Arm® Cortex®-M, Real Time optimized Cortex-R and highest performance Cortex-A class performance classes, with ASIL D capability at each performance level.
- ***Over-the-Air Updates*** – The S32 platform allows zero downtime OTA capability with full roll back options to any S32 enabled car domains via a secure gateway and common domain architecture.
- ***Security*** – The S32 platform brings the best of NXP's core security concepts across new SoCs launched in the S32 family, offering scalable solutions that are the benchmark for the automotive industry.
- ***A common IP set*** provides a consistent development environment via the S32 SDK. This allows development efforts to be shared across domains and eliminates duplication of multiple software modules.
- ***Application-specific IP on each microcontroller*** gives tailored hardware support for key domain requirements like

secure gateway, radar, powertrain and motor control.

- ***A unique technology independent architecture*** – The complete redesign of NXP IP across the microcontroller families has forged common functionality across technology nodes and consistent hardware and software behavior.
- ***Artificial Intelligence*** – The S32 platform will support a range of AI accelerators targeting ADAS applications. These will accelerate algorithms to support functions, such as object detection and classification in the areas of vision, radar and sensor fusion.

Quotes

"Our insight into the future of automotive caused us to re-evaluate the interrelationship between hardware and software," said Matt Johnson, senior vice president and general manager - Product Lines and Software, Auto MCU and Processors at NXP Semiconductors. "We saw that to build the software of tomorrow, the software behind future vehicles, we had to reinvent the hardware. We built our hardware to enable an identical software development environment across products and applications, thereby significantly reducing software development effort and shortening time to market. Our customers see it the same way."

Availability

Leading OEMs are now using pre-silicon emulation and development tools available from NXP's key third party partners. Further announcements from NXP partners related to these capabilities are expected soon.

Notes

[1] Based on publicly available competitor roadmap performance statements.

[2] Based on analysis of existing NXP software code in existing customers' applications, NXP expects that software reuse will be significant both within domains and across vehicle domains at up to 90 and more than 40 percent respectively.

[3] Source: Strategy Analytics 2016

[4] Hardware and software scalability from 512 KB embedded in NVM with M-Class processor up to 1 GHz A-Class processor running with DDR memory.

[5] Source: Informationisbeautiful.net

[6] NXP is high performing at 6000 ASIL-DMIPS, the closest competitor is 3000 ASIL-DMIPS based on publicly available information.

[7] S32 software compatibility provides customers with the ability to reuse the same software across multiple product lines.

About NXP

NXP Semiconductors N.V. (NASDAQ:NXPI) enables secure connections and infrastructure 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 secure connected vehicle, end-to-end security &privacy and smart connected solutions markets. Built on more than 60 years of combined experience and expertise, the company has 31,000 employees in more than 33 countries and posted revenue of $9.5 billion in 2016. Find out more at www.nxp.com.

For more information, please contact:

Europe / U.S.

Jason Deal
Tel: +44 7715228414
Email: jason.deal@nxp.com

Greater China / Asia

Esther Chang
Tel: +886 2 8170 9990
Email: esther.chang@nxp.com

Japan

Kiyomi Masuda (増田 清美)
Tel: +81-70-3627-6472
Email: kiyomi.masuda@nxp.com

NXP USA, Inc.