



NXP Launches the World's Smallest Single-chip SoC with Integrated Microcontroller for Drones, Robots, Power Tools, and Healthcare Applications

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New System-on-Chip Is Part of NXP's Strategy to Extend its 8-bit Family of Microcontrollers for the Broad Market; SoC Includes MOSFET Pre-driver, Delivering Ultra-High Voltage, Low Bill of Material and Tighter Integration

AUSTIN, Texas, March 09, 2017 (GLOBE NEWSWIRE) -- NXP Semiconductors N.V. (NASDAQ:NXPI) today announced the world's smallest single-chip SoC solution – the MC9S08SUX microcontroller (MCU) family – with an integrated 18V-to-5V LDO and MOSFET pre-driver that delivers ultra-high-voltage solution for drones, robots, power tools, healthcare and other low-end brushless DC electric motor control (BLDC) applications. Extending the company's S08 family of MCUs, the robust 8-bit MC9S08SUX microcontroller family offers 4.5V~18V supply voltage range with lower bill of materials (BOM) cost and tighter integration for higher performance and reliability. The new SoC units address the growing demand to replace multiple device solutions with a single MCU to reduce cost and system size, while simplifying integration and layout for space-constrained use cases.

"The market trend is pointing towards integrated solutions that save system size and cost, and NXP is leading the industry as the only provider to offer a single-chip offering with integrated microcontroller and MOSFET pre-driver in a 4x4x0.65mm form factor, which also makes it possible to cut the printed circuit board size in half," said Geoff Lees, senior vice president and general manager of the microcontroller business line at NXP. "Historically, several devices were needed to address the needs of BLDC motor control applications, which can be expensive and large in size; our latest addition to the S08 MCU family underscores our dedication to solving unique challenges by introducing new microcontrollers for the broad market."

Based on the HCS08 core, the MC9S08SUX leverages the enhanced S08L central processor unit with three-phase MOSFET pre-drivers to deliver all-in-one unit for 4.5V-18V motor control applications. The single-chip MC9S08SUX MCU removes the need for Low Drop Out (LDO) voltage regulator(s), operational amplifiers, and pre-drivers for a streamlined, cost-effective solution. Additionally, NXP has integrated virtually all of the necessary features in BLDC motor control, including zero crossing point detection, pulse width measurement, over voltage protection and over current protection, enabling developers to simply configure registers and easily use the functions in applications. The MC9S08SUX family also includes amplifiers for current measurement and supports three high-side PMOSes as well as three low-side NMOSes.

NXP's S08 microcontrollers, including the new MC9S08SUX family, are supported by CodeWarrior IDE. FreeMASTER support is offered as run-time debugging tool. In addition, IAR Embedded Workbench supports the NXP S08 MCU portfolio, offering a single toolbox complete with configuration files, code examples and project templates. IAR Embedded Workbench support for the MC9S08SUX MCU family will be available March 2017.

"The leading optimization technology in IAR Embedded Workbench helps developers to maximize performance and minimize power consumption for applications based on the new MC9S08SUX MCU family from NXP," said Jan Nyrén, Product Manager, IAR Systems.

To learn more about MC9S08SUX, please visit www.nxp.com/sS08su.

About NXP Semiconductors

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.

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