

Press Information No. 1313_E

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Brushless DC motor control solutions by Micronas now additionally powered by ARM Cortex®-M3 Processor

Micronas paves the way towards a new class of highly versatile, single-chip smart actuator solutions by licensing a high-performance 32-bit core for their HVC family

Freiburg, December 11, 2013 – Micronas (SIX Swiss Exchange: MASN), known and recognized in the automotive and industrial business as a global partner for intelligent, sensor-based system solutions, today announces the licensing of the Cortex-M3 32-bit RISC processor from ARM Ltd. for its next generation of brushless DC motor control solutions in a single IC.

The Cortex-M3 processor with an efficient and deterministic 3-stage pipeline provides an ideal blend of high performance and instruction efficiency due to the use of the Thumb-2 instruction set, hardware divider, and single-cycle multiplier. Furthermore, the processor is equipped with essential microcontroller features, such as low latency interrupt handling, integrated sleep modes, debug and trace capabilities, as well as best-in-class software development tool chain.

“The integration of the ARM Cortex®-M3 processor into our embedded controllers for smart actuators complements our already established 8051-processor-based solutions and enables us to target new motor driving applications requiring advanced processing capabilities” says Dirk Behrens, Vice President Automotive at Micronas. “This paves the way towards a new class of highly versatile and compelling single-chip smart actuator solutions while facilitating software development for our customers”.

“The ARM Cortex-M3 offers new levels of intelligence, energy efficiency and control for a new breed of smart industrial and automotive products” says Noel Hurley, Vice President, Marketing & Strategy, Processor Division, ARM. “We are delighted Micronas has chosen to partner with ARM and look forward to working closely to improve the lives of users from the factory floor to the dashboard.”

Micronas' embedded controllers for use in automotive and industrial applications are single chip, high-voltage controllers with flexible peripherals and direct motor driving capabilities. The various integrated digital and analog components include comparators, diagnosis and protection functions, programmable gain amplifier, A/D converter, communication interfaces, direct 12 V operation regulators, as well as power bridges. These features make the system lighter in weight and save important space within the application which enables a very compact and cost-effective motor system design.

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Micronas' embedded controllers further support various commutation schemes and can either be operated in a sensor-less or sensed mode in conjunction with the HAL 2xy and HAL 5xy switch or 2D rotational encoder families. Smart actuator system solutions are sought after in various applications, like DC motor drives, fans and pumps.

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About Micronas

Micronas (SIX Swiss Exchange: MASN) is known and recognized in the automotive and industrial business as a reliable global partner for intelligent, sensor-based system solutions. Micronas offers a variety of Hall sensors and embedded controllers for smart actuators for automotive and industrial applications, such as drive trains, chassis frames, engine management and convenience functions.

Micronas serves all major automotive electronics customers worldwide, many of them in continuous partnerships seeking joint success. While the holding company is headquartered in Zurich (Switzerland), operational headquarters are based in Freiburg (Germany). Currently, the Micronas Group employs around 900 persons. For more information about Micronas and its products, please visit www.micronas.com.

press release