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Integrated and Compact CAN FD System Basis Chip Solution for Space-Constrained Applications

Microchip introduces the ATA650x CAN FD SBC with integrated high-speed CAN transceiver and 5V LDO

CHANDLER, Ariz., Dec. 16, 2024 (GLOBE NEWSWIRE) -- The increase in connected applications in the automotive and industrial markets is driving demand for wired connectivity solutions with higher bandwidth, lower latency and enhanced security. Reliable and secure communication networking solutions are vital for transmitting and processing data as intended. Microchip Technology **(Nasdaq: MCHP)** today announces the new family of **ATA650x CAN FD System Basis Chips (SBCs)** with a fully integrated high-speed CAN FD transceiver and a 5V Low-Drop Voltage Regulator (LDO) available in compact 8-, 10- and 14-pin space-saving packages.

The ATA650x CAN FD SBCs offer a tiny footprint of 2 mm × 3 mm for the VDFN8 package, 3 mm × 3 mm for the VDFN10 package and 3 mm × 4.5 mm for the VDFN14 package. With a built-in high-speed CAN FD transceiver, the SBCs support data transmit and receive rates of up to 5 Mbps.

A robust solution for space and power-constrained applications, these SBCs exhibit very low power consumption, with a typical sleep current of just 15 µA. The ATA650x SBCs enable control of the V_{CC} supply voltage by the bus signals, which reduces the current consumption of automotive Electronic Control Units (ECUs). To further reduce power consumption, the SBCs can disable the microcontroller supply by switching off LDOs during sleep mode.

The safety features available in the ATA650x device include fail safe, protection and diagnostic functions to provide reliable bus communication in advanced networks. Designed to withstand Electrostatic Discharge (ESD) and equipped with Electromagnetic Compatibility (EMC) performance, the ATA650x devices are robust solutions for applications operating in harsh environments.

The integrated SBC solution is Functional Safety ready to help customers achieve an ISO 26262 safety certification or the desired ASIL level. Additionally, the SBCs are AEC-Q100 qualified with a Grade 0 rating and are designed to operate in temperatures ranging from −40°C to +150°C.

“Our compact CAN FD SBC is engineered for space-constrained applications, specifically addressing the critical need for resilience in demanding environments,” said Rudy Jaramillo, vice president of Microchip’s analog power and interface division. “This highly integrated solution can aid in system-level cost savings by minimizing board space requirements and helping reduce design complexities for our customers.”

The ATA650x CAN FD SBCs are part of Microchip's extensive portfolio of connectivity solutions, which includes standard LIN and CAN transceivers and Systems in Packages (SiPs) with integrated microcontrollers. For more information, visit Microchip's **SBCs web page**.

Pricing and Availability

The ATA650/1, ATA6502/3 and the ATA6504/5 are now available in production quantities. For additional information and to purchase, contact a Microchip sales representative, authorized worldwide distributor or visit Microchip's Purchasing and Client Services website, **www.microchipdirect.com**.

Resources

High-res images available through Flickr or editorial contact (feel free to publish):
• Application image: **www.flickr.com/photos/microchiptechnology/54058808897/sizes/l**

About Microchip Technology:
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