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Essential Performance and Real-time Control Without the Baggage

Microchip's dsPIC33CK Value Line DSCs offer streamlined design for cost-sensitive applications and consistent pricing regardless of order size

CHANDLER, Ariz., May 28, 2026 (GLOBE NEWSWIRE) -- Designers of real-time control applications are increasingly challenged to balance performance and peripheral integration while keeping system cost and complexity low. To address these challenges, Microchip Technology Inc. **(Nasdaq: MCHP)** has introduced the **dsPIC33CK Value Line** family of Digital Signal Controllers (DSCs) to provide essential real-time control at a competitive price point. By combining up to 100 MHz deterministic processing, high-resolution pulse-width modulation (PWM) and a 12-bit analog-to-digital converter (ADC), Value Line DSCs support motor Field Oriented Control (FOC), touch and precision sensing applications without the added cost of unnecessary features.

dsPIC33CK Value Line devices integrate a balanced set of peripherals that enable designers to consolidate multiple system functions onto a single device, helping reduce external component count, printed circuit board footprint and overall bill-of-materials (BoM) cost. With scalable program Flash memory options ranging from 32 KB to 256 KB, and compatibility across the broader dsPIC33CK family, Value Line DSCs support scalability while offering migration paths for future needs.

"Not every real-time control design needs a high-end solution, many just need dependable performance at the right cost," said Joe Thomsen, corporate vice president of Microchip's digital signal controller business unit. "The dsPIC33CK Value Line delivers the essentials designers rely on most while eliminating complexity and helping provide a straightforward path to building capable, reliable systems without paying for features they don't need. Offering consistent pricing at any volume makes it easier for customers to plan, scale and control long-term costs."

Designed for cost-sensitive applications, the dsPIC33CK Value Line family offers consistent and competitive pricing across various purchase volumes, helping simplify device selection during early-stage evaluation and production planning. Automotive-grade reliability, including AEC-Q100 Grade 1 qualification and built-in security features for implementing secure boot and secure firmware updates, helps enable use in industrial, automotive, consumer and medical applications where dependable real-time operation is required.

Value Line DSCs are designed to provide up to 2 ns PWM resolution across eight channels, a 12-bit ADC supporting up to 2 MSPS, on-chip analog comparators with a 12-bit digital-to-analog converter (DAC) and a comprehensive set of communications peripherals including CAN FD, Local Interconnect Network (LIN), Single Edge Nibble Transmission (SENT), Universal Asynchronous Receiver-Transmitter (UART), Serial Peripheral Interface (SPI) and I²C. Together with Microchip's established dsPIC33CK DSC ecosystem, these capabilities

help designers implement precise, reliable real-time control functions within a single device, simplifying system design while supporting use in demanding applications that require long-term dependability and cost efficiency. Visit the website to learn more about Microchip's full portfolio of **digital signal controllers**.

Development Tools
To accelerate evaluation and development, Microchip offers a low-cost dsPIC33CK Value Line Curiosity Nano evaluation kit featuring an onboard debugger, eliminating the need for an external programming or debugging tool. The evaluation platform can be used with Microchip's Curiosity Nano base for Click Boards™ and Curiosity Nano touch adapter board for touch-based applications. A Motor Control Dual Inline Module (DIM) is also available to support rapid prototyping of motor control designs. Value Line DSCs are compatible with the MPLAB® development ecosystem including the MPLAB XC-DSC Pro Compiler.

Pricing and Availability
Value Line DSCs are available starting at $0.51 each, with consistent pricing regardless of order quantity. You can **purchase** directly from Microchip or contact a Microchip **sales representative or authorized worldwide distributor**.

Resources
High-res images available through Flickr or editorial contact (feel free to publish):
- Application image: **https://www.flickr.com/gp/microchiptechnology/Przt825X86**

About Microchip Technology:
Microchip Technology Inc. is a broadline supplier of semiconductors committed to making innovative design easier through total system solutions that address critical challenges at the intersection of emerging technologies and durable end markets. Its easy-to-use development tools and comprehensive product portfolio supports customers throughout the design process, from concept to completion. Headquartered in Chandler, Arizona, Microchip offers outstanding technical support and delivers solutions across the industrial, automotive, consumer, aerospace and defense, communications and computing markets. For more information, visit the Microchip website at **www.microchip.com**.

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