October 27, 2026

Microchip Achieves Key Program Milestones for its PIC64-HPSC Spaceflight Computing Series

Early radiation results and customer evaluations show progress toward high-performance computing for next-generation space missions

CHANDLER, Ariz., Oct. 27, 2026 (GLOBE NEWSWIRE) -- As civil, commercial, scientific and defense spacecraft become more autonomous, software-defined and data intensive, mission developers need substantially greater onboard processing capability, combined with the resilience, security and reliability required for demanding space environments. Microchip Technology **(Nasdaq: MCHP)** today announces several important milestones for its **PIC64-HPSC High-Performance Spaceflight Computing Series**, a 64-bit multicore RISC-V computing platform designed specifically for spacecraft, satellites and other mission-critical space systems.

Early radiation characterization of the PIC64-HPSC1000-RH radiation-hardened variant has demonstrated Total Ionizing Dose (TID) performance to 200 krad(Si) and successful Single Event Latch-up (SEL) testing to 78.2 MeV·cm²/mg under specified operating conditions. Early testing also demonstrated robust system-controller operation during Single Event Effects (SEE) characterization, with no uncorrected errors or external resets required during the testing completed to date. These results provide developers with tangible evidence of the platform's progress toward meeting radiation-tolerance requirements, helping enable future spaceflight systems from Low Earth Orbit to the Moon, Mars and beyond.

"Our vision for PIC64-HPSC was to develop a modern, high-performance computing platform capable of enabling the next generation of civil, commercial, scientific and defense space systems," said Kevin So, vice president of Microchip's communications business unit. "The combination of operational silicon, radiation-characterization results and customer evaluation activity demonstrates continued execution against that vision and marks an important step in the maturation of the platform."

Through the PIC64-HPSC Early Access Program, participating customers have been evaluating silicon and development kits, and beginning application development with supporting software, tools, technical resources and direct engineering assistance from Microchip. A growing ecosystem of board partners is also developing PIC64-HPSC-based VPX and VNX+ computing platforms, providing additional paths for system developers to integrate the processor into future space systems. The Early Access Program can help space-system developers reduce program risk and advance application development.

Initial silicon performance measurements are in line with program objectives, providing a foundation for increasingly compute-intensive workloads such as onboard autonomy, high-performance payload processing, Earth observation and intelligence, secure communications, spacecraft control, scientific exploration and edge AI. By processing more

sensor and mission data onboard, future spacecraft can reduce dependence on communications bandwidth, shorten decision-making latency and respond more rapidly to changing mission conditions. The importance of advanced onboard processing is also reflected in NASA's FY26 Civil Space Shortfall Prioritization, which ranked advanced onboard computing for space operations as the third-highest civil space technology shortfall.

PIC64-HPSC is designed as a scalable computing foundation for a broad range of next-generation space systems. Its 64-bit multicore RISC-V architecture supports the industry's move toward more open and scalable models for onboard autonomy, software-defined spacecraft, distributed processing, deterministic communications and heterogeneous computing.

PIC64-HPSC originated from NASA and JPL's assessment of future spaceflight computing requirements and awarded the HPSC contract to Microchip in 2022. Today, operational silicon, customer evaluations and early radiation-characterization achievements reflect the program's progress to date.

The HPSC program helped establish the foundation for Microchip's 64-bit computing portfolio, which the company has since expanded its portfolio of **PIC64 MPUs** addressing performance requirements across a broad range of markets.

Pricing and Availability

PIC64-HPSC evaluation and development kits are available to select customers, providing access to silicon, development platforms, software, tools and Microchip engineering support. To inquire about availability, contact a **Microchip sales representative**.

Resources

High-res images available through Flickr or editorial contact (feel free to publish):
• Application image: **www.flickr.com/photos/microchiptechnology/55590867877/sizes/l**

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**.

Note: The Microchip name and logo and the Microchip logo are registered trademarks of Microchip Technology Incorporated in the U.S.A. and other countries. All other trademarks mentioned herein are the property of their respective companies.

Editorial Contact:
Kim Dutton
kim.dutton@microchip.com



Source: Microchip Technology Inc.