March 5, 2026

New LX4580 is a Highly Integrated 24-Channel Mixed-Signal IC for Aviation and Defense Actuation Systems

New IC features redundant architecture tailored for mission-critical applications

CHANDLER, Ariz., March 05, 2026 (GLOBE NEWSWIRE) -- Microchip Technology **(Nasdaq: MCHP)** today announces the **LX4580, a 24-channel mixed-signal IC** designed to streamline high-reliability actuation control systems for aviation and defense applications. The LX4580 is highly integrated and replaces multiple discrete components with a single device that supports synchronized data acquisition, fault monitoring and motor control—reducing system size, weight and complexity.

The LX4580 is offered in a compact 144-pin LQFP package and developed for applications including More Electric Aircraft (MEA), guided defense systems, drones and launch platforms. The LX4580 integrates pressure sensing, temperature measurement, PWM motor drive outputs, current sensing, Hall effect sensor inputs, dual LVDT/resolver interfaces and dual high-speed SAR ADCs. This level of integration delivers broad sensor coverage, precise timing alignment and improved reliability compared to multi-device architectures.

“The LX4580 brings together an exceptional level of functionality in a single device, allowing our customers to simplify designs that previously required multiple ICs,” said Ronan Dillion, director of Microchip’s high-reliability and RF business unit. “By reducing system complexity and providing robust evaluation tools, we’re making it easier for engineers to accelerate development and deliver the next generation of reliable actuation systems.”

The device’s redundant architecture is tailored for mission-critical environments that demand fault tolerance and deterministic performance. By consolidating functions commonly spread across MCUs, ADCs, DACs, driver ICs and regulators, the LX4580 reduces board space and wiring complexity, supporting manufacturers’ goals to minimize overall system weight while meeting demanding safety and certification requirements.

To accelerate customer development, Microchip offers application documentation demonstrating use with its MCUs. These resources enable standalone evaluation or rapid integration into customer control architectures, simplifying early design phases and helping teams address regulatory documentation requirements efficiently.

For more information on the LX4580 and supporting resources, visit the product **web page**.

Development Tools

The LX4580-EVB Evaluation Board and **User Guide** are available to assist customers in simplifying their system development and to evaluate the features of the IC. A breakout

module is included with the EVB that allows access to both SPI buses as well as functions within the IC to evaluate individual system performance.

An additional **User Guide** is also available that demonstrates a linear actuator control system using Microchip's SAMV71 MCU with an LX4580. The MCU runs the motor control loop and generates motor control signals, while the LX4580 manages key sensors.

Pricing and Availability

The LX4580 is now available in production quantities. 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: **www.flickr.com/photos/microchiptechnology/55105074514/in/dateposted**

About Microchip Technology:
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Source: Microchip Technology Inc.