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Microchip Expands Solutions for Aerospace and Defense, Industrial and Automotive Applications with New High-Speed Analog-to-Digital Converter (ADC) Family

80 Megasamples per second (MSPS) ADCs deliver reliability and integrated features for high-frequency, high-temperature applications

CHANDLER, Ariz., Sept. 30, 2020 (GLOBE NEWSWIRE) -- System designers have limited options for small, robust, feature-rich high-speed ADCs for extended-temperature operation. Microchip Technology Inc. **(Nasdaq: MCHP)** today announced it has filled this gap with its MCP37Dx1-80 family, the company's second pipelined ADC offering and first to combine 80 MSPS in a choice of 12-, 14- and 16-bit resolutions, integrated digital features and qualification to a higher temperature range, including Automotive Electronics Council (AEC) Q100.

"Our latest ADCs meet growing customer demand for robust devices that can be used in high-temperature applications and offer integrated digital processing functions that simplify design and reduce overall development costs," said Bryan Liddiard, Vice President, Mixed-Signal and Linear division at Microchip. "The MCP37Dx1-80 family joins Microchip's 200 MSPS ADCs to expand our high-speed offering into a much broader range of system design concepts."

Microchip's **MCP37Dx1-80 ADCs** enable a wide variety of aerospace and defense, industrial and automotive systems that require a high level of reliability. Key ADC device features include:

- Robust and reliable design architecture: The ADCs operate over a -40°C to +125°C temperature range and are among the few high-speed ADCs in the industry qualified to AEC-Q100 grade 1 standards. This makes them ideal for demanding applications such as Advanced Driver Assistance Systems (ADAS), autonomous driving, Low Earth Orbit (LEO) satellites and test and measurement equipment.
- Integrated digital features that eliminate external components and reduce MCU post-processing: Decimation filters improve signal-to-noise ratio (SNR), while a digital down-converter (DDC) supports communication designs and a noise-shaping requantizer in the 12-bit ADCs improves accuracy and performance.
- Small size: Their compact 8mm x 8mm 121-pin ball grid array (BGA) packages with 0.65mm pitch also include built-in reference decoupling capacitors that further reduce cost and overall footprint by eliminating the need for external bypass capacitors.

Development Tools
Evaluation boards with graphical user interface (GUI) and firmware are available for Microchip's 12-,14- and 16-bit MCP37Dx1-80 ADCs as a development aid for customers.

Pricing and Availability
The 12-bit MCP37D11-80, 14-bit MCP37D21-80 and 16-bit MCP37D31-80 ADCs are available for volume production now. They are priced at $17.45, $29.87 and $40.42 each, respectively, in 10,000-unit volumes. To purchase the 12-bit MCP37D11-80, 14-bit MCP37D21-80 and 16-bit MCP37D31-80 ADCs, visit Microchip's **purchasing portal**.

Resources
High-res images available through Flickr or editorial contact (feel free to publish):

* Application image:
  https://www.flickr.com/photos/microchiptechnology/50331003211
* Product image: **https://www.flickr.com/photos/microchiptechnology/50331179967**

About Microchip Technology
Microchip Technology Inc. is a leading provider of smart, connected and secure embedded control solutions. Its easy-to-use development tools and comprehensive product portfolio enable customers to create optimal designs which reduce risk while lowering total system cost and time to market. The company's solutions serve more than 120,000 customers across the industrial, automotive, consumer, aerospace and defense, communications and computing markets. Headquartered in Chandler, Arizona, Microchip offers outstanding technical support along with dependable delivery and quality. For more information, visit the Microchip website at **www.microchip.com**.

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