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Microchip Extends Leadership in Data Center Connectivity with Industry's Lowest Latency PCI Express® 5.0 and CXL™ 2.0 Retimers

XpressConnect™ retimers cost-effectively triple high-speed signal reach

CHANDLER, Ariz., Nov. 10, 2020 (GLOBE NEWSWIRE) -- As the high-performance computing demands of data center workloads increase, new ultra-low-latency signal transmission technology is required to advance the performance in Artificial Intelligence (AI), Machine Learning (ML), Advanced Driver Assisted Systems (ADAS) and other computational workload applications. To address this need, Microchip Technology Inc. (**Nasdaq: MCHP**) announced today the XpressConnect family of low-latency PCI Express (PCIe®) 5.0 and Compute Express Link™ (CXL™) 1.1/2.0 retimers.

XpressConnect retimers triple the reach of PCIe Gen 5 electrical signals, which enables data center equipment providers to harness the next generational advancement in compute IO performance while providing the required flexibility and connectivity for advanced hardware architectures. XpressConnect retimers deliver ultra-low-latency signal transmission that enables the most demanding computational workloads in AI, ML, communication systems and high-performance computing applications.

"With increasing storage, compute and memory bandwidth demands, hyperscale data center, server and storage providers have continued to look to Microchip for leading compute, storage and memory connectivity solutions," said Andrew Dieckmann, associate vice president of marketing and applications engineering for Microchip's data center solutions business unit. "Microchip is uniquely positioned to deliver seamless interoperability with XpressConnect retimers given our extensive portfolio of PCIe Switchtec™ and Flashtec® products and our close relationships with industry partners, providing lower engineering costs and faster time to market for our customers."

The XpressConnect family delivers extended reach at >80% lower latency than the PCIe specification, with a pin-to-pin latency of <10 nanoseconds. XpressConnect retimers are available in multiple lane count variants of up to 16 lanes of PCIe Gen 5 to connect to a wide range of PCIe and CXL devices. XpressConnect retimers support passive copper and optical cables and include high-reliability features such as hot-plug and surprise-plug. XpressConnect delivers a cost-effective solution for motherboard, backplane, cable and riser card use cases by enabling system integrators to use lower-cost cables and board materials.

To enable rapid time to market for customers, Microchip has partnered with Intel® to develop an XpressConnect reference design in a standard riser card form-factor that will be available to customers on Intel's Resource and Design Center. XpressConnect also supports ChipLink

diagnostic and development tooling to reduce engineering development cost and accelerate time to market.

“PCIe 5.0 and CXL will enhance the workload performance and capabilities of Intel’s future Xeon Scalable processor code-named ‘Sapphire Rapids.’ As with all new standards, adoption of PCIe 5.0 and CXL will be dependent on validation and interoperability delivered by industry leaders,” said Jim Pappas, director of technology initiatives at Intel. “Microchip and Intel have a long history of collaboration on PCIe solutions, and we are excited to continue our joint efforts to deliver a robust ecosystem that enables easy adoption of next-generation PCIe 5.0 and CXL 1.1/2.0 solutions with low-latency retimers.”

“Microchip is a key contributor to the CXL Consortium, both as a CXL board member and participant in the technical working groups developing the CXL specification,” said Barry McAuliffe, CXL Consortium President. “Microchip’s XpressConnect low-latency retimers are a welcome addition to the CXL ecosystem.”

Development Tools
Microchip has released a full set of design-in collateral, reference designs, evaluation boards and tools to support customers building systems that take advantage of the high-bandwidth of PCIe Express 5.0 and low-latency connectivity of CXL 1.1/2.0. Microchip’s ChipLink diagnostic GUI used across all of Microchip’s data center products has been extended to support XpressConnect retimers to provide extensive debug, diagnostics, configuration and forensics tools.

Availability
XpressConnect retimers are sampling now to qualified customers. Contact your Microchip salesperson for ordering details.

In addition to storage technology, Microchip also provides data center infrastructure builders worldwide with total system solutions including memory, timing and synchronization systems, stand-alone secure boot, secure firmware and authentication, wireless products, touch-enabled displays to configure and monitor data center equipment, and predictive fan controls.

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

- Application image: **www.flickr.com/photos/microchiptechnology/50542295227/sizes/l/**

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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