December 8, 2022

Marvell Extends 5nm Data Infrastructure Leadership with Launch of Secure 1.6T Ethernet PHY for Cloud and 5G Markets

Delivers New Security Features Along with 40% Power/Bit Savings Compared to Prior Generation

SANTA CLARA, Calif., Dec. 8, 2022 /PRNewswire/ -- Marvell Technology, Inc. (NASDAQ: MRVL), a leader in data infrastructure semiconductor solutions, today introduced Alaska® C X9340P, a new 5nm 1.6T Ethernet PHY with 100G I/O capability, featuring built-in Media Access Control security (MACsec) and full support for Precision Time Protocol (PTP), for cloud data center and communications network applications. MACsec allows data center operators to enable hardware-based link-layer security and PTP enables Ethernet networks to support ultra-reliable timing-critical services. The X9340P and the previously announced Alaska C X93160 PHY together provide a pin-compatible, flexible platform for retiming, gearboxing, encryption and timing applications for speeds up to 800GbE.

The X9340P is the latest Marvell product built on the industry's highest performance PAM4-based 112 Gbps SerDes technology and delivers 40% lower power-per-bit compared to PHYs using 56Gbps PAM4-based SerDes technology. The Alaska C X9340P PHY incorporates the IEEE 802.1AE 256-bit MACsec capability in the PHY, providing for flexible encryption deployment while eliminating the cost and power burden of including this functionality in the switch ASIC. Marvell is supporting the Switch Abstraction Interface (SAI) driven by the Open Compute Project (OCP) on both the X9340P and X93160 devices to enable the vendor-independent control of networking equipment elements demanded by leading cloud data center customers.

The new PHY also integrates support for PTP for timing-critical use cases in 5G and telecom applications. The stringent timing requirements of 5G networks and applications served by them are driving the timing accuracy that needs to be delivered by networks supporting these services. The inclusion of Class C PTP timestamping enables the support of sub-microsecond end-to-end clock synchronization accuracy needed for 5G Ultra-Reliable Low-Latency Communications (URLLC) services that enable mission-critical use cases such as industrial automation.

"100G PAM4 I/Os and 800 Gigabit Ethernet are the next leap forward for the industry," said Venu Balasubramonian, vice president of product marketing, High Speed Connectivity and PHY Business Unit at Marvell. "Our newest 1.6T Alaska C PHY solidifies Marvell's position as the silicon provider with one of the broadest and most advanced high-speed Ethernet PHY portfolios for cloud data center and carrier markets."

"Switching remains one of the stronger markets in data infrastructure. We anticipate that the data center switch market will grow at 9% CAGR over the next five-years with Cloud and Telco service providers growing double-digits and comprising two thirds of the market by

2026," said Sameh Boujelbene, senior director, Campus and Ethernet Switch Market Research at Dell'Oro Group. "Growth in Cloud and Telco service provider segments will also be accompanied by an increase in bandwidth, power efficiency and security requirements. As 800G networking rolls out, we expect to see more focus on PHY performance and encryption."

Availability
The Marvell Alaska C X9340P (MV-CHX9340P) is sampling now to select customers.

About Marvell
To deliver the data infrastructure technology that connects the world, we're building solutions on the most powerful foundation: our partnerships with our customers. Trusted by the world's leading technology companies for over 25 years, we move, store, process and secure the world's data with semiconductor solutions designed for our customers' current needs and future ambitions. Through a process of deep collaboration and transparency, we're ultimately changing the way tomorrow's enterprise, cloud, automotive, and carrier architectures transform—for the better.

Marvell and the M logo are trademarks of Marvell or its affiliates. Please visit www.marvell.com for a complete list of Marvell trademarks. Other names and brands may be claimed as the property of others.

This press release contains forward-looking statements within the meaning of the federal securities laws that involve risks and uncertainties. Forward-looking statements include, without limitation, any statement that may predict, forecast, indicate or imply future events or achievements. Actual events or results may differ materially from those contemplated in this press release. Forward-looking statements speak only as of the date they are made. Readers are cautioned not to put undue reliance on forward-looking statements, and no person assumes any obligation to update or revise any such forward-looking statements, whether as a result of new information, future events or otherwise.

For further information, contact:
Kim Markle
pr@marvell.com



View original content to download multimedia:https://www.prnewswire.com/news-releases/marvell-extends-5nm-data-infrastructure-leadership-with-launch-of-secure-1-6t-ethernet-phy-for-cloud-and-5g-markets-301697941.html

SOURCE Marvell