Broadcom Delivers Industry's First Dual 400G MACSec PHY for Hyper-scale Data Center and Cloud Infrastructure

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4th generation MACSec PHY extends Broadcom's optical PHY leadership and supports up to 800G of switch bandwidth with high accuracy PTP time-stamping

SAN JOSE, Calif., Sept. 23, 2019 (GLOBE NEWSWIRE) -- Broadcom Inc. (NASDAQ: AVGO) today announced commercial availability of its BCM81343 device, a dual 400G MACSec PHY with AES-256, designed to address security requirements for high speed interconnects in modern network infrastructure including hyper-scale, cloud, service provider and enterprise networks. Expanding upon the previous generation dual 100G MACSec PHY, the BCM81343 quadruples the switch bandwidth capability with dual 400G ports and supports the IEEE 1588 precision time protocol (PTP) providing accurate clock timing for time-sensitive transactions and mission-critical tasks.

Cloud and service provider networks are rapidly transitioning to 400G Ethernet to support increasing bandwidth demands and emerging 5G services. A wide range of cloud & 5G applications need hardware-based MACSec capability to secure high speed data links and accurate time-stamping to ensure high reliability and quality of service. Broadcom's BCM81343 is the industry's first dual 400G MACSec PHY device enabling cloud and service providers to maximize the port throughput of the latest 12.8-Tb/s switches such as Broadcom's Tomahawk® 3, Jericho 2 and Trident 4. The BCM81343 helps secure high-speed data links between servers, switches and routers while providing accurate PTP time-stamping needed for 5G services.

BCM81343 Product Highlights

- Dual 400GbE PHY supporting CDAUI8, CDAUI4 electrical interfaces for QSFP-DD & OSFP optical modules

- Supports MACSec in applications from 10G to 400G

- Support MACSec in both 400G retiming & 400G<->100G (reverse gearbox) applications

- IEEE 802.1AE 256-bit MACSec supporting data rates from 10G to 400G

- IEEE 1588 supporting up to Class-C to meet stringent 5G timing requirements

- Proven interoperability with Broadcom switch ASICs and ASSPs using 28-Gbaud PAM-4 and NRZ SerDes

- Pin-compatible to Broadcom's standard 400G reverse gearbox and retimer devices for easy upgrade

- Low power 16nm CMOS technology

"Data privacy and security have become critical in the data center and cloud infrastructure given the increasing number of security breaches. As cloud and service providers transition their networks to 400G Ethernet to support the growing demand for higher bandwidth and emerging 5G services, it's imperative that their 400G networks be equipped with 400G MACSec to protect against intrusion attacks, wiretapping and other threats," said Lorenzo Longo, senior vice president and general manager of the Physical Layer Products Division at Broadcom. "Expanding upon Broadcom's industry-leading 400G PAM-4 PHY portfolio, the BCM81343 is the first commercial 400G MACSec PHY that delivers up to 800G of switch bandwidth with PTP time-stamping for 5G applications."

"As 400GbE deployments are ramping in hyper-scale data centers, it's vital that MACSec be scaled to 400G to protect data-center interconnects. With its shipment of 400G MACSec PHYs, Broadcom is building on its optical PHY leadership and accelerating the transition to 400G Ethernet," said Bob Wheeler, principal analyst with The Linley Group.

Availability

Broadcom has begun shipping volume quantities of its BCM81343 device to qualified customers. Please contact your local Broadcom sales representative for samples and pricing.

Further information on Broadcom's BCM81343 can be found online at: https://www.broadcom.com/products/ethernet-connectivity/optical-phy/bcm81343

About Broadcom

Broadcom Inc. (NASDAQ: AVGO) is a global technology leader that designs, develops and supplies a broad range of semiconductor and infrastructure software solutions. Broadcom's category-leading product portfolio serves critical markets including data center, networking, enterprise software, broadband, wireless, storage and industrial. Our solutions include data center networking and storage, enterprise and mainframe software focused on automation, monitoring and security, smartphone components, telecoms and factory automation. For more information, go to www.broadcom.com.

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