



Broadcom Introduces Industry's First 800G AI Ethernet NIC

October 14, 2025

Thor Ultra is Fully Compliant with Ultra Ethernet Consortium; Delivers Cutting-Edge Performance, Scalability, and Reliability for AI Scale-Out Networking

PALO ALTO, Calif., Oct. 14, 2025 (GLOBE NEWSWIRE) -- [Broadcom Inc.](https://www.broadcom.com) (NASDAQ:AVGO), a global leader in semiconductor and infrastructure software solutions, today announced Thor Ultra, the industry's first 800G AI Ethernet Network Interface Card (NIC), capable of interconnecting hundreds of thousands of XPU's to drive trillion-parameter AI workloads. By adopting the open Ultra Ethernet Consortium (UEC) specification, Thor Ultra gives customers the ability to scale AI workloads with unparalleled performance, and efficiency in an open ecosystem.

"Thor Ultra delivers on the vision of Ultra Ethernet Consortium for modernizing RDMA for large AI clusters," said Ram Velaga, senior vice president and general manager of the Core Switching Group at Broadcom. "Designed from the ground up, Thor Ultra is the industry's first 800G Ethernet NIC and is fully feature compliant with UEC specification. We are grateful to our customers for their partnership and to our exceptional engineering team for the product innovation."

Traditional RDMA lacks multipathing, out-of-order packet delivery, selective retransmit and scalable congestion control. Thor Ultra introduces a groundbreaking suite of UEC-compliant, advanced RDMA innovations including:

- Packet-Level multipathing for efficient load balancing.
- Out-of-Order packet delivery directly to XPU memory for maximizing fabric utilization.
- Selective retransmission for efficient data transfer.
- Programmable Receiver-based and Sender-based congestion control algorithms.

Thor Ultra delivers high performance advanced RDMA capabilities in an open ecosystem. This gives customers the freedom to connect with any XPU's, optics, or switches and to reduce dependency on proprietary, vertically integrated solutions.

Additional Broadcom Thor Ultra highlights include:

- Available in standard PCIe CEM and OCP 3.0 form factors.
- 200G or 100G PAM4 SerDes with support for long-reach passive copper.
- Industry's lowest Bit Error Rate (BER) SerDes, reducing link flaps and accelerating Job Completion Time (JCT).
- PCI Express Gen6 x16 host interface.
- Line-rate encryption and decryption with PSP offload, relieving the host/XPU of compute-intensive tasks.
- Secure boot with signed firmware and device attestation.
- Programmable congestion control pipeline.
- Packet trimming and Congestion Signaling (CSIG) support with Tomahawk 5, Tomahawk 6 or any UEC compliant switch.

A state-of-the-art NIC, Thor Ultra is a key addition to Broadcom's Ethernet AI networking portfolio. Together with Tomahawk 6, Tomahawk 6-Davisson, Tomahawk Ultra, Jericho 4 and Scale-Up Ethernet (SUE), Thor Ultra enables an open ecosystem for large scale high-performance XPU deployments.

Availability

Broadcom Thor Ultra is now sampling. For more information on Thor Ultra, click [here](#).

About Broadcom

Broadcom Inc. (NASDAQ: AVGO) is a global technology leader that designs, develops, and supplies a broad range of semiconductor, enterprise software and security solutions. Broadcom's category-leading product portfolio serves critical markets including cloud, data center, networking, broadband, wireless, storage, industrial, and enterprise software. Our solutions include service provider and enterprise networking and storage, mobile device and broadband connectivity, mainframe, cybersecurity, and private and hybrid cloud infrastructure. Broadcom is a Delaware corporation headquartered in Palo Alto, CA. For more information, go to www.broadcom.com.

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Industry Quotes

Michael KT Lee, Senior Vice President, R&D and Technology, Accton Technology

"Thor Ultra, featuring industry-leading 100G/200G long-reach SerDes, programmable congestion control, and line-rate encryption and decryption with PSP, is a perfect solution for building UEC feature compliant end-to-end advanced telemetry-ready congestion-resilient scale-out AI fabric. Accton is excited to embrace the launch and collaborate closely with Broadcom to bring the Thor Ultra open solutions to the market."

Hugh Holbrook, Chief Development Officer, Arista Networks, Inc.

"Broadcom's Thor Ultra 800G NIC with UEC and advanced RoCE support marks a major milestone for scalable, Ethernet-based AI fabrics. Working together with Arista's 800G Etherlink™ family of switches, we're excited for Thor Ultra to accelerate the most efficient, secure, and power-optimized XPU clusters running on Ethernet. By embracing open standards and giving customers the flexibility to choose best-of-breed solutions, Arista and Broadcom are advancing AI training and inference at unprecedented scale."

Shekar Ayyar, Chairman and CEO, Arrcus

"Thor Ultra from Broadcom sets a new benchmark for UEC feature compliant end-to-end congestion management and advanced visibility in AI networks. Arrcus is thrilled to partner with Broadcom and bring our cutting-edge software together with their innovative hardware to power the future of AI networking. This addresses one of the most pressing challenges in scaling AI to dramatically improve the utilization of GPU resources and reduce job completion times."

Gavin Cato, Senior Vice President and General Manager, Portfolio Solutions and AI Platform Engineering, Celestica

"We are pleased to see the launch of Broadcom's new Thor Ultra. Thor Ultra continues to set new standards in NIC technology with 100G and 200G SerDes options, coupled with congestion management features optimized for AI fabrics. Thor Ultra can connect with any Ethernet switching platform, including Celestica's DS5000 and DS6000 families of networking switches. Our continued collaborations reflect a shared vision to deliver performance, scalability, efficiency, and innovation for modern AI infrastructure deployments."

Arun Narayanan, Senior Vice President, Compute and Networking, Dell Technologies

"Advanced AI infrastructure is essential for customers tackling the most demanding workloads. Broadcom's Thor Ultra, featuring an 800G AI Ethernet NIC and full UEC feature compliance, will be a key component of scalable, accelerated solutions. The connectivity and efficiency of Broadcom's technologies, combined with Dell's high-performance compute, will be critical in pushing the boundaries of innovation."

Wangson Wang, General Manager, Data Networks Infrastructure, Delta Electronics

"Delta's switches will work seamlessly with XPUs and the Thor Ultra NIC, creating a complete Ultra Ethernet ecosystem that unlocks scalable, high-performance AI clusters for the next generation of computing."

Ido Susan, CEO and Founder, DriveNets

"Thor Ultra is a state-of-the-art NIC that supports the growing scale of AI clusters. It is fully aligned with DriveNets' Network Cloud-AI open strategy, enabling customers to diversify their supply chain without compromising performance, while reducing cost per token and time to first token. Thor Ultra's UEC feature compatibility enables standards-based Endpoint-Scheduled Ethernet and Fabric-Scheduled Ethernet solutions, and its enhanced DAC support further strengthens the value of DriveNets' move toward a ToR-optimized architecture."

Praveen Jain, Senior Vice President and General Manager, Data Center, HPE Networking

"AI Data Centers demand unprecedented scale. The HPE Juniper Networking AI-optimized fabric together with Broadcom's industry-first 800G Thor Ultra NIC will deliver secure, high-performance networks with end-to-end visibility built for the next generation of AI."

Vincent Lin, General Manager, Inventec EBG

"Thor Ultra is a pivotal step toward an open, standards-based AI fabric. Its UEC feature compliant 800G design and broad interoperability across switches, XPUs, and optics align with Inventec's commitment to choice, efficiency, and scale. Together with Broadcom, we're enabling customers to build secure, reliable, future-ready AI data centers — without vendor lock-in and with the freedom to grow on an open ecosystem."

Senthil Reddy, Executive Director, Server Product Group, ISG, Lenovo

"At Lenovo, we empower developers with the most advanced AI capabilities. Broadcom's Thor Ultra — with its breakthrough RDMA innovations, such as packet-level multipathing and out-of-order data placement — helps us deliver a faster, more efficient platform for AI training and inference. The result is greater performance, lower latency, and a stronger return on investment for our customers."

Andrew Qu, CEO, Micas Networks

"Broadcom's Thor Ultra NIC is a powerful complement to the Tomahawk 5 and Tomahawk 6 switches, enabling large-scale, GPU-dense AI fabrics with enhanced RoCE support, advanced telemetry, and best-in-class security. In particular, the Out-of-Order Data Placement feature in Thor Ultra will significantly improve end-to-end networking performance. With support for both 100G and 200G SerDes and seamless interoperability across optics, switches, and XPUs, Thor Ultra helps customers unlock higher performance and lower power at rack scale. Micas is excited to integrate Thor Ultra into our next-generation platforms to deliver end-to-end, standards-based Ethernet solutions optimized for AI training and inference at unprecedented scale."

Arthi Ayyangar, Vice President of Product, Software and Services, NextHop AI

"NextHop is focused on solving some of the most challenging networking and operational issues in hyperscale AI clusters. Broadcom's next-generation 800G NIC, Thor Ultra, provides a radical, standards-based solution that enables the most diverse networking and system capabilities available today, including UEC feature compliance across GPUs and XPUs. Coupled with Broadcom's Tomahawk 6 family of Ethernet switches, NextHop can now offer very compelling AI scale-up and scale-out solutions to our hyperscale customers."

Charles Liang, President and CEO, Supermicro

"Supermicro is excited to support Broadcom's Thor Ultra, a high-performance 800G NIC, within our broad portfolio of AI-optimized compute offerings. Customers will soon be able to take advantage of Thor Ultra's efficiency, reliability, and support for UEC feature compliance, PCIe Gen6, and RDMA capabilities — enabling better performance to meet the demands of the most intensive AI workloads and to build optimized solutions with confidence and flexibility."

Ray Chang, AVP, Hardware Engineering, UfiSpace

"UfiSpace is committed to enabling the next generation of open networking. By leveraging Broadcom's Tomahawk 5 and Tomahawk 6, and with support for the Thor Ultra NIC, we empower our customers to build the scalable, efficient infrastructure for the most demanding AI and HPC workloads."

Tony Wen, Vice President, Wiwynn

"At Wiwynn, we are committed to building scalable AI systems. Partnering with Broadcom to adopt the UEC feature compliant Thor Ultra with Broadcom Tomahawk 6 not only aligns with our vision but also accelerates innovation in the AI era."



Source: Broadcom Inc.