Groq Adopts Synopsys ZeBu Server 4 to Develop Breakthrough AI Chip

ZeBu's Performance Enabled First Silicon Success of Tensor Streaming Processor Architecture

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Highlights

- ZeBu provides scalable emulation capacity for full chip emulation of Groq's multi-billion gate Tensor Streaming Processor
- High-performance and reliability enable running many billions of AI workload cycles to verify Groq's software-defined TSP architecture
- ZeBu Cloud provides immediate access to large and flexible emulation capacity

Synopsys, Inc. (Nasdaq: SNPS) today announced that Groq has adopted the Synopsys ZeBu® Server 4 emulation solution for its Tensor Streaming Processor (TSP) architecture development. ZeBu Server 4 performance and capacity enabled first silicon success of Groq's TSP architecture for artificial intelligence (AI) and machine learning platforms. ZeBu also enabled optimization and validation of Groq's TSP architecture prior to silicon, resulting in unmatched performance for throughput and latency.

"As we redefine compute technology with our unique single-core architecture, we are enabling the development of artificial intelligence and machine learning platforms that offer twice the inference performance while drastically reducing infrastructure costs," said Adrian Mendes, chief operating officer at Groq. "Synopsys ZeBu Server 4 Cloud solution delivered the performance and capacity required to efficiently analyze performance of our Tensor Streaming Processor, enabling us to focus on silicon innovation."

ZeBu Server 4 is the industry's fastest emulation system offering 2X higher performance over competitive solutions. With its small footprint and one-tenth the power consumption compared to its largest competitor, ZeBu enables software and verification teams to efficiently scale their emulation farm to verify their most complex designs. ZeBu performance enables software teams to run 100s of billions of software cycles required to validate complex new software stacks on multi-billion gate designs.

"We continue to see momentum at AI chip companies requiring emulation solutions with high-performance, capacity, and reliability to verify multi-billion gate chips," said Rajiv Maheshwary, vice president of marketing and business development in the Verification Group at Synopsys. "Groq's software-first mindset was a perfect match for ZeBu's high performance to verify the fastest single-die AI chip available today. We look forward to our continued collaboration with one of the industry's leading AI chip companies."

To learn more about Synopsys' ZeBu® Server 4, visit here.

About Synopsys

Synopsys, Inc. (Nasdaq: SNPS) is the Silicon to Software™ partner for innovative companies developing the electronic products and software applications we rely on every day. As the world's 15th largest software company, Synopsys has a long history of being a global leader in electronic design automation (EDA) and semiconductor IP and is also growing its leadership in software security and quality solutions. Whether you're a system-on-chip (SoC) designer creating advanced semiconductors, or a software developer writing applications that require the highest security and quality, Synopsys has the solutions needed to deliver innovative, high-quality, secure products. Learn more at www.synopsys.com.

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