Synopsys Announces Industry's First DDR5 NVDIMM-P Verification IP for Next-generation Storage-class Memory Designs

Native SystemVerilog VIP Features Built-in Coverage, Verification Planning, Memory-aware Debug, and Performance Analysis

MOUNTAIN VIEW, Calif., May 1, 2019 /PRNewswire/ -- Synopsys, Inc. (Nasdaq: SNPS) today announced the availability of the industry's first verification IP (VIP) for Non-Volatile Dual In-line Memory Module (NVDIMM-P) for DDR5/4. NVDIMM-P is the next-generation storage-class memory for enterprise applications ranging from big data, storage, and in-memory databases, to real-time processing; with challenging requirements of performance, security, and endurance, as well as persistence, reliability, and uptime of memory. Synopsys VC VIP for NVDIMM-P enables the design of next-generation memory devices with ease-of-use, fast integration, and optimum performance, resulting in accelerated verification closure.

"Samsung is working to develop a strong ecosystem for NVDIMM-P, providing storage-class memory solutions with best-in-class performance, persistence, and endurance," said Jinman Han, senior vice president of Memory Product Planning and Application Engineering Team at Samsung. "Through our close collaboration with Synopsys to develop the next-generation memory technologies, we enable mutual customers to successfully adopt the latest memory solutions."

NVDIMM-P is a two-in-one hybrid memory technology with non-volatility and persistence of Flash, and speed, performance, and endurance of DRAM. Synopsys VC VIP for NVDIMM-P uses a next-generation native SystemVerilog Universal Verification Methodology (UVM) architecture that enables ease of integration within existing verification environments to accelerate time to first test. VC VIP for NVDIMM-P is natively integrated with Synopsys' Verdi® Protocol and Performance Analyzer. Built-in coverage and verification plans are also provided for faster verification closure.

"Synopsys offers comprehensive DRAM and Flash memory verification solutions for all existing and next-generation technologies, including DDR5, LPDDR5, DFI 5.0, HBM3, 3DS, MRAM, and now NVDIMM-P," said Vikas Gautam, vice president of R&D for the Synopsys Verification Group. "By working closely with standard organizations and memory vendors to deliver and deploy first-in-industry customer-proven solutions, we enable the market makers to adopt the latest memory technologies rapidly."

Availability

Synopsys VC VIP for NVDIMM-P for DDR5/4 is available today as early access.

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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