Cadence Announces Industry's First Verification IP for USB4

Cadence VIP and TripleCheck technology support for the next-generation USB standard enables early adoption of the protocol

SAN JOSE, Calif., March 14, 2019—Cadence Design Systems, Inc. (NASDAQ: CDNS) today announced the availability of the industry's first Verification IP (VIP) in support of the recently announced USB4 standard. The Cadence® VIP for USB4 enables engineers to develop standard-compliant system-on-chip (SoC) designs, completing functional verification of the design with less effort and greater assurance that the SoC will operate as expected.

For more information on Cadence VIP for USB4, please visit www.cadence.com/go/usb4vip.

"Cadence is an active member of the USB Implementers Forum (USB-IF) and supports the expansion of the USB ecosystem by providing the VIP and tools for developers to design to the newest USB standards," said Jeff Ravencraft, USB-IF President and COO, "Support from member companies like Cadence helps reduce the barriers to adoption of new USB protocols and enables innovative products from new industries to enter the market."

The USB Promoter Group announced the pending release of the USB4 specification, based on Intel's Thunderbolt protocol. This enhances the transfer of both video and data, while doubling total available throughput to 40Gbps. Cadence developed the new USB4 VIP based on more than a year of collaborative work with early adopters of this new specification. The collaboration with early adopters has led to the availability of a proven and mature verification IP that reduces design risks and shortens the implementation of the new standard. Additionally, the Cadence VIP for USB4 includes TripleCheck™ technology, which provides users with a verification plan that is linked to the specification and a comprehensive test suite to ensure compliance with the USB4 specification.

"Cadence has supported the development of the new USB4 standard through our participation in the standards committee, and our work with early adopters enabled us to provide a solid and comprehensive verification solution for this emerging protocol," said Paul Cunningham, corporate vice president and general manager of the System & Verification Group at Cadence.

"By offering the first-to-market VIP for USB4 as part of the Cadence Verification Suite, we're enabling early adopters to ensure their advanced designs for mobile, consumer and display applications comply with the specification while achieving IP verification closure."

"Cadence's development of verification solutions for USB4 is a key step forward for the development of compliant designs and ensuring the continued growth of the Thunderbolt ecosystem based on USB open standards," said Jason Ziller, General Manager of Client Connectivity Division at Intel.

"Our team has successfully utilized the Cadence VIP for multiple standards, including for the DisplayPort standard and previous versions of the USB specification," said Anant Singh, VP of Engineering at Kandou Bus. "The Cadence solution for USB4 is critical to our development of industry-leading products to support the need for faster data speeds for high-performance applications."

Cadence VIP for USB4 is part of the Cadence Verification Suite and supports the company's System Design Enablement strategy, which enables system and semiconductor companies to create complete, differentiated end products more efficiently. The Verification Suite is comprised of best-in-class core engines, verification fabric technologies and solutions that increase design quality across a wide variety of applications and vertical segments, providing the best verification throughput.

About Cadence

Cadence enables electronic systems and semiconductor companies to create the innovative end products that are transforming the way people live, work and play. Cadence software, hardware and semiconductor IP are used by customers to deliver products to market faster. The company's System Design Enablement strategy helps customers develop differentiated products—from chips to boards to systems—in mobile, consumer, cloud datacenter, automotive, aerospace, IoT, industrial and other market segments. Cadence is listed as one of Fortune Magazine's 100 Best Companies to Work For. Learn more at cadence.com.

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