Synopsys Broadens DesignWare SATA Solution With Device IP

Comprehensive SATA IP Portfolio Including Device, Host, PHY and Verification IP Passes Interoperability Testing, Reducing Integration Risk for SoC Designs

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MOUNTAIN VIEW, Calif., July 14 /PRNewswire-FirstCall/ -- Synopsys, Inc. (NASDAQ: SNPS), a world leader in software and IP for semiconductor design and manufacturing, today announced the availability of the DesignWare® SATA Device IP, for use in applications such as solid state drives, hard disk drives and optical disk drives. Additionally, Synopsys' comprehensive, silicon-proven DesignWare SATA IP solution consisting of Device, Host, PHY IP in 90 nanometer (nm) and 65nm processes, and Verification IP (VIP) has passed the SATA-IO Building Block interoperability testing, demonstrating full SATA functionality from a single vendor. Synopsys provides a comprehensive high quality IP solution helping designers reduce the risk and cost of integrating the SATA interface into their system-on-chip (SoC) designs.

The Synopsys DesignWare SATA Device IP supports transfer speeds of 1.5 Gb/sec and 3.0 Gb/sec with a roadmap to 6Gb/sec, making it ideal for storage applications requiring high system performance. A proven component of the Synopsys Eclypse™ low power solution, the IP implements multiple aggressive power management features which can be utilized to lower the power consumption of the end application. The inclusion of a well-defined, DMA-based software programming interface helps designers achieve optimal system performance while maintaining low latency and minimal software overhead. Furthermore, the supplied example firmware helps reduce the overall software development, integration and maintenance effort.

With the release of the SATA Device IP, Synopsys now offers designers a comprehensive, silicon-proven and fully interoperable SATA IP solution consisting of the Device, Host, PHY and Verification IP. The DesignWare SATA Host Controller supports Native Command Queuing and Asynchronous Notification in up to eight ports. The Host Controller is verified with the industry-standard AHCI software drivers provided as part of the Linux and Microsoft Windows Vista operating systems, enabling designers to ease system-level integration. Complementing the Host and Device Controllers is the robust, low power DesignWare SATA PHY, which includes unique built-in diagnostics allowing on-chip visibility into the link performance and ATE test vectors for at-speed production testing. The DesignWare Verification IP helps designers quickly and efficiently create a comprehensive SATA-based environment. In addition, the SATA Verification IP delivers up to 5X performance improvement when used with Synopsys' VCS® simulation tool and is VMM-enabled to help speed the development of powerful SystemVerilog testbenches.

"SATA International Organization (SATA-IO) commends our member companies who are advancing SATA technology by introducing new products that incorporate the advantages of this popular storage interface," said Tom Pratt, SATA-IO board representative. "Fast transfer rates, low cost and efficient protocol have made SATA the mainstream storage interface of choice."

"The requirement for mass storage devices is continuing to grow, with solid state drives estimated to increase at a 76 percent CAGR from 2007 to 2012 (1)," said John Koeter, senior director of marketing for IP and Services at Synopsys. "By providing a complete DesignWare SATA IP solution that offers a strong combination of proven interoperability, low power, and ease of integration features, Synopsys enables designers to integrate the SATA interface into SoC designs with less risk and improved time to market."

Availability

The complete DesignWare SATA IP solution including Device, Host, PHY in 130nm, 90nm and 65nm processes, and Verification is available now. For more information please visit: https://www.synopsys.com/designware-ip/interface-ip/sata.html

In addition, on July 31 Synopsys will sponsor a free webinar titled, "Achieving Optimal Performance and Low Power for SATA Device Designs" To register, please go to: http://www.synopsys.com/sata/

About DesignWare IP

Synopsys offers a broad portfolio of high-quality, silicon-proven digital, mixed-signal and verification IP for system-on-chip designs. As a leading provider of connectivity IP, Synopsys delivers the industry's most complete solutions for widely used protocols such as USB, PCI Express, SATA, Ethernet and DDR. The DesignWare IP is optimized for low power and is an integral part of the Synopsys Eclypse low power solution. In addition to connectivity IP, Synopsys offers SystemC transaction

level models to build virtual platforms for rapid, pre-silicon development of software. When combined with a robust IP development methodology, extensive investment in quality and comprehensive technical support, DesignWare IP enables designers to accelerate time-to-market and reduce integration risk. For more information on DesignWare IP, visit http://www.synopsys.com/designware

About Synopsys

Synopsys, Inc. (NASDAQ: SNPS) is a world leader in electronic design automation (EDA), supplying the global electronics market with the software, intellectual property (IP) and services used in semiconductor design and manufacturing. Synopsys' comprehensive, integrated portfolio of implementation, verification, IP, manufacturing and field-programmable gate array (FPGA) solutions helps address the key challenges designers and manufacturers face today, such as power and yield management, system-to-silicon verification and time-to-results. These technology-leading solutions help give Synopsys customers a competitive edge in bringing the best products to market quickly while reducing costs and schedule risk. Synopsys is headquartered in Mountain View, California, and has more than 60 offices located throughout North America, Europe, Japan, Asia and India. Visit Synopsys online at http://www.synopsys.com/.

(1) IDC, "Worldwide Solid State Drive 2008-2012 Forecast and Analysis: Entering the No-Spin Zone," Doc # 212736, June 2008

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