Achronix Selects Synopsys' Leading DesignWare IP Solutions to Accelerate Development of High-Performance Data Acceleration FPGA

Silicon-Proven DesignWare IP for PCI Express 5.0 and DDR4 Delivers Low Latency and High Bandwidth for Data-Intensive Workloads

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Highlights:

- Achronix selects Synopsys' DesignWare PCI Express 5.0 and DDR4 IP due to their robustness, maturity, and superior features
- Silicon-proven PCI Express 5.0 IP, with configurable 512-bit architecture and advanced reliability features, delivers the required flexibility
- DesignWare DDR4 IP, operating at 3200 Mb/s data rates, offers high speed and low latency for AI applications requiring high-capacity memory

Synopsys, Inc. (Nasdaq: SNPS) today announced that Achronix has selected Synopsys' silicon-proven DesignWare® IP for PCI Express® (PCIe®)5.0 and DesignWare DDR4 IP for its latest family of high-performance Speedster7t FPGAs. The silicon-proven DesignWare Controller IP for PCIe 5.0 implements a 512-bit datapath width supporting x16 links to deliver the maximum bandwidth required for Achronix's FPGA. The PCIe 5.0 controller also meets Achronix's aggressive low-power and low-latency requirements.

The DesignWare DDR4 Controller and PHY IP enables high-bandwidth and low-latency memory interfaces, operating at 3200 Mb/s, a key requirement in AI systems needing high-capacity external memory. The reliability, availability and serviceability (RAS) features allow Achronix to successfully debug and resolve PCIe linkup issues and tailor the DDR controller to their target application.

"For our latest Speedster7t FPGAs that include a revolutionary new 2D network-on-chip, machine learning processor, 112G SerDes, and high-performance FPGA fabric, we needed to accelerate our time-to-market with best-in-class IP that offered superior features," said Manoj Roge, vice president of strategic planning and business development at Achronix Semiconductor. "The robustness and maturity of Synopsys' DesignWare IP for PCI Express 5.0 and DDR4 with advanced features that are required for high-bandwidth AI workloads, allow us to integrate the IP with confidence while focusing on our own core competencies. We are looking forward to using Synopsys' DesignWare IP including DDR5 IP in our future designs."

"As the leading provider of interface IP, Synopsys delivers the industry's broadest IP portfolio supporting the latest generation protocols for key applications such as AI, cloud computing and automotive," said John Koeter, senior vice president of marketing and strategy for IP at Synopsys. "Our investment in developing high-quality, silicon-proven IP solutions with differentiated features enable companies like Achronix to achieve their design requirements and build compelling products with significantly less risk."

Availability and Resources

The DesignWare Controller and PHY IP for PCI Express is available now. DesignWare DDR5/4 Controller and PHY IP are also available now. For more information, visit the DesignWare IP for PCI Express and DesignWare DDR IP web pages.

About DesignWare IP

Synopsys is a leading provider of high-quality, silicon-proven IP solutions for SoC designs. The broad DesignWare IP portfolio includes logic libraries, embedded memories, embedded test, analog IP, wired and wireless interface IP, security IP, embedded processors, and subsystems. To accelerate prototyping, software development, and integration of IP into SoCs, Synopsys' IP Accelerated initiative offers IP prototyping kits, IP software development kits, and IP subsystems. Synopsys' extensive investment in IP quality, comprehensive technical support, and robust IP development methodology enable designers to reduce integration risk and accelerate time-to-market. For more information on DesignWare IP, visit https://www.synopsys.com/designware.

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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