Lattice Advances Low Power FPGA Leadership with New Small and Mid-range FPGA Offerings

December 10, 2024

– Introduces Lattice Nexus 2 next-gen small FPGA platform, extends mid-range portfolio with Lattice Avant 30 and Avant 50 devices, and enhances capabilities of application-specific solution stacks and design software tools –

HILLSBORO, Ore.--(BUSINESS WIRE)--Dec. 10, 2024-- Today, at Lattice Developers Conference 2024, Lattice Semiconductor (NASDAQ: LSCC) expanded its edge to cloud FPGA innovation leadership with the launch of exciting new hardware and software solutions. The new Lattice Nexus™ 2 next-gen small FPGA platform and the first device family based on the platform, Lattice Certus™-N2 general purpose FPGAs, offer advanced connectivity, optimized power and performance, and class-leading security. Lattice also announced new mid-range FPGA device capacity options – Lattice Avant™ 30 and Avant™ 50 – and new versions of Lattice design software tools and application-specific solution stacks to help accelerate customer time-to-market.

"At Lattice, we are proud to lead technological advancements in low power, small form factor FPGAs, ensuring our customers have the optimal devices, tools, and solutions to design groundbreaking applications that are power efficient, fast, and secure," said Esam Elashmawi, Chief Strategy and Marketing Officer, Lattice Semiconductor. "From the edge to the cloud across a variety of industries, FPGAs stand at the forefront of innovation, and we're committed to delivering versatile and robust small and mid-range FPGA solutions that enable our customers and partners to unlock their full potential."

Advancing Small FPGA Innovation

The new Lattice Nexus 2 small FPGA platform combines connectivity advancements, power and performance optimizations, and leading security and reliability capabilities to meet the growing demand for edge applications requiring efficient processing, bridging, and control capabilities.

Built on the proven 16 nm FinFET TSMC process technology, Lattice Nexus 2 continues company's low power, small FPGA leadership equipping customers with

- Power Efficiency
    - Up to 3X lower power than similar class competitive devices, enabling power and thermal design efficiencies, improved operating costs, and enhanced reliability.
    - Up to 10X energy efficient edge sensor monitoring than similar class competitive devices.
- Performance
    - Up to 3.2X faster MIPI speed than similar class competitive devices for faster connectivity and data transfer.
    - Up to 10X faster configuration time than similar class competitive devices enhancing overall efficiency, fault tolerance, and security in safety-critical applications.
- Form Factor
    - Up to 5X smaller size than similar class competitive devices, enabling simplified, efficient system designs.
- Connectivity
    - Combines multi-protocol 16G SERDES with PCIe® Gen 4 controller, high performance I/O, high speed LPDDR4 memory interface support, and industry-leading MIPI D & C-PHY up to 7.98 Gbps.
- Security
    - Industry-leading security with 256-bit AES-GCM and SHA3-512; compliant with FIPS 140-3 level 2 standards.
    - Crypto agility, post-quantum ready, and anti-temper protection.
    - Integrated flash enabling faster and more secure configuration.
    - End user options for customers' data-in-motion security needs.

The Lattice Nexus 2 platform is architected for scalability that will enable the rapid development of multiple new device families, starting today with the launch of the Lattice Certus™-N2 general purpose FPGA family. Lattice Certus-N2 FPGAs are sampling today and are supported by the latest releases of Lattice Propel™ and Lattice Radiant™ design software.

Extending Mid-Range FPGA Portfolio

Built on the award-winning Lattice Avant platform, the Avant 30 and Avant 50 offers new capacity options for customers to enable edge optimized and advanced connectivity applications development. These devices provide customers more options for connectivity, functional capacity, and features.

Expanded Solution Stacks

Lattice announced new versions of Lattice Radiant™ and Lattice Propel™ software tools that support the new Lattice Nexus 2 FPGA platform, Lattice Certus-N2 FPGA family, and Lattice Avant devices, alongside new features including RISC-V® variants and improved debug, power calculation, and ease-of-use.

Lattice also announced four solution stack updates in edge AI with Lattice sensAI™, embedded vision with Lattice mVision™, factory automation with Lattice Automate™, and automotive designs with Lattice Drive™. These updates include improved performance with enhanced application-specific features and expanded IP, demo, and reference designs.

These announcements were made today during the livecast at Lattice Developers Conference 2024, a replay of which will soon be available on the event portal site. Lattice Developers Conference is taking place virtually Dec. 10-11, 2024, featuring an incredible lineup of keynotes, breakout sessions, and a robust showcase of FPGA-based technology demonstrations from Lattice and other industry leaders.

For more information on the new products, please read the latest blog and visit:

- Lattice Nexus 2 FPGA platform
- Lattice Certus-N2 FPGA
- Lattice sensAI solution stack
- Lattice mVision solution stack
- Lattice Automate solution stack
- Lattice Drive solution stack
- Lattice Propel
- Lattice Radiant

About Lattice Semiconductor

Lattice Semiconductor (NASDAQ: LSCC) is the low power programmable leader. We solve customer problems across the network, from the Edge to the Cloud, in the growing Communications, Computing, Industrial, Automotive, and Consumer markets. Our technology, long-standing relationships, and commitment to world-class support let our customers quickly and easily unleash their innovation to create a smart, secure, and connected world.

For more information about Lattice, please visit www.latticesemi.com. You can also follow us via LinkedIn, X, Facebook, YouTube, WeChat, or Weibo.

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