Lattice Expands CrossLink-NX FPGA Family of Best-in-Class Low Power FPGAs for Smart and Embedded Vision Systems

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Industry-leading CrossLink-NX Family Now Available With More Low Power, Logic Density, and Small Form Factor Options for Designers

HILLSBORO, Ore.--(BUSINESS WIRE)--Sep. 2, 2020-- Lattice Semiconductor Corporation (NASDAQ: LSCC), the low power programmable leader, today announced the CrossLink™-NX-17 FPGA is now available. CrossLink-NX FPGAs deliver the best-in-class low power consumption, small form factor, reliability, and performance that developers need to create innovative embedded vision and AI solutions for compute, industrial, automotive, and consumer markets. The CrossLink-NX-17, with 17K logic cells, is the second device in the CrossLink-NX family. The CrossLink-NX-40, with 39K logic cells, has been shipping in production quantities since 2019.

According to a report by BCC Research, "Computer Vision and Machine Vision in Everyday Life," the global market for computer and machine vision was worth $14.9 billion in 2019 and is set to grow to $26 billion by 2024. Lattice helps developers meet this growing demand for embedded and smart vision applications by offering a variety of low-power FPGAs and comprehensive solutions stacks designed to enable the quick and easy implementation of applications like video signal bridging, aggregation and splitting, image processing, and the AI/ML inferencing used to train smart vision models.

Peiju Chiang, Product Marketing Manager at Lattice, said, "Lattice is a leading provider of innovative, low power solutions for smart and embedded vision applications. With the CrossLink-NX-17, Lattice gives developers one more hardware power and performance option to choose from as they design their vision systems. Our award-winning mVision solutions stack can further accelerate and simplify vision system development by providing modular hardware development boards, featuring Lattice FPGAs like the CrossLink-NX, our Radiant 2.1 design software, embedded vision IP, and reference designs needed to implement popular embedded vision applications."

The CrossLink-NX family was designed using the Lattice Nexus™ platform, the industry's only low power FPGA platform using a 28 nm FD-SOI manufacturing process. The Nexus platform features a Lattice-designed FPGA fabric architecture optimized for low power operation in a small form factor.

Key features of the CrossLink-NX-17 include:

- Low power - built on the Lattice Nexus FPGA platform, CrossLink-NX provides up to a 75 percent reduction in power consumption compared to competing FPGAs of a similar class.
- High reliability - CrossLink-NX has a Soft Error Rate (SER) up to 100 times lower than similar FPGAs in its class, making it a compelling solution for mission-critical applications that must operate safely and reliably. The initial CrossLink-NX device is designed to support ruggedized environments found in outdoor, industrial, and automotive applications.
- Performance - CrossLink-NX-17 delivers enhanced performance enabled by three key elements:
  - Fast I/O support - CrossLink-NX-17 FPGAs are well suited for embedded vision applications thanks to support for multiple fast I/Os, including MIPI.
  - Instant-on performance – to better support applications where a long system boot time is unacceptable, such as industrial motor control, CrossLink-NX-17 enables ultra-fast I/O configuration in 3 ms and total device configuration in less than 10 ms.
  - High memory-to-logic ratio - to efficiently power AI inferencing in Edge devices, CrossLink-NX-17 features 170 bits of memory for every logic cell, the highest memory-to-logic ratio in its class, providing 2x the performance compared to prior generations.
- Small form factor – to support customer system miniaturization, the first CrossLink-NX-17 device is available in a 3.7 x 4.1 mm form factor which is up to four times smaller than similar competing FPGAs in its class.
- Software tools and IP – in addition to its new Lattice Radiant® 2.1 design software, Lattice offers a robust library of popular IP cores including interfaces like MIPI D-PHY, PCIe, SGMII and OpenLDI, and demos for common embedded vision applications such as 4:1 image sensor aggregation.

Engineering samples of the CrossLink-NX-17 are now available. For more information, please visit http://www.latticesemi.com/CrossLink-NX.

For more information about the Lattice mVision™ solutions stack, please visithttp://www.latticesemi.com/mvision.

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 lets 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, Twitter, Facebook, YouTube, WeChat, Weibo or Youku.

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