Press RELEASES

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Lattice Introduces New Secure Control FPGA Family with Advanced Crypto-Agility and Hardware Root of Trust

New Nexus-based MachXO5D-NX FPGAs and Sentry solution stack optimized for evolving security landscape with industry-standard compliant, crypto-agile, and class-leading RoT features

HILLSBORO, Oregon (USA) – June 26, 2024 – Lattice Semiconductor (NASDAQ: LSCC), the low power programmable leader, today expanded its leadership in security-focused hardware and software with the launch of two new solutions to address customer challenges around increasing threats to system security. The company announced the Lattice MachXO5D™-NX family of advanced secure control FPGAs, offering crypto-agile algorithms, hardware root of trust features with integrated flash, and fail-safe remote field updates for reliable and secure product lifecycle management. In addition, Lattice launched the latest version of the Lattice Sentry™ solution stack, featuring new capabilities to equip customers with customizable FPGA-based platform firmware resiliency (PFR) solutions supporting the new MachXO5D-NX family.

"At Lattice, we're focused on addressing our customers' evolving security needs and helping them stay ahead of accelerating cyberthreats to system data and infrastructure," said Dan Mansur, Corporate Vice President of Product Marketing at Lattice Semiconductor. "Crypto-agile security based on hardware root of trust devices is increasingly fundamental in this digital age, and we're excited to further expand our product portfolio with the MachXO5D-NX FPGA family and the latest Sentry solution stack release."



Key features and performance highlights of the new low power Lattice MachXO5D-NX FPGAs based on the Lattice Nexus™ FPGA platform include:

- **Advanced Cryptographic Agility**
  - Security algorithms specified by the Commercial National Security Algorithm (CNSA) Suite for bitstream and user data protection, including AES-256, EC-DSA-384/521, SHA2-256,384/512, and RSA 3072/4096
- **Hardware Root of Trust**
  - Immutable boot ROM, enabling secure-dual boot with integrated flash for fail safe updates
  - Unique Device Secret (UDS) protecting device identity
  - Side channel attack (SCA) resiliency
  - Integrated non-volatile configuration memory and up to 57 Mb of configurable user flash memory (UFM) for user data storage and management
  - Fully configurable programming interface (SPI, JTAG) locking control preventing advanced external attacks
- **Reliable and Secure Product Lifecycle**
  - Secure on-chip multi-boot with bitstream encryption and authentication, enabling fail-safe remote field updates
  - Anti-rollback version protection and revocable root keys, protecting against malicious bitstream attacks and ensuring design integrity
  - DICE and Lattice SupplyGuard™ capability for secure product lifecycle and supply chain management

Enabling NIST SP800-193 compliant PFR solution development for Communications, Computing, Industrial, and Automotive applications, the Lattice Sentry (v 4.0) solution stack now includes:

- Multiple QSPI/SPI monitoring with I2C peripheral attack protection demonstration



- SPDM and MCTP support for efficient platform management and secure and seamless server operations
- A new design workspace template reference design that enables PFR 4.0 solution with I3C support, newer crypto algorithms (ECC384/512), and full DC-SCM compatibility
- Expanded plug-and-play design tools and reference designs with workspace template, and policy, provisioning, and manifest generator

The new MachXO5D-NX FPGA family and the latest Sentry solution stack are supported by the latest releases of award-winning Lattice Radiant™ and Lattice Propel™ design software.

For more information about the technologies mentioned above, please visit:

- Lattice MachXO5D-NX
- Lattice Sentry Solution Stack
- Lattice Nexus FPGA platform
- Lattice Radiant Design Software
- Lattice Propel Design Environment
- Lattice SupplyGuard

Availability and Pricing

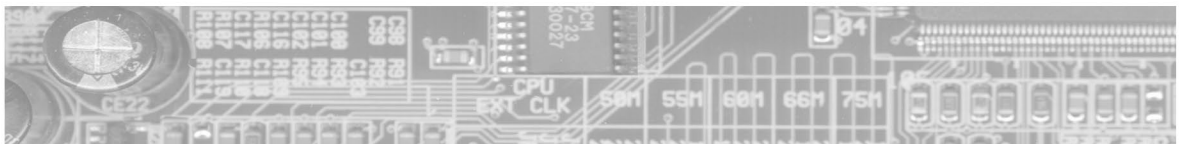
More Information about availability, samples and pricing, please visit email: sales.europe@macnica.com.

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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 https://www.latticesemi.com/en.
You can also follow us via LinkedIn, Twitter, Facebook, YouTube, WeChat or Weibo.

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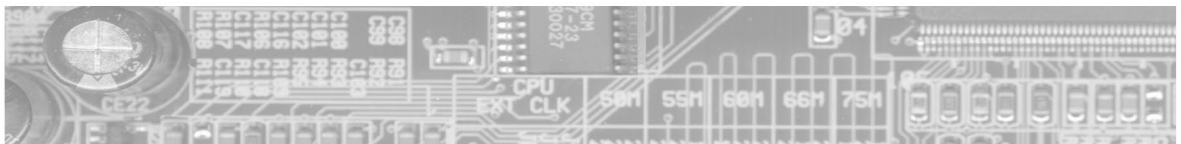
About Macnica ATD Europe GmbH
Macnica's ATD Europe GmbH, (former Macnica GmbH), was originally established in the UK in 2006, and moved to Germany in July 2008, to increase efficacy of its service for European customers.

By it's acquisition of the Munich based company Scantec Mikroelektronik in 2014 Macnica Europe formed a powerful semiconductor distribution with headquarter in Ingolstadt and offices in Munich, Regensburg, Milton Keynes (UK) and Warsaw offering an attractive and competitive portfolio of highly sophisticated devices.

Macnica provides end to end support from design-in to production through its global service network to its customers, regardless of the final destination of the product shipment to customers' manufacturing locations.

About Macnica ATD Europe S.A.S.
Founded in 1990 as ATD Electronique, Macnica ATD Europe headquarter offers innovative components dedicated to imaging applications for the European market. Its product portfolio includes: image sensors (CCD, CMOS, InGaAs, Thermal etc.), optics, interface circuits, FPGA & IPs, imaging processors, cables and OLED microdisplays.

It also covers development tools and design services enabling fast and efficient realization of new high-performance camera systems for markets such as machine vision, medical, life sciences, surveillance, automotive and others. After the acquisition of the



company by Macnica Inc. as of October 1, 2020 the company operates under the name Macnica ATD Europe.

About Macnica, Inc.

Macnica was established in 1972 as a semiconductor distribution company headquartered in Yokohama, Japan, and has over 85 sales offices worldwide in eastern Asia, Europe and the USA. Total number of employees is over 3,900 and its consolidated revenue for fiscal 2021 was approximately US$ 7.6 B.

Macnica is famous for having an excellent engineering team of more than 900 application support engineers, IC designers and software developers with strong focus on providing technical support for its customers including custom design services. Macnica is continuing to extend its presence globally by having successful partners in strategic areas in the electronics market.

More information about Macnica: https://www.macnica.com/global/en/home.html.