

## NSITEXE expands products lineup of RISC-V CPU supported functional safety

Developing Akaria Processors, compact and low-power CPU “NS11” and application CPU “NS72”

NSITEXE, Inc. (Head Office: Minato-ku, Tokyo; CEO: Yukihide Niimi; hereinafter “NSITEXE”) has announced that it will contribute to the embedded systems by expanding its product lineup with the addition of the “NS11” RV32 compact and low-power CPU and the “NS72” RV64 application CPU as the processor IPs of the Akaria brand, which is widely deployed in next-generation embedded systems.

Efficient execution of computing on edge devices, which are subject to severe heat and cost constraints, has become an important issue in embedded systems to realize a mobility society that connects people with cars, smart cities that connect people with cities and CPS (Cyber Physical System) that more closely links virtual spaces with the real world.

NSITEXE provides Domain Specific Accelerators to optimize for each application by combining RISC-V-based Standard Processors and Extension Units.

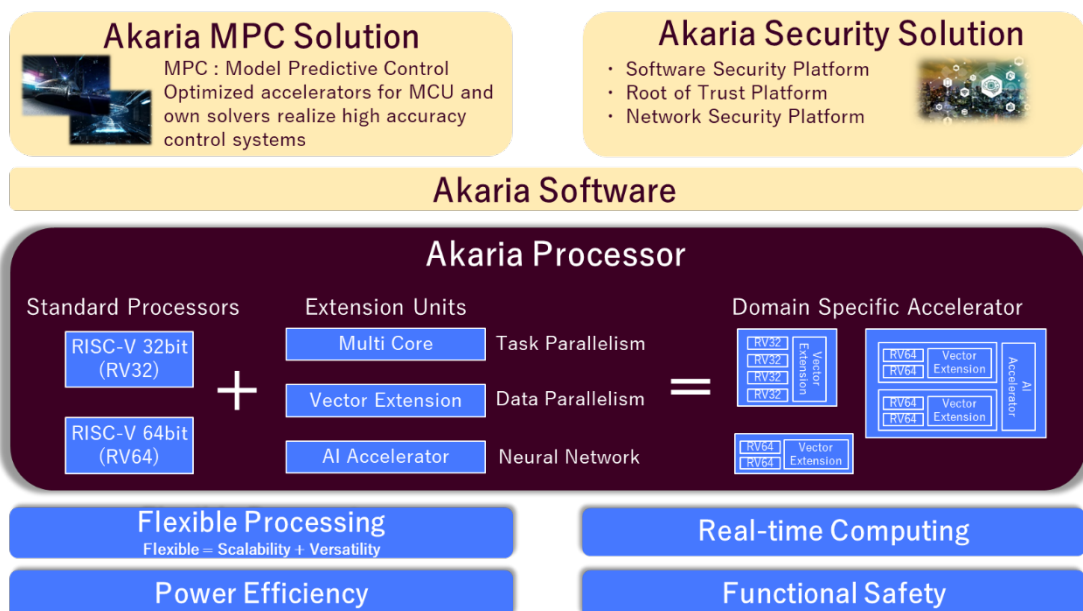


Fig 1 Akaria Overview

The NS family of Akaria Standard Processors includes the compact and low-power NS1 series, the general-purpose 32bit NS3 series, and the application 64bit NS7 series. The NS11 of NS1 series and the NS72 of NS7 series have been developed and are now available for evaluation.

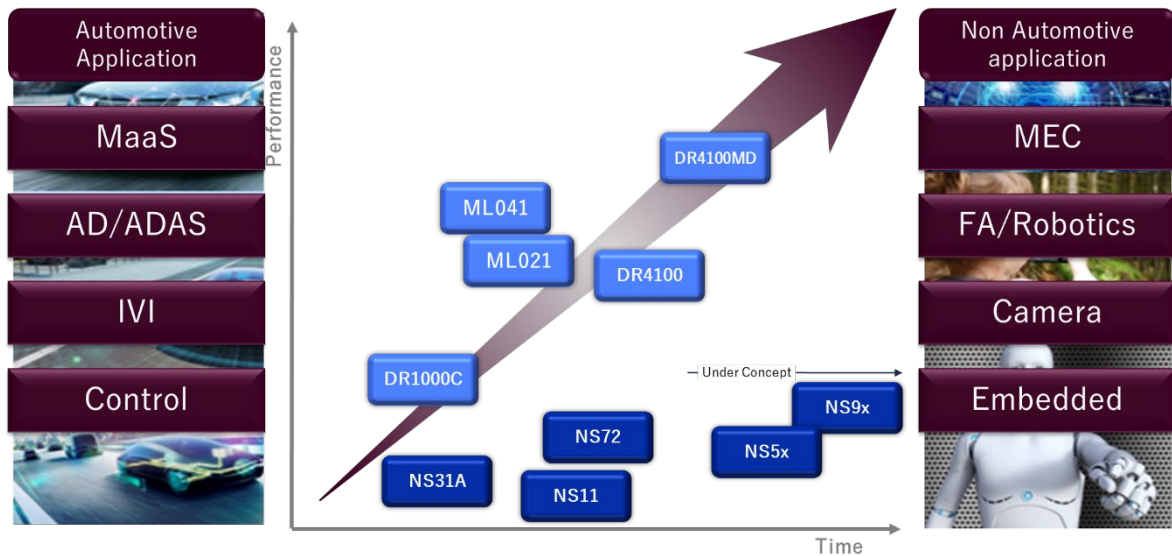


Fig2 Akaria roadmap

The NS 11 maintains the core configuration and functional safety features of the NS31A, which is already on the market, but features reduction options and interface changes make it a compact and low-power CPU. It supports the RV32I(E)MC instruction set, supports the highly efficient processing required by the control microcomputer, and covers a wide range of control applications. It is also the best solution to replace 8bit or 16bit CPU.

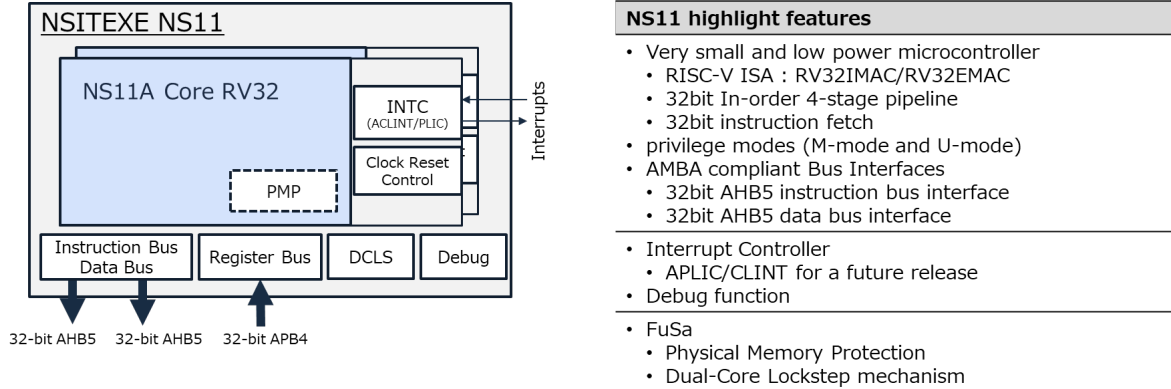


Fig3 NS11

The NS 72 supports the RV64GCV instruction set and is an application CPU supporting a variety of operating systems, while maintaining Akaria's functional safety features. Multi-core processing and the optional RISC-V Vector Extension v 1.0 Vector Processor Unit enable multi-tasking and data-parallel high-performance computing.

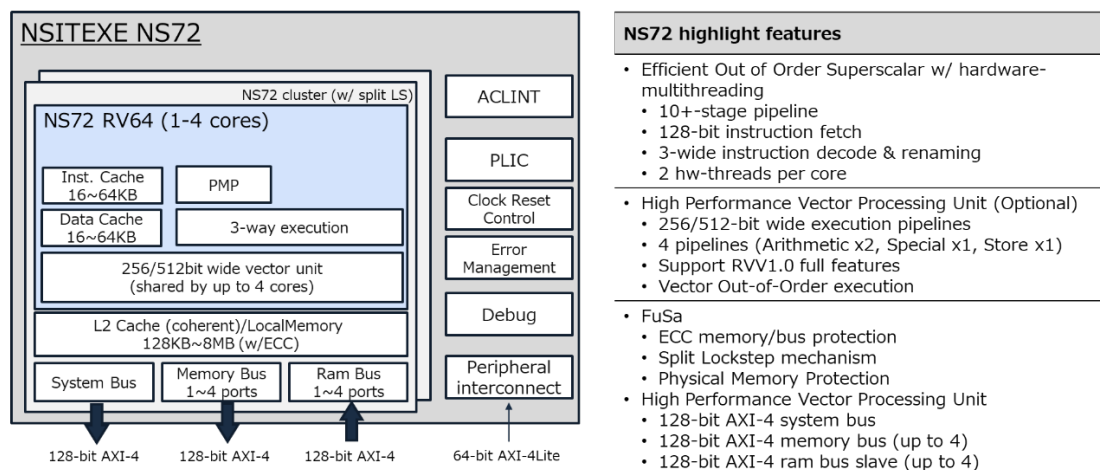


Fig4 NS72

**Hideki Sugimoto, CTO, NSITEXE, Inc.**

NSITEXE has strengths in general-purpose, efficiency, and functional safety, and we defined these as the Akaria product brand. We add the NS11 for compact and low-power and the NS72 for high-end applications as Akaria Standard Processors lineup. We provide the most advanced computing services to the customers working for embedded systems and, development infrastructures essential for a smart society including clean energy.

NSITEXE will contribute to innovations that enrich people's lives, such as mobility, smart cities and CPS, based on innovative processor technologies developed by Akaria, including the NS11 and NS72.

**About NSITEXE**

NSITEXE is an IP vendor that develops advanced processors, including RISC-V based processor IP for functional safety and, was established in 2017 as a spin-off from DENSO Corporation. High-efficiency, high-quality semiconductor IP addresses a wide range of applications and contributes to the evolution of next-generation semiconductor technology.

If you have any questions about this press release, please contact:

URL: <https://www.nsitexe.com/>

E-mail: [support@nsitexe.co.jp](mailto:support@nsitexe.co.jp)

- The company names and products in this document are, in general, registered trademarks or trademarks of our company Corporation and of their respective owners.