Codasip unveils versatile automotive-grade embedded RISC-V core

Tuesday 15 October, 2024

Codasip L730 offers a wide range of capabilities through its high configurability, optional safety mechanisms and advanced security features

Munich, Germany, October 15, 2024 – Codasip®, the leader in RISC-V Custom Compute, has announced its new L730 core. Codasip L730 is a high-quality, high-performance embedded core that meets automotive safety and security needs enabling ISO/SAE 21434 and ISO 26262 compliance up to the ASIL D integrity level.

The core incorporates optional safety mechanisms and advanced security features, providing system engineers with unmatched flexibility while meeting their needs for fully verified and supported core IP.

Codasip L730 is available in a range of high-quality, pre-verified, baseline configurations that can be further configured and customized through risk-free custom instruction extensions. This is made possible by a new level of customization in Codasip Studio™ Fusion: Bounded Customization. The core can be extended with new instructions without risk because the functionality of the baseline core is guaranteed in all cases via defined bounds and formal methods. Codasip Studio Fusion generates a verification framework that substantially simplifies the verification of the custom instructions.

The core supports the RISC-V Scalar Crypto Extension? and will offer the advanced memory safety technology CHERI for state-of-the-art security.

"The automotive industry is increasingly looking to RISC-V to solve its needs for innovation while elevating technical and commercial control through ownership," said Jamie Broome, chief product officer at Codasip. "Trust is the key challenge we face in this sector, and it is therefore crucial to work with a vendor that understands this and also offers unique possibilities for innovation. Our Custom Compute approach provides exactly this. We recognize the importance of combining leading design methodology with best-practice safety mechanisms, advanced security features, and verified core quality."

Custom Compute is enabled by Codasip Studio Fusion: a unique set of tools for optimizing processors for specific software applications. The benefits of the Codasip Studio Fusion toolset are all reflected in the new L730 core, which can be used as a pre-verified starting point to achieve the right level of customization.

Depending on their specific needs and the results of software application profiling performed in Codasip Studio Fusion, customers can either configure the core from a defined set of pre-verified options, create custom instructions within set bounds, or design freely. Codasip Studio Fusion can automatically generate an SDK (Software Development Toolkit) including a compiler, simulation models, debugger, and profiler, and an HDK (Hardware Development Kit) including RTL (Register Transfer Level), a verification framework, and more.

- Learn more about Codasip L730
- Learn more about Codasip Studio Fusion

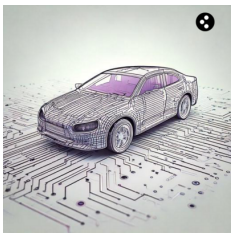
Codasip L730 is part of the highly flexible 700 processor family. The family includes embedded and?? application cores to cover a broad range of use cases.? Alternatively, for smaller, power-sensitive applications, Codasip offers the best-in-class L110 core.

About Codasip

Codasip is a processor technology company enabling system-on-chip developers to differentiate their products for competitive advantage. Customers leverage the transformational potential of the open RISC-V ISA in a unique way through Codasip's Custom Compute offering: Codasip Studio design automation tools and a fully open architecture licensing model combine with a range of processor IP that can be easily customized. The company is proudly European and serves a global market, where billions of devices are already enabled by Codasip technology. Learn more at www.codasip.com

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