

Codasip launches complete exploration platform to accelerate CHERI adoption

Tuesday 29 April, 2025

Codasip Prime comprises pre-silicon hardware and software development kits to realize state-of-the-art memory-safe compute

Munich, Germany, 29 April 2025—Codasip®, the European RISC-V leader, has made available an exploration platform based on the [Codasip X730 application core](#), which integrates CHERI (Capability Hardware Enhanced RISC Instructions).

Based on commercially available IP, Codasip Prime enables advanced development of memory-safe and secure software. The platform enables hardware and software engineers to evaluate and demonstrate the capabilities of CHERI technology, develop and run CHERI software, and integrate CHERI hardware into wider test systems.

Codasip Prime features a high-performance FPGA (field programmable gate array) system, including the processor and peripherals, and a full software development kit:

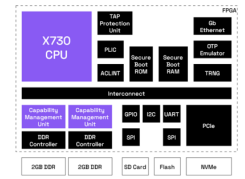
- FPGA board and bitstream containing:
 - Codasip X730 64bit RISC-V CHERI Application CPU?
 - Peripheral and system IP
 - Security IP for secure boot and secure debug (True Random Number Generator, Test Access Port Protection Unit)
 - CHERI-specific IP (capability tag management for DDR memory)
- Out-of-the-box Linux demonstration image
- Debug probe?
- CHERI Software Development Kit
 - CHERI Linux ?
 - CHERI C/C++ tool chain including compiler and debugger?
 - Secure Boot?
 - QEMU virtual platform matching FPGA

“Our new platform is a game changer for consumer, automotive and defense companies alike looking at adopting CHERI,” said Jamie Broome, chief product officer. “Codasip Prime allows software developers to develop and evaluate their applications before chips are built. In addition to hardware IP and software, we offer engineering support from our CHERI experts. Through our engagement with the CHERI Alliance and RISC-V International, we ensure that alignment with industry standards is maintained, enabling early adopters to trust that their integrations are future proof.”

CHERI effectively prevents memory safety issues

Security is rapidly growing in importance to businesses due to recent legislation such as the EU Cyber Resilience Act. Memory safety vulnerabilities are used in up to 87% of cyberattack chains [according to one study](#). These attacks are very costly. For example, losses due to the well-known Heartbleed bug are estimated to exceed \$500 million. CHERI is the most cost-effective way to protect against memory safety

Media:



Related Sectors:

Computing & Telecoms ::
Consumer Technology ::
Manufacturing, Engineering & Energy ::

Related Keywords:

RISC-V :: CHERI :: Memory Safety :: Automotive :: Consumer Electronics :: Defense Technology ::

Scan Me:



vulnerabilities. It is backwards compatible and allows migration to safer code, and it makes C/C++ memory safe, avoiding costly software re-writes.

Codasip is standardizing a CHERI extension for RISC-V in collaboration with other members of [the CHERI Alliance](#), a community interest organization promoting the global adoption of CHERI security technology across the computing industry. Members of the alliance include the University of Cambridge, Google, the UK's National Cyber Security Centre (NCSC) and the UK's Defence Science and Technology Laboratory (Dstl).

Codasip X730 is the first commercial implementation of the new CHERI-RISC-V extension and is immediately available.

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

###

Company Contact:

—

Codasip

E. press@codasip.com

W. <https://codasip.com/>

[View Online](#)

Additional Assets:

Newsroom: Visit our Newsroom for all the latest stories:

<https://www.codasip.pressat.co.uk>