



Challenges we address

At the core of every electronic device that enables a product to be connected to the Internet, there is an embedded processor. IoT, AI, 5G communication, data encryption/decryption and other areas rely on power-efficient, secure, and economical embedded processors to carry out their important on-chip functions. These technologies are changing everything about the semiconductor industry. Speed is not the single critical attribute anymore. Energy consumption, durability, miniaturization, and configurability are becoming comparably important as these chips are being put into multitude of industries and plethora of applications. General-purpose chips are not sufficient here – they could handle any of the tasks but they would then be large and power-inefficient. Thus the demand for custom chips keeps rising. Industry players will compete based on the best chip for a specific purpose – what kind of data capture and communications services their chip enables, and at what cost. Older technologies, not flexible enough to reflect the needs of new application domains (computer vision, machine learning, accelerators for HPC, etc.), together with pricing constraints, lead companies to seek alternative suppliers. As a result, main processor users established an open processor standard called RISC-V.



The solution we offer

RISC-V (pronounced “risk-five”) is an open processor instruction set architecture (ISA) standard that can be freely used for any purpose, permitting anyone to design, manufacture, and sell RISC-V chips and software. It is designed to be useful in both high-performance computing and low-power embedded applications. Although RISC-V is open-source, to develop a processor requires very specific design expertise in several specialties: electronic logic, compilers, simulation, verification, embedded software, and debug. This creates a market opportunity for engineering teams capable of producing commercial-quality RISC-V processor IP. For companies that are failing to differentiate their products because they are using the same IP building blocks as their competitors and/or those feeling margins squeezed by legacy providers, Codalip offers a compelling value proposition: a processor IP with very high performance, fully tailorable so that it can be made uniquely for each customer for convenient price, thanks to the design automation in Codalip Studio. We created a broad portfolio of licensable RISC-V processor IP consisting of several RISC-V derivatives for a broad range of application requirements, from very small-footprint and low-gate-count cores to high-performance, high-frequency cores with advanced DSP capabilities, for use in a variety of devices, from wireless sensors to 5G and AI chips.



Codalip readiness

The key to our success are highly skilled people who develop our solution, understand the needs of emerging technologies, and make us compete successfully with the best of the best. Our commercial teams enable us to reach global markets. We are the experts in processor IP. Our design is valued by companies like Mobileye, Mythic, Rambus, Microsemi, Analogix, and many others.

We are fully committed to delivering on this project, enabling us to offer the most comprehensive portfolio of RISC-V processor IP, serving a wide range of needs of digital transformation. We are grateful for both financial and coaching support provided by SME Instrument, helping us get things done faster and deliver products that the market has been waiting for.