

RISC-V Processors Report

Part of the AI & Intelligent Automation Service Area Package

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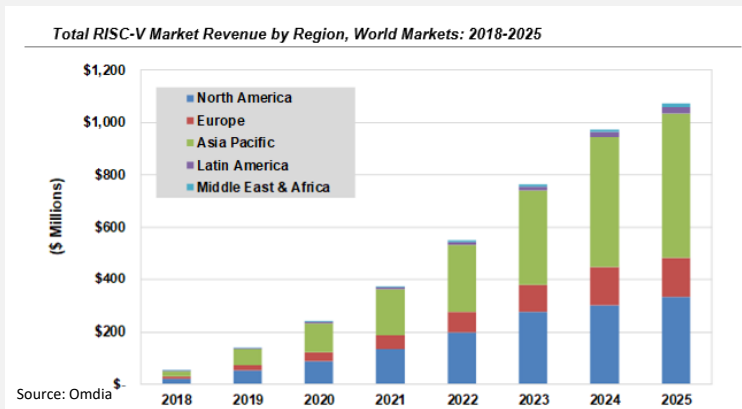
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RISC-V IP and Software and Tools for AI, Storage, Computer, Communications, and IoT Applications: Global Market Analysis and Forecasts

RISC-V (pronounced “risk-five”) is generating a new wave of enthusiasm among developers due to its open source nature, versatile instruction set architecture (ISA), and contribution from participating RISC-V Foundation members. The RISC-V movement is experiencing an exciting time of growth, with many announcements regarding companies that are adopting RISC-V or introducing new tools for the architecture. Launched in 2015, the RISC-V Foundation has already grown to over 240 members and shows no sign of slowing. The versatility and open source nature of RISC-V are allowing it to be used in a wide range of applications spanning artificial intelligence (AI), Internet of Things (IoT), computers, communications, and so on.

It is difficult to develop a successful and viable product in a market that caters to a fundamental component such as a processor. ARM and x86 are the two architectures that dominate today’s landscape; there have been many failures over the past several years. Some processor architectures such as MIPS, ARC, and Tensilica have survived in niche markets, but most of them have failed. However, there is significant interest in RISC-V from both software and hardware developers. Many well-known semiconductor companies have started using RISC-V in their chipsets and prominent tool vendors have started offering development tools. ARM has noticed this trend and is taking steps to minimize the influence of RISC-V. Despite the upbeat scene for RISC-V, ARM has remained as dominant as ever in the embedded market. Still, Omdia expects global market revenue for RISC-V-based IP and software and tools to increase from \$52.0 million in 2018 to \$1.1 billion by 2025.

This report examines the global RISC-V market trends, drivers, barriers, and technology issues. The study assesses the emerging business models, applications, and ecosystem related to the development of RISC-V. Global market forecasts, broken out by segment, region, application, bit width, and component, extend through 2025. The report also explores the limitations of RISC-V, compares it to ARM, and provides profiles of key industry players.



Report Coverage

KEY ISSUES ADDRESSED	COVERAGE	APPLICABLE TO		
<ul style="list-style-type: none"> How is RISC-V different from other processors? What are the key application areas for RISC-V? What are the market drivers for RISC-V? What challenges are inhibiting the market growth of RISC-V? How does RISC-V compare to ARM? What are the key advantages of a RISC-V processor? How large is the market for RISC-V IP and cores? How quickly will the global RISC-V market grow through 2025? 	<p>World Markets: 2018-2025</p> <ul style="list-style-type: none"> Total RISC-V Market Revenue by Region RISC-V IP Revenue, Licensing, Royalty, and Services/Support RISC-V Software and Tools Revenue RISC-V-Based Design Starts Total RISC-V Processor Shipments <ul style="list-style-type: none"> FPGA vs. ASIC/SoC By Application By Region By Bit Width 	<p>Applications</p> <ul style="list-style-type: none"> AI Storage Computers Communications Internet of Things (IoT) Other <p>Segments</p> <ul style="list-style-type: none"> Application-Specific IC (ASIC)/System-on-a-Chip (SoC) Field-Programmable Gate Array (FPGA) IP Licensing Royalty Services and Support Software and Tools 	<p>Regions</p> <ul style="list-style-type: none"> North America Europe Asia Pacific Latin America Middle East and Africa 	<ul style="list-style-type: none"> Processor companies Intellectual property (IP) companies Semiconductor companies PC and server manufacturers Storage and networking device manufacturers Semiconductor component vendors AI application companies Government agencies Investor community

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