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SpacemiT Launches 46-Core V100 RISC-V Server CPU

Three new server platforms target general-purpose computing, AI acceleration and storage.

Shenzhen, Oct. 20, 2026 (GLOBE NEWSWIRE) -- SpacemiT has introduced the V100, a 46-core RISC-V server CPU designed for general-purpose data center computing, AI agent infrastructure and AI acceleration. Announced at RISC-V Summit China 2026, the processor launches alongside three server platforms for compute, AI and storage workloads.



Speaking at the summit, RISC-V International CEO Andrea Gallo highlighted the architecture's growing role in AI computing and data centers. "RISC-V supports AI training and inference in data centers," he said. "RISC-V is the architecture for intelligent computing."

According to SpacemiT, V100 is the industry's first general-purpose processor to fully comply with the RISC-V server specifications, with native support for mainstream server operating systems and virtualization stacks. Its implementation covers the RVA23 Profile, the RISC-V Server SoC and Server Platform specifications, Boot and Runtime Services (BRS), and the RISC-V Security Model. The company says V100 has passed all BRS compliance tests and allows users to install, boot and run mainstream Linux distributions directly on V100 systems.

"V100 is an important step for SpacemiT as we expand from devices to the cloud," said Zhijian Chen, the company's founder and CEO. "It also reflects RISC-V's progress toward real-world data center deployments at scale."

Server hardware and system options

Introduced jointly by SpacemiT and the XiangShan team, V100 combines six XiangShan Kunminghu V2R2 cores with 40 of SpacemiT's own X100 cores. The heterogeneous 46-core design supports clock speeds of up to 2.4 GHz, while a cache-coherent interconnect enables dual-socket configurations with up to 92 cores.



Each processor supports eight DDR5 memory channels and 52 PCIe 5.0 lanes for connecting AI accelerators, high-speed network adapters and storage devices.

V100 provides hardware-assisted CPU, interrupt and I/O virtualization. SpacemiT says the platform works with upstream Linux KVM without requiring a custom kernel. The chip also includes a hardware root of trust and server-class reliability, availability and serviceability (RAS) features.

The accompanying systems are the C2201 computing server, G5201 intelligent computing server and S5236 storage server, targeting general-purpose computing, AI acceleration and large-scale data storage, respectively.



The G5201 accommodates eight full-height, full-length, double-width accelerator cards. SpacemiT says it has validated the system with accelerators from Kunlunxin and other vendors. The server also supports RDMA (remote direct memory access) networking for high-speed clusters.

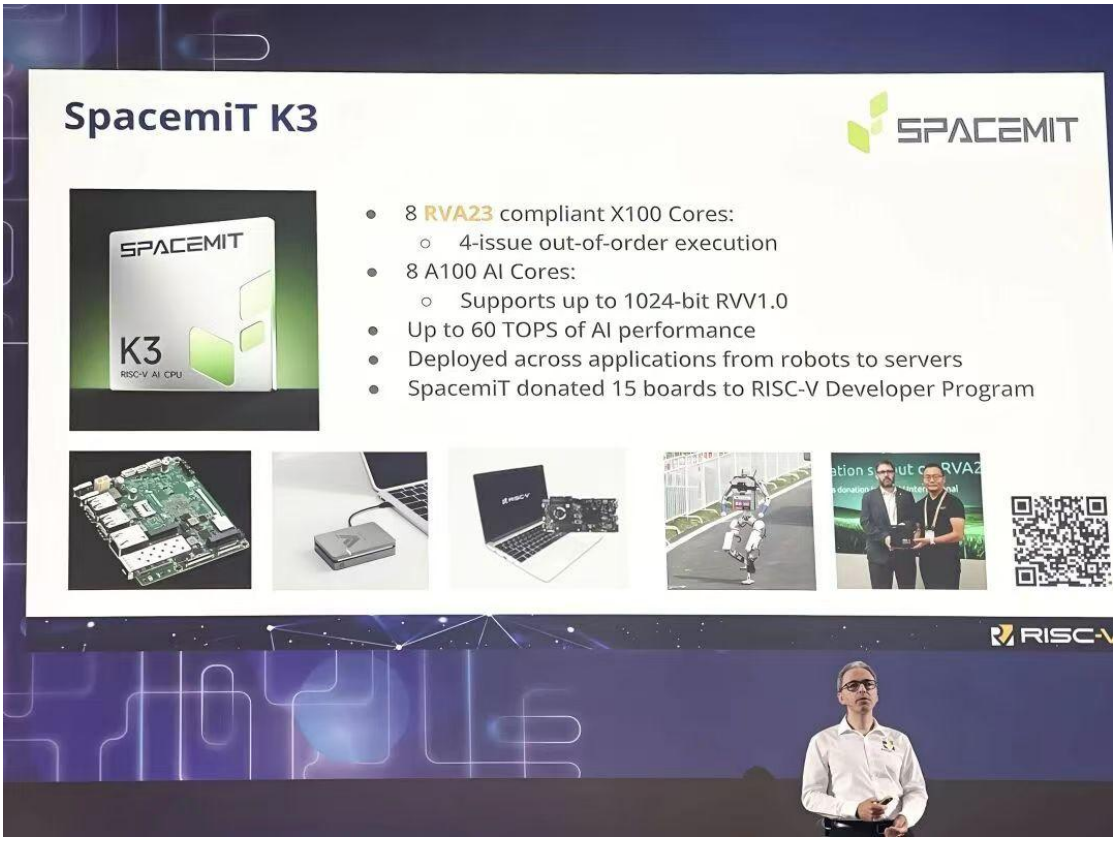
SpacemiT is supplying server motherboard reference designs, firmware, baseboard management controller (BMC) support and hardware design documentation to help system builders develop servers under their own brands.

Software support and global developer access

SpacemiT says Ubuntu 26.10 officially supports V100. Its work on processor support and toolchain optimization has also been merged into upstream open-source projects, including the Linux kernel and LLVM.

The company is working with Canonical, the RISE Project and Scaleway to give open-source developers access to RVA23-compatible hardware, contributing K3 compute clusters to shared development infrastructure. SpacemiT also sponsored DebConf26 in Argentina, supported Debian community testing on the K3 platform and co-organized the Physical AI Hackathon in Hong Kong for developers worldwide.

Partners including DeepComputing and Banana Pi are bringing K3-based products to international markets. These include mainboards for Framework modular laptops, development boards and compute modules. SpacemiT says international customers have placed orders for both K3 chips and K3-based cluster servers.



In 2026, the company has participated in Open Source Summit and Embedded Linux Conference North America; Ubuntu Summit in London; RISC-V Summit Europe in Italy; and Linux Plumbers Conference and Open Source Summit Europe in Prague. Its presentations and demonstrations have covered high-performance RISC-V computing, operating system support, on-device AI and upstream open-source development.

At the AI for Good Global Summit in Geneva, SpacemiT's Emotional Companion Robot was featured in the Innovate for Impact collection of case studies. The company also demonstrated K3-based on-device AI applications at the Global Innovation Show (GIS) in Hong Kong.

With K1, K3 and now V100, SpacemiT is extending its product family across devices, edge systems and data centers. Its longer-term strategy brings together processor design, system software, complete systems and international partnerships to build a business around open-architecture computing.

About SpacemiT

SpacemiT designs general-purpose processors based on the RISC-V instruction set architecture. Headquartered in Beijing, the company has R&D centers in Hangzhou, Shanghai, Shenzhen and Zhuhai. Its team has extensive experience in CPU architecture, chip development and high-volume production and delivery.

The company's K1, K3 and V100 processor lineup spans devices, edge systems and data centers. SpacemiT develops processors, system software and complete hardware platforms to bring RISC-V products into volume deployment. It also invests in operating system support, virtualization, compiler toolchains and open-source software, working with developers and industry partners worldwide to make the open RISC-V ISA a foundation for future digital infrastructure.

Related Links

- https://www.spacemit.com

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