DRIVECORE™ RV SH1

Software Bundle for Infineon's RISC-V VP | RISC-V VRT [Infineon, Synopsys, HighTec, Lauterbach]

DRIVECORE™ RV SH1 provides an easy entry to quickly explore and get confidence in Infineon's next generation RISC-V automotive microcontroller, through RISC-V Virtual Prototype. Equipped with necessary software components, tools, licenses, and configurations – the getting-started package and code examples are setup to execute UART, CAN or ETH communication, AES encryption and blinking LEDs via IO simulation in no time. Template projects allow creation of own new projects for any use case.

The heart of the bundle is the Virtualizer Runtime (VRT) with the Infineon RISC-V Automotive VP, developed jointly by Synopsys and Infineon. The VRT serves as a digital twin for the microcontroller, providing a comprehensive and accurate representation of the hardware. To support the development of software for this virtual microcontroller, HighTec contributes with the automotive-grade and safety certified LLVM-based C/C++ compiler suite. The HighTec Rust compiler suite can be requested in addition.

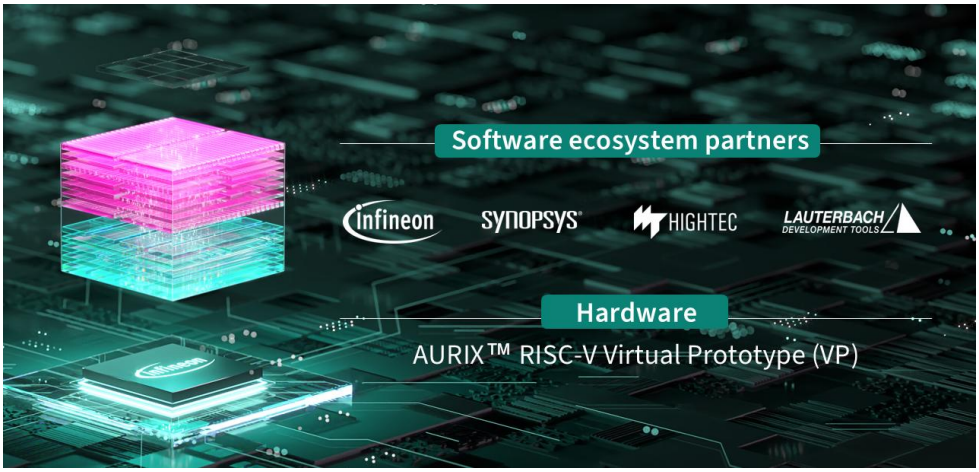
For debugging and profiling purposes, Lauterbach's TRACE32® is integrated into the VP. This allows developers to thoroughly test and analyze the software running on the virtual microcontroller, ensuring that it is robust and reliable. Additionally, Infineon provides a range of software and documentation resources, including the AURIX™ iLLD (Infineon Low Level Driver), a FreeRTOS port, and user manuals.

All tools and software are being installed with one-click-installer reducing the complete installation to minutes.

Key features

- **Infineon's AURIX™ RISC-V Real-time cluster** consisting of multi-RISC-V cores
- **HighTec's C/C++ Compiler Suite for RISC-V** based on LLVM open-source compiler technology
- **Lauterbach's TRACE32®** Debug- and Trace-Solution
- **Synopsys Virtualizer Runtime (VRT) for RISC-V**
- **iLLD** Low Level driver for RISC-V
- **Set of ready-to-use code examples** including template projects to create own applications

Supported Devices:
AURIX™ RISC-V Virtual Prototype



Key benefits

- Immediate evaluation and exploration of Infineon's AURIX™ RISC-V automotive microcontroller
- Professional toolchain from Infineon's RISC-V microcontroller ecosystem partners
- Installation in minutes
- Cloud ready

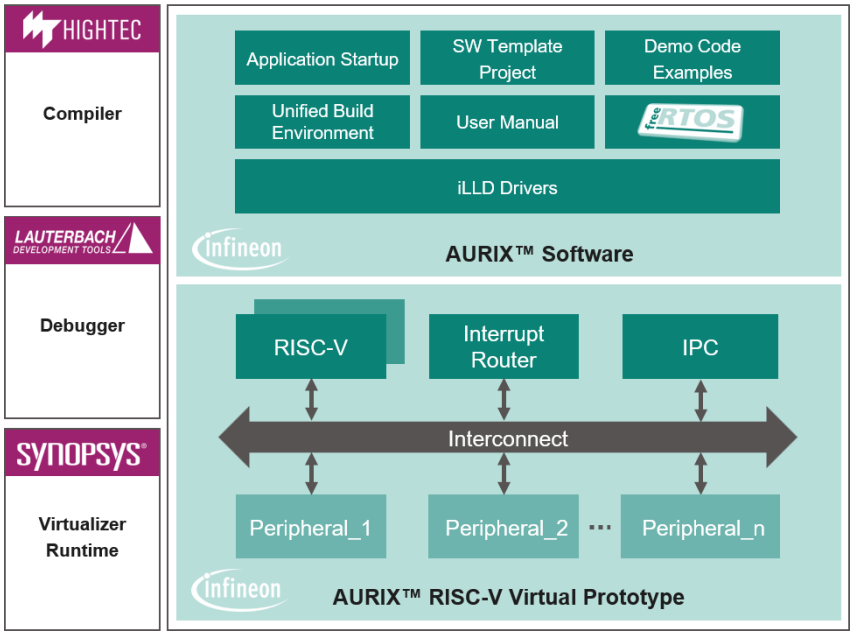
License Scheme:
3 months free evaluation

www.infineon.com/drivecore

Table Key components

Partner	Category	Software	Version
Infineon	Drivers	Infineon's AURIX™ iLLD (Infineon Low Level Driver)	V0.02.0-eir
	Runtime Software	FreeRTOS, and set demo examples	V0.02.0-eir
	Tooling	SCons based Unified Build Environment	V1.1.8
SYNOPSYS®	Tooling	Synopsys Virtualizer Runtime (VRT) with Infineon RISC-V Automotive VP	V-2024.03-20260222-1100 V0.02.0-alpha-R0 with SP1
HIGHTEC	Tooling	RISC-V C/C++ Compiler Suite	V1.3.0
LAUTERBACH DEVELOPMENT TOOLS	Tooling	TRACE32® Debugger	N.2026.09.000194411

System and Software Architecture



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