



Building World-Class Automotive Middleware Stacks

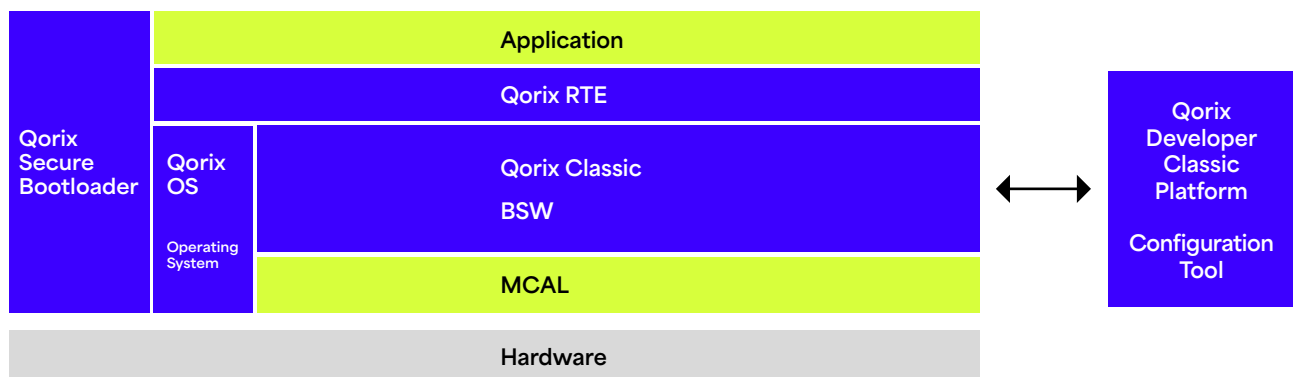


**Qorix
Classic**



Qorix Classic is a standardized software architecture specifically designed for embedded systems in the automotive industry. It offers a comprehensive and modular platform that standardizes and simplifies software development for Electronic Control Units (ECUs). Qorix Classic is primarily aimed at applications with stringent real-time requirements and high safety standards, such as engine control, braking systems, and airbag control units.

Qorix Classic: Our AUTOSAR Platform Architecture



Product Coverage

Services Coverage

Production-ready ports on

Renesas | Qualcomm | Infineon | Microchip | TI | NXP | ST Micro | Broadcom | Xilinx | Cypress

Key Highlights

Production-ready
4.x, 20-11, R23-11

23-11 safety certified
stack ready

24-11 in
development

ASIL D safety
compliant

Multicore
support

Extendable for
OEM
customizations

12 OEMs have
approved/used
Qorix Classic stack

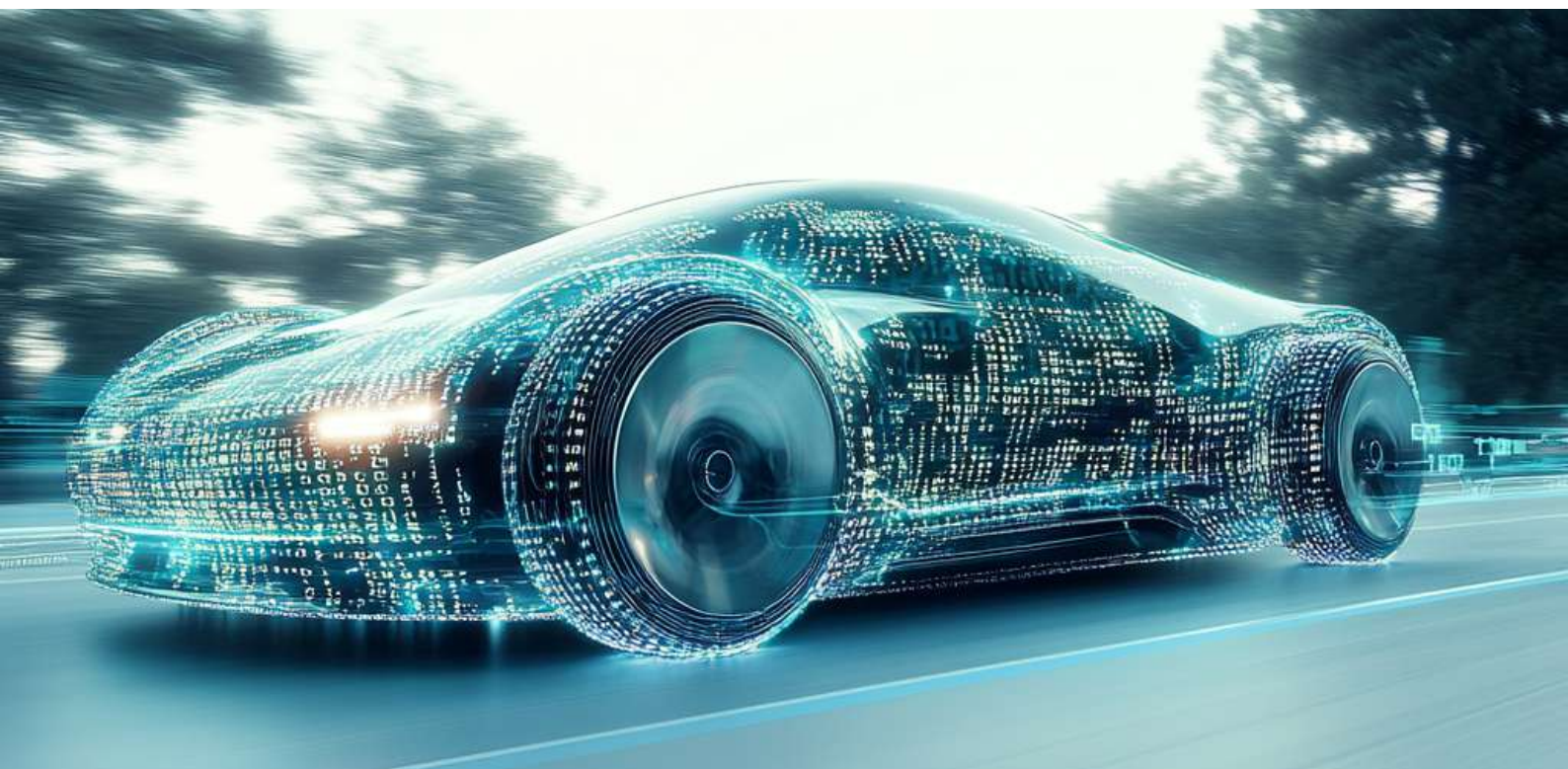
Easy to use
Developer Classic
Configuration Editor

Secure bootloader
enabled with SOTA
updates

Flexible license
models

Qorix Classic Features

- ▶ Consists of basic software modules, runtime environment and operating system
- ▶ Implementation based on AUTOSAR version R23-11, 20-11, 4.3.1 and 4.2.2
- ▶ Suitable for safety-related functions up to ASIL D
- ▶ Supports multicore processors
- ▶ Supports J1939 for commercial vehicles
- ▶ Efficient memory utilization
- ▶ Easy configuration using Qorix Developer
- ▶ Automatic parameterization and updating of the communication and diagnostic BSW based on commonly used data formats
- ▶ Consistency checks right after user input assists in configuring basic software
- ▶ Post-build feature; flexibility to update parameters after ECU delivery
- ▶ Simple and fast integration with application using SIP



Classic AUTOSAR Programs With Qorix Classic

Domain	Application	
ADAS	- Surround view camera - Radar units - active safety - Top view camera	- Rear view camera - AD-ADAS - PADAS
Powertrain/ Chassis	- Transmission control module - hybrid - Hybrid ECU - main controller - Hybrid - motor controller - Transmission control module - Gear Shift ECU	- Electronis power steering - Belt integrated starter generator - Battery management system - Hybrid ECU - BSW migration to AUTOSAR - Braking ECU
Body	- Seat massage - Rear light ECU - Body control unit	- PCU - Chassis IO - Cabin IO
Gateway	- Power management and central gateway - I - Power management and central gateway - II	- Power management and central gateway - III - Body domain gateway controller
Instrument Cluster	Instrument cluster ECU	
Others	- Rear light ECU - Front light ECU - Tailgate control ECU - Inverter ECU - BMS	- DC OBC charger ECU 48v Inverter ECU - Dual clutch transmission ECU - Two wheeler fuel injection ECU - TACM ECU



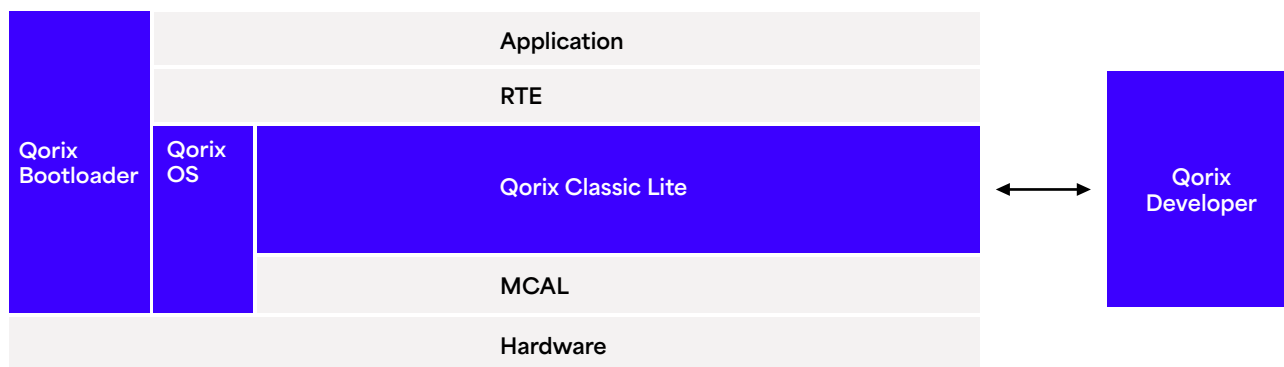
TÜV-certified for ISO 26262 (up to ASIL D), Qorix Classic supports a wide range of AUTOSAR configurations and fulfills both safety-critical and mixed-criticality requirements.

Qorix Classic Lite

Cost-optimized AUTOSAR Classic Bundle for Non-Safety ECUs



- ▶ Pre-integrated OS, Bootloader and Classic Lite in one fixed software package
- ▶ Reduced scope for predictable integration and low project cost
- ▶ Ideal for high-volume body and actuator ECUs (e.g. doors, seats, lighting, HVAC)



Classic Light Coverage: CAN, LIN, Diagnostics, Memory, Network Management and Execution Mode Manager

Qorix is a technology company that provides innovative, robust middleware solutions for all areas of the vehicle, especially in the context of the shift towards software-defined vehicles (SDVs). We help automotive manufacturers and suppliers manage increasing software complexity while maintaining control over architecture. Our middleware enables a secure, scalable, and powerful software ecosystem for next-generation vehicles. Our product portfolio includes AUTOSAR Classic and Adaptive platforms, as well as our proprietary performance stack, which was developed specifically for high-performance computers and real-time integration. With a global team of around 300 experts, Qorix delivers software products for leading original equipment manufacturer (OEM) and tier one (Tier 1) programs. As a joint venture between KPIT Technologies, Qualcomm Ventures, and ZF, Qorix combines in-depth software expertise with automotive system knowledge. Qorix is a member of the VDA, AUTOSAR, and the Eclipse Foundation and actively participates in shaping modern software standards for tomorrow's mobility.

Learn more at www.qorix.ai

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