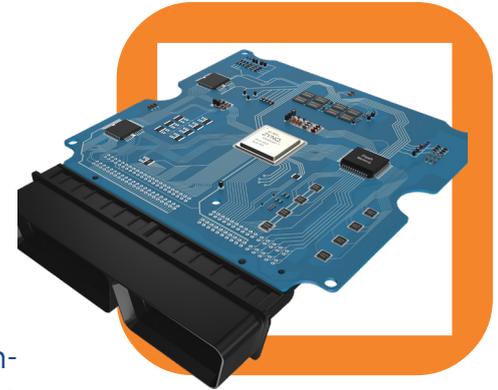# GUARDKNOX
ZONAL GATEWAY
ON A CHIP

HIGHLIGHTS

- High-Performance Communication Engine
- Cost-effective hardware solution for high-performance low latency routing
- Supports all automotive communication interfaces and can implement full communication matrix in hardware with edge-processing capabilities
- Supports full spectrum of AUTOSAR routing capabilities
- Communication Lockdown™ Core
- Examples: Seating, legacy ECU integration, sensor hub

HIGH-SPEED COMMUNICATION ENGINE

Highly cost-effective hardware solution for high performance routing. Single chip design, based on low cost FPGA containing the GuardKnox proprietary High-Performance Communication Engine. The high-performance communication engine supports all automotive interfaces. Implemented and deployed as a dedicated hardware accelerated PDU router, it offers substantially lower and very deterministic latencies than traditional designs while offering full bandwidth with security and traffic verification.

The high-performance communication engine supports the full spectrum of AUTOSAR routing capabilities (PDU routing, service discovery and network management). PDU routing performance achieves <10usec latency. The zonal gateway on a chip supports integration into any existing ECU, immediately transforming it into a Zonal Gateway, independent of its current function by handling routing on all interfaces. This provides an efficient approach to upgrading existing domain controller E/E architecture with the benefits of Zonal, allowing wiring cost savings with no need to invest in new dedicated Zonal ECUs nor to modify implemented functionality of existing ECUs.

FOR MORE INFO ON THE GUARDKNOX ZONAL ARCHITECTURE AND ETHERNET BACKBONE, CLICK HERE FOR A PRODUCT DEMO

The zonal gateway maximizes local connectivity and interconnects it to a high speed backbone capable of edge processing as well, resulting in reduced wiring and other computational elements load. It allows the E/E to keep scaling up and offer new and better user experience through much higher accumulated bandwidth from a greater number of devices such as sensors.