

AURIX Microcontroller Safety Integration

INTELLIGENT & CYBER-PROTECTED SAFETY-CRITICAL SYSTEMS

We Accelerate Product Commercialization

What is the Aurix TriCore ?

The AURIX TriCore (TC2/TC3XXX) is the Infineon's Microcontroller based platform specifically designed for safetycritical applications. AURIX microcontroller is key to solve **certification challenges of EV and AV** providing unique combination of features such as performance, scalability, **safety and security.**

High processing power

The AURIX has multiple high-performance CPU cores that can process large amounts of data quickly and efficiently.

Built-in safety and security features

The AURIX is designed to meet the highest safety and security standards in the automotive industry, such as **ISO 26262 ASIL D** and **ISO 21434 Cybersecurity**

High reliability and durability

Designed to operate reliably in harsh automotive environments, with features such as temperature and voltage monitoring and **built-in fault detection and correction mechanisms**.

The integration challenges

Implementation of Assumption of Use Safety Mechanism Configuration & Integration Integration of Documentation and Traceability Infineon qualified tools for safety-critical development activities

The AURIX Tricore is a Safety Element out of Context (SEooC) in compliance to ISO 26262. Nevertheless, systems makers must provide evidence of a systematic and structured approach to integrate AURIX in-context of the intended use and its respective safety objectives. Integrating and configuring all the powerful built-in AURIX safety mechanisms according to AURIX Safety Manual can be challenging especially in design, integration, and verification activities.

Developers **must ensure** that the proposed **system architecture supports the implementation of Assumptions of Use (AoU)** of Safety Manual. AURIX can be configured and operated in the **BareMetal mode** or the **RTOS modes** to address the different performance requirements. Developing self-testing and setting configuration of AURIX by using **SafeTlib** to ensure the correct integration of AURIX.



CS Group Canada CS Group USA Montreal, QC, Canada East-Hartford, CT, USA

www.cscanada.ca www.c-s-inc.us

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Our Offer

CS Canada is a major partner to OEMs & Tier 1 developing autonomous and electrical technologies. Our **engineering teams** and **safety experts** have in-depth experience in a variety of industries to **support you in integrating Aurix** microcontroller safety integration as per **ISO 26262, IEC-61508** or **ISO 214343** using advanced and cost-effective techniques.





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