

AURIX™ TC4xx: 32-Bit Multicore Microcontroller Family (Aurix-3G Third Generation) - Live Online Training

Objectives

You know the architecture, basic on-chip peripherals and the features (especially related to multicore and safety extensions) of the AURIX™ device family.

You get to apply low-level drivers for this hardware, adapt examples as required and test them with a debugger.

Numerous exercises make this training a practice-oriented software workshop.

YOUR BENEFIT:

Efficient and compact jump-start into the overall topic

Practical tips on multicore and safety

Exercises for download

Participants

Hardware and software architects, hardware and software developers, test engineers // IMPORTANT NOTE: A valid NDA with the chip vendor is a pre-requirement to attend the Aurix-3G training course.

Requirements

ANSI-C knowledge; experience in microcontroller/microprocessor system programming and architecture

Live-Online-Training

13.10. – 17.10.2025 3.500,00 € 5 Days

23.02. – 27.02.2026 3.500,00 € 5 Days

* Price per attendee, in Euro plus VAT

Training code: LE-AURIX3G

Face-To-Face - English

Date	Duration
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15.12. – 19.12.2025	5 days
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Live Online - German

Date	Duration
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13.10. – 17.10.2025	5 days
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23.02. – 27.02.2026	5 days
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Face-To-Face - German

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Content

Introduction

System Architecture

Internal Infrastructure

- SRI
- FPI
- LLI

Virtual Machines and Hypervisor

TriCore™ CPU

- Context Switching
- New instructions
- Virtualisation
- Trap system
- MPU
- System timer

Protection Mechanisms

- PROT
- APU

Memory

- NVM
- UCBs
- SOTA
- Cache

Ports

Interrupt Router (IR)

System Direct Memory Access Controller

Safety Concept

- CRC engine
- Watch dogs
- BIST
- Clocking
- Voltage monitors
- SMU

Security Concept

- CS Real-time module
- CS Satellite

Power Management System

- Domains
- Wakup timer
- RTC
- Standby Controller

System Control and Management

- Clocking
- NMI
- Reset
- Firmware
- Boot

Complex Peripherals Overview and Special Features

- PPU
- GTM
- CAN
- xSPI
- PCIe
- ETH

Data Routing Engine**Analog to Digital Conversion**

- TMADC
- Fast Compare
- DSADC
- CDSP

Multicore Debug

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Please note that the Aurix-3G training does not explicitly cover ADAS specific blocks. If required, please contact our service office prior to the training, phone +49 (0)89 450617-71.