MicroConsult

As of 27.08.2025

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

Objectives

You know the architecture, essential on-chip peripherals and features (especially of the multicore architecture and safety extensions as well as virtualization and protection mechanisms) 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 examples and demos illustrate and facilitate the use of the devices.

YOUR BENEFIT:

Efficient and compact jump-start into the overall topic (3 months time saving according to customers).

Practical tips on multicore, safety, security, and virtualization

Participants

Hardware and software architects, hardware and software developers, test engineers, integrators // 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. Knowledge of the previous device generation is of advantage but not mandatory.

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
15.12. – 19.12.2025	5 days

Live Online - German

Date	Duration
13.10. – 17.10.2025	5 days
23.02. – 27.02.2026	5 days

Face-To-Face - German

Date	Duration

© MicroConsult Academy GmbH
More trainings on www.microconsult.com. Subject to change.
All prices per attendee, in EUR plus VAT.
Contact: info@microconsult.com, phone +49 (0)89 450617-71

15.12. – 19.12.2025 5 days

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

Content

Introduction

System Architecture

Internal Infrastructure

- SRI
- FPI
- LLI

Virtual Machines and Hypervisor

TriCore™ CPU

- Context switching
- New instructions
- Virtualization
- 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
- Watchdogs
- BIST
- Clocking
- Voltage monitors
- SMU

Security Concept

- CS real-time module
- CS satellite

Power Management System

- Domains
- Wakeup timer
- RTC
- Standby controller

System Control and Management

- Clocking
- NMI
- Reset
- Firmware
- Boot

Complex Peripherals Overview and Special Features

© MicroConsult Academy GmbH
More trainings on www.microconsult.com. Subject to change.
All prices per attendee, in EUR plus VAT.
Contact: info@microconsult.com, phone +49 (0)89 450617-71

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

Data Routing Engine

Analog to Digital Conversion

- TMADC
- Fast compare
- DSADC
- CDSP

Multicore Debug

IMPORTANT NOTE: A valid NDA with the chip vendor is a pre-requirement to attend the Aurix-3G training course.

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.

© MicroConsult Academy GmbH
More trainings on www.microconsult.com. Subject to change.
All prices per attendee, in EUR plus VAT.
Contact: info@microconsult.com, phone +49 (0)89 450617-71