As of 14.09.2025

TriCore™ AUDO MAX Family: Architecture and Peripherals - Face-to-Face Training

Objectives

You know the architecture, basic on-chip periphery and specifics of the TriCore™ device family. You are able to program low-level drivers (initialization routines for peripherals) for this microcontroller and test them with a debugger. Moreover, you can generate interrupt and trap routines.

Participants

Software and hardware architects, software and hardware developers, test engineers

Requirements

Knowledge of ANSI-C as well as experience with programming and the set-up of a microprocessor/microcontroller system. Knowledge of DSP is an advantage.

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Content

Infineon TriCore™ Architecture: Overview

TriCore™ Core Version V1.6

- CPU, pipelines, register sets
- Memory model, local memory units
- DSP support
- On-chip bus systems

TriCore™ Ports (Pin Definition and Port Functions)

Protection System

Interrupt System

TRAP System

Peripheral Control Processor PCP2

Direct Memory Access Controller DMA

TriCore™ Peripherals, AUDO MAX Family (TC1798/93/91/84/82/28/24)

Serial Interfaces

- Asynchronous serial interface ASCx
- Synchronous serial interface SSCx
- Micro second channel MSCx
- Micro link interface MLI
- MultiCAN
- FlexRay™

Timer

- System timer STM
- General purpose timer arrays GPTA
- Capture compare unit CCU

Analog-to-Digital Converter ADCx

Fast Analog-to-Digital Converter FADC

Sensor Interface SENT

External Bus Unit EBU (TC1793, TC1798)

System Control Unit SCU, Reset, Power Management

- Start-up process
- Resets (power-on, HW, SW, WDT, deep sleep reset)
- Clock control, PLL
- Power management
- Watchdog timer WDT

Device Initialization with DAvE

Debug Support (OCDS) and Environment Tools: Overview

Practical Exercises

- Initialization of periphery, interrupt handling, DMA application and PCP programming

RECOMMENDATION.

- To get trained in hardware-near C and embedded programming, please see our training "Embedded C: Efficient Use of Programming Methods and Tools for Embedded Applications".

FACE-TO-FACE TRAINING

Price *	Duration
-	5 days

Training code: E-TRI-AM
* Price per attendee, in Euro plus VAT

Face-To-Face - German

Duration

5 days

Coaching

Our coaching services offer a major advantage: our specialists introduce their expertise and experience directly in your solution process, thus contributing to the success of your projects.

We will be happy to provide you with further information or submit a quotation tailored to your requirements.