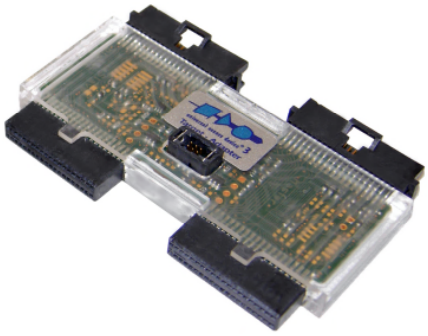
Synchronized Multi-Target Debugging

UAD3 Multi AURIX Debug Adapter

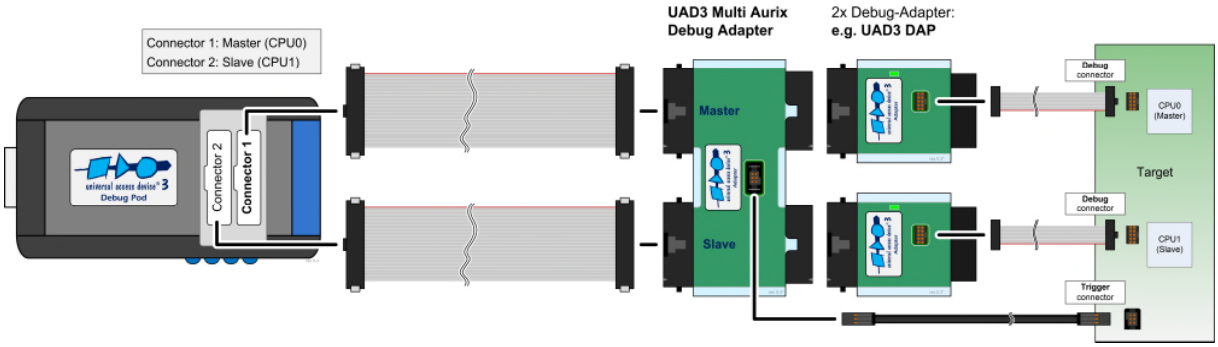


The UDE® Multi AURIX debug solution supports AURIX™ systems with two separate microcontrollers (MCUs) within one target system. It is intended, among other things, for debugging and testing of applications where highest degrees of functional safety and fault tolerance are achieved by redundancy of MCUs.

The UAD3 Multi AURIX Debug Adapter is an adapting solution and extension for the Universal Access Device 3+ (UAD3+). It enables **synchronized debugging of AURIX™ multi-chip systems** with two tightly coupled AURIX™ MCUs (e.g. Infineon's Automotive Ethernet Gateway Evaluation Board) in one single debug session. The UDE® Multi AURIX debug solution ensures **synchronous stop**, **single step** and **restart** as well as **synchronized suspend** of peripherals.

A standard Debug Adapter is connected to each of the separate debug interfaces of the two AURIX™ MCUs. These are then connected via the UAD3 Multi AURIX Debug Adapter to a Debug Pod of the UAD3+, which provides the two necessary debug channels.

The UAD3 Multi AURIX Debug Adapter is equipped with an additional connector for specific trigger signals of the two AURIX™ MCUs. The special logic of the UAD3 Multi AURIX Debug Adapter links the trigger lines in such a way, that the two MCUs can be stopped and restarted synchronously and also enables synchronized single steps.



At a Glance – UAD3 Multi AURIX Debug Adapter

- **Synchronous stop**, **single step** and **restart** of two AURIX™ microcontrollers
- **Synchronized suspend** of peripherals ensures always consistent target state while debugging
- **Seamless integration** into Universal Debug Engine® (UDE®):
  Multi AURIX debugging in **one debug session** within a common, consistent user interface
- Delay from CPU output pin to input pin: 65ns +-20ns (approx. **20 clock cycles** @ 300 MHz CPU)
- Trigger line IO voltage range: **1.65 V – 5.5 V**

If you have any questions about our products, please feel free to contact us:

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