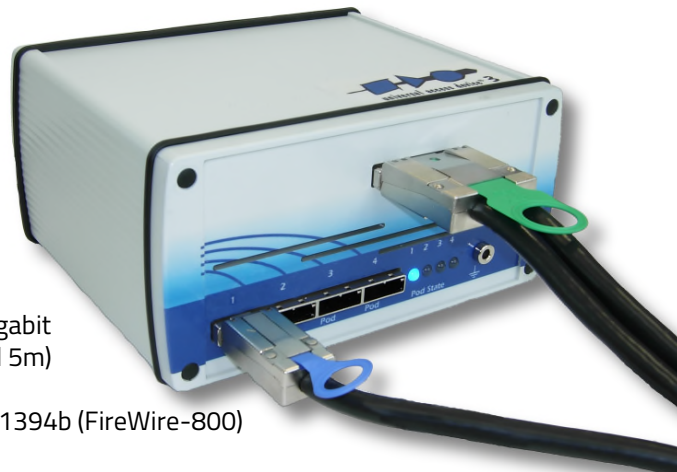## Universal Access Device 3+

Universal Debug Engine (UDE) is a modern, windows based workbench for application oriented development of the latest microcontroller architectures. It supports multi-core, multi-system and high performance embedded target designs. The Universal Access Device (UAD) family describes a platform of hardware communication devices for embedded microcontroller systems which allow a highly flexible, high-performance access to the target system. The **Universal Access Device 3+ (UAD3+)** is the latest extension of the well established UAD family, providing highly optimized data throughput and modular flexibility. Application fields are debugging, real-time trace recording and profiling, as well as the calibration of the most advanced microcontroller systems during the development, integration and system level test of modern microcontroller systems with high clock frequencies and multi-core targets.

High-Speed Multi-Target Access

The **UAD3+** is based on a modular concept and offers high-speed debug access to TriCore, PowerPC, ARM7/9/11, Cortex-M3/M4/R4/A8/A9 and further MCU architectures. Multiple JTAG extender pods can be connected via a long cable to ensure a flexible adaptation with the target connector. The UAD3+ is designed for best on class performance.

- High-speed debug access with up to **160 MHz shift clock**
- **Multi Target / Multi System Access - Up to 8 debug interfaces** supported in parallel, Standard I/O ring voltage 1.65V - 5.5V, extended I/O ring voltage 0.8 – 3.3V on request
- Supported JTAG connectors
    - **JTAG / DAP/DAP2** (Infineon) connector
    - **Nexus Debug Port** (OnCE) connector
    - **ARM JTAG and CoreSight SWD** connector; 10 & 20 pin
    - Additional customer specific debug connectors,
    - Optional galvanic isolation
- Separate **JTAG extender pods** are connected to the UAD3+ by a gigabit serial cables up to 5 meters long (0.5m, 1m - default, 2m, 3m and 5m)
- Automatic firmware update of UAD3+
- Wide range of host interfaces, USB2.0 HS, Gigabit-Ethernet, IEEE1394b (FireWire-800)

Trace support up to 32 bit @ 500 MHz / 4 Lanes @ 3.125 Gbit/s

The Universal Access Device 3+ allows the recording of real-time trace information up to 500MHz in parallel trace and 3.125 Gbit/s in serial trace.

- **ETM**, **ITM**, **PTM**, **FTM Mictor** and **Nexus class 3 Mictor** connector
- **AURORA** trace connector (up to 4 Lanes)
    - Samtec **ERF8 HS22**, Samtec **ERF8 HS34**
    - Additional customer specific trace connectors
- Trace memory extendable up to **4 GBytes**
- Time-endless trace for continuous tracing and observation
- Trace up to 32 bit wide, Half Rate clock mode up to 250 MHz
- Wide range I/O voltage on the target hardware, 0.8V - 3.3V
- Intelligent trace filter for optimal trace utilization, Automatic edge detection
- Variable time stamps possible, inserted by the trace board frontend, time stamp resolution 1/ fTRACE (i.e. 5ns at fTRACE=200MHz)
- Separate **trace pod** is connected to the UAD3+ by a gigabit serial multi-lane cable length up to 5 meters long (0.5m, 1m - default, 2m and 5m), External trigger pins.
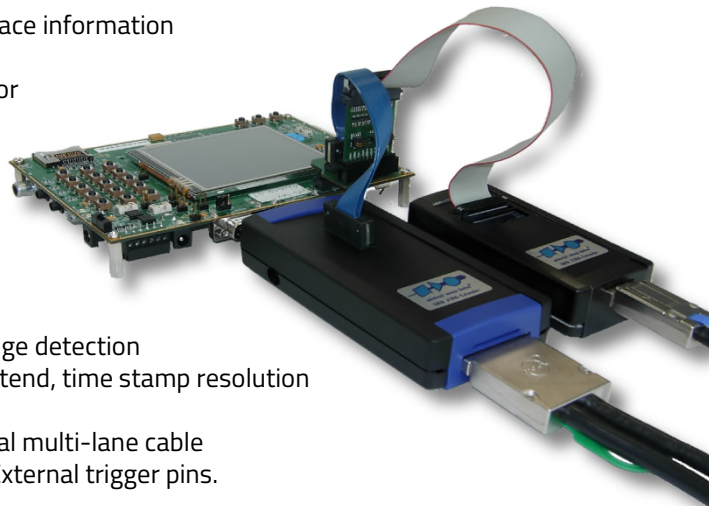
If you have any questions about our products, please feel free to contact us:

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