

MODULAR, POWERFUL AND FUTURE PROVEN

DEBUG & TRACE SYSTEM

for any Infineon AURIX™ Microcontroller

For more than 40 years Lauterbach has been developing the leading debug and trace development tools for the embedded industry. They are known for highest performance, highest reliability and ease of use.

Lauterbach is supporting Infineon TriCore™ microcontrollers for more than 20 years, the latest AURIX™ multicore architectures as well as the well-proven single core AUDO™ devices. Due to the long-lasting partnership with Infineon, future TriCore™ based chip developments are also accompanied by Lauterbach from the very beginning – ensuring a future-proof investment.

PowerDebug

Lauterbach's PowerDebug System is a powerful, modular, flexible debug system that adapts and grows with customers needs when moving from project to project and chip to chip. It can be extended with an optional trace module to debug and trace embedded targets in real-time.

PowerTrace

Lauterbach's PowerTrace extensions provide full insights of what an embedded system is doing without impacting its real-time performance in any way. For system profiling or safety certification trace analysis is essential. In many other use cases it can support in bringing embedded designs to market faster, safer and more reliably than ever.



KEY-FEATURES:

- Modular system that is designed to grow and adapt as needed. All modules are driven by the same intuitive User Interface to maximize the return on investment.
- Full support of TriCore™ debug and trace infrastructure at highest performance.
- Debugging of TriCore™ and all auxiliary controllers SCR, PPU, GTM, cDSP, HSM, PCP over JTAG or DAP.
- Support of popular static Operating Systems including AUTOSAR.
- Support of Multi-OS-operation and Hypervisors (since TC4x).
- Debugging of automotive ECUs via XCP.
- Support of DAP over CAN (DXCPL/DXCM).
- Tool Qualification Support Kit (TQSK) for Instruction Set Simulator TriCore™.
- Full support for Synopsys Virtualizer™ Development Kit (VDK).
- Optional digital on-chip oscilloscope allows the display of chip-internal signals and waveforms and their correlation with the trace recording.
- Full remote control and scripting support for test automation and regression tests.

NEWS

Rust Development Platform Debug Support for Infineon AURIX™

Lauterbach support the HighTec Rust Compiler for AURIX™ TC3x and TC4x not only in the machine code, but also at source code level.

ARTI Trace Support for Infineon AURIX™ Production Devices

Lauterbach support ARTI real-time trace for AUTOSAR profiling on AURIX™ production devices equipped with miniMCDS.

Full Debug Support for 32-bit AURIX™ TC4x

Lauterbach provides full debug support for the heterogeneous architecture of TC4x micro-controllers. This includes cores TriCore™, CSRSM (TriCore™), SCR (XC800), PPU and cDSP (ARC®) and GTM.

Tool Qualification Support Kit (TQSK) Approved by TÜV Nord

In addition to supporting existing standards, Lauterbach's updated TQSK 3.1S now includes qualification evidence for use of the Instruction Set Simulator (ISS) for Infineon TriCore™ as virtual testing platform.

Support of Synopsys VDK for Infineon AURIX™ TC4x

Lauterbach provides full debug support for the Synopsys Virtualizer™ Development Kit (VDK) for the Infineon TC4x Microcontroller Family. The Synopsys VDK allows early pre-silicon software development.

www.lauterbach.com/tricore



TriCore™



```
void TC4_main() {
    int i;
    for(i=0; i<SIZE; ++i) iXProcess;
}
```

```
int core4_main() {
    int nIxProcess;
    TC0_fill(inputBufs[0].a, &inputBufs[0].a, nBase);
    TC0_fill(inputBufs[0].b, &inputBufs[0].b, nBase);
    nProcessNext = 0;
    for (int i = 0; i < 6; i++)
        nNowProcessing[i] = -1;
    TC0_fill(inputBufs[0].a, &inputBufs[0].a, nBase);
    TC0_fill(inputBufs[0].b, &inputBufs[0].b, nBase);
    nProcessNext = 0;
    nIxProcess = nProcessNext;
    nNowProcessing[4] = nIxProcess;
    TC0_fill(inputBufs[0].a, &inputBufs[0].a, nBase);
    TC0_fill(inputBufs[0].b, &inputBufs[0].b, nBase);
    nProcessNext = 0;
}
```



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PowerDebug System



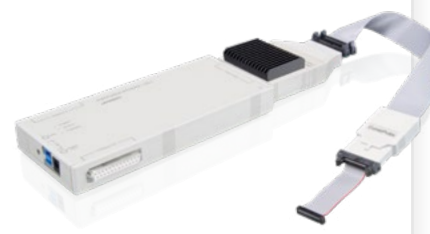
Powerful, modular, flexible debug system supporting TriCore™ and all auxiliary controllers

PowerTrace System



Highest Performance Trace Recording of entire TriCore™-based microcontrollers

CombiProbe 2



Streaming of on-chip trace via DAP debug port to external trace memory for AUTOSAR Profiling

DISCOVER MORE:
lauterbach.com/debugger



DISCOVER MORE:
lauterbach.com/trace

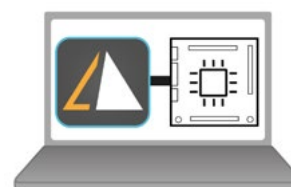


SOFTWARE-Only Solutions

DEBUG & TRACE VIA XCP



DEBUG & TRACE OF SYNOPSIS VDK



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