LAUTERBACH
DEVELOPMENT TOOLS

RA Ecosystem Partner Solution
TRACE32® Debug- and Trace-Tools

Solution Summary

Lauterbach TRACE32® tools are a suite of leading-edge hardware and software components that enables you to analyze, optimize and certify all kinds of embedded systems. The globally renowned debug and trace solutions for embedded systems and SoCs are the perfect solution for all development phases from early pre-silicon development up to product certification and troubleshooting in the field. The intuitive modular design provides the highest available performance for the RA family of MCUs.

Features/Benefits

- Providing the most extensive feature set and performance in the embedded industry including full OS- and RTOS-debug-support..

- Modular approach allows easy migration to other processors and microcontrollers, such as Renesas RH850, RZ and RX families

- World-class support providing fast response times, deep processor expertise, and lifetime coverage.

- Covering the entire life-cycle of a design: Simulation, virtual platforms, real-life hardware, automated test regression and continuous integration.

- Tool Qualification Support Kit (TQSK) for safety-related projects is simplifying path to certification.

Diagrams/Graphics

HW Debugger Solutions
for more than 150 microprocessor architectures and 10.000++ chips

High-Speed Trace Extensions
for every available trace protocol

Feature-Rich Debugger SW Suite
complements our hw solutions but acts also a standalone SW-only debugger solution

Target Markets and Applications

- Internet of Things (IoT)
- Industrial Automation
- Functional Safety
- Motor Control
- Medical
- Consumer Electronics

www.lauterbach.com/chips

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µTrace®: All-In-One Debug and Trace Module for Renesas RA Microcontroller

Leverage the power of a full debug and trace system specifically geared towards your Arm® Cortex®-M embedded design.

µTrace® provides you the same features that our industry leading high-end products are known for: highest quality, exceptional functionality and superior support. In addition to its leading debug capabilities in the Cortex-M market, µTrace® supports on-chip real time trace as well.

PowerDebug X50: Upgradeable Debug Solution for Renesas RA Microcontroller

PowerDebug is a powerful, modular, flexible debug system that adapts and grows with you as you move from project to project and chip to chip. It provides the broadest coverage of supported chips and core architectures in the embedded industry.

Start with the universal PowerDebug X50 module and debug probe IDC20 for Renesas RA. Extend your debug system with trace and logic analyzer modules for run-time analysis, code coverage, or in-depth troubleshooting.

Instruction Set Simulator: Complete Debug Experience without Real Targets

The TRACE32® Instruction Set Simulator (ISS) is used to develop or test application code for Renesas RA microcontroller without the need of a target hardware. It is freely available to all owners of a TRACE32® debug module and also as trial version for evaluation.

The ISS provides the same look and feel as a real debugger connected to a real target.

TRACE32® Tool Qualification Support-Kit (TSQK) for Functional Safety

Functional safety is a key requirement for safety-critical embedded systems. Qualification also includes the development tools used and their integration into the project environment.

Our certified Tool Qualification Support Kits (TQSK) provide everything you need to qualify our TRACE32® solutions. Different TQSK variants prove the suitability of code coverage, debugging, and instruction set simulator for use in avionics, medical, automotive, railroad, or general industrial projects.