## Mentor Embedded

# Mentor Embedded Sourcery Probes

D A T A S H E E T

**Sourcery Probe "Personal"** **Sourcery Probe "Professional"**

*Mentor Embedded Sourcery Probes (Personal and Professional) are designed specifically to simplify target board bare-metal bring-up and debug.*

## Designed specifically to simplify target board bring-up and debug

Mentor® Embedded Sourcery™ Probes have evolved over the years toward one single goal: To enable bare-metal bring-up of new target platforms quickly and easily with the best technology possible, and with the greatest degree of confidence. Sourcery Probe is tightly integrated with the Mentor Embedded Sourcery™ CodeBench debugger, which allows developers to save development time during board bring-up and application debugging.

Sourcery Probe also provides visibility into and control of ARM, MIPS, and Power Architecture cores on-chip debug features. The Sourcery Probe Professional model is available with several JTAG connectors so that a single probe can support multiple processors, architectures, and software environments - right out of the box.

### Easy transition from processor reference designs to OEM board designs

Sourcery Probe is integrated with the Sourcery CodeBench debug environment which provides support for several targets out of the box. Using these targets and provided templates, users can transition from reference board design to OEM board designs seamlessly.

### Comprehensive cache and MMU/MPU support

This is defined by each core type, including all write-through and/or write-back cache mode options, memory management or protection modes, and DMA where supported by the core.

## Features & Highlights:

- Supports ARM, MIPS, Power Architecture cores and reference board designs
- Fully integrated with Mentor Embedded Sourcery™ CodeBench software development environment
- High-speed USB 2.0 connectivity
- Run-control visibility and control
- Flash memory programming
- Low-voltage target support

## Product Benefits:

**Visibility**
Sourcery Probe enables users to observe registers and the current state of target memory. Users can halt program execution at pre-defined states and examine the data for a particular program state

**Control**
Users can control the state of the target system by downloading code, manually modifying processor registers and memory, single-stepping through the code, or setting breakpoints

**Performance**
Split-second, single-step executions and high-speed downloads from host to target accelerates development time

**Unified ecosystem**
Sourcery Probe is compatible with development tools within the Mentor Embedded software solutions suite – work easily within one unified ecosystem with some of the industry's most powerful products

mentor embedded

## Sourcery Probe software debug capabilities include:

- Instruction execution control
- Display and modify target memory
- Examine and modify processor registers
- Run-control visibility and control
- Breakpoint control in ROM, RAM, or Flash memory
- Single-step through source and assembly
- Single-step into, over, or out of functions

## Supports the industry's leading cores and board designs

Sourcery Probe supports standard ARM, MIPS, and Power Architecture cores. It also provides out-of-the-box support for several Power Architecture targets and board designs from ARM and MIPS licensees.

## Two versions of Sourcery Probe available:

| | Sourcery Probe Personal | Sourcery Probe Professional |
|---|---|---|
| **Ports** | USB2.0 | USB2.0, 1Gb Ethernet, Serial |
| **Power** | USB powered | External power brick |
| **Connectors** | Hardwired | Active probe tips |
| **Voltage Support** | 1.8V – 3.3V | 1.2V – 3.3V |
| **Download Speed** | >12MB/min | >1MB/sec |

## Both versions of Sourcery Probe support:

- ARM, MIPS, and Power Architecture processors
- All CPU core speeds
- Control and debug software running in-target, with minimal intrusion into target operation
- Debug code in cache, ROM, RAM, and Flash memory
- Both big and little endian byte-order

*Sourcery Probe Professional connected to Freescale's QorIQ P2020.*

## More about Mentor Embedded

The Mentor Graphics Embedded Software Division (ESD) comprises the Mentor Embedded family of products and services, including embedded software IP, tools, and professional consultant services to assist developers and silicon partners optimize their products for design and cost efficiency. Mentor Embedded continues to lead the industry with involvement in the open source community (Linux®, Android, and MeeGo) and in innovations such as Android beyond mobile handsets, advanced 2D and 3D UI development, open source tools, and multi-OS on multicore architectures.

Linux is the registered trademark of Linus Torvalds in the U.S. and other countries. Android is a trademark of Google, Inc. Use of this trademark is subject to Google Permissions.

## For additional information please visit us at mentor.com/embedded

Copyright ©2011 Mentor Graphics Corporation. Mentor products and processes are registered and registered trademarks of Mentor Graphics Corporation. All other trademarks mentioned in this document are trademarks of their respective owners.

**Corporate Headquarters**
**Mentor Graphics Corporation**
8005 SW Boeckman Road
Wilsonville, OR 97070-7777
Phone: 503.685.7000
Fax: 503.685.1204

**Sales and Product Information**
Phone: 800.547.3000
sales_info@mentor.com

**Silicon Valley**
**Mentor Graphics Corporation**
46871 Bayside Parkway
Fremont, CA 94538 USA
Phone: 510.354.7400
Fax: 510.354.7467

**North American Support Center**
Phone: 800.547.4303

**Europe**
**Mentor Graphics Deutschland GmbH**
Arnulfstrasse 201
80634 Munich
Germany
Phone: +49.89.57096.0
Fax: +49.89.57096.400

**Pacific Rim**
**Mentor Graphics (Taiwan)**
Room 1001, 10F
International Trade Building
No. 333, Section 1, Keelung Road
Taipei, Taiwan, ROC
Phone: 886.2.87252000
Fax: 886.2.27576027

**Japan**
**Mentor Graphics Japan Co., Ltd.**
Gotenyama Garden
7-35, Kita-Shinagawa 4-chome
Shinagawa-Ku, Tokyo 140-0001
Japan
Phone: +81.3.5488.3033
Fax: +81.3.5488.3004

MGC 05-11 1029350