



# Green Hills Probe

## Product overview

The Green Hills Probe is an advanced hardware debug device that connects to the onboard debug ports present on most modern microprocessors, such as IEEE 1149.1 JTAG and BDM. With support for more than one thousand devices from over thirty manufacturers, a flexible electrical interface, and out-of-the-box support for the largest multi-core systems, the Green Hills Probe provides fast, reliable debugging, programming, and system visibility to projects present and future.

Key features of the Green Hills Probe include:

- ▲ 100+ MHz sustained JTAG TCK rates
- ▲ 10+ MB/second sustained download speeds
- ▲ Gigabit Ethernet
- ▲ USB 2.0 High Speed
- ▲ Flash programming support for virtually every NOR flash part
- ▲ Python interpreter built-in for automation
- ▲ Web 2.0 user interface for standalone installations
- ▲ High-reliability flash filesystem for storing automation scripts and user files
- ▲ RoHS, PSE, and CEC compliance

## What should a good debugging tool do?

Debugging tools should just work. Any target. Any electrical interface. Any CPU. Any number of cores. The Green Hills Probe is designed to debug anything out there, and anything that the future might bring.

Debugging tools help you get the job done faster. The Green Hills Probe is designed for amazing speed and efficiency. Incredible download rates in excess of 10 MB/second, high-speed I/O, and smart, automatic detection of any configuration, including the most complex multi-core systems, get you debugging and finding your bugs faster.



*The high-speed design of the Green Hills Probe enhances productivity in every phase of your project from development to manufacturing.*

## Key benefits

- ▲ **Debug anything**  
Flexible design is ready for any CPU and multi-core configuration.
- ▲ **Finish every project faster**  
High-speed design enhances productivity in every phase of your project from development to manufacturing.
- ▲ **Built for MULTI**  
Extends the power of the best Integrated Development Environment in the world to every CPU.

Debugging tools should be so easy to use that you don't even notice them. With its incredible speed, seamless integration with the award-winning MULTI Integrated Development Environment, and design by developers who actually use it everyday, the Green Hills Probe is an indispensable tool for every embedded developer.

Debugging tools should reward long-term investment. When you're ready to start your next project, the Green Hills Probe is easily reprogrammed to debug different CPUs so that you are already investing in your future projects when you use the Green Hills Probe today.

## Debug anything

The Green Hills Probe supports more than one thousand devices from over thirty manufacturers with a flexible electrical interface and out-of-the-box support for the largest multicore systems providing fast, reliable debugging, programming and system visibility to projects present and future.

With its reflashable firmware, the Green Hills Probe is easily and constantly upgraded for new CPUs and new debugging requirements arriving on the market. Reuse the Green Hills Probe for your next project and save on start-up and setup costs.

Green Hills Probe's easily replaceable Target Transition Modules and flexible electrical interface connect to any target conceivable. Supporting a wide voltage and clock range, the Green Hills Probe can fully exploit debug interfaces of all speeds and capabilities.



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## Finish every project faster

The performance and feature set of the Green Hills Probe are designed to enhance developer productivity and minimize schedule risk during all phases of a project. Smart, automatic configuration for a quick start, full on-chip register visibility for fast bring-up, and ultra-high-speed memory access for fast downloads, memory viewing, and programming all help you get going faster on any project. The Green Hills Probe's advanced target control architecture and wide target support eliminate downtime waiting for download of large code images and tediously accessing device registers.

When it comes time to ship your product, the Green Hills Probe's comprehensive programming API, universal flash programming support, on-board Python scripting, and easy-to-use Web 2.0 interface can be used to program, test, and validate your product as it leaves the assembly line. Using one hardware debug device from bring-up to production minimizes training and transition costs throughout the product life cycle, and the Green Hills Probe's extensive field upgradeability and high-performance, proven design ensures that hardware units purchased now will provide the same productivity benefits for future projects.

## Built for MULTI

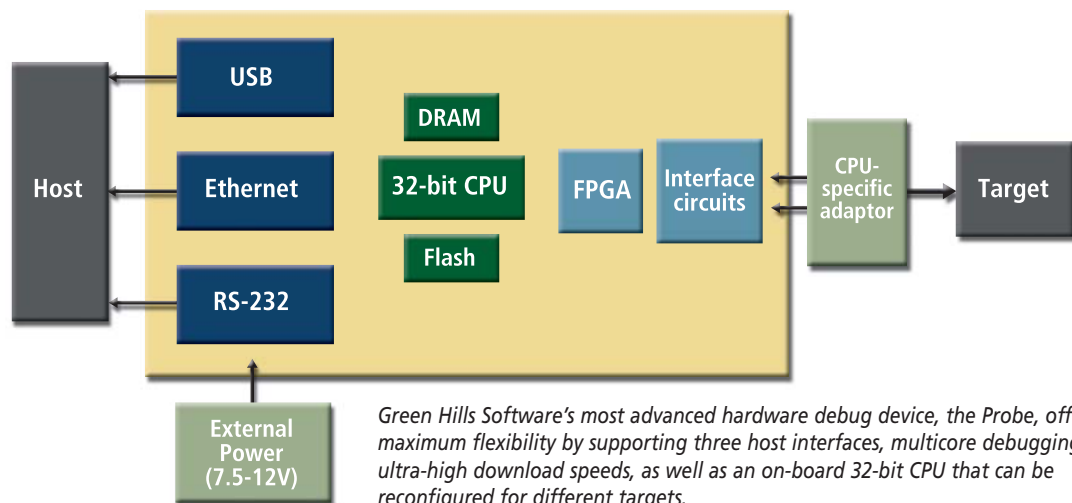
Tightly integrated with the best embedded development environment in the world, the Green Hills Probe is an integral part of the MULTI IDE that has helped developers ship great products on-time for over 15 years.

The MULTI development environment supports more target processors, operating systems, and third-party tools than any other IDE—making it ideal for enterprise-wide deployment. By using a common set of development tools across projects, software engineers can more easily share code or move between projects without compromising productivity.

With MULTI, you can develop code in C, C++, and FORTRAN (and Ada 95 with Green Hills Software's AdaMULTI IDE). MULTI supports all major 32- and 64-bit processor architectures—as well as the leading embedded and general purpose operating systems and development hosts.

The MULTI IDE's tight integration with a broad array of third-party tools provides you with maximum flexibility and choice. You can optimize your own development environment—invoking your favorite tools, editor, or configuration management system all from within the MULTI environment. MULTI can even be used with your existing Eclipse environment.

### Green Hills Probe configuration



*Green Hills Software's most advanced hardware debug device, the Probe, offers maximum flexibility by supporting three host interfaces, multicore debugging, ultra-high download speeds, as well as an on-board 32-bit CPU that can be reconfigured for different targets.*



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