SCANWORKS® PCIE-1000 HARDWARE KIT

OVERVIEW

The PCIe-1000 hardware kit is a high throughput, flexible JTAG (IEEE 1149.1 and IEEE 1149.6 boundary scan standard) controller and single port pod for the ScanWorks platform for embedded instruments. The PCIe-1000 applies tests generated by three of the test technologies supported by the ScanWorks platform, including boundary-scan test (BST), processor-controlled test (PCT) and FPGA-controlled test (FCT). The test, validation, debug and programming operations supported by ScanWorks cover a wide range of processes, including the following: the BST tool supports structural tests for shorts and opens, scan path verification, interconnect tests, device programming, and memory access tests; the PCT tool supports functional test with structural fault detection and device programming, and the FCT tool supports using an existing functional FPGA as an embedded board tester and for device programming.

FEATURES

The PCIe-1000 hardware kit comes with a PCIe controller card and a single-port interface pod for connecting ScanWorks running on a personal computer to the unit under test (UUT). The pod can be up to 50 feet from the controller card and still support the maximum boundary-scan test clock (TCK) frequency of 50 MHz. ScanWorks supports up to eight PCIe-1000 controllers in one personal computer (PC) for a total of eight Test Access Ports (TAPs) in a maximum configuration. The scan path mapping and configuration is handled through software. For controlling and monitoring non-boundary-scan signals, each PCIe-1000 has eight discrete I/O (DIO) signals that can be manipulated individually. Voltages for each TAP port and DIO signal can be controlled individually via software, as well as individual termination on each TAP and DIO signal.

OPTIONS

Optional personality pods are available for supporting different processor families within the ScanWorks PCT tool. For example, pods support PCT test for processor families from ARM®, Freescale™, and Intel®.

ASSET
Driving Embedded Instrumentation

POWERFUL DEBUGGING

The debugging capabilities with the PCIe-1000 are very powerful. From the integrated action debug tools, actions can be run step-by-step in real time, and read/writes performed to any register, pin or bus on the UUT. Interactive tests can be viewed in a logic diagrams or waveform windows.

PCIE-1000 HARDWARE KIT

The ScanWorks PCIe-1000 Hardware Kit includes the following items:

- PCIe controller card
- Single-port interface pod
- Controller cable (10 feet)
- Pod-to-UUT cable (3 feet)
- Power cable (10 feet)
- Adapter to match PCI-100 style UUT connectors to PCIe-1000 cable connectors
- Complete documentation

SCANWORKS PLATFORM FOR EMBEDDED INSTRUMENTS

ScanWorks Platform for Embedded Instruments is a seamless software environment to access, run and collect data from any instrument in your chips, circuit boards or systems. The ScanWorks Platform includes products for Boundary-Scan Test (BST), Processor-Controlled Test (PCT), High-Speed I/O (HSIO) Validation, FPGA-Controlled Test (FCT) and IJTAG test.

ASSET CONTACTS:

Please contact your ScanWorks sales representative for more information.

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Key Features

- ScanWorks platform controller
- 8 DIO signals
- Software selectable TAP and DIO voltages
- Individual termination for each TAP and DIO signal
- Support for 32- and 64-bit Windows
- Automatic firmware updates
- Up to 8 test ports in a system
- Extended distances between the PC and UUT