PClle-410 HARDWARE KIT WITH FOUR-PORT LOW-VOLTAGE POD

OVERVIEW

The PCIe-410 hardware kit is a high throughput, flexible boundary-scan test (BST)/JTAG controller for the ScanWorks® platform for embedded instruments. The PCIe-410 is intended for high-volume manufacturing environments and multi-TAP (test access port) UUTs (unit under test). It applies the test and programming operations created with the ScanWorks BST tool, supporting structural tests such as shorts and opens testing, scan path verification, interconnect tests and memory access tests. With its high-speed test clock (TCK) and parallel programming option, it is also highly recommended for in-system programming.

FEATURES

The PCIe-410 hardware kit comes with a four-port, low-voltage boundary-scan interface pod for connecting to the UUT. The pod can be up to 50 feet from the controller card and still support boundary scan’s maximum TCK frequency of 50 MHz. ScanWorks supports up to three PCIe-410 controller cards in one personal computer (PC). Each controller card supports one pod for a total of 12 test ports in a maximum configuration. In addition, the PCIe-410 can handle multiple scan paths through software as well as the concatenation of scan paths. For controlling and monitoring non-boundary-scan signals, the PCIe-410 has 20 discrete I/O (DIO) signals that can be manipulated individually.

FLEXIBLE UUT INTERFACE

TAP port concatenation is controlled by software via ScanWorks, allowing a very flexible connection to the UUT and any daughter boards or interface boards in the system. Voltages for each TAP port and DIO signal can be controlled individually via software. Individual termination that can be selected through software is available on each TAP signal.

PARALLEL TEST AND PROGRAMMING

The four test ports on the PCIe-410’s pod can be connected to four scan paths on a single UUT or to four identical UUTs for high volume production testing. When connected to four scan paths on one UUT, ScanWorks and the PCIe-410 treat the four scan paths as one, avoiding the excessive overhead of managing multiple scan paths. When the PCIe-410’s pod is connected to four identical UUTs, the same tests are applied to all four. Moreover, flash programming operations are applied to all four UUTs in parallel, significantly reducing overall test and programming times.
The PCIe-410 provides programming operations such as flash programming, PLD configuration, and the programming of I2C or SPI devices. Your flash programming speeds can be optimized because the PCIe-410 supports individual control of write enable and ready busy signals.

**POWERFUL DEBUGGING**

The debugging capabilities with the PCIe-410 are very powerful. You can run actions step-by-step in real time, and read/write to any register, pin or bus on the UUT from the integrated action debug tools.

**PCle-410 HARDWARE KIT**

The ScanWorks PCIe-410 Hardware Kit includes the following items:
- PCIe Controller Card (Full or low-profile bracket)
- Four-Port Low-Voltage Pod
- Controller Cable
- Four Pod-to-UUT Cables
- Power Cable
- Four Adapters

**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 and FPGA-Controlled Test (FCT).

**ASSET CONTACTS:**

Please contact your ScanWorks sales representative for more information.

http://www.asset-intertech.com/contact.html

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<table>
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<tr>
<th>Key Features</th>
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<tbody>
<tr>
<td><strong>1-4 TAP ports for 1-4 UUTs</strong></td>
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<tr>
<td><strong>20 DIO, 4 per TAP + 4 common</strong></td>
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<tr>
<td><strong>Software-selectable TAP and DIO voltages, 0.8V-3.3V (5V tolerant)</strong></td>
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<td><strong>160kHz to 50MHz TCK</strong></td>
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<td><strong>Broadcast flash programming</strong></td>
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<td><strong>High-volume production</strong></td>
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<td><strong>Up to 12 test ports in a system. Extended distances between the PC and UUT</strong></td>
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