

SCANWORKS® BOUNDARY-SCAN TEST PCI-200EJ HARDWARE KIT

BST PCI-200EJ PRODUCT OVERVIEW

The PCI-200EJ controller with the boundary-scan pod supports the application of structural tests, programming operations and tests created with ScanWorks® Boundary-Scan Test (BST). Examples of structural tests (shorts and opens testing) are scan path verification, interconnect tests, and memory access tests. Programming operations include flash programming, PLD configuration, and programming with I2C or SPI. Using the PCI-200EJ enables the application of all these scan operations with one boundary-scan controller and one connection to the unit under test.

The PCI-200EJ boundary-scan controller is installed in an available PCI slot in the PC on which ScanWorks is running. The PCI-200EJ uses a boundary-scan pod to connect to the UUT.

The PCI-200EJ provides a sustained data throughput at high TCK frequencies. This allows very fast structural test and in-system programming

application times. The PCI-200EJ supports one boundary-scan pod with TCK frequencies ranging from 1 MHz to 20 MHz. The PCI-200EJ supports a controller-to-board distance of 3 feet between the controller card and the boundary-scan pod.

BST PCI-200EJ HARDWARE KIT

The kit includes:

- PCI-200EJ Controller
- Controller-to-Pod Cable
- Boundary Scan Pod
- One user configurable pod-to-UUT cable

PROGRAMMABLE CLOCK

The TCK signal provided by the PCI-200EJ controller card is programmable from 1MHz to 20 MHz in increments to allow you to select a

1.000 MHz	5.000 MHz
2.000MHz	6.666 MHz
3.333 MHz	10.000 MHz
4.000 MHz	20 MHz

TCK frequency to optimize the throughput for the maximum capabilities of your UUT. Table 1 lists the





frequencies available. This allows you to select the maximum TCK frequency your board will support, enabling the fastest test and programming times. The TCK frequency is controllable from the ScanWorks hardware setup menu or from FREQUENCY statements in SVF and STAPL files.

The PCI-200EJ always operates in what is commonly referred to as “Free Running TCK” mode. In the Free Running TCK mode, the TCK is always running.

DISCRETE IO SIGNALS

This kit supports up to 16 non-boundary-scan discrete input output (DIO) signals that can control inputs to the board or observe outputs from the board. These 16 DIO are divided into 8 inputs and 8 outputs.

Accesses to the DIO signals are via the boundary-scan pod. The connector for DIO access is the 50-way connector. The state of the DIO signals can be controlled and observed using ScanWorks Boundary-Scan Test software.

VOLTAGES

The kit supports UUT logic level signals of 0.8V, 0.9V, 1.0V, 1.2V, 1.5V, 1.8V, 2.5V, 3.3V and 5.0V.

ASSET CONTACTS:

Please contact your ScanWorks sales representative for more information.

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PHYSICAL FEATURES

The kit is built to commercial environmental standards for the U.S. and Europe. The pod is EMI shielded to eliminate noise in a laboratory or manufacturing environment.

PC REQUIREMENTS

Only one kit is supported per PC. The PC must have a full height PCI slot available. Windows XP and Window 7 32-bit only supported.

FULL LIFE-CYCLE SUPPORT

During the design/debug or the field service stage of your product’s life cycle, the PCI-200EJ controller card provides you with a robust and flexible interface from your host test platform to your board. It is fast enough to provide maximum scan throughput to all but the most highly optimized scan paths, yet inexpensive enough to be used in high volume production. Using the same controller in design/debug test development and manufacturing eliminates any question of compatibility.