

PCle-1149.1™

High-Performance Boundary-Scan Test and In-System Programming Controller



Preferred JTAG Solutions—Acclaimed Technical Support



Features

- High-performance PCI Express (x1) JTAG controller.
- Multi-TAP and/or concurrent (gang) testing and In-System Programming (ISP) on up to 32 UUTs for high volume test.
- Works with the ScanTAP™ series of intelligent pods for up to 32 TAPs.
- Up to 30 feet of extended distance from the PC to the pod—no TAP extenders required.
- User-programmable JTAG TCK rate up to 80 MHz.
- External write strobe and Ready/Busy signaling for increased Flash programming performance.
- 16 inputs and 16 outputs of programmable parallel I/O.
- Supports Windows® XP, Windows Vista®, Windows® 7, and Linux operating systems (32-bit and 64-bit).

Benefits

- **Save time** at test stations with high performance—up to 80 MHz on all TAPs for lightning fast test and in-system-programming.
- **Reduce costs** associated with fixtures; ScanTAP intelligent pods can connect to up to 32 TAPs for multi-TAP and/or gang operation.
- **Compatible** with the complete ScanExpress™ family of boundary-scan and JTAG embedded test products.

Boundary-scan has proven itself time and again to be a versatile interface for structural test, embedded functional test, built-in self test (BIST), software debug, and in-system programming. Supporting such diverse applications requires a controller with high performance specifications and extended features.

The Corelis **PCle-1149.1** is a high-performance boundary-scan controller for multi-TAP (Test Access Port) and concurrent JTAG test and in-system programming. When combined with a ScanTAP™ intelligent pod, the PCle-1149.1 offers up to 80 MHz clock rates on 4, 8, or 32 TAPs with features such as external write strobe, direct programming, and analog voltage measurement.

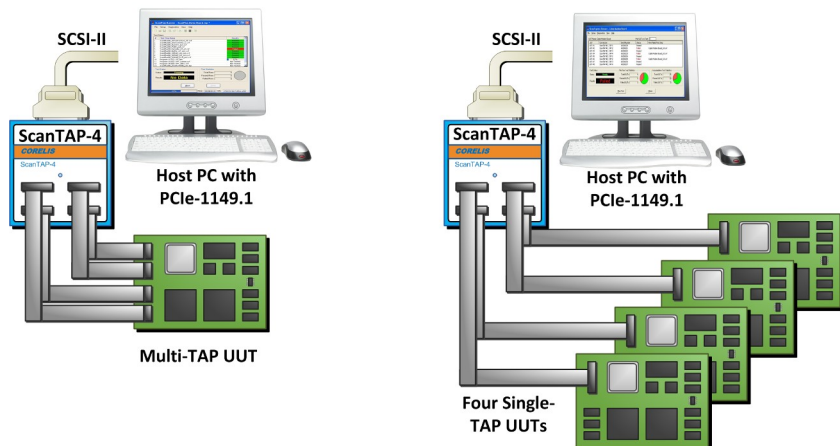
Applications

- **Boundary-Scan Test** - Use boundary-scan to test, debug, and verify hardware through all phases of a product's life cycle—from development through production and into the field.
- **JTAG Embedded Test** - Control a microprocessor through the JTAG debug port to run functional tests, without requiring boot code.
- **In-System Programming** - Read, erase, program, and verify Flash Memories, serial PROMs, CPLDs, FPGAs, and other programmable devices directly within a circuit or system design.
- **High Volume Production** - Run concurrent tests and ISP on up to 32 UUTs with ScanExpress Runner™ Gang Edition.

Learn More: For more information about Corelis products, please visit www.corelis.com

High Performance, Versatility

The Corelis PCIe-1149.1 JTAG controller is fully compliant with the IEEE Standard 1149.1 for test access. The controller fits in a PCIe slot on the host PC and connects by SCSI-II cable through a ScanTAP pod to up to 32 TAP connectors on any JTAG-based target system. Support for both multi-TAP and concurrent (gang) test execution with in-system programming, voltage measurement capabilities, and integrated serial interfaces on each TAP connector make the PCIe-1149.1 with ScanTAP ideal for all boundary-scan and serial bus programming applications.



PCIe-1149.1 with ScanTAP-4 Configurations.

Scan Function Library

For applications that require a low level interface or integration with third party software, Corelis offers a Scan Function Library (SFL). The SFL is provided as a 32-bit DLL for Microsoft Windows and provides all functions necessary to operate the JTAG port and send or receive JTAG instructions and data to the target system. Users can incorporate the drivers in their own application software or integrate the SFL with third party systems such as National Instruments LabVIEW, National Instruments TestStand, and Agilent VEE.

Ordering Information

Part Number—10371

PCIe-1149.1 and ScanTAP-4.
Includes 6' SCSI cable, four 10-pin TAP cables, one 16-pin TAP cable, and one 20-pin TAP cable.

Part Number—10372

PCIe-1149.1 and ScanTAP-8.
Includes 6' SCSI cable, four 10-pin TAP cables, one 16-pin TAP cable, and one 20-pin TAP cable.

Part Number—10370

Spare PCIe-1149.1. Must be used with a ScanTAP.

For more information about Corelis hardware and software products, please visit our website at

<http://www.corelis.com/>

PCIe-1149.1 Hardware Specifications¹

General

Card Outline Dimensions	3.9 ± 0.25 inches x 6.8 ± 0.25 inches
Certifications	RoHS Compliant

PCI Interface

Link Width	x1
Memory Space Size	132 MB

ScanTAP Interface

Boundary-Scan Connector	86-pin SCSI II type (AMP p/n 787171-7 or equiv.)
Maximum TCK Frequency	80 MHz
TAP Specifications	See ScanTAP datasheet for TAP information

Parallel I/O Interface

Input Port Connector	34-pin Header (3M p/n 2534- 6002UB or equiv.)
Output Port Connector	34-pin Header (3M p/n 2534- 6002UB or equiv.)

¹For complete specifications, please see the PCIe-1149.1 User's Manual.

Software Support

ScanExpress Tools

Corelis offers a complete family of boundary-scan test, JTAG embedded test, and in-system-programming tools, all compatible with the PCIe-1149.1 and ScanTAP advanced features.

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