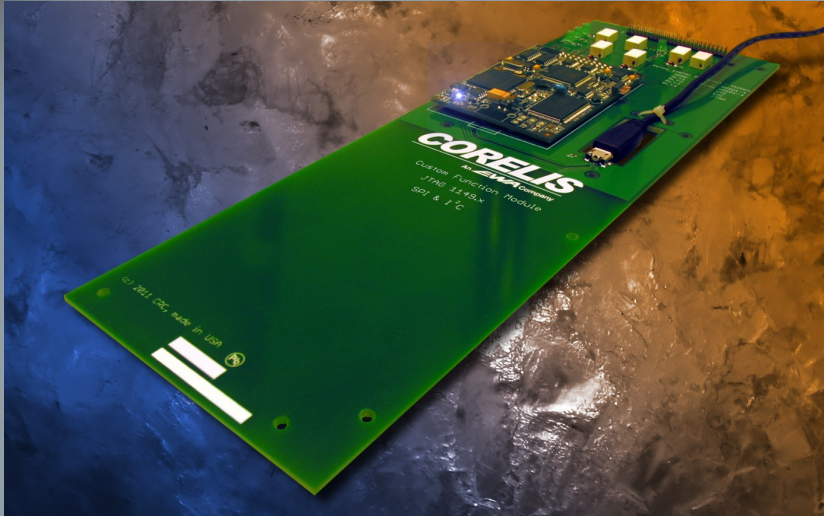


USB-1149.1/CFM™

CORELIS
An EWA Company

High-Performance Boundary-Scan Controller
for Teradyne In-Circuit-Testers

Preferred JTAG Solutions—Acclaimed Technical Support



Features

- High-performance JTAG controller with I²C and SPI interfaces
- Supports IEEE-1149.1 and IEEE-1149.6 for advanced digital networks
- User programmable JTAG TCK rate up to 100 MHz, SPI SCK rate up to 50 MHz, and I2C SCL rate up to 5 MHz
- Custom Function Module (CFM) form factor fits in a single slot of a Custom Function Board (CFB) on the Teradyne tester
- Variable output voltage and configurable input voltage threshold
- On-board relays completely isolate JTAG and ICT operations
- Three general purpose I/O channels
- High-speed bus-powered USB 2.0 interface
- Scan Function Library software supports Windows® XP, Windows Vista®, and Windows 7 operating systems

Applications

- **Boundary-Scan Test** - Integrate boundary-scan testing with Teradyne ICTs, complete with support for IEEE-1149.6 AC-coupled tests.
- **JTAG Embedded Test** - Add at-speed functional tests by taking control of a CPU JTAG debug port, without requiring boot code.
- **In-System Programming (ISP)** - Directly erase, program, and verify Flash, EEPROMs, CPLDs, FPGAs, and other programmable devices.

As circuit and system complexities increase, test point access for in-circuit test (ICT) continues to decrease at a rapid rate; new design features such as buried vias and ball-grid-arrays (BGA) present a difficult, if not impossible situation for any ICT system to gain access to system nets.

Adding boundary-scan without losing the ICT investment is an attractive prospect—by combining ICT and boundary-scan, test engineers are achieving the benefits of these complementary technologies and the highest possible test coverage.

The USB-1149.1/CFM™ High-Speed single-TAP boundary-scan controller makes adding JTAG test to Teradyne ICTs a snap. Designed specifically for integration into Teradyne TestStation™ and GR228x testers, the USB-1149.1/CFM offers a clean, convenient boundary-scan solution.

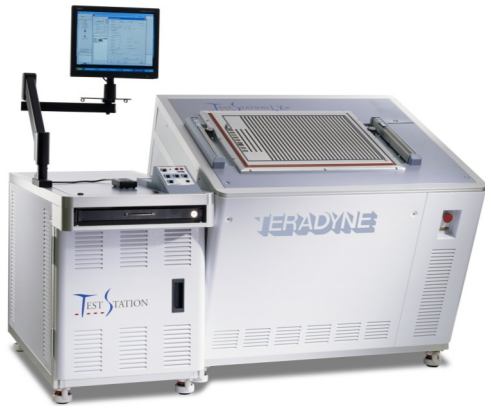
Benefits

- **Save time** at test stations with high performance JTAG features—up to 100 MHz for lightning fast test and in-system-programming speeds.
- **Increase system capability** by integrating Corelis boundary-scan hardware and software directly into the Teradyne ICT.
- **Reduce costs** associated with fixtures; adding boundary-scan test coverage reduces the amount of test points required.
- **Compatible** with the complete ScanExpress™ family of boundary-scan, ISP, and JTAG embedded test software.

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

High Performance, Tight Integration

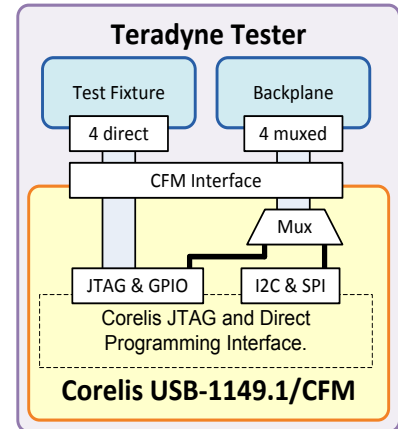
The Corelis USB-1149.1/CFM™ JTAG controller is compliant with the IEEE Standard 1149.1 for test access and is fully capable of executing 1149.1 and 1149.6 tests. The USB-1149.1/CFM integrates effortlessly within the Teradyne system and interfaces with Corelis ScanExpress software. Integrated SPI and I2C programming features make the USB-1149.1/CFM an ideal and universal solution for combined boundary-scan, JTAG embedded test, and ISP.



Supports Teradyne TestStation™ and legacy GR288x In-Circuit Test systems.
Requires one Custom Function Module slot on a Teradyne Custom Function Board.

Designed for TestStation™

The USB-1149.1/CFM was designed specifically for use with Teradyne TestStation and GR228x series Testers. The CFM form factor boards fits directly into one of four slots in a Teradyne CFB. Integration is simple and transparent; once installed in the system, the USB-1149.1/CFM JTAG, GPIO, I2C, and SPI signals are available to test fixtures and the tester backplane.



USB-1149.1/CFM System Diagram. JTAG signals can use the CFM direct or muxed interface pins.

Ordering Information

Part Number—10410

For more information about Corelis hardware and software products, please visit our website at <http://www.corelis.com>

Software Support

ScanExpress Tools

Corelis offers a complete family of boundary-scan test, JTAG embedded test, and in-system-programming tools—all fully compatible and with the USB-1149.1/CFM advanced features.

For more information about ScanExpress products, please contact the Corelis sales department.

Email: sales@corelis.com

CORELIS

13100 Alondra Blvd.
Cerritos, CA 90703, USA
Phone: +1 888-808-2380 (US & Canada)
Phone: +1 562-926-6727 (International)
Fax: +1 562-404-6196
www.corelis.com

USB-1149.1/CFM Hardware Specifications

General

Mechanical Dimensions	3.780 x 11.468 x 0.390 (+/- 0.010) inches
Certifications	RoHS Compliant

USB Interface

USB Transfer Rate	High-speed USB 2.0
USB Cable	Includes attached 6 foot USB 2.0 cable

Target Interface

TAP Connection	Teradyne CFM Interface
Output Voltage	Programmable from 1.25V to 3.30V in 0.05V steps

JTAG Interface

Compliance	IEEE-1149.1 Compliant Interface
Maximum TCK Clock Rate	100 MHz

I2C Interface

Maximum SCL Clock Rate	5 MHz
------------------------	-------

SPI Interface

Supported Chip Selects	Up to 2
Maximum SCK Clock Rate	50 MHz