

Spectrum™ 8800-Series Frequently Asked Questions

What is the difference between the Z1800-Series and the Spectrum™ 8800 platform?

To maximize your test equipment investment, you will want to match your test strategy with the right equipment.

If you have a "separate stage" test strategy where in-circuit and functional tests are performed at different points in the manufacturing and test process, Teradyne's Z1800-Series In-Circuit Test System is the ideal platform.

Teradyne's Spectrum 8800 VXI-based Manufacturing Test Platform lets you move some or all of the board's functional tests on to the same system performing in-circuit test -- reducing total test cost. The Spectrum 8800 platform is built around industry standards like VXI, Windows NT and LabWindows CVI to let you reuse functional tests you've already designed and implemented. Its open architecture gives you test strategy flexibility to meet constantly changing volume, mix and technology requirements.

Can I integrate my own proprietary hardware into the Spectrum test platform to facilitate special testing?

Yes. User hardware is easily integrated into the Spectrum. I/O signals are then routed via one of several available signal connection paths depending on requirements.

We are new at programming Flash devices. What advice does Teradyne have?

Programming Flash memories and iSP devices at the in-circuit test (ICT) stage serves to reduce defects, cost, and complexity associated with stocking and handling these types of devices. Teradyne first supplied this capability on the Z1800-Series with the optional Digital Functional Processor (DFP) feature. Given the obvious cost savings and quality improvements derived from this capability, we now include In-Line Device Programming (ILDLP) as a standard feature in all Spectrum systems. Spectrum system software includes programming tools optimized for the ILDP task. In addition, we supply a library of example programs for commonly used Flash, iSP, and other popular memory devices.

What products use the boundary-scan standards (JTAG, IEEE-1149.1)?

Teradyne is a world leader in boundary scan testing. Teradyne's VICTORY™ tool set provides the greatest range of boundary-scan test development tools.

- Boundary In-Circuit Test (BICT) allows users to develop test patterns for complex VLSI devices that incorporate the IEEE-1149.1 standard in a matter of minutes with 100% pin-level fault coverage.
- Virtual Interconnect Tests (VIT) creates efficient and fast test patterns for contactless testing of boundary scan nets.
- Virtual Component/Cluster Tests (VCCT) allows users to create tests for devices and functional clusters using a combination of real test pins as well as boundary scan (virtual) test channels.
- Boundary Functional Test (BFT) provides the ability to perform comprehensive internal tests of devices that incorporate the optional INTTEST, RUNBIST and other 1149.1 device instructions.
- Access Analyzer (AA) aids design engineers by advising where physical test access points can be removed to improve circuit density -- without sacrificing test coverage.
- Boundary Scan Intelligent Diagnostics (BSID) analyzes the serial test data failures from Victory test patterns and guides the test operator to the failing net and/or device in a matter of seconds.
- Serial Vector Format Processor (SVFP) processes test vectors expressed in the industry-standard Serial Vector Format (SVF) into test vectors for Teradyne testers and other platforms. SVF and the IEEE-1149.1 Test Access Port (TAP) are used in the programming of a variety of In-System Programmable (ISP) devices as well as Flash memory devices. SVF was developed by Teradyne and Texas Instruments.
- All of Teradyne's Spectrum test platforms come standard with VICTORY BICT and BSID. In addition, the Spectrum test platforms accept SVF as one of the vector language formats.

CC3 Lightning™ Frequently Asked Questions:

We are new at programming Flash devices. What advice does Teradyne have?

Programming Flash memories and ISP devices at the In-Circuit Test (ICT) stage serves to reduce defects, cost, and complexity associated with stocking and handling these types of devices. Teradyne first supplied this capability on the Z1800-Series with the optional Digital Functional Processor (DFP) feature. Given the obvious cost savings and quality improvements derived from this capability, we now include In-Line Device Programming (ILD) as a standard feature in all spectrum systems. Spectrum system software includes programming tools optimized for the ILDP task. In addition, we supply a library of example programs for commonly used Flash, ISP, and other popular memory devices.