NEW!

Complete Test Solutions for PCI Express 2.0

The new Summit Z2-16 is LeCroy's third generation exerciser (traffic generator), adding support for PCI Express at the new Gen2 data rates of 5 GT/s. The Summit Z2-16 Exerciser, in combination with the Summit T2-16 Protocol Analyzer, provides a complete test and development system for engineers working on new designs that use PCI Express 2.0 data rates.

The Summit Z2-16 builds on the extensive programming and compliance test libraries established for LeCroy's PE*Trainer*™ ML and EML PCI Express Exercisers, and provides the user a complete suite of test capability, including the ability to test products to the new PCI Express 2.0 specification.
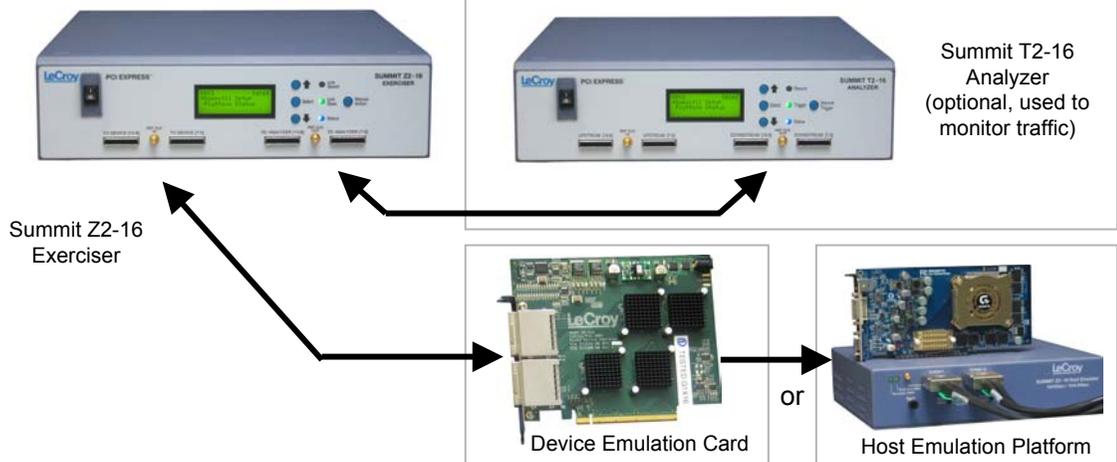
The Summit Z2-16 is a critical test and verification tool intended to assist engineers in developing and improving the reliability of their systems. The Summit Z2-16 can emulate PCI Express root complexes or device endpoints, allowing new designs to be tested against known standards. As LeCroy's third generation of PCI Express generators, the Summit Z2-16 leverages years of experience in providing advanced protocol analysis and test tools for emerging markets. Intuitive software controls blend sophisticated analysis capability with ease-of-use, allowing test suites to be rapidly customized to specific product requirements.

The powerful scripting language allows for the creation of Transaction Layer Packets (TLPs) and Data Link Layer Packets (DLLPs) at Gen2 data rates of 5 GT/s. ACK's or NAK's can be generated under user control. Packet fields not explicitly specified by the user are generated automatically (such as CRCs). The configuration space can be emulated for any device including endpoints, bridges and switches. Support for both Gen1 (2.5 GT/s) and Gen2 (5 GT/s) data rates allows the Summit Z2-16 to produce test cases that test the device's ability to auto-negotiate data rates with other devices.

In addition, the ability of the Summit Z2-16 to produce a wide variety of programmed traffic allows the user to introduce controlled error conditions. As an example, a trace file captured on a Summit T2-16 or PE*Tracer* Analyzer can be exported and used as the basis for a test script, with selected programmed errors introduced at critical stages to test the device's ability to recognize and recover from error conditions. This allows for detailed testing of simple error recovery and complex multiple error conditions, creating more resilient products that perform well even under less than ideal conditions.

Summit T2-16 Analyzer (optional, used to monitor traffic)

Summit Z2-16 Exerciser

PCI EXPRESS®
PERFORMANCE SCALABLILTY FOR THE NEXT DECADE

Device Emulation Card

or

Host Emulation Platform

Features	Benefits
Script Level Traffic Generation	Programmability to test PCI Express components with more precision and control
Convert Trace Files into Generation Scripts	Recreate failure scenarios by replaying recorded traffic
Manual Error Injection	Verify fault handling and identify error recovery
Host/End-Point Emulation Support	Host emulation platform/end-point emulation interposer allow for designed stress testing and pre-testing host and/or end-point devices for compliance
Programmable Data Link Layer	Ability to modify flow control, ACK/NAK, and retry behaviors
Flexible/Programmable Transaction Layer	User ability to define arbitrary sequence of transactions, payload generation, and conditional repeat of transactions provide users with maximum flexibility
Programmable Reply Timers	Allows testing of ACK latency timeouts and retry mechanisms
Point-and-Click Script Editor	Complex scripts can be created quickly and easily
Programmable Configuration Space	Test user-defined endpoints
Supports Existing PE*Tracer* API	Preserve investment in API programs
Supports Legacy PE*Trainer* Scripts	Preserve investment in legacy PE*Trainer* scripts
13 Month Hardware Warranty	Protect your investment with the industry's leading warranty

Dimensions	3.8" x 15.9" x 15.2" (9.6 x 40.4 x 38.6 cm)
Connectors	Four iPASS data probe connectors Extension port (LeCroy Bus) AC power connection PC connection (USB 2.0, GB Enet) External trigger (Trigger IN/OUT, BNC) Break-out board connector
Power Requirements	100-240 VAC, 47-63 Hz (universal Input), 480 W maximum
Environmental Conditions	Operating Range: 0 to 40°C (32 to 104°F), 0 to 90% humidity, non-condensing Storage Range: -10 to 80°C (-4 to 176°F)
Emulation Capabilities	Device Emulation Fixture (end-point emulation) Host Emulation Fixture (Root Complex emulation)
Script Memory Size	4 GB for trace generation, device memory emulation, timing and control information
Host PC Operating Requirements	Operating system: Windows® XP

Product Description	Product Code
PCI Express Summit Z2-8 Exerciser System (up to x8 lane support, includes cables, Device Emulation Card and 1 yr. software maintenance)	PE025AGA-X
PCI Express Summit Z2-8 Exerciser System (up to x8 lane support, includes cables, Host Emulation Platform and 1 yr. software maintenance)	PE026AGA-X
PCI Express Summit Z2-16 Exerciser System (up to x16 lane support, includes cables, Device Emulation Card and 1 yr. software maintenance)	PE027AGA-X
PCI Express Summit Z2-16 Exerciser System (up to x16 lane support, includes cables, Host Emulation Platform and 1 yr. software maintenance)	PE028AGA-X

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