



Summit™ T2-16 Analyzer for PCI Express®

Key Benefits:

- **Find Errors Fast**
 - Uploads faster
 - Records longer
 - Larger memory
 - Better filtering
- **See and Understand the Traffic**
 - Get useful information
 - More choices of data views
 - More ways to analyze data
 - Verification Script Engine included
- **Accurate Data Capture**
 - 100% data capture at all lane widths up to x16
 - 100% data capture at data rates to 5 GT/s
- **Simple Hardware Setup**
 - Easy to connect and use

The Summit T2-16 is LeCroy's highest performance PCI Express® analyzer, and offers advanced features such as: support for PCI Express Spec 2.0; data rates of both 2.5 GT/s and 5 GT/s; full data capture on bidirectional lane widths of x1, x2, x4, x8 and x16; and a full 8 GB of trace memory. The product is ideal for high-performance protocol development for add-in boards, servers and workstations, and for customers currently working on Gen1 applications but with Gen2 on their roadmaps.

The Summit T2-16 Protocol Analyzer is a high-end analyzer that offers new features for Gen2 application development. While sharing application compatibility with the previous analyzer platforms, the Summit can record traces on SSC supported lanes at speeds of 2.5 GT/s and 5 GT/s. Users acquainted with LeCroy's multiple probing accessories will find the right probing required to do the job.

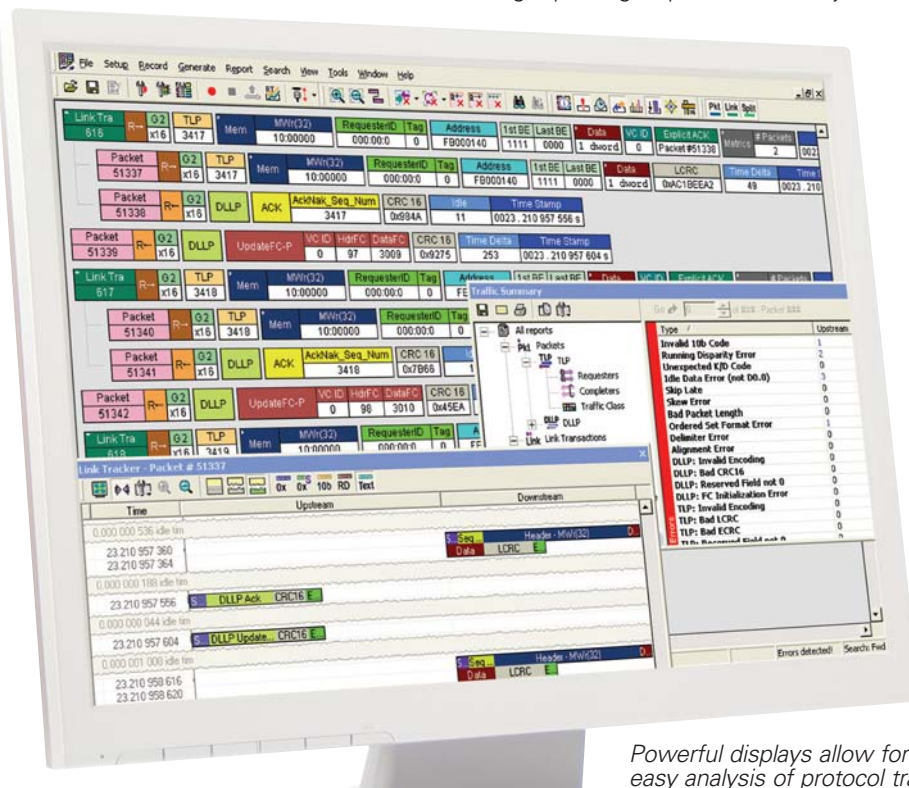


Ideal for development of high-performance graphics cards, servers, and workstations.

The demands of debugging Gen2 speeds require new capability to reduce debugging time and accelerate time-to-market. The new auto sense link feature allows tracing of the complete negotiation sequence for both link width and link speed. Lane swizzling has been added to accommodate specialized or unique board layouts for MidBus connections. Another powerful new feature is recognition of multilink operations where a PCI Express port is bifurcated into narrower links. All events on links can be analyzed in both upstream and downstream directions.

A new BitTracer™ software option records the bytes exactly as they come across the link, allowing debugging of PHY layer problems and combining the features of a logic analyzer format with a decoded protocol analyzer format.

The Summit T2-16 for PCI Express utilizes the CATC Trace™ to assist users in analyzing how PCI Express components work together in diagnosing problems. The interface helps find errors fast by using the powerful triggering, filtering, and error reporting. View meaningful reports about performance and protocol behavior in real time, and post captured traffic. The CATC Trace is a powerful and intuitive expert software system, embedding detailed knowledge of the protocol hierarchy and intricacies as defined in the protocol specification. The CATC Trace utilizes a Windows® based graphical display that has been optimized for fast and easy navigation through a captured traffic session. Users are alerted as violations are



Powerful displays allow for easy analysis of protocol traffic.

detected at all levels of the protocol layering, and can easily drill down to areas of interest or collapse and hide fields that are not relevant. Protocol data can be viewed in several ways from logical to chronological, and by events unique to PCI Express. Know that your data is accurate through CRC rechecking, which produces

reliable and complete decodes of Transaction Layer Packets (TLPs), Data Link Layer Packets (DLLPs), and all primitives for PCI Express for all lane widths. Setting up and taking a trace is simple to do without the worry of extra plugin platforms or complex networking issues.

FEATURES	BENEFITS
Powerful & Intuitive CATC Trace Expert Software	Faster interpretation and debug of PCI Express traffic.
Extensive Decoding	Understand the protocol completely with accurate and reliable decoding of TLPs (Transaction Layer Packets) and DLLPs (Data Link Layer Packets) and all Primitives for PCI Express.
Advanced Triggering/Filtering	Find Errors fast by isolating important traffic, specific errors or data patterns. Understand transactions more clearly by removing non-essential fields from the trace.
Intelligent Reporting	Quickly identify and track error rates, abnormal link or timing conditions, display configuration space, and protocol specification details.
Dword to Transaction Level Viewer	See and understand Symbol, Packet, Link and Split Transaction levels of the PCI Express protocol.
Monitoring and Link Utilization BitTracer Software Option	Troubleshoot throughput, link utilization, and bandwidth issues. Records the bytes as they come across the link. Allows debugging of PHY layer problems. Gives protocol analyzer the best of both worlds; a logic analyzer format and decoded protocol analyzer format.
Auto Sense Link Lane Swizzling	Analyzes all traffic negotiation between two devices of different lane widths. Accommodates specialized or unique board layouts for MidBus connections.
Bifurcated Lane Support	Analyzer supports multilink operations where PCI Express ports are bifurcated into narrower links.
Deep Buffer Recording Capacity	Capture long recording sessions for analysis and problem solving up to 8 GB (4 GB in each direction).
CRC Checking	Know that info being displayed is accurate.
High-speed Interface Ports	No complicated setup required, with 1 Gb/s Ethernet and USB 2.0 ports available.
Downloadable Trace Viewer	Share and annotate trace recordings within a development team.
13 Month Warranty	Protect your investment.

ADDITIONAL FEATURES			
✓ Protocol Hierarchical Display	✓ ZeroTime™ Search	✓ Flow Control Credit Tracking	✓ Expert Graphical Bus Utilization View
✓ Dword View	✓ Header Field Viewer	✓ Automation API	✓ Verification Script Engine
✓ Data Flow View	✓ Config Space Viewer	✓ Expert Recording Buffer Size	✓ Compliance Ready
✓ Trace Navigator	✓ Advanced Hide	✓ Expert Real-time Bus Monitoring	✓ 1 Gb/s Ethernet & USB 2.0
✓ TLP Packet Script Decoding	✓ Timing Calculator	✓ Expert Triggering	✓ Software Updates for 1 Year
✓ Trigger/Filter Control	✓ Performance Metrics	✓ Expert Traffic Summary View	

Ordering Information

Product Description

Product Description	Product Code
Summit T2-16 Gen2 x4 Analyzer	PE028AAA-X
Summit T2-16 Gen2 x8 Analyzer	PE031AAA-X
Summit T2-16 Gen2 x16 Analyzer	PE030AAA-X
Passive and Active x16 Interposer Kit	PE026UIA-X



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