

BusXpert Micro II SAS/SATA Analyzer

DATA SHEET

FEATURES & BENEFITS

- Multiple mechanisms to achieve reliable and accurate link ups
- Record, upload and display up to 12 Gb/s SAS and up to 6 Gb/s SATA traffic in seconds
- Eye-Opener front-end and tunable RX/TX signaling for the industry's most accurate capture
- Available with 4 bidirectional ports and up to 72 GB (planned) of trace buffer; a 2-port version is also available

ADVANTAGES

- Lightweight and compact design for ultra-portability
- Built-in eye diagram display
- Upload and display traces using USB 3.0 or Gigabit Ethernet
- Pre-Indexed traces for faster searching and display
- 500 pico second timestamp resolution capture
- Tunable RX/TX signaling
- Cascade multiple units for time and event based synchronization
- Unique Status LEDs per port

The SerialTek BusXpert Micro II revolutionizes the analysis of devices and systems utilizing the high speed SAS and SATA storage protocols.

With key features found in few other SAS/SATA analyzers, the Micro II is a portable, lightweight unit that supports up to 72 GB (planned) of capture buffer,



Portable: 4.5 lbs
Compact: 7" x 10" x 2"
2-port and 4-port models

hardware accelerated Gigabit Ethernet, pre-indexed and compressed trace data and multiple analysis processors.

It is a 4-port 12 Gb/s analyzer that is also compatible with lower speeds. A 2-port model with an optional 4-port license upgrade is also available. SATA data rates of 3.0 Gb/s and 6.0 Gb/s are supported as are SAS data rates of 3.0 Gb/s, 6.0 Gb/s and 12.0 Gb/s.

The Micro weighs 4.5 lbs (2 kgs), or roughly the same as an average notebook computer; but it has the power and capabilities of analyzers that are much larger. This makes it an ideal tool not only for lab environments, but also for field and support applications.

The analyzer employs next generation high-speed transceivers, providing for accurate and reliable first-time linkup. Two modes of linkup are supported. In addition, the Micro supports optional user calibration controls to assist in linkups with sub-optimal signal integrity conditions.

It features easy to use triggering, pre/post-filtering, textual search and sequence search, and many different displays of the captured traffic. It is available in a variety of configurations to fit specific needs for buffer size, port-count, protocols, and budget.

The Micro provides a variety of powerful traffic displays, with some optimized for different protocol layers, some optimized for time relationships. Some displays correlate directly with the SAS/SATA specifications, and some provide just the user data. All of the views are exportable via CSV and XML. Additionally, some can be exported to HTML. Bookmarks make it easy to add label, notes and comments to specific events in the trace.

The software provides for a new and powerful waveform "eye" display (see figure 1). This is a unique capability, typically found on oscilloscopes, that allows for digital signals to be easily observed in a graphic form. The feature

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permits users to take control over sample rates and display resolution. The graphic in figure 1 shows an actual diagram taken during a capture of the SAS protocol. Eye diagrams are used as an aid in obtaining the optimal signal integrity by graphically showing the effects of varying calibration settings on the received serial data. Eye diagrams may be saved as either an image or a file containing all the data and options needed to reconstruct the eye diagram. Now SAS and SATA engineers not only have the ability to observe the upper layer protocol transactions, but also the lower physical layer information in a single, compact, portable unit.

All SerialTek tools are designed to accurately capture, decode, and analyze high-speed storage and communication traffic. Our solutions help engineers verify, locate, and resolve issues with their product designs. This shortens development and testing cycles, improves product quality, and reduces time to market.

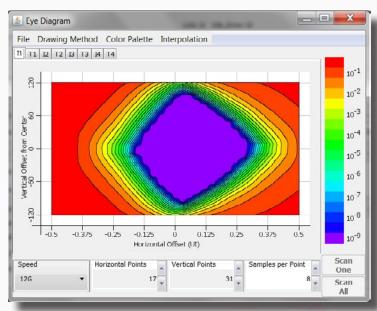


Figure 1: Eye Diagram

Specifications

Number of Ports	2 Port	4 Port
Data Rates Supported	SATA: 3 Gb/s and 6 Gb/s; SAS: 3 Gb/s, 6 Gb/s and 12 Gb/s	
Trace Buffer	Up to 36 GB (planned)	Up to 72 GB (planned)
Front Panel Connectors	Mini-SAS HD (2), Trigger In, Trigger Out (see figure 2)	
Front Panel Controls	Power ON/Off, Manual Trigger	
Front Panel Display	IP address	
Front Panel Status LEDs	Speed, OOB, Link, Frame, 10b Error, Command Status	
Rear Panel Connectors	Power, Ethernet, USB 3.0, Logic Adapter, Cascade (see <i>figure 3</i>)	
Communication Interfaces	GigaBit Ethernet, USB 3.0	
Dimensions	7in (width) x 10.13in (depth) x 2in (height) / 178mm x 257mm x 51mm	
Weight	4.5 lbs; 2 kgs	
Power	19.5V-9.23A; 180W Max Power (External Switching Power Adapter provided by SerialTek)	
Environmental	Operating: 40 Degrees C Max Ambient Temperature	

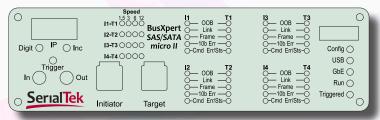


Figure 2: Front View

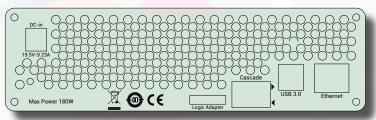


Figure 3: Rear View



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