

Keysight U3055A/U3056A  
SerialTek BusXpert PRO II 12G  
SAS/SATA Analyzer

Data Sheet





## Introduction

For today's SAS and SATA developers and integrators, getting to the root of a problem can be especially difficult when there isn't an obvious trigger condition. Troubleshooting is further complicated by ever-climbing storage capacities, data rates, and protocol complexity. Faster and deeper analyzers are needed to keep up. Traditionally, those needing to capture large amounts of traffic have been faced with limited trace buffers, long waits to view the data, slow searches, and slow saving. SerialTek has overcome the old limitations with the BusXpert Series of SAS/SATA Analyzers. The BusXpert uses advanced technologies such as the industry's first PCI Express x4 uplink to the host (550 MB/s), up to 72 GB of buffer, Hardware Accelerated Gigabit Ethernet, pre-indexed and compressed trace data, multiple analysis processors, and instant display of the captured data. The BusXpert also features easy to use triggering, pre/post-filtering, textual search and sequence search, and many different displays of the captured traffic. It's available in a variety of configurations to fit specific needs for buffer size, port-count, protocols, and budget. The BusXpert breaks free of past analyzer limitations and lets users spend more time on development and debug efforts.

- Record, upload, and display up to 12 Gb/s SAS and up to 6 Gb/s SATA traffic in seconds with either Gigabit Ethernet or PCI Express
- Eye-Opener front-end, Tunable RX/TX signaling, and 500 ps timestamp resolution for industry's most accurate capture
- Lightweight and compact design for ultra-portability
- 4 bi-directional ports and up to 72 GB trace buffer

## Unparalleled Performance

- Upload and display traces using
  - PCI Express > 550 MB/s
  - Gigabit Ethernet > 70 MB/s
  - Pre-Indexed Trace for faster searching and display
  - InstaSearch technology

## Accurate Capture

- 500 pico second Timestamp Resolution
- Eye-Opener front end
- Tunable RX/TX signaling

## Convenient Design

- Up to 72 GB of trace buffer
- Lightweight and compact
- Cascade multiple units for time and event based synchronization
- 7 unique Status LEDs per port

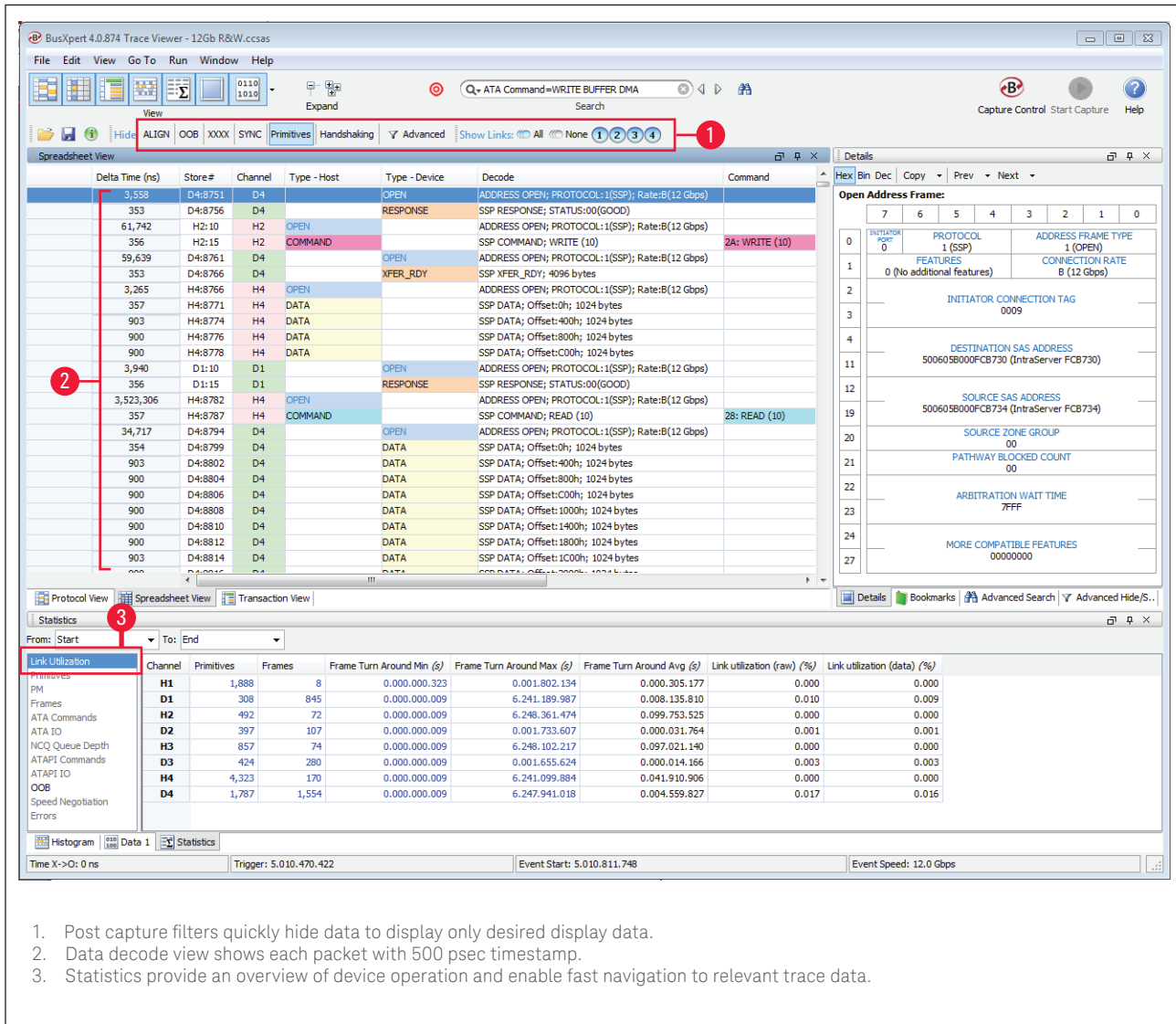


Figure 1. 12 Gbps SAS Read/Write with primitives filtered from display data.

## Configurations and Part Numbers

The BusXpert PRO and Micro series are available in several different configurations.

Part	Description
U3055A	BusXpert Pro II Analyzer 4 port, 12 Gbps SAS and 6 Gbps SATA
- 001	- 9 GB capture memory
- 002	- 18 GB capture memory
- 003	- 36 GB capture memory
U3056A	BusXpert Pro II Analyzer; 4 port, 12 Gbps SAS and 6 Gbps SATA; includes 72 GB capture memory

## System Requirements

To get the best performance out of your BusXpert Analyzer, we recommend the following systems:

- Minimum configuration: 1.5 GHz Celeron or AMD equivalent processor, 1 GB of Memory, Gigabit Ethernet and/or USB, Graphics capable of supporting 1024x768
- Recommended Configuration: 2.8 GHz or greater dual-core processor, 3 GB or greater of 1.3 GHz FSB memory, PCIe x4 or ExpressCard slot, Graphics capable of supporting 1920x1200 or greater

BusXpert software is compatible with Windows XP and Windows Vista, Windows 7 32 and 64-bit platforms. BusXpert is also compatible with Linux: Ubuntu, Fedora, and RedHat/CentOS.

BusXpert requires minimum of 90 MB for installation. Additional disk space is recommended for storing traces.

## Additional features

- XML based decoding
- Easy definition of custom decodes
- Normal and aggressive primitive compression
- Status LEDs for
  - SPD
  - OOB
  - Link
  - Frame
  - 10b Err
  - Command
  - Err Sts
- Up to 8 simultaneous trigger sequencers
- Post filtering/hiding
- Trace export to CSV, HTML, XML
- Live SAS address table
- API
- Live/post performance analysis

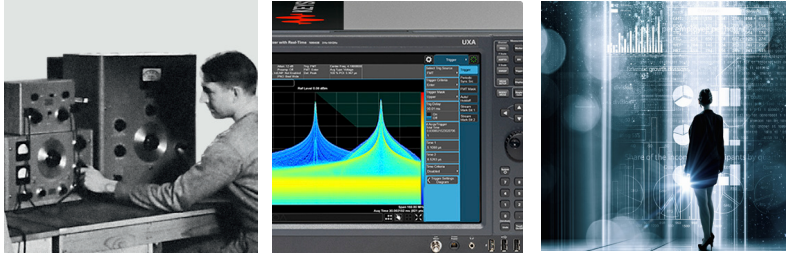
## Specifications

- 100 to 240 VAC 50 to 60Hz
- 200 W max power
- 40 Deg C max ambient temperature
- 10" x 14" x 3.5"

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