BusXpert Logic Adapter with DEVSLP
DATA SHEET

FEATURES & BENEFITS

- Simultaneous Serial and Logic Analysis
- 24 Logic Inputs per Adapter
- Adjustable Voltage Threshold
- Works with BusXpert Analyzer and Software
- Self-contained with Built-in Universal Power Supply
- Ideal for Storage Developers and Manufacturers; Controller Chip Designers, Firmware and Software Developers; Field Applications and Support

ADVANTAGES

- Built-in support for the SATA DEVSLP (Device Sleep) signal
- Support is integrated into BusXpert Software
- Allows BusXpert Analyzer to trigger on any combination of logic and/or serial data

The BusXpert Logic Adapter serializes and transmits 24 logic signals to a BusXpert analyzer, enabling capture of both logic signals and serial data simultaneously. The BusXpert Software displays the captured logic signals and serial protocol side-by-side, making it easy to view the timing relationship between them. The Logic Adapter transmits the serialized logic to the analyzer initiator port via a standard SATA cable, or to the target port via a SATA crossover cable. The BusXpert Analyzer can trigger on any combination of logic and/or serial data.

The logic adapter's input signals are organized into three groups of eight signals (23-16, 15-8, and 7-0). The threshold voltage for each group can be set by the user. Available voltage thresholds are: 0.9, 1.0, 1.1, 1.2, 1.4, 1.7, 2.0, and 2.5 volts. Each Logic Adapter group has a separate ground pin for improved signal integrity.

The BusXpert Logic Adapter has built-in support for the SATA DEVSLP (Device Sleep) signal, which is defined in the SATA specification and used to place drives into an extreme low-power state. The DEVSLP signal itself is a slowly rising active-high signal that is assigned to a previously unused pin in the SATA power connector. The BusXpert Logic Adapter assigns input channel 23 to the DEVSLP signal, however users may reassign the signal for their own purposes. Special circuitry ensures that the slow rise of the DEVSLP signal will not cause false triggers.

Support for the BusXpert Logic Adapter is integrated into the SerialTek BusXpert Software. Logic signals may be used in the trigger sequencer as individual signals or combinations of signals. BusXpert trace view features can operate on the displayed logic signals including, display options, search and advanced search, hiding and advanced hiding. Delta times are shown between logic signals and serial events. Please refer to *figure 1* for an example of a typical configuration.

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.
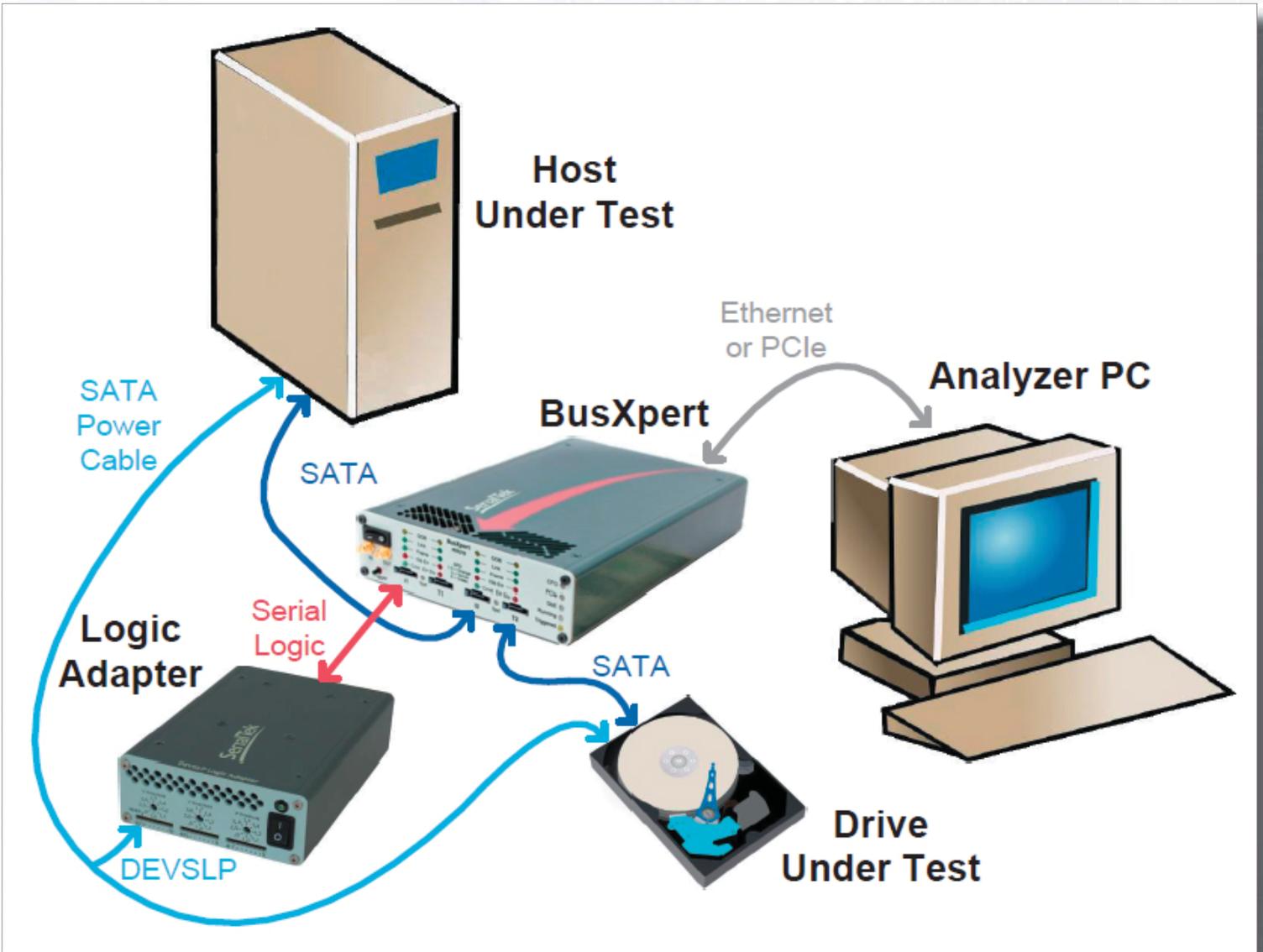
Figure 1: Sample Configuration

Specifications

Maximum Input Voltage	6.0V
Input Sample Frequency	75 MHz
Minimum Input Pulse Width	13.5 ns
Power	100-240VAC 50-60Hz
Dimensions	4.25 inches/3.2 cms (width) x 6.25 inches/10.8 cms (depth) x 1.25 inches/15.9 cms (height)
Environmental	Operating: 40 Degrees C Max Ambient Temperature
Protocol Analyzer Requirements	BusXpert Micro, Micro II, Pro or Pro II Analyzer (2-port minimum)

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