Data Sheet

VIAVI
Xgig Protocol Analysis Platform for 6Gbps SAS and SATA

VIAVI Solutions

VIAVI Solutions Xgig® 6-Gbps, 8-port Protocol Analyzer platform, the Xgig1K-0608, is a powerful monitoring and analysis tool for Serial Attached SCSI (SAS) applications and Serial ATA protocols. The system offers complete visibility into traffic flows with advanced trace capture and analysis capabilities. This multi-purpose, multi-protocol tool helps users overcome high-speed serial design challenges and accelerate development of today's storage components, storage subsystems, and Storage Area Networks (SAN).

The Xgig1K-0608 can help significantly reduce the time-to market of IC hardware development projects, firmware engineering, HDD and SSD engineering, storage server and JBOD design, the associated driver and software development, as well as new product validation.

This product provides SAS, STP and SATA Analyzer functions, as well as SAS Generator and Jammer (error injector) functions. It supports operations at 6- and 3- Gbps data rates.

Key Features

- Protocol-aware analysis for SAS, STP and SATA data
- Fully integrated, stand-alone system with multiple functions (Analyzer, Generator, Jammer)
- 6– and 3-Gbps operation
- Full, real-time line rate capture
- Supports SAS Generator and Jammer (error injector) functions
- Large trace buffer: 32GB memory
- Memory segmentation for capture of multiple traces
- Analog pass-through for minimum effect on signal integrity
- Spread-Spectrum Clock (SSC) support
- Rx/Tx tuning support
- Optical and active cable support
- Power supply 100 to 240 V, 50 to 60 Hz
- Power consumption 200 W maximum
- Weight: 13 lbs
- Size: 9.5 x 14 x 3.5 inches (width, depth, height)
- Supported by VIAVI Xgig Tools; Trace Control, Trace View, Expert™ and Maestro™

Key Benefits

- Quick debugging with the industry's most powerful trace analysis and advanced monitoring tools
- Accelerates development through patented search and filtering capabilities
- Automates troubleshooting with advanced scripting and capture capabilities
- Eliminates cabling complexity using native Mini-SAS HD Connector Interfaces
- Multiple analyzer traces can be time synchronized for expanded system view, up to 32 ports
- Data traces can be time synchronized with other Xgig protocol analyzers (ex: PCIe, Ethernet)

Applications

The VIAVI Xgig 6-Gbps SAS/SATA Analyzer is a versatile, solution for monitoring and analyzing live traffic between host and target device at every segment of a storage network. The unit has a small bench footprint and is light weight for easy portability. This chassis provides dual mini-SAS HD receptacles, allowing bidirectional analysis of single and wide-port SAS links.

This Analyzer provides 32GB of data trace memory capacity with flexible allocation to each of the 8 physical ports. Having four configurable function blocks and extensive routing capabilities many physical test configurations are possible as indicated in the first figure.

Comprehensive Protocol Support

The Xgig-0608 Analyzer graphically shows SAS out of-band (OOB) sequences, including COMWAKE, COMRESET, COMINIT, and COMSAS. This enables users to verify that both the host and device under test are performing OOB signaling as expected.
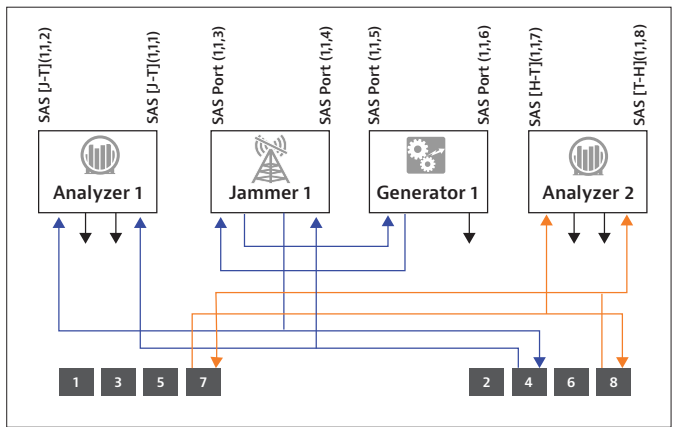
Advanced Automation

Many design tests and troubleshooting procedures involve complicated, repetitive processes. With both GUI and API options available, users can define scripts from simple commands to complex regression test libraries, enabling automation of the extensive capabilities the Xgig 1K family offers.
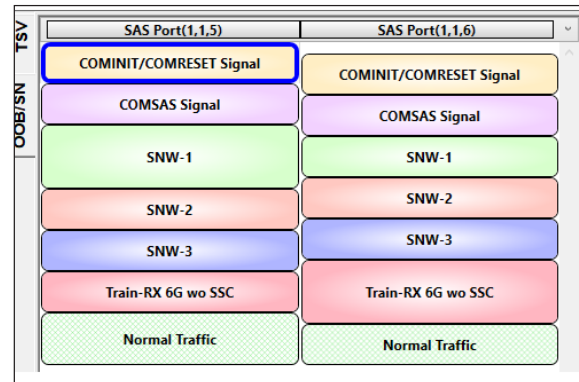
Synchronization and Sharing

The ability to cascade up to four Xgig 1K chassis lets users form synch groups, bringing together up to 32 time-synchronized SAS/ SATA ports.

Supported by Xgig Tools

The Xgig tool suite provides detailed control of the trace capture and triggering and filtering. Traces can be displayed as a time list data table or graphically, while the Expert™ software scans for thousands of error types to help quickly identify and fix problems.

Dual testing configuration (G-J-A, A)

Graphical OOB Sequences

Kit Contents

Item	Description	Qty
1	Xgig1K-0608, 6Gbps, 8-port, SAS/SAS platform	1
2	Mechanical accessory kit	1
3	Power cord, pluggable	1
4	Quick Start Guide	1

Ordering Information

Part Number	Description
Xgig1K-0608	8-port 6Gbps SAS/SATA Platform Chassis
Xgig1k-0608-AN	8-port 6Gbps SAS/SATA Analyzer License
Xgig1k-0604-AN	4-port 6Gbps SAS/SATA Analyzer License
Xgig1k-0602-AN	2-port 6Gbps SAS/SATA Analyzer License
Xgig1k-0604-GS	4-port 6Gbps SAS Generator License
Xgig1k-0602-GS	2-port 6Gbps SAS Generator License
Xgig1k-0602-JS	2-port 6Gbps SAS Jammer License
Xgig1K-0608-H1	1-year extended hardware warranty
Xgig1K-0608-M1	1-year extended software maintenance

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