VIAVI Solutions

Data Sheet

VIAVI
Xgig Jammer – SAS/SATA Error Injection to 6 Gb/s

Don't Just Guess — Know It Will Work

With the VIAVI Solutions Xgig® Jammer, product developers and testers can manipulate traffic on a network to simulate (inject) errors in real time, and verify that the recovery process operates as expected. With Jammer, users can know that Fibre Channel, SAS/ SATA and Gigabit Ethernet networks recover from all error conditions without data loss or corruption.

The Xgig Jammer normally acts as a digital pass-through device passing network traffic (figure 1). However, when it encounters a user-defined event (trigger condition) within network traffic, it replaces the trigger contents with new information provided by the user.

For example, replacing one payload word's contents within a frame with a code violation simulates a common error condition – a bit error (figure 2). This same error, applied to all the payload's words, can force another commonly tested condition – loss of signal. With Jammer's possibilities, testing "what if" is only limited by your imagination.

Key Features

- Support for 6.0 Gb/s SAS and SATA (including SMP and STP)
- Also supports 1, 2, 4 and 8 Gb/s Fibre Channel, 1 Gb/s Ethernet, 1.5 & 3.0 Gb/s SAS/SATA (including SMP and STP)
- Improved Maestro User-Interface for Configuration and Management of Jammer Functions
- Modify Bits, Bytes and Words or Delete a Frame
- Pass, Overwrite or Recalculate the CRC

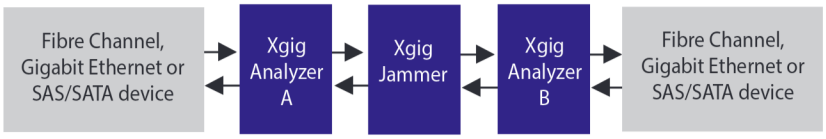

Figure 1

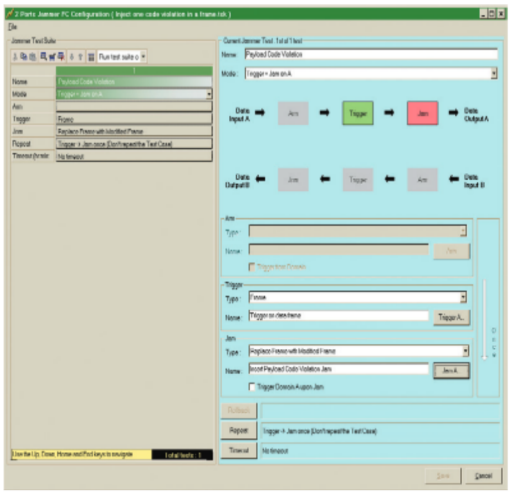

Figure 2

New for Release 2.9

- Supports 6.0 Gb/s SAS and SATA (including SMP and STP)
- Updated Maestro multi-application framework user interface (figure 3)

General Features

- Execute multiple jam tests from a test stack
- Triggers shared with other Xgig devices in the same Xgig domain
- Allows forcing of link to either SAS or SATA
- Allows forcing of link to either 1.5, 3, or 6 Gb/s
- Controllable out-of-band (OOB) and speed negotiation

Event Modifications

The following list details the events on which the Jammer can operate. (Events can be ordered sets, frames, or primitives.)

Primitives and Ordered Set Modification

- Replace an ordered set/primitive with another ordered set or primitive, or corrupt it with errors
- Replace a sequence of ordered sets/primitives ("Zero Delay" operation)

Frame and Packet Modification

- Any word in a frame or packet may be replaced by a user-defined value or changed randomly
- Frames or packets may be truncated, or replaced with idles
- CRC and the IP and TCP checksums may be corrected, creating a valid frame or packet
- SOP, SFD, EOP and Carrier Extend (Gigabit Ethernet packets) may be modified or replaced

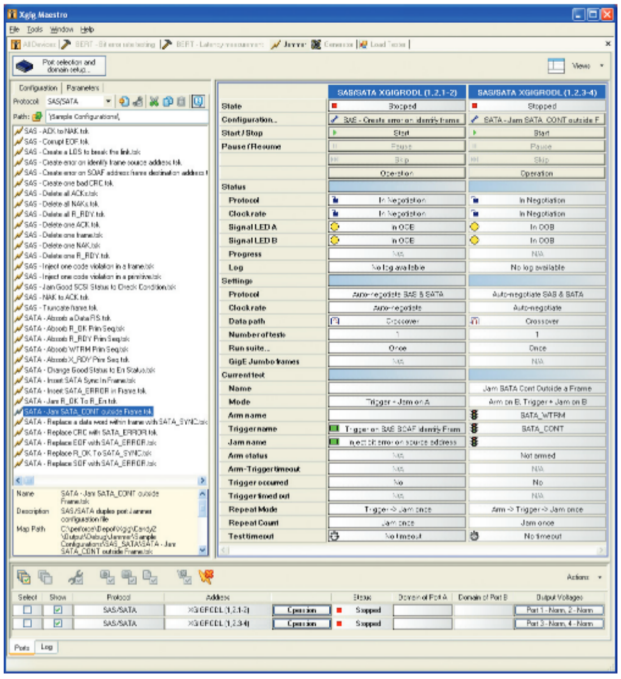

Figure 3

Part Numbers	
Blade:	Xgig-B860SA (2x Wide-Port (8-port) SAS/SATA Blade)
Development Software Options (licensable per port pair):	
Xgig-S26JS	Wide-Port 6Gb/s SAS/SATA Jammer Function Key (2 ports / 1 link)
Xgig-S46JS	Wide-Port 6Gb/s SAS/SATA Jammer Function Key (4 ports / 2 links)
Xgig-S86JS	Wide-Port 6Gb/s SAS/SATA Jammer Function Key (8 ports / 4 links)

VIAVI Solutions

Contact Us **+1 844 GO VIAVI**
(+1 844 468 4284)

To reach the VIAVI office nearest you,
visit viavisolutions.com/contact

xgigjammer6g-ds-san-tm-ae
30162776 901 1119