DATA SHEET

XGIG BERT 1.1

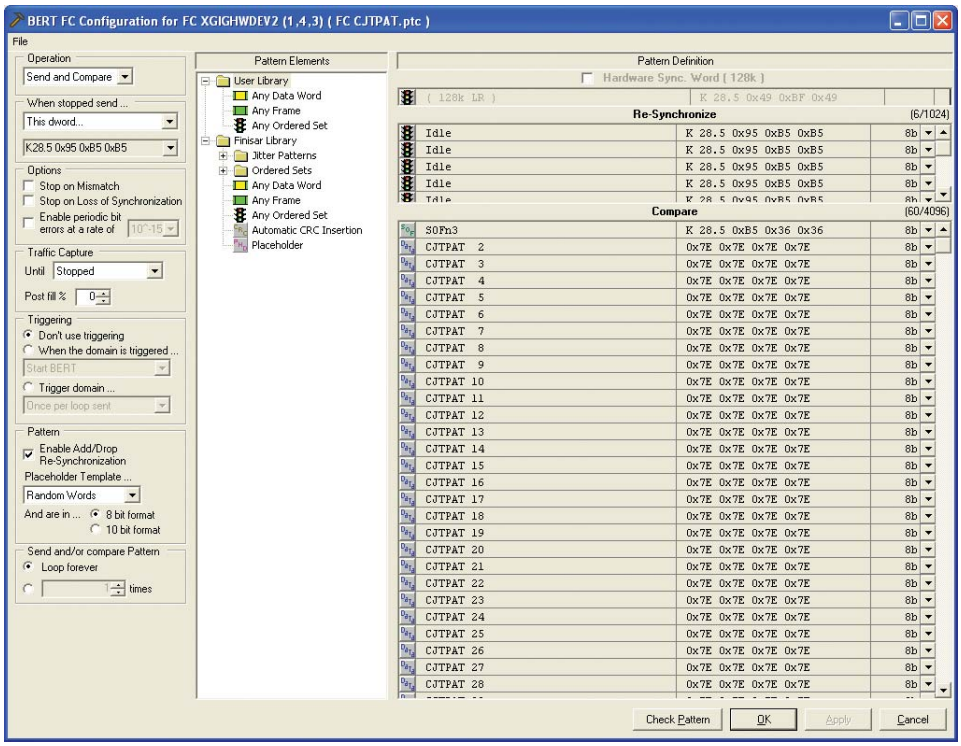
BENEFITS

- Sends, Receives, and Compares Data Bit-by-Bit to Calculate BER
- Tests DWDM Rings & Other MAN Transport Channels
- Proves Data Integrity Using Industry Standard
- Stresses Fibre Channel and GigE Equipment
- Allows Protocol Aware Bit Error Rate Testing
- Verifies Data Across Re-timers, Multiplexers & Repeaters
- Sets Up & Executes easily in Field Test Mode
- Provides Flexibility for Creating User-Defined & Illegal Data Patterns in Laboratory Test Mode
- Supports line rates of up to 4 Gb/s

Verifying data integrity is key to insuring the performance and reliability of Gigabit-rate networks and systems.

Physical layer testing requires worst-case data loading and bit-by-bit data checking with results presented in an industry accepted format. The Xgig BERT verifies data integrity by sending industry-standard worst-case bit patterns through network devices. These bit patterns are designed to stress the physical layer of the system, with patterns specifically developed to check frequency response, data dependencies and network interface components. With bit-by-bit comparison, any difference between the transmitted and received data is detected, counted and captured for additional analysis. Unique data patterns can be created to meet special test requirements.

The Xgig BERTs is "protocol aware" for Gigabit Ethernet and Fibre Channel. The unit recognizes data modifications allowed by devices on the link, such as add/drop, and does not report them as errors. It can also greatly reduce manufacturing test times for test hubs, host bus adapters, Fibre Channel RAIDs, and other active or passive devices by stressing all of the components in the data path. Eliminate the hours of test time looking for a data-dependent error which happens only rarely in a normal traffic stream.



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The Xgig BERT is an excellent tool for verifying system data integrity during the installation of a DWDM or CWDM ring. It can then be used by field engineers as part of a preventative maintenance program. Just connect the Xgig BERT to a Fibre Channel or Gigabit Ethernet port and set the ring to loopback the data if possible. If the ring requires a "head-to-head" test, then connect a second Xgig BERT at another node on the ring. Then run the industry-standard test patterns. To meet GigE and Fibre Channel standards, the result must be a Bit Error Rate of less than 10^{-12}.

If errors are detected at the system level, use the Xgig BERT to test individual cables and components and isolate the failing device. The multi-protocol Xgig Analyzer for Fibre Channel and Gigabit Ethernet, in combination with the Xgig BERT or standalone, is very useful for troubleshooting and verification.

The Xgig BERT can test the physical layer, re-timing and bypass circuitry in a Fibre Channel device. The device can be exercised with data generated at the maximum rate. The physical layer can be stressed with data to check for pattern sensitivities and noise. Data re-timers can be exercised for bit sensitivity. The power supply and distribution can be checked with patterns that toggle bits on the link and in memory at the maximum rate. The Xgig BERT can also test error detection or correction circuitry by creating custom patterns with illegal characters.

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