SmartMetrics™ Fibre Channel Modules
FBC-3601A/FBC-3602A

Product Overview

SmartBits® FBC-3601A and FBC-3602A SmartMetrics™ Fibre Channel modules allow SAN equipment manufacturers, storage system vendors, Storage Service Providers (SSPs), IT managers, and test labs to categorize the true performance, reliability, and quality of Fibre Channel-based SAN equipment and fabrics. The FBC-3601A/3602A modules greatly simplify the testing process by emulating hundreds of attached devices such as servers, storage systems, and switches, thereby eliminating the need for large, complex test environments.

The wire-rate packet generation and analysis capabilities of the FBC-3601A/3602A allow stress testing of devices and fabrics to determine if they operate correctly under heavy traffic conditions. Repeatable and sophisticated traffic generation capabilities provide a high level of testing accuracy and granularity. The modules test devices and networks by generating hundreds of streams of Fibre Channel traffic from many simulated devices. Quality of Service (QoS) metrics are analyzed on streams to determine the actual performance of Fibre Channel switches, hubs, and fabrics.

A variety of SmartBits software applications are available for use with the FBC-3601A/3602A modules. These applications unleash the vast capabilities of the modules and make it easy to set up and run a complete range of performance tests. The software applications, teamed with the FBC-3601A/3602A modules, allow users to perform data plane and control plane testing across F-, FL-, and E-ports. The modules' ability to emulate hundreds of end-devices and switches save users hours of test time and greatly improve test reliability and repeatability. All test functionalities provided by the FBC-3601A/3602A are also available by using SmartBits SmartLibrary™ programming library or SmartBits Automation™, which both support test case automation, using a variety of popular programming languages, including C, C++, or Tcl.

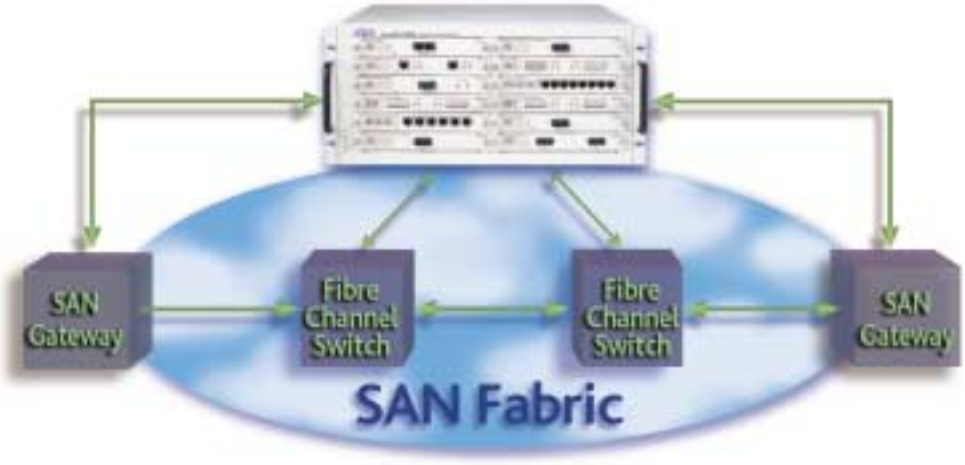
The FBC-3601A/3602A modules can save time and money for anyone involved in the development, quality assurance, manufacture, or deployment of Fibre Channel devices and SANs. Users can reap these benefits since the modules test the maximum performance of Fibre Channel devices and SANs in controlled configurations.

Primary Applications

- Evaluate key performance characteristics of Fibre Channel-based SAN switches, routers, hubs, and bridges under typical or extreme traffic load conditions.
- Qualify products during development, quality assurance, final regression, and manufacturing.
- Perform comparative analysis of SAN products and re-qualify devices after hardware or firmware upgrades.
- Analyze performance under many traffic conditions, both legal and illegal, with easy-to- customize traffic generation parameters.

Key Benefits

- Saves money by eliminating the need for expensive servers, storage devices, and switches to create a high traffic, stressful, test environment.
- Increases testing productivity by reducing test setup time and the time spent troubleshooting test devices, and by providing repeatable tests.
- Increases the quality of testing by generating full wire-rate traffic and hundreds of streams per port.



Fibre Channel applications

Spirent Communications
26750 Agoura Road
Calabasas, CA
91302 USA
E-mail: productinfo
@spirentcom.com

Sales Contacts:
North America
+1 800-927-2660
Europe, Middle East, Africa
+33-1-6137-2250
Asia Pacific
+852-2511-3822
All Other Regions
+1 818-676-2683

www.spirentcom.com

SPIRENT Communications

Analyze | Assure | Accelerate™

Key Features

- Full line-rate traffic generation and analysis at 1 Gbps (FBC-3601A) and 1 and 2 Gbps (FBC-3602A).
- Generate up to 512 independent data streams and analyze up to 64K streams at any given time.
- Simulate an entire network of end-devices and switches.
- Stress F-ports, FL-ports, and E-ports of Fibre Channel switches.
- Support Point-to-Point and Loop (public and private) modes.
- Perform loop initialization, fabric login, and name server registration for one or many devices.
- Emulate up to 126 source devices on a loop.
- Support per-stream payload and frame size (4 to 16 KB) settings and per-port transmission mode control settings (continuous, single-burst, multi-burst, continuous multi-burst, and echo).
- Real-life traffic shaping through random frame length, inter-frame gap, and frame content settings.
- Arbitrary stream sequencing enables the mixing of various frame rates.
- Per-port statistics provide counters for transmitted frames, received frames, received bytes, and received CRC errors.
- A 16MB capture buffer enables the logging and exporting of filtered events to external protocol analysis equipment.
- Full SmartMetrics testing capabilities include sequence tracking per stream, latency over time, latency per stream, and latency variation.
- Verify payload data integrity.
- Each FBC-3601A and FBC-3602A module supports two Fibre Channel ports for use in the SmartBits 600, 6000B, and 6000C chassis. Ports are completely independent in operation. Up to 12 modules may be installed in the high-density SmartBits 6000B/6000C chassis and two modules may be used in the portable SmartBits 600 chassis.
- An industry standard GBIC interface allows users to change the physical interface connector.

Interface Specifications

- Two independent ports per FBC-3601A/3602A SmartMetrics module.
- Line Rate: 1 and 2 Gbps (FBC-3602A); 1 Gbps (FBC-3601A).
- GBIC Interface: GBIC is an industry standard interface that allows users to change the physical interface connector.

Supported Applications

- FaST Connect™
- SAN Routing Tester™
- SmartBits Automation
- SmartFabric™
- SmartLibrary
- SmartWindow™
- Spirent Connect™

Additional applications will be made available on an ongoing basis.

Requirements

- The FBC-3601A and FBC-3602A each require one open slot in a SmartBits 600, 6000B, or 6000C chassis.
- An IBM or compatible Pentium™ PC computer running Windows 98/2000/NT, with mouse and color monitor.

Ordering Information

FBC-3601A

1G Fibre Channel, 2-port, SmartMetrics module

FBC-3602A

1G and 2G Fibre Channel, 2-port, SmartMetrics module

SUS-SMB

12-month Software Update Support Service (includes firmware support)

FBC-3602A

Spirent Communications
26750 Agoura Road
Calabasas, CA
91302 USA
E-mail: productinfo
@spirentcom.com

Sales Contacts:
North America
+1 800-927-2660
Europe, Middle East, Africa
+33-1-6137-2250
Asia Pacific
+852-2511-3822
All Other Regions
+1 818-676-2683

www.spirentcom.com

360-1036-001 Rev D, 8/03