Product Overview

AST II is Spirent Communications' second generation of Advanced Switch Tests (AST). AST II is fully automated, contains an enhanced GUI with real-time graphing, is fully scalable, and supports the SmartBits® 200/2000 and 600x/6000x chassis.

AST II is based on RFC 2285, Benchmarking Terminology for LAN Switching Devices, and RFC 2889, Benchmarking Methodology for LAN Switching Devices. AST II is considered the TRUE first-level benchmark for all switches.

Features

- Supports multiple chassis, GPS, and NTP.
- Supports multi-user operation.
- Supports up to 1,024 ports and 256 addresses per port.
- Supports multiple 10/100/1000 Mbps Ethernet SmartCards/modules (within the same test).
- Generates graphical results that can be exported to HTML.
- Provides sample scripts and C code.
- Contains user-configurable test duration, burst size, frame size, and frame rate.
- Includes profile and search mode for frame rates.
- Supports Ethernet II and IEEE 802.3 Ethernet frame types.

- Supports VLANs.
- Supports port mirroring and flooding detection.
- Contains a built-in interburst gap calculator.
- Contains an email option upon test completion.
- Supports autonegotiation and flow control.
- Supports optional IP header with editable source/destination IP addresses, TTL, and ToS fields.

Test Descriptions

Forwarding

Determines the forwarding performance of the device under test, as well as the device's frame loss, frame rate, and throughput. Supports full-mesh, partial mesh, and non-mesh traffic patterns.

Congestion Control

Determines the effect of a congested port on a non-congested port, otherwise known as Head of Line Blocking. Measures and graphs the frame loss and frame rate of both the non-congested and congested ports.

Address Learning Rate

Determines the rate at which a device can learn addresses without flooding. Measures the percentage of learned frames and determines the rate at which all addresses are learned.
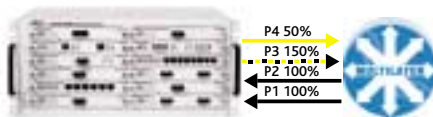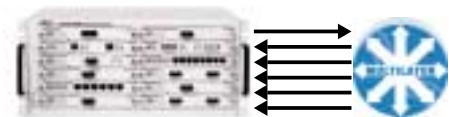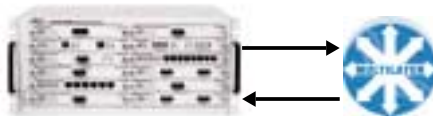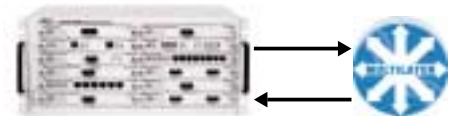
Full Mesh Forwarding

Error Filtering

Head of Line Blocking

P4 50%
P3 150%
P2 100%
P1 100%

Broadcast Forwarding/Latency

Address Learning/Rate

Forward Pressure

AST II test applications

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Address Caching

Determines the address caching capacity of the device under test. Measures the percent of addresses learned at a given rate.

Error Filtering

Determines the device's ability to handle errors. Errors include CRC, oversized, undersized, VLAN oversized, alignment, and dribble bit errors.

Broadcast Forwarding

Determines the device's ability to forward broadcast traffic by measuring frame loss and throughput. Users can set up multiple source ports, receiver ports, and monitor ports.

Broadcast Latency

Determines the latency of the broadcast traffic. Users can set up only one source port but can assign multiple receiver ports.

Forward Pressure

Determines the device's ability to handle forward pressure. Measures the number of frames received versus the number frames expected.

*Note: Consult Spirent Communications for details regarding SmartBits SmartCards and modules that comply with RFC 2889 test methodologies.
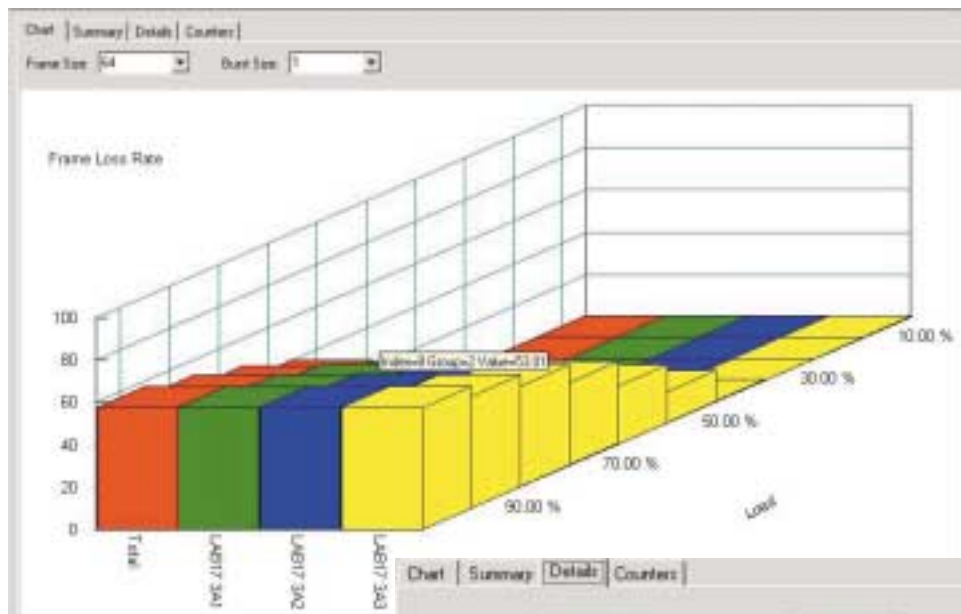
Requirements

- A SmartBits 200/2000 or SmartBits 600x/6000x chassis with the appropriate modules.
- An IBM or compatible Pentium™ PC running Windows® 2000/NT/XP, with mouse and color monitor.

Ordering Information

SWF-1218A

AST II

Spirent Communications offers a variety of ServiceEdge™ maintenance and support packages. For more information, visit the Spirent website at www.spirentcom.com or contact your Spirent sales representative

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