



# Industry Standard Network Performance Analysis System

# SmartBits<sup>®</sup> 2000

## Product Overview

Spirent Communications' SmartBits 2000 (SMB-2000) has become the industry standard for measuring the performance limits of everything from an emerging technology in a development lab to the largest enterprise network. The SMB-2000 is widely used to test a variety of network devices and complex network configurations, including 10/100 Mbps Ethernet, Gigabit Ethernet, ATM, and Frame Relay.

Each SMB-2000 chassis can be configured with any combination of up to 20 single-port SmartCards. SMB-2000 test systems are completely scalable and may be grouped to support 640 ports with local or remote control over the Internet.

## The SMB-2000 is Designed for:

- Network Equipment Manufacturers: Perform comprehensive performance analysis for engineering, production, and QA testing.
- Evaluation Labs: Test and certify different devices from various manufacturers to benchmark their performance.
- Telcos and ISPs: Perform end-to-end testing to check for trouble spots and weaknesses.
- Enterprise Users: Test end-to-end performance to monitor throughput and prevent overload.

## SMB-2000 Features

- Accommodates a comprehensive set of powerful, technology-based SmartCards for Ethernet, ATM, and Frame Relay.
- Bundled with three PC-based software applications for comprehensive performance analysis (SmartWindow<sup>™</sup>, SmartLib<sup>™</sup>, and SmartApplications<sup>™</sup>).

- Supports a 10 Mbps Ethernet connection to a host PC.
- Provides remote control through the Internet. Can also be controlled via an RS-232 port.
- Provides GPS Support. You can remotely synchronize the timing mechanism of multiple chassis by using the external GPS kit. This allows accurate measurement of one-way latency and jitter, 100-ns accuracy time stamps, and system start/stop.
- One workstation can control up to eight SmartBits stacks (32 chassis with a total of 640 ports) via SmartLib.
- Multiple users can simultaneously access the SMB-2000.
- Includes RJ-45 expansion-in and expansion-out jacks. Accepts external 10 MHz clock signals.
- Up to 512 chassis can be synchronously connected by using SmartBits multi-chassis extension units.

## Supported Applications

- AST II<sup>™</sup>
- SmartApplications<sup>™</sup>
- SmartCableModem Test<sup>™</sup>
- SmartFlow<sup>™</sup>
- SmartLib<sup>™</sup> Programming Library
- SmartMulticastIP<sup>™</sup>
- SmartSignaling<sup>™</sup>
- SmartTCP<sup>™</sup>
- SmartVoIPQoS<sup>™</sup>
- SmartWindow<sup>™</sup>
- SmartxDSL<sup>™</sup>
- Turn Up Connect<sup>™</sup>
- VAST<sup>™</sup>

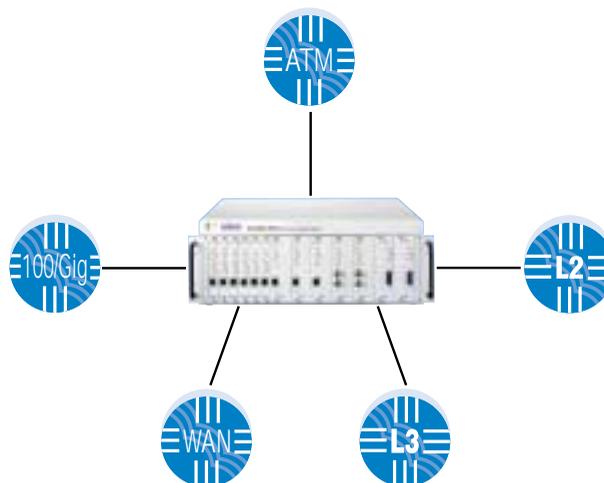
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SMB-2000 test applications

## Supported SmartCards

Select up to 20 of the following SmartCards, in any combination, to fill the SMB-2000's 20 chassis slots. Most SmartCards require one chassis slot; ATM and Gigabit Ethernet Smart- Cards require two chassis slots each.

SmartCard	Description
AT-9xxx	ATM 1-port SmartCards (OC-3c/STM-1, OC-12c/STM-4, DS3, E1, E3, DS1, 25 Mbps)
GX-1405B	1000Base-SX Ethernet, 1-port, multi-mode, 850nm
GX-1405Bs	1000Base-LX Ethernet, 1-port, single mode, 1310nm
GX-1420B	100/1000Base Ethernet, Copper, 1-port
GX-1421A	100/1000Base-T Ethernet, GMII/MII, 1-port
ML-5710A	10Base-T Ethernet/USB, 2-port, SmartMetrics
ML-7710	10/100Base-TX Ethernet, 1-port, SmartMetrics
ML-7711/7711s	100Base-FX Ethernet, 1-port, multi-mode/single mode, SmartMetrics
SX-7210	10/100Base-TX Ethernet, MII, 1-port
SX-7410B	10/100Base-TX Ethernet, 1-port
SX-7411	100Base-FX Ethernet, 1-port
WN-3405	WAN V.35, 6/8 Mbps, Frame Relay/PPP, 1-port, SmartMetrics
WN-3415	WAN T1/FT1, Frame Relay/PPP, 1-port, SmartMetrics
WN-3420A	WAN E1/FT1, Frame Relay/PPP, 1-port, SmartMetrics
WN-3441A	WAN T1 Frame Relay/PPP, channelized 4-port, SmartMetrics
WN-3442A	WAN E1 Frame Relay/PPP, channelized 4-port, SmartMetrics
WN-3445A	WAN DS3 Frame Relay/PPP, 1-port, SmartMetrics

## Requirements

- One SMB-2000 chassis and SmartCards to support the required tests.
- One Ethernet cable and one 10/100 Ethernet card installed in the PC.
- An IBM or compatible Pentium™ PC running Windows 98/2000/NT, with mouse and color monitor.

## Specifications

- SmartBits chassis with 20 SmartCard slots. Controllable over the Internet or from a PC equipped with SmartWindow.
- Includes a 19" rackmount.
- Input Power: 90-264 VAC. Nominal 115 or 230 VAC, 47-63 Hz.
- Dimensions: 19"W x 6.75"H x 15"D (48.3W x 17.2H x 38.1D cm).
- Weight: 27 lbs. (12 kg) fully-loaded. Shipping weight approximately 30 lbs. (13.5 kg).
- Operating environment: 59° to 104° F (15° to 40° C); 20 to 80% relative humidity. Must have space for unimpeded airflow into the fans at the side of the chassis.
- Local stacks must be located within 1 meter of each other.

## Ordering Information

### SMB-2000

SmartBits 2000 (includes SmartWindow, SmartLib, and SmartApplications)

### SUS-SMB

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



SMB-2000

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