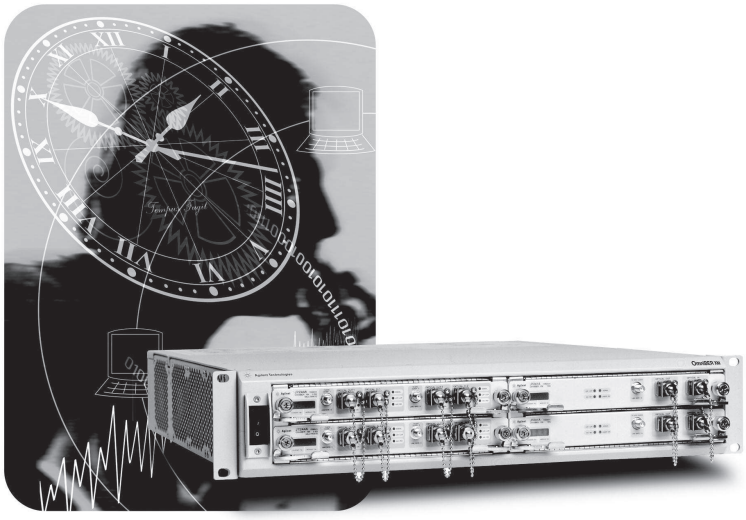
OmniBER XM network simulator J7263A 4-slot chassis

Technical overview



OmniBER XM network simulator — a fast and flexible solution that redefines system verification test (SVT) for next-generation SONET/SDH and metro network equipment.

Agilent Technologies

The OmniBER XM network simulator's multi-channel, multi-port, multi-rate and multi-user capabilities enable NEMs to redefine test strategies, maximize test coverage, and speed system verification and production test. This significantly accelerates time to market. And for operators XM provides the opportunity for faster and more thorough acceptance testing.

Product features

2U rack-mountable chassis capable of holding up to 4 test cards

The chassis provides a small, flexible platform that can be either mounted in a standard 19" rack or stacked on a bench top. It can accommodate up to four test cards, providing added flexibility in system configuration.

Multi-user, remotely accessible

Multiple users can access a single chassis, each controlling their own set of test ports within the chassis. The chassis and the controller, with other chassis and modules, forms a complete test system that is remotely accessible via the on-board application programming interface.

Support for OC-192/STM-64, OC-48/STM-16, OC-12/STM-4

The OmniBER XM network simulator provides support for OC-3/12/48 (STM-1/4/16), multi-rate and single rate OC-192/STM-64.

Connect multiple chassis, to form a scalable system

The OmniBER XM network simulator 4-slot chassis is highly scalable to provide multiple ports to test next generation SONET/SDH network equipment.

SCPI compatible with existing OmniBER analyzers

Designed as an extension to the industry-leading family of OmniBER analyzers, it can be easily integrated with other test equipment using the on-board application-programming interface for fast setup in any test environment. The 4-slot chassis can be easily added to an existing system for additional test power and connectivity.

Redefine your test strategy without compromise

The OmniBER XM network simulator can simultaneously generate real-life network signals using mixed payloads with errors and alarms on multiple ports and on up to 192 channels in each port. This replicates real-world network conditions to enable true stress testing of network elements and increases the effectiveness of verification test. The OmniBER XM network simulator simultaneously measures each channel for relevant errors, alarms, and bit error ratio, and also includes intrusive thru-mode capabilities. This allows NEMs to determine how a network element will function before introducing it into the real world.

Clock synchronization

The OmniBER XM network simulator 4-slot chassis has the capability to synchronize the transmit clock on all modules in a system to a common source. The OmniBER XM chassis offers a choice of four external reference clock inputs for synchronization:

- 1.544 Mb/s BITS
- 2.048 Mb/s MTS
- 2.048 MHz
- 10 MHz

Configuration

The 4-slot chassis is a component of the OmniBER XM network simulator. Measurement modules, a system controller and system software are required to form a complete network simulator. Please see the OmniBER XM configuration guide for more information, publication number 5988-6648EN.
www.agilent.com/comms/xm

Product Numbers

J7263A: 4-slot chassis.

Accessories

E7900-64207:
Chassis-to-chassis cable.

E7900-64208:
Rack-to-rack cable.

Technical specifications

Mechanical and electrical specifications

Physical

Module slots: 4.
Width: 45.4 cm (17.87") (mounts in EIA-standard 19" rack).
Depth: 49.0 cm (19.29").
Height: 8.89 cm (3.50" = 2U).
Weight (empty): 9.1 kg (20 lbs).

Electrical

AC Voltage: 100 to 120 V nominal; 200 to 250 V nominal.
Frequency: 47 to 63 Hz.
Power consumption: 550 W max.

Environmental

Location: Indoor use only; altitude up to 2000 m.
Operating temperature: 5 °C to 40 °C.
Storage temperature: -40 °C to 70 °C.
Cooling requirements: Air vents must remain unobstructed (minimum clearance 3 inches/7.62 cm). Inlet air temperature must not exceed the operating temperature limits.
Humidity: Maximum relative humidity 80% for temperatures up to 31°C decreasing linearly to 50% relative humidity at 40°C – non-condensing.
Safety: Installation category: II. Pollution degree: 2.

Front Panel

Power: On/Off rocker switch.

Rear panel

Connectors

Power: Male AC power receptacle.
MDI: RJ-45. 100 Mb/s Ethernet (to PC controller).
MDI-X: RJ-45. 100 Mb/s Ethernet (to next chassis).
Daisy-chain Out: Male D-shell Event/ clock connections to next chassis.
Daisy-chain In: Male D-shell. Event/ clock connections from previous chassis.

External clock inputs

Only one external reference clock source should be applied to the rear panel at any given time.
In response to the fault condition where more than one clock source is introduced during operation the chassis will lock to the first valid signal presented. If more than one signal is present at re-boot the chassis will lock using the following order of preference:

- 50 Ohm BNC 10 MHz
- 100 Ohm Bantam 1.544 Mbs BITS.
- 75 Ohm BNC 2.048 Mbs MTS.
- 75 Ohm BNC 2.048 MHz
- Siemens 3-pin 2.048 Mbs MTS.

LED Indicators

LINK: Ethernet link.
ACT: Ethernet activity.

To conduct measurements, the chassis must be connected to a system Controller and have at least one OmniBER XM measurement module installed. See OmniBER XM configuration guide 5988-6648EN.
www.agilent.com/comms/xm

Agilent Technologies manufactures the OmniBER XM network simulator under a quality system approved to the international standard ISO 9001 plus TickIT (BSI Registration Certificate No FM 10987).

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