

XGS12-SD RACKMOUNT CHASSIS

DATA SHEET

Ixia's XGS12-SD 12-slot modular chassis powers the industry's highest port density Ethernet test system available. This flexible platform delivers the most comprehensive solution for performance, functional, security, and conformance testing of network equipment and network applications. Operating in conjunction with Ixia's industry-leading IxNetwork, IxLoad, and IxExplorer test applications and automation APIs, the XGS12-SD chassis provides the power and performance necessary for massive-scale layer 2-7 testing.

The XGS12-SD chassis has a front-to-back airflow system to ensure that all of Ixia's highest-density load modules operate efficiently. A true modular construction maximizes the XGS12's serviceability. Each major system component is self-contained and field replaceable. The fan, power supply, and processor components are designed to be readily installed and removed. All Ixia XM load modules are hot-swappable, which ensures a highly-flexible and multi-user testing environment. Ixia's XM load module form factors are supported in the XGS12-SD chassis, providing a seamless integration with existing Ixia test systems.

KEY FEATURES

- **Single platform for L2-7 testing:** a single solution for executing a wide array of data, routing, and bridging protocol emulation; and signaling, voice, video, and application testing
- **Extensive interface support:** higher speed Ethernet 100/40GbE, 10GbE, and 10/100/1000 Ethernet
- **Hot-swap capability:** load modules can be actively swapped in and out of the test bed without disrupting ongoing test that is using installed modules
- **High performance:** high-speed backplane to support the high bandwidth requirements of large-scale application tests
- **Highly serviceable with modular components:** Processor Module is a self-contained, field replaceable unit running Windows 7 operating system for management and control of load modules, port configurations, and statistics

HIGHLIGHTS

- High 100GE, 40GE, and 10GE port densities in 11RU vertical rack space, reducing space requirements and simplifying management
- High-performance architecture speeds test initialization and execution times
- High-speed backplane enables resource aggregation across load modules
- Multi-user environment leverages a per-port or resource group user ownership model
- Field-replaceable modular CPU Controller Module, Fan Module, and Power Supply Module, enabling simple and quick field service
- FUSION support: FUSION-enabled load modules and IxN2X application support and compatibility



- Fan Module is a self-contained, field replaceable unit for temperature control
- Power Supply Module is a self-contained, field replaceable unit with three power supplies
- **Highly expandable:** daisy-chaining of Ixia chassis in a single large-port-count test bed with synchronization accuracy to within 80 nanoseconds. Supported chassis: XGS12-SD, XGS12-HS, XG12, XM2, 400Tv2
- **Precision timing:** GPS time synchronization using signal antenna with AFD1 or IRIG-B with AFD2 unit
- **Fusion Support:** FUSION-enabled load modules and IxN2X application support and compatibility

SPECIFICATIONS

Slots	12 (compatible with Ixia XM form factor load modules ⁱ)
Size	<ul style="list-style-type: none"> • 19.0 in. Width x 19.21 in. Height x 27.2 in. Depth • 48.26 cm. Width x 48.79 cm. Height x 69.09 cm. Depth • 11 rackmount units (11RU)
Chassis Modules and Weights	<p>Chassis Frame: 97 lbs. (44.1 kg) average shipping weight (with filler panels)</p> <p>Chassis Fan Module: 17.3 lbs. (7.86 kg) average shipping weight</p> <p>Chassis Power Supply Module: 35.1 lbs. (15.95 kg) average shipping weight</p> <p>Chassis Processor Module (Standard): 6.4 lbs. (2.9 kg) average shipping weight</p>
Chassis Powerⁱⁱ Requirements	<p>Three, single phase, 200-240VAC 50/60Hz power sources rated at 20 Amperes each, are required to supply the chassis.</p> <p>Maximum power consumption per line cord and power supply:</p> <ul style="list-style-type: none"> • 12 Amperes at 200VAC operation • 10 Amperes at 240VAC operation
Power Cords	<p>Three power cords are required to operate the XGS12-SD chassis power supplies for normal operating conditions.</p> <p>Power Cord shipments: Ixia provides three power cords that are configured and rated to meet the specifications of the target country where the chassis will be installed</p>

<p>Power Supply Module</p>	<ul style="list-style-type: none"> • Field-replaceable power supply module that is easily installed and removed • There are three 2825W power supplies in the Power Supply Module • Each power supply may be removed or replaced separately
<p>Fan Module</p>	<p>Field-replaceable chassis fan assembly that is easily installed and removed</p>
<p>Processor Module</p>	<p>XGS12-SD Processor Module: Field-replaceable and removable processor card module with an Intel E5 2620 processor with 16GB CPU memory and 1TB SATA hard drive</p>
<p>Operating System</p>	<p>XGS12-SD Processor Module: Windows 7 Professional, 32-bit version</p>
<p>Timing Sources</p>	<p>Internal clock, synchronized with another Ixia chassis, or with Ixia GPS AFD-1, AFD2 IRIG-B units</p>
<p>Connectors: Processor Module</p>	<p>XGS12-SD Processor Module:</p> <ul style="list-style-type: none"> • Monitor HD-DB15 Super VGA • One RJ-45 10/100/1000Mbps Gigabit Ethernet management ports • One RJ-45 RS232 serial port • Two USB dual type A, 4-pin jack connectors
<p>Connectors: Chassis Frame</p>	<p>Sync In: single Sync In jack with a 4-pin RJ11 Sync Out: four Sync Out jacks, each with a 4-pin RJ11</p>
<p>Switches, LEDs, and LCD Display</p>	<ul style="list-style-type: none"> • Front panel switches, On/Off momentary power push button • 2x16 character LCD on front panel indicating chassis status information • 2 Paired LEDs above each slot position indicating power, and respective ownership and activity status • LEDs on Processor Module indicating power, hard disk activity, and Ethernet activity on each port
<p>Industry Certifications</p>	<p>The chassis¹ safety approvals are UL and CE. These certifications are only valid when the unit is operating as specified. See endnote 1 for more information.</p>

Temperature ⁱⁱⁱ	Operating: 41°F to 104°F (5°C to 40°C) Storage: 41°F to 122°F (5°C to 50°C)
Humidity	Operating: 0% to 85%, non-condensing Storage: 0% to 85%, non-condensing
Noise	The XGS12-SD chassis running at maximum fan speed capacity may produce noise levels up to 87 dB(A). This is measured per the GR-63-CORE, Issue 1, and paragraph 5.6.3 specification. The use of appropriate ear protection is recommended to protect against hearing impairment. Consult local health and safety regulations for recommended maximum exposure levels for noise and ear protection devices. Note: Fan speed is variable and adjusted based on present load and temperatures within the chassis.

TARGETED USERS

- Engineering and quality assurance (QA) groups developing and testing High Speed Ethernet 100GbE and 40GbE, and high density 10GbE/1GbE products
- Engineering and QA groups developing and testing high-performance Layer 2-7 devices
- Manufacturing groups executing production-quality and repetitive testing
- Customer support departments troubleshooting customer issues
- Internet service providers (ISPs), carriers, and large enterprises executing product qualification/acceptance testing or pre-deployment hot-staging of network equipment
- Certification and interoperability labs providing third-party equipment test and validation

APPLICATION SUPPORT

The XGS12-SD chassis support the following Ixia test applications:

- **IxNetwork**, for scalability and performance testing of routing, switching, security and broadband access infrastructure solutions
- **IxLoad** for performance and security testing of content-aware devices (e.g., load balancers, web servers, video servers) running protocols such as HTTP, FTP, SMTP, SIP, MPEG2 video, and many more
- **IxExplorer®** for granular, highly-flexible data-plane testing and analysis

PRODUCT ORDERING INFORMATION

940-0011

XGS12-SD, 12-SLOT CHASSIS BUNDLE with Standard Performance Controller Module and XGS12 rack mountable chassis. The chassis includes:

- Chassis frame assembly, w/ SD SYNC
- Standard Processor Module
- Fan assembly module
- 6000W power supply module
- Windows 7 operating system

Requires selection of a free IxOS software version that is ordered separately.

IXIA WORLDWIDE

26601 W. AGOURA ROAD
CALABASAS, CA 91302

(TOLL FREE NORTH AMERICA)

1.877.367.4942

(OUTSIDE NORTH AMERICA)

+1.818.871.1800

(FAX) 818.871.1805

www.ixiacom.com

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IXIA EUROPE

CLARION HOUSE, NORREYS DRIVE
MAIDENHEAD SL6 4FL
UNITED KINGDOM

SALES +44.1628.408750

(FAX) +44.1628.639916

IXIA ASIA PACIFIC

101 THOMSON ROAD,
#29-04/05 UNITED SQUARE,
SINGAPORE 307591

SALES +65.6332.0125

(FAX) +65.6332.0127

i For a complete list of all Ixia load modules supported by the XGS12-SD chassis please refer to the Ixia Hardware and Reference guide document and the Product Compatibility Matrix that are available under the Support section of the www.ixiacom.com website.

ii All three power cords must be plugged into their single phase 200-240VAC, 50Hz/60Hz power sources at the same time for correct operation of the chassis. The North American power cord has a NEMA L6-20P plug that goes to the power source and an IEC-60320-C19 receptacle that plugs into the XGS12-SD chassis. The power cord is rated to 16 Amperes. The plug and receptacle are rated for 20 Amperes. The XGS12-SD chassis is UL certified when using the 200-240VAC power cords supplied with the chassis. For international shipments power cords are provided for the target country and are included with the purchase of the chassis.

iii Some high density/high performance load modules may require a lower ambient air operating temperature. If this is the case, the operating temperature will be lowered for the chassis to what is specified for the load module datasheet.