XGS12 CHASSIS PLATFORM

FLEXIBLE, HIGH-DENSITY 12-SLOT CHASSIS

Ixia's XGS12 12-slot modular chassis platform delivers the most comprehensive solution for performance, functional, security, and conformance testing of network equipment and network applications at scale. Operating in conjunction with Ixia's industry-leading IxNetwork®, IxLoad®, and BreakingPoint®i test applications and automation APIs, this platform provides the power and performance necessary for massive-scale Layer 2-7 testing.

XGS12-HSL 12-Slot, 11RU Rackmount Chassis

HIGHLIGHTS

- Reduces space requirements and simplifies management with high port densities—400/100/50/40/25/10/1GE/100M—in 11RU vertical rack space

- Enables resource aggregation across load modules using high-speed backplane

- Offers multi-user environment that leverages a per-port user ownership model for all test module ports

- Reduces management overhead and simplified upgrades with integrated IxOS™ operating system for chassis and load modules

- Enables simple and quick field service with field-replaceable Modular Controller, Fan, and Power Supply Modules

- Remote chassis management via browser (on XGS12-HSL and XGS12-SDL models)

- 400GE ready

All XGS12 chassis platform models—XGS12-SD, XGS12-SDL, and XGS12-HSL—have a front-to-back airflow system to ensure that Ixia's highest-density load modules operate efficiently. A true modular design maximizes serviceability as each major system component is self-contained and field-replaceable with the fan, power supply, and processor components designed to be readily installed and removed. Ixia load modules are hot-swappable, allowing for a highly-flexible testing environment. This chassis family supports XM, PerfectStorm, and CloudStorm load modules, providing a seamless integration with existing Ixia test systems.

KEY FEATURES

- **Unified platform for L2-7 testing:** a unified solution for executing a wide array of data, routing, and bridging protocol emulation; and signaling, voice, video, and application testing from layers 2-7

- **Extensive interface support:** higher speed Ethernet 400GE, 100GE, 50GE, 40GE, 25GE, 10GE, and 10/100/1000 Mbps copper 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 supports high bandwidth requirements of large-scale application tests

- **Highly serviceable with modular components:**
  - Processor Module is a self-contained, field replaceable unit for management and control of load modules, port configurations, and statistics.
  - 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-HS, XGS2-HSL, XGS12-HSL, XGS2-SD, XGS12-SD, XGS12-SDL, XG12, XM2, 400Tv2

SPECIFICATIONS

Slots	12 (compatible with Ixia XM form factor load modules[ii])
Size	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	**Chassis Frame:** 97 lbs. (44.1 kg) average shipping weight (with filler panels) **Chassis Fan Module:** 17.3 lbs. (7.86 kg) average shipping weight **Chassis Power Supply Module:** 35.1 lbs. (15.95 kg) average shipping weight **XGS12-HSL Chassis Processor Module:** 15.8 lbs. (7.17 kg) average shipping weight **XGS12-SD/SDL Chassis Processor Module:** 6.4 lbs. (2.9 kg) average shipping weight

Chassis Power[iii] Requirements	Three, single-phase, 200-240VAC 50/60Hz power sources rated at 20 Amperes each, are required to supply the chassis. Maximum power consumption per line cord and power supply: • 12 Amperes at 200VAC operation • 10 Amperes at 240VAC operation
Power Cords	Three power cords are required to operate the XGS12 chassis power supplies for normal operating conditions. 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
Power Supply Module	• 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
Fan Module	Field-replaceable chassis fan assembly that is easily installed and removed
Processor Module	**XGS12-HSL Processor Modules:** Field-replaceable and removable processor card module with 2 x Intel Sandy Bridge EP, E5-2658 2.1GHz processors; 64GB RAM; dual 400GB solid-state drive hard disk **XGS12-SD and XGS12-SDL Processor Modules:** Field-replaceable and removable processor card module with an Intel E5 2620 processor with 16GB CPU memory and 1TB SATA hard drive
Operating System	• **XGS12-HSL Processor Module:** Native IxOS • **XGS12-SD Processor Module:** Windows 7 Professional, 32-bit version • **XGS12-SDL Processor Module:** Native IxOS
Timing Sources	Internal or synchronized with another Ixia chassis, or external with the Ixia Metronome Timing System or, if applicable, AFD1 appliance for GPS time sources, or the Ixia AFD2 appliance for BITS and IRIG-B time format input with additional 1PPS input Note: The Metronome external synchronization is supported on XGS12-HSL and XGS12-SD chassis only

Connectors per Processor Module	• Monitor HD-DB15 Super VGA • One RJ-45 1000Base-T management port • One RJ-45 RS232 serial port • Two USB dual type A, 4-pin jack connectors • Four SFP+ sockets for future use (for XGS12-HSL only)
Connectors Chassis Frame	• Sync In: single Sync In jack with a 4-pin RJ11 • Sync Out: four Sync Out jacks, each with a 4-pin RJ11
Switches, LEDs, and LCD Display	• 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, HDD activity, and Ethernet activity on each port
Industry Certifications	The chassis safety approvals are UL and CE. These certifications are only valid when the unit is operating as specified. See endnote [ii] for more information.
Temperature [iv]	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 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 Higher Speed Ethernet 400GE/100GE/50GE/40GE/25GE, and high-density 10GE/5GE/2.5GE/1GE/100M 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 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 chassis models support the following Ixia test applications:

- **IxLoad:** for performance testing of content-aware devices (e.g., load balancers, web servers, video servers) running protocols such as HTTP, FTP, SMTP, SIP, and MPEG2 video

- **IxExplorer®:** for granular, highly-flexible data-plane testing and analysis (Note: CloudStorm and PerfectStorm Load Modules do not support IxExplorer)

- **IxNetwork:** for scalability and performance testing of routing, switching, security, and broadband access infrastructure solutions

- **BreakingPoint:** (On XGS12-HSL chassis with CloudStorm and PerfectStorm Fusion load modules) for global visibility into emerging threats and applications, along with advance insight into the resiliency of an organization's IT infrastructure under operationally-relevant conditions and malicious attacks

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/ Standard 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.

940-0015

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

- Chassis frame assembly, w/ Standard Sync

- Standard Processor Module

- Fan assembly module

- 6000W power supply module
- Native IxOS Operating System

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

940-0016

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

- Chassis configuration and monitoring via web browser
- Chassis frame assembly, w/ Standard Sync
- High Performance Processor Module
- Fan assembly module
- 6000W power supply module
- Native IxOS Operating System
- Support for CloudStorm, PerfectStorm, Xcellon-Multis, and Novus load module families

Requires selection of a free IxOS software version (IxOS 8.13 EA or later) that is ordered separately.

i BreakingPoint is supported on the XGS12-HSL chassis only with CloudStorm and PerfectStorm Fusion load modules.

ii For a complete list of all Ixia load modules supported by the XGS12 chassis models, refer to the Product Compatibility Matrix that is available under the Support section of the www.ixiacom.com website.

iii 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 XG12 chassis. The power cord is rated to 16 Amperes. The plug and receptacle are rated for 20 Amperes. The XGS12 chassis are 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.

iv 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 in the load module datasheet.