DATA SHEET

XM2 Portable Chassis

Ixia test systems deliver the industry's most comprehensive solutions for the performance, functional, and conformance testing of networks and networked applications. The 2-slot XM2 portable chassis provides a high-density, highly-flexible platform on which an Ixia test system can be built. Operating in conjunction with the Ixia family of test applications, the XM2 provides the foundation for a complete portable, flexible test environment.

A wide array of interface modules is available for the XM2. The chassis supports up to 32 - 10GbE ports, 12 - 40GbE ports, 4 - 100GbE ports, 4 - packet over SONET (POS) ports, or 4 - asynchronous transfer mode (ATM) ports. These modules provide the network interfaces and distributed processing resources needed for executing a broad range of data, signaling, voice, video, and application testing for layers 2-7.

The XM2 chassis supports an integrated test controller that manages all system and testing resources. Resource ownership at a per-port level, coupled with hot-swappable interface modules, ensures a highly flexible and multi-user testing environment. A load module form factor adapter assures backward compatibility with existing Ixia standard form factor interface modules and provides seamless migration from and integration with existing Ixia test system installations.

XM2 Chassis

Highlights

- Common platform: a single portable solution for executing a wide array of data, signaling, routing, voice, video, and application testing from Layer 2 through 7
- Hot swappable modules: interface cards can be actively swapped in and out of the test bed without disrupting ongoing tests
- Extensive interface support: 10/100/1000 Ethernet, 10GbE, Higher Speed Ethernet 40Gbps, 100Gbps, and dual-speed 40/100Gbps, OC-3c/12c ATM, OC-3c/12c/48c/192c Packet over SONET (POS)
- Integrated PC controller running Windows 7 for management and control of port configuration and statistics
- High performance: high-speed backplane and system controller to support the high bandwidth requirements of medium scale application tests
- Daisy-chaining of up to 256 Ixia chassis in a single test (XM12 High Performance, XM2, IXIA 400Tv2) with high synchronization accuracy
- Powerful automation facilities using the Tcl scripting language with easy integration into automated lab environments
- Modular sub-components: power supplies, and hard drive

Specifications

Features	Details
Slots[1]	2 (compatible with Ixia XM form factor load modules[2])
Size	14"w (19.0”w including rack ears) x 4.5”h x 19.25”d (35.6cm x 11.4cm x 48.9cm) with built-in carrying handle
Weight	• 25 lbs. (11.3 kg) • 30 lbs. (13.61 kg) average shipping weight
Power	• 1 circuit of 20A@110VAC • 1 circuit of 10A@220VAC • 60/50 Hz
Timing Source	Internal or synchronized with another Ixia chassis, or external with the AFD1 for a GPS time sources, or the AFD2 for BITS and IRIG-B time format input with additional 1PPS input
Operating System	Windows 7, 32-bit version
Management Card	• Internal – not field replaceable • CPU - Intel Pentium Mobile, 2.0 GHz with 2 GB main memory • Hard drive - 250 GB SATA • CD drive
Temperature[3]	• 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

[1] Some high density / high performance load modules may require more power and cooling reducing the number of useable slots. The number of useable slots will be determined by the combination of load modules being used in the chassis.
[2] For a complete list of all Ixia load modules supported by the XM2 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.
[3] Some high density / high performance load modules may require a lower operating temperature. If this is the case, the operating temperature will be specified in the load module datasheet.

Features	Details
Connectors	• Video: 15 pin connector • Keyboard: PS/2 6 pin DIN • Mouse: PS/2 6 pin DIN • USB: 3 x Male Dual Type A (1 Out Front and 2 Out Back) • Management: 10/100/1000 Ethernet RJ45 • Sync In: RJ11 • Sync Out: RJ11 • Serial: DB9
Switches and Indicators	• Power, Standby, Master, External Clock • LCD with chassis status information • 2 paired LEDs next to each slot position indicating slot power and card ownership
Fans	Four non-field replaceable fans

Features

- Common platform: a single portable solution for executing a wide array of data, signaling, routing, voice, video, and application testing from Layer 2 through 7
- Hot swappable modules: interface cards can be actively swapped in and out of the test bed without disrupting ongoing tests
- Extensive interface support: 10/100/1000 Ethernet, 10 Gigabit Ethernet, Higher Speed Ethernet 40 Gbps, 100Gbps, and Dual-Speed 40/100 Gbps, OC-3c/12c ATM, OC-3c/12c/48c/192c Packet over SONET (POS), Power over Ethernet (PoE)
- Integrated PC controller running Windows 7 operating system for management and control of port configuration and statistics
- High performance: high-speed backplane and system controller to support the high bandwidth requirements of medium scale application tests
- Daisy-chaining of up to 256 Ixia chassis in a single test (XM12 High Performance, XM2, IXIA 400Tv2) with high synchronization accuracy
- Powerful automation facilities using the Tcl scripting language with easy integration into automated lab environments
- Modular sub-components: power supplies, and hard drive

Benefits

- Very high Gigabit and 10 Gigabit Ethernet port density in 3U portable chassis, reducing space requirements and simplifying management
- Wide variety of network interfaces available enables flexible, multi-functional deployment
- High performance architecture speeds test initialization and execution times
- Multi-user environment leverages test equipment investment across multiple tests and users simultaneously
- Port-level user ownership maximizes testing resources across multiple users
- Integrated software packaging/installation for both chassis and interface modules reduces management overhead and simplifies upgrades
- Remote management allows easy access to chassis resources via a network
- Pre-built automated test packages provide for the simple execution of scalable benchmarking metric tests
- Hot-swappable interface modules allow continual test execution in a multi-user environment without interruption
- Modular sub-components enable simplified and quicker upgrades and replacements
- Backward compatibility of hardware and software with existing Ixia test systems allows easy transition from or integration with existing installations

Targeted Users

- Engineering and quality assurance (QA) groups developing and testing high density Ethernet products
- Engineering and QA groups developing and testing 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
- Certification and interoperability labs providing third party equipment test and validation

Industry-Leading Performance

The architecture of the XM2 chassis is designed for superior test application performance. Reduced test initialization and execution times compared with existing test systems ensures optimized use of test equipment investment.

Ixia's test systems are built on a proven, scalable architecture that integrates a RISC CPU running Linux and network protocol stacks on every test port. This distributed Linux processing environment enables application traffic testing of content-aware devices, together with line-rate stateless traffic generation and analysis on each Ixia test port.

High Scalability

The XM2 test system is designed to operate in high scalability test environments. The XM2 chassis supports up to 32 Gigabit Ethernet ports and up to 32 10 Gigabit Ethernet ports in a portable 3U high system. Multiple XM2 and other Ixia chassis can be daisy-chained together to extend a single test environment to thousands of ports. The XM2 works in conjunction with Ixia's family of applications to control and execute testing across large scale test beds.

Application Support

The XM2 high performance chassis supports a wide array of Ixia test applications, including:

- IxLoad for performance testing content-aware devices (e.g., load balancers, web servers, video servers) running protocols such as HTTP, FTP, SMTP, SIP, MPEG2 video, etc.
- IxVoice is a comprehensive hardware and software test framework that provides unified VoIP and PSTN test solutions for the telecom/network equipment
- IxNetwork for control and data plane performance testing of routers and switches with complex protocol support including BGP, OSPF, IS-IS, MPLS, IP multicast and Spanning Tree, including IPv4 and IPv6 variations and many more protocols …
- IxAutomate for executing automated, wizard-based data and control plane protocol tests with sophisticated results analysis for RFC-based benchmark performance switch tests
- IxExplorer for granular, highly flexible data plane testing and analysis
- IxChariot for emulation of networked applications to determine end-to-end response times
- IxANVL for protocol conformance testing.

Highly Serviceable

The XM2 is highly serviceable. Load modules may be replaced while the chassis is powered on -- all other load modules continue to run unaffected. The system hard drive is mounted on a replaceable tray. An interchangeable, modular power supply is also replaceable. Repairs and replacements are possible in a matter of minutes and without the need to return the chassis to the factory.

Investment Protection

The XM2 portable chassis delivers increased performance for test applications while at the same time maintaining compatibility with existing Ixia test systems. Ixia standard form factor load modules are supported in the XM2 chassis via a load module adapter that supports hot swap and improved system performance. Test applications, configurations, and automation scripts are compatible, allowing easy migration of existing test beds to the new system without loss of capital investment.

Product Ordering Information

941-0023

OPTIXIAXM2-02 2-slot XM form factor chassis, including integrated PC controller, power supplies, IxOS operating system, and IxExplorer client application.

944-0007

Standard Form Factor load module adapter module for the XM12 High Performance, XM12 and XM2 chassis.

942-0006

Chassis Accessory, Carry case for 941-0023 (XM2-02) chassis; Includes retractable handle, reinforced padded corners, and wheels

942-0023

AFD2, Auxiliary Function Device, IRIG-B standalone timing unit for any Ixia chassis, RoHS compliant; Includes two 15 ft. cables, 6 ft. USB cable, 6 ft. serial cable, 6 ft. chassis sync cable and power supply; Configure by USB or serial cable; requires cable to be connected to BITS or other timing source

942-0002

AFD1, Auxiliary Function Device, GPS standalone unit for any Ixia chassis. Includes antenna, USB cable, serial cable, chassis sync cable and power supply. Configure by USB or serial cable, requires antenna to be installed with line-of-sight to the GPS satellites

942-0043

GPS Roof Antenna and 400ft AFD1 Installation Kit with in-line amplifier. Includes: 75 foot long antenna cable, two, 200 foot long, Series 240 coaxial cables and in-line amplifier. For use with 942-0002 AFD1 Auxiliary Function Device, GPS standalone unit.

942-0044

GPS Roof Antenna and 400ft AFD1 Installation Kit. Includes: 75 foot long antenna cable, one, 400 foot long, Series 400 coaxial cable. For use with 942-0002 AFD1 Auxiliary Function Device, GPS standalone unit.