

Optixia® XM2



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 Optixia XM2 portable chassis provides an ultra, high-density, highly flexible platform on which an Ixia test system can be built. Operating in conjunction with the Aptixia family of test applications, the Optixia XM2 provides the foundation for a complete, high performance, portable test environment.

A wide array of interface modules is available for the Optixia XM2. The chassis supports up to 32 Gigabit Ethernet ports, 6 –10 Gigabit Ethernet ports, and 4 Packet over SONET (POS) or 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 from Layers 2-7.

Each chassis supports an integrated test controller that manages all system and testing resources. Resource ownership down to a per-port level, coupled with hot-swappable interface modules ensures a highly flexible, multi-user testing environment. Backward compatibility is maintained with existing Ixia interface modules and test applications to provide seamless migration from and integration with existing Ixia test installations.



Specifications

Slots¹	2
Size	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)
Weight	25 lbs. (11.3 kg)
Power	1 circuits of 20A@110VAC 1 circuits of 10A@220VAC 60/50 Hz
Timing Source	Internal or synchronized with another Ixia chassis
Operating System	Windows XP Professional
Management Card	Internal – not field replaceable CPU - Intel Pentium M, 2.0 GHz with 2 GB main memory Hard drive - 80 GB SATA DVD/CD drive
Load Modules	<p>XM Form Factor (XMFF):</p> <p>Gigabit (12 ports) and 10 Gigabit (1 port) Ethernet ASM: ASM1000XMV12X-01 Application & Streams Module 16-port Gigabit Ethernet XMV: LSM1000XMV16-01, LSM1000XMVR16-01 4-port Gigabit Ethernet XMV: LSM1000XMV4-01, LSM1000XMVR4-01 12-port Gigabit Ethernet XMS: LSM1000XMS12-01, LSM1000XMSR12-01 3-port 10 Gigabit Ethernet XM: LSM10GXM3-01, LSM10GXMR3-01</p> <p>Standard Form Factor (SFF) with adapter module:</p> <p>Gigabit Ethernet TXS family: LM1000STX(S)xxx, LM1000TX(S)xxx, LM1000SFP(S)xxx 10/100 Ethernet TXS family: LM100TX(S)xxx 10 Gigabit Ethernet LSM family: LSM10Gxxx CPM (Content Processing Module): CPM1000T8 AFM (Auxiliary Function Module): AFM1000SP-01</p>

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.

	ALM (Application Load Module): ALM1000T8 ELM (Encryption Load Module): ELM1000ST2 OC-48c POS MSM: MSM2.5G1xxx 10G MSM (OC-192c POS, 10 Gigabit Ethernet LAN/WAN): MSM10G1xxx OC-3/12 POS/ATM: LM622MRxxx PoE (Power over Ethernet): PLM1000T4-PD (20W), LSM1000POE4-02 (30W)
Temperature²	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
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, voice, video, and application testing from Layers 2-7
- Hot swappable modules: interface cards can be actively swapped in and out of the test bed without disrupting ongoing testing

² 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.

- Extensive interface support: 10/100/1000 Ethernet, 10 Gigabit Ethernet, OC-3c/12c ATM, OC-3c/12c/48c/192c Packet over SONET (POS), Power over Ethernet (PoE)
- Integrated PC controller running Windows XP Pro 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 (Optixia X16, Optixia XL10, Optixia XM12, Optixia XM2, IXIA 1600T, IXIA 400T) with synchronization accuracy to within 10 nanoseconds
- Powerful automation facilities using the Tcl scripting language with easy integration into automated lab environments
- Modular sub-components: power supplies, 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 PC controller eliminates need to buy a separate, specially configured workstation
- 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 scaleable 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 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
- Certification and interoperability labs providing third party equipment test and validation

High Performance

The high performance architecture of the Optixia 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 Optixia 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 high performance application traffic testing of content-aware devices, together with line-rate stateless traffic generation and analysis on each Ixia test port.

High Scalability

The Optixia XM2 test system is designed to operate in high scalability test environments. The XM2 chassis supports up to 32 - 1 Gigabit Ethernet ports and 6 - 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 Optixia XM2 works in conjunction with Ixia's Aptixia family of applications to control and execute testing across large scale test beds.

Application Support

The Optixia XM2 supports a wide array of Ixia test applications, including:

- Aptixia 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.
- Aptixia 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
- Aptixia IxAutomate for executing automated, pre-built data and control plane tests with sophisticated results analysis
- IxExplorer for granular, highly flexible data plane testing and analysis
- IxChariot for emulation of networked applications to determine end-to-end response times
- IxVPN for performance testing secure IPsec VPN gateways
- IxAccess for performance testing broadband access devices
- IxANVL for protocol conformance testing

Highly Serviceable

The Optixia XM2 is designed to be 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 likewise replaceable. Repairs and replacements are possible in a matter of minutes and without the need to RMA the chassis.

Investment Protection

The Optixia XM2 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 Optixia

XM2 chassis via an adapter module, which supports hot swapping, and offers 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

941-0003

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

944-0007

Standard Form Factor adapter module for OPTIXIAXM12 and OPTIXIAXM2 chassis

942-0006

Carry case for 941-0003 (OPTIXIAXM2) chassis; Includes retractable handle, reinforced padded corners, and wheels

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

942-0003

GPS Antenna, Installation Kit. Includes TNC Bullet antenna, 75 ft. cable. Operates with 942-0002 (AFD1)

942-0004

GPS Cable Option. Includes in-line COAX TNC Amplifier, 200 ft. cable. Operates with 942-0002 (AFD1)

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