Ixia's Application Load Module (ALM) is an ultra-high density computing platform for executing application and network testing. Optimized for stateful, Layer 4-7 transactions, the ALM enables high performance and high capacity verification of networks and intelligent network devices/systems.

The ALM provides 8 RISC processors in an extremely dense form factor. Up to 16 modules (128 processors) are supported in a single Ixia chassis. Each processor operates independently with its own operating system, memory, and network interface. This dedicated architecture provides unprecedented density, performance, and flexibility for testing networks, web sites, VPNs, and other content aware devices via Ixia's suite of test applications. An ALM-based system provides significant space, scalability, and repeatability advantages compared with standalone workstations for network and application testing.
### Specifications

<table>
<thead>
<tr>
<th>Feature</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of Port/Processors per Load Module</td>
<td>8 per Load Module</td>
</tr>
<tr>
<td>Processor/Memory (per port)</td>
<td>1856 MIPS PowerPC with 1 GB RAM</td>
</tr>
<tr>
<td>Operating System</td>
<td>Linux kernel version 2.6.7 or greater</td>
</tr>
<tr>
<td>Network Interfaces</td>
<td>8 x 10/100/1000 Mbps Ethernet copper, auto-negotiating</td>
</tr>
<tr>
<td>Network Connector Type</td>
<td>RJ-45</td>
</tr>
<tr>
<td>Network Cabling</td>
<td>Category 5 UTP</td>
</tr>
</tbody>
</table>
| Application Support                         | IxLoad: Performance verification of Triple Play (data, video, voice) applications and protocols, including TCP, HTTP, SSL, FTP, MPEG2 video, IGMP, SIP, SMTP, POP3, RTSP, RTP, Telnet, DNS, and DHCP  
                                        | IxChariot: Network performance testing using enterprise application emulation. Over 140 applications supported for predicting end-end performance  
                                        | IxVerify: Functional testing of enterprise applications  
                                        | IxVPN: IPSec VPN scalability and performance  
                                        | IxAccess: Broadband access performance testing  
                                        | IxNetwork: IP control plane emulation including routing, MPLS, and multicast  
                                        | IxExplorer: Port configuration and statistics  
                                        | Tcl API: Custom user script development for Layer 4-7 testing           |
| Statistics and Rates Counter Size: 64 bits  | Link State, Line Speed, Duplex Mode, Frames Sent, Valid Frames Received, Bytes Sent/Received, Fragments, Undersize, Oversize, CRC Errors, VLAN Tagged Frames, Flow Control Frames, Dribble Errors, Collisions, Late Collisions, Excessive Collision Frames, Oversize and CRC Errors, ARP and PING requests and replies, Port CPU Bytes/Frames Received, Dropped by Filter Bytes/Frames, Port CPU Bytes/Frames Dropped |
| VLAN                                         | Statistics and generation of 802.1q/p VLAN frames                       |

### Optimized Testing

The Application Load Module is designed to deliver high performance application and network testing at Layers 4-7. Each high speed RISC processor runs Linux as its own independent system and supports 1 GB RAM. Each processor is supported by its own 10/100/1000 Mbps Ethernet interface, producing a dedicated architecture for generating high throughput and high transaction application load on the network, device, or system being tested.
Application Transactions

Testing The ALM architecture provides an optimized platform for generating high rate application transactions, large session/tunnel capacities, and high network throughput load. The module is ideal for executing Ixia's Real World Traffic applications for testing devices, servers, and networks (see Specifications table).

Ultra-High Density Computing Power

With 8 processors per single slot module, the ALM provides incredible computing density. Up to 128 processors are supported in a single 9U high Optixia X16 or IXIA 1600T chassis. Multiple Ixia chassis can be daisy-chained together to provide unprecedented scalability. Each processor runs independently, allowing a mixture of applications to be hosted, or a single application from a networked console can control all the processors at once. Multiple users can control separate processors concurrently, allowing hardware resources to be shared.

Superior Alternative to "Wall-of-PCs"

For large scale application testing, the ALM provides a number of benefits compared to dedicated workstations. Cost, power, space, and management requirements are significantly reduced through Ixia's integrated ALM design. The local Ixia chassis, a Pentium-based computer platform, downloads the applications to the Linux processors, eliminating the need for local hard drives per processor. The ALM also supports remote file storage. In addition, each processor supports thousands of MAC addresses per network port for scalable network testing, a feature not available on individual workstations.

Extensive Statistics

Each processor/port supports a full set of transmit and receive network statistics:

- Real-Time 64-bit counts and frame rates
- Spread sheet format for convenient manipulation of statistics counters
- External file logging for statistics and alerts
- Audible and visual alerts with user-definable thresholds

Product Ordering Information

ALM1000T8

Eight processor Application Load Module with 10/100/1000 Mbps copper Ethernet interface per port, 1 GB RAM, Linux OS; supports Real World Traffic™ applications.