

Ixia Vision 7300 Chassis Family

A New Perspective on Network Visibility

The Ixia Vision 7300 chassis family and Ixia's Visibility Architecture provide the most scalable network visibility framework in the industry. Together, they deliver the expandability and management flexibility that easily integrates into any network or data center environment, as well as the control and simplicity necessary to improve the usefulness of existing IT tools.

The Ixia Vision 7300 is a chassis that allows for centralized control of your network monitoring system in a single, simple, rack-mountable unit. It combines disparate solutions into a smaller data center footprint – saving power, rack space, and improving ROI.

The Ixia Vision 7300 is designed for large enterprises and service providers who need monitoring and network security tools to achieve end-to-end network visibility across both physical and virtual networks, including network traffic from Ixia CloudLens.

It provides network visibility to protect tool investments and scale with the network as monitoring needs grow and change as new applications and security threats emerge.

High-Availability features

- Redundant, hot-swappable power supply/fan/line modules
- -48V DC or Optional 120-240VAC power input
- Front to back air flow
- Redundant management ports
- Craft interface for out-of-band
- Optional redundant Fabric Modules

Highlights

- 7U chassis with 6 line modules
- Up to 384 ports of 10GE
- Up to 96 ports of 40GE
- Up to 72 ports of 100GE
- Up to 192 ports of 10GE AFM
- Redundant supervisors
- Hot-Swap supervisors, fans, power, and modules
- Double-Your-Ports for Advanced Ports
- PTP 1588 Time Stamping
- Multi-user permissions with concurrent access
- Automated filter compiler improves automation and speeds configuration
- NEBS certified
- Inbuilt Packet Capture



Product Capabilities

The Ixia Vision 7300 fills the IT and provider network visibility gap, enabling organizations to leverage existing tool investments to achieve total application and network visibility. This new platform helps network teams deliver on their service level agreements (SLA), meet their key performance indicators (KPI), and provide best-in-class end-user service.

It gives you a new perspective on network visibility, without the need for crash carts or change requests, to get the right data to the right tools – right now.

Ixia Vision 7303 is the NEBS-level 3 certified version of the 7300.

Port flexibility

- Up to 288 1GbE Copper (6x48 port SFP cards)
- Up to 288 1GbE (6x48 Port SFP cards)
- Up to 288 10GbE (6x48 Port SFP+ cards)
- Up to 96 40GbE (6x16 port QSFP cards)
- Up to 384 10GbE (6x16 port QSFP cards + Breakout Cables)
- Up to 12 100GbE (2xCFP plus 4xQSFP cards)
- Up to 72 100GbE (12xQSFP28)
- Up to 192 10GbE AFM ports (32x10GE AFM plus 4xQSFP cards)

Features and capabilities






- 400Gbps of Advanced Packet Processing on 12-port 100G QSFP28 line card
- Up to 2.4Tbps of total shared advanced packet processing capability with 12-port 100G QSFP28 line card
- Aggregation, Filtering, Replication and Load Balancing
- Advanced packet processing including line rate protocol header stripping, deduplication, packet trimming
- Software port licensing
- Generic header stripping on 12-port 100G QSFP28 line card to remove all protocol headers, standard or proprietary
- IFC clustering with other Vision platforms to offer single pane of glass management for a cluster of NPBs
- Monitoring tool port load balancing (up to 64 ports)
- Signature based application identification and processing (Forwarding, NetFlow, SSL, Data Masking, MAC Rewrite)
- Time stamping

Included accessories

- Two DC power cords with Fused Plugs
- USB flash drive with activation license key
- Support Rail rack mount kit

NetStack Capabilities








The Ixia gold-standard baseline filtering functionality for network packet brokers

 <p>Three Stages of Filtering Filter at ingress ports, in the middle and at egress ports for the maximum flexibility in designing complex Boolean logic without the need of using extra ports for loopback.</p>	 <p>Dynamic Filter Compiler Patented technology that resolves rule overlaps automatically and hence makes configuration simple and eliminates human errors.</p>
 <p>Aggregation Consolidate incoming traffic to optimize port usage and simplify filter logic. Support 1:1, 1:Many, Many:1 and Many: Many traffic mapping.</p>	 <p>Replication At the ingress port as well as at the dynamic filter. Replication at the ingress allows the same input to connect to multiple dynamic filters. Replication at the dynamic filter allows multiple tools to get identical traffic from the same dynamic filter.</p>
 <p>Load-balancing Sophisticatedly distributes traffic across tools ports for monitoring in a session aware manner to preserve traffic integrity and also to maximize up-time with fail-over protection.</p>	

AFM16 and AFM4 PacketStack Capabilities

Full, line rate intelligent packet processing at 40Gbps. Modify every packet at line-rate using any combination of Ixia's PacketStack (AFM) capabilities



Flexibly assign up to 40Gbps total processing capacity to one or more ports in 10Gbps increments

 <p>Deduplication 40Gbps capacity (10G increments)</p>	 <p>Header Stripping Includes VLAN, FabricPath, VNTAG, GTP, MPLS, VxLAN, L2GRE, ERSPAN</p>
 <p>Packet Trimming (Slicing) To modify packet slice or retain only relevant data</p>	 <p>Timestamping Timestamping (NTP)</p>
 <p>Extended Burst Protection 1G burst protection</p>	 <p>Tunneling L2GRE based tunneling over WAN/LAN (origination and termination)</p>
 <p>Data Masking Protect PII and sensitive data with an offset</p>	





Gibson/ Multi-Speed Card PacketStack (AFM) Capabilities

- Full line rate (up to 400G) intelligent packet processing. Modify every packet at line-rate using any combination of Ixia's PacketStack (AFM) capabilities
- Deduplication, trimming, timestamping, and data masking
- Head stripping that includes VLAN, FabricPath, ETag, VNTag, GTP, MPLS, VxLAN, L2GRE, ERSPAN, Supports cascaded header stripping
- Newly introduced Generic Header Stripping can be used to strip protocols headers not in abovelist. Examples are: L3GRE, GENEVE, JMirror, PBB-TE, LISP, VSL, OTV, PPPoE
- Selective packet trimming for HTTPs and QUIC traffic. Traffic can be GTP encapsulated, or no encapsulation
- L2GRE tunnel termination
- Flexible assignment of 400Gbps total processing capacity to any port in the chassis in 25Gbps increments




SecureStack Capabilities

 <p>Data Masking Plus</p>	<p>To protect sensitive data such as credit cards and personally identifiable information (PII)</p> <ul style="list-style-type: none"> • Default regular expressions provided for commonly request data patterns such as credit card numbers • Target field identified by user-definable regular expression
	 <p>Passive SSL Decryption</p>
SSL/TLS Versions	SSL3.0, TLS1.0, TLS1.1, and TLS1.2
Asymmetric Key Exchange	RSA and ECDH
Symmetric Keys	AES, 3DES, and RC4
Hashing Algorithms	SHA and MD5
Maximum concurrent sessions	Over 1,000,000
Private Key Storage	Encrypted and 'write only'
Throughput	Up to 8Gb

AppStack Capabilities

 <p>Application Identification</p>	<p>Ixia's AppStack detects applications through signatures: static, dynamic or even customized with a patent pending technology.</p> <ul style="list-style-type: none"> • Application identification and filtering based on signature, browser, OS, IP address, and geolocation and forwarding to the right security tools • Quickly separate traffic flow by application type – video, email, web or other –device, OS, browser, carrier, BGP AS# • Ability to detect unknown applications and add mainstream applications by request • Monitor and report top applications' and countries' bandwidth consumption • Database of >200 applications, that is regularly updated with new applications • No regular expression (RegEx) matching required
 <p>Geolocation & Tagging</p>	<p>Separate traffic by location – Pre-defined parameters and signature detection allows for application filtering based on geography so tools can zoom in for close-range visibility.</p> <ul style="list-style-type: none"> • Forward application session traffic based on region, country, city, and in many cases latitude/longitude to the correct tools in your portfolio • Quickly configure filters, no manual scripting needed • Support custom locations, such as private IP addresses
 <p>Optional RegEx</p>	<p>Though not required, regular expression matching (RegEx) can be used for additional control and customization. More importantly, it can be used in conjunction with all the other smart filters to offer both ease of use and preciseness of criteria.</p> <ul style="list-style-type: none"> • Layer RegEx over the truly intelligent application filtering, geolocation & tagging features • Predefined matches for Taxpayer ID, phone numbers, and common credit cards • Isolate emails from potentially compromised accounts
 <p>IxFLOW (NetFlow + meta data)</p>	<p>Ixia allows you to enrich NetFlow records with value-add extensions. You can determine what additional information to send to your tools.</p> <ul style="list-style-type: none"> • Include geographical information such as region IP, latitude and city name. Application ID or name, device, browser and even SSL cipher as part of extra information send to tools • Subscriber-aware reporting provides detail on application and handset (device) type for mobile users • HTTP URL and hostname for web activity tracking • HTTP and DNS metadata for rapid breach detection • Transaction Latency for application performance tracking <p>Let Ixia generate the NetFlow without burdening routers and other network devices.</p> <ul style="list-style-type: none"> • Simultaneous NetFlow generation, SSL decryption and Application forwarding • Rich NetFlow stats including drop counts when the CPU reaches its peak • High performing mode – can produce NetFlow records for over 300K TCP sessions/second • Supports generation of NetFlow v9 and v10/IPFIX data • Supports up to 10 NetFlow collectors • Device emulation for router offload, while reporting original device's ODID and Interface ID

AppStack Capabilities

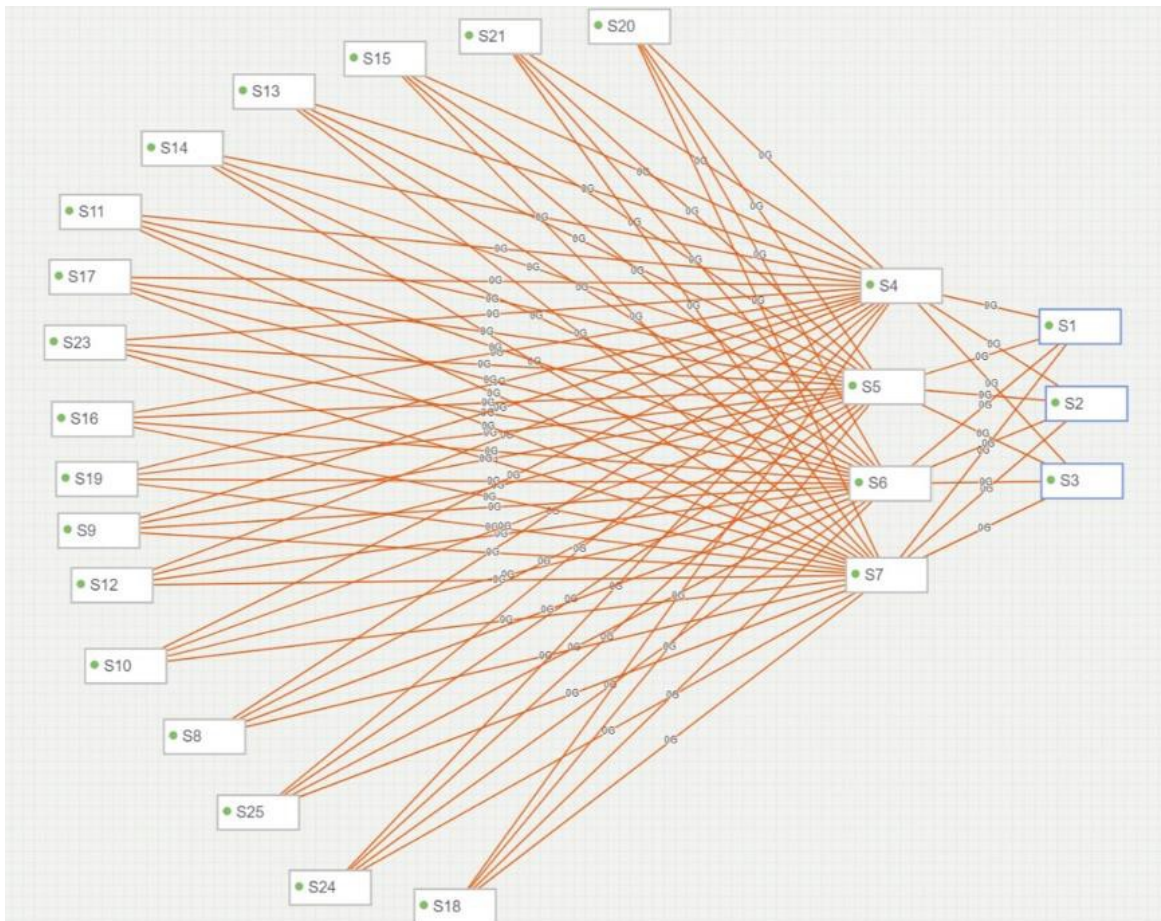
 <p>Packet Capture</p>	<p>Troubleshooting VoIP connections from your office in Germany? Have a repeat issue you need to get to the bottom of? Quickly capture those connection and analyze. With the Packet Capture capability, it is quick and easy to setup a filter and get any slice of traffic you need – from a specific country, application, browser, device, and more – right your fingertips.</p> <ul style="list-style-type: none"> • Quickly verify filter configuration by capturing and validating data • Capture up to 10 samples with 100MB sampling window each • Easily download to a laptop/workstation for analysis • Packet capture capability at 30GE line rate
 <p>ATI Subscription</p>	<p>Application and threat intelligence (ATI) subscription provides updates to application signature database, vital for AppStack to stay updated with emerging applications which increases the accuracy of known and unknown application types. This service also includes updates to Geolocation map data, ensuring country and city name data are updated with any changes.</p> <p>Filters that utilize Application Groups will automatically expand to new applications that fall into those groups as they come online.</p>
 <p>Real-time Dashboard</p>	<p>The AppStack Dashboard displays comprehensive network traffic information within nine views that provide real-time network traffic information. It contains nine views that provide real-time network traffic information, such as traffic volume, bandwidth used by the different applications running on the network, the applications that generate most traffic, and more.</p>

Additional Features

<p>FIPS DOD Compliant Mode</p>	<p>When the DoD-level security policies are enabled, AppStack restricts a user to a single https session and sessions that exceed a user defined inactivity period are invalidated.</p>
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Ixia Fabric Controller (IFC) Clustering

- Ixia Fabric Controller (IFC) clustering offers single pane of glass management for your network packet brokers. NPBs in a distributed environment can be managed and configured, using a single User Interface, as if one centralized visibility and security fabric
- IFC clustering supports any combination of Vision Edge 40/100/10S, Vision ONE/7300/X platforms
- Typical topologies supported include: hub-and-spoke, spine-and-leaf, tree, ring, full mesh, partial mesh, or any combination of above
- User configurable number of Controller Node vs. Fabric Node to maximize resiliency
- Supports direct connection for interconnects, or GRE encapsulated interconnects (limited to Vision ONE and 7300 only) when going thru DWDM or WAN devices
- Supports both single hop and multi hop cluster topology
- Best routes are calculated based on least hop-count using Shortest Path First (SPF) algorithm
- Intelligent load balance among Equal Cost Multiple Paths (ECMP) to guarantee session integrity and avoid packet reordering
- User triggered path re-optimization to avoid failed links or nodes



Specifications

General Specifications

Performance

- Fully non-blocking 3.8Tb backplane in all line card configurations
- Full line-rate across all ports with filtering enabled
- 1GbE/10GbE/40GbE/100GbE support
- Port reconfiguration with no performance impact

Management

- SNMP v1, v2, v3 support
- Local, RADIUS, and TACACS+ support (members and groups)
- Granular access control
- Event monitoring & logging
- Syslog
- IT automation control
- Dual IP-based management ports (RJ45 – 10/100/1000)
- Secure serial console port with authentication

Physical Specifications

Size and Weight (7300)

- 7U high rack mountable enclosure
- Dimensions: 12.25"H x 19"W x 28"D (inches)
- Weight: 200.0 lbs. (91 kg)

Size and Weight (7303)

- 7U high rack mountable enclosure
- Dimensions: 12.25"H x 19"W x 3 3.27"D (inches)
- Weight: 203.0 lbs. (93 kg)

North American Safety

- UL 60950-1, 2nd Edition
- CSA C22.2 No. 60950-1, 2nd Edition

European Safety

EN60950-1:2006

International Safety

CB Scheme: IEC 60950-1:2005 2nd Edition

RoHS Compliant

AC Power (Optional 1U Shelf)

- Input AC Voltage: 90-240 VAC RMS auto- switching removable modules up to four per shelf and up to two shelves.
- Frequency: 50-60Hz
- Nominal power requirement: 6A @ 110 VAC, 600W each x 4
- Maximum power requirement: 11A @ 110 VAC, 1200W
- Heat/power dissipation for system with all 288 ports on the front panel at 100% traffic load: nominally 2500W/9000 BTU/hour

DC Power (Standard)

- Operating input voltage: -40 to -60 VDC
- Nominal current: 40A @ -56 VDC, 2200W
- Maximum operating input current: 100A @ 40 VDC, 4000W
- Heat/power dissipation for system with all 288 ports on the front panel at 100% traffic load: nominally 2200W/9000 BTU/hour – maximum 4000W/17000BTU/hour

Operating Specifications	
Temperature <ul style="list-style-type: none"> Operating: 5°C to 40°C Short-term: -5°C to 55°C (not to exceed 96 consecutive hours) Short-term with fan failure: -5°C to 40°C (not to exceed 96 hours) 	Humidity <ul style="list-style-type: none"> Operating: 5% to 85%, (non-condensing) Short-term: 5% to 90% (non-condensing, not to exceed 96 hours)
EMI/EMC	Line Module Options
North American EMC <ul style="list-style-type: none"> FCC part 15, Class A (USA) ICES-003 Issue 5, Class A (Canada) European EMC <ul style="list-style-type: none"> EN 300 386 V1.6.1:2012 (Emissions, Immunity) EN 55022 (Emissions) EN 61000-3-2 (Harmonics) IEC/International EMC <ul style="list-style-type: none"> IEC/EN 61000-4-2:2009 (Electrostatic Discharge Immunity) EC/EN 61000-4-3:2006 +A1:2008 +A2:2010 (Radiated Immunity) IEC/EN 61000-4-4 (Transient/Burst Immunity) * IEC/EN 61000-4-5:2006 (Surge Immunity) IEC/EN 61000-4-6:2009 (Conducted Radio Frequency Immunity) IEC/EN 61000-4-8:2010 (Magnetic Field Immunity) IEC/EN 61000-4-11 (Voltage Dips, Interruptions and Variations) Australian EMC AS/NZS CISPR 22:2009 (Emissions) Japanese EMC VCCI Class A (Emissions)	10GE Line Card Specifications <ul style="list-style-type: none"> Dimensions: 1.75"x17.5"x15" (inches) Weight: 14.6 lbs. [6.6kg] 40GE Line Card Specifications <ul style="list-style-type: none"> Dimensions: 1.75"x17.5"x15" (inches) Weight: 14 lbs.' [6.38kg] Packet Capture Module Specifications <ul style="list-style-type: none"> Dimensions: 1.75"x17.5"x15" (inches) Weight: 17.0 lbs. [7.7kg] ATI Processor Specifications <ul style="list-style-type: none"> Dimensions: 1.75"x17.5"x15" (inches) Weight: 15.0 lbs. [6.7kg] Supervisor Module Specifications <ul style="list-style-type: none"> Dimensions: 11.75"x5"11.75 (inches) Weight: 20.6 lbs. [9.34kg] High Density Combination Card Specifications <ul style="list-style-type: none"> Dimensions: 1.75"x17.5"x15" (inches) Weight: 14.8 lbs. [6.7kg] 7300 Carrier Line Module (AFM Capable) <ul style="list-style-type: none"> Dimensions: 1.75"x17.5"x15" (inches) Weight: 18.0 lbs. [8.2kg]

Ordering Information

Part Number	Description
SYS7300-STD	Ixia Vision 7300 base system
SYS7300-96X-AC	Ixia Vision 7300 - with 96 ports 1G/10G with AC
SYS7300SS-SSBS	Ixia Vision 7300 - single supervisor base system
SYS7303-STD	Ixia Vision 7303 (NEBS) base system

Vision 7300 interface modules, licenses, options & accessories

100GE interface module, ports and feature licenses

Part Number	Description
M7300-12PC	Ixia Vision 7300 family - 12 port 100G QSFP28 multi-speed module
LIC-7300-12PC	Ixia Vision 7300 family - 12 port license (multi-speed) for M7300-12PC
LIC-7300-4PC	Ixia Vision 7300 family - 4 port license (multi-speed) for M7300-12PC
LIC-7300-PS2C-12PC	Ixia Vision 7300 family - 200Gbps PacketStack (AFM) features license for M7300-12PC
LIC-7300-PS4C-12PC	Ixia Vision 7300 family - 400Gbps PacketStack (AFM) features license for M7300-12PC

10G and 40G interface modules

Part Number	Description
M7300-48PX	Ixia Line card for Vision 7300 - 48-port 1G/10G SFP+ (1)
M7300-16P4X	Ixia Vision 7300 family module - 16-port 40G QSFP+ interface module (1)
M7300-FD-ALLP	Ixia Vision 7300 series - Single, 8x40G and 16x10G GTP flow distribution module
M7300-SSAS-48PX	Ixia Vision 7300 family - module to deliver AppStack (ATIP) and SecureStack capabilities - with 48 SFP+ ports
M7300-PS-ALLP	Ixia Vision 7300 family - module to deliver PacketStack (AFM) features - 8 40G and 16 10G PacketStack capable (1)
M7300PCM-48PX	Ixia Vision 7300 family -Packet Capture Module (PCM) - line card that facilitates packet capture - with 48 SFP+ ports
M7300-CRR	Ixia Vision 7300 family - Carrier Line Module
M7300-SMRT	Ixia Vision 7300 family - Smart blank module - Blank module to for unused slots

Carrier line module cassettes

Part Number	Description
M7300CAS-1PC	Ixia Vision 7300 family - single 100G Port Interface Cassette
M7300CAS-PS16PX	Ixia Vision 7300 family - Cassette PacketStack (AFM) Module 10G SFP+ (16)
M7300-CBLK	Ixia Vision 7300 family- Cassette Blank Module
M7300CAS-PS4P4X	Ixia Vision 7300 family - Cassette to deliver PacketStack (AFM) features - 4- Port 40G

Line module port licenses

Part Number	Description
LIC-7300-48PG	Ixia Vision 7300 port license - 1G SFP+ ports QTY (48)
LIC-7300-48PX	Ixia Vision 7300 port license - 1G/10G SFP+ ports QTY (48)
LIC-7300-FD-8P4X	Ixia Vision 7300 series port license - 40G QSFP+ (8) port GTP flow distribution
LIC-7300-16P4X	Ixia Vision 7300 port license - 40G QSFP+ ports QTY (16)
LIC-7300-8P4X-16PX	Ixia Vision 7300 port license - 40G QSFP+ ports QTY (8) and 10G SFP+ ports QTY (16) license
LIC-7300-PS-8P4X	Ixia Vision 7300 family - license for PacketStack (AFM) features on M7300- PS-ALLP
LIC-7300-PS-16PX	Ixia Vision 7300 family - license for PacketStack (AFM) features on M7300- PS-ALLP

7300 ATIP licenses-first year

Part Number	Description
SUB-7300-SSAS	Ixia Vision 7300, AppStack and SecureStack - one-year Subscription License

7300 ATIP licenses-renewals

Part Number	Description
909-5018	Ixia AppStack (ATIP) & SecureStack - renewal of one-year Subscription License

AC power supply

Part Number	Description
RPS-7300-ACPS	Ixia Vision 7300 family - AC power supply with modules and shelf

Fan module

Part Number	Description
M7300-FAN	Ixia Vision 7300 Fan Module Unit (1)

Accessories and spares

Part Number	Description
ACC-7300-FLTR	Ixia Vision 7300 series chassis accessory - 1 year supply of air filters
ACC-7300-FUSE	Ixia Vision 7300 series chassis accessory - power entry module fuse
M7300-SUP	Ixia Vision 7300 family - Supervisor module
M7300-SBM	Ixia Vision 7300 family - Supervisor Blank
RPS-7300-ADD-AC	Ixia Vision 7300 family - Additional AC power module
M7300-ALRM-TMSP	Ixia Vision 7300 family - Alarm and 1588 (PTP) timestamp source

Learn more at: www.keysight.com

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