

# IXIA NET TOOL OPTIMIZER 7300 CHASSIS FAMILY

## A NEW PERSPECTIVE ON NETWORK VISIBILITY

The Network Tool Optimizer (NTO) 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 NTO 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 NTO 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 Phantom Virtual Taps.

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.

## PRODUCT FEATURES

### 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 NTO 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.

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

## PORT FLEXIBILITY

- Up to 384 10GbE ports available
- 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 packet processing with 12-port 100G QSFP28 line card
- Ingress/egress port programmability
- Software port licensing
- Port tagging
- Monitoring tool port load balancing (up to 32 ports)
- Application Monitoring with Geolocation
- Time stamping
- Burst protection

## INCLUDED ACCESSORIES

- Two DC power cords with Fused Plugs
- USB flash drive with activation license key

- Support Rail rack mount kit

## SPECIFICATIONS

GENERAL SPECIFICATIONS	
<b>Performance</b> <ul style="list-style-type: none"><li>• Fully non-blocking 3.8Tb backplane in all line card configurations</li><li>• Full line-rate across all ports with filtering enabled</li><li>• 1GbE/10GbE/40GbE/100GbE support</li><li>• Port reconfiguration with no performance impact</li></ul>	<b>Management</b> <ul style="list-style-type: none"><li>• SNMP v1, v2, v3 support</li><li>• Local, RADIUS, and TACACS+ support (members and groups)</li><li>• Granular access control</li><li>• Event monitoring &amp; logging</li><li>• Syslog</li><li>• IT automation control</li><li>• Dual IP-based management ports (RJ45 – 10/100/1000)</li></ul>

**PHYSICAL SPECIFICATIONS**

**Size and Weight (7300)**

- 7U high rack mountable enclosure
- Dimensions: 12.25"Hx19"Wx28"D (inches)
- Weight: 200.0 lbs (91 kg)

**Size and Weight (7303)**

- 7U high rack mountable enclosure
- Dimensions: 12.25"Hx19"Wx33.27"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**

- 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**

- Operating: 5% to 85%, (non-condensing)
- Short-term: 5% to 90% (non-condensing, not to exceed 96 hours)

EMI/EMC	LINE MODULE OPTIONS
<p><b>North American EMC</b></p> <ul style="list-style-type: none"> <li>• FCC part 15, Class A (USA)</li> <li>• ICES-003 Issue 5, Class A (Canada)</li> </ul> <p><b>European EMC</b></p> <ul style="list-style-type: none"> <li>• EN 300 386 V1.6.1:2012 (Emissions, Immunity)</li> <li>• EN 55022 (Emissions)</li> <li>• EN 61000-3-2 (Harmonics)</li> </ul> <p><b>IEC/International EMC</b></p> <ul style="list-style-type: none"> <li>• IEC/EN 61000-4-2:2009 (Electrostatic Discharge Immunity)</li> <li>• EC/EN 61000-4-3:2006 +A1:2008 +A2:2010 (Radiated Immunity)</li> <li>• IEC/EN 61000-4-4 (Transient/Burst Immunity)*</li> <li>• IEC/EN 61000-4-5:2006 (Surge Immunity)</li> <li>• IEC/EN 61000-4-6:2009 (Conducted Radio Frequency Immunity)</li> <li>• IEC/EN 61000-4-8:2010 (Magnetic Field Immunity)</li> <li>• IEC/EN 61000-4-11 (Voltage Dips, Interruptions and Variations)</li> </ul> <p><b>Australian EMC</b></p> <p>AS/NZS CISPR 22:2009 (Emissions)</p> <p><b>Japanese EMC</b></p> <p>VCCI Class A (Emissions)</p>	<p><b>10GE Line Card Specifications</b></p> <ul style="list-style-type: none"> <li>• Dimensions: 1.75"x17.5"x15" (inches)</li> <li>• Weight: 14.6 lbs. [6.6kg]</li> </ul> <p><b>40GE Line Card Specifications</b></p> <ul style="list-style-type: none"> <li>• Dimensions: 1.75"x17.5"x15" (inches)</li> <li>• Weight: 14 lbs. [6.38kg]</li> </ul> <p><b>Packet Capture Module Specifications</b></p> <ul style="list-style-type: none"> <li>• Dimensions: 1.75"x17.5"x15" (inches)</li> <li>• Weight: 17.0 lbs. [7.7kg]</li> </ul> <p><b>ATI Processor Specifications</b></p> <ul style="list-style-type: none"> <li>• Dimensions: 1.75"x17.5"x15" (inches)</li> <li>• Weight: 15.0 lbs. [6.7kg]</li> </ul> <p><b>Supervisor Module Specifications</b></p> <ul style="list-style-type: none"> <li>• Dimensions: 11.75"x5"x11.75" (inches)</li> <li>• Weight: 20.6 lbs. [9.34kg]</li> </ul> <p><b>High Density Combination Card Specifications</b></p> <ul style="list-style-type: none"> <li>• Dimensions: 1.75"x17.5"x15" (inches)</li> <li>• Weight: 14.8 lbs. [6.7kg]</li> </ul> <p><b>7300 Carrier Line Module (AFM Capable)</b></p> <ul style="list-style-type: none"> <li>• Dimensions: 1.75"x17.5"x15" (inches)</li> <li>• Weight: 18.0 lbs. [8.2kg]</li> </ul>

## ORDERING INFORMATION

PART NUMBER	DESCRIPTION
<b>SYS-7300-STD</b>	<p><b>7300 Series Net Tool Optimizer</b> - base system is the chassis assembly only. This includes the following: (1) 7300 chassis (870-0125), (2) supervisor modules (992-0059), (2) power entry modules (992-0062), and (6) fan modules (991-2013).</p>
<b>SYS-7300-96X-AC</b>	<p><b>NTO 7300 Series Net Tool Optimizer</b> – NEBS-certified base system includes 96 licensed ports of 10G SFP+ with AC power supply. This includes the following: (1) 7300 chassis (870-0125), (2) Supervisor modules (992-0059), (2) Power Entry Modules (992-0062) (6) Fan Modules (991-2013), (2) 48-port 1G/10G SFP+ interface modules (992-0044), (2) 10G 48-port licenses (993-0027), and (1) AC power system (991-3018). Transceivers are not included. Compatible transceivers available and may be purchased from Ixia.</p>
<b>SYS-7300SS-SSV</b>	<p><b>NTO 7300 Series Net Tool Optimizer</b> - Single Supervisor base system is the chassis assembly only. This includes the following: (1) 7300 chassis, (1) Supervisor Module (992-0059), (2) Power Entry Modules (992-0062), (6) Fan Modules (991-2013), (1) Supervisor Blank (992-0071).</p>
<b>SYS-7303-STD</b>	<p><b>7303 Net Tool Optimizer</b> - NEBS certified base system - chassis assembly only. Includes the following: (1) 7303 chassis (991-0081), (2) supervisor modules (992-0059), (2) DC power entry modules (992-0062), (6) fan modules (991-2013), (1) alarm module (992-0058), (1) filter bezel module (991-2016)</p>

## NTO 7300 INTERFACE MODULES, LICENSES, OPTIONS & ACCESSORIES

*100GE INTERFACE MODULE, PORTS AND FEATURE LICENSES*

PART NUMBER	DESCRIPTION
<b>MOD-7300-IFMOD-12P-100G</b>	NTO 7300 series - 12 port 100G QSFP28 multi-speed module. Supports 10G and 100G port speeds. Requires port license to operate. Optionally add up to 400Gbps AFM feature per card
<b>LIC-P7300-100G-12P</b>	NTO 7300 series - 12 port license (multi-speed) for MOD-7300-IFMOD-12P-100G (993-0072)
<b>LIC-P7300-100G-4P</b>	NTO 7300 series - 4 port license (multi-speed) for MOD-7300-IFMOD-12P-100G (993-0073)
<b>LIC-P7300-100G-AFM200G</b>	NTO 7300 series - 200Gbps AFM feature license for MOD-7300-IFMOD-12P-100G. Includes all advanced packet processing capability at up to 200Gbps on one MOD-7300-IFMOD-12P-100G module (per card).
<b>LIC-P7300-100G-AFM400G</b>	NTO 7300 series - 400Gbps AFM feature license for MOD-7300-IFMOD-12P-100G. Includes all advanced packet processing capability at up to 400Gbps on one MOD-7300-IFMOD-12P-100G module (per card).

*10G AND 40G INTERFACE MODULES*

PART NUMBER	DESCRIPTION
<b>MOD-7210-IFMOD-10G</b>	<b>7300 Series-</b> single (1) 48-port interface module - support up to 48 10G SFP/SFP+ ports. Requires port activation license.
<b>MOD-7310-IFMOD-40G</b>	<b>7300 Series-</b> single (1) 16-port 40G QSFP+ module - support up to 16 40G QSFP+ ports. Requires port activation license.
<b>MOD-7312-IFMOD-FD</b>	<b>7300 Series-</b> Single (1) 8x40G and 16x10G flow distribution module. Supports eight (8) 40G QSFP+ and sixteen (16) 10G SFP/SFP+ ports. Includes standard port licenses for all ports and Flow Distribution license for the 40G ports.
<b>MOD-7211-ATP</b>	<b>7300 Series-</b> Single (1) 48-port Application and Threat Intelligence Processor interface module - supports up to 48 10G SFP/SFP+ ports. Requires activation license for ports and license for ATI Processor application and updates.

PART NUMBER	DESCRIPTION
<b>MOD-7311-IFMOD-AF</b>	<b>NTO 7300 series Net Tool Optimizer interface module</b> - Single 8x40G and 16x10G Advanced Feature Module. Supports up to 8 40G QSFP+ and 16 10G SFP/SFP+ ports. May be licensed for both standard and advanced features, such as timestamping and enhanced load balancing. Licenses are not included. Transceivers not included, but compatible transceivers are available and may be purchased from Ixia.
<b>MOD-7212-PCM</b>	<b>7300 Series- Single (1) 48-port Packet Capture Module interface module</b> - supports up to 48 10G SFP/SFP+ ports. Requires activation license for ports.
<b>MOD-7300-CARRIER</b>	<b>7300 Series Net Tool Optimizer - Carrier Line Module</b> - This module provides four licensed 40G ports, and 2 optional cassette slots for advanced hardware features. To maintain cooling airflow, blanking modules must be ordered if cassette slots are not being populated.
<b>MOD-7300-SMARTBLANK</b>	<b>NTO 7300 series Net Tool Optimizer</b> - Blank module to for unused chassis module slot.

### CARRIER LINE MODULE CASSETTES

PART NUMBER	DESCRIPTION
<b>MOD-7420-IFMOD-100G</b>	<b>7300 Series</b> - Single 100G port interface cassette - supports a single 100G CFP port. Includes port license for 100G speed. Requires 7300 Carrier Line Module (992-0065) for operation.
<b>MOD-7215-IFMOD-AFM16</b>	<b>7300 Series-</b> 16-Port 10G Advanced Feature Module Cassette. Includes 16 Advanced Feature Port licenses for 1G/10G speed. Requires 7300 Carrier Line Module (992-0065) for operation.
<b>MOD-7300-CBLANK</b>	<b>7300 Series-</b> Net Tool Optimizer - Cassette blank module - Blank module for unused slots in the NTO 7300 Carrier Line Module (992-0065).
<b>MOD-7315-IFMOD-AFM4Q</b>	<b>7300 Series-</b> Net Tool Optimizer – 4-Port 40G Advance Feature Module Cassette with Optical QSFP+ Ethernet Port. Includes four advance feature ports licenses for 40G speed. Requires 7300 Carrier Line Module (992-0065) for operation.

### LINE MODULE PORT LICENSES

PART NUMBER	DESCRIPTION
<b>LIC-P7300-G48D</b>	<b>7300 Series-</b> Net Tool Optimizer port license - 1G SFP+ 48 ports for MOD-7210-IFMOD-10G (992-0044).



PART NUMBER	DESCRIPTION
LIC-P7300-X48D	<b>7300 Series-</b> 10G SFP+ Ports License - quantity Forty-Eight (transceivers not included).
LIC-P7300-Q8D-FD	<b>7300 Series-</b> Net Tool Optimizer port license - 40G QSFP+ (8) port GTP flow distribution port license. Enables the GTP Flow Distribution feature on the eight (8) 40G ports on the MOD-7311-IFMOD-AF module. Requires standard 40G port licenses.
LIC-P7300-Q16D	<b>7300 Series-</b> 40G QSFP+ Ports License - quantity Sixty Four (transceivers not included).
LIC-P7300-Q8D-X16D	<b>7300 Series-</b> 40G QSFP+ (8) and 10G SFP+ (16) port license. Enables eight (8) 40G and sixteen (16) 10G ports. (Transceivers not included).
LIC-P7300-Q8D-AN	<b>7300 Series-</b> 40G QSFP (8) Advanced Feature NetPort license. Enables NetPort features on eight (8) 40G ports on the MOD-7311-IFMOD-AF module. Requires standard 40G port licenses.
LIC-P7300-X16D-AN	<b>7300 Series-</b> 10G SFP+ (16) Advanced Feature NetPort license. Enables NetPort features on sixteen (16) 10G ports on the MOD-7311-IFMOD-AF module. Requires standard 10G port licenses.

*7300 ATIP LICENSES-FIRST YEAR*

PART NUMBER	DESCRIPTION
LIC-7300-ATI	<b>7300 Series- ATI (Application and Threat Intelligence) Processor One-Year License.</b> Enables application usage and software updates. Does not enable ports. Application will not function without a valid license installed.

*7300 ATIP LICENSES-RENEWALS*

PART NUMBER	DESCRIPTION
SUB-ATIP-RENEWAL	<b>NTO Net Tool Optimizer ATI (Application and Threat Intelligence) processor renewed one-year Subscription License.</b> Enables application usage and software updates. Does not enable ports. Application will not function without a valid license installed.

*AC POWER SUPPLY*

PART NUMBER	DESCRIPTION
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<b>RPS-7300-AC</b>	7300 Series- AC (4800W) remote power supply system for the 7300 chassis. Includes the following: 1 rack unit AC power shelf, 4 AC (1200W) power modules, and 1 management cable.
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*FAN MODULE*

PART NUMBER	DESCRIPTION
<b>MOD-7300-FANMOD</b>	7300 Series- Single (1) fan module unit

*ACCESSORIES AND SPARES*

PART NUMBER	DESCRIPTION
<b>ACC-7300-FILTER</b>	<b>7300 Series-</b> 1 year supply of air filters for the 7300 chassis
<b>ACC-7300-FUSE</b>	<b>7300 Series- Net Tool Optimizer chassis accessory</b> - power entry module fuses. Set of two (2) replacement fuses for the power entry module.
<b>MOD-7300-SUPERVISOR</b>	<b>7300 Supervisor module 7300 Series</b> - Supervisor module provides control and fabric connections between line modules.
<b>MOD-7300-SUPVBLANK</b>	<b>7300 Series- Net Tool Optimizer</b> – Supervisor blank module which allows the 7300 to be configured in a Single Supervisor configuration.
<b>RPS-7300-ACMOD</b>	<b>7300 Series-</b> Single AC (1200W) power module for 7300 remote power supply system. Replacement unit for power module in (RPS-7300-AC) 7300 power supply system.
<b>7300-PTPALARM</b>	<b>7300-Alarm and 1588 (PTP) timestamp source</b> – The module provides physical connections for external alarms and a 1588 timestamp source for the chassis modules.

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