

Ixia Net Tool Optimizer[®] Advanced Feature Modules (AFM)



Advanced Packet Processing with AFM

The Ixia NTO family of Advanced Feature Modules (AFM) helps network engineers to improve monitoring tool performance by optimizing the monitored network traffic to include only the essential information needed for analysis.

Network monitoring is critical to network visibility in enterprise data centers and the IP-based segments of telecommunication service provider networks. The importance of monitoring is reflected in the large investments large enterprises and service providers make in monitoring tools and the staff to manage them. However, demand for higher data rates outpaces gains in monitoring tool performance. With networks growing in speed and little budget to upgrade tools, network engineers need ways to get better performance from their existing monitoring tools.

The AFM family of cards uniquely provide improved security, allow rapid scalability, future-proofs existing tools, and eases management of monitoring networks by providing unprecedented levels of control over monitored traffic.



Advanced Packet Processing Features

- **Packet De-Duplication**
Eliminates redundant packets, at full line rate, before they reach your monitoring tools, so tools are protected and operate more effectively.
- **Extended Burst Protection**
Allows monitoring tools to see every packet, even when aggregate bandwidth exceeds port capacity.
- **Packet Trimming**
Removes payload data from the monitored network traffic, boosting tool performance and keeping sensitive user data secure.
- **Protocol Stripping**
Enables tools to monitor required data by removing GTP, MPLS, VNTAG, VxLAN, and FabricPath headers from the packet stream.
- **GTP Stripping**
Leaves tunneled L3 and L4 headers exposed and enables tools that cannot process GTP header information to analyze the tunneled packets.
- **Time Stamping**
Allows latency-sensitive monitoring tools to know, with nanosecond resolution and accuracy, when a packet traverses a particular point in the network.

Key Features

- Packet De-Duplication** – When directing traffic from various taps in a network to monitoring tools, there is a strong probability that many of these packets are duplicates which can dramatically reduce the effectiveness of monitoring tools, and in some cases, can make monitoring tools report incorrect information. The AFM eliminates redundant packets, at full line rate, before they reach your monitoring tools so the tools are protected and operate more effectively.
- Extended Burst Protection** – Deep buffering allows monitoring tools to see every packet, even when aggregate bandwidth temporarily exceeds port capacity.
- Packet Trimming** - Some monitoring tools only need to analyze packet headers. In other monitoring applications, meeting regulatory compliance requires tools remove sensitive data from captured network traffic. The AFM can remove payload data from the monitored network traffic, which boosts tool performance and keeps sensitive user data secure.
- Protocol Stripping** – Many network monitoring tools have limitations when handling some types of Ethernet protocols. The AFM enables monitoring tools to monitor the right data by removing GTP, MPLS L2VPN (with or without control word), MPLS L3VPN, VNTag, VxLAN, FabricPath, L2GRE, NVGR, and ERSPAN headers from the packet stream.

Feature	AFM16 Ports	AFM4Q Ports	311-AF “NetPort”
Burst Protection	X	-	-
DeDuplication	X	X	-
Packet Trimming	X	X	X
Protocol Stripping	X	X	X
Timestamping	X	X	X

Specifications

AFM Modules Specifications					
	AFM2	AFM16 and 7300 Cassette	AFMQ4	7300 Carrier	7300 AFM NetPort
Ports	2x 10G	16 x 10G	4 x 40G	4x40G (non-advanced) 2x Cassette Bays	8x40G and 16x10G
Size and Weight	4.4" x 7.2" x 1.0" (inches) 0.6lb (0.27 kg)	6.4" x 9.8" x 1.4 (inches) 2.25 lbs (1.02 kg)	6.4" x 9.8" x 1.4 (inches) 2.25 lbs (1.02 kg)	1.75" x 17.5" x 15" (inches) 18lbs (8.2kg)	1.75" x 17.5" x 15" (inches) 14.8 lbs (6.7 kg)
Power Consumption	25W	100W	100W	300W with 2x AFM16 Cassettes	225W
Environmental	Operating temp: 0 to 30 °C Operating humidity: 10 to 85%, noncondensing Fans: Automatic temperature-controlled DC fans	Operating temp: 5 °C to 40 °C Short-term* - 5°C to 55°C Short-term* with fan failure: -5°C to 40°C *not to exceed 96 consecutive hours	Operating temp: 5 °C to 40 °C Short-term* - 5°C to 55°C Short-term* with fan failure: -5°C to 40°C *not to exceed 96 consecutive hours	Operating temp: 5 °C to 40 °C Short-term* - 5°C to 55°C Short-term* with fan failure: -5°C to 40°C *not to exceed 96 consecutive hours	Operating temp: 5 °C to 40 °C Short-term* - 5°C to 55°C Short-term* with fan failure: -5°C to 40°C *not to exceed 96 consecutive hours

Product Ordering

Ordering Information	
AFM4Q: Compatible with 7300 Family	
MOD-7315-IFMOD-AFM4	4x 40G Advance Feature Module Cassette
AFM16: Advanced Feature Module-16 (AFM16) – Compatible with NTO 5288, NTO 5293, NTO 5263, NTO 5268; up to four modules per unit	
MOD-P5200-X8D-ADV	8 x 10G Optical SFP+ Ethernet Port Advanced Feature Module with - quantity 8 ports licensed.
MOD-P5200-X16D-ADV	16 x 10G Optical SFP+ Ethernet Port Advanced Feature Module with - quantity 16 ports licensed.
LIC-P5200-X8D-ADV-UP	Upgrade MOD-P5200-X8D-ADV Advanced Feature Module to MOD-P5200-X16D-ADV.
LIC-P5200-X4D-ADV-UP	License to enable four (4) additional advanced feature module (AFM) ports on a MOD-P5200-X8D-ADV module.
AFM2: Compatible with 5236 and 5273; up to two modules per unit	
MOD-P5200-X2D-ADV	Advanced Feature Module with 10G or 1G Optical SFP/SFP+ Ethernet Ports - quantity two. Ports can be used with SFP or SFP+ transceivers
7300 Carrier and 16-Port 10G Advance Feature Module Cassette	
MOD-7300-CARRIER	7300- Carrier Line Module - This module provides four licensed 40G ports, and 2 optional cassette slots for advanced hardware features.
MOD-7215-IFMOD-AFM16	7300- 16-Port 10G Advance Feature Module Cassette (992-0067)
7300 AFM NetPort	
MOD-7311-IFMOD-AF	7300 – Single, 8x40G and 16x10G advanced feature module



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