DATA SHEET

Ixia Net Optics iTap 1GbE Fiber Port Aggregator™

Key Benefits

- Real-time traffic usage levels
- Size and time of the greatest traffic peaks
- Counters for total packets, total bytes, CRC errors, collisions, and more
- Status for system, link, and power
- Browser-based Web Manager
- Management Information Base (MIB) for third-party SNMP tools
- SNMP traps indicate status changes for system, link, power, and threshold
- Turn off management and monitor Ports
- Set usage alarm threshold
- Reset statistics counters and peak data

Intelligent Tapping for Convenience, Flexibility, and Accuracy

Ixia Net Optics iTap 1GbE Fiber Port Aggregator™ makes network monitoring easier. The powerful combination of a permanent, passive access point and remote monitoring of key traffic indicators increases your management options and speeds response to troubled links. When an iTap Port Aggregator indicates high usage or CRC errors are occurring on a critical network link, you are given a timely warning, without the need to rely on other time-consuming tools.

The iTap Port Aggregator displays the link usage level in both directions in real time, including the size and time of the last peak, right on the front panel. The iTap Port Aggregator is accessible from remote interfaces that provide information and control from anywhere in the network. The iTap Port Aggregator gives you the information and the passive access point you need to respond quickly to network events.

For greater flexibility and response speed, use iTap Port Aggregators with Ixia Net Optics' Matrix Switches and control the deployment of your analyzers from one point without disturbing a single network connection.

Best in Aggregation

The iTap Port Aggregator combines and regenerates both directions of a full-duplex stream, sending all aggregated traffic from one or two separate passive monitoring ports. Typically, full-duplex monitoring with a network tap requires two NICs (or a dual-channel NIC)—one interface for each side of the full-duplex link. The Ixia Net Optics' iTap Port Aggregator enables one or two devices to simultaneously monitor a full-duplex link using only one NIC per device.

After the traffic has been aggregated to a single flow, it is no longer possible to distinguish the usage levels of each side of the bi-directional link. The iTap Port Aggregator tracks these levels prior to aggregation, keeping this vital information easily accessible from both remote and command line interfaces.

With its visual display, remote interfaces, and well-buffered aggregation, the Ixia Net Optics' iTap Port Aggregator creates an entirely new, easily implemented and easy-to-use category of passive access devices.

Buffers Absorb Bursts

When traffic levels exceed the capacity of the receiving NIC, the iTap Port Aggregator stores overflow traffic in buffer memory (for high-load links, this aggregator is available with 1GB of memory). The buffers clear automatically when traffic volume falls below the receiving capacity of the NIC. These buffers allow the iTap Port Aggregator to absorb traffic bursts without dropping packets.

Traffic Monitoring

The iTap Port Aggregator monitors the usage levels of both sides of a full-duplex link. Knowing the usage levels is critical for determining if packets could be dropped during high-load periods. This information is displayed on the front panel and is also available from the remote interfaces. The iTap Port Aggregator allows you to set a threshold for each side of the full-duplex link. For example, the iTap Port Aggregator can warn you when usage in either direction passes the 30% level. When a threshold level is exceeded, the alarm LED illuminates and the remote interfaces record the event. The iTap Port Aggregator records the level of the highest peak along with the date and time. Since the iTap Port Aggregator is monitoring the usage levels, this information is always available, regardless of the aggregation process.

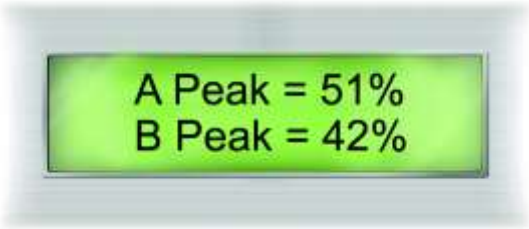
Seeing is Believing

Display and alarm LEDs provide a quick visual check to ensure that usage levels are not exceeding the capacity of either the monitoring device or a pre-determined threshold. From the display, you can view the current bandwidth usage of each side of a full-duplex link with the size and time of the highest peak. A quick check of the display lets you know if there was an event that requires further investigation. After taking action on a usage or peak event, you can reset the data from a recessed Reset button on the front panel, or from a remote interface. The iTap Port Aggregator is ready to detect and display the next critical event.

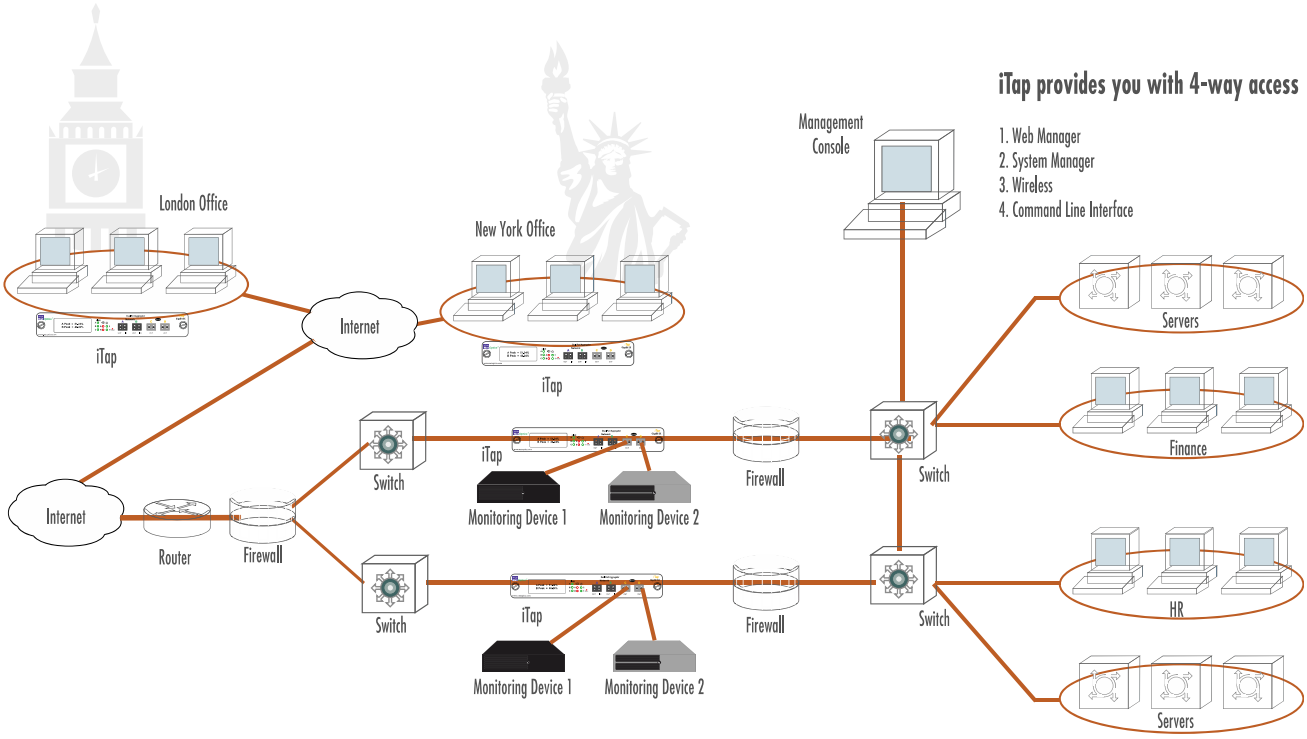
Access Information Anywhere

Both the Web Manager and System Manager allow you to remotely set parameters, view status information, and monitor traffic statistical data. These interfaces provide security and performance information such as the number of over- and under-sized packets, packet collisions, and CRC errors. You can remotely set alarm thresholds, clear traffic data counters, and turn a monitor port on or off.

Current usage is available at a glance



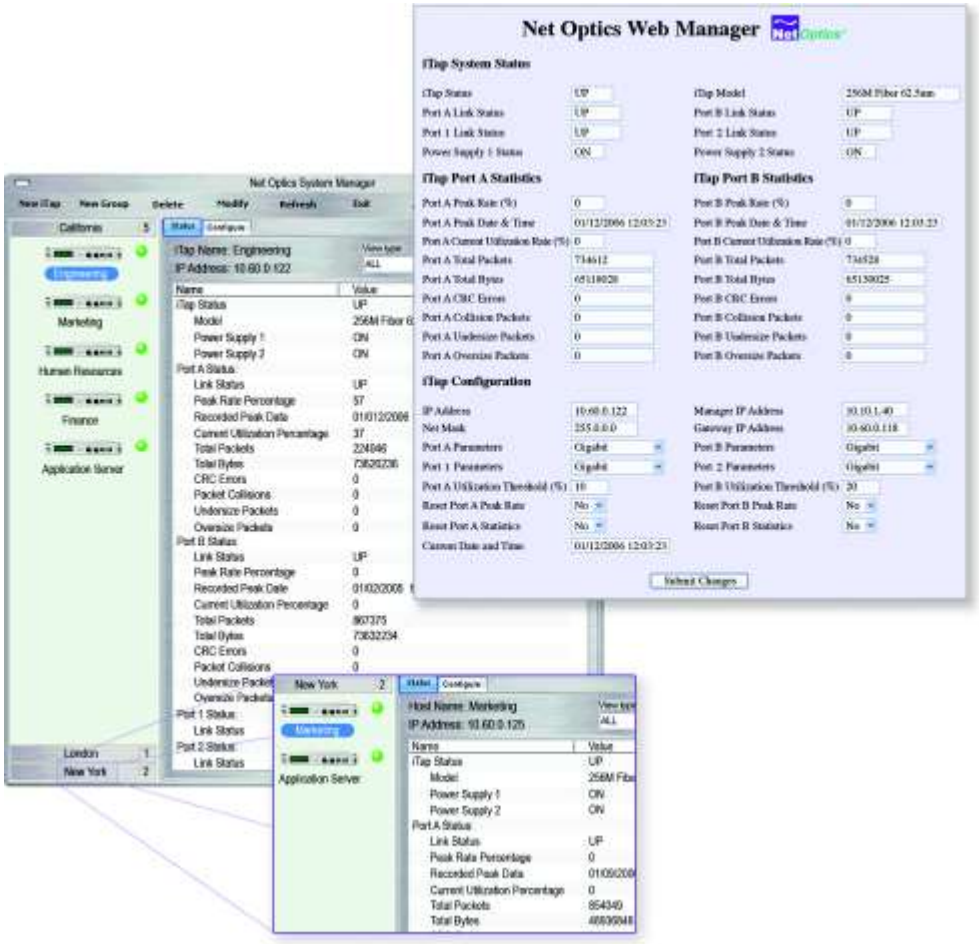
The greatest peaks are also displayed



iTap Port Aggregators form an early warning system to detect network anomalies.

Web Manager

The iTap Port Aggregator has built-in support for remote control and monitoring from any computer with an Internet browser. The web manager is a browser-based interface that allows you to change settings, view status, and retrieve data remotely with simple-to-use controls. When you access an iTap Port Aggregator with web manager, all configurations, status, and traffic data are displayed on a single web page. Changes to the configuration can be made with a few clicks of the mouse.



Access the web for any iTap Status. The Ixia ***Net Optics system manager gives you access to all your iTap Port Aggregators around the world.***

System Manager

iTap Port Aggregators can be used as a system managed via Simple Network Management Protocol (SNMP) from a single interface. The Ixia Net Optics System Manager is an SNMP management tool that offers central management of all Net Optics iTap devices in the network. You can organize iTaps into groups according to workgroup, location, or any other criteria. As with Web Manager, you can view all status, configuration, and traffic information and make changes quickly to any iTap in the system. The iTap Port Aggregator generates SNMP traps for system status, threshold alarm, link status, and power status. If you are already using an SNMP management tool, iTap Port Aggregators can be fully accessed after loading Net Optics Management Information Base (MIB) file.

Security, Visibility, and Reliability

You have the option of setting the iTap Port Aggregator so that it will not display data on the LCD, and the Management Port will be disabled, preventing it from being accessed from the network. The Monitor Ports can also be turned off to prevent unauthorized access to the network link. The monitoring device connected to the iTap Port Aggregator sees all full-duplex traffic including Layer 1 and Layer 2 errors. Redundant power connections provide uptime protection.

Key Features

- Front panel display and LEDs – Real-time usage and peak traffic information displayed on the front panel saves you time and money spent using other tools to get basic information. Alarm LEDs indicate if traffic levels have exceeded a set threshold, allowing you to respond quickly to changing traffic conditions.
- Web manager – Without any specialized software, you can access the traffic information monitored by any iTap Port Aggregator. All you need is a computer with a browser and access to the IP address of the iTap Port Aggregator. No matter where you are, you can control your iTap Port Aggregator and monitor traffic information.
- System manager – Ixia Net Optics' SNMP management tool, the system manager, gives you single-point control and visibility into any link in the network with an iTap Port Aggregator anywhere in the world. Distributed on strategic links, iTap Port Aggregators provide baseline information and early warning alarms to help you deploy your security and monitoring devices more effectively over more links.
- Command Line Interface (CLI) – The password-protected CLI gives you complete access to all of iTap Port Aggregator's functionality via an RS232 port. Most importantly, you can use the CLI to disable the management port and prevent the front panel display from showing traffic information.
- Management Information Base (MIB) – Use the iTap Port Aggregator with your current SNMP management tool. The Ixia Net Optics' MIB and SNMP traps are completely compatible with popular SNMP tools such as OpenView and Tivoli®.
- Aggregation – Ixia Net Optics' proven port aggregation technology allows you to monitor traffic using a single NIC on your monitoring device. Unlike any other port aggregator tap, the iTap Port Aggregator monitors usage levels of both sides of the full-duplex link so this information is not lost. 256MB traffic buffers help ensure that your monitoring device does not miss traffic during bursts.
- Cables Included – All cables required for installation are included. Follow the connection diagram on top of the iTap Port Aggregator and you are halfway done with the installation of your iTap Port Aggregator.
- Counters for total packets, total bytes, CRC errors, collisions, and more
- Status for system, link, and power
- SNMP traps indicate status changes for system, link, power, and threshold
- Reset statistics counters and peak data
- Turn off LCD information
- Uses only one monitoring device NIC
- Completely passive and device neutral
- Application diagram shows all connections

Specifications	
Optical - SX Fiber Tap	• Fiber Type: Corning Multimode 50 or 62.5/125µm, 850nm • Transceiver: Gigabit SX 850nm, VCSEL, supports 50 or 62.5/125µm • Monitor Port Output Power: -9.5 dBm • Network Connectors: LC • Monitor Connectors: SFP • Split Ratio: 50/50, 60/40
Optical - LX Fiber Tap	• Fiber Type: Corning Single-mode 8.5/125µm, 1310nm • Transceiver: Gigabit LX 1310nm, supports 8.5/125µm • Monitor Port Output Power: -10 dBm • Network Connectors: LC • Monitor Connectors: SFP • Split Ratio: 50/50
Electrical	• Power Supply Input: 100-240VAC, 0.5A, 47-63Hz • Output: 12V, 1.5A
Memory	• 1GB buffer
Environmental	• Operating Temperature: 0˚C to 40˚C • Storage Temperature: -10˚C to 70˚C • Relative Humidity: 10% min, 95% max, non-condensing
Mechanical	• Dimensions: 1.125” high x 11” deep x 8.5” wide
Indicators	• (1) 2x16 LCD • (3) Link LEDs • (2) Threshold Alarm LEDs • (2) Power LEDS
Software	• Command Line Interface (CLI): Any terminal emulation software • Net Optics Web Manager: Any browser • Net Optics System Manager: Windows 98, Windows 2000, Windows XP
Available Base Models	• Gigabit Multimode Fiber, SX, 62.5 µm • Gigabit Multimode Fiber, SX, 50 µm • Gigabit Single-mode Fiber, LX, 8.5 µm
Certifications	Fully RoHS compliant

Ordering Information

IPA-50SX5-SFP

IPA-SX5-SFP

IPA-LX5-SFP