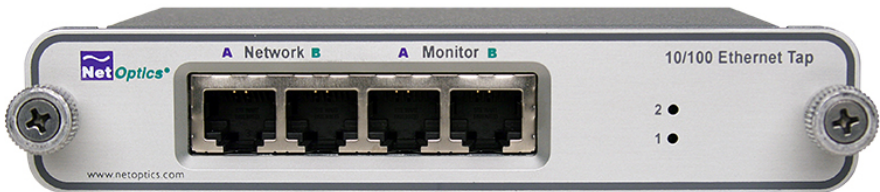




Installation Guide for 10/100BaseT Tap



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Additional Information

Net Optics, Inc. reserves the right to make changes in specifications and other information contained in this document without prior notice. Every effort has been made to ensure that the information in this document is accurate.

Introduction

Net Optics 10/100BaseT Taps supply mission-critical networks with superior network visibility and security access. The breakthrough design of the Net Optics 10/100BaseT Tap ensures zero impact on network traffic while maintaining uninterrupted access for monitoring and security devices. These are the world's first and only 10/100BaseT Taps offering "zero delay" technology.

Highly sensitive network locations can improve monitoring performance via the innovative features of Net Optics Taps. If power is lost to other 10/100 Taps, the connected devices may introduce delays as they detect the power loss and try to re-establish their link.

Net Optics' pioneering design ensures that any loss of power to the Tap is transparent to the network, and does not affect the flow of traffic through the Tap – eliminating packet delay and loss as potential security issues.

Simply Plug It In

Full-duplex monitoring is a snap with a custom monitoring cable that sends each side of the signal to a separate NIC on the monitoring device. All network and monitoring cables are included with the 10/100BaseT Tap for plug-and-play deployment.

Security and Visibility

Without an IP address, monitoring devices are isolated from the network, dramatically reducing their exposure to attacks. However, the monitoring device connected to the Tap still sees all full-duplex traffic as if it were in-line, including Layer 1 and Layer 2 errors.

Reliability

For extra uptime protection, Net Optics 10/100BaseT Taps offer redundant power connections. Should the primary power source fail, the Tap automatically switches to the backup power source. Power LEDs on the front of the Tap indicate the current power source – even if power is lost and reapplied, there is always zero delay to network traffic.

Key Features

Passive, Secure Technology

- Provides passive access at 10 or 100 Mbps without data stream interference or introducing a point of failure
- Unique Zero Delay technology ensures no packet delay or loss if power is lost to the Tap
- Compatible with Power over Ethernet (PoE) applications
- Passes all full-duplex traffic (including errors) from all layers for comprehensive troubleshooting
- No IP address is needed for the Tap or monitoring device, enhancing monitoring security
- Redundant power ensures monitoring uptime
- Fully IEEE 802.3 compliant
- Fully RoHS compliant

Ease of Use

- Front-mounted connectors support easy installation and operation
- LED indicators show redundant power status
- Silk-screened application diagram illustrates all connections for easy deployment
- Optional 19-inch rack frames hold up to 3 or 12 Taps
- Available with -48VDC power
- Compatible with all major manufacturers' monitoring devices, including protocol analyzers, probes, and intrusion detection/prevention systems

Support

- Net Optics offers free technical support throughout the lifetime of your purchase. Our technical support team is available from 8 am to 5 pm Pacific Time, Monday through Friday at +1 (408) 737-7777 and via email at ts-support@netoptics.com. FAQs are also available on Net Optics website at www.netoptics.com.

About This Guide

This guide explains how to install the 10/100BaseT Tap. Please read the Guide before attempting to install the 10/100BaseT Tap.

This guide covers the following models: Model TP-CU

Unpacking and Inspection

Carefully unpack the 10/100BaseT Tap and check for damaged or missing parts. The Tap ships with the following:

- 10/100BaseT Tap
- 2 power supplies
- 2 power cords
- 2 network cables
- 2 monitor cables
- Installation Guide

You may have also ordered a panel for rack mounting and an extended warranty. Carefully check the packing slip against parts received. If any part is missing or damaged, contact Net Optics' Customer Service immediately.

Product Diagrams

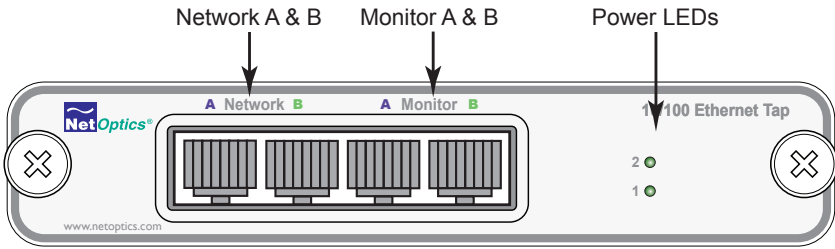


Figure 1: Front Panel

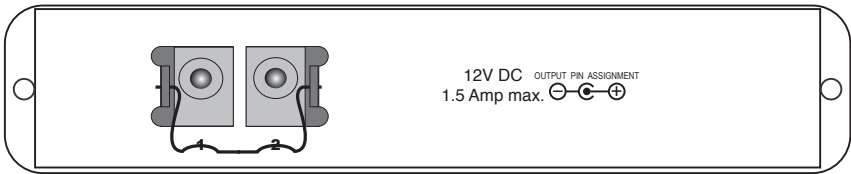


Figure 2: Rear Panel AC Power Model



Figure 3: Rear Panel DC Power Model

LED Indicators

- **PWR 1/ PWR 2:** Main and Redundant Power. If the Tap is deployed with both power supplies, both LEDs illuminate white when the Tap is connected to power. An off power LED indicates that the corresponding power supply is not functioning or not connected.

Cabling Guidelines

- If connecting to Switches or Hubs, use CAT5 RJ45 cross-over cabling.
- If connecting to Routers or NICs, use CAT5 RJ45 straight-through cabling.

Connecting to the Network

1. Connect Network Port A to the appropriate switch, server or router using a CAT5e cable.
2. Connect Network Port B to the appropriate switch, server or router using a CAT5e cable.

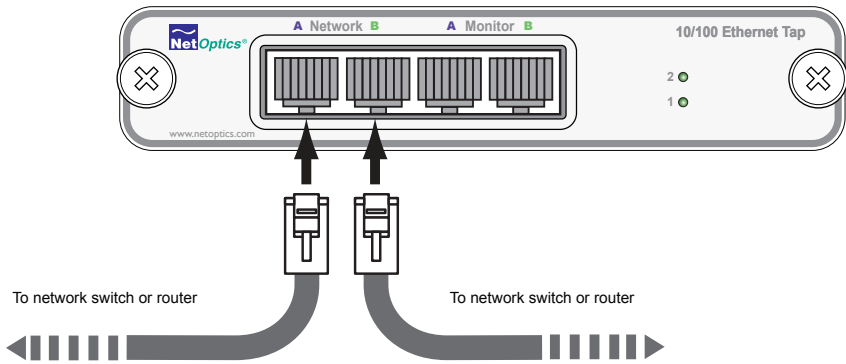


Figure 5: Connecting to the Network

3. Verify that the Tap Network Ports are cabled in-line between two devices.

Connecting to the Monitoring Device

1. Supply power to the Tap using the two redundant power supplies included with the unit. Verify that the Power LED illuminates.
2. Connect Monitor Port A to the appropriate port on the monitoring device using a CAT5e straight-through cable.
3. Connect Monitor Port B to the appropriate port on the monitoring device using a CAT5e straight-through cable.

Note:

The second power supply is available to support the flow of traffic to the monitoring device in the event that the first power supply becomes unavailable.

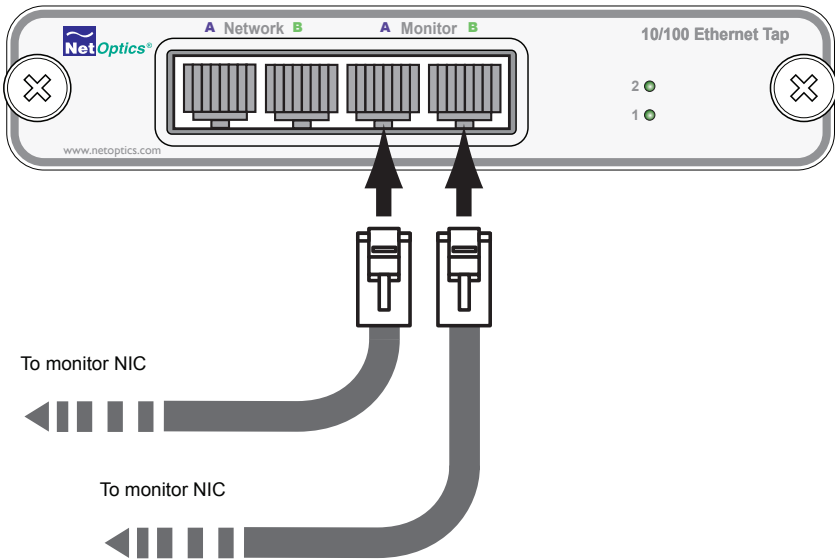


Figure 6: Connecting to the Monitoring Device

Specifications

Environment

Operating Temperature: 0°C to 40°C

Operating Temperature: -10°C to 70°C

Relative Humidity: 10% min, 95% max, non-condensing

Power

Power Supply

Input: 100-240VAC, 0.5A, 47-63Hz

Output: 12V 1.5A

Power Supply

Input: -48V DC typical, -36V DC min, -75V DC max

Mechanical

Dimensions: 1.125" high x 4.25" deep x 4.5" wide

Cable Interface

Copper Cable Type: 22-24 AWG unshielded twisted pair cable,
CAT5/CAT5e

Link Distance Supported: 100 meters

Connectors

(2) RJ45, 8-pin connectors (monitor ports)

(2) RJ45, 8-pin connectors (network ports)

Certifications

- 10/100BaseT Tap is compliant with IEEE 802.3 and 802.3af specifications.
- Fully RoHS compliant

Limitations on Warranty and Liability

Net Optics offers a limited warranty for all its products. IN NO EVENT SHALL NET OPTICS, INC. BE LIABLE FOR ANY DAMAGES INCURRED BY THE USE OF THE PRODUCTS (INCLUDING BOTH HARDWARE AND SOFTWARE) DESCRIBED IN THIS MANUAL, OR BY ANY DEFECT OR INACCURACY IN THIS MANUAL ITSELF. THIS INCLUDES BUT IS NOT LIMITED TO LOST PROFITS, LOST SAVINGS, AND ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES ARISING FROM THE USE OR INABILITY TO USE THIS PRODUCT, even if Net Optics has been advised of the possibility of such damages. Some states do not allow the exclusion or limitation of implied warranties or liability for incidental or consequential damages, so the above limitation or exclusion may not apply to you.

Net Optics, Inc. warrants this Tap to be in good working order for a period of ONE YEAR from the date of purchase from Net Optics or an authorized Net Optics reseller.

Should the unit fail anytime during the said ONE YEAR period, Net Optics will, at its discretion, repair or replace the product. This warranty is limited to defects in workmanship and materials and does not cover damage from accident, disaster, misuse, abuse or unauthorized modifications.

If you have a problem and require service, please call the number listed at the end of this section and speak with our technical service personnel. They may provide you with an RMA number, which must accompany any returned product. Return the product in its original shipping container (or equivalent) insured and with proof of purchase.

Additional Information

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Net Optics is always open to any comments or suggestions you may have about its products and/or this manual.

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