



# Gigabit Ethernet WDM Media Converter

## 1000Base-T to 1000Base-LX (SC) Single-Mode

### Double your traffic capacity with ease!

Model  
510523

The INTELLINET NETWORK SOLUTIONS™ Gigabit Ethernet WDM (bi-directional wavelength division multiplexing) Media Converter utilizes a single strand of fiber to transmit network traffic on separate receive and transmit wavelengths (1310/1550 nm). This innovative technology allows you to effectively use the two strands for two independent connections or to double the capacity without digging in a second fiber cable. The converter is completely transparent to the network so the network performs exactly the way it did before — only now it can support both copper and fiber mediums.

#### Expands the Size of an Existing Network

Provides fiber connectivity to Ethernet segments, allowing for even further networking expansion between extended workgroups. Also provides building-to-building connectivity without the need for the cost and disruption associated with the installation of additional routers.

#### Enhances the Distance between Networking Devices

Connecting the converter to fiber segments can further extend distances between networking nodes. This can be achieved by direct connection between the converter and a fiber-based node or networking device.

#### Cabling Flexibility

Network managers can install fiber cabling anywhere within a network without changing the arrangement of copper-based Ethernet. The compact size of the converter allows it to be easily deployed in any narrow desktop location or to be used in a wall-mount installation. Several converters can be simultaneously installed into a 19" rack-mountable chassis.

#### Lifetime Warranty

Strict manufacturing standards ensure the highest quality in all INTELLINET NETWORK SOLUTIONS products. All items carry a full Lifetime Warranty — the strongest quality commitment anyone can make.





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## Features

- Data transfer rate: 1000 Mbps
- WDM (wavelength division multiplexing) technology utilizes only one strand of fiber to transmit data on separate receive and transmit wavelengths
- Wavelengths: receive (RX), 1310 nm; transmit (TX), 1550 nm
- 1000Base-T RJ-45 port: maximum distance 100 m / 300 ft. (Cat5e and better)
- RJ-45 port with Auto MDI/MDI-X support
- 1000Base-LX single-mode Fiber SC port
- Fiber distance support: up to 10 km (6.2 mi.) (9/125  $\mu$ m cable)
- Status LEDs for easy monitoring of device status
- Remote and local loop back test
- External power adapter
- Can be used stand-alone or in INTELLINET NETWORK SOLUTIONS converter chassis model 519151 (12 Port) and 517553 (4 Port)
- WDM Media Converter Models 510509 and 510523 need to be installed as pairs on opposite sides of the same fiber cable
- Lifetime Warranty

## Specifications

### STANDARDS

- IEEE 802.3ab (Twisted Pair Gigabit Ethernet)
- IEEE 802.3z (Fiber Optic Gigabit Ethernet)

### GENERAL

- Media support:
  - 1000Base-T Cat5e or higher UTP/STP RJ-45
  - 1000Base-LX single-mode 9/125  $\mu$ m Fiber
- Connectors:
  - RJ-45 port, 1000Base-T
  - Fiber SC port, 1000Base-LX
- Distances:
  - 10 km / 6.2 mi. (9/125  $\mu$ m Fiber cable)
  - 100 m / 300 ft. (RJ-45 cable)
- Wavelengths:
  - Receive (RX): 1310 nm
  - Transmit (TX): 1550 nm
- Min. TX power: -9 dBm
- Max. TX power: -3 dBm
- RX sensitivity: -21 dBm
- Min. power budget: 12 dB
- Max. power budget: 18 dB
- Safety & EMI certificates: FCC Class A, CE Mark

### LEDS

- Power
- Full/half duplex
- LINK/TX for RJ-45 port
- LINK/TX for Fiber SC port

### DIP SWITCHES

- DIP 1 - enables/disables local loop back (LLBK)
- DIP 2 - enables/disables remote loop back (RLBK)

### POWER

- External power adapter: 12 V DC, 0.5 A
- Power consumption: 3.4 Watts (maximum)

### ENVIRONMENTAL

- Metal housing
- Dimensions: 109 (L) x 74 (W) x 23 (H) mm (4.2 x 2.9 x 0.9 in.)
- Weight: 160 g (0.34 lbs.)
- Operating temperature: 0 – 50°C (32 – 122°F)
- Operating humidity: 10 – 80% RH, non-condensing
- Storage temperature: -20 – 70°C (-4 – 158°F)

### PACKAGE CONTENTS

- Gigabit Ethernet WDM Media Converter
- External power adapter
- User manual

For more information on INTELLINET NETWORK SOLUTIONS products, consult your local dealer or visit [www.intellinet-network.com](http://www.intellinet-network.com).



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