



# Gigabit Ethernet WDM Bi-Directional Single Mode Media Converter

10/100/1000Base-TX to 1000Base-LX (SC) Single-Mode, 20 km (12.4 mi.), WDM (RX1550/TX1310)

Part No.: 545068

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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 (1550/1310 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

This converter provides fiber connectivity to Ethernet segments, allowing for even further networking expansion between extended workgroups. It also provides building-to-building connectivity without 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 wallmount installation. Several converters can be simultaneously installed into a 19" rack-mountable chassis.

## Features:

- Fiber SC-type dual-wavelength single-mode port connects over distances of up to 20 km (12.4 miles)
- Must be used with Gigabit Ethernet WDM Bi-Directional Single Mode Media Converter, model 545075
- Data transfer rate: 10/100/1000 Mbps
- WDM (wavelength division multiplexing) technology utilizes only one strand of fiber to transmit data on separate receive and transmit wavelengths
- Wavelengths: receive (RX), 1550 nm; transmit (TX), 1310 nm
- One 10/100/1000Base-TX RJ45 port, maximum distance 100 m / 300 ft.
- RJ45 port with Auto MDI/MDI-X support
- Status LEDs for easy monitoring of device status
- Functions as a stand alone converter or can be used with the 14-slot Media Converter Chassis, model 507356
- External power adapter, 5 VDC
- Three-Year Warranty

## Specifications:

### Standards

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

### General

- Media support:
  - 1000Base-T Cat5 or higher UTP/STP RJ45, EIA/TIA 568
  - 1000Base-LX single-mode 8.3/125  $\mu\text{m}$  or 8.7/125  $\mu\text{m}$  or 8/125  $\mu\text{m}$  or 10/125  $\mu\text{m}$
- Connectors:
  - RJ45 port, 10/100/1000Base-TX
  - Fiber SC port, 1000Base-LX (SC)
- Distances:
  - 20 km / 12.4 mi. (fiber cable)
  - 100 m / 300 ft. (RJ45 cable)
- Wavelengths:
  - Receive (RX): 1550 nm
  - Transmit (TX): 1310 nm

- Power output: -8 – -3 dBm
- RX sensitivity:  $\leq$ -22 dBm
- Signal loss: 0.2 dB/km
- MTBF > 100,000 hours
- Certifications: FCC Class A, CE

#### LEDs

- Power
- Link/Activity
- Full Duplex/Collision
- 1000 Mbps link speed indicator for RJ45 port
- Link indicator for fiber port

#### Power

- External power adapter: 12 VDC, 1.2 A
- Power consumption: 5 watts (maximum)

#### Environmental

- Metal housing
- Dimensions: 105 (L) x 69 (W) x 25 (H) mm (4.13 x 2.72 x 0.98 in.)
- Weight: 180 g (0.4 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 Bi-Directional Single Mode Media Converter
- External power adapter
- Instructions



