



**Caliber Interconnect Solutions®**

— design for perfection —



# Ethernet to Fiber Converter/Switch

**Manufactured by**

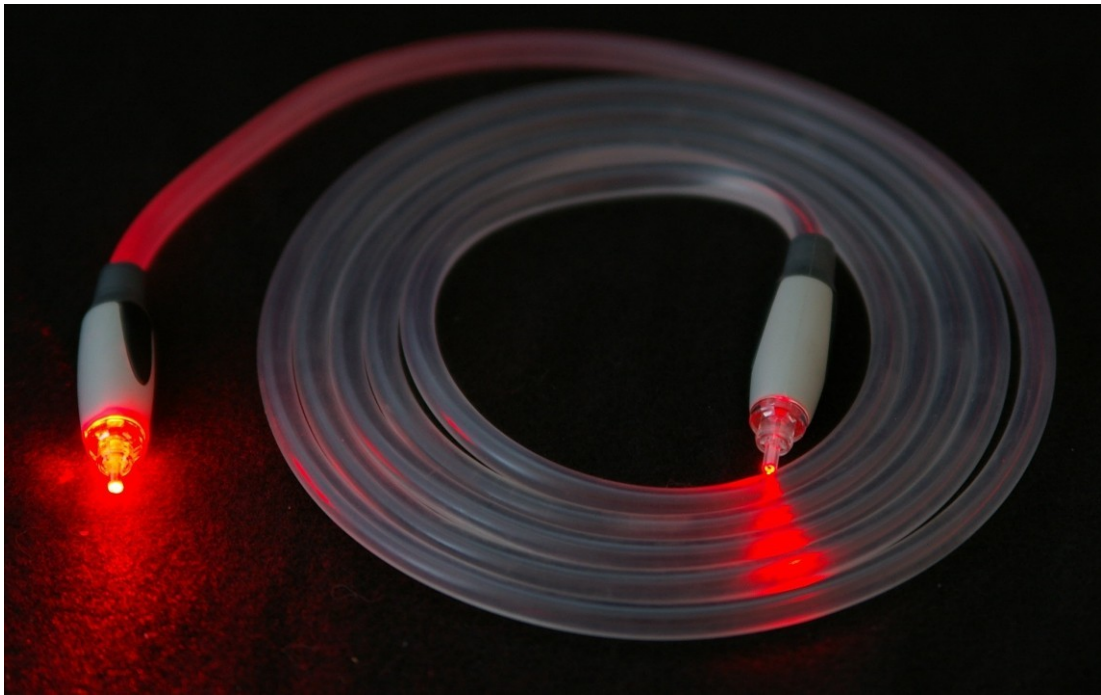
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# Prologue:



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Ethernet-Fiber Converters enable connections of Un-shielded Twisted Pair (UTP) copper-based Ethernet equipment over a fiber optic link to take advantage of the benefits of fiber which include:

## Highlights:

- Extending links over greater distances using fiber optic cable
- Protecting data from hacking, noise and interference
- Upgrade your network with additional bandwidth capacity
- Provides you with the flexibility to add fiber on a port-by-port basis
- Fast Ethernet or Gigabit Ethernet to multi-mode or single mode
- Ethernet to fiber and fiber back to Ethernet links
- Fiber to fiber links

# About the Product



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The copper transceiver used in an Ethernet-Fiber Converter transforms the signal from a UTP / RJ45 Ethernet link to one that can be used by a fiber optic transceiver. Media converters can connect to various optical fiber cable such as multimode, single mode or single strand fiber cable.

The Ethernet-Fiber Converter is a standalone device with its own power adapter. They convert fixed speed Fast Ethernet rate converting 10/100 UTP links to fiber connections.

## Advantages:

Copper-based Ethernet connections are limited to a data transmission distance of up to 100 meters when using unshielded twisted pair (UTP) cable. By using an Ethernet to fiber conversion solution, fiber optic cabling can now be used to extend this link over distances up to several kilometers.

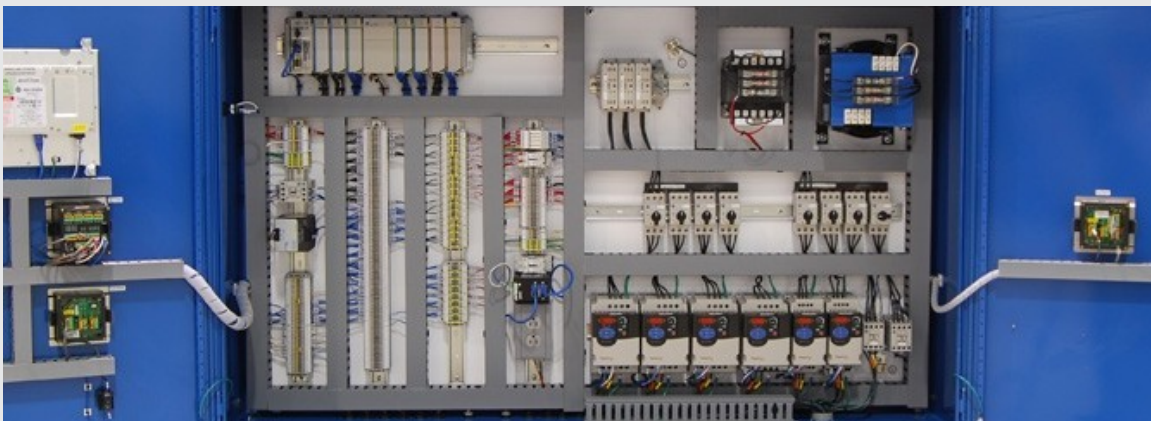
An Ethernet to Fiber Converter is very useful in environments where high level of electromagnetic interference (both man-made and Natural lightning) is present – like in Industries, Railway Stations, Power Stations, Remote installations etc. The EMI interference can cause temporary or permanent corruption of data over copper-based Ethernet links. Data transmitted over fiber optic cable is completely immune to these types of interferences

# Targeted Market Segments

**1. Wind Mills – Linking various installations that are kilometers apart**



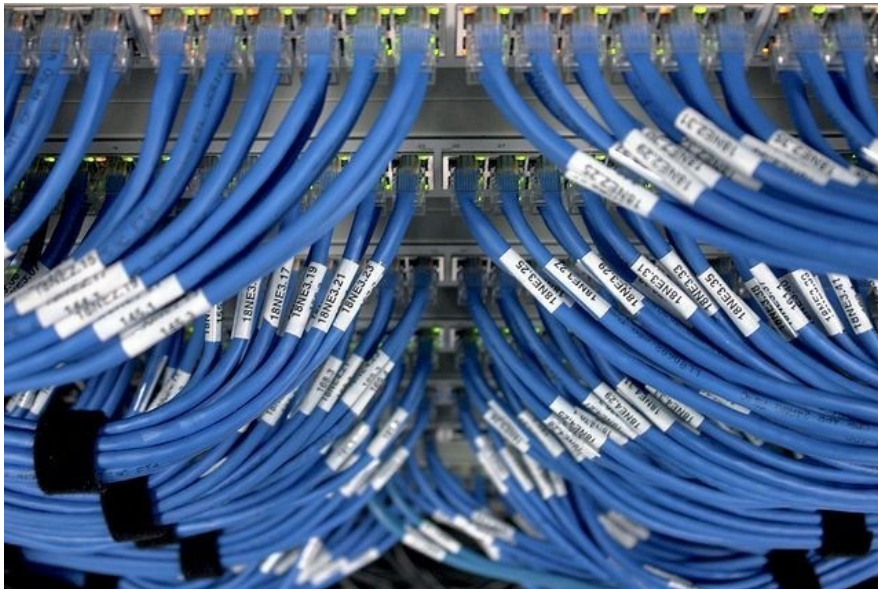
**2. Industrial Automation – Connecting Machines/equipment in a heavy EMI / Noise / Vibration / Pollution / Hazardous Environment**





# Targeted Market Segments

a. Larger Offices – Connecting servers and client systems that are spread over a larger area where running UTP cables is not feasible / viable / unsafe.



3. Secure Data Transmission is of prime concern – this product will offer some degree of protection in the Layer1 level



# Targeted Market Segments

## 4. Mobile Communication / Telecommunication / Network service providers



## 5. Traffic Control



# SPECIFICATIONS

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Operating voltage	: 24VDC / 250mA with 10 – 30V Range
Operating Temperature	: -40°C to 70°C
Storage Temperature	: -40°C to 85°C
Operating Humidity	: 10% to 95% (Non-Condensing)
Mechanical details	: Sheet metal enclosure (10 x 5 x 8)
Total weight	: 0.4 Kg
Number of UTP Ports	: 2 (10BASE-T / 100BASE-TX)
UTP Connector	: RJ-45 TX Ports
Number of Optic Fiber Ports	: 1 or 2 (100Base-FX)
Fiber Optic Connector	: ST or SC Duplex Receptacle
Ethernet Standard	: IEEE802.3u
ATM standard	: UNI Version 3.0 Section 2.3 (100 Mbps)
Optical Performance Standard	: FDDI PMD (ISO/IEC 9314-3:1990 and ANSI X3.166 - 1990)
Optic Fiber type	: Multi-mode 50-62.5/125µm (or) Single-mode 7-10/125µm

### 10BASE-T link

Mode: OFC-UTP, UTP-UTP  
Range: 100 Meters Speed:  
10 Mbps Full-duplex  
UTP Cable type: 4-wire CAT-3 or better

### 100BASE-TX link

Mode: OFC-UTP, UTP-UTP  
Range: 100 Meters  
Speed: 100 Mbps Full-duplex  
UTP Cable type: 4-wire CAT-5 or better

### 100BASE-FX link

Mode: OFC-UTP, OFC-OFC  
Range: 2km (1320 nm) - 80km (1550 nm)  
Speed: 100 Mbps Full-duplex

## Regulatory Approvals

CE: EN61000-6-2,4, EN55011, EN61000-4-2,3,4, 5,6  
ROHS: Compliant