Caliber Interconnect Solutions®

design for perfection

Ethernet to Fiber Converter/Switch

Manufactured by

Caliber Interconnect Solutions

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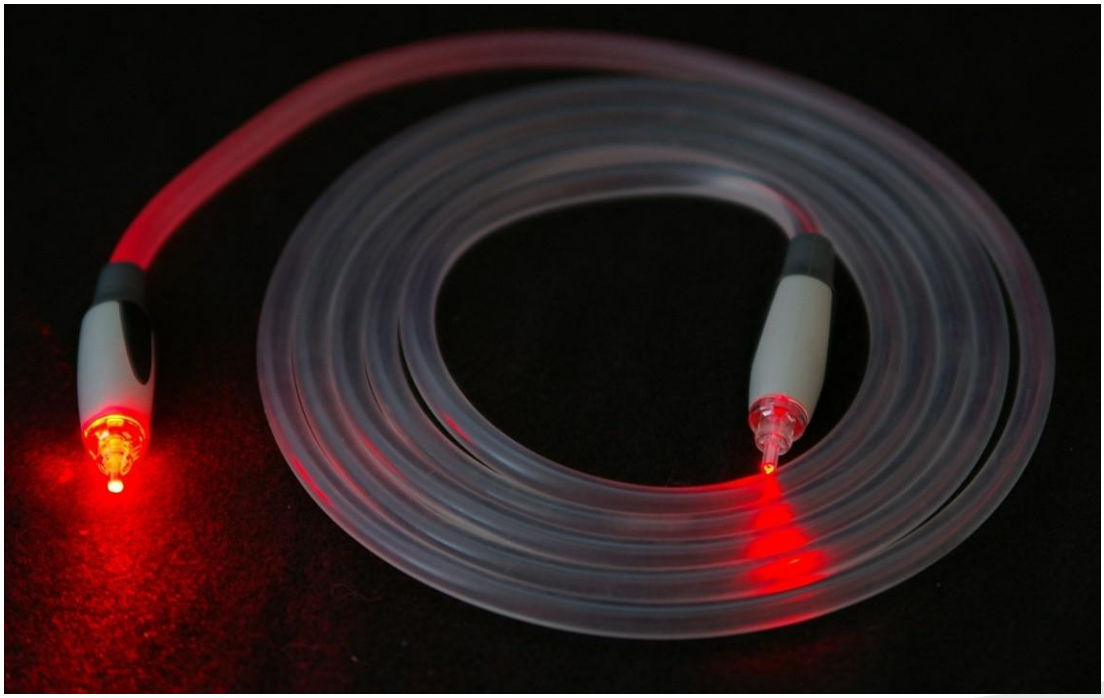
Prologue:



Prologue:

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.

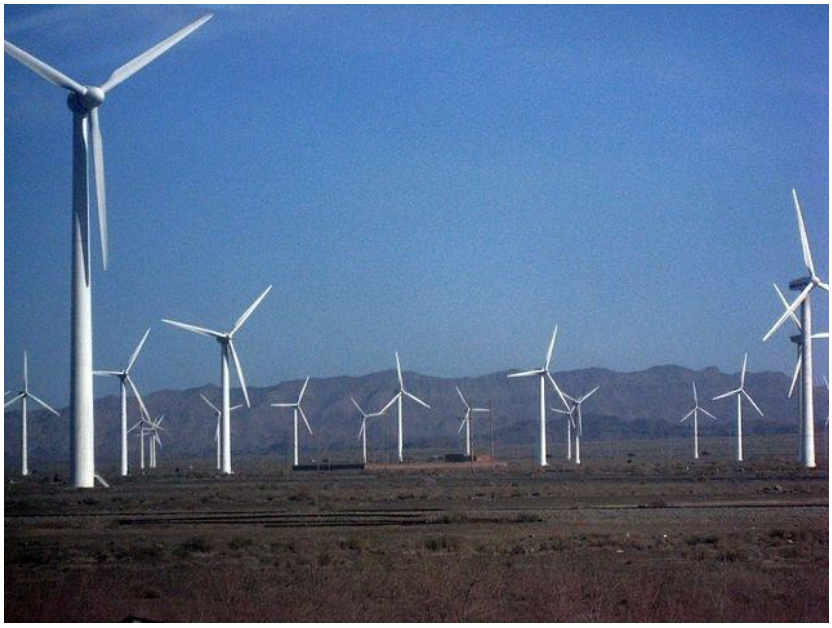
Advantages:

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.

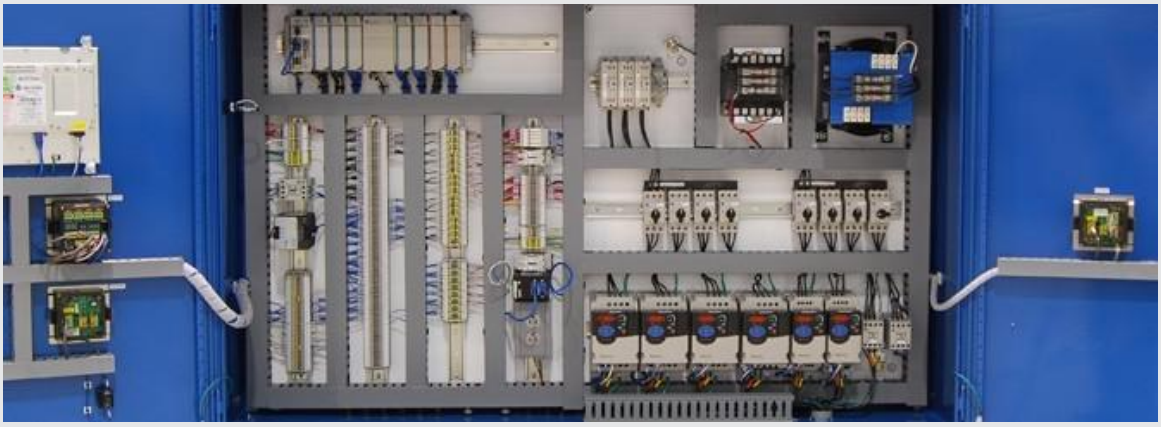
An Ethernet to Fiber Converter is very useful in environments where high level of electromagnetic interference (both man-made and Natural lightning) is present – like in Industries, Railway Stations, Power Stations, Remote installations etc. The EMI interference can cause temporary or permanent corruption 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

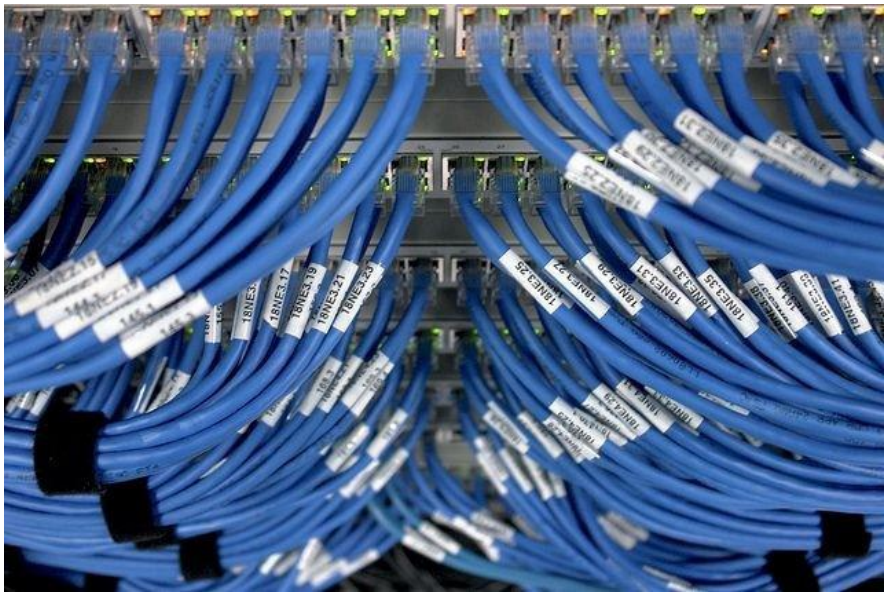


2.Industrial Automation – Connecting Machines/equipment in a heavy EMI / Noise / Vibration / Pollution / Hazardous Environment



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 Operating	: 24VDC / 250mA with 10 – 30V Range
Temperature Storage	: -40ºC to 70ºC
Temperature Operating	: -40ºC to 85ºC
Humidity Mechanical details	: 10% to 95% (Non-Condensing)
Total weight	: Sheet metal enclosure (10 x 5 x 8)
Number of UTP Ports	: 0.4 Kg
UTP Connector	: 2 (10BASE-T / 100BASE-TX)
Number of Optic Fiber Ports	: RJ-45 TX Ports
Fiber Optic Connector	: 1 or 2 (100Base-FX)
Ethernet Standard	: ST or SC Duplex Receptacle
ATM standard	: IEEE802.3u
	: 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