## **Fiber to Ethernet Converters**

perle.com/products/media-converters/ethernet-to-fiber-media-converter.shtml

### **Extend Copper Ethernet Links over Optical Fiber**

Fiber to Ethernet Converters use a copper transceiver to transform the signal from a UTP / RJ45 Ethernet link to one that can be used by a fiber optic transceiver. These Media Converters are used to enable connections of UTP copper-based Ethernet equipment to various optical fiber cable such as multimode, single mode, or single strand fiber. The benefits include, extending Ethernet links over greater distances, protecting data from noise and interference, and future proofing a network with additional bandwidth capacity.

Copper-based Ethernet connections are limited to a data transmission distance of only 100 meters [328 feet] when using unshielded twisted pair ( UTP ) cable. By using an Ethernet to fiber conversion solution, fiber optic cabling can be used to extend this link over a greater distance. An Ethernet to Fiber Media Converter can also be used where there is high level of electromagnetic interference (EMI) which is a common phenomenon found in industrial plants. This interference can cause corruption of data over copper-based Ethernet links. Data transmitted over fiber optic cable is immune to EMI noise, ensuring optimal data transmission across the plant floor.

#### **Fiber to Ethernet Converters by Perle**

- Link 10Mbps, 100Mbps, 1G, 2.5G or 10G Copper to Multimode or Single Mode fiber
- Supports Dual Fiber and Single Fiber (SX, FX, LX, EX, ZX, BX) connections and data transmission
- Options for operation in Unmanaged or Secure Managed Networks
- Advanced features & functionality for efficient troubleshooting & less on-site maintenance
- Choose from over **760 models** to meet any fiber integration project need

#### 10/100/1000/2.5G/10G

- 10/100/1000/2500/10G to 1G/10G Fiber
- SFP / SFP+ connector options
- Operating temperatures from 0°C to +50°C

#### 10/100/1000 Ethernet

- 10/100/1000 Copper to 100/1000 Fiber
- SFP, SC, ST, or LC connector options
- Operating temperatures from -40°C to +75°C
- Optional PoE up to 100 Watts





#### **10/100 Ethernet**

Convert 10/100 Copper to 100Mbps Fiber

- SFP, SC, ST, or LC connector options
- Operating temperatures from -40°C to +75°C
- Optional PoE up to 30 Watts



#### 10 Gigabit

- Convert 10G Copper to Fiber
- SFP+ or XFP connector options
- Operating temperatures from 0°C to +50°C

### **Gigabit Ethernet**

- Convert 1G Copper to Fiber
- SFP, SC, ST, or LC connector options
- Operating temperatures from -40°C to +75°C



#### **Fast Ethernet**

- Convert 100Mbps Copper to Fiber
- SFP, SC, ST, or LC connector options
- Operating temperatures from -40°C to +75°C



More Fiber to Ethernet Converters

# Why Choose a Perle Fiber to Ethernet Converter?

#### **Robust Media Converter**

Perle only uses **high-end components** from leading chip manufacturers to ensure product reliability. Perle's <u>advanced implementation of Link Pass-Through</u> includes an onboard processor that continuously monitors the status of the links and sends a notification if the fiber connection is broken or disconnected.



# Cisco Compatible Media Converter

Perle Media Converters are compatible with Cisco switches and routers. As a key component in the reliability and stability of your network, you need dependable Media Converters with seamless interoperability.



#### **Reliable Media Converter**

Most Media Converter manufacturers do not publish (or make very difficult to find) their MTBF's. Perle is proud to publish the **high MTBF rates** on the Hardware Specs for each product. In addition, we provide the best-in-class <u>Lifetime Warranty</u>.



#### **Secure Media Converter**

Perle Managed Media Converters support all **AAA** security services (TACACS+, RADIUS, LDAP, Kerberos, NIS and RSA) used in corporate networks, as well as SSH/SSL, SNMPv3, Telnet, and HTTPS secure management sessions. And, <a href="PerleVIEW Central Management Software">PerleVIEW Central Management Software</a> simplifies the configuration, administration, monitoring and troubleshooting



#### **Technical Support**

We have sales and technical support staff around the globe to support you. If you need help choosing the best Media Converter for your application, we provide technical consultations by phone or email. And, even though Perle Fiber Converters are extremely easy to install and configure, post sales support is easy to contact.



#### **Trust**

Perle has been providing reliable device connectivity solutions **since 1976**. **That's over 40 years** of experience that businesses around the globe have come to trust to deliver superior connectivity technology for mission critical applications.

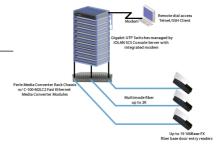


# **Fiber to Ethernet Applications**

# <u>Integrate Fast Ethernet fiber based devices into a Gigabit backbone</u>

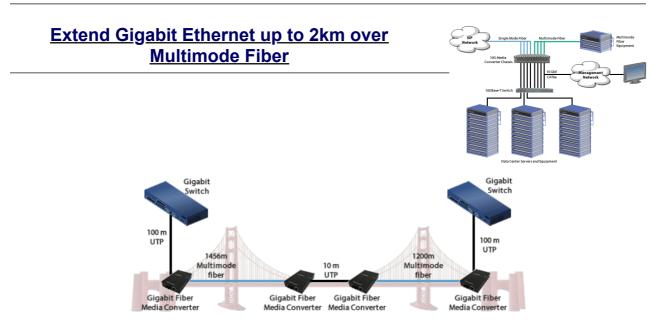
<u>Transmit images from copper-based CCTV</u>

<u>Cameras over Single Stand Fiber</u>

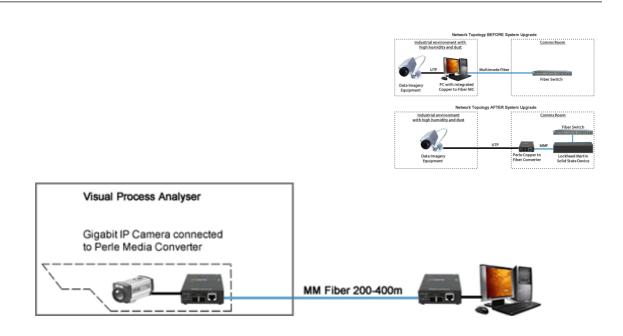




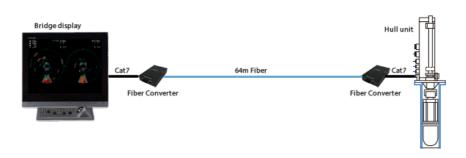
# Connect a combination of single mode and multimode equipment to 10G copper



# Connect Copper IP cameras to Multimode fiber in high temperature environments

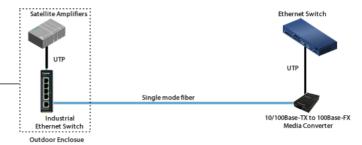


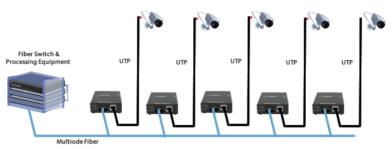
# <u>Protect Ethernet data transmission from electromagnetic interference (EMI)</u>



#### A simple and inexpensive way to extend the network

<u>Transmit Camera Images over</u> <u>Multimode Fiber for Automated</u> <u>Monitoring of Industrial Process</u>

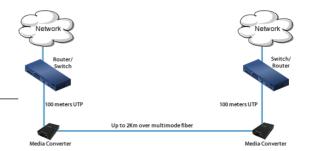




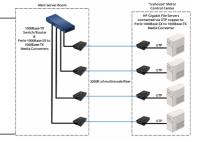
# <u>Transparently connect copper to fiber for an economical path to extend</u> the distance of a network

Provide a seamless long distance fiber to Ethernet connection without any loss of processing power or operating speeds

Create high-speed internet access across a mountaintop, over 12" of radial ice, in -20°F

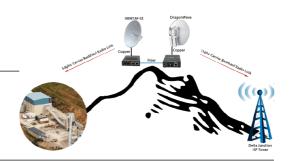


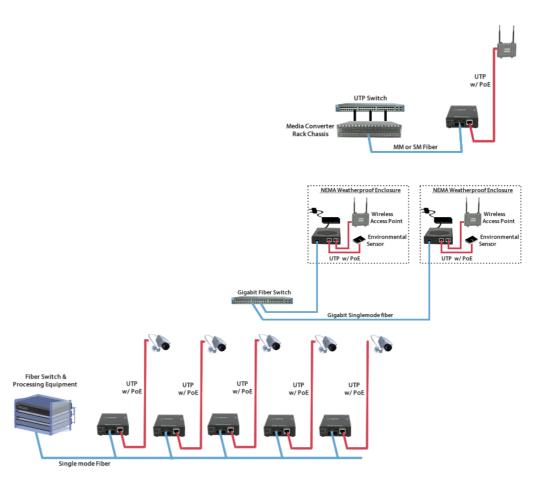
Connect the Gigabit Copper Wireless Access
Points to Single Mode fiber and provide 30W of
PoE to the WAPs



<u>Deploy WLAN access points (APs) inside</u>
<u>NEMA enclosures to be fed by Single</u>
<u>mode Fiber</u>

Provide 30W of PoE to Video Cameras integrated into a single mode fiber network





#### **More Fiber Media Converters**

#### **Industrial**

<u>Certified components that will operate in the harshest environmental & temperatures of -40°F to 167°F (-40°C to 75°C).</u>

#### **PoE**

Connect copper to fiber while providing up to 100 Watts of PoE power to IP cameras, VoIP phones, wireless access points and more.

## **Managed Media Converters**

<u>Supports AAA security services (TACACS+, RADIUS, LDAP...)</u> and secure management sessions (SSH/SSL, SNMPv3, HTTPS...)

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