

### **iConverter® 10/100**

#### **10BASE-T or 100BASE-TX to Fast Ethernet Managed Media Converter**

The iConverter 10/100 managed media converters are members of the modular iConverter product family, and provide 10BASE-T or 100BASE-TX copper to 100BASE-X fiber conversion.

The fiber port supports multimode and single-mode dual fiber with ST, SC and LC connectors; and single-mode single-fiber with SC connectors.

The RJ-45 port supports auto-negotiation or manual configuration. A UTP crossover switch facilitates connectivity to network equipment.

The 10/100 also features two Ethernet Backplane ports to provide connectivity to adjacent modules for network expansion.

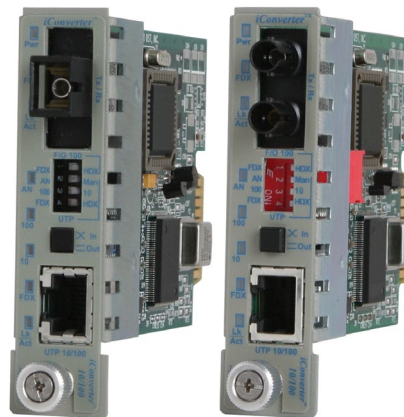
The 10/100 features user-selectable Link Propagate, Link Segment and Remote Fault Detection modes to facilitate quick fault detection, isolation and reporting.

The iConverter 10/100 can be used in managed or unmanaged applications. Management is accomplished by installing an iConverter Management Module (NMM2) or Network Interface Device (NID) in the same chassis. The management module provides access to all the advanced features available on the module.

The management software can override the physical DIP-switch settings such as auto-negotiation, Half/Full-Duplex, Link Mode selection, and Ethernet Backplane selection. The module supports SNMP trap notification for the monitoring and notification of different network events.

The hot-swappable plug-in module can be mounted in a high-density 19 or 5-Module chassis with redundant AC and DC power supplies. It can also be mounted in a 2-Module AC or DC powered chassis, or in a 1-Module chassis with AC or DC power input.

The iConverter Multi-Service Platform consists of Network Interface Devices, T1/E1 multiplexers, CWDM/DWDM multiplexers and managed media converters that combine to deliver Carrier Ethernet and TDM services over fiber or CWDM/DWDM wavelengths. This flexible architecture supports a wide variety of configurations for scalable and reliable fiber connectivity in Service Provider and Enterprise networks.



### **KEY FEATURES**

- 10BASE-T or 100BASE-TX copper to Fast Ethernet fiber converter
- Supports multimode, single-mode dual fiber with ST, SC and LC connectors, and single-mode single-fiber with SC connectors
- RJ-45 port supports 10/100 Half and Full-Duplex auto/manual configuration via DIP-switches and manual crossover switch
- User-selectable link fault detection modes facilitate quick fault detection, isolation and reporting
- Automatic Link Recovery
- LED displays for immediate visual status of each port
- Modules are hot-swappable in 19-Module, 5-Module, 2-Module or 1-Module chassis
- Management is available with the addition of a management module to the chassis
- SNMP management via NetOutlook® provides real-time port and module status information, remote parameter configuration and trap notification
- Commercial (0 to 50°C) and wide (-40° to 60°C) temperature ranges
- TAA, BAA and NDAA compliant, and Made in the USA
- Lifetime Warranty and free 24/7 Technical Support

# SPECIFICATIONS

|                               |  |   |
|-------------------------------|--|---|
| <b>Description</b>            | <i>iConverter 10/100</i><br>10/100BASE-T Copper to 100BASE-X Fiber Media Converter |   |
| <b>Standard Compliances</b>   | IEEE 802.3   |   |
| <b>Regulatory Compliances</b> | Safety:<br>EMI:<br>ACT:  | UL, cUL, CE, NEBS Level 3, UKCA<br>FCC Class A<br>TAA, BAA, NDAA  |
| <b>Environmental</b>          | RoHS, WEEE, REACH  |   |
| <b>Port Types</b>             | Copper:<br>Fiber:  | 10/100BASE-T (RJ-45)<br>100BASE-FX (ST, SC, LC)<br>100BASE-LX (ST, SC, LC)<br>100BASE-ZX (SC, LC)<br>100BASE-BX (SC Single-Fiber) |
| <b>Cable Types</b>            | Copper:<br>Fiber:  | EIA/TIA 568A/B, Cat 5 UTP and higher<br>Multimode: 50/125µm, 62.5/125µm<br>Single-mode: 9/125µm                                   |

|                              |   |   |
|------------------------------|---|---|
| <b>Frame Size</b>            | Up to 1,536 bytes                                     |   |
| <b>DC Power Requirements</b> | DC Input:<br>(Backplane)                              | 3.3VDC, 0.95A @ 3.3VDC                  |
| <b>Dimensions W x D x H</b>  | 0.85" x 4.5" x 2.8" (21.6 mm x 114.3 mm x 71.1 mm)    |   |
| <b>Weight</b>                | 5.6 oz. (158 grams)                                   |   |
| <b>Temperature</b>           | Commercial:<br>Wide:<br>Storage:                      | 0 to 50°C<br>-40 to 60°C<br>-40 to 80°C |
| <b>Humidity</b>              | 5 to 95% (non-condensing)                             |   |
| <b>Altitude</b>              | -100m to 4,000m                                       |   |
| <b>MTBF (hrs)</b>            | 1,050,000   |   |
| <b>Warranty</b>              | Lifetime warranty and 24/7/365 free Technical Support |   |

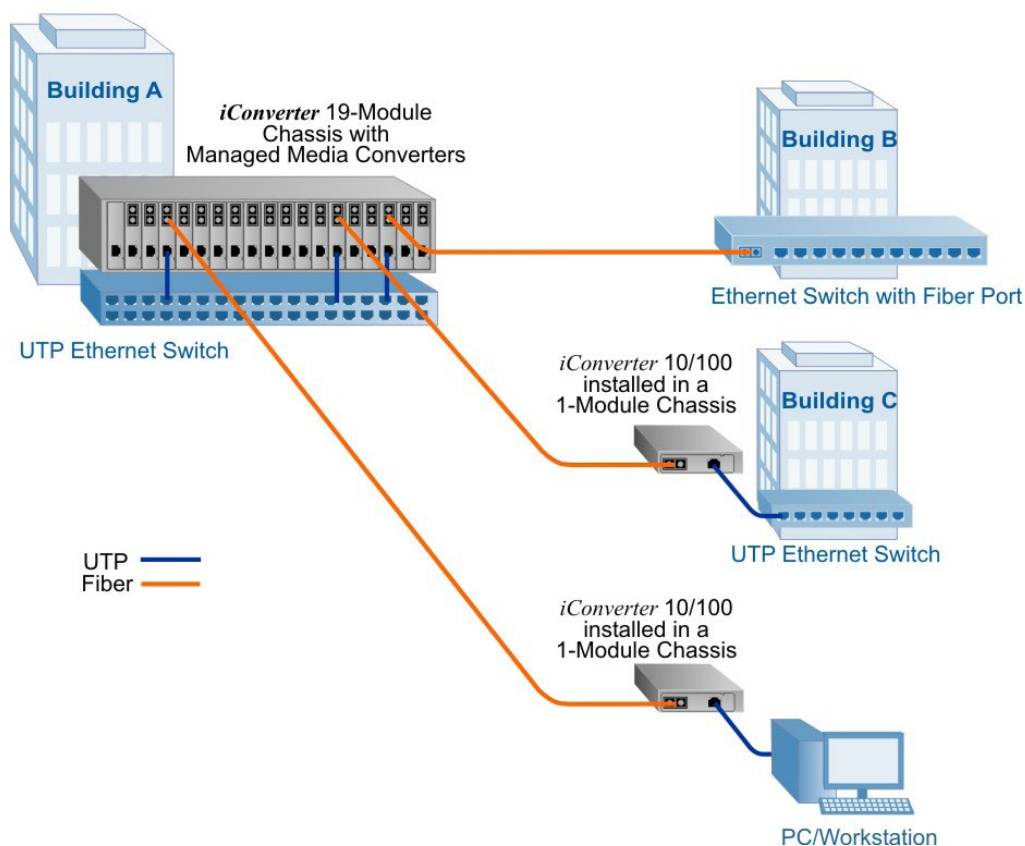
## APPLICATION

In this enterprise campus application example, iConverter 10/100 media converters are installed in a 19-Module chassis for high-density fiber distribution from UTP Ethernet switch at Building A.

At Building B, an Ethernet switch with a fiber port is connected directly via fiber to the iConverter module at Building A. A UTP Ethernet switch at Building C is connected via fiber

with an iConverter 10/100 media converter installed in a 1-Module Chassis. Another iConverter 10/100 converts the fiber to copper in a fiber-to-desktop application.

In all cases, multimode or single-mode fiber can be used, and fiber links can be extended up to 120km using single-mode fiber.



# ORDERING INFORMATION

## Step 1: Choose a Base Part Number (xxxx-xt)

| Fiber Type         | Distance | Connector Type |         |         | Tx / Rx Lambda (nm) | Min. Tx Power (dBm) | Max. Tx Power (dBm) | Min. Rx Power (dBm) | Max. Rx Power (dBm) | Min. Attenuation (dB) | Link Budget (dB) |
|--------------------|----------|----------------|---------|---------|---------------------|---------------------|---------------------|---------------------|---------------------|-----------------------|------------------|
|                    |          | ST             | SC      | LC      |                     |                     |                     |                     |                     |                       |                  |
| MM/DF              | 5km      | 8380-0t        | 8382-0t | 8386-0t | 1310 / 1310         | -24                 | -14                 | -31                 | -14                 | -                     | 7                |
| SM/DF              | 30km     | 8381-1t        | 8383-1t | 8387-1t | 1310 / 1310         | -15                 | -8                  | -31                 | -8                  | -                     | 16               |
| SM/DF              | 60km     | 8381-2t        | 8383-2t | 8387-2t | 1310 / 1310         | -5                  | 0                   | -31                 | -3                  | 3                     | 26               |
| SM/DF              | 120km    | -              | 8383-3t | 8387-3t | 1550 / 1550         | -5                  | 0                   | -31                 | -3                  | 3                     | 26               |
| MM/SF <sup>1</sup> | 5km      | -              | 8390-0t | -       | 1310 / 1550         | -8                  | 0                   | -28                 | 0                   | -                     | 20               |
| MM/SF <sup>1</sup> | 5km      | -              | 8391-0t | -       | 1550 / 1310         | -8                  | 0                   | -28                 | 0                   | -                     | 20               |
| SM/SF <sup>1</sup> | 20km     | -              | 8390-1t | -       | 1310 / 1550         | -15                 | -5                  | -30                 | -3                  | -                     | 15               |
| SM/SF <sup>1</sup> | 20km     | -              | 8391-1t | -       | 1550 / 1310         | -15                 | -5                  | -30                 | -3                  | -                     | 15               |
| SM/SF <sup>1</sup> | 40km     | -              | 8390-2t | -       | 1310 / 1550         | -8                  | 0                   | -30                 | -3                  | 3                     | 22               |
| SM/SF <sup>1</sup> | 40km     | -              | 8391-2t | -       | 1550 / 1310         | -8                  | 0                   | -30                 | -3                  | 3                     | 22               |
| SM/SF <sup>1</sup> | 60km     | -              | 8390-3t | -       | 1310 / 1550         | -5                  | 0                   | -31                 | -3                  | 3                     | 26               |
| SM/SF <sup>1</sup> | 60km     | -              | 8391-3t | -       | 1550 / 1310         | -5                  | 0                   | -31                 | -3                  | 3                     | 26               |

<sup>1</sup>When using single-fiber (SF) models, the Tx wavelength on one end has to match the Rx wavelength on the other.

MM = Multimode, SM = Single-mode, DF = Dual Fiber, SF = Single-fiber

Contact Omnitron for other configurations, extended temperature (-40 to 75°C) and RoHS (5/6) compliant models.

For chassis options, see [iConverter Chassis and Mounting Options web page](#).

## Step 2: Choose an Operating Temperature Range (xxxx-xt)

|  |
|--|
| <leave blank> = Commercial temperature (0 to 50°C) |
| W = Wide temperature (-40 to 60°C)                 |