

iConverter 10/100

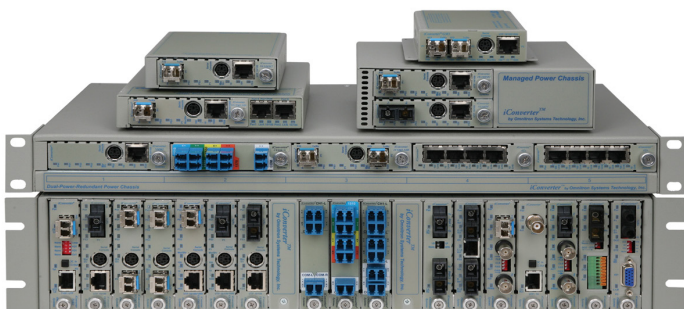
10BASE-T or 100BASE-TX to Fast Ethernet Managed Media Converter

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-FX fiber conversion.

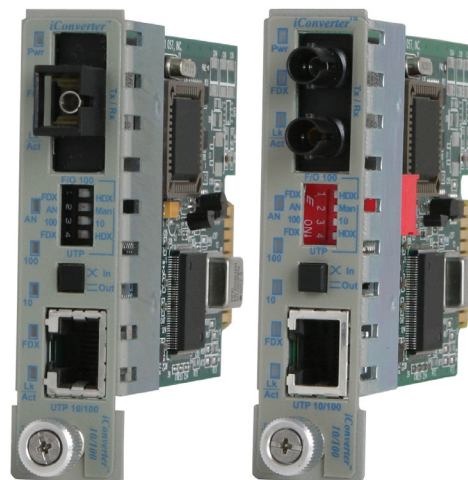
The iConverter 10/100 models support multimode and single-mode dual fiber with ST, SC and LC connectors; and single-mode single-fiber with SC connectors. The RJ-45 port supports 10/100 and Half/Full-Duplex auto-negotiation with both hardware and software manual override. A UTP crossover switch eliminates the need for a crossover cable and facilitates connectivity to network equipment. The 10/100 also features two Ethernet Backplane ports to provide connectivity to adjacent modules for network expansion and for in-band connectivity to an iConverter Network Management Module.

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

iConverter 10/100 modules are hot-swappable and can be mounted in a 19-Module (2U high) or 5-Module (1U high) rack-mountable chassis (19-inch or 23-inch) with any combination of redundant AC, 24VDC or 48VDC power supplies. They can also be mounted in a 2-Module AC or 18 to 60VDC powered chassis, or in a 1-Module AC or DC powered chassis.



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



KEY FEATURES

- The iConverter 10/100 is an IEEE 802.3 compatible 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 with 10/100 automatically supports Half or Full-Duplex auto-negotiation with a manual crossover switch
- User-selectable link fault detection modes facilitate quick fault detection, isolation and reporting
- 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
- Lifetime Warranty and free 24/7 Technical Support

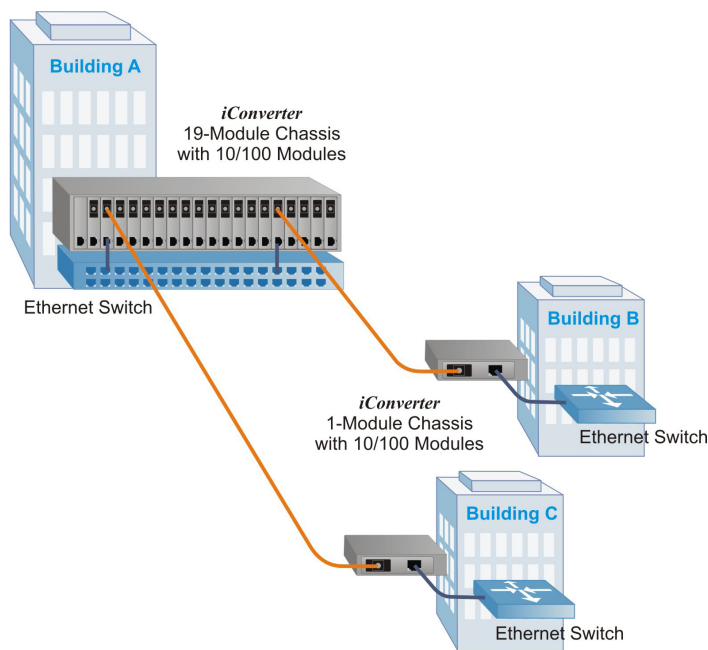
APPLICATION

In this application example, 10/100 media converters are deployed in a star topology network with fiber links distributed from a central location.

At Building A, iConverter 10/100 media converters are installed in an iConverter 19-Module providing a high density copper-to-fiber deployment. RJ-45 ports from the Ethernet switch are converted to fiber, extending the network to different locations throughout the campus.

At Buildings B and C, iConverter 10/100 media converters are installed in iConverter 1-Module Chassis. The iConverter 10/100 modules provide copper-to-fiber connectivity to Ethernet switches in each building.

The iConverter 10/100 supports Link Modes used to provide network notification of fiber and copper faults. Link failures on any port are propagated to managed network switches, notifying network administrators of link failure.



MANAGEMENT

The iConverter 10/100 can be used in managed or unmanaged applications. Management provides remote configuration, monitoring and trap notification. Management of the 10/100 is accomplished by installing an iConverter Management Module (NMM2) or Network Interface Device (NID) in the same chassis.

The Management Module can be accessed via SNMP, Telnet, and serial port. The 10/100 can be managed with Omnitron's intuitive, graphic-oriented NetOutlook SNMP Management Software or third party SNMP management software. Management via the Telnet and the serial interfaces have an easy-to-use, menu-driven interface.

The management software can override the physical DIP-switch settings such as auto-negotiation, Half/Full-Duplex, Link Mode selection, and Ethernet Backplane selection. Other parameters include module type and model, hardware and software revisions, serial numbers and a user-defined identifier.

The iConverter 10/100 supports SNMP trap notification for the monitoring and notification of different network events. Specific events that generate traps include module insertion and removal, and port link-up and link-down. Trap monitoring of specific events can be selectively enabled or disabled by the network management software.

SPECIFICATIONS

| Description | | <i>iConverter 10/100</i> 10/100BASE-T Copper to 100BASE-FX Fiber Media Converter | |
|------------------------|--|---|---|
| Standard Compliances | | IEEE 802.3 | |
| Regulatory Compliances | | UL, CE, FCC Class A, NEBS Level 3, RoHS2, WEEE, REACH | |
| Frame Size | | Up to 1,536 bytes | |
| Port Types | | Copper: | 10/100BASE-T (RJ-45) |
| | | Fiber: | 100BASE-FX (ST, SC, LC) 100BASE-LX (ST, SC, LC) 100BASE-ZX (SC, LC) 100BASE-BX (SC Single-Fiber) |
| Cable Types | | Copper: | EIA/TIA 568A/B, Cat 5 UTP and higher |
| | | Fiber: | Multimode: 50/125µm, 62.5/125µm Single-mode: 9/125µm |
| DC Power Requirements | | DC Input: (Backplane) | 3.3VDC, 0.95A @ 3.3VDC |
| Dimensions | | W: 0.85" x D: 4.5" x H: 2.8" L: 21.6 mm x B: 114.3 mm x H: 71.1 mm | |
| Weight | | 8 oz.; 226.8 grams | |
| Temperature | | Commercial: | 0 to 50°C |
| | | Wide: | -40 to 60°C |
| | | Storage: | -40 to 80°C |
| Humidity | | 5 to 95% (non-condensing) | |
| Altitude | | -100m to 4,000m | |
| MTBF (hrs) | | 1,050,000 | |
| Warranty | | Lifetime warranty and 24/7/365 free Technical Support | |

ORDERING INFORMATION

| Fiber Type | Distance | Connector Type | | | Tx Lambda (nm) | 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 | 8380-0 | 8382-0 | 8386-0 | 1310 | 1310 | -24 | -14 | -31 | -14 | - | 7 |
| SM/DF | 30km | 8381-1 | 8383-1 | 8387-1 | 1310 | 1310 | -15 | -8 | -31 | -8 | - | 16 |
| SM/DF | 60km | 8381-2 | 8383-2 | 8387-2 | 1310 | 1310 | -5 | 0 | -31 | -3 | 3 | 26 |
| SM/DF | 120km | - | 8383-3 | 8387-3 | 1550 | 1550 | -5 | 0 | -31 | -3 | 3 | 26 |
| MM/SF ¹ | 5km | - | 8390-0 | - | 1310 | 1550 | -8 | 0 | -28 | 0 | - | 20 |
| MM/SF ¹ | 5km | - | 8391-0 | - | 1550 | 1310 | -8 | 0 | -28 | 0 | - | 20 |
| SM/SF ¹ | 20km | - | 8390-1 | - | 1310 | 1550 | -15 | -5 | -30 | -3 | - | 15 |
| SM/SF ¹ | 20km | - | 8391-1 | - | 1550 | 1310 | -15 | -5 | -30 | -3 | - | 15 |
| SM/SF ¹ | 40km | - | 8390-2 | - | 1310 | 1550 | -8 | 0 | -30 | -3 | 3 | 22 |
| SM/SF ¹ | 40km | - | 8391-2 | - | 1550 | 1310 | -8 | 0 | -30 | -3 | 3 | 22 |
| SM/SF ¹ | 60km | - | 8390-3 | - | 1310 | 1550 | -5 | 0 | -31 | -3 | 3 | 26 |
| SM/SF ¹ | 60km | - | 8391-3 | - | 1550 | 1310 | -5 | 0 | -31 | -3 | 3 | 26 |

¹ When using single-fiber (SF) media converter models, the Tx wavelength on one end has to match the Rx wavelength on the other.

For wide temperature (-40 to 60°C), add a "W" to the end of the model number. Contact Omnitron for other configurations and extended temperature (-40 to 75°C) models.