

### iConverter 2GXT

#### 10/100/1000BASE-T to 100/1000BASE-X 2-Channel Ethernet Media Converter

iConverter 2GXT Ethernet fiber media converters are members of the modular iConverter Multi-Service Platform. The 2GXT is a dual-channel media converter and four-port switch with two 10/100/1000BASE-T RJ-45 ports and two Small Form Pluggable (SFP) ports. The dual SFP fiber ports can be configured to provide 1:1 uplink protection with less than 50ms switchover when the 2GXT is deployed as a four-port switch.

The 2GXT supports both 100BASE-X and 1000BASE-X SFPs to provide flexible connectivity to Fast Ethernet or Gigabit networks, and simplifies inventory management in large Enterprise and Telecom networks with multiple data rates. The SFPs also enable adaptability to different fiber types and distances, and support Coarse Wave Division Multiplexing (CWDM) to increase the capacity of fiber infrastructure.

The RJ-45 port supports 10/100/1000 and Half/Full-Duplex auto-negotiation with both hardware and software manual override controls.

iConverter 2GXT media converters are available as compact, unmanaged standalone units, or chassis plug-in modules that can be managed with a management module installed in the chassis. The hot-swappable plug-in module can be mounted in a 19 or 5-Module chassis with any combination of 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.

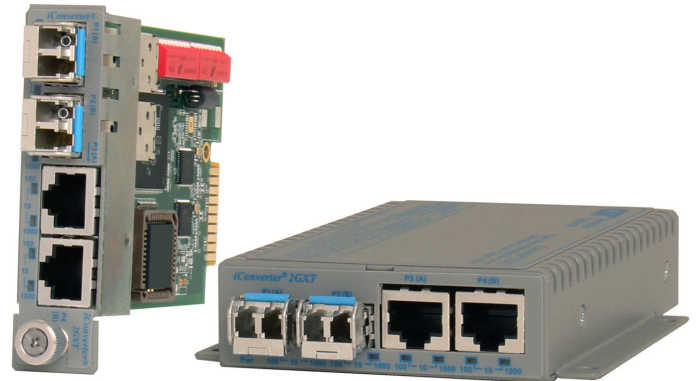
The 2GXT also features two Gigabit Ethernet backplane ports for connectivity to adjacent iConverter modules in a chassis for multi-port and multi-service configurations.

Deploying 2GXT plug-in modules configured as dual-channel media converters in an iConverter chassis provides high-density fiber distribution from copper switch equipment, with twice the ports of conventional media converters. For example, installing 2GXT modules in an iConverter 19-Module chassis provides thirty eight fiber runs from only 2U of rack space.

Advanced features include IEEE 802.1Q VLAN and 802.1p Quality of Service prioritization, and Port Access Control, which provides the ability to enable or disable individual ports to control delivery of services. The 2GXT also supports port-level MIB statistics, and reporting real-time packet statistics to provide performance and operational monitoring.

Temperature hardened models are available, and the 2GXT can be DIN-rail mounted with an optional mounting bracket for industrial applications and outdoor deployments.

The 2GXT features user-selectable Link Propagate and Link Segment modes to facilitate quick fault detection, isolation and reporting.



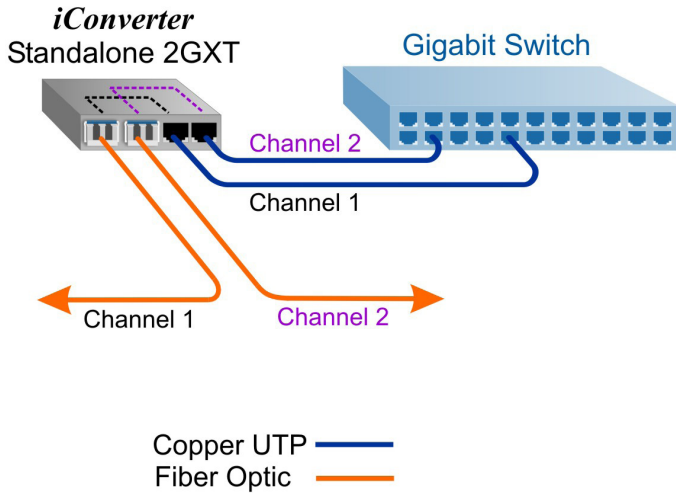
### KEY FEATURES

- The iConverter 2GXT is a 2-channel media converter and 4-port switch with two 10/100/1000BASE-T RJ-45 ports and two 100/1000BASE-X SFP ports
- Supports four distinct operating modes:
  - 1) Dual copper to fiber media converter
  - 2) Four-port Gigabit Ethernet switch
  - 3) Switch with 1:1 Uplink Protection, revertive
  - 4) Switch with 1:1 Uplink Protection, non-revertive
- Automatic data rate detection of installed SFP transceivers
- Fiber redundancy with less than 50ms switching
- Plug-and-Play MDI/MDI-X RJ-45 ports
- Supports auto-negotiation on all ports
- Jumbo frame support 10,240 bytes
- User-selectable link fault detection modes facilitate quick fault detection, isolation and reporting
- Supports QoS, Port Access Control and MIB statistics
- VLAN with 802.1ad Q-in-Q for Carrier and Enterprise Ethernet Deployments
- Bandwidth control (rate limiting) in 64Kb increments
- 1000Mbps Ethernet backplane ports for port expansion and connectivity to adjacent iConverter modules
- Management of the plug-in module is available with the addition of a management module to the chassis
- SNMP management via NetOutlook®
- Commercial (-0 to 50°C), Wide (-40 to 60°C) and Extended (-40 to 75°C) temperature ranges
- Lifetime Warranty and free 24/7 Technical Support

# APPLICATION EXAMPLES

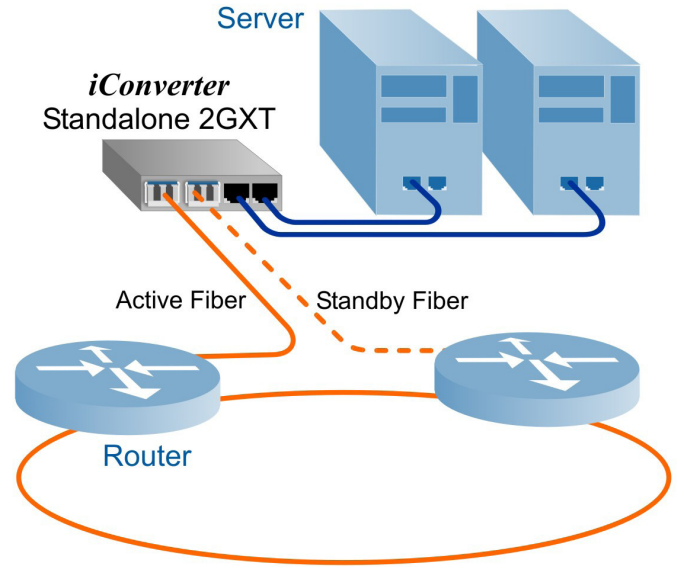
## Standalone Dual-Channel Media Converter

In this application diagram, the 2GXT functions as a dual-channel media converter, providing connectivity between two fiber links and two RJ-45 ports on a copper switch. The conversion from copper to fiber are on separate and independent channels, so there is no cross-connection between channels.



## Standalone Compact Switch with 1:1 Fiber Protection

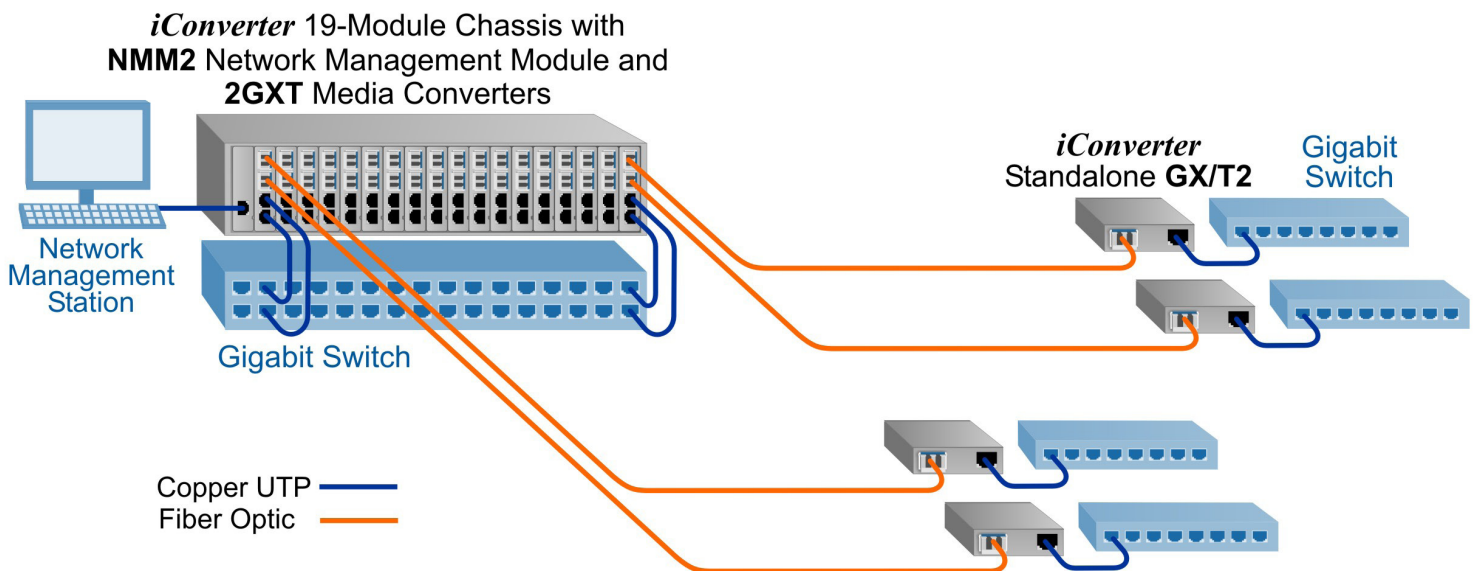
The 2GXT can be configured as a four-port switch module with redundant fiber links. In this application, a 2GXT provides protected fiber connectivity to two separate nodes on a resilient ring. Port 1 of the 2GXT is the Active Fiber and port 2 is the Standby Fiber. In the event of link fault detected by Port 1, the 2GXT will switch to the Standby Fiber to maintain connectivity to the ring.



## Chassis-Based Dual-Channel Media Converters

In this application diagram, eighteen 2GXT plug-in modules are installed in a 19-module chassis for high-density fiber distribution from a Gigabit copper switch. Thirty six fiber runs are distributed from a 2-U chassis. An NMM2 Network Management Module is also installed in the chassis, and

connected to a Network Management Station for fault notification and remote configuration. At the end each fiber run, an iConverter GX/T2 standalone media converter provides copper to fiber conversion and bridging for connectivity to Fast Ethernet or Gigabit switches at remote locations.



# MANAGEMENT

The iConverter 2GXT chassis plug-in module can be used in managed or unmanaged applications. Management provides remote configuration, monitoring and trap notification. Management of the plug-in module 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 via a serial port. The 2GXT 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 or Full-Duplex, and Backplane Selection, and remotely configure additional parameters including rate-limiting, VLAN and Port Access Control. Some of the real-time 2GXT parameters that can be monitored include duplex mode, link and data receive status. Other parameters include module type and model, hardware and software revisions, serial numbers and a user defined identifier. The port MIB statistics include transmit and receive packet counts and error counts.

The iConverter 2GXT 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.

# ORDERING INFORMATION

Model #	Description
8484-4	2GXT chassis plug-in module
8484-4-D	2GXT wall-mount with US wall-plug AC power supply
8484-4-E	2GXT wall-mount with Universal AC power supply
8484-4-F	2GXT wall-mount w/ DC power 2-Pin terminal connector
For wide temperature models (-40 to 60°C), add a "W" to the end of the model number. For example, 8484-4W	
For extended temperature models (-40 to 75°C), add a "Z" to the end of the model number. For example, 8484-4Z	

DIN-Rail Mounting Bracket: 8250-0

See [Omnitron's SFP web page](#) for SFP ordering information

# SPECIFICATIONS

iConverter 2GXT	
<b>Description</b>	Dual 10/100/1000BASE-T Copper to 100/1000BASE-X Fiber Media Converter
<b>Standard Compliances</b>	IEEE 802.3, 802.1Q, 802.1p, 802.1ad RFC 2819 (RMON)
<b>Regulatory Compliances</b>	UL, CE, FCC Class A, RoHS2, WEEE
<b>Frame Size</b>	Up to 10,240 bytes
<b>Port Type</b>	RJ-45 Copper: 10/100/1000BASE-T SFP Fiber: 100BASE-X 1000BASE-SX 1000BASE-LX 1000BASE-ZX 1000BASE-BX
<b>Cable Types</b>	Copper: EIA/TIA 568A/B, Cat 5 UTP and higher Fiber: Multimode: 50/125µm, 62.5/125µm Single-mode: 9/125µm
<b>AC Power Requirements</b>	US AC Adapter: 100 - 120VAC/60Hz 0.06A @ 120VAC (max) Universal AC Adapter: 100 - 240VAC/50 - 60Hz 0.06A @ 120VAC (max)
<b>DC Power Requirements</b>	DC Input (backplane): 3.3VDC, 2.2A @ 3.3VDC DC Input (Terminal Block): 7 - 60VDC, 0.4A @ 12VDC 2-Pin Terminal (non-isolated) DC Input (AC Adapter): 7 - 60VDC, 0.4A @ 12VDC 2.5mm Barrel Connector
<b>Dimensions</b>	Plug-in: 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 Standalone: W: 3.8" x D: 4.8" x H: 1.0" L: 96.5 mm x B: 121.9 mm x H: 25.4 mm
<b>Weight</b>	Plug-in: 8 oz.; 226.8 grams Standalone w/o Adapter: 1.0 lb.; 453.6 grams Standalone w Adapter: 1.5 lbs.; 680.4 grams
<b>Temperature</b>	Commercial: 0 to 50°C Wide: -40 to 60°C Extended: -40 to 75°C Storage: -40 to 80°C
<b>Humidity</b>	5 to 95% (non-condensing)
<b>Altitude</b>	-100m to 4,000m
<b>MTBF (hrs)</b>	Plug-in: 520,000 Standalone w/o Adapter: 722,000 Standalone w/ US Adapter: 250,000 Standalone w/ Universal Adapter: 100,000
<b>Warranty</b>	Lifetime Warranty with 24/7/365 free Technical Support

© 2015 Omnitron Systems Technology, Inc. All rights reserved. iConverter is a Registered Trademark of Omnitron Systems Technology, Inc. Trademarks are owned by their respective companies. Specifications are subject to change without notice.  
091-18484-001D 6/15

