## *iConverter*® **2GXT**

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

iConverter 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 a wide variety of Fast Ethernet and Gigabit SFP transceivers in standard, CWDM and DWDM wavelengths.

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

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

The 2GXT also supports Dual Channel converter (Dual Device Mode) that enables the 2GXT to operate as two independent and isolated Ethernet switches. In Dual Device mode, the 2GXT provides separate and independent data traffic paths between the two uplink ports and two RJ-45 ports.

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.

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

iConverter 2GXT media converters are available as compact, unmanaged standalone units, or chassis plug-in modules that can be managed with a Management Module (NMM2) or Network Interface Device (NID) installed in the chassis. The management module provides access to the advanced features available on the module.

The 2GXT standalone unit is available with an external AC to DC power adapter or with a 2-pin terminal connector for direct connection to DC power. The standalone module can be DIN-Rail mounted using the optional DIN-Rail mounting bracket (8250-0).

The hot-swappable plug-in module can be mounted in a 19 or 5-Module iConverter 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.

SFPs not included

## KEY FEATURES

- Two 10/100/1000BASE-T RJ-45 ports and two 100/1000BASE-X SFP ports

- Supports four distinct operating modes:
    1) Dual Channel converter (Dual Device Mode)
    2) Four-port Gigabit Ethernet switch
    3) Switch with 1:1 Uplink Protection, revertive
    4) Switch with 1:1 Uplink Protection, non-revertive

- Automatic 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

- TAA, BAA and NDAA compliant, and Made in the USA

- Lifetime Warranty and free 24/7 Technical Support

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# 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.
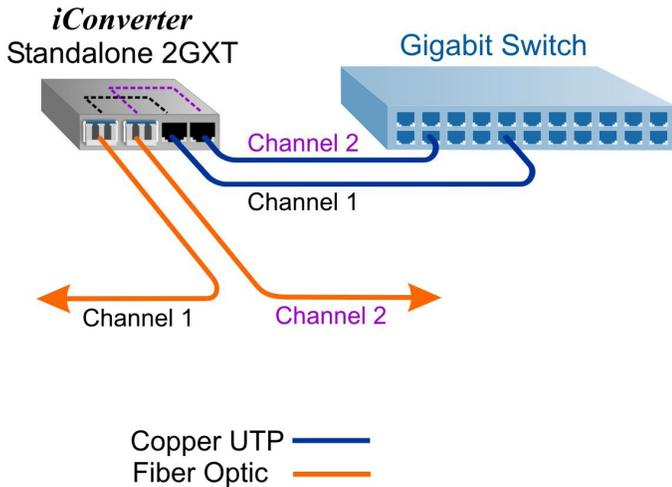


## Standalone Compact Switch with 1:1 Fiber Protection

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.
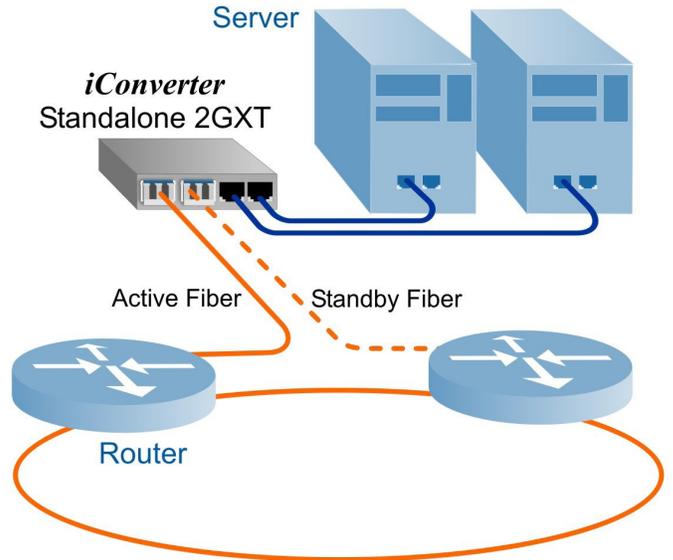


## Chassis-Based Dual-Channel Media Converters

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.

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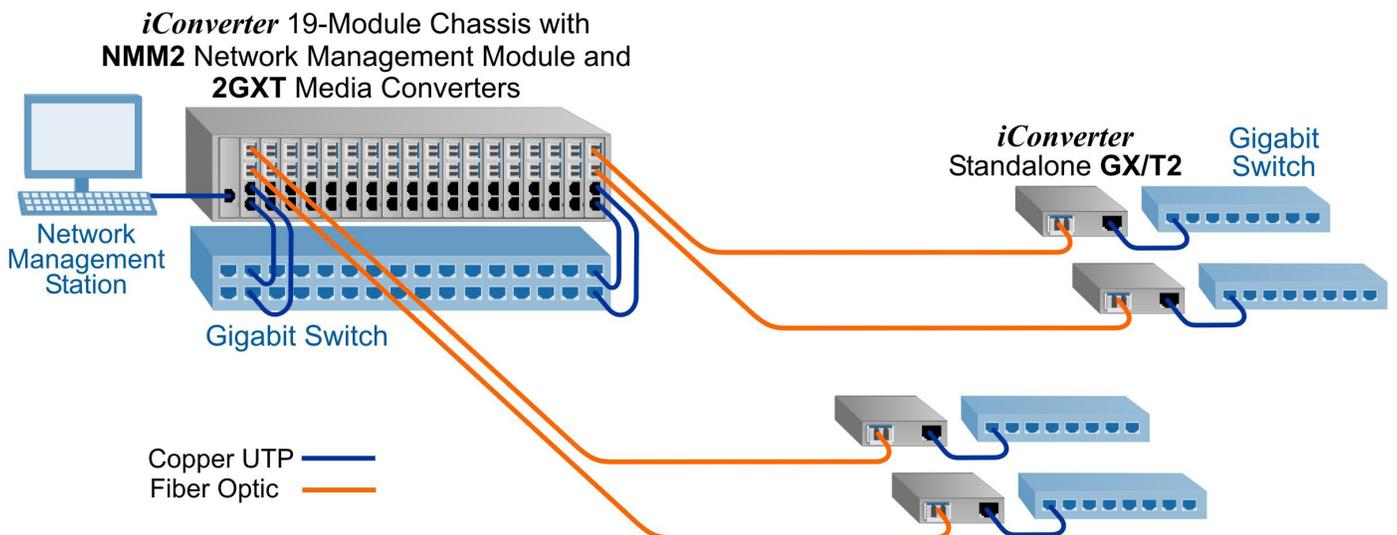
# SPECIFICATIONS

| Description | iConverter 2GXT | |
|---|---|---|
| | Dual 10/100/1000BASE-T Copper to 100/1000BASE-X Fiber Media Converter | |
| Standard Compliances | IEEE 802.3, 802.1Q, 802.1p, 802.1ad RFC 2819 (RMON) | |
| Regulatory Compliances | Safety: | UL, CE, UKCA |
| | EMI: | FCC Class A |
| | ACT: | TAA, BAA, NDAA |
| Environmental | RoHS, WEEE, REACH | |
| Frame Size | Up to 10,240 bytes | |
| Port Type | RJ-45 Copper: | 10/100/1000BASE-T |
| | SFP Fiber: | 100BASE-X |
| | | 1000BASE-SX |
| | | 1000BASE-LX |
| | | 1000BASE-ZX |
| | | 1000BASE-BX |
| Cable Types | Copper: | EIA/TIA 568A/B, Cat 5 UTP and higher |
| | Fiber: | Multimode: 50/125µm, 62.5/125µm Single-mode: 9/125µm |
| Dimensions W x D x H | Plugin: | 0.85" x 4.5" x 2.8" (21.6 mm x 114.3 mm x 71.1 mm) |
| | Standalone: | 3.8" x 4.8" x 1.0" (96.5 mm x 121.9 mm x 25.4 mm) |
| Weight | 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) |

| AC Power Requirements | US AC Adapter: | 100 - 240VAC/50 - 60Hz 0.06A @ 120VAC (max) |
|---|---|---|
| | Universal AC Adapter: | 100 - 240VAC/50 - 60Hz 0.06A @ 120VAC (max) |
| DC Power Requirements | DC Input (backplane): | 3.3VDC, 2.4A @ 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 |
| Temperature | Commercial: | 0 to 50°C |
| | Wide: | -40 to 60°C |
| | Extended: | -40 to 75°C |
| | Storage: | -40 to 80°C |
| Humidity | 5 to 95% (non-condensing) | |
| Altitude | -100m to 4,000m | |
| MTBF (hrs) | Plugin: | 520,000 |
| | Standalone w/o Adapter: | 722,000 |
| | Standalone w/ US Adapter: | 250,000 |
| | Standalone w/ Universal Adapter: | 100,000 |
| Warranty | Lifetime Warranty with 24/7/365 free Technical Support | |

*1-Module (8.3 watt) and 2-Module (16.5 watt) high flow chassis are required when used with the plug-in module.

# ORDERING INFORMATION

## Step 1: Choose the Base Part Number (**xxxx-x**-pt)

| Model Number | Description |
|---|---|
| 8484-4-pt | Dual 10/100/1000BASE-T Copper to 100/1000BASE-X Switch with Advanced Switching Features |
| Contact Omnitron for other fiber options. Order the appropriate SFPs separately. Visit the Omnitron Optical Transceivers web page. | |

## Step 2: Choose the Power Option (xxxx-x-**p**t)

| |
|---|
| **D** = Barrel Connector and AC/DC Power Adapter, 100-240VAC, 50-60Hz, with US power cord and integrated mounting brackets |
| **E** = Barrel Connector and Universal AC/DC Adapter, 100-240 VAC, 50-60Hz, No Power Cord, and integrated mounting brackets |
| **F** = Direct DC input, 2 pin terminal connector, no AC/DC power adapter, and integrated mounting brackets |

## Step 3: Choose the Operating Temperature Range Option (xxxx-x-p**t**)

| |
|---|
| **<leave blank>** = Commercial temperature (0 to 50°C) |
| **W** = Wide temperature (-40 to 60°C) |
| **Z** = Extended temperature (-40 to 75°C) |

| Accessories | |
|---|---|
| Model Number | Description |
| 8250-0 | DIN Rail Mounting Bracket for standalone models |
| 8260-0 | 1U Rack Mount Shelf for standalone models |

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