iConverter® GX/T2

10/100/1000BASE-T to 100/1000X Fiber Media Converter

The iConverter GX/T2 is a 10/100/1000BASE-T copper to 100BASE-X or 1000BASE-X fiber media converter, and is available as a compact, unmanaged standalone unit or a managed chassis plug-in module. The iConverter GX/T2 supports jumbo frames up to 10,240 bytes.

The GX/T2 supports both 100BASE-X and 1000BASE-X SFPs to provide flexible connectivity to Fast Ethernet or Gigabit networks, and simplifies inventory management in large networks with multiple data rates. The SFPs also enable adaptability to different fiber types and distances, and support Coarse Wave Division Multiplexing (CWDM) and Dense Wave Division Multiplexing (DWDM) to increase the capacity of fiber infrastructure.

The fixed fiber models support 1000BASE-X over multimode and single-mode dual fiber with ST and SC connectors; and single-mode single-fiber with SC connectors.

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

Advanced features on the chassis plug-in module include IEEE 802.1Q VLAN and 802.1p Quality of Service prioritization standards, and Port Access Control, which provides the ability to enable or disable individual ports to control delivery of services. The GX/T2 also supports port-level MIB statistics reporting real-time packet statistics to provide performance and operational monitoring.

The GX/T2 chassis plug-in module also features two Gigabit Ethernet backplane ports for connectivity to adjacent iConverter modules in a chassis for multi-port and multi-service configurations.

iConverter GX/T2 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 GX/T2 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) or mounting clips (8251-0).

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

- 10/100/1000BASE-T copper to 100/1000BASE-X fiber converter
- Conforms to 10BASE-T, 100BASE-TX, 1000BASE-T, 100BASE-X[1] and 1000BASE-X specifications
- Fixed fiber port supports multimode and single-mode dual fiber with ST and SC connectors; and single-mode single-fiber with SC connectors
- Supports dual fiber and single-fiber 100BASE-FX or 1000BASE-X SFP transceivers for standard, CWDM or DWDM wavelengths
- RJ-45 port supports 10/100/1000 and Half/Full-Duplex auto-negotiation and MDI/MDIX auto-crossover
- Supports 802.1ad Q-in-Q, QoS, Port Access Control and MIB statistics
- Bandwidth control (rate limiting) in 64Kb increments
- 1000Mbps Ethernet backplane ports for port expansion and connectivity to adjacent iConverter modules
- User-selectable link fault detection modes facilitate quick fault detection, isolation and reporting
- Automatic Link Recovery
- Management of the plug-in module is available with the addition of a management module to the chassis
- SNMP management via NetOutlook® provides real-time port and module status information, configuration and trap notification
- 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

[1] 100BASE-X is supported on SFP models only

SPECIFICATIONS

Description	***iConverter* GX/T2** 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: EMI: ACT:	UL, cUL, CE, UKCA FCC Class A TAA, BAA, NDAA
Environmental	RoHS, WEEE, REACH	
Frame Size	Up to 10,240 bytes	
Port Types	Copper: Fiber:	10/100/1000BASE-T (RJ-45) 100BASE-X (SFP) 1000BASE-SX (ST, SC, SFP) 1000BASE-LX (ST, SC, SFP) 1000BASE-ZX (SC, SFP) 1000BASE-BX (SC, SFP)
Cable Types	Copper: Fiber:	EIA/TIA 568A/B, Cat 5 UTP and higher Multimode: 50/125µm, 62.5/125µm Single-mode: 9/125µm
AC Power Requirements	AC Adapter: (US)	100 - 240VAC/50 - 60Hz 0.06A @ 120VAC (max)
	AC Adapter: (Universal)	100 - 240VAC/50 - 60Hz 0.06A @ 120VAC (max)
DC Power Requirements	DC Input: (Backplane)	3.3VDC, 1.4A @ 3.3VDC
	DC Input: (Terminal Block)	7 - 60VDC, 0.7A max 2-Pin Terminal (non-isolated)
	DC Input: (AC Adapter)	7 - 60VDC, 0.7A max 2.5mm Barrel Connector
Dimensions W x D x H	Plug-in: Standalone: Standalone: (Wall-Mount)	0.85" x 4.5" x 2.8" (21.6 mm x 114.3 mm x 71.1 mm) 3.1" x 4.8" x 1.0" (78.7 mm x 121.9 mm x 25.4 mm) 3.8" x 4.8" x 1.0" (96.5 mm x 121.9 mm x 25.4 mm)
Weight	Plug-in: Standalone w/o Adapter: Standalone w Adapter:	8 oz. (226.8 grams) 1.0 lb. (453.6 grams) 1.5 lbs. (680.4 grams)
Temperature	Commercial: Wide: Extended: Storage:	0 to 50°C -40 to 60°C -40 to 75°C -40 to 80°C
Humidity	5 to 95% (non-condensing)	
Altitude	-100m to 4,000m	
MTBF (hrs)	Plug-in: Standalone w/o Adapter: Standalone w/ US Adapter: Standalone w/ Uni Adapter:	520,000 722,000 250,000 100,000
Warranty	Lifetime warranty with 24/7/365 free Technical Support	

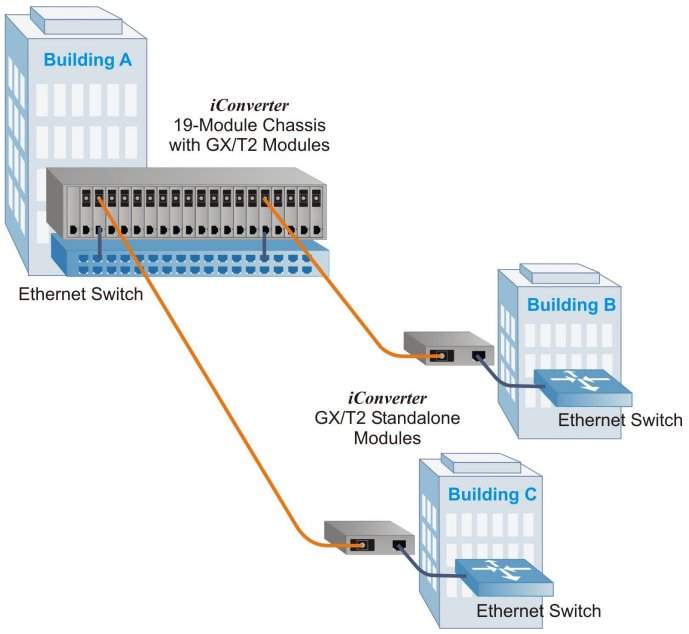
APPLICATION

In this application example, GX/T2 media converters are deployed in a star topology network with fiber links distributed from a central location.

At Building A, iConverter GX/T2 media converters are installed in an iConverter 19-Module providing a high density copper-to-fiber deployment. RJ-45 ports from an Ethernet switch are converted to fiber, extending the network to different locations throughout the campus.

At Buildings B and C, iConverter GX/T2 standalone media converters provide copper-to-fiber connectivity to Ethernet switches in each building.

The iConverter GX/T2 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.



ORDERING

Step 1: Choose a Base Part Number (xxxxN-x-pt)

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	SFP							
-	-	-	-	8539N-0-pt	-	-	-	-	-	-	-
MM/DF	220 / 550m[1]	8520N-0-pt	8522N-0-pt	-	850 / 850	-10	-4	-17	-3	-	7
MM/DF	2km	-	8522N-6-pt	-	1310 / 1310	-9.5	-3	-19.5	-3	-	10
SM/DF	12km	8521N-1-pt	8523N-1-pt	-	1310 / 1310	-9.5	-3	-19.5	-3	-	10
SM/DF	34km	-	8523N-2-pt	-	1310 / 1310	-5	0	-23	-3	3	18
SM/DF	80km	-	8523N-3-pt	-	1550 / 1550	-5	0	-23	-3	3	18
SM/DF	110km	-	8523N-4-pt	-	1550 / 1550	0	5	-24	-3	8	24
SM/DF	140km	-	8523N-5-pt	-	1550 / 1550	2	5	-28	-8	13	30
MM/SF[2]	550m	-	8530N-0-pt	-	1310 / 1550	-9	-3	-18	-3	-	9
MM/SF[2]	550m	-	8531N-0-pt	-	1550 / 1310	-9	-3	-18	-3	-	9
SM/SF[2]	20km	-	8530N-1-pt	-	1310 / 1550	-9.5	-3	-20	-3	-	10.5
SM/SF[2]	20km	-	8531N-1-pt	-	1550 / 1310	-9.5	-3	-20	-3	-	10.5
SM/SF[2]	40km	-	8530N-2-pt	-	1310 / 1550	-3	0	-20	-3	3	17
SM/SF[2]	40km	-	8531N-2-pt	-	1550 / 1310	-3	0	-20	-3	3	17

[1] 62.5/125µm, 100/140µm multimode fiber up to 220m. 50/125µm multimode fiber up to 550m. Refer to the fiber cable manufacturer for multimode distance specifications.
[2] When using single-fiber (SF) media converter 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 and extended temperature (-40 to 75°C) models.
Order the appropriate Gigabit SFPs separately. Visit the Omnitron Optical Transceivers web page.
For chassis options, see iConverter Chassis Overview web page.

Step 2: Choose a Power Option (xxxxN-x-pt)

<leave blank> = Plug-in module
A = Barrel Connector and AC/DC Power Adapter, 100-240VAC, 50-60Hz, with US power cord without integrated mounting brackets
B = Barrel Connector and Universal AC/DC Adapter, 100-240 VAC, 50-60Hz, No Power Cord, without integrated mounting brackets
C = Direct DC input, 2 pin terminal connector, no AC/DC power adapter, without integrated mounting brackets
D = Barrel Connector and AC/DC Power Adapter, 100-240VAC, 50-60Hz, with US power cord with integrated mounting brackets
E = Barrel Connector and Universal AC/DC Adapter, 100-240 VAC, 50-60Hz, No Power Cord, with integrated mounting brackets
F = Direct DC input, 2 pin terminal connector, no AC/DC power adapter, with integrated mounting brackets

Step 3: Choose an Operating Temperature Range (xxxxN-x-pt)

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

ACCESSORIES

Model Number	Description
8250-0	DIN Rail Mounting Bracket for standalone modules without integrated mounting brackets (power option -A, -B, -C)
8251-0	DIN Rail Mounting Clip for standalone models with integrated mounting brackets (power options -D, -E, -F)
8260-0	1U Rack Mount Shelf for standalone models (up to 4 modules)