

iConverter GX/T2

10/100/1000 UTP to 100/1000X Ethernet Media Converter

The *iConverter* GX/T2 media converters are members of the modular *iConverter* Multi-Service Platform. The GX/T2 is a 10/100/1000BASE-T UTP to 100BASE-FX or 1000BASE-X fiber media converter that supports jumbo frames up to 10,240 bytes.

The GX/T2 is used for conversion from a 10/100/1000 UTP to Fast Ethernet or Gigabit Ethernet fiber, and supports both 100BASE-FX and 1000BASE-X Small Form Pluggable (SFP) transceivers. This simplifies inventory management in large campus networks with multiple data rates, and demarcation extension for different Ethernet telecom services. SFP transceivers also enable adaptability to different fiber types and distances, and support Coarse Wave Division Multiplexing (CWDM) technology to increase the bandwidth capacity of fiber infrastructure.

The GX/T2 fixed fiber models support 1000BASE-X over multimode and single-mode fiber with SC and ST connectors; and single-mode single-fiber with SC connectors.

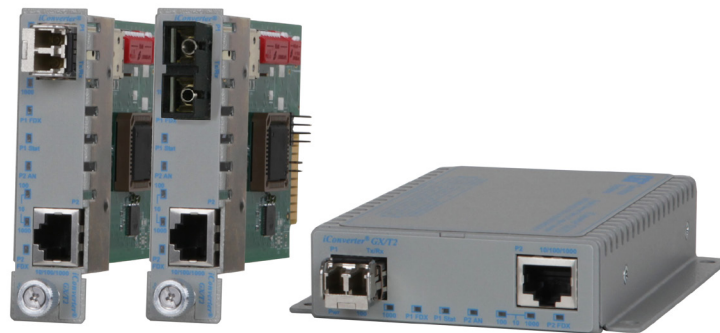
The UTP port supports 10/100/1000 and Half/Full-Duplex auto-negotiation with both hardware and software manual override controls.

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

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

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 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.



SFPs not included

KEY FEATURES

- Multirate 10/100/1000 UTP to 100/1000X Ethernet Media Converter
- Conforms to 10BASE-T, 100BASE-TX, 1000BASE-T, 100BASE-FX¹ and 1000BASE-X specifications
- Fiber port supports multimode and single-mode fiber with ST and SC connectors and single-fiber with SC connectors
- Supports for dual fiber and single-fiber 100BASE-FX or 1000BASE-X SFP transceivers for standard or CWDM wavelengths
- UTP port supports 10/100/1000 and Half/Full-Duplex auto-negotiation and MDI/MDIX auto-crossover
- 10,240 byte jumbo frames
- 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
- Gigabit 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
- 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 information, remote parameter configuration and trap notification
- Modules are hot-swappable in 19-Module, 5-Module, 2-Module or 1-Module chassis
- Lifetime Warranty and free 24/7 Technical Support

¹ 100BASE-FX is supported on SFP models only

SPECIFICATIONS

Model Type	GX/T2	
Protocols	10BASE-T, 100BASE-TX, 1000BASE-T, 100BASE-FX, 1000BASE-X	
Frame Size	10,240 bytes maximum frame size	
UTP Cable	RJ-45, Category 5 and higher	
Fiber Cables	Multimode: 50/125, 62.5/125, 100/140µm Single-mode: 9/125µm	
UTP Connectors	RJ-45	
Fiber Connectors	ST, SC and SFP	
DIP-Switches	Fiber: 100/1000 UTP: Auto/Man, 10/100/1000, FDX/HDX BP Enable, LS/LP, Pause, MAC Learning	
LED Displays	Power, FO 10/100/1000, FO FDX, SFP Stat, UTP Auto/Man, UTP 10/100/1000, UTP FDX/HDX	
Compliance	UL, CE, FCC Class A	
Plug-in Power Requirements	Typical: 1.4A @ 3.3VDC	
Standalone Power Requirements	DC Power Input Connector:	2.5mm Barrel Connector or 2-Pin Terminal Connector
	DC Power:	7 - 60VDC 0.7A max
	AC Power Adapter (US) via 2.5mm Barrel Connector	100 - 120VAC/60Hz 0.06A @ 120VAC
	AC Power Adapter (Univ) via 2.5mm Barrel Connector:	100- 240VAC/50 - 60Hz 0.06A @ 120VAC
Dimensions	Plug-in:	W: 0.85" x D: 4.5" x H: 2.8"
	Standalone:	W: 3.8" x D: 4.8" x H: 1.0"
Weight	Plug-in:	8 oz.
	Standalone w/o PS:	1.0 lb.
	Standalone w PS:	1.5 lbs.
Temperature	Standard:	0 to 50° C
	Wide:	-40 to 60° C
	Storage:	-40 to 80° C
Humidity	5 to 95% (non-condensing)	
Altitude	-100m to 4000m	
MTBF (Hours)	Plug-in:	520,000
	Standalone w/o PS:	722,000

MANAGEMENT

The GX/T2 can be used in managed or unmanaged applications. Management of the GX/T2 is accomplished by using a supported² *iConverter* Network Management Module that provides monitoring, remote configuration and trap notification. The management module can be accessed via SNMP, Telnet, and via a serial port. The SNMP-based management is accomplished via Omnitron's intuitive, graphic-oriented *NetOutlook* management software or third party SNMP management software. Management via the Telnet and the serial interfaces have an easy-to-use, menu-driven interface.

Some of the real-time GX/T2 parameters that can be monitored include duplex mode (Half, Full), 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, error counts, etc.

The network manager can set programmable-only (soft) parameters and override the module's physical switch (hard) settings remotely via the management software. The soft parameters include VLAN map setting and Port Access Control setting. Some of the hard switch-selectable parameters include fiber or UTP auto-negotiation, UTP Half/Full-Duplex and Link modes.

The *iConverter* GX/T2 supports SNMP trap notification for the monitoring and notification of different network events. Specific GX/T2 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.

² Contact Omnitron for the list of supported management modules.

ORDERING INFORMATION

8 5 x x N - x - x x

<Blank>	Standard Operating Temperature Range Model
W	Wide Operating Temperature Range Model
<Blank>	Plug-in Module
D	Standalone with integrated mounting brackets and External US AC Power Supply
E	Standalone with integrated mounting brackets and External Universal AC Power Supply
F	Standalone with integrated mounting brackets and DC Terminal Power

Fiber Type	Distance	Connector Type			Tx / Rx Wavelength [nm]	Min. Tx Power (dBm)	Max. Tx Power (dBm)	Min. Rx Sensitivity (dBm)	Max. Rx Sensitivity (dBm)	Min. Attenuation (dB)	Optical Power Budget
		ST	SC	SFP							
-	-	-	-	8539N-0	-	-	-	-	-	-	-
MM	220 / 550m ¹	8520N-0	8522N-0	-	850	-10	-4	-17	-3	-	7
MM	2km	8520N-6	8522N-6	-	1310	-9.5	-3	-19.5	-3	-	10
SM	12km	8521N-1	8523N-1	-	1310	-9.5	-3	-19.5	-3	-	10
SM	34km	-	8523N-2	-	1310	-5	0	-23	-3	3	18
SM	80km	-	8523N-3	-	1550	-5	0	-23	-3	3	18
SM	110km	-	8523N-4	-	1550	0	5	-24	-3	8	24
SM	140km	-	8523N-5	-	1550	2	5	-28	-8	13	30
SM-SF ²	20km	-	8530N-1	-	1310/1550	-9.5	-3	-20	-3	-	10.5
SM-SF ²	20km	-	8531N-1	-	1550/1310	-9.5	-3	-20	-3	-	10.5
SM-SF ²	40km	-	8530N-2	-	1310/1550	-3	0	-20	-3	3	17
SM-SF ²	40km	-	8531N-2	-	1550/1310	-3	0	-20	-3	3	17

Contact Omnitron for other fiber options and temperature ranges.

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 Single-Fiber converters must be used in pairs. The Tx wavelength on one end has to match the Rx wavelength on the other.