



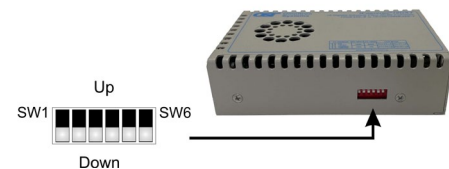
**DESCRIPTION**

The iConverter 10GXT is a 10/100/1000BASE-T copper to 1000BASE-X or 10GBASE-R fiber media converter, and is available as a compact, unmanaged standalone unit. The iConverter 10GXT supports jumbo frames up to 10,056 bytes. The 10GXT models are available with SFP+ or XFP transceivers.

[See data sheet for available models.](#)

**DIP-SWITCH SETTINGS**

The location of the DIP-switch is shown below.



The function of the DIP-switches is shown below.

Switch	Function	DOWN (Default)	UP
SW1	Port 1 Speed and Duplex	Auto	Man
SW2			
SW3	Port 2 Speed	10G	1000
SW4	Port 2 Negotiation (1G Mode only)	Auto	Man
SW5	Link Propagate Port 1 to Port 2	Link Segment	P1 to P2
SW6	Link Propagate Port 2 to Port 1	Link Segment	P2 to P1

**SW1 and SW2: Port 1 Speed and Duplex**

Copper port configurations are outlined below.

SW1	SW2	RJ-45 Mode of Operation
DOWN	DOWN	When set to AN the following modes are advertised: 1000FDX, 1000HDX, 100FDX, 100HDX, 10FDX, 10HDX
DOWN	UP	Port is set to manual 10FDX
UP	DOWN	Port is set to manual 100HDX
UP	UP	Port is set to manual 100FDX

**SW3: Port 2 Speed (SFP+ Model Only)**

This DIP-switch configures the speed of the transceiver installed in Port 2. If the DIP-switch is in the DOWN "10G" (default) position, the port forces the speed of the transceiver to 10G. If the DIP-switch is in the UP "1000" position, the port forces the speed of the transceiver to 1000.

**SW4: Port 2 Negotiation Mode "AN/MAN" (SFP+ Model Only)**

When SW3 is in the UP "1000" position, SW4 configures the negotiation mode for the port.

When this DIP-switch is in the DOWN "AN" position (factory default), the fiber optic port automatically determines the duplex and pause modes of the connecting fiber optic device. If the connecting fiber optic device cannot provide the proper signal to indicate its own mode of operation, the DIP-switch should be set to the UP "MAN" position. When Port 2 is set to manual mode, no capabilities are advertised.

**SW5 and SW6: Link Modes**

SW5	SW6	Function
DOWN	DOWN	Link Segment
UP	DOWN	Link Propagate Port 1 to Port 2
DOWN	UP	Link Propagate Port 2 to Port 1
UP	UP	Symmetrical Link Propagate

These DIP-switches configure the link mode settings. It is recommended to have link modes Down position (default) during the initial installation. After the circuit has been tested and operational, configure the module for the desired mode. [See Link Mode application note for more information.](#)

**Link Segment**

In Link Segment mode, all ports operate independently. A loss of a receive link signal will only affect the port detecting the loss of signal. All the other ports will continue to generate a link signal.

**Asymmetrical Link Propagate**

In Asymmetrical Link Propagate mode, faults are propagated based on the port notation. Port 1 to Port 2 notation indicates the direction the loss of link signal will propagate. A loss of receive link on Port 1 causes Port 2 to drop its link due to the propagated state (Port 1

to Port 2). The loss of link on Port 2 does not cause the loss of link to propagate. The loss only propagates in the Port 1 to Port 2 direction.

**Symmetrical Link Propagate**

In Symmetrical Link Propagate mode, the loss of a receive link signal will continue to propagate through to the next port in the network causing the port to drop link.

**MOUNTING AND CABLE ATTACHMENT**

Caution: Use proper ESD protection to reduce the risk of damage to your equipment.

1. The 10GXT is available as a standalone module with or without integrated wall-mount brackets. Attach the unit to a wall, backboard or other flat surfaces. Make sure the unit is placed in a safe, dry and secure location.

**For AC models:**

To power the unit using the AC/DC adapter, connect the AC/DC adapter to an AC outlet. Then connect the barrel plug at the end of the wire on the AC/DC adapter to the 2.5mm DC barrel connector (center-positive) on the unit. Confirm that the unit has powered up properly by checking the power status LED located on the front of the unit.

**For DC Models:**

To power the unit using a DC power source, prepare a power cable using a two conductor insulated wire (not supplied) with 12AWG to 16AWG thickness. Cut the power cable to the length required. Strip approximately 3/8 of an inch of insulation from the power cable wires. Connect the power cables to the unit by fastening the stripped ends to the DC power connector.

Connect the power wires to the DC power source. The Power LED should indicate the presence of power.

WARNING: Note the wire colors used in making the positive and negative connections. Use the same color assignment for the connection at the DC power source.

**NOTE: When using the 'P' clamp, attach the 'P' clamp to the safety ground screw. Make sure the 'P' clamp is installed between the washer and the screw.**

**NOTE: A safety ground attachment is provided on the rear of the chassis. Use the provided ground screw to attach a safety ground.**

<b>AC Power Requirements</b>	AC Adapter: 100 - 240VAC/50 - 60Hz 0.19A @ 120VAC (max)
<b>DC Power Requirements</b>	DC Input (Terminal Block): 9 - 16VDC, 2.5A max 2-Pin Terminal (non-isolated)
	DC Input (AC Adapter): 9 - 16VDC, 2.5A max 2.5mm Barrel Connector

2. Insert the appropriate 10G SFP+, 1G SFP or XFP transceiver (depending on the model of the module) into Port 2 receptacle on the 10GXT. The release latch of the transceiver must be in the closed position before insertion.

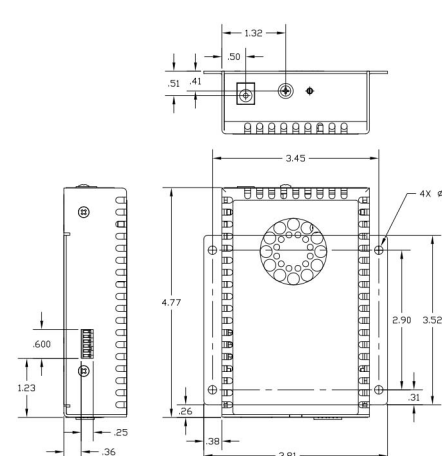
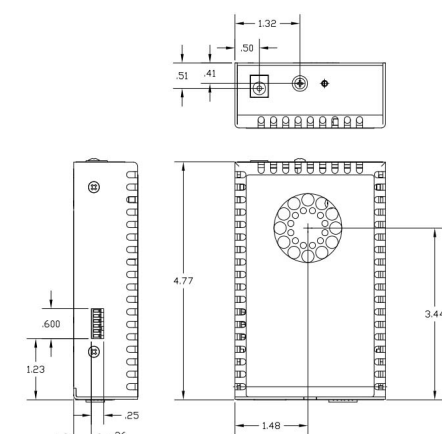
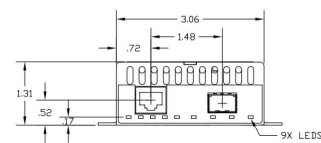
3. Connect an appropriate multimode or single-mode fiber cable to the fiber transceiver port on the 10GXT. It is important to ensure that the transmit (Tx) is attached to the receive side of the device at the other end and the receive (Rx) is attached to the transmit side.

4. Connect the RJ-45 port via a CAT 6A or better Ethernet cable to a 10BASE-T, 100BASE-TX or 1000BASE-T Ethernet device.

LED	Color	Description
P2 Speed "1000" (SFP+ Model Only)	Green/Amber	<b>OFF:</b> Port not linked at 1000M <b>Solid Green:</b> Port linked at 1000M <b>Blinking Green:</b> Data activity <b>Blinking Amber:</b> Port is operating at 1000M and receiving a remote fault
P2 Speed "10G"	Green	<b>OFF:</b> Port is not linked at 10G <b>Solid Green:</b> Port is linked at 10G <b>Blinking Green:</b> Data activity
P2 Duplex "FDX"	Green	<b>OFF:</b> Port is has negotiated to half duplex or port has not established a link <b>Solid Green:</b> Port is negotiated to full duplex operation by auto-negotiation
P2 DDMI "Stats"	Green/Amber	<b>OFF:</b> Transceiver does not support digital diagnostic or no transceiver is installed <b>Green Solid:</b> Transceiver supports digital diagnostic and no DDMI alarm detected <b>Amber Solid:</b> Transceiver supports digital diagnostic and DDMI alarm detected

Port 1 Speed LED Indicators		
LED Indicator	Link Speed	
"1000"	"100"	
OFF	OFF	Port not linked
OFF	ON	Port linked at 100Mbps
ON	OFF	Port linked at 1000Mbps
ON	ON	Port linked at 10Mbps

**MECHANICAL**



**SPECIFICATIONS**

<b>Standard Compliances</b>	IEEE 802.3, 802.3u, 802.3ab, 802.3z and 802.3ae
<b>Regulatory Compliances</b>	Safety: UL, CE, UKCA EMI: FCC Class A ACT: TAA, BAA, NDA
<b>Environmental</b>	RoHS, WEEE, REACH
<b>Frame Size</b>	Up to 10,056 bytes
<b>Port Types</b>	Copper: 10/100/1000BASE-T (RJ-45) Fiber: 1000BASE-X (SFP+ Model Only) 10GBASE-X (SFP+ or XFP)
<b>Cable Types</b>	Copper: EIA/TIA 568A/B, Cat 5 UTP and higher Multimode: 50/125µm, 62.5/125µm Single-mode: 9/125µm
<b>AC Power Requirements</b>	AC Adapter: 100 - 240VAC/50 - 60Hz 0.19A @ 120VAC (max)
<b>DC Power Requirements</b>	DC Input: (Terminal) 9 - 16VDC, 2.5A max 2-Pin Terminal (non-isolated) DC Input: (AC Adapter) 9 - 16VDC, 2.5A max 2-Pin Terminal (non-isolated)
<b>Dimensions W x D x H</b>	Standalone: 3.06" x 4.8" x 1.3" (77.7 mm x 121.9 mm x 33.0 mm) Standalone with Mounting Brackets: 3.8" x 4.8" x 1.3" (96.7 mm x 121.9 mm x 33.0 mm)
<b>Weight</b>	0.79 lb. (358 grams) - without AC Adapter 1.21 lbs. (549 grams) - with AC Adapter
<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>	330,000
<b>Warranty</b>	Lifetime warranty and 24/7/365 free Technical Support

**General and Copyright Notice**

This publication is protected by U.S. and international copyright laws. All rights reserved. The whole or any part of this publication may not be reproduced, stored in a retrieval system, translated, transcribed, or transmitted, in any form, or by any means, manual, electric, electronic, electromagnetic, mechanical, chemical, optical or otherwise, without prior explicit written permission of Omnitron Systems Technology, Inc.

The following trademarks are owned by Omnitron Systems Technology, Inc.: FlexPoint™, FlexSwitch™, iConverter®, miConverter™, NetOutlook®, OmniLight®, OmniConverter®, RuggedNet®, Omnitron Systems Technology, Inc.™, OST™ and the Omnitron logo.

All other company or product names may be trademarks of their respective owners.

The information contained in this publication is subject to change without notice. Omnitron Systems Technology, Inc. is not responsible for any inadvertent errors.

**Warranty**

This product is warranted to the original purchaser (Buyer) against defects in material and workmanship for a period of two (2) years from the date of shipment. A lifetime warranty may be obtained by the original purchaser by registering this product at [www.omnitron-systems.com/support](http://www.omnitron-systems.com/support) within ninety (90) days from the date of shipment. During the warranty period, Omnitron will, at its option, repair or replace a product which is proven to be defective with the same product or with a product with at least the same functionality.

For warranty service, the product must be sent to an Omnitron designated facility, at Buyer's expense. Omnitron will pay the shipping charge to return the product to Buyer's designated US address using Omnitron's standard shipping method.

**Limitation of Warranty**

The foregoing warranty shall not apply to product malfunctions resulting from improper or inadequate use and/or maintenance of the equipment by Buyer,

Buyer-supplied equipment, Buyer-supplied interfacing, unauthorized modifications or tampering with equipment (including removal of equipment cover by personnel not specifically authorized and certified by Omnitron), or misuse, or operating outside the environmental specification of the product (including but not limited to voltage, ambient temperature, radiation, unusual dust, etc.), or improper site preparation or maintenance.

No other warranty is expressed or implied. Omnitron specifically disclaims the implied warranties of merchantability and fitness for any particular purpose.

The remedies provided herein are the Buyer's sole and exclusive remedies. Omnitron shall not be liable for any direct, indirect, special, incidental, or consequential damages, whether based on contract, tort, or any legal theory.

**Environmental Notices**

The equipment covered by this manual must be disposed of or recycled in accordance with the Waste Electrical and Electronic Equipment Directive (WEEE Directive) of the European Community directive 2012/19/EU on waste electrical and electronic equipment (WEEE) which, together with the RoHS Directive 2015/863/EU, for electrical and electronic equipment sold in the EU after July 2019. Such disposal must follow national legislation for IT and Telecommunication equipment in accordance with the WEEE directive: (a) Do not dispose waste equipment with unsorted municipal and household waste. (b) Collect equipment waste separately. (c) Return equipment using collection method agreed with Omnitron.

The equipment is marked with the WEEE symbol shown to indicate that it must be collected separately from other types of waste. In case of small items the symbol may be printed only on the packaging or in the user manual. If you have questions regarding the correct disposal of equipment go to [www.omnitron-systems.com/support](http://www.omnitron-systems.com/support) or e-mail to Omnitron at [intlinfo@omnitron-systems.com](mailto:intlinfo@omnitron-systems.com).



**LED INDICATORS**

LED	Color	Description
Power "PWR"	Green	<b>OFF:</b> No power applied or module is not operational <b>ON:</b> Module has power
P1 Mode "AN"	Green	<b>Solid Green:</b> Port is configured for auto-negotiation <b>Blinking Green:</b> Port is configured for auto-negotiation but has not completed the process with attached link partner
P1 Activity "100"	Green	<b>OFF:</b> Port is not linked at 100M <b>Solid Green:</b> Port linked at 100M <b>Blinking Green:</b> Data activity
P1 Activity "1000"	Green	<b>OFF:</b> Port is not linked at 1000M <b>Solid Green:</b> Port linked at 1000M <b>Blinking Green:</b> Data activity
P1 Activity "100" and "1000"	Green	<b>OFF:</b> Port is not linked at 10M <b>Solid Green:</b> Port linked at 10M <b>Blinking Green:</b> Data activity
P1 Duplex "FDX"	Green	<b>OFF:</b> Port is configured for half duplex per DIP-switch or resolved by auto-negotiation <b>ON:</b> Port is configured for full duplex operation per DIP-switch or resolved by auto-negotiation

**Safety Warnings and Cautions**

ATTENTION: Observe precautions for handling electrostatic discharge sensitive devices.

WARNING: Potential damage to equipment and personal injury.

WARNING: Risk of electrical shock.

**Customer Support Information**

Phone: (949) 250-6510  
Fax: (949) 250-6514  
Address: Omnitron Systems Technology, Inc.  
38 Tesla  
Irvine, CA 92618, USA  
Email: [support@omnitron-systems.com](mailto:support@omnitron-systems.com)  
URL: [www.omnitron-systems.com](http://www.omnitron-systems.com)