



## DESCRIPTION

The FlexPoint Gx is a 1000BASE-T copper to 1000BASE-X fiber media converter that provides reliable and cost-effective network connectivity and fiber extension.

The FlexPoint Gx features an auto-sensing RJ-45 port that adjusts to the duplex and pause mode of the attached device. A switch provides manual control over the Half/Full-Duplex operation of RJ-45 port. The port features a crossover switch that facilitates connection to a workstation or switch.

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

## POWER ADAPTER NOTICE

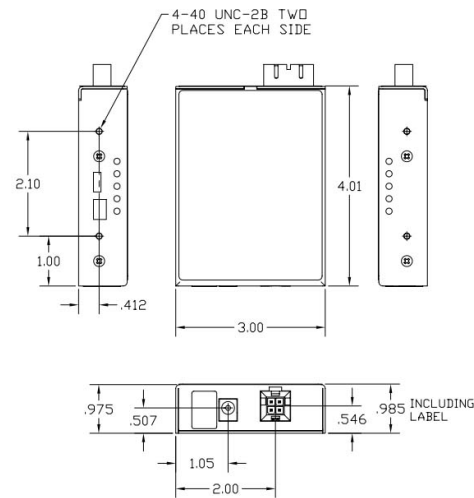
When used in a stand-alone configuration, this product should always be used with its enclosed Power Adapter.

### WARNING

**Before plugging the Power Adapter to any wall outlet or AC power source, verify that the power on the unit is appropriate for your AC line voltage source.**

Page 1

## MECHANICAL



Page 7

## SWITCH SETTINGS

### Fiber Optic Auto/Manual Switch: AN/Man

Setting this DIP-Switch to the "AN" (factory default) setting enables the fiber optic part of the FlexPoint Gx to detect the Duplex and Pause modes of the connected fiber optic and UTP devices. The RJ-45 port of the Flexpoint Gx negotiates with the connected UTP device based on the modes detected by the fiber optic port. Both the FlexPoint Gx and the connected fiber optic device must have their fiber optic Auto-Negotiation enabled for this process to work.

Setting this DIP-switch to the Manual "Man" setting disables the fiber optic port's ability to detect the Duplex and Pause modes of the connected fiber optic device. In this setting, the UTP port of FlexPoint Gx negotiates with the connected UTP device based on the modes configured by the UTP DIP-Switches. This setting allows the FlexPoint Gx to connect to Gigabit fiber devices that are not capable of Auto-Negotiation.

Note: In Auto-Negotiation mode, connecting the fiber optic cables before connecting the UTP cables causes the fiber optic LED to blink steadily. The blinking LED turns solid when the UTP Link is on.

Note: The UTP "FDX/HDX", "Pause/No", and "LS/LP" DIP-switches have no affect when the fiber optic port is set to Auto-Negotiation.

Note: When connecting a FlexPoint Gx revision "2.x" to a FlexPoint Gx revision "1.x", the Fiber Optic Auto/Manual DIP-switch of the "2.x" module must be set to the "Man" setting.

Page 2

## 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.

Page 8

## UTP Duplex Switch: Full-Duplex/Half-Duplex

Setting the DIP-switch to "Full-Duplex" (factory default) allows the UTP port to Auto-Negotiate to Full-Duplex or Half-Duplex. Setting the DIP-switch to "Half-Duplex" forces the UTP port to Auto-Negotiate only to Half-Duplex.

UTP Pause Enable/Pause Disable "Pause/No" DIP-Switch:

Setting this DIP-switch to "Pause Enable" (factory default) allows the UTP port to Auto-Negotiate to Symmetrical and Asymmetrical Pause. Setting the DIP-switch to "Pause Disable" forces the UTP port to Auto-Negotiate only to No Pause.

### Link Mode Switch: LS/LP

Setting this DIP-switch to "LS" (factory default) configures the module for Link Segment (LS). In Link Segment, each port detects and displays link status independently of the status of the other port. For example, if there is a loss of a receive link on the fiber optic port, the RJ-45 port continues to transmit a link.

Setting this DIP-Switch to "LP" configures the module for Link Propagate (LP). In Link Propagate (LP), a loss of any link is propagated to the other port, causing the link on the other port to drop. For example, if there is a loss of a receive link on the fiber optic port, the RJ-45 port will not transmit its link due to the propagated fiber optic link state. This setting allows the loss of a link to be detected by SNMP or other managed network devices to which the FlexPoint Gx is connected.

Note: Only the first loss of a receive link detected by the FlexPoint Gx turns off the other port's transmit link. An additional loss of a receive link on the other port has no affect on the FlexPoint Gx. The FlexPoint Gx returns to normal operation when the first loss of a receive link is restored.

Page 3

## 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.

Page 9

## MOUNTING

The FlexPoint Gx can be DIN-rail mounted using the DIN-rail mounting bracket (8250), wall-mounted using a wall mounting kit (4380), rack-mounted using a 5-Module shelf (4392) or inserted in a 14-Module FlexPoint Powered Chassis.

To power the module using the AC power adapter, connect the barrel connector at the end of the wire on the power adapter to the barrel connector on the module. Connect the power adapter to the AC outlet. Confirm that the module has powered up properly by checking the Power LED.

Attach the fiber cables to the FlexPoint Gx ST, SC, MT-RJ or LC connectors. The FlexPoint transmit (Tx) must attach to the receive side on the device at the far end of the fiber and the receive (Rx) must attach to the transmit side.

Connect a UTP cable (Category 5 or better ) to the RJ-45 port on the module and connect the other end to a 1000M capable device.

## LED INDICATORS

LED Function	Color	Description
Power	Amber	<b>OFF:</b> No power <b>ON:</b> Module has power
FDX / HDX	Amber	<b>OFF:</b> Half Duplex <b>ON:</b> Full Duplex
F/O Link / Rx	Green	<b>OFF:</b> No fiber link <b>ON:</b> Port linked at 1000M <b>Blinking (10Hz):</b> Data activity <b>Blinking (1Hz):</b> Detected but cannot complete AN
UTP Link / Rx	Green	<b>OFF:</b> No copper link <b>ON:</b> Port linked at 1000M <b>Blinking (10Hz):</b> Data activity <b>Blinking (1Hz):</b> Fiber in Manual Mode w/ LP. UTP cable connected but RJ-45 link is disabled

Page 4

## 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).



Page 10

## SPECIFICATIONS

Standard Compliances	IEEE 802.3	
Regulatory Compliances	Safety: EMI: ACT:	UL, cUL, CE, UKCA FCC Class A TAA, BAA, NDA
Environmental	RoHS, REACH, WEEE	
Port Types	Copper: Fiber:	1000BASE-T (RJ-45) 1000BASE-X (ST, SC, LC, MT-RJ)
Cable Types	Copper: Fiber:	EIA/TIA 568A/B, Cat 5 and higher Multimode: 50/125µm, 62.5/125µm Single-mode: 9/125µm
AC Power Requirements	AC Adapter:	100 - 240VAC/50 - 60Hz 0.04A @ 120VAC (max)
DC Power Requirements	DC Input: (AC Adapter or Terminal)	+6.0 to +15VDC 0.4A @ 9VDC 2.5mm Barrel or Terminal
	DC Input: (Molex Connector)	+4.75 to +5.25VDC, 0.6A @ 5VDC
Dimensions W x D x H	3.0" x 4.0" x 1.0" (76.2 mm x 101.6 mm x 25.4 mm)	
Weight	6 oz. (170.1 grams)	
Temperature	Commercial: Wide:	0 to 50°C -40 to 60°C
Humidity	5 to 95% (non-condensing)	
Altitude	-100m to 4,000m	
MTBF (hrs)	Module: AC Adapter (-1): AC Adapter (-2):	990,000 250,000 100,000
	Warranty	Lifetime warranty with 24/7/365 free Technical Support

Page 5

## Technical Support:

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

040-04370-0011 7/24

Page 11

Please complete both sides and mail or fax this registration form to:  
**User Warranty Registration**  
 Omnitron Systems Technology, Inc.  
 38 Tesla  
 Irvine, CA 92618 USA  
 Fax: (949) 250-6514

Name: \_\_\_\_\_  
 Company: \_\_\_\_\_  
 Address: \_\_\_\_\_  
 City: \_\_\_\_\_ State: \_\_\_\_\_ Zip Code: \_\_\_\_\_  
 Country: \_\_\_\_\_  
 Phone: \_\_\_\_\_ Fax: \_\_\_\_\_  
 E-mail: \_\_\_\_\_

Please complete both sides of this form

Please register on-line @ <http://www.omnitron-systems.com> or complete both sides and mail or fax this registration form to:

FlexPoint Type: \_\_\_\_\_  
 Model: \_\_\_\_\_  
 Serial Number: \_\_\_\_\_  
 Purchased From: \_\_\_\_\_  
 Address: \_\_\_\_\_  
 City: \_\_\_\_\_ State: \_\_\_\_\_ Zip Code: \_\_\_\_\_  
 Country: \_\_\_\_\_  
 Comments and Suggestions: \_\_\_\_\_

Please complete both sides of this form