Omnitron Systems Technology, Inc.

FlexPoint™ Gx
Gigabit Media Converter
w/ Fiber Optic Auto-Negotiation
User Instructions

FlexPoint Gx Models				
Fiber Type / Dual Fiber (DF) or Single-Fiber (SF) / Wavelength	Distance	Fiber Connector		
		SC Model	MT-RJ Model	LC Model
MM / DF / 850nm	220m / 500m*	4370-x	4670-x	4672-x
SM / DF / 1310nm	12km	4371-x	4671-x	4673-x
SM / DF / 1310nm	34km	4372-x	-	4674-x
SM / DF / 1550nm	80km	4373-x	-	4675-x
MM = Multimode SM = Single-Mode				
Power options (-x) -0 No power supply adapter included -1 110Volt / 60Hz (US) -2 230Volt / 50Hz (Universal) For other power configurations, consult factory *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.				

Optional Accessories	
Model	**Description**
4380	FlexPoint Wall-Mounting Kit (Standalone AC powered)
4381	FlexPoint Wall-Mounting Kit (Standalone with DC adapter)
8250-0	DIN-Rail Mounting Kit (Standalone or standalone with DC adapter)
4392	FlexPoint 5-Unit Rack-Mounting Shelf
4384	FlexPoint DC 18-60VDC Standalone Power Adapter
4385	FlexPoint 14-Unit 48VDC Power Redundant Power Chassis
4389	Redundant Power Supply for Model 4385
4395	FlexPoint 14-Unit AC Power-Redundant Powered Chassis
4399	Redundant Power Supply for Model 4395

WARNING!

Before inserting the Power Adapter, verify that the power on the unit is appropriate for your AC line voltage source.

POWER ADAPTER NOTICE:

1. This product should only be used with Omnitron Supplied Power Unit model numbers 9113-PS [US] or 9115-PS [Universal].
2. When used in a standalone configuration, this product must be used with a Listed Direct Plug-In Power Unit marked "Class 2" and rated at 9VDC, 1 Amp.

ABOUT THIS MANUAL:

This document supports revision "2.x" of the FlexPoint Gx. Please refer to the serial number label on the FlexPoint Gx for the revision number of your product. This revision incorporates the following improvement to the FlexPoint Gx:

1. Improved LED performance.

DESCRIPTION:

The FlexPoint Gx converts between 1000Base-X Gigabit Ethernet fiber and 1000Base-T twisted pair cabling. The fiber optic port supports Auto-Negotiation, which automatically detects and advertises the Duplex and Pause ability of connected devices. Multimode and single-mode models are described on page 1.

INSTALLATION PROCEDURE:

1.) Configure the appropriate FlexPoint Gx DIP-Switch settings. When connecting to a fiber optic device that is set to Auto-Negotiation mode, set the fiber optic Auto-Negotiation/Manual "An/Man" DIP-Switch of the FlexPoint Gx to "AN." When connecting to a fiber optic device that is set to manual mode, set the fiber optic "AN/Man" switch to "Man" and the UTP DIP-Switches to the settings of the connected devices.

2.) Connect the UTP port to a 1000Base-T Ethernet device using a Category 5 cable.

3.) Connect the fiber optic port to a 1000Base-X Gigabit Ethernet device using a single-mode or multimode fiber cable (as appropriate). When connecting dual fiber models, the FlexPoint Gx transmitter (Tx) must attach to the receiver side of its link partner; the receiver (Rx) must attach to the transmitter. When connecting single-fiber (SF) models, the Tx wavelength on one end has to match the Rx wavelength on the other.

4.) Mount the FlexPoint Gx using the included Velcro® strips or an optional wall-mounting kit (See Optional Accessories).

5.) Connect the appropriate power supply.

DIP-SWITCH SETTINGS:

Fiber Optic Auto/Manual "AN/Man" DIP-Switch:
Setting this DIP-Switch to the "AN" (factory default) setting enables the fiber optic port of the FlexPoint Gx to detect the Duplex and Pause modes of the connected fiber optic and UTP devices. The UTP 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.

UTP "Full-Duplex/Half-Duplex" DIP-Switch:
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 Segment/Link Propagate "LS/LP" DIP-Switch:
Setting this DIP-switch to "LS" (factory default) allows the generation and detection of link presence to occur at each point-to-point segment. In this configuration, the loss of a receive link on either port has no affect on the other port's ability to transmit a link. For example, if there is a loss of a receive link on the fiber optic port, the UTP port continues to transmit a link.

Setting this DIP-Switch to "LP" allows the link state to propagate from one port to the other port. In this configuration, the loss of a receive link on either port causes the transmit link of the opposite port to be turned off. For example, if there is a loss of a receive link on the fiber optic port, the UTP 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.

User Warranty Registration

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

Omnitron Systems Technology, Inc.
140 Technology Drive, #500
Irvine, CA 92618, USA
Fax: (949) 250-6514

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

Please complete both sides of this form

LED INDICATORS:

LED	Color	Status	Description
Power	Amber	On	Power applied
FDX/HDX	Amber	On	UTP Full-Duplex
		Off	UTP Half Duplex
F/O Link/Rx	Green	On	Fiber Link
		Rapid Blink (10Hz)	Data received
		Slow Blink (1Hz)	**In F/O "Auto-Neg." mode:** Fiber cable is connected but unable to complete Auto-Negotation
		Off	No Fiber Link
UTP Link/Rx	Green	On	UTP Link
		Rapid Blink (10Hz)	Data received
		Slow Blink (1Hz)	**In F/O "Manual" mode w/ "Link Prop.":** UTP cable connected but UTP Link is disabled
		Off	No UTP Link

SPECIFICATIONS:

Model Type	Gx
Protocols	IEEE 802.3ab, 1000BASE-T, 1000BASE-X
UTP Cable	RJ45, Category 5 and higher
Fiber Cables	Multimode: 50/125, 62.5/125, 100/140µm Single-mode: 9/125µm
UTP Connectors	RJ-45
Fiber Connectors	SC, MT-RJ, LC
DIP-Switches	Auto-Neg, FDX/HDX, Pause En/Dis, Link Prop.
LED Displays	Power, Fiber Link/Activity, UTP Link/Activity, Full/Half-Duplex
Dimensions	W: 3.0" x D: 4.0" x H: 1.0"
Weight	6 oz. (without power adapter)
Compliance	UL, CE, FCC Class A
Power Requirements	**Barrel Connector** / **Molex Connector** **NominalVoltage:** 9VDC / 5VDC **Voltage Range:** 6.0 to 15.0VDC / 4.75 to 5.25VDC **Power Nominal:** 0.4A @ 9VDC / 0.6A @ 5VDC **Max. Power:** 1A @ 9VDC / 0.75A @ 5VDC
Temperature	0 to 50° C
Humidity	5 to 95% (non-condensing)
Altitude	-100m to 4000m
MTBF (Hours)	Module without Power Adapter: 990,000 Module with Power Adapter **-1**: 250,000 Module with Power Adapter **-2**: 100,000

Warning

The operating description in this Instruction Manual is for use by qualified personnel only. To avoid electrical shock, do not perform any servicing of this unit other than that contained in the operating instructions, unless you are qualified and certified to do so by Omnitron Systems Technology, Inc.

Caution

All user-required operations can be performed without opening the unit. Never attempt to open or remove the cover or tamper with the unit.

Warranty

This product is warranted to the original purchaser against defects in material and workmanship for a period of TWO YEARS from the date of shipment. A LIFETIME warranty may be obtained by the original purchaser by REGISTERING this product with Omnitron within 90 days from the date of shipment. TO REGISTER, COMPLETE AND MAIL OR FAX THE REGISTRATION PORTION OF THIS INSTRUCTION MANUAL TO THE INDICATED ADDRESS. Or you may register your product on the internet at http://www.omnitron-systems.com. During the warranty period, Omnitron will, at its option, repair or replace a product which is proven to be defective.

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 defects 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.

Exclusive Remedies

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.

TECHNICAL SUPPORT:

For help with this product, contact our Tech. Support:

Phone: (949) 250-6510
Fax: (949) 250-6514
Address: Omnitron Systems Technology, Inc.
140 Technology Drive, #500
Irvine, CA 92618 USA
E-mail: support@omnitron-systems.com
URL: http://www.omnitron-systems.com

Form: 040-04370-001E 11/07

User Warranty Registration

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

FlexPoint Type: Gx, Fiber Type: _____ Connector: _____
Model: _____ Purchase Date: _____
Serial Number: _____
Purchased From: _____
Address: _____
City: _____ State: _____ Zip Code: _____
Country: _____
Comments and Suggestions: _____

Please complete both sides of this form