4) VERIFY OPERATION

Once the module has been installed and configured per steps 1 - 3, verify the module is operational by viewing the LED indicators.

LED Function "Legend"	Color	OFF State	ON/Blinking State
Power "PWR"	Green	No power	ON: Module has power
P1 Link Activity "100"	Green	Port not linked at 100M	ON: Port linked at 100M Blinking: Data activity
P1 Link Activity "1000"	Green	Port not linked at 1000M	ON: Port linked at 1000M Blinking: Data activity
P1 Link Activity "100" and "1000"	Green	Port not linked at 10M	ON: Port linked at 10M Blinking: Data activity
Test/Alarm "Tst/Alm"	Green	Reserved	Reserved
Management Mode "Msr/Slv"	Green	N/A	ON: Master (normal) 5 Hz Blinking: Secure Slave
P2 Link Activity "100"	Green	Port not linked at 100M	ON: Port linked at 100M Blinking: Data activity
P2 Link Activity "1000"	Green	Port not linked at 1000M	ON: Port linked at 1000M Blinking: Data activity
P2 Link Activity "100" and "1000"	Green	Port not linked at 10M	ON: Port linked at 10M Blinking: Data activity

Figure 4: LED Indicators

Omnitron Systems Technology, Inc.

iConverter 2-Port SFP to SFP GM3
Network Interface Device
Quick Start Guide

PRODUCT OVERVIEW

This document describes the basic installation and configuration of the 2-Port SFP to SFP GM3 standalone modules.

For more information including the complete User Manual on the 2-Port SFP to SFP GM3 modules, access Omnitron's registration page and register the product:

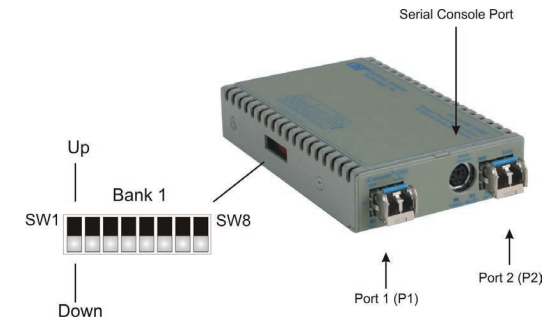http://www.omnitron-systems.com/forms/product_registration.php

INSTALLATION PROCEDURE

1) Configure DIP-Switches

2) Install Standalone Module and Connect Cables

3) Configure Module via Command Line Interface

4) Verify Operation

1) CONFIGURE DIP-Switches

DIP-SWITCH BANK 1
SW1 and SW2: P1 and P2 AUTO/MANUAL NEGOTIATION "AN / Man"

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

Figure 1: DIP-switch Location

NOTE: If 1000Mbps fiber transceivers are installed, the port always operates in 1000Mbps full-duplex mode.

NOTE: If 100Mbps fiber transceivers are installed, the port will operate in 100Mbps full-duplex manual mode.

040-8999P-001A   6/09

Omnitron Systems Technology * 140 Technology Dr. #500 * Irvine, CA 92618
949.250.6510 tel * 949.250.6514 fax * www.omnitron-systems.com

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The function of DIP-switch Bank 1 is outlined in Figure 2 below.

Switch	DOWN (Default)	UP
1	AN: P1 Auto-neg.	Man: P1 Manual Neg.
2	AN: P2 Auto-neg.	Man: P2 Manual Neg.
3	-	-
4	-	-
5	-	-
6	Link Modes	
7	Link Modes	
8	Link Modes	

Figure 2: DIP-switch Bank 1

SW6	SW7	SW8	Link Mode
DN	DN	DN	Link Segment (LS)
UP	DN	DN	Link Propagate (LP)
DN	UP	DN	Remote Fault Detect + Link Segment (RFD+LS)
UP	UP	DN	Remote Fault Detect + Link Propagate (RFD+LP)
DN	DN	UP	Symmetrical Fault Detect (SFD)
UP	DN	UP	Asymmetrical Link Propagate Port 1 to Port 2 (ALP P1 P2)
DN	UP	UP	Asymmetrical Link Propagate Port 2 to Port 1 (ALP P2 P1)
UP	UP	UP	Asymmetrical Link Propagate Port 1 to Port 2 + Port 1 Remote Fault Detect (ALP P1 P2 + P1 RFD)

Figure 3: Link Mode Settings

SW3, SW4, SW5 - Reserved

SW6, SW7, SW8 - LINK MODES

The DIP-switches shown in Figure 3 above, are used to configure the link modes. It is recommended to have link modes DOWN (default) during the initial installation. After the circuit has been tested and operational, configure the module for the desire mode.

For detailed information on the operation of the different Link Modes, download the application note "*iConverter* Link Modes" available on Omnitron's documentation library web page:

http://www.omnitron-systems.com/downloads.php

2) INSTALL STANDALONE MODULE AND CONNECT CABLES

a. The GM3 is available in tabletop and wall-mount models. For wall-mounting, attach the GM3 to a wall, backboard or other flat surface. For tabletop installations, place the unit on a flat level surface. Attach the rubber feet to the bottom of the GM3 to prevent the unit from sliding. Make sure the unit is placed in a safe, dry and secure location.

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.

To power the unit using a DC power source, prepare a power cable using a two conductor insulated wire (not supplied) with a 14 AWG gauge minimum. 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: If mounting with a safety ground attachment, use the safety ground screw at the rear of the unit.

b. Insert the SFP Fiber transceivers into the SFP receptacles on the GM3.

NOTE: The release latch of the SFP Fiber transceiver must be in the closed position before insertion.

When using Omnitron SFP fiber transceivers, the GM3 module will detect the speed and automatically configure the port to match the speed of the SFP. For 3rd party SFP fiber transceivers, the module may require configuration using the CFM CLI option to set the speed of the port to match the speed of the SFP. See the full version of the User Manual for more information.

c. If using a copper SFP, connect the UTP port via a Category 5 cable to a 10BASE-T, 100BASE-TX or 1000BASE-T Ethernet device.

d. Connect an appropriate multimode or single-mode fiber cable to the fiber ports of the installed module. 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. When using single-fiber (SF) GM3 models, the Tx wavelength must match the Rx wavelength at the other end and the Rx wavelength must match the Tx wavelength at the other end.

3) CONFIGURE MODULE VIA COMMAND LINE INTERFACE

To access the Command Line Interface (CLI), connect the GM3 RS-232 Serial Console Port to the COM port of a computer equipped with terminal emulation software such as HyperTerminal. The Console Port (DCE) is a mini DIN-6 female connector which can be changed to a DB-9 connector with the included adapter. The GM3 Console Port is a standard RS-232 asynchronous serial interface.

Start HyperTerminal and select the correct COM Port in the HyperTerminal "Connect To:" window. Set the serial port to the following:

Bits Per Second	57,600
Stop Bits	1
Data Bits	8
Parity	NONE
Hardware Flow Control	NONE

Once connected, press <ENTER> to bring up a command line prompt on the attached PC. A new GM3 module does not have a password, and will skip the Password Entry screen and go straight to the Management Options screen. If a password has been set, the Password Entry screen will be displayed. Type the password and press <ENTER>, the GM3 will respond with the Management Options screen.

The CLI interface allows for the detailed configuration of the module. It is recommended to configure:

• Serial port password - option 3 from the Management Options screen

• Telnet password - option 3 from the Management Options screen

• IP address of the module - option 3 from the Management Options screen

• SNMP parameters - option 4 from the Management Options screen

See the full version of the User Manual for more information.