```
Management Options iConverter, Serial Agent
Network Management
1:  Chassis and Module Management
2:  Set Module Name Preferences
Management Module Preferences
3:  IP and Control Preferences
4:  SNMP Preferences
5:  Abandon Preference Changes
6:  Save Preference Changes
7:  Restore Factory Defaults
8:  Restart Management Module
9:  Other Networking Features
Management Module Maintenance
10: Firmware Update
11: Set Date/Time

IP Address  = 192.168.1.220
Chassis Number = 1

Enter Choice, <H>elp, E<x>it >
```

Figure D: Command Line Interface Menu Options

The CLI interface allows for the detailed configuration of the module. It is recommended to configure the module with an IP address associated with the attached network. Also, SNMP traphost address should be configured if the module is managed with an SNMP-based Management System. See the 2GXM User Manual for complete information.

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.

The Power LED indicates the module is receiving power from the chassis.

The Fiber Optic link LEDs indicate the fiber optic connections have been established. Verify the Link Mode selection is set to Link Segment (LS). Until a stable link is established, leave the Link Mode configured for LS. After a Link presence is established, the Link Mode selection can be modified.

LED Function "Legend"	Color	Off State	On / Blinking State
Power "Pwr"	Amber	No power	On: Module has power
Power Supply Status #X	Amber	Chassis Power Supply not installed	On: Power available from installed Power Supply #X Blinking: No power available from installed Power Supply #X
Port 1 Fiber Link Activity "P1"	Green	No Fiber Link	On: Fiber link is active Blinking: Fiber Data Activity
Chassis Management Master/Slave "Msr/Slv"	Green	Chassis Slave Mode	On: Chassis Master Blinking: Operating in OAM Mode
Port 2 Fiber Link Activity "P2"	Green	No Fiber Link	On: Fiber link is active Blinking: Fiber Data Activity

Figure E: LED Indicators

Form 040-08980-002 D 12/07

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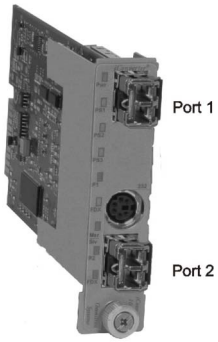
Omnitron Systems Technology, Inc.

iConverter 2GXM Plug-in Module QUICK START GUIDE



The Omnitron *iConverter*® 2GXM Network Interface Device (NID) with integrated management provides Gigabit Ethernet (1000BASE-X) fiber-to-fiber media conversion.

The 2GXM conforms to Ethernet in the First Mile (EFM) fiber standards to support Fiber-to-the-X (FTTX) Metropolitan and Enterprise LAN networks. Built-in Operation, Administration and Maintenance (OAM) functionality enables the 2GXM to operate as a managed demarcation point at the customer premises and network edge, offering Quality of Service capability.

The 2GXM module can be managed using Omnitron's *NetOutlook*™ SNMP Management Software, 3rd Party SNMP Client, Telnet or the Command Line Interface (CLI).

For more information, including the complete User Manual on the 2GXM Plug-in module, access Omnitron's documentation download web page to view all relevant documents:

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

INSTALLATION PROCEDURE

1) Configure DIP-Switches
2) Install Module in Chassis and Connect Cables
3) Configure Module via Command Line Interface
4) Verify Operation

1) CONFIGURE DIP-SWITCHES

DIP-SWITCH BANK 1

SW1, SW2 - AUTO/MANUAL NEGOTIATION "AN/MAN"

When the DIP-switch is in the LEFT Auto-Negotiate "AN" position (factory default), the Port automatically determine the duplex and pause modes of the connecting fiber optic devices. If the connecting fiber optic devices cannot provide the proper signal to indicate their own mode of operation, the DIP-switch should be set to the RIGHT Manual "MAN" position. See Figure B on page 2 for more information.

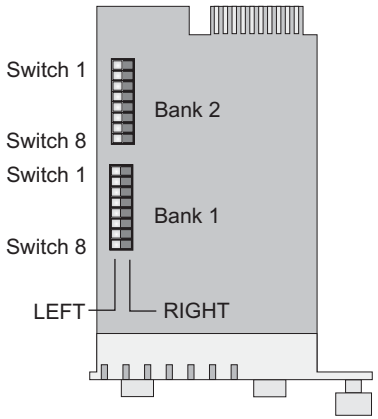


Figure A: DIP-Switch Locations

NOTE: When Port 1 operates in Auto-Negotiation mode, the port advertises for Pause. When the Fiber optic ports (Port 1 and Port 2) operates in Manual mode, Pause is disabled.

NOTE: The fiber optic ports operate in Full-Duplex mode in both Auto and Manual negotiation modes.

SW3, SW4, SW5 - RESERVED

These DIP-switches are for factory use only and must always remain in the LEFT position (factory default).

SW6, SW7, SW8 - LINK MODES

These three DIP-switches configure the link mode settings. The following table details possible Link Mode DIP-switch configurations. For detailed information on the operation of the different Link Modes, download the application note "*iConverter* Link Modes" available on Omnitron's web page:

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

Switch	Left (Factory Default)	Right
SW1	**AN:** Fiber Port 1 Auto	**Man:** Fiber Port 1 Manual
SW2	**AN:** Fiber Port 2 Auto	**Man:** Fiber Port 2 Manual
SW3	**Reserved**	**Reserved**
SW4	**Reserved**	**Reserved**
SW5	**Reserved**	**Reserved**
SW6	**See Link Mode Selection**	
SW7		
SW8		

SW6	SW7	SW8	Link Mode Selection
Left	Left	Left	**Link Segment (LS)** (Factory Default)
Right	Left	Left	**Link Propagate (LP)**
Left	Right	Left	**Remote Fault Detect + Link Segment (RFD + LS)**
Right	Right	Left	**Remote Fault Detect + Link Propagate (RFD + LP)**
Left	Left	Right	**Symmetrical Fault Detect (SFD)**
Right	Left	Right	**Illegal Setting**
Left	Right	Right	**Illegal Setting**
Right	Right	Right	**Illegal Setting**

Figure B: DIP-Switch Bank 1

DIP-SWITCH BANK 2

SW1, SW2 - BACKPLANE ENABLE

When the DIP-switch is in the LEFT "DS" position (factory default), the Backplane Port of the 2GXM is isolated from the chassis' Ethernet Backplane. When the DIP-switch is in the RIGHT "EN" position, the Backplane Port is enabled. This allows Ethernet Backplane connectivity to an adjacent module via the chassis Backplane Link "A" or "B" depending on the switch setting.

Switch	Left (Factory Default)	Right
SW1	**A-DS:** Port A Disabled	**A-EN:** Port A Enabled
SW2	**B-DS:** Port B Disabled	**B-EN:** Port B Enabled
SW3	**Off;** Pause Disabled	**On:** Pause Enabled
SW4	**M/SL:** Auto Select	**SL:** Slave-Mode Only
SW5 - SW8	**Reserved**	**Reserved**

Figure C: DIP-Switch Bank 2

SW3 - PAUSE DISABLE/ENABLE

When the Pause disable/enable DIP-switch is in the LEFT "Off" position (factory default), Port 2 of the 2GXM does not send, receive or react to Pause frames during network congestion. Setting this DIP-switch to the RIGHT "On" position enables Port 2 of the 2GXM to send, receive and react to Pause frames to/from its link partner. This enables the 2GXM to stop transmitting traffic to its link partner and store incoming frames from the other port in the internal buffer until the congestion clears. If the internal buffer of the 2GXM becomes congested, it will transmit a Pause frame to its link partner.

NOTE: When Port 1 operates in Auto-Negotiation mode, the port advertises for Pause. When the Fiber optic ports (Port 1 and Port 2) operate in Manual mode, Pause is disabled.

SW4 - MASTER/SLAVE

When the 2GXM module is installed in a chassis with an *iConverter* Network Management Module (NMM), the DIP-switch must be set to the LEFT "M/SL" position (factory default). The assignment of mastership is automatically negotiated by the installed management modules. To designate the 2GXM module as the master of the chassis, set the DIP-switch to the LEFT "M/SL" position, and set the DIP-switches on the other installed management modules to the RIGHT "SL" position to enable Slave-Only mode.

SW5, SW6, SW7, SW8 - RESERVED

These DIP-switches are for factory use only and must always remain in the LEFT position (factory default).

2) INSTALL MODULE IN CHASSIS AND CONNECT CABLES

a. Carefully slide the module into an open slot in the chassis. Align the module with the installation guides and ensure that the module is firmly seated against the backplane. Secure the module by fastening the front panel thumbscrew (push in and turn clockwise to tighten) to the chassis front. Verify the "Pwr" LED is ON (indicating the chassis is powered).

b. Insert the SFP Fiber transceivers into the Port 1 and Port 2 SFP receptacles on the 2GXM.

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

d. Connect an appropriate multimode or single-mode fiber cable to the SFP 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. Single-fiber (SF) media converter models operate in pairs. 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.

NOTE: In order to support Remote OAM Management Mode, Port 1 of the 2GXM must be connected to the Port 1 on the 2GXM or link partner.

3) CONFIGURE MODULE VIA COMMAND LINE INTERFACE

To access the Command Line Interface (CLI), connect the 2GXM RS-232 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 2GXM Console Port is a standard 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.