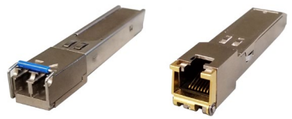
Omnitron Systems

iConverter® SFP-NID
Quick Start



Description

The iConverter SFP-NID is a Gigabit Ethernet Small Form Pluggable (SFP) Transceiver with digital diagnostic monitoring and provides Fault Management (FM) and Performance Monitoring (PM).

The SFP-NID is available with a 1000BASE-LX fiber port or an RJ-45 copper port. Models supports standard 1310nm or 1550nm wavelengths, or CWDM wavelengths.

The SFP-NID can be installed directly into a demarcation device, aggregation device or any other network equipment, adding advanced FM and PM capabilities to a non-Carrier Ethernet equipment; preserving investments in non-CE or legacy switches and routers.

See data sheet for available models.

Software Controlled Settings

The following settings can be controlled via Telnet or SNMP Management Software such as *NetOutlook*® Management Software or other third-party SNMP-based clients:

- Advanced traffic management
- Hierarchical Rate Limiting
- IEEE 802.1Q VLAN tagging and 802.1ad Q-in-Q VLAN stacking
- IEEE 802.1ag End-to-End Fault Management
- ITU-T Y.1731 Performance Monitoring
- IETF RFC 5357 TWAMP
- IETF RFC 2544 Ethernet Service Testing
- ITU-Y.1564 Ethernet Service Activation Testing
- ITU-T G.8262 Sync-E (RJ-45 Models only)
- IEEE 1588v2 Precision Time Protocol

For more information on using and configuring the SFP-NID, register for access to the NetOutlook Management Software user manual and SFP-NID User Manual.

Mounting and Cabling

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

a. Insert the SFP-NID into the SFP receptacle on the host equipment.

NOTE: The release latch of the SFP-NID transceiver must be in the closed (up) position before insertion.

b. For the LC Fiber SFP-NID, connect the appropriate single-mode fiber cable to the SFP-NID. When using dual fiber, 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.

c. For the RJ-45 SFP-NID, connect the Cat 5 or higher cable to the SFP-NID RJ-45 port.

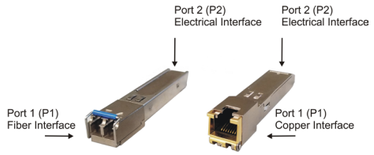
Verify Operation

Once the SFP-NID is installed and the network cable is plugged into the SFP-NID, verify the operational status of the fiber port by viewing the status of the LED indicators of the host device. The fiber LED on the host device will illuminate when the SFP-NID is receiving a signal from the device at the other end of the fiber cable.

Verify connectivity by pinging the IP address of the SFP-NID (default IP address is 192.168.1.220). Once connectivity has been verified, initiate a Telnet session to configure the SFP-NID.

Configuring

The SFP-NID can be configured through the fiber or copper interface (P1), or through the electrical interface (P2) on the SFP-NID via the host device. This provides the capability to remotely or locally configure the SFP-NID.



For initial installation of the SFP-NID in Customer Premise Equipment (CPE), the SFP-NID can be locally configured by the Service Provider at their location. After the SFP-NID has been configured, it can be delivered and installed in the CPE with minimal support. Once the circuit between the customer and Service Provider has been provisioned, the Service Provider will be able to remotely manage the SFP-NID across the network.

The SFP-NID has the capability of having a configuration file downloaded via FTP and executed using the Command Line Interface (CLI) *run* command. This allows service provisioning to be centralized providing a simple and cost-effective method to configure and deploy the SFP-NID.

Once the SFP-NID is installed in the host device, open a Telnet session using the default IP address of the SFP-NID.

The default IP address is 192.168.1.220 and the default Telnet password is public.

When a Telnet session is initiated, the Password Entry screen will be displayed. Type the Telnet password and press <ENTER>.

Recovery

In the event the IP address of the SFP-NID is unknown or management access has been locked out due to an incorrect configuration, the SFP-NID will revert to its factory default IP address for 60 seconds after a power cycle. Using the factory default IP address, Telnet to the SFP-NID. Login with the current username and password. Once logged in, restore the SFP-NID to factory defaults using the restore -r factory command.

Specification

Description	iConverter SFP-NID 1000BASE-X Transceiver Network Interface Device
Standard Compliances	MSA SFF-8472, IEEE 802.1Q, 802.1ad, 802.1ag, ITU-T Y.1564, Y.1731, RFC 2544, RFC 5357 (TWAMP), MEF 21, 30, 31
Regulatory Compliances	Safety: UL, cUL, NEBS 3, UKCA EMI: FCC Class A ACT: TAA, BAA, NDAA
Environmental	RoHS, REACH, WEEE
Management	Telnet, SNMPv1, SNMPv2c, SNMP v3
Frame Size	10,240 bytes
Port Type	Fiber Models: 1000BASE-X (LC)
	Copper Models: 10/100/1000BASE-T (RJ-45), 1000BASE-T (RJ-45)
Cable Type	Fiber: Single-mode: 9/125um
	Copper: EIA/TIA 568A/B, Cat 5 and higher

DC Power Requirements	DC Input (SFP Receptacle): < 1.5watts @ 3.3VDC (7207N-1) < 1.6watts @ 3.3VDC (7207N-2)
Operating Case Temperature	-40 to 85° C
Storage Temperature	-40 to 85° C
Dimensions W x D x H	0.53" x 2.69" x 0.33" (13.46 mm x 68.33 mm x 8.38 mm)
Weight	0.74 oz. (21 g)
Humidity	5% to 95% (non-condensing)
Altitude	-100m to 4,000m (operational)

It is the responsibility of the end user to ensure the operating case temperature is not exceeded.

Warranty

This product is warranted to the original purchaser (Buyer) against defects in material and workmanship for a period of one (1) years 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.omniton-systems.com/support or e-mail to Omnitron at intlinfo@omnitron-systems.com.

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

URL: www.omnitron-systems.com

040-7200N-001E 3/23