

# iConverter

## **iConverter® xFF** **SFP to SFP Protocol-Transparent Fiber Converter**

The *iConverter* xFF is a protocol-transparent media converter that provides reliable and cost-effective conversion between different wavelengths, multimode and single-mode, and dual and single-fiber.

The *iConverter* xFF operates as a protocol and rate-transparent device, supporting data rates of 1Mbps to 1.25Gbps by selecting the appropriate Small Form Pluggable (SFP) transceiver. The xFF supports a variety of network protocols, including Ethernet, Fast Ethernet, Gigabit Ethernet, OC-3 and OC-12 SONET protocols.

*iConverter* xFF models are available with multimode, single-mode and single-fiber SFP transceivers. SFPs allow adaptability to different fiber types, distances and wavelengths, providing maximum flexibility across a variety of network architectures and topologies. The same xFF media converter can utilize a variety of SFPs for different wavelengths and distances, reducing costs and simplifying inventories.

SFP transceivers enable the xFF to operate as a Coarse Wave Division Multiplexing (CWDM) transponder, which converts an optical signal from legacy fiber equipment to a specific CWDM wavelength. CWDM technology increases the bandwidth capacity of the fiber infrastructure by overlaying multiple signals, each using a different wavelength, over an existing fiber link.

There is no manual configuration required with the plug-and-play *iConverter* xFF. Connect the fiber cables to the appropriate interface and the installation is complete.

The xFF features user-selectable Link Propagate and Remote Fault Detection modes to facilitate quick fault detection, isolation and reporting.

The *iConverter* xFF modules are hot-swappable and can be mounted in a 19-Module (2U high) or 5-Module (1U high) rack-mountable chassis (19-inch or 23-inch) with any combination of redundant AC and DC power supplies. It can also be mounted in a 2-Module AC or DC powered chassis, or in a 1-Module chassis with AC or DC power input.



SFPs not included

- SFP to SFP protocol-transparent fiber converter
- Supports Ethernet, Fast Ethernet, Gigabit Ethernet, OC-3 and OC-12 SONET applications
- Provides multimode to single-mode and dual to single-fiber media conversion
- Provides wavelength conversion for CWDM applications
- User-selectable link fault detection modes facilitate quick fault detection, isolation and reporting
- Management is available with the addition of a management module to the chassis
- SNMP management via *NetOutlook®* provides real-time port and module information, configuration and trap notification
- Modules are hot-swappable in 19-Module, 5-Module, 2-Module or 1-Module chassis
- LED displays for immediate visual status of each port
- Conforms to IEEE 802.3 specifications
- Lifetime Warranty and free 24/7 Technical Support

# SPECIFICATIONS

| Model Type                  | xFF  |
|-----------------------------|--|
| Protocols                   | Transparent up to 1.25Gbps<br>(100BASE-FX, 1000BASE-X,<br>OC-3, OC-12) |
| Fiber Connectors            | SFP - LC   |
| Controls                    | LP, RFD  |
| LED Displays                | Power, FO link (2)   |
| Dimensions                  | W:0.85" x D:4.5" x H:2.8"  |
| Weight                      | 8 oz.  |
| Compliance                  | UL, FCC Class A, CE  |
| Power Requirement (typical) | 0.5A @ 3.3VDC  |
| Temperature                 | Standard: 0 to 50° C<br>Wide: -40 to 60° C<br>Storage: -40 to 80° C    |
| Humidity                    | 5 to 95% (non-condensing)  |
| Altitude                    | -100m to 4000m   |
| MTBF (hrs)                  | 1,300,000  |

# MANAGEMENT

Management is accomplished by using a Network Management Module (NMM) or a media converter with integrated management (such as an *iConverter 10/100M2*) that provides monitoring, configuration and trap notification. The management module can be accessed via SNMP, Telnet, and via a serial port. The SNMP-based management is accomplished via Omnitron's intuitive, graphic-oriented *NetOutlook* management software or third party SNMP management software. Management via the Telnet and the serial interfaces have an easy-to-use, menu-driven interface.

Real-time xFF parameters that can be monitored include power, link, data receive status, module type and model, hardware and software revisions, serial numbers and a user-defined identifier.

The user can override the xFF module's physical DIP-switch settings by using SNMP or Telnet to configure DIP-switch-selectable parameters such as Link Propagate or Remote Fault Detection.

In addition to all standard *iConverter* SNMP traps such as module insertion and removal, the xFF modules can generate traps on port state changes including link-up and link-down. Trap monitoring of specific events can be selectively enabled or disabled by the network administrator.

# ORDERING INFORMATION

| xFF Ordering Information |           |                 |
|--------------------------|-----------|-----------------|
| Standard Temp            | Wide Temp | Extended Temp   |
| 8699-0                   | 8699-0-W  | Consult Factory |

| SFP Ordering Information         |             |              |                    |                    |                     |                     |                     |                     |             |
|----------------------------------|-------------|--------------|--------------------|--------------------|---------------------|---------------------|---------------------|---------------------|-------------|
| Fiber Type                       | Distance    | Model Number | Tx Wavelength [nm] | Rx Wavelength [nm] | Min. Tx Power [dBm] | Max. Tx Power [dBm] | Min. Rx Sense [dBm] | Max. Rx Power [dBm] | Link Budget |
| <b>Fast Ethernet / OC-3*</b>     |             |              |                    |                    |                     |                     |                     |                     |             |
| MM                               | 5km         | 7006-0       | 1310               | 1310               | -24                 | -14                 | -31                 | -14                 | 7           |
| SM                               | 30km        | 7007-1       | 1310               | 1310               | -15                 | -8                  | -31                 | -8                  | 16          |
| SM-SF                            | 20km        | 7014-1       | 1310               | 1550               | -15                 | -5                  | -30                 | -3                  | 15          |
| SM-SF                            | 20km        | 7015-1       | 1550               | 1310               | -15                 | -5                  | -30                 | -3                  | 15          |
| <b>Gigabit Ethernet / OC-12*</b> |             |              |                    |                    |                     |                     |                     |                     |             |
| MM                               | 220m / 550m | 7206-0       | 850                | 850                | -10                 | -4                  | -17                 | -3                  | 7           |
| SM                               | 15km        | 7207-1       | 1310               | 1310               | -9.5                | -3                  | -19.5               | -3                  | 10          |
| SM-SF                            | 20km        | 7214-1       | 1310               | 1550               | -9.5                | -3                  | -20                 | -3                  | 10.5        |
| SM-SF                            | 20km        | 7215-1       | 1550               | 1310               | -9.5                | -3                  | -20                 | -3                  | 10.5        |

See SFP data sheet (091-17000-001) for other supported transceiver models.  
\*Consult factory for compatibility with other protocols.

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