# *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



**OST** Omnitron Systems Technology, Inc.

# SPECIFICATIONS

| Model Type | xFF |
|---|---|
| Protocols | Transparent up to 1.25Gbps (100BASE-FX, 1000BASE-X, 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 50º C<br>Wide: -40 to 60º C<br>Storage: -40 to 80º 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** |
| **Fast Ethernet / OC-3*** | | | | | | | | | |
| 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 |
| **Gigabit Ethernet / OC-12*** | | | | | | | | | |
| 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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