

iConverter® 100FF

Fast Ethernet Fiber-to-Fiber Managed Converter/Transponder

The iConverter 100FF is a Fast Ethernet fiber-to-fiber converter/transponder available as a compact, unmanaged standalone unit or a managed chassis plug-in module. The iConverter 100FF provides a cost-effective solution to extend fiber network distances with multimode to single-mode, dual fiber to single-fiber, and wavelength (850/1310 and 1310/1550) conversion.

The iConverter 100FF supports a constant data rate signal from 1Mbps to 100Mbps allowing the converter to be used in Ethernet networks as well as other fiber-to-fiber protocol applications. Both ports operate at the same data rate.

iConverter 100FF models support multimode and single-mode dual fiber with ST and SC connectors; and single-mode single-fiber with SC connectors.

The 100FF features user-selectable Link Propagate and Remote Fault Detection modes to facilitate quick fault detection, isolation and reporting.

iConverter 100FF media converters are available as compact, unmanaged standalone units, or chassis plug-in modules that can be managed with a Management Module (NMM2) or Network Interface Device (NID) installed in the chassis. The management module provides access to all the advanced features on the module.

The management software can override the physical DIP-switch settings such as link modes. Some of the real-time 100FF parameters that can be monitored include power, link, data activity status, module type and model, hardware and software revisions, serial numbers and a user-defined identifier.

The 100FF standalone models are available with an external AC to DC power adapter or with a 2-pin terminal connector for direct connection to DC power. The standalone module can be DIN-Rail mounted using the optional DIN-Rail mounting clips (8251-0).

The hot-swappable plug-in module can be mounted in a 19 or 5-Module iConverter chassis with 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.

The iConverter Multi-Service Platform consists of Network Interface Devices, T1/E1 multiplexers, CWDM/DWDM multiplexers and managed media converters that combine to deliver Carrier Ethernet and TDM services over fiber or CWDM/DWDM wavelengths. This flexible architecture supports a wide variety of configurations for scalable and reliable fiber connectivity in Service Provider and Enterprise networks.



KEY FEATURES

- Fiber-to-fiber converter/transponder supporting:
 - Multimode dual fiber to single-mode dual fiber
 - Multimode dual fiber to single-mode single-fiber
 - Single-mode dual fiber to single-mode single-fiber
 - Wavelength conversion
- Conforms to IEEE 802.3 and 100BASE-FX specifications
- Module supports a constant rate signal from 1Mbps to 100Mbps
- Supports multimode, single-mode dual fiber and single-mode single-fiber
- User-selectable link fault detection modes facilitate quick fault detection, isolation and reporting
- Automatic Link Recovery
- LED displays for immediate visual status of each port
- Plug-in modules are hot-swappable in 19-Module, 5-Module, 2-Module or 1-Module chassis
- Management of the plug-in module is available with the addition of a management module to the chassis
- SNMP management via NetOutlook® provides real-time port and module status information, remote parameter configuration and trap notification
- Commercial (0 to 50°C) and wide (-40 to 60°C) temperature ranges
- TAA, BAA and NDAA compliant, and Made in the USA
- Lifetime Warranty and free 24/7 Technical Support

SPECIFICATIONS

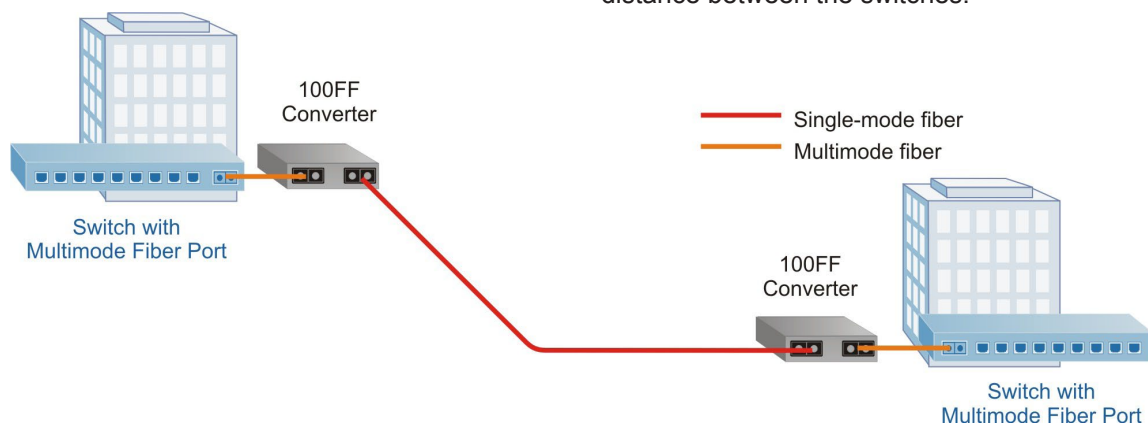
Description	iConverter 100FF Fast Ethernet Fiber-to-Fiber Managed Converter/Transponder	
Standard Compliances	IEEE 802.3	
Regulatory Compliances	Safety: EMI: ACT:	UL, cUL, CE, UKCA FCC Class A TAA, BAA, NDAA
Environmental	RoHS, WEEE, REACH	
Frame Size	Unlimited	
Port Types	Fiber:	100BASE-FX (ST, SC) 100BASE-LX (ST, SC) 100BASE-ZX (SC) 100BASE-BX (Single-fiber: SC)
Cable Types	Fiber:	Multimode: 50/125µm, 62.5/125µm Single-mode: 9/125µm
AC Power Requirements	AC Adapter: (US)	100 - 240VAC/50 - 60Hz 0.05A @ 120VAC
	AC Adapter: (Universal)	100 - 240VAC/50 - 60Hz 0.05A @ 120VAC
DC Power Requirements	DC Input: (Backplane)	3.3VDC, 0.5A @ 3.3VDC
	DC Input: (Terminal Block)	5 - 32VDC, 0.3A @ 9VDC (1.0A max) 2-Pin Terminal (non-isolated)
	DC Input: (AC Adapter)	5 - 32VDC, 0.3A @ 9VDC (1.0A max) 2.5mm Barrel Connector

Dimensions W x D x H	Plug-in:	0.85" x 4.5" x 2.8" (21.6 mm x 114.3 mm x 71.1 mm)
	Standalone:	3.8" x 4.8" x 1.0" (96.5 mm x 121.9 mm x 25.4 mm)
Weight	Plug-in:	8 oz. (226.8 grams)
	Standalone w/o Adapter:	1.0 lb. (453.6 grams)
	Standalone w Adapter:	1.5 lbs. (680.4 grams)
Temperature	Commercial:	0 to 50°C
	Wide:	-40 to 60°C
	Storage:	-40 to 80°C
Humidity	5 to 95% (non-condensing)	
Altitude	-100m to 4,000m	
MTBF (hrs)	Plug-in:	1,100,000
	Standalone w/o Adapter:	1,100,000
	Standalone w/ US Adapter:	250,000
	Standalone w/ Uni Adapter:	100,000
Warranty	Lifetime warranty with 24/7/365 free Technical Support	

APPLICATION

Networks often require conversion from multimode to single-mode fiber, which supports longer distances. In this application, two Ethernet switches equipped with

multimode fiber ports are connected utilizing a pair of fiber-to-fiber converters which convert the multimode fiber to single-mode and enable network connectivity across the distance between the switches.



ACCESSORIES

Model Number	Description
8251-0	DIN Rail Mounting Clip for standalone models with integrated mounting brackets (power options -D, -E, -F)
8260-0	1U Rack Mount Shelf for standalone models (up to 4 modules)

ORDERING INFORMATION

Step 1: Choose a Base Part Number (xxxx-x-pt)

Port	Fiber Type	Distance	Connector Type		Tx / Rx Lambda (nm)	Min. Tx Power (dBm)	Max. Tx Power (dBm)	Min. Rx Power (dBm)	Max. Rx Power (dBm)	Min. Attenuation (dB)	Link Budget (dB)
			ST/DF ST/DF, ST/DF SC/SF	SC/DF SC/DF, SC/DF SC/SF							
Port 1	MM/DF	2km	-	8622-61-pt	850 / 850	-10	-4	-24	-3	-	14
Port 2	SM/DF	30km			1310 / 1310	-15	-8	-31	-8	-	16
Port 1	MM/DF	5km	8620-1-pt	8622-1-pt	1310 / 1310	-24	-14	-31	-14	-	7
Port 2	SM/DF	30km			1310 / 1310	-15	-8	-31	-8	-	16
Port 1	MM/DF	5km	8620-2-pt	8622-2-pt	1310 / 1310	-24	-14	-31	-14	-	7
Port 2	SM/DF	60km			1310 / 1310	-5	0	-31	-3	3	26
Port 1	MM/DF	5km	-	8622-3-pt	1310 / 1310	-24	-14	-31	-14	-	7
Port 2	SM/DF	120km			1550 / 1550	-5	0	-31	-3	3	26
Port 1	MM/DF	5km	8630-1-pt	8634-1-pt	1310 / 1310	-24	-14	-31	-14	-	7
Port 2	SM/SF ¹	20km			1310 / 1550	-15	-5	-30	-3	-	15
Port 1	MM/DF	5km	8631-1-pt	8635-1-pt	1310 / 1310	-24	-14	-31	-14	-	7
Port 2	SM/SF ¹	20km			1550 / 1310	-15	-5	-30	-3	-	15
Port 1	MM/DF	5km	8630-2-pt	8634-2-pt	1310 / 1310	-24	-14	-31	-14	-	7
Port 2	SM/SF ¹	40km			1310 / 1550	-8	0	-30	-3	3	22
Port 1	MM/DF	5km	8631-2-pt	8635-2-pt	1310 / 1310	-24	-14	-31	-14	-	7
Port 2	SM/SF ¹	40km			1550 / 1310	-8	0	-30	-3	3	22
Port 1	SM/DF	30km	8632-1-pt	8636-1-pt	1310 / 1310	-15	-8	-31	-8	-	16
Port 2	SM/SF ¹	20km			1310 / 1550	-15	-5	-30	-3	-	15
Port 1	SM/DF	30km	8633-1-pt	8637-1-pt	1310 / 1310	-15	-8	-31	-8	-	16
Port 2	SM/SF ¹	20km			1550 / 1310	-15	-5	-30	-3	-	15
Port 1	SM/DF	30km	8632-2-pt	8636-2-pt	1310 / 1310	-15	-8	-31	-8	-	16
Port 2	SM/SF ¹	40km			1310 / 1550	-8	0	-30	-3	3	22
Port 1	SM/DF	30km	8633-2-pt	8637-2-pt	1310 / 1310	-15	-8	-31	-8	-	16
Port 2	SM/SF ¹	40km			1550 / 1310	-8	0	-30	-3	3	22

¹ When using single-fiber (SF) media converter models, the Tx wavelength on one end has to match the Rx wavelength on the other.

MM = Multimode, SM = Single-mode, DF = Dual Fiber, SF = Single-fiber

Contact Omnitron for other configurations, extended temperature (-40 to 75°C) and RoHS (5/6) compliant models.

For chassis options, see [iConverter Chassis and Mounting Options web page](#).

Step 2: Choose a Power Option (xxxx-x-pt)

<leave blank> = Plug-in module
D = Barrel Connector and AC/DC Power Adapter, 100-240VAC, 50-60Hz, with US power cord with integrated mounting brackets
E = Barrel Connector and Universal AC/DC Adapter, 100-240 VAC, 50-60Hz, No Power Cord, with integrated mounting brackets
F = Direct DC input, 2 pin terminal connector, no AC/DC power adapter, with integrated mounting brackets

Step 3: Choose an Operating Temperature Range (xxxx-x-pt)

<leave blank> = Commercial temperature (0 to 50°C)
W = Wide temperature (-40 to 60°C)