

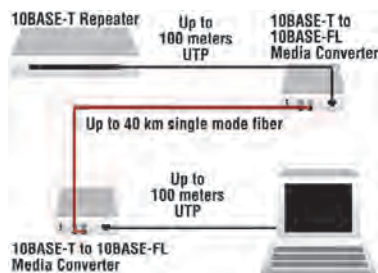
Ethernet or Fast Ethernet

10BASE-T to 10BASE-FL or 100BASE-TX to 100BASE-FX

Stand-Alone Media Converters

SSEFE10xx-10x

► Extend Network Distance

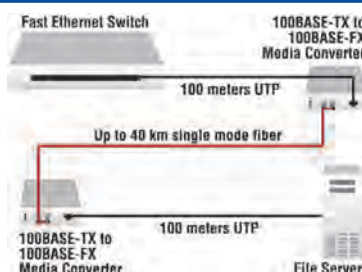


► Ethernet:

Use the 10BASE-T to 10BASE-FL speed setting (back-to-back) to extend the distance between two 10BASE-T devices up to 40 KM (24.9 mi.) using single mode fiber without a repeater.

► Fast Ethernet:

Use the 100BASE-TX to 100BASE-FX setting to extend the distance between any two 100BASE-TX devices up to 40 KM (24.9 mi.) using single mode fiber. Or interface directly with a 100BASE-FX compliant port on any device to provide a 100BASE-TX port interface.



Transition Networks' speed selectable copper to fiber Media Converter allows you to extend the distance between copper based connections with the use of fiber optic cable. The ability to select the speed of converter allows for easy migration from a 10Mbps network today to a 100Mbps network in the future. This converter is a true layer 1 device as both the copper and fiber ports operate at the same speed setting (i.e. 100BASE-TX to 100BASE-FX). For 10Mbps applications, these devices must be used in pairs.

Features

- AutoCross™ (see next page)
- Link Pass Through (see next page)
- Automatic Link Restoration (next page)
- Selectable speed setting

The converter can be set to 10Mbps or 100Mbps. Both copper and fiber ports are automatically set to the same speed. Devices connect to duplex mode of link partner.



NEW

Convert 10BASE-T to 10BASE-FL or 100BASE-TX to 100BASE-FX

Specifications

Standards	IEEE Std 802.3™
Fiber Optic Connector Specs	
SSEFE1012-100 & SSEFE1014-100	Min TX PWR: -15.0 dBm Max TX PWR: -8.0 dBm RX Sensitivity: -32.0 dBm Max In PWR: -5.0 dBm Link Budget: 17.0 dB
SSEFE1015-100 & SSEFE1022-100	Min TX PWR: -8.0 dBm Max TX PWR: -2.0 dBm RX Sensitivity: -34.0 dBm Max In PWR: -5.0 dBm Link Budget: 26.0 dB
Single Fiber Products	
SSEFE1029-100 & SSEFE1029-101	Min TX PWR: -14.0 dBm Max TX PWR: -8.0 dBm RX Sensitivity: -33.0 dBm Max In PWR: -3.0 dBm Link Budget: 19.0 dB
Switches	Switch 1: Link Pass Through on/off Switch 2: 10Mb or 100Mb operation
Status LEDs	PWR (Power): Lit for normal operation F-ACT (Fiber Activity): Blinking = data reception on the fiber link F-100 (Fiber Speed): ON = link at 100Mb F-10 (Fiber Speed): ON = link at 10Mb C-ACT (Copper Activity): Blinking = data reception on the copper link C-100 (Copper Speed): ON = link at 100Mb C-10 (Copper Speed): ON = link at 10Mb
Dimensions	Width: 3.25" [82 mm] Depth: 4.8" [122 mm] Height: 1.0" [25 mm]
Power Consumption	3.6 watts
Power	External AC/DC required; 12VDC, 0.5A; unregulated; standard (provided)
Environment	0 – 50°C operating; 5% – 95% humidity non-condensing; 0 – 10,000 ft. altitude
Shipping Weight	2 lbs. [0.90 kg]
Safety Compliance	Wall Mount Power Supply: UL Listed; C-UL Listed (Canada)
Regulatory Compliance	CISPR/EN55022 Class A; EN55024; EN60950 Class A; FCC Class A; CE Mark
Warranty	Lifetime

Ordering Info

Product Number	Port One	Port Two
SSEFE1012-100	10BASE-T or 100BASE-TX (RJ-45) [100 m/328 ft.]	10BASE-FL or 100BASE-FX 1310nm single mode (ST) [20 km/12.4 miles]
SSEFE1014-100	10BASE-T or 100BASE-TX (RJ-45) [100 m/328 ft.]	10BASE-FL or 100BASE-FX 1310nm single mode (SC) [20 km/12.4 miles]
SSEFE1015-100	10BASE-T or 100BASE-TX (RJ-45) [100 m/328 ft.]	10BASE-FL or 100BASE-FX 1310nm single mode (SC) [40 km/24.9 miles]
SSEFE1022-100	10BASE-T or 100BASE-TX (RJ-45) [100 m/328 ft.]	10BASE-FL or 100BASE-FX 1310nm single mode (ST) [40 km/24.9 miles]
Single Fiber Products Note: Recommended use in pairs (see next page)		
SSEFE1029-100	10BASE-T or 100BASE-TX (RJ-45) [100 m/328 ft.]	10BASE-FL or 100BASE-FX 1310nm TX / 1550nm RX single fiber single mode (SC) [20 km/12.4 miles]
SSEFE1029-101	10BASE-T or 100BASE-TX (RJ-45) [100 m/328 ft.]	10BASE-FL or 100BASE-FX 1550nm TX / 1310nm RX single fiber single mode (SC) [20 km/12.4 miles]

Optional Accessories (sold separately)

Product Number	Description
SPS-1872-PS	Wide Input (18-72VDC) Piggy Back Power Supply
SPS-1872-SA	Wide Input (18-72VDC) Stand-Alone Power Supply
E-MCR-04	12-slot Media Converter Rack
WMBD	DIN Rail Mount Bracket 5.0" [127 mm]
WMBD-E	DIN Rail Mount Bracket (Extended) 4.3" [109 mm]
WMBD-F	DIN Rail Mount Bracket (flat) 3.3" [84 mm]
WMBL	Wall Mount Bracket 4.0" [102 mm]
WMBV	Vertical Wall Mount Bracket 5.0" [127 mm]
WMBV-E	Extended Vertical Mount 4.7" [119 mm]

ADVANCED PRODUCT FEATURES

► AutoCross™

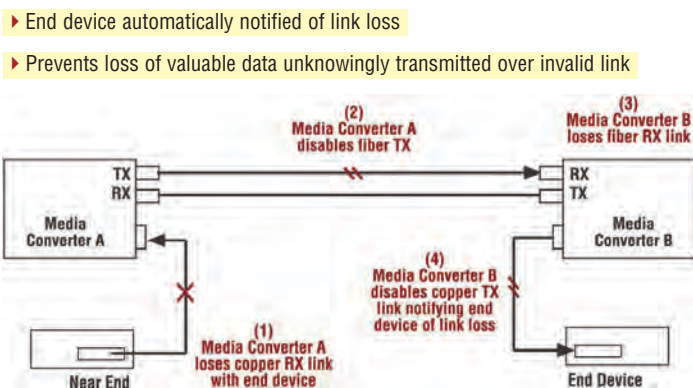
Automatically detects and configures the twisted pair port on the converter to the correct MDI or MDI-X configuration.

- Eliminates an entire category of troubleshooting
- No need to identify cable type—straight-through or crossover
- No user intervention required to determine correct button / switch settings

► Link Pass Through

Link Pass Through is a troubleshooting feature that allows the media converter to monitor both the fiber and copper RX ports for loss of signal. In the event of a loss of RX signal on one media port, the converter will automatically disable the TX signal of the other media port, thus "passing through" the link loss.

(see diagram below)



► Automatic Link Restoration

Transition Networks's converters will automatically re-establish link in all network conditions.

- No need to reset devices

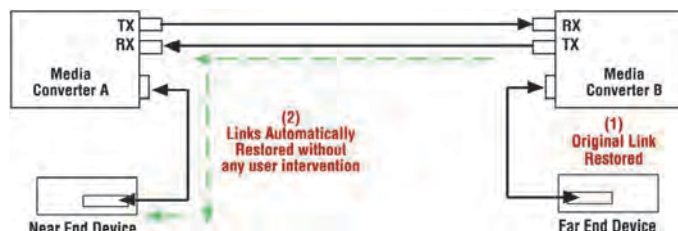
Transition Networks's converters will automatically re-establish link when connected to switches if link was lost. With other manufacturers' converters the user must reset the converter to re-establish the link.

- Auto-Negotiation Enabled

Automatic Link Restoration allows the users to continue using Auto-Negotiation with Link Loss Notification features. With other manufacturers' converters the user must disable Auto-Negotiation and hard set the link.

- Link Pass Through Activated in both directions

Automatic Link Restoration on Transition Networks's products allows users to continue using Link Loss Notification feature activated in both directions. Many competitive solutions allow for Link Loss Notification activation only in one direction. If Link Loss feature is activated in both directions, competitive products are put in a "deadly embrace" and they cannot restore the link without resetting the converters.



If someone tells you media conversion is a commodity product that anyone can bring to market, they probably haven't looked at the extensive product suite offered by Transition Networks. With the industry's most comprehensive offering of full-featured products, Transition's media converters stand out as "the choice" among industry IT professionals.

Generally, media converters are low-level OSI model devices with no IP or MAC addresses and therefore are transparent to the network. This "transparency" makes them very inexpensive and easy to use, but also can make troubleshooting the network very difficult. In an effort to overcome this difficulty and to make media converters "visible" to network managers, Transition has designed their full-featured products to include the most advanced features on the market today.

► Single Fiber

Single fiber technology offers a 50% savings in fiber utilization. It is an attractive solution to maximize the usage of a limited number of fiber runs.

In a traditional optical link, a fiber pair consists of two uni-directional strands. The single fiber technology multiplexes two optical wavelengths of 1310nm and 1550nm into a single strand fiber. In a single fiber media converter each wavelength is responsible for either the transmit or receive function. Consequently, the bi-directional transmission is achieved by using a single strand. The converters in a single fiber scenario "match" each other's wavelengths. Converter A transmits at the wavelength of 1310nm and receives at 1550nm while the other converter transmits at 1550nm and receives at 1310nm. Therefore, converters are usually used in pairs.

Single Fiber



Single fiber technology is available on all Transition Networks Media Converters in maximum distance ranges from 20 to 80km.