stand-alone
media converter

Power Over Ethernet Just Convert-IT™ 10/100BASE-TX to 100BASE-FX

Power over Ethernet PSE Media Converter

AUTO NEG | AUTO CROSS | LINK PASS THROUGH | FAR END FAULT | AUTO LINK RESTORE

J/POE-CF-01(xx)

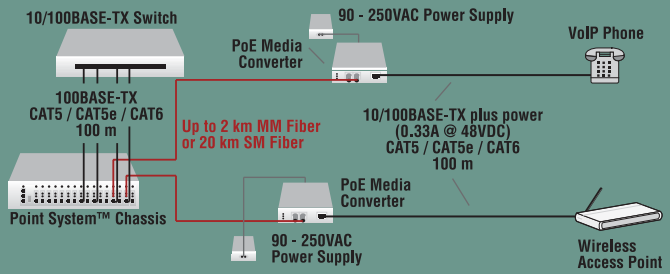
Enables enterprises to provide power to network devices over the existing CAT5 data connection.

Transition's AC powered PoE media converters combine data received over a fiber optic link with -48VDC power; providing power to Data Terminal Equipment (DTE) Power Devices (PD) over unshielded twisted pair cable. The PoE converters are Power Sourcing Equipment (PSE) and are fully compatible with Powered Devices (PD) that comply with the IEEE802.3af™: 2003 standard. The converters also include a PD signature sensing and power monitoring features per the IEEE 802.3af standard. Other features include Over-Current Protection, Under-Current Detection and Fault Protection Input.

The PoE converter is fully compatible with devices that comply with the IEEE802.3af standard. The PoE converter is capable of inserting power on data pairs of the MDI.

In addition, with the PSE/LPT switch enabled, a loss of Fiber RX will disable PSE power output on the UTP port for 2 seconds to allow remote device to re-initialize.

Power over Cat5 to Remotely Located Devices



Features

- External AC power supply
- IEEE802.3af Power Over Ethernet Compatible
- 48 VDC PSE Output Voltage
- Signal Pair Power Insertion
- PD Detection Signature
- Over-Current Protection
- Under-Current Detection
- Minimum Load Sensing
- Fault Protection Input
- Auto-Negotiation *see next pages*
- AutoCross™ *see next pages*
- Link Pass Through *see next pages*
- Far End Fault (FEF) *see next pages*
- Automatic Link Restoration *see next pages*
- Powered Device Reset

Specifications

See next pages for complete fiber optic connector specs.

Standards	IEEE Std. 802.3™, IEEE Std. 802.3af
Max Packet Size	1522 bytes
MAC Addresses	2K
Status LEDs	**PWR:** Lit for normal operation **LACT (Fiber):** ON = Link; Blinking = Activity **DPX (Fiber):** ON = Full-duplex; OFF = Half-duplex; Blinking = collision **LACT (TP):** ON = Link; Blinking = Activity **SPD (TP):** ON = 100Mb/s; Off = 10Mb/s **DPX (TP):** ON = Full-duplex; OFF = Half-duplex; Blinking = Collision **ON (TP):** ON = PSE power being delivered **ERR (TP):** ON (solid) = main power over/under voltage; Blink 1/second: no signature detected; Blink 2/second: overload while applying power; Blink 3/second: short circuit detected; Blink 4/second: multiple problems detected
Dimensions	**Width:** 3.25" [82 mm] **Depth:** 4.8" [120 mm] **Height:** 1.0" [25 mm]
Power	External AC/DC required; 48V DC, 0.67A
Power Consumption	20W max.
Power Output	16.8W max.
Operating Temperature	0 – 40°C [32° – 104°F]
Storage Temperature	-25° to +85°C [-13° to +185°F]
Environment	5% – 95% humidity non-condensing; 0 – 10,000 ft. altitude
Shipping Weight	2 lbs. [0.90 kg]
Regulatory Compliance	EN55022:1994+A1:1996+A2:1997 Class A; FCC Part 15 Subpart B; UL 1950
Safety Compliance	**Wall Mount Power Supply:** UL Listed & CSA certified
Warranty	Lifetime

Ordering Info

See next pages for complete fiber optic connector specs.

J/POE-CF-01
10/100BASE-TX (RJ-45) **[100 m/328 ft.]**
to 100BASE-FX 1300nm multimode (ST)
[2 km/1.2 mi.] Link Budget: 11.0 dB

J/POE-CF-01(SC)
10/100BASE-TX (RJ-45) **[100 m/328 ft.]**
to 100BASE-FX 1300nm multimode (SC)
[2 km/1.2 mi.] Link Budget: 11.0 dB

J/POE-CF-01(SM)
[2 km/1.2 miles] Link Budget:
to 100BASE-FX 1310nm SM (SC)
[20 km/12.4 mi.] Link Budget: 16.0 dB

Optional Accessories

(sold separately)
Mounting Options:

WMBD
DIN Rail Mount Bracket 5.0" [127 mm]

WMBL
Wall Mount Bracket 4.0" [102 mm]

TRANSITION NETWORKS®

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ADVANCED PRODUCT FEATURES

Auto-Negotiation (802.3u)

Auto-Negotiation allows devices to perform automatic configuration to achieve the best possible mode of operation over a link. Devices with this feature will broadcast their speed (10Mbps, 100Mbps, etc.) and duplex (half/full) capabilities to other devices and negotiate the best mode of operation between the two devices.

- No user intervention required to determine best mode of operation
- Optimal link established automatically
- Quick and easy installation

While the inclusion of this feature is beneficial, the ability to disable it is equally beneficial. In the event of a non-negotiating end device trying to connect to a negotiating device, the mode of operation will drop to the least common denominator between the two devices (i.e. 100Mbps, half-duplex). Disabling this feature gives the user the ability to force the connection to the best mode of operation when trying to link with a non-negotiating device. Most Transition converters with Auto-Negotiation will allow you to disable this feature.

AutoCross™

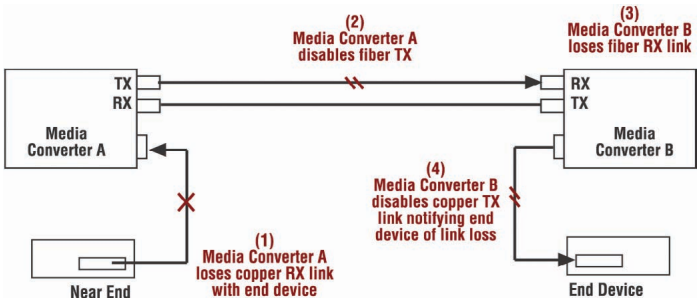
Automatically detects and configures the twisted pair port on the converter to the correct MDI or MDI-X configuration.

- 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)

- End device automatically notified of link loss
- Prevents loss of valuable data unknowingly transmitted over invalid link



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.

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The Conversion Technology Experts

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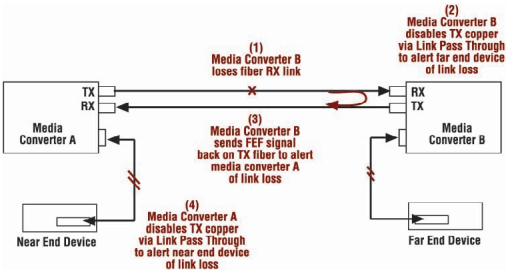
ADVANCED PRODUCT FEATURES

Far End Fault (802.3u)

Far End Fault (FEF) is a troubleshooting feature that is generally used in conjunction with Link Pass Through to notify both end devices of a loss of link. In the event of a loss of the fiber RX signal on the far end converter the converter will automatically generate a Far End Fault signal and send it on its TX fiber port to notify the near end converter of a fiber link loss. Link Pass Through will then disable the copper links on both ends; alerting both end devices of network trouble (see diagram below).

- Both end devices automatically notified of link loss
- Prevents loss of valuable data unknowingly transmitted over invalid link
- Allows for quick diagnosis and resolution of network problems



Transition Networks's media converters that include the FEF feature do not need to be used as pictured above as they will work with other network devices that support Far End Fault per IEEE standards.

Automatic Link Restoration

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

- No need to reset devices

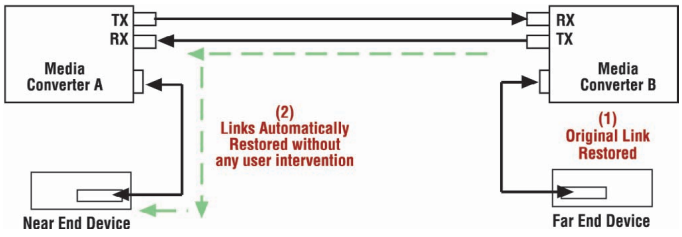
Transition Networks's converters will automatically re-establish link when connected to switches if link was lost. With other manufacturers' converters the user must reset the converter to re-establish the link.

- 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.



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