

PoE-10

***Single-port Power over Ethernet
Injector***

User's Guide

February 2004



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CE-Mark Warning

In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures.

FCC Statement

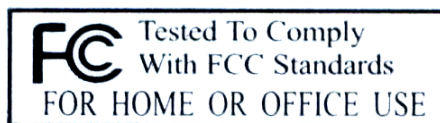
This device complies with Part 15 of FCC rules. Operation is subject to the following two conditions:

- This device may not cause harmful interference.
- This device must accept any interference received, including interference that may cause undesired operations.

This equipment has been tested and found to comply with the limits for a Class B digital device pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy, and if not installed and used in accordance with the instructions, may cause harmful interference to radio communications.

If this equipment does cause harmful interference to radio/television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

1. Reorient or relocate the receiving antenna.
2. Increase the separation between the equipment and the receiver.
3. Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
4. Consult the dealer or an experienced radio/TV technician for help.



Notice 1

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Certifications

1. Go to www.zyxel.com
2. Select your product from the drop-down list box on the ZyXEL home page to go to that product's

page.

3. Select the certification you wish to view from this page.

Information for Canadian Users

The Industry Canada label identifies certified equipment. This certification means that the equipment meets certain telecommunications network protective operation and safety requirements. The Industry Canada label does not guarantee that the equipment will operate to a user's satisfaction.

Before installing this equipment, users should ensure that it is permissible to be connected to the facilities of the local telecommunications company. The equipment must also be installed using an acceptable method of connection. In some cases, the company's inside wiring associated with a single line individual service may be extended by means of a certified connector assembly. The customer should be aware that compliance with the above conditions may not prevent degradation of service in some situations.

Repairs to certified equipment should be made by an authorized Canadian maintenance facility designated by the supplier. Any repairs or alterations made by the user to this equipment, or equipment malfunctions, may give the telecommunications company cause to request the user to disconnect the equipment.

For their own protection, users should ensure that the electrical ground connections of the power utility, telephone lines, and internal metallic water pipe system, if present, are connected together. This precaution may be particularly important in rural areas.

Caution

Users should not attempt to make such connections themselves, but should contact the appropriate electrical inspection authority, or electrician, as appropriate.

Note

This digital apparatus does not exceed the Class A limits for radio noise emissions from digital apparatus set out in the radio interference regulations of Industry Canada.

ZyXEL Limited Warranty

ZyXEL warrants to the original end user (purchaser) that this product is free from any defects in materials or workmanship for a period of up to two years from the date of purchase. During the warranty period, and upon proof of purchase, should the product have indications of failure due to faulty workmanship and/or materials, ZyXEL will, at its discretion, repair or replace the defective products or components without charge for either parts or labor, and to whatever extent it shall deem necessary to restore the product or components to proper operating condition. Any replacement will consist of a new or re-manufactured functionally equivalent product of equal value, and will be solely at the discretion of ZyXEL.

This warranty shall not apply if the product is modified, misused, tampered with, damaged by an act of God, or subjected to abnormal working conditions.

Note

Repair or replacement, as provided under this warranty, is the exclusive remedy of the purchaser. This warranty is in lieu of all other warranties, express or implied, including any implied warranty of merchantability or fitness for a particular use or purpose. ZyXEL shall in no event be held liable for indirect or consequential damages of any kind of character to the purchaser.

Products must be returned Postage Prepaid. It is recommended that the unit be insured when shipped. Any returned products without proof of purchase or those with an out-dated warranty will be repaired or replaced (at the discretion of ZyXEL) and the customer will be billed for parts and labor. All repaired or replaced products will be shipped by ZyXEL to the corresponding return address, Postage Paid (USA and territories only). If the customer desires some other return destination beyond the U.S. borders, the customer shall bear the cost of the return shipment. This warranty gives you specific legal rights, and you may also have other rights that vary from state to state.

Registration

Register your product online for free future product updates and information at www.zyxel.com for global products, or at www.us.zyxel.com for North American products.

Syntax Conventions in this Guide

The PoE-10 Single-port Power over Ethernet Injector may be called the “PoE-10” or “the power injector” in this guide.

Customer Support

Please have the following information ready when you contact customer support:

- Product model and serial number.
- Warranty Information.
- Date that you received your device.
- Brief description of the problem and the steps you took to solve it.

PoE-10 Single-port Power over Ethernet Injector

METHOD LOCATION	SUPPORT E-MAIL	TELEPHONE ¹	WEB SITE	REGULAR MAIL
	SALES E-MAIL	FAX ¹	FTP SITE	
Worldwide	support@zyxel.com.tw sales@zyxel.com.tw	+886-3-578-3942 +886-3-578-2439	www.zyxel.com www.europe.zyxel.com ftp.zyxel.com ftp.europe.zyxel.com	ZyXEL Communications Corp. 6 Innovation Road II Science Park Hsinchu 300 Taiwan
North America	support@zyxel.com sales@zyxel.com	+1-800-255-4101 +1-714-632-0882 +1-714-632-0858	www.us.zyxel.com ftp.us.zyxel.com	ZyXEL Communications Inc. 1130 N. Miller St. Anaheim CA 92806-2001 U.S.A.
Germany	support@zyxel.de sales@zyxel.de	+49-2405-6909-0 +49-2405-6909-99	www.zyxel.de	ZyXEL Deutschland GmbH. Adenauerstr. 20/A2 D-52146 Wuerselen Germany
France	info@zyxel.fr	+33 (0)4 72 52 97 97 +33 (0)4 72 52 19 20	www.zyxel.fr	ZyXEL France 1 rue des Vergers Bat. 1 / C 69760 Limonest France
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Denmark	support@zyxel.dk sales@zyxel.dk	+45 39 55 07 00 +45 39 55 07 07	www.zyxel.dk	ZyXEL Communications A/S Columbusvej 5 2860 Soeborg Denmark
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¹ "+" is the (prefix) number you enter to make an international telephone call.

About Your PoE-10

The PoE-10 Single-port Power over Ethernet injector is a one-port power injector, designed for use with 10/100 BaseT Ethernet networks. The PoE-10 injects DC power through the unused twisted-wires (pairs 4/5 and 7/8) of a standard 8-pin CAT 5 cable. This allows increased flexibility in the locating of a power over Ethernet (PoE) enabled device by eliminating the need for a nearby power source.

Packaging List

The following items come with your PoE-10.

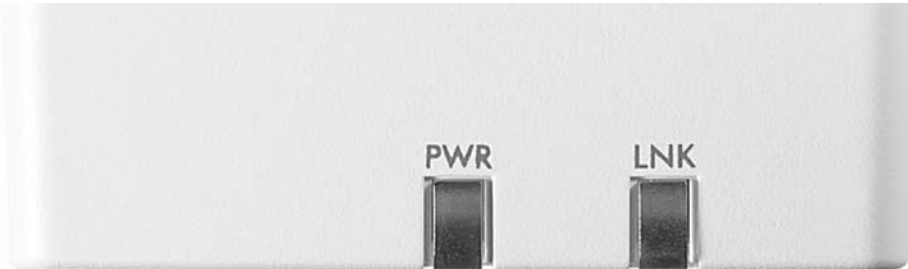
- This User's Guide
- One Power Adaptor
- One straight-through Ethernet cable

Key Features

- One RJ-45, 10/100 Mbps PoE-enabled port.
- Ensures a constant power supply to a PoE-enabled device.
- Automatically detects if the connected device is PoE-enabled to avoid sending power to a non-PoE device.

Front Panel LEDs

The LEDs on the front panel of the PoE-10 are shown next.



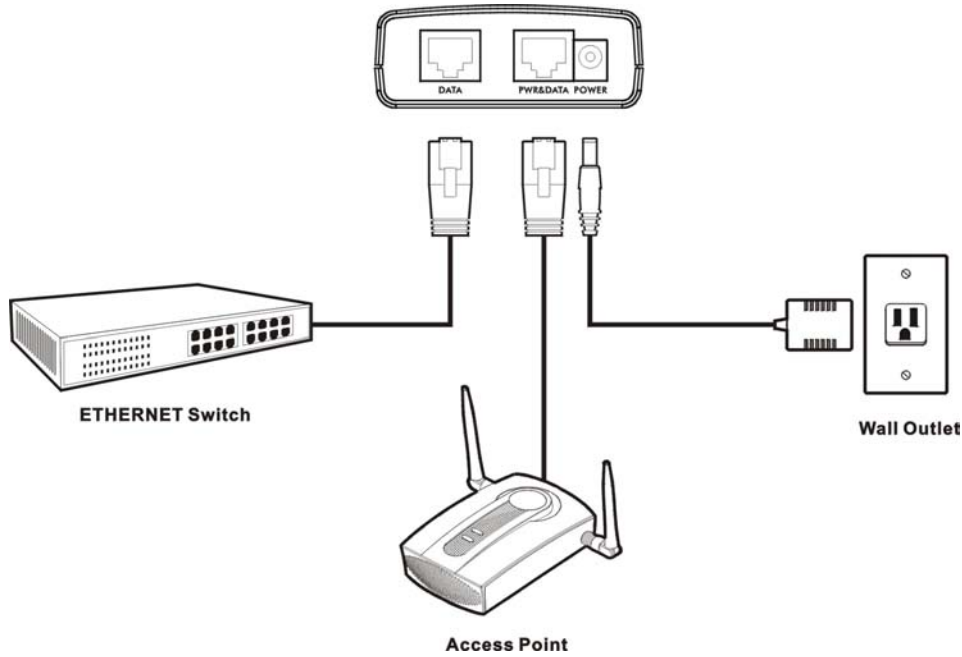
Description of LEDs

LED	COLOR	STATUS	MEANING
PWR	Green	On	Power is being supplied to the PoE-10.
		Off	No power is being supplied to the PoE-10.
LNK	Green	On	The PWR&DATA port is connected and sending power to an Ethernet device.
		Off	No Ethernet connection is present.
		Flashing	The connected Ethernet device is not PoE-enabled or is malfunctioning.

Rear Panel and Connections

The rear panel and connections of the PoE-10 are shown next. All connections

PoE-10 Single-port Power over Ethernet Injector
are located on the rear panel.



LAN 10/100M Ports

The PoE-10 has two LAN ports. The **PWR&DATA** port delivers power to your PoE-enabled device. Use a straight-through Ethernet cable to connect the **PWR&DATA** port to your PoE-enabled device.

The **DATA** port does not deliver power. Use an Ethernet cable to connect the PoE-10's **DATA** port to the LAN.

The maximum Ethernet cable length is 100m.

POWER Socket

WARNING: Use only the included power adaptor. It is suitable for desktop use. Use of another power adaptor may damage the PoE-10.

Connect the female end of the power adaptor to the PoE-10's **POWER** socket. Connect the female end of the power cord to the power adaptor and the male end to a power source (wall outlet or power strip).

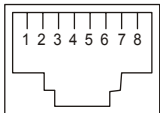
PoE-10 Single-port Power over Ethernet Injector

Specifications

Compatibility	Compatible with certain ZyXEL PoE-enabled devices. ²
Ports	1 DATA RJ-45 Ethernet port 1 PWR&DATA PoE injector RJ-45 Ethernet port
LEDs	1: PWR 1: LNK
Power Output	15.4 Watts maximum
Power Output Current	350 mA maximum
Weight	101g
Dimensions	74(W) x 102(D) x 30(H) mm
Power Adaptor	Input: 100 - 240V AC, 50/60Hz Output: 48V .5A
Power Consumption	20 Watts maximum
Operating Temperature	5 – 50 degrees Celsius (41 – 122 degrees Fahrenheit)
Operational Humidity	10% - 90%
EMI and Safety	FCC Class B, CE, CSA

² The ZyAIR B-3000, B-420 and G-3000 models at the time of writing.

Power Over Ethernet Injector RJ-45 Port Pin Assignments

	PIN NO	RJ-45 SIGNAL ASSIGNMENT
	1	Output Transmit Data +
	2	Output Transmit Data -
	3	Receive Data +
	4	Power +
	5	Power +
	6	Receive Data -
	7	Power -
	8	Power -

Troubleshooting

Make sure you have securely attached the proper cables to the proper ports. Refer to the *Rear Panel and Connections* section for this information. If your PoE-10 still does not work properly, refer to the table shown next.

PROBLEM	CORRECTIVE ACTION
No LEDs are on when I connect the PoE-10.	Check to see that the enclosed power adapter is properly connected to the PoE-10 and an appropriate power source. Make sure the power source is on and functioning properly. If the problem persists, your power adaptor may have malfunctioned. Contact your local distributor.
The LNK LED is not on.	Check to see that the Ethernet cables are connected properly and that you are using the correct type of cable. Refer to the <i>Rear Panel and Connections</i> section for this information. If the problem persists, contact your local distributor.
The LNK LED is flashing.	Make sure that the connected Ethernet device is PoE-enabled and is not malfunctioning. If the problem persists, try connecting a different PoE-enabled device to the PoE-10's PWR&DATA port. The PoE-10 can send Ethernet traffic to a device that is not PoE-enabled, but not power.
Power is not being supplied to my PoE-enabled device.	Ensure that the Ethernet cable connecting the PoE-enabled device to the PoE-10's PWR&DATA port is securely attached. Make sure the PoE-10 is connected to an appropriate power source and that the power source is on and functioning properly.