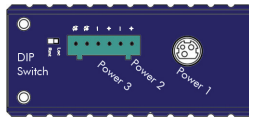
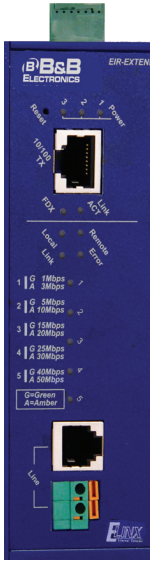
Product Overview

Top View



DIP Switch and Power Options

Front View



Ethernet In/Out

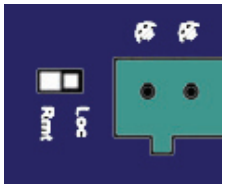
LED Indicators

RJ11 In/Out

Copper Cable In/Out

1 Set DIP Switch

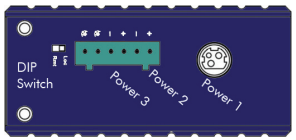
Ethernet extenders work in pairs. Set one as the local (Loc) unit and the other as the remote (Rem) unit. It doesn't matter which one is which.



The DIP switch is on top of the device.

2 Connect Your Power Supply

Only one power source is required. Redundant power is supported.

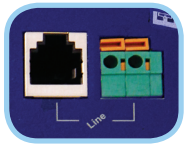


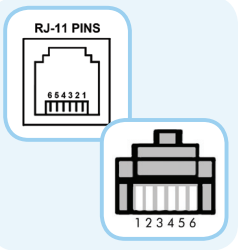
Power 1		12VDC/350 mA	DC Jack
Power 2	+	12-30VDC/175 mA	Terminal Block
	-	Power Ground	
Power 3	+	12-30VDC/175 mA	
	-	Power Ground	
		Earth Ground	
DIP Switch Assignment			
Loc		The device operates in local mode	
Rmt		The device operates in remote mode	
Max power consumption 4.2 W			

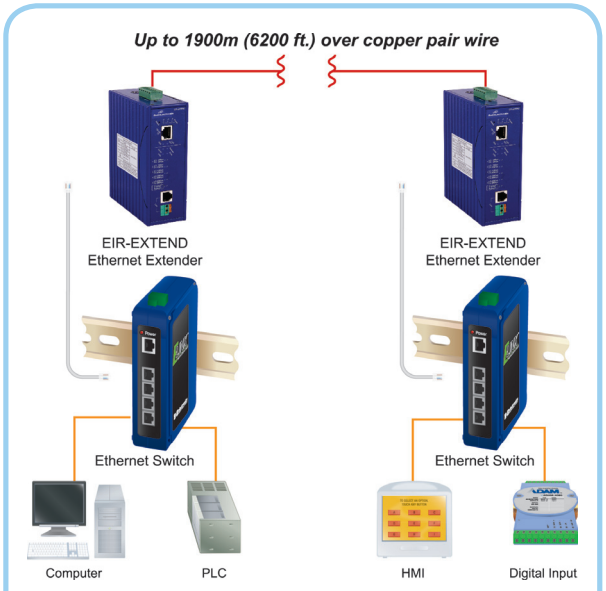
3 Plug In Your Cable

If you are using the terminal block, straight or crossover cable are both supported. Installing new, shielded, 24 gauge copper wire is recommended.

If using RJ11 cable, straight or crossover cable are both supported. (Only pins 3 and 4 are actually used.)

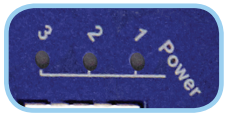






Note: Extender must be connected to a receiving extender or a network switch.

4 LED Status

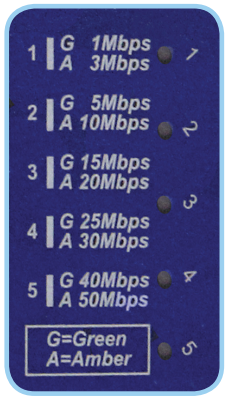


Power LEDs

LEDs	State	Indication
Power 1 **Power 2** **Power 3**	Steady	Power On
	Off	Power Off

Ethernet LEDs

LEDs	State	Indication
Link/ACT	Steady	Valid network connection established
	Flashing	Transmitting or receiving data
	Off	No network connection
FDX	Steady	Connection in full-duplex mode
	Off	Connection in half-duplex mode



Ethernet over VDSL LEDs

Remote	Device is in remote mode
Local	Device is in local mode
Error	Error ocurred
Link	A valid VDSL connection is established
1	Green, 1 Mbps, up to 1900 M Amber, 3 Mbps, up to 1800 M
2	Green, 5 Mbps, up to 1900 M Amber, 10 Mbps, up to 1800 M
3	Green, 15 Mbps, up to 1900 M Amber, 20 Mbps, up to 1800 M
4	Green, 25 Mbps, up to 1900 M Amber, 30 Mbps, up to 1800 M
5	Green, 40 Mbps, up to 1900 M Amber, 50 Mbps, up to 1800 M

Troubleshooting

What is the latency for the EIR-EXTEND?

These figures vary according to the VDSL speed. For a typical speed of about 25Mhz, the small packet size of 64 bytes is around 72 µs if two units are connected back-to-back. For a maximum packet size of 1518 the latency will be in the range of 430 µs with the same configuration.

What type of cable should I use to connect a pair of EIR-EXTENDs?

Wire size and length are not the only factors that affect the connection. The surrounding environment has an even bigger impact. VDSL is an analog signal that is sensitive to noise. If there is a magnetic field or electrical noise around the wire performance will be affected.

Our stated distances are based upon ideal scenarios. We use regular Gauge 24 wire and a dedicated line. Real-world distance will vary according to the conditions encountered on a user's site. Filters and splitters will affect performance, as will sharing the line with voice.

What kind of protection can I use between a pair of EIR-EXTENDs on the RJ11 port?

The EIR-EXTEND's common mode output does not exceed 5VDC. Regular telephone line surge protection should be good enough (48VDC). Common mode capacitor impedance should be lower than 3pf or performance will be affected (reducing speed and link capability).

We do not provide telephone line surge protectors at this time.

Document number – p/n r002 EIR-EXTEND - 1112

Recommended Accessories and Power Supplies

External Power Supply

http://www.bb-elec.com/EIR-EXTEND/ACC

PS12VDC3P

Industrial Power Supply

http://www.bb-elec.com/EIR-EXTEND/ACC

MDR-40-24

Fast, Easy Answers

- **First, check step 4.**
- **Then use your smart phone to access complete documentation on our web site. Simply scan the code to the right.**

http://www.bb-elec.com/EIR-EXTEND

B&B ELECTRONICS

1-888-948-2248 | Europe: **+353 91 792444**

www.bb-elec.com

707 Dayton Road | PO Box 1040 | Ottawa, IL 61350
Phone: 815-433-5100 | Fax: 815-433-5109
www.bb-elec.com | E-mail: info@bb-elec.com

B&B ELECTRONICS

QUICK START GUIDE

EIR-EXTEND

Industrial DIN Rail Mounted Ethernet Extender

First Things First...

Before you begin, be sure you have the following:

- ○ Industrial Ethernet Extender
- ○ DIN Rail Adapter (attached)
- ○ Power Supply (required but not included)

B&B ELECTRONICS

Make The Right Connections

Fast and easy on the web: www.bb-elec.com