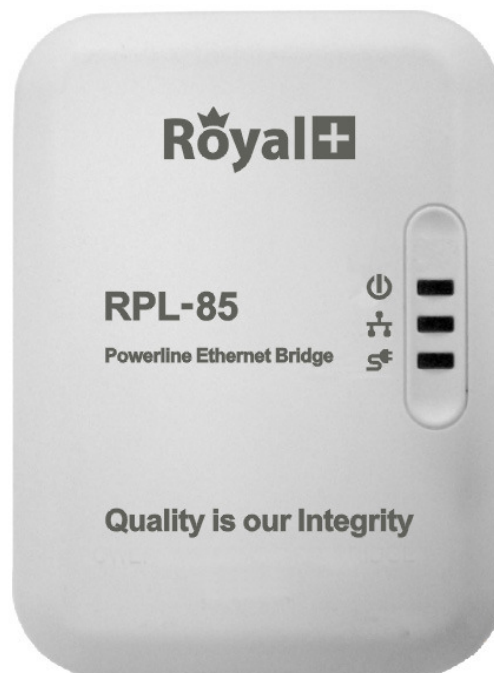


# RPL-85

## User Manual



### **RPL-85**

Powerline Ethernet Bridge

V1.0.0

# Powerline Network

## PREFACE

This document describes installation of the RPL-85 Ethernet Bridge Network products.

Please read this document before installing the product.

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## TO THE INSTALLER

**This publication contains the following sections:**

- **Important safety instructions**
- **The first thing you need to know before you begin to install**
- **Product installation guide**
- **Specification**

### NOTICE:

This product complies with IC: ICES-006; en conformité avec IC: NMB-006

### IMPORTANT SAFETY INSTRUCTIONS

This product is intended for connection to the AC power line. For installation instructions, refer to the Installation section. For removing the device, refer to the Unplug section. The following precautions should be taken when using this product.

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- Please read all instructions before installing and operating this product.
  - Please keep all instructions for later reference.
  - Please follow all warnings and instructions marked on the product.
  - **Unplug the AC coupler from the wall outlet before cleaning. Use a damp cloth for cleaning. DO NOT use liquid cleaners or aerosol cleaners.**
  - **DO NOT** operate this product near water.
  - **The opening of enclosure near AC plug to face up or frontal, the connector face bottom or rear.**
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- This product should **never** be placed near or over a radiator, or heat register.
  - This product relies on the building's electrical installation for short-circuit (over current) protection.
  - Ensure that a fuse or circuit breaker **no larger than 120 VAC 20A or 240 VAC 16A** is used on the phase conductors (all current-carrying conductors).
  - **DO NOT** allow anything to rest on the product interconnect cords.
  - **DO NOT** locate this product where people may walk on the cords.
  - Because the RPL-85 PLC Ethernet Bridge product sends data over the powerline, it is recommended that you plug directly into a power outlet. Do not plug the device into a UPS or power strip with surge protection. The 85Mbps PLC Ethernet Bridge product has its own power filter for protection against surges.
  - The product can be operated at an ambient temperature of 40°C
  - For pluggable equipment, the socket-outlet shall be installed near the equipment and shall be easily accessible
  - **Only** a qualified technician should service this product. Opening or removing covers may result in exposure to dangerous voltage points or other risks.
  - Unplug the AC coupler from the wall outlet and refer the product to qualified service personnel for the following conditions:
    - When the interconnect cords are damaged or frayed.
    - If liquid has been spilled into the product.
    - If the product has been exposed to rain or water.
    - If the product does not operate normally when the operating instructions are followed.
    - If the product exhibits a distinct change in performance.

### THE FIRST THING YOU NEED TO KNOW BEFORE YOU BEGIN TO INSTALL...

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#### 1. Before installing, make sure your PC meets these requirements for hardware installation:

- Microsoft Windows® 98SE, ME, NT, 2000, XP, Vista, MAC or Linux OS
  - Pentium® 166 MHz processor, equivalent or higher
  - At least one free Ethernet port for RPL-85 PLC Ethernet Bridge
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#### 2. Your PC must not be configured for another network. This means that:

- No network clients except for Microsoft Network\*, Client for Netware\* Networks, or Microsoft Family Logon\* are installed
  - No network services except file and printer sharing for Microsoft Networks or Personal Web Server\* are installed
  - No network protocols except Microsoft's TCP/IP, IPX/SPX, NetBEUI, or Net BIOS support for IPX/SPX are installed
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#### 3. Network installation requires two steps:

1. Install the RPL-85 PLC Ethernet Bridge
  2. For each PC to be added to the network, repeat the process
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#### 4. Check that you have the following parts for each PC on the network:

##### Product installation guide for RPL-85 PLC Ethernet Bridge

1. RPL-85 PLC Ethernet Bridge
  2. Ethernet Cable (CAT 5)
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#### 5. Familiarize yourself with the Powerline device connections:

There is only one Ethernet port. This is used for the connection with PC, xDSL/Router, Cable Modem, or Wireless AP.

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#### 6. Limitation of the PLC device:

To meet the safety regulation, the longest distance between powerline carrier devices will be limited at 200 meter and for in-house use only. More than 200 meter will cause the signal reduction or data loss.

### Product installation guide

#### Important:

**Do not plug the device into a power strip or surge protector because these devices may consist of filter and impair signal. Also avoid plugging the device right next to noisy sources such as cell phone charger, Halogen light, Energy saving bulb, noisy desktop computer, vacuum cleaner, etc. Both cases result in poor transmission speed.**

#### To install for the PC local Powerline network

1. Use the supplied Category 5 Ethernet cable to connect Ethernet Bridge and your PC's Ethernet port.
2. Plug the Ethernet Bridge to outlet.
3. The POWER LED indicator will light on after plugging.
4. You can repeat steps 1 and 2 for connecting the others.
5. The LINK LED indicator starts blinking when the data communication proceeds on Powerline.
6. The ETHERNET LED indicator starts blinking when the data communication proceeds on Ethernet.

#### To share a xDSL or cable modem with Internet access service

1. Connect one Ethernet Bridge to the broadband router
  - Plug the Ethernet Bridge into an AC outlet.
  - Plug the provided Ethernet cable into the RJ45 connector of the Bridge and plug the other end of the cable into an available Ethernet port of the Router.
2. Connect the other Ethernet Bridge(s) to the PC(s) to share the Internet access
  - Plug the Bridge into an AC outlet.
  - Plug the provided Ethernet cable into the RJ45 connector of the Bridge and plug the other end of the cable into Ethernet port on the PC.

#### As wireless AP (Access Point) Extender

1. Connect one Ethernet Bridge to the broadband router
  - Plug the Bridge into an AC outlet.
  - Plug the provided Ethernet cable into the RJ45 connector of the Bridge and plug the other end of the cable into an available Ethernet port of the Router.
2. Connect the other Ethernet Bridge to the AP
  - Plug the Bridge into an AC outlet.
  - Plug the provided Ethernet cable into the RJ45 connector of the Bridge and plug the other end of the cable into the Ethernet port on the AP.

### Specification

<b>RPL-85</b>		
<b>Items</b>	<b>Description</b>	
<b>Line Rate</b>	85Mbps	
<b>Effect Data Rate</b>	Up to 25Mbps effective throughput	
<b>Frequency Band</b>	4.3~20.9 MHz	
<b>Access Methods</b>	CSMA/CA	
<b>Qos</b>	4 Levels	
<b>Modulation</b>	OFDM (QAM 256/64/16, DBPSK, DQPSK)	
<b>Port</b>	One Ethernet port	
<b>Standards</b>	IEEE 802.3, IEEE 802.3U, HomePlug 1.0.1	
<b>Operating System</b>	Microsoft Window® 98SE, Me, NT, 2000, XP, Vista, MAC or Linux OS	
<b>Nodes</b>	Supports up to 15 nodes per network	
<b>Encryption</b>	56 bit DES Link Encryption with key management	
<b>LEDs</b>	POWER, LINK, ETHERNET	
<b>Environment</b>	Temperature	Operating : 0~40°C
		Storage : -20~60°C
	Relative Humidity	Operating : 10~85% Non-Condensing
		Storage : 5~90% Non-Condensing
<b>Power Source</b>	100~240 VAC, 50/60 Hz	
<b>Certification</b>	CE, FCC, HomePlug 1.0.1,	

### LEDs

POWER	On: Power on Off: Power off
LINK	On: Powerline link detected Blinking: Powerline traffic detected Off: No Powerline link detected
ETHERNET	On: Ethernet device linked Blinking: Ethernet traffic detected. Off: No Ethernet device linked