TPL-110AP

125Mbps 802.11g Wireless Powerline Access Point

User's Guide





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Introduction

The TRENDNET TPL-110AP Home Plug + Wireless 11g Access Point is like 2 devices in one box! The Home-Plug Wireless AP functions lets you to securely expand the range of your local area network, while Home-Plug utilizes the electric cord as the transfer media, the 11G utilizes the electric wave.

The TRENDNET TPL-110AP Home Plug + Wireless 11g Access Point offers a convenient way to create a simple network through the existing power line of a home or office with the additional ability to provide you with access to your network without wires. Offering several levels of security, the TPL-110AP is built with 128-bit WEP encryption and 802.11i (WPA / TKIP, AES, PSK) for the wireless pass-through and 56-bit DES encryption for the Power line pass-through There are also some Enhanced Security Management Functions: Wireless/Wired 802.1x, and Embedded RADIUS Server so your data will always be secured—guaranteed.

The TRENDNET TPL-110AP Home Plug + Wireless 11g Access Point has the latest IEEE 802.11g spec, which provide data rate at 54Mbps. Because of the high data rate and power line around everywhere, you can enjoy the high quality video or any service in any place. For the latest product information, please visit us on the web at

http://www.TRENDnet.com

** FCC, CE, UL certificated **



Important Safety Information

This product is intended for connection to the AC power. The following precautions should be taken when using this product.

- Read all instructions before installing and operating this product.

- Follow all warnings and instructions marked on the product.

- Do not operate this product near water.

- This product relies on a building's electrical installation for short-circuit (over current) protection.

- Do not allow anything to rest on the product.

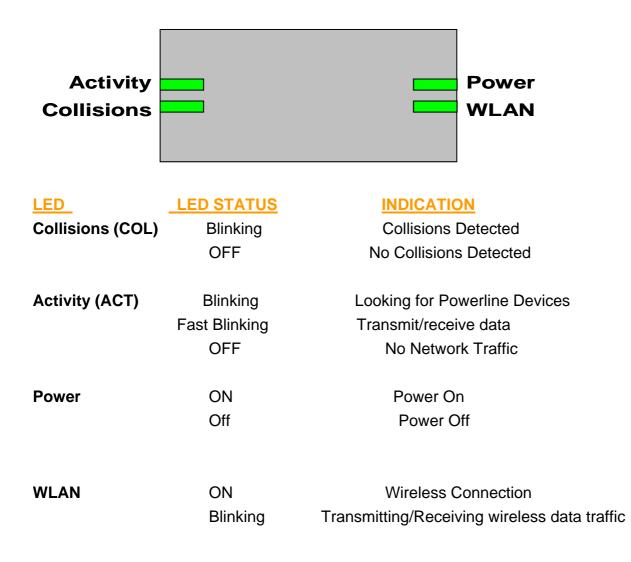
- The HomePlug Wireless Access Point should be plugged directly into an AC wall outlet.

- Only a qualified technician should service this product. Opening or removing covers may result in exposure to dangerous voltage points or other risks. (Note: Opening or removing the covers will void your product warranty).

- Unplug the HomePlug Wireless Access Point from the AC wall outlet and refer the product to a qualified service representative for the following conditions:
- If liquid has been spilled onto the product.
- If the product has been exposed to rain or water.
- If the product does not operate normally when the operating instructions have been followed.
- If the product exhibits a distinct change in performance.

Getting start with your Powerline Device

Before installing your Powerline networking device, please examine and familiarize yourself with it. Below is a diagram of the TPL-110AP along with a brief description of what each LED and slot represent.



What This Package Contains?

Upon you receive your wireless access point, please check that the following contents are packaged:

- HomePlug Wireless Access Point (TPL-110AP)
- CD-Rom (User's Guide)
- Multi-Language Quick Install Guide

Necessary Equipment?

- One or more computers with wireless device, and it's software already installed
- Microsoft TCP/IP networking protocol installed on each PC
- Web browser installed on each PC

Equipment that can be used with the TPL-110AP?

- Broadband modem
- Powerline Router
- Additional PCs with a wireless or Powerline Device

Important: After receiving the wireless access point, please check for any shipping damages to the carton and camera before proceeding with any installations.

PC or Laptop Setup Guide

Note: If you have not installed your Wireless device to your laptop So far, please do so. For instructions on how to install your Wireless device, please contact the manufacturer of that wireless device.

To configure the Wireless device to work with your TPL-110AP, please follow the following steps:

1. Plug TPL-110AP into an outlet.

2. Go to the wireless card's configuration screen or window. It should resemble figure 1 or others.

Intel(R) PRO/Wireless LAN 2100 3B Mini PCI Adapter Properties 🎴 🗙
General Wireless Network Advanced Driver Resources
Enter the configuration settings for your wireless network.
Network Configuration
Network Name (SSID):
default
Operating Mode:
Infrastructure (connect to access point)
C Ad Hoc (connect directly to other computers)
Band and channel selection:
11 💌
Security:
Network Authentication: Open <u>S</u> ecurity
Data Encryption (WEP): None
OK Cancel

PC or Laptop Setup Guide

Note: If you have not installed your Wireless device to your laptop So far, please do so. For instructions on how to install your Wireless device, please contact the manufacturer of that wireless device.

To configure the Wireless device to work with your TPL-110AP, please follow the following steps:

1. Plug TPL-110AP into an outlet.

2. Go to the wireless card's configuration screen or window. It should resemble figure 1 or others.

3. Make sure Infrastructure is selected.

4. In the SSID field, type in the following: default (This is case

sensitive)

5. Make sure Fully Automatic is selected.

6. Click OK to exit the configuration window.

Note: If you are using Windows XP you will not need to configure the PCMCIA card because Windows XP has an auto sense function included in the operating system.

TPL-110AP Setup Guide

You will need to temporarily change the IP address of your PC/laptop

to setup your TPL-110AP. Follow these steps

depending on your operating system.

Note: If you have not changed the default Powerline password

(**HomePlug**) or you get the same subnet (10.0.0.1/16) on your network then there is no need to continue this setup.

Windows 98 SE / ME

- 1. Click on Start, then Settings, and then Control Panel.
- 2. Double click on the Network icon.
- 3. Select the TCP/IP Protocol entry.
- 4. Click on the Properties button.
- 5. Select the IP Address tab.
- 6. Select Specify an IP address.
- 7. Type in the following address: 10.0.0.10.
- 8. For the Subnet Mask, type: 255.255.255.0.
- 9. Click OK to close the TCP/IP properties panel.
- 10. Click OK to close the Network panel.
- 11. Restart the PC

Windows 2000 / XP

- 1. Open Network Connections.
- Win 2000: Click on Start, Settings, then Network, and Dial-up Connections.
- Win XP: Click on Start, Connect To, then Show All Connections.
- 2. Right click on Local Area Connection and then select Properties.
- 3. Select Internet Protocol (TCP/IP) and then click on Properties.
- 4. Click on Use the following IP address.
- 5. Type in the following IP address: 10.0.0.10.
- 6. For the Subnet Mask, type: 255.255.255.0.
- 7. Click OK to close the TCP/IP properties panel.

8. Click OK to close the Network panel and the changes will take

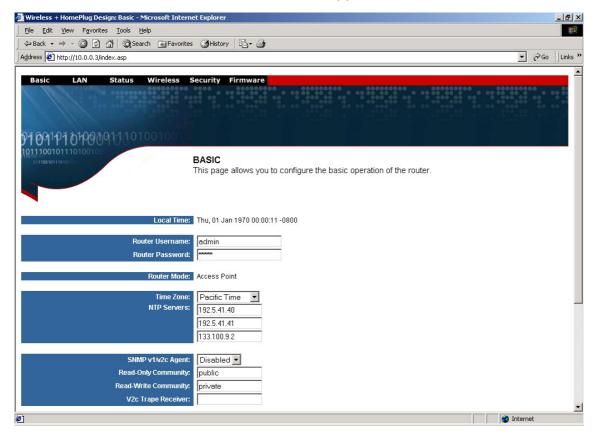
effect when this panel is closed.

Internet Protocol (TCP/IP) Propertie	s	? ×
General		
You can get IP settings assigned autom this capability. Otherwise, you need to a the appropriate IP settings.	sk your network administrator fi	
$\neg \bullet$ Use the following IP address		_
<u>I</u> P address:	10 . 0 . 0 . 10	
S <u>u</u> bnet mask:	255.0.0.0	
Default gateway:		
C Obtain DNS server address autom	aticallu	_
— ● Use the following DNS server add		
Preferred DNS server:		
<u>A</u> lternate DNS server:		
	Advanced	
	OK Ca	ncel

- 1. Open a web browser and type in the following address: 10.0.0.1.
- 2. A login screen should appear. Type the login name: **admin** and the password: **admin**.

Enter Netv	vork Passwor	d	<u>? ×</u>
?	Please type yo	our user name and password.	
Q	Site:	10.0.0.3	
	Realm	Wireless + HomePlug Design	
	<u>U</u> ser Name	admin	
	<u>P</u> assword	*****	
	□ <u>S</u> ave this p	password in your password list	
		OK Cano	el

3. The basic information screen should now appear in the browser window.



4. The default HomePlug password is HomePlug. If your existing HomePlug password is different, change this password accordingly.

Setting up the IP address on the TPL-110AP

- 1. Click on the LAN Tab.
- 2. The default IP address of TPL-110AP is 10.0.0.1. You can change this IP address to matches your network configuration (Example: 192.168.1.10)
- You can change the Subnet mask and Gateway values as well.
 At this point, you will need to change the PCs IP address back to it's original settings. Follow

these steps depending on your operating system. Windows 98 SE / ME

- 1. Click on Start, then Settings, and then Control Panel.
- 2. Double click on the Network icon.
- 3. Select the TCP/IP Protocol entry.
- 4. Click on the Properties button.
- 5. Select the IP Address tab.
- 6. Select Obtain an IP Address Automatically.
- 7. Click OK to close the TCP/IP properties panel.
- 8. Click OK to close the Network panel.
- 9. Restart the PC.

Windows 2000 / XP

- 1. Open Network Connections.
- Win 2000: Click on Start, Settings, then Network and Dial-up

Connections.

- Win XP: Click on Start, Connect To, then Show All Connections.
- 2. Right click on Local Area Connection and then select Properties.

📴 Network and Dial-up Connectio	ns			
File Edit View Favorites To	ols Advanced	l Help		10 A
📙 🖨 Back 🔻 🔿 👻 🗎 🧟 Search	Folders	()History	≧¶ X ∞ ⊞•	
Address 🔁 Network and Dial-up Con	inections			▼ (r ² Go
	F	 և		
Network and Dial-	Make New Connection	Local Area Connection	802. Enable	
up Connections	Connection	Connection	Status	
			Create Shortcut	
802.11b			Delete	
Type: LAN Connection			Rename	
Status: Disabled			Properties	
Intel(R) PRO/Wireless LAN 2100 3B Mini PCI Adapter				
🖳 Displays the properties of the select	ed connection.			1.

3. Select Internet Protocol (TCP/IP) and then click on Properties.

- 4. Select Obtain an IP Address Automatically and Obtain a DNS server automatically.
- 5. Click OK to close the TCP/IP properties panel.

6. Click OK to close the Network panel. The changes will take a few minutes. Open a new web browser and type in the new IP address of TPL-110AP to ensure the changes worked.

Other Features

Wireless Tab

- Change the value for the SSID (Note: If you change the value here, you will also need to change the value on each PC.)
- Change the Country where you are
- Change the Band
- Change the Channel
- Change the transmission Mode
- Change the Transmission Mb rates
- Change the Multicast rates
- Enable XPress Technology
- Enable Afterburner Technology
- Change WDS Operation Mode (Note: It depend on you network environment)
- Enable MAC Restrict Mode (Note: Type the MAC address of devices you want to restrict here)

🚈 Wireless + HomePlug Design: Wireless - Microsoft Inte	rnet Explorer
<u>File E</u> dit <u>V</u> iew F <u>a</u> vorites <u>T</u> ools <u>H</u> elp	
🛛 🖙 Back 👻 🤿 🖉 🙆 🚮 🛛 🏹 Search 🛛 📷 Favorites	🛞 History 🔹 🖨
Address 🛃 http://10.0.0.3/wireless.asp	▼ (ở Go Links »
Basic LAN Status Wireless Se	ecurity Firmware
A loss and the state of the	
91 091 01 01 090 01 11 01 00 100	
1011100101110100100	WIRELESS
	This page allows you to configure the wireless LAN interfaces.
•	
Wireless Interface:	default (00:90:4B:08:03:2A) V Select
Network Name (SSID):	default
Network Type:	Open 💌
AP Isolation:	Off 🗸
Country:	AUSTRALIA Current AU
Radio:	Enabled V
Band:	802.11g (2.4 GHz) Current: 802.11g
Channel:	11 Current 11
54g™ Mode:	54g Auto
54g Protection:	Auto 💌
Rate:	Auto 💌
Basic Rate Set:	Default 💌
Multicast Rate:	Auto 💌
	<u> </u>
Ø Done	👔 👔 Internet

Security Tab

Here you can adjust the following:

- Setup the information of External/ Internal RADIUS Server
- Enable Wired 802.1x
- Open the Network Authentication
- Enable WEP Encryption
- Setup WPA Pre-Shared Keys

Wireless + HomePlug Design: Security - Microsoft Internet	Explorer
File Edit View Favorites Tools Help	
G Search → → G Ø A Q Search → Favorites G	
Address 🛃 http://10.0.0.3/security.asp	▼ (∂ ² Go ⊔Links ≫
Desis LAN Chatus Windows Com	
Basic LAN Status Wireless Secur	rity Firmware
91 091 p1 01 p9 0 91 1 1 0 1 0 0 1 0 0 1	
10111001011101001001 0111001011101001001	CURITY page allows you to configure security for the wireless LAN interfaces.
RADIUS Server Type: Exte	rnal RASIUD Server
RADIUS Server IP Address:	
RADIUS Port:	
RADIUS Key:	
	mal Embedded RADIUS Server(EAP-MD5 for Authorization Only)
	abled 🗾
Embedded RADIUS IP Address: 10.0 Embedded RADIUS Port: 181	
	- adius1218
Embeddeb RADIUS Username: adm	
Embeddeb RADIUS Password:	
	abled 💌
Wired 802.1x RADIUS Server Ext	emal RADIUS Server
	fault (00:90:4B:08:03:2A)
Miroloss 902 1v BADILIS Server Eve	ornal PADII IS Sovor V

Firmware Tab

- Here you can update the new firmware. (Note: You should download the new firmware first)

🚰 Wireless + HomePlug Design: Firmware - Microsoft Internet Explorer	_ 8 ×
Eile Edit Yiew Favorites Iools Help	10 A
↔ Back + → - ③ ④ ④ ③ Search ⓐ Favorites ③History 🖏 - 🎒	
Address 🙋 http://10.0.0.3/firmware.asp	▼ 🖓 Go 🛛 Links ≫
Basic LAN Status Wireless Security Firmware	A
51 691 P1 61 P0 691 11 01 00 100 1	
FIRMWARE This page allows you to upgrade the firmware.	
Boot Loader Version: CFE 3.51.21.0 OS Version: WHAPC-100GE 1.2.6a	
New Firmware: Browse	
Upgrade	
	*
	🗾 🔮 Internet

Notes

Appendix A: Features

Supports 802.11g wireless LAN Support Home-Plug 1.0 Power-line network Simultaneously operation on 802.11g wireless LAN and Power-line network Enhanced Security Management Functions: Wireless/Wired 802.1x, Embedded RADIUS Server Supports 64/128 bits WEP Key in wireless 802.11g LAN Supports 56-bits DES Key for Power-line network The wireless 11g operation provide data rate at 6, 9, 12, 18, 24, 36, 48, 54Mbps with auto fallback at 11b data rate at 1, 2, 5.5, and 11Mbps. Universal Domain Support (1~14 Channels) Supports Wireless Distribution System (WDS) – Wireless Bridge, Wireless Repeater Supports 802.11i – WPA / TKIP, AES, PSK Easily Configurable through your networked PC's Web browser Administrators can block specific internal users' Internet access with 802.1x TCP, UDP, ICMP, IGMP IEEE 802.1D (self learning transparent bridge) IEEE 802.1D Spanning Tree Protocol SNMP V1/V2c Agent

Remote administration and remote upgrades available over the Internet Supports Traffic and Event Logging

Appendix B: Limited Warranty

Appendix C: FCC Statement

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of

FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation.

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. However, there is no guarantee

that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or

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:

- Reorient or relocate the receiving antenna.

- Increase the separation between the equipment and receiver.

- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

- Consult the dealer or an experienced radio/TV technician for help.

This device complies with Part 15 of FCC Rules.

Operation is subject to the following two conditions:

(1) This device may not cause harmful interference, and

(2) This device must accept any interference received, including interference that may cause undesired operation.

FCC RF Radiation Exposure Statement:

This equipment complies with FCC RF radiation exposure limits set forth for an uncontrolled environment. This equipment

should be installed and operated with a minimum distance of 20 centimeters between the radiator and your body.

Limited Warranty

TRENDware warrants its products against defects in material and workmanship, under normal use and service, for the following lengths of time from the date of purchase.

Powerline Products - 3 Years Warranty

If a product does not operate as warranted above during the applicable warranty period, TRENDware shall, at its option and expense, repair the defective product or part, deliver to customer an equivalent product or part to replace the defective item, or refund to customer the purchase price paid for the defective product. All products that are replaced will become the property of TRENDware. Replacement products may be new or reconditioned.

TRENDware shall not be responsible for any software, firmware, information, or memory data of customer contained in, stored on, or integrated with any products returned to TRENDware pursuant to any warranty.

There are no user serviceable parts inside the product. Do not remove or attempt to service the product by any unauthorized service center. This warranty is voided if (i) the product has been modified or repaired by any unauthorized service center, (ii) the product was subject to accident, abuse, or improper use (iii) the product was subject to conditions more severe than those specified in the manual.

Warranty service may be obtained by contacting TRENDware office within the applicable warranty period for a Return Material Authorization (RMA) number, accompanied by a copy of the dated proof of the purchase. Products returned to TRENDware must be pre-authorized by TRENDware with RMA number marked on the outside of the package, and sent prepaid, insured and packaged appropriately for safe shipment.

WARRANTIES EXCLUSIVE: IF THE TRENDWARE PRODUCT DOES NOT OPERATE AS WARRANTED ABOVE, THE CUSTOMER'S SOLE REMEDY SHALL BE, AT TRENDWARE'S OPTION, REPAIR OR REPLACEMENT. THE FOREGOING WARRANTIES AND REMEDIES ARE EXCLUSIVE AND ARE IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED, EITHER IN FACT OR BY OPERATION OF LAW, STATUTORY OR OTHERWISE, INCLUDING WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. TRENDWARE NEITHER ASSUMES NOR AUTHORIZES ANY OTHER PERSON TO ASSUME FOR IT ANY OTHER LIABILITY IN CONNECTION WITH THE SALE, INSTALLATION MAINTENANCE OR USE OF TRENDWARE'S PRODUCTS.

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LIMITATION OF LIABILITY: TO THE FULL EXTENT ALLOWED BY LAW TRENDWARE ALSO EXCLUDES FOR ITSELF AND ITS SUPPLIERS ANY LIABILITY, WHETHER BASED IN CONTRACT OR TORT (INCLUDING NEGLIGENCE), FOR INCIDENTAL, CONSEQUENTIAL, INDIRECT, SPECIAL, OR PUNITIVE DAMAGES OF ANY KIND, OR FOR LOSS OF REVENUE OR PROFITS, LOSS OF BUSINESS, LOSS OF INFORMATION OR DATE, OR OTHER FINANCIAL LOSS ARISING OUT OF OR IN CONNECTION WITH THE SALE, INSTALLATION, MAINTENANCE, USE, PERFORMANCE, FAILURE, OR INTERRUPTION OF THE POSSIBILITY OF SUCH DAMAGES, AND LIMITS ITS LIABILITY TO REPAIR, REPLACEMENT, OR REFUND OF THE PURCHASE PRICE PAID, AT TRENDWARE'S OPTION. THIS DISCLAIMER OF LIABILITY FOR DAMAGES WILL NOT BE AFFECTED IF ANY REMEDY PROVIDED HEREIN SHALL FAIL OF ITS ESSENTIAL PURPOSE.

Governing Law: This Limited Warranty shall be governed by the laws of the state of California.

AC/DC Power Adapter, Cooling Fan, and Power Supply carry 1 Year Warranty

TRENDwar What's Next in	re, USA
	ty Registration
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