# TRENDnet®

POWERLINE

## Powerline 500 AV Adapter with Built-In Outlet
### TPL–402E(V1.0R)

The Powerline 500 AV Adapter with Built-In Outlet, model TPL-402E, uses any electrical outlet to create a secure building-wide high speed network. Connect one adapter to your network and plug another adapter into any outlet on your electrical system for instant high speed network access.

Never lose an electrical outlet with the built in socket on the front of the adapter. A Noise Filter maintains optimum connection speeds when everyday household appliances such as toasters, washing machines, and coffee makers create electrical background noise.

A Gigabit Ethernet port maintains high performance wired connections. TRENDnet adapters auto connect when plugged in. Use up to 16 adapters to network devices in different rooms without running new cabling. Manage each Powerline adapter on your network with the included Windows utility. Power Save mode reduces power consumption by up to 80%. Advanced AES encryption secures your network. This adapter is compatible with both 120 volt and 240 volt electrical systems and is ideal for use in buildings that interfere with wireless networking signals.

## FEATURES

- Compliant with IEEE1901 and HomePlug AV standards

- High speed building-wide networking over an existing electrical system

- 1 x 10/100/1000Mbps Auto-MDIX Gigabit port

- 1 x electrical power socket

- 1 x One-touch Sync button networks adapters quickly

- Three LED indicators: Power (on/off), Powerline Link green (best),  amber (better), red (good), off (no connection), Ethernet Link (solid, blinking, off)

- Advanced electrical noise filter boosts performance

- Connect one 500Mbps** Powerline AV Adapter to the Internet and then plug in up to 15* additional 500Mbps** Powerline AV adapters for instant building-wide connectivity

- Share data intensive files, play games, download music, and more at ultra fast data  transfer rates

- Advanced 128-bit AES encryption to ensure total network security

- Power Saving mode reduces electrical consumption by 80%

- Neighbor network support for up to 4 overlapping networks

- Network signal transmits up to 300 meters (984 ft.)

- Optional management utility compatible with Windows 8.1 (32/64-bit),Windows 8 (32/64-bit), Windows 7 (32/64-bit), Vista (32/64-bit), and XP (32/64-bit) operating systems

- 3-year limited warranty

*Maximum of 16 adapters (nodes) recommended for streaming video across your network. Additional adapters may decrease performance.

**500Mbps is the maximum theoretical Powerline data rate.  Actual throughput will vary depending on environment.

***Networked Powerline devices need to be plugged into power outlets that are on the same electrical system.

**** GFCI outlets and AFCI circuit breakers may degrade Powerline network signals.

# Powerline 500 AV Adapter with Built-In Outlet
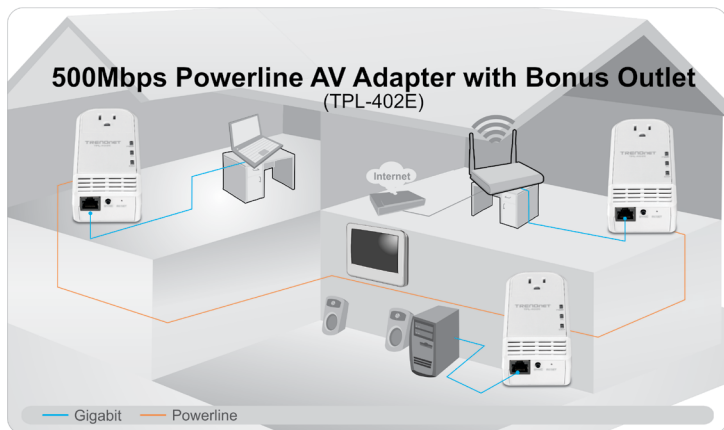## TPL–402E(V1.0R)

## SPECIFICATIONS

| HARDWARE | |
|---|---|
| Standards | • IEEE 1901, HomePlug® AV, IEEE 802.3, IEEE 802.3x, IEEE 802.3u, IEEE 802.3ab |
| Interface | • 1 x 10/100/1000Mbps Auto-MDIX RJ-45 Port<br>• 1 x electrical power socket with noise filtering (12A max. load)<br>• Power prong:<br>  • A: North America Type B (NEMA 5–15)<br>  • EU: Euro Type C (CEE 7/16)<br>  • FR: French Type E (CEE 7/5)<br>  • UK : United Kingdom Type G (BS 1363) |
| Frequency Band | • 2 ~ 50 MHz |
| Modulation | • OFDM Symbol modulation on link synchronization, 1024/256/64/8 - QAM, QPSK, BPSK, ROBO carrier |
| Protocols | • TDMA and CSMA/CA |
| Speed | • Powerline: up to 500Mbps**<br>• Ethernet: up to 2 Gbps with Full Duplex mode |
| Utility OS Compatibility | • Windows 8.1 (32/64-bit),Windows 8 (32/64-bit), Windows 7 (32/64-bit), Vista (32/64-bit), XP (32/64-bit) |
| Nodes | • Up to 64 (max.)<br>• Recommended: Up to 16* per powerline network |
| Overlapping Powerline Networks Supported | • Up to 4 (per electrical system) |
| Coverage | • Up to 300 m (984 ft.) |
| Security | • 128-Bit AES (Advanced Encryption Standard) |
| LED | • Power (PWR)<br>• Powerline (PL) Connection<br>  • Best (Green)<br>  • Better (Amber)<br>  • Good (Red)<br>  • No connection (Off)<br><br>• Gigabit Ethernet (ETH) Connection<br>  • Solid<br>  • Blinking<br>  • Off |
| Buttons | • Sync, Reset |
| Dimension (L x W X H) | • A: 122 x 55 x 60 mm (4.8 x 2.2 x 2.4 in.)<br>• EU/FR: 122 x 55 x 78 mm (4.8 x 2.2 x 3.1 in.)<br>• UK: 122 x 55 x 72 mm (4.8 x 2.2 x 2.8 in.) |
| Weight | • A: 159 g (5.6 oz)<br>• EU: 184 g (6.5 oz)<br>• FR: 187 g (6.6 oz)<br>• UK: 193 g (6.8 oz) |
| Power Source | • 100~240V AC, 50~60Hz |
| Consumption | • Active mode: 5 Watts (max.)<br>• Standby mode: 0.72 Watts (max.) |
| Temperature | • Operating: 0° ~ 40°C (32° ~ 104°F)<br>• Storage: -20° ~ 70°C (-4° ~ 158°F) |
| Humidity | • Max. 90% (non-condensing) |
| Certifications | • CE, FCC, HomePlug® AV |

## NETWORKING SOLUTIONS



**500Mbps Powerline AV Adapter with Bonus Outlet**
(TPL-402E)

Internet

— Gigabit    — Powerline

## PACKAGE CONTENTS

TPL-402E

Multi-Language Quick Installation Guide

CD-ROM (Utility & User's Guide)

Network cable (1.5 m / 5 ft.)

## RELATED PRODUCTS

| | |
|---|---|
| **TEW-691GR** | N450 Wireless Gigabit Router |
| **TPL-401E2K** | Powerline 500 AV Adapter Kit |
| **TPL-402E2K** | Powerline 500 AV Adapter Kit with Built-In Outlet |

## CONTACT INFORMATION

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