**BILLION™**

BiPAC 2074

HomePlug AV 200 Ethernet Bridge with AC Pass Through

Extend your home networking through power lines

Compliant with the latest HomePlug AV standards, which support data speeds of up to 200Mbps, the BiPAC 2074 delivers the super-fast connectivity needed for High Definition home networks. Just plug the BiPAC 2074 into any power outlet, connect a network cable, and data signals are automatically transmitted through the power lines. The BiPAC 2074 can be used to bridge Ethernet devices such as modems, routers, PCs, set-top-boxes, and game consoles, enabling users to share multimedia applications such as online games, IPTV and audio streaming with family or friends all around the house. The AC Pass Through with noise filtering is a handy add-on. It offers users an extra electrical outlet to enhance power usage in residential applications while ensuring the data signal is transmitted smoothly. Once plugged into an Ethernet port on a router, the BiPAC 2074 allows people elsewhere in the house to share Internet access by using computers connected with a HomePlug compliant Powerline network adapter. With the smart power saving feature, the adapter can automatically detect its current usage and reduce power consumption in full operation and standby mode.

Extra noise-free power outlet

The BiPAC 2074 features a built-in electrical power outlet with noise filter - AC Pass Through. This handy add-on offers users an additional power extension for other electrical devices with limited wall outlets nearby. However, the appliances which use power line as communications medium will also contribute noise to it. With noise filtering, the BiPAC 2074 enhances power-line communications coverage within the home when the AC Pass Through outlet is used by the appliance.

Energy Efficiency

With the Smart Power Saving feature, the BiPAC 2074 can automatically detect its Ethernet connection. When the Ethernet-based device is powered down or disconnected, the BiPAC 2074 adapter will automatically fall into sleep mode, which reduces power consumption significantly. What's more, when the current usage is in full operation, the adapter can reduce its power consumption and save money on your electricity bill. Create a "Green" home and enjoy energy efficiency!

No sweat to set up an in-home network

The BiPAC 2074 does not require the time and money needed to install expensive Ethernet cables throughout your house in order to share your home network. Nor does it require any drilling. Just one touch of the "Sync" button to install the bridge utility and your high-speed network is ready. It's as easy as simply plugging in your networking devices and using the electrical wiring in your home.

Smooth traffic and prioritization

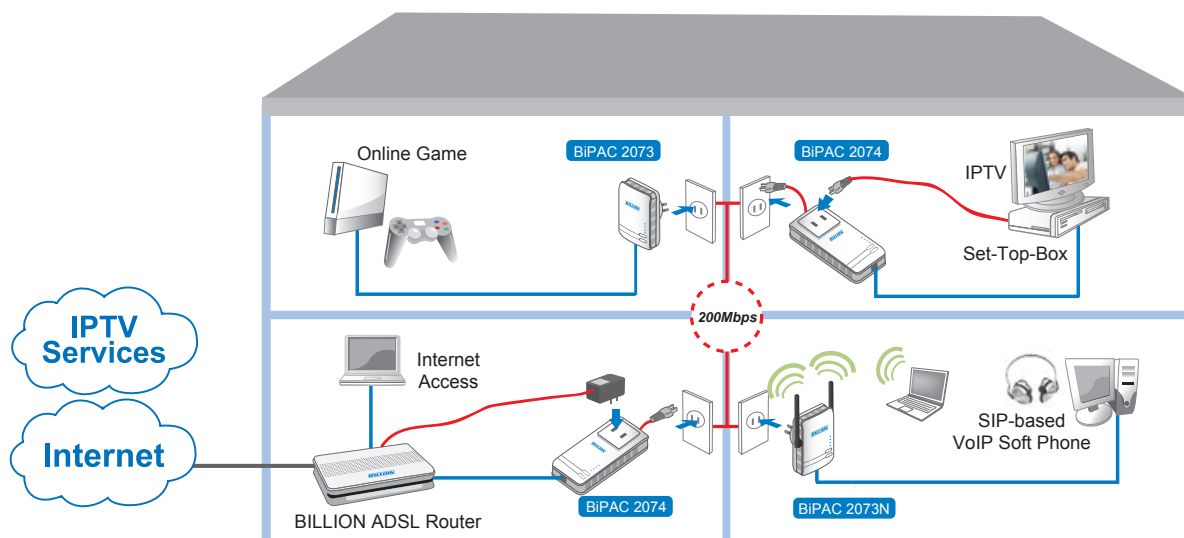
Quality of Service control guarantees the transmission quality by automatically prioritizing data. The BiPAC 2074 automatically recognizes the bandwidth needs of voice and video applications. QoS prioritizes the data to guarantee optimal transmission quality. TV and video images are received and displayed with absolute smoothness. QoS also guarantees clear, instant transmission of voice data, even when other applications are running on the network at the same time. QoS makes your network a pleasure to use.

Immune to noise and intervention

Unlike others, the device supports superior and noise-immune data transmission over in-home electrical power lines. Even at the moment your family turns on an electronic device or turns off a light, you won't experience any interruption to latency-sensitive applications such as multimedia or video being shared with your family in another room.

- Provides physical layer data rate of up to 200Mbps over existing in-home power lines
- Utilizes power line technology that takes advantage of the unused bandwidth of the electrical wiring in your home
- Smart power saving technology for improved power efficiency
- Provides a noise-filtered power outlet with AC Pass Through
- Utilizes Quality of Service control
- Supports Triple Play applications such as IPTV, VoIP and high-speed Internet access
- Supports 10/100 BaseT Ethernet
- Compliant with the HomePlug Powerline Alliance industry specifications
- Ideal for residential users

Powering communications
with **Security**



▲ The connected home using the HomePlug AV series

Ethernet Cable Power Cable

Features & Specifications

Protocols

- TDMA, CSMA/CA

Standards

- Ethernet specifications: IEEE 802.3, IEEE 802.3x, IEEE 802.3u, Auto MDI/MDIX
- HomePlug AV compliant

Transmission Speed

- 200Mbps max.

Modulation

- Supports OFDM
- 1155 carriers, 1024/256/64/16/8 QAM, QPSK, BPSK and ROBO

Frequency Range

- 2MHz ~ 30MHz

Security

- 128-bit AES Link Encryption with key management for secure power line communications
- Encryption:
 - NMK (Network Membership Key) used to authenticate/access
 - Rotating NEK (Network Encryption Key)

Quality of Service Control

- Enhancements: contention-free access, four-level priority based contention access, and multi segment bursting
- ToS, CoS and IP Port Number Packet Classifiers
- Supports IGMP managed multicast sessions
- IGMP snooping with multicast to multiple unicast support in CSMA
- QoS classification for quasi-error-free delivery
 - VLAN priority field, ToS Field
- Enhanced IPv4/IGMPv1-3 snooping support
- Supports IPv6 and MLDv1-2 snooping

Supported Operating Systems

- Windows 98 / 98SE / Me / 2000 / XP / Vista
- Other 10/100 Base-T Ethernet devices

Device Port

- Ethernet RJ-45

Power Supply Specifications

- Input: 100~240V AC, 50~60Hz
- Protection: OCP, OVP, SCP
- AC outlet: 6A (max)

Power Saving

(* depends on input power voltage)

- Up to 20% power reduction in full operation
- Up to 50% power reduction in standby mode

Hardware Specifications

Physical Interface

- AC power cable
- RJ-45 compatible
- Sync button
- Reset button
- AC outlet
- LED display:
 - 1.0 DET
 - POWER
 - PLC
 - ETH

Physical Specifications

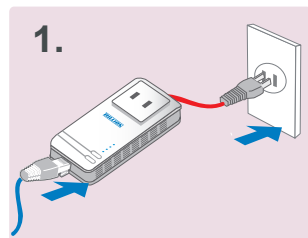
- Dimensions (W, D, H): 6.50" x 2.87" x 1.52" (165mm x 73mm x 38.50mm)

Operating Environment

- Operating temperature: 0 ~ 40 °C
- Storage temperature: -20 ~ 70 °C
- Humidity: 20 ~ 95% non-condensing

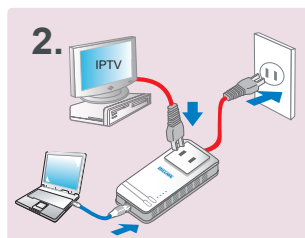
Connecting the BiPAC 2074

Connect a network cable to the bridge and then plug the BiPAC 2074 into a power socket



Note: Plug/socket, power cable and input voltage/frequency may vary from country to country.

Then connect the BiPAC 2074 to a laptop, modem, router or a set-top-box



Create a secure network by a simply push off the network sync button

