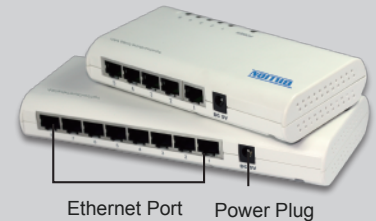




▲ BiPAC ES05



▲ BiPAC ES08



Ethernet Port Power Plug

## BiPAC ES05 Series

# 5 / 8 ports Green Ethernet Desktop Switch

### Network Expansion

The BiPAC ES05 series is designed for you to expand your wired home network and share the Internet with your family. With Billion's Desktop Green Ethernet switch series, your family can browse the websites, check e-mail and play on-line games by using computers from their own room. There will be no more need to sit in a single room to surf the Internet. In addition to the computers, you can also connect other network-based devices such as game console, printer server, network camera or Network Attached Storage (NAS) for applications like on-line gaming, video and data sharing to increase the functionality of your network.

### Enhancing network performance

With its non-blocking architecture, the BiPAC ES05 Green Ethernet switch series receives and forwards the traffic seamlessly. Duplex mode also doubles the bandwidth by enabling two-ways communication. Every port simultaneously supports up to 200Mbps of bandwidth, totaling up to 1Gbps (BiAPC ES05) / 1.6Gbps (BiPAC ES08) of switching capacity. Unlike other shared 10/100 Mbps networks, the switch eliminates the bandwidth congestion problem by providing dedicated bandwidth. Additionally, its store-and-forward switching mode at full wire-speed for maximum performance ensures reliable and error-free transmission of data, therefore efficiently saving the users' time to enjoy multimedia applications with improved network performance.

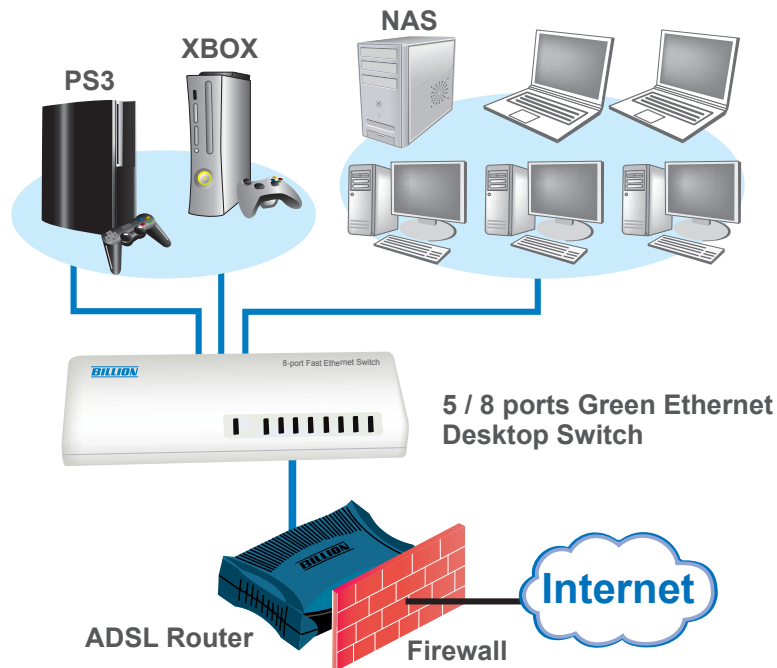
### Easy Installation

Plug & play and all kinds of network protocols compilation make the installation of the device easy and fast. With auto-MDI/MDI-X support, there is no need for any crossover cables when you connect the device to a computer or even another switch. In addition, N-way auto-negotiation function auto-senses and adjusts the connected devices whether they are running at 10Mbps or 100Mbps. With Easy-to-tell LED indicators, you can monitor the working status of the switch and activities of every port at a glance.

### Smart Power Saving

The BiPAC ES05 series with integrated Smart Power Saving technology helps your network save power by up to 60%, thus saving money by reducing energy consumption. It automatically detects the link status of each connected device and reduces power usage of ports that are idle accordingly. Additionally, this technology is able to analyze the length of any Ethernet cable in order to adjust the power usage accordingly.

- Smart power saving technology for efficient energy consumption
  - Power savings by number of connected ports and link status (45% ~ 60%)
  - Power savings by cable length (16% ~ 18%)
- Up to 200Mbps throughput per port in full-duplex mode
- N-Way protocol for speed and duplex mode auto-detection
- Wire-speed packet filtering and forwarding rate
- Store-and-forward architecture for low-latency and error-free transmission
- Supports extensive LED indicators for network diagnostics
- True plug and play installation
- External power adapter
- Ideal for SOHO and home users



## Features & Specifications

### Standard Compliance

- IEEE 802.3 10Base-T Ethernet
- IEEE 802.3u 100Base-Tx Ethernet
- IEEE 802.3x flow control

### Performance

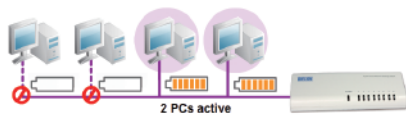
- Packet filtering/forwarding rate:
  - 148,800pps for 100Base-Tx port
  - 14,880pps for 10Base-T port
- Wire-speed performance

### MAC and Packet Buffer Memory

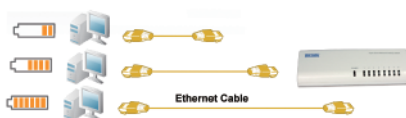
- BiPAC ES05
  - 2K MAC entries
  - 384K bits packet buffer
- BiPAC ES08
  - 1K MAC entries
  - 768K bits packet buffer

### Smart Power Saving Technology

- Creates less heat and extends product life
- Reduces power consumption
  - A. Power savings by number of connected ports and link status



#### B. Power savings by cable length



### Traffic Management

- N-Way protocol for network speed (10/100Mbps) and duplex mode (full & half) auto-detection
- MDI/MDI-X auto crossover
- Supports full and half duplex operation on all ports
- Back-pressure (half duplex) and flow control
- Transmission method: store-and-forward architecture filters fragment and CRC error packets

### Megabit Connectivity

- BiPAC ES05: 5 x 10/100Mbps RJ-45 N-way ports
- BiPAC ES08: 8 x 10/100Mbps RJ-45 N-way ports

### Hardware Specification

- Connectors
  - BiPAC ES05: 5 x 10/100 RJ-45 ports, auto-negotiation and auto-crossover
  - BiPAC ES08: 8 x 10/100 RJ-45 ports, auto-negotiation and auto-crossover
- Power Supply
  - External power 5V 0.6A
- Power Consumption
  - BiPAC ES05: 2.9W (maximum)
  - BiPAC ES08: 2.6W (maximum)
- Physical Specification (Dimension)
  - BiPAC ES05: 140(W) x 77(D) x 27.5(H) mm
  - BiPAC ES08: 184(W) x 77(D) x 27.5(H) mm
- Weight (main body)
  - BiPAC ES05: 133.3g
  - BiPAC ES08: 176.7g

### LED Indicators

- Supports extensive LED indicators for network diagnostics
  - System: Power
  - Port: Link/Activity 10/100Mbps

### Minimum System Requirements

- Devices supporting 802.3 Ethernet or 802.3u fast Ethernet
- Ethernet cable
- Network interface card for each computer

### Operating Environment

- Operating temperature: 0 ~ 40°C (32 ~ 104°F)
- Operating humidity: 10% ~ 90% (non-condensing)