



## Very High-speed VDSL2 Gateway for Triple Play Services

- VDSL2 High-Speed Internet Access
- Ultra-high Speed Upstream/Downstream Rates at Up to 45/100 Mbps
- 802.11g Wireless Connectivity
- 4-port 10/100 Mbps Ethernet Switch
- TR-069 Remote Management

### Benefits

#### VDSL2 High-speed and High-performance Internet Access

ZyXEL P-870HW-51a v2 could provide 5-band VDSL2 up to profile 17a with data rates up to 100 Mbps in downstream direction and 45 Mbps in upstream direction. The VDSL2 technology can support the wide deployment of Triple Play services such as voice, video, data, high definition television (HDTV) and interactive gaming, it also enables operators and carriers to gradually, flexibly, and cost efficiently upgrade existing xDSL-infrastructure.

#### IEEE 802.11b/g Wireless with WPS (Wi-Fi Protection Setup)

The P-870HW-51a v2 compliant with the 802.11b/g wireless standard which allows data transmission speeds reach up to 54 Mbps. Wi-Fi Protected Setup (WPS) is a standard for easy and secure establishment of a wireless network. With WPS, it will automatically configure a wireless network with a network name (SSID) and strong WPA data encryption and authentication. WPS makes the configuration of secure personal wireless networks as simple as pushing a button or entering a Personal Identification Number (PIN) code.

#### Quality of Service

The P-870HW-51a v2 enables network administrators to allocate network resources while guaranteeing Quality of Service (QoS). QoS can be achieved by classifying packets by their ether type or source IP and then assign them with different 802.1p priority value or directly forward them to different queue or added by VLAN ID. It provides the capability to provide better service to selected network traffic over VDSL technology. For example, it can help end users to enjoy the triple play service with high quality performance in the household.

#### TR-069 Remote Management

The P-870HW-51a v2 Series provides DSL Forum compliant TR-069 remote management function, it could speed up your deployment with the default Auto-Configuration Server (ACS) for auto-configuration and dynamic service provisioning. It can also help VDSL service provider reduce operation effort as well as enhance customer satisfaction.



802.11g Wireless VDSL2  
4-port Switch Router

**P-870HW-51a  
v2**

# Specifications

## System Specifications

### VDSL Compliance

- ITU.T G.993.1 VDSL1
- ITU.T G.993.2 VDSL2 (Profile 8a, 8b, 8c, 8d, 12a, 12b and 17a support)
- Support VDSL band plan, Annex A, Annex B, 997, 998
- Support up to 100 Mbps downstream and 45 Mbps upstream
- Rate adaption
- SRA (Seamless Rate Adaption)
- UPBO (Upstream Power Back-Off)
- VDSL OAM communication channels
- Dual latency support in VDSL mode
- INP value up to 16
- Trellis coding
- PhyR PHY level retransmission technology
- PTM mode
- PPPoE (RFC2516)

### Wireless

- IEEE 802.11b/g compliance
- Data rates: 54 Mbps and auto fallback support
- Static and dynamic WEP key (64/128 bit)
- WPA/WPA-PSK
- WPA2/WPA2-PSK
- MAC address filter: (32)
- Auto channel selection
- Multiple SSID (4)
- WDS (Wireless Distribution System)
- Multicast traffic pass-through
- WPS (Wireless Protected Setup)

### Switch

- IEEE 802.3 10BaseT Ethernet
- IEEE 802.3u 100BaseTx Ethernet
- Flow control in full duplex mode
- Back pressure in half duplex mode

### Management

- Web
- CLI (Command Line Interpreter)
- SSH (Secure Shell function)
- Remote management for Web/Telnet/FTP
- Access control for remote management
- Firmware upgrade via Web/FTP/TFTP
- Text based configuration
- DSL forum TR-069
- DSL forum TR-064\*
- DSL forum TR-111\*
- 802.1ag (connectivity fault management)\*

### QoS

- Support flexible packet classification
- Support 4 priority queue with strict priority scheme
- Support tag processing
- Queuing and scheduling
- Traffic shaping
- Auto priority mapping
- Queue management

### Hardware Specifications

- WAN: one RJ-11 interface for VDSL (over POTS)
- LAN: four 10/100 auto MDI/MDI-X RJ-45 interface
- Wireless: one non-detachable 3 dBi antenna

- WLAN/WPS button: one real button for WLAN on-off and WPS configuration
- Power switch: one push type button
- Reset: one restore factory default button
- Status LEDs indicator
- 12 V DC 1000 mA
- Power supply: 120 V/230 V/240 V

### Physical Specifications

- Weight: 366 g (0.81 lb)
- Dimensions:  
189 (W) x 132 (D) x 40 (H) mm  
(7.44 (W) x 5.2 (D) x 1.57 (H) inch)

### Environmental Specifications

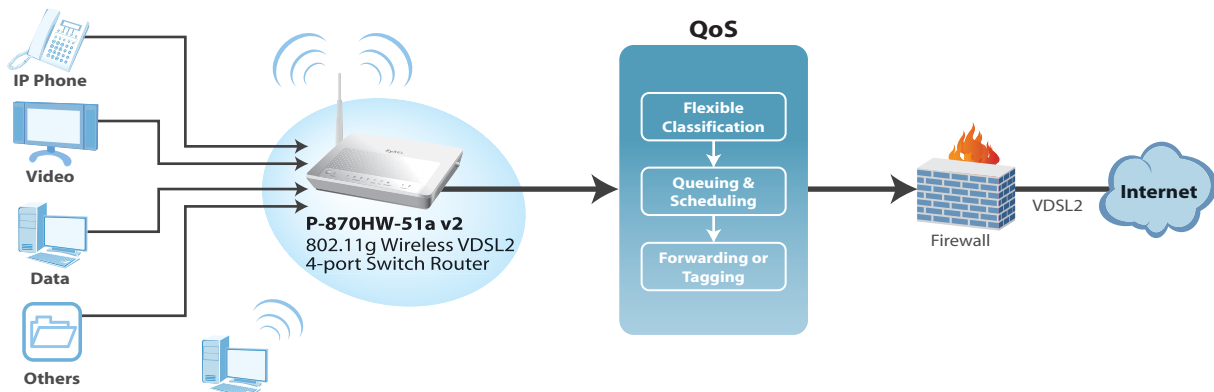
- Operating temperature: 0°C ~ 40°C
- Storage temperature: -20°C ~ 60°C
- Operating humidity: 20% ~ 85% RH (non-condensing)
- Storage humidity: 20% ~ 90% RH (non-condensing)

### Certification

- EMC
  - EN55022 Class B
  - EN61000-3-2: 2000
  - EN61000-3-3: 1995 + A1: 2001
  - FCC Part 15 (Class B)
- Safety
  - CSA 60950-1
  - UL 60950-1
  - EN 60950-1: 2001+A11
  - IEC 60950-1: 2001

\* Firmware upgradeable for future enhancement.

## Application Diagram



For more product information, visit us on the web at [www.ZyXEL.com](http://www.ZyXEL.com)

