



- Dual mode VDSL2/ADSL2+ functionality
- 802.11n technology for extreme performance and coverage
- QoS support
- TR-069 remote management

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

### Benefits

#### Dual mode VDSL2/ADSL2+ functionality

ZyXEL P-870HN-5xb Series supports dual-mode functionality that enables service providers to support both ATM and PTM networks with a single device. It offers bi-directional high speed VDSL2, VDSL connection with speed up to 100/45 Mbps in PTM mode and 24/1 Mbps ADSL2+/ADSL2/ADSL connections in ATM mode. This powerful feature ensures the service provider to support connections over newer IP networks and also on their legacy ATM networks with a single CPE gateway.

#### 802.11n technology for extreme performance and coverage

The P-870HN-5xb Series featuring 802.11n technology provides the ultimate solution for both speed and coverage. With a wireless data rate of up to 300 Mbps, the P-870HN-5xb Series provides stable, reliable wireless connections for high speed data and multimedia use. It eliminates dead zones and extends coverage by using coming IEEE 802.11n technology while remaining backwards compatible with any IEEE 802.11b/g Wi-Fi certified device.

#### Quality of Service (QoS) support

The P-870HN-5xb Series comes equipped with essential ATM and IP QoS features. Service providers can freely design their QoS policy and prioritize the mission-critical services such as IPTV and VoIP based on their service plan offerings. This increases network efficiency and productivity helping enable service providers to bring real multi-play into residential user's lives.

#### TR-069 remote management

With the P-870HN-5xb Series incorporating TR-069 standard management specifications, service providers can manage and configure these client devices remotely without any end-user's intervention. This feature offers users a truly "plug-and-play" experience while reducing deployment complexity, therefore saving service provider's operational and maintenance costs.

**P-870HN-5xb Series**  
**802.11n VDSL2 4-port Gateway**



VDSL2



VDSL2  
ADSL2+  
Fallback



DS/US  
100/45 Mbps



Ethernet  
10/100 Mbps



TR-069





### 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)
- Supports VDSL band plan
- Supports up to 100 Mbps downstream and 45 Mbps upstream
- Rate adaption
- Seamless Rate Adaption (SRA)
- Upstream Power Back-Off (UPBO)
- Dual latency support in VDSL mode
- INP values up to 16
- Trellis coding
- PhyR PHY level retransmission technology
- PTM mode
- PPPoE (RFC2516)

##### ADSL Compliance

- G.992.1 (G.dmt)
- G.992.2 (G.lite)
- G.992.3 (ADSL2)
- G.992.5 (ADSL2+)
- Reach-Extended ADSL (RE ADSL)
- Seamless Rate Adaptation (SRA)
- Rate adaptation
- ADSL physical connection ATM AAL5 (ATM Adaptation Layer type 5)
- Support multi-protocol over AAL5 (RFC2684/1483)
- PPP over ATM AAL5 (RFC2364)
- PPPoE (RFC 2516)
- MAC encapsulation routing
- Support VC-based and LLC-based multiplexing
- Support up to 8 PVCs

##### Wireless

- IEEE 802.11b, g, n compliant
- Frequency: 2.4 GHz
- Data rate: 300 Mbps
- Static and dynamic WEP key (64/128 bit)
- WPA/WPA-PSK, WPA2/WPA2-PSK
- MAC address filter (up to 32)

- Auto channel selection
- Multiple SSID (up to 4)
- Wireless Distribution System (WDS)
- Multicast traffic pass-through
- Wireless Protected Setup (WPS)

##### Switch

- IEEE 802.3 10BASE-T Ethernet
- IEEE 802.3u 100BASE-Tx Ethernet
- Flow control in full duplex mode
- Back pressure in half duplex mode

##### QoS

- Supports flexible packet classification
- Supports tag processing
- Traffic shaping
- Queue management

##### Management

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

#### Hardware Specifications

- WAN:
  - One RJ-11 interface for VDSL (P-870HN-51b)
  - One RJ-45 interface for VDSL (P-807HN-53b)
- LAN: four 10/100 auto MDI/MDI-X RJ-45 interfaces
- Wireless: one external 2 dBi antenna and one 2 dBi internal antenna
- WLAN/WPS button: one physical button for WLAN on-off and WPS configuration
- Power switch: one push type button
- Reset: one reset/restore factory default button
- Status LEDs indicators: POWER, ETHERNET, DSL, INTERNET, WLAN
- Power supply: 120 V/230 V/240 V
- 12 V DC 1 A

#### Physical Specifications

- Item dimensions (WxDxH):  
231 x 147 x 57 mm (9.09" x 5.79" x 2.24")
- Item weight: 420 g (0.93 lb.)
- Packing dimensions (WxDxH):  
330 x 185 x 93 mm (12.99" x 7.28" x 3.66")
- Packing weight: 950 g (2.1 lb.)

#### Environmental Specifications

##### Operating Environment

- Temperature: 0°C to 40°C (32°F to 104°F)
- Humidity: 20% to 85% RH (Non-condensing)

##### Storage Environment

- Temperature: -20°C to 60°C (-4°F to 140°F)
- Humidity: 20% to 90% RH (Non-condensing)

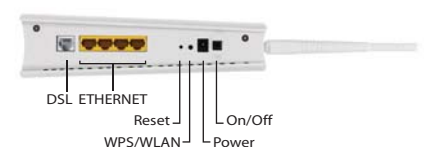
#### Certification

- 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

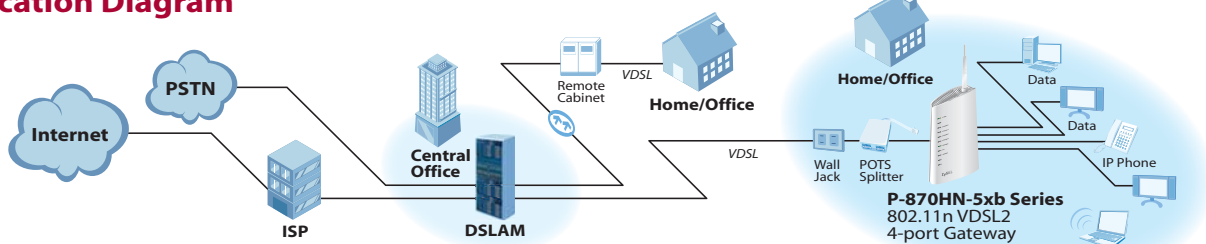
### Product Description

- P-870HN-51b  
802.11n VDSL2 4-port Gateway over POTS
- P-870HN-53b  
802.11n VDSL2 4-port Gateway over ISDN

### Rear Panel



### Application Diagram



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

