



- High-Speed ADSL2+ Bonded Internet Access
- 802.11n Wireless Connectivity
- Stateful Packet Inspection and Anti Denial-of-Service Attack
- Flexible QoS Function for Multiple Services
- TR-069 Remote Management

## **P-663HN-51** **802.11n ADSL2+ Bonded** **4-port Gateway**

## **High-Speed Wi-Fi 11n ADSL2+ Bonded Gateway for Triple-play Services**

### **Benefits**

#### **High-Speed ADSL2+ Bonded Internet Access**

Loop bonding technology provides the telecom industry with a revolutionary technique to combine multiple ADSL2+ connections into a single, aggregated connection. Supporting up to ultra-high 48 Mbps downstream and 2 Mbps upstream data rates, as well as high-speed data and derived voice applications, service providers can offer advanced bandwidth-dependent services such as broadcast video and video on demand (VOD) to customers beyond the reach of central offices or digital loop carriers. Bonded ADSL2+ supports multiple high-definition television streams at significantly longer distances than other existing xDSL technologies.

#### **802.11n Wireless with WPS (Wi-Fi Protected Setup)**

The P-663HN-51 featuring 802.11n Draft 2.0 technology provides an ultimate solution for both speed and coverage. With data rates up to 300 Mbps, the P-663HN-51 provides stable and reliable wireless connections for high-speed data and multimedia delivery. It eliminates dead zones and extends coverage by employing the IEEE 802.11n technology while retaining backward-compatibility with any IEEE 802.11b/g Wi-Fi certified device.

Wi-Fi Protected Setup (WPS) is a standard for easy and secure establishment of wireless networks. WPS automatically configures new wireless networks, adds new devices and enforces security with strong 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.

#### **QoS Support**

The P-663HN-51 comes with complete ATM and Ethernet QoS mechanisms, as well as various IP QoS features (Packet classification/Rate Limitation/Queue Scheduling). The seamless QoS-mapping not only allows consistent and appropriate traffic treatment of packets, but also enables fulfillment of triple-play services.

#### **TR-069 Remote Management**

P-663HN-51 provides Broadband Forum-compliant TR-069 remote management functionality speeding up deployment tasks when paired with the default Auto-Configuration Server (ACS) for auto-configuration and dynamic service provisioning. It also helps service providers reduce operation effort while enhancing customer satisfaction.



## Specifications

### System Specifications

#### ADSL Compliance

- G.992.1 (G.dmt) Annex A compliant
- G.992.2 (G.lite), Annex A compliant
- ANSI T1.413 compliant
- G.992.3 (ADSL2) compliant, Annex A, L and M
- G.992.5 (ADSL2+) compliant, Annex A, L and M
- G.998.1 (G.bond-ATM) ATM-based multi-pair bonding
- I.432 ATM physical layer compliant
- Reach-Extended ADSL (RE ADSL)
- ADSL physical connection ATM AAL5 (ATM Adaptation Layer type 5)
- Supports multi-protocol over AAL5 (RFC2684/1483)
- PPP over ATM AAL5 (RFC2364)
- Supports VC-based and LLC-based multiplexing
- ATM traffic shaping (CBR, VBR-rt/nrt, UBR)
- I.610 F4/F5 OAM
- Broadcom PhyR, PHY level retransmission technology

#### Wireless

- IEEE 802.11n draft 2.0 compliance, backward compatible with 11b/g
- Data rates: 300 Mbps and auto fallback support
- Frequency range: 2.4 GHz
- MAC address filter: (32)
- WEP data encryption 64/128 bit
- WPA/WPA-PSK
- WPA2/WPA2-PSK
- Auto channel selection
- Multiple SSID (4)
- WDS (Wireless Distribution System)
- WMM QoS support
- WPS (Wireless Protected Setup)
- IEEE 802.1x (EAP-MD5, TLS and TTLS)

#### 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

#### Bridge/Router Functions

- IEEE 802.1D transparent bridge
- PPPoE client (RFC 2516)
- DHCP client/server/relay
- DNS proxy
- Dynamic DNS
- RIP I/RIP II supported
- IGMP v1, v2, v3
- IGMP snooping and proxy
- MAC encapsulation routing/IPoE

#### QoS

- Supports flexible packet classification
- Supports 4 priority queue with strict priority scheme
- Supports tag processing
- Queuing and scheduling

#### Security

- PAP/CHAP
- MS-CHAP v1/v2

#### Firewall

- DoS prevention
- Stateful packet inspection
- At least 20 ACL rules
- Protocol and generic packet filter
- SIP ALG

#### Management

- HTTP Web GUI
- CLI (Command Line Interpreter)
- SSH (Secure Shell function)
- ROM-D
- Flexible remote management by protocol (Web/Telnet/FTP)
- Configurable access control for remote management by interface (LAN/WAN/WLAN)
- Firmware upgrade via Web/FTP/TFTP
- Text based configuration
- SNMP v1, v2 with MIB II
- Broadband Forum TR-069 (w/HTTPS), TR-098

#### Others

- Power adapter complies with EISA/CEC Tier II and Energy Star version 2.0

### Hardware Specifications

- WAN: One RJ-14 interface for ADSL bonding (over POTS)
- LAN: Four auto MDI/MDI-X 10/100Base-Tx Ethernet RJ-45 ports
- Wireless: One external 2 dBi non-detachable antenna and one 3 dBi internal antenna
- WLAN/WPS button: One button for WLAN on-off and WPS configuration
- Power switch: Push type
- Reset button: One button for restore factory default settings
- 12 V DC 1500 mA
- Power supply: 120 V/230 V/240 V

### Physical Specifications

- Weight: net 0.59 kg, gross 1.16 kg
- Item dimensions: 241 (W) x 165 (D) x 63 (H) mm (9.49 (W) x 6.49 (D) x 2.48 (H) inches)
- Packing dimensions: 360 (W) x 200 (D) x 110 (H) mm (14.17 (W) x 7.87 (D) x 4.33 (H) inches)

### Environmental Specifications

- Operating environmental:
  - Temperature: 0°C ~ 40°C
  - Humidity: 20% ~ 85% RH (Non-condensing)
- Storage environmental:
  - Temperature: -20°C ~ 60°C
  - Humidity: 20% ~ 90% RH (Non-condensing)

### Certifications

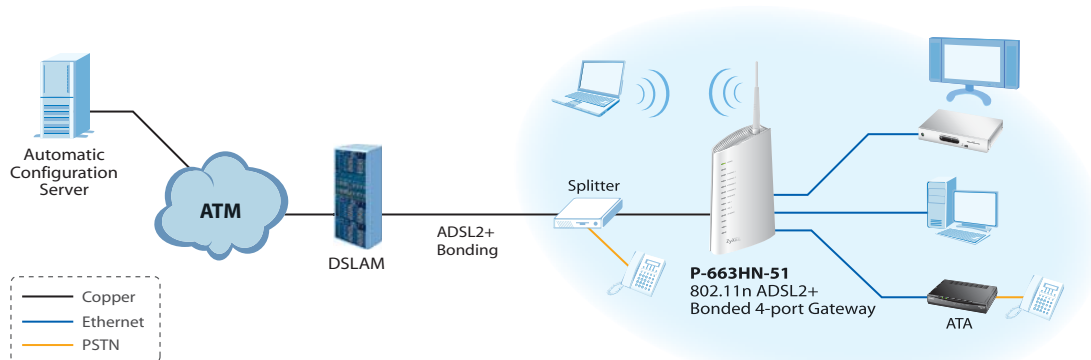
#### EMC

- EN55022 Class B
- EN61000-3-2: 2000
- EN61000-3-3: 1995+A1: 2001
- FCC Part 15 (Class B) & FCC Part 68

#### Safety

- CSA 60950-1
- UL 60950-1
- EN 60950-1: 2001+A11
- IEC 60950-1: 2001

## Application Diagram



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

