# ZyXEL

# VDSL-class Bandwidth with ADSL2+ Port Bonding

- ADSL2/2+, Annex L and Annex M
- 2 ADSL2+ Port Bonding
- Stateful Packet Inspection
- Anti Denial-of-Service Attack and Port Scanning
- IGMP Proxy/Snooping for IP Multicast
- Port-based VLAN to Support Triple-play Services

ZyXEL P-663H-51 is an all-in-one ADSL2+ gateway for Home, SOHO and SMB applications. Featuring two ADSL2+ WAN ports and four 10/100 Mbps Ethernet LAN ports, the P-663H-51 provides SPI (Stateful Packet Inspection), anti-DOS (Denial of Service) and many Firewall security features to protect against network intrusion and attacks.

In addition, advanced features such as IP multicasting, IGMP proxy/snooping, fast leave and IP QoS fulfill the need of triple-play services, while the G.bond-based port bonding feature groups the 2 ADSL2+ physical ports into a logical link. The link not only provides VDSL-equivalent bandwidth with much longer loop length, its loadbalance feature between the two ports also makes the P-663H-51 the best choice for business and high-end market applications.

# Benefits

# **Higher-speed Broadband Access**

The P-663H-51 has two ADSL2/2+ WAN ports. With the ATM-based multipaired bonding feature, the two ports can be grouped into a logical link boasting the bandwidth twice as fast as a single ADSL2/2+ port, and the bit rates of each individual port can be freely and independently changed by their respective PHY layer. If one of the member ports fails, the conveyed traffic will be moved to the other port. When the failed port recovers, it will seamlessly return to the logical link and share the transmission/reception of the upper-layer traffic.

ROUTER



ADSL2+ Bonded 4-port Router

P-663H-51



ADSL2+ Bonded 4-port Router

P-663H-51

#### **Robust, State-of-the-Art IP Security**

The P-663H-51 supports state-of-the-art Firewall features, Stateful Packet Inspection, anti-DoS (Denial of Service) and IP/MAC address spoofing protection for basic defense against hackers, network intruders and other hazardous threats.

## Sophisticated QoS for Triple-Play Services

The P-663H-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. The IGMP proxy/snooping and fast leave (v1, v2) features also supports the IP multicasting service easily.

# **Specifications**

## **ADSL Support**

- ADSL2/2+, Annex L and Annex M
- Support DELT (dual ended loop test)
- Rate adaptation (SRA)
- "Dying Gasp" functionality support to notify the DSLAM that power has been turned off

# **ATM Support**

- 8 PVCs Support
- RFC 1483/2684 Multiple Protocol over AAL5
- RFC 2364 PPP over AAL5
- RFC 2516 PPP over Ethernet
- VC and LLC Multiplexing
- Traffic Shaping UBR, CBR, VBR-nrt
- ATM Forum UNI 3.1/4.0 PVC
- I610 OAM remote F4/F5 loop-back, AIS, and RDI OAM cells
- ATM-based Multi-Pair Bonding (G.998.1)

# **Ethernet Functions**

- Default Bridging for user traffic
- ARP
- MAC count limiting
- 802.1Q Tag-Based VLAN
- 802.1P CoS with priority queuing

#### **IP Management**

- IP routing: TCP, UDP, ICMP, ARP
- VPN (IPSec, PPTP, L2TP) pass-through
- DHCP server (LAN port)
- DHC Relay/Client (WAN port)
- RADIUS client
- DNS repaly/proxy
- Dynamic DNS

- RIP/RIP v2 routing functions
- NAT/PAT/NAPT
- IGMP Proxy/snooping and fast leave (v1, v2)
- IP QoS
- UPnP IGD 1.0

#### Security

- Service access control based on incoming interface WAN or LAN
- Service access control based on source IP address
- Anti-Denial of Service, including SYNC flooding, IP Smurfing, Ping of Death, Fraggle, Teardrop, Land
- No response for WAN port scanning
- TCP/IP/port/Interface filtering rules
- Protect against IP and MAC address spoofing
- Stateful Packet Inspection

#### **Configuration and Management**

- Web-based GUI
- Command Line Interface (CLI)
- Telnet Remote Management
- TFTP FW upgrade and configuration backup/restore
- SNMPv1/v2c

## **Hardware Specifications**

- 1 RJ-11 connector for 2 ADSL2+ ports
- 4-port RJ-45 connectors for 10/100 Mbps with Auto MDI/MDIX
- Power switch
- Reset button to return to the default setting
- DC Power Jack (12 V, 1.5 A)

- LED
  - System LED
  - Alarm LED
  - 4 Ethernet LAN LEDs
  - 2 ADSL2+ LED

#### **Physical Specifications**

- Dimensions: 205 (W) x 145 (D) x 32 (H) mm
- Weight: 400 g

#### Power Input and Power Consumption

- 12 VDC (1.5 A)
- 12 watt (on board power consumption)

#### **Operating Environment**

- Temperature: 0 ~ 40°C
- Humidity: 20 ~ 85 % ( non-condensing)

## Certificate

- RoHS & WEEE
- Safety
- UL1950
- CSA C22.2 No. 950
- EMC
  - FCC Part 15 & Part 68 Class B

For more product information, visit us on the web www.ZyXEL.com