

# ZyXEL



## All-in-one ADSL2+ VoIP IAD for SOHO



- Support Open SIP v2 Standard
- Support ADSL2/2+ RE ADSL
- Two Built-in Phone Jacks for VoIP Applications over DSL/Cable Internet Connection
- Robust, State-of-the-Art Firewall Security
- Secured IPSec VPN Connection
- Multiple SIP Numbers and Multiple Voice Channels
- Easy Provisioning Management with TR-104 (customizable)

### Benefits

#### Supports Multiple SIP Numbers, and Automatic Number Assignment Mechanism

End-users can still use the 2 phone ports simultaneously even when your ITSP provides you with only one SIP number. By providing this convenient feature to the end-users, service providers get the opportunity to create more revenue.

#### Easy Installation and Auto-provisioning

The Auto-provisioning capability allows service providers to manage and configure the device remotely. This reduces the complexity and deployment cost to end-users.

#### Effective Network Bandwidth Management

The 2602H-DxA Series enables network administrators to allocate network resources while guaranteeing Quality of Service (QoS). Network Bandwidth Management increases productivity and efficiency by tailoring a system to specific demands such as time-sensitive VoIP and multimedia applications.

#### Robust Firewall and Secured VPN Connectivity

The ICSA-certified ZyNOS operating system ensures state-of-the-art SPI firewall protection especially against DoS attacks. The IAD provides the first line of defense against hackers, network intruders, and other malicious threats. In addition, IPSec VPN helps ensure secured transmission between two sites, allowing secure connection between telecommuters and branch offices without expensive lease lines.



# VOIP

ADSL2+ VoIP IAD

P-2602H-DXA  
SERIES



## Specifications

### DSL Features

- Support Multi-Mode Standard (ANSI T1.413, Issue 2; G.dmt (G.992.1); G.lite (G992.2))
- ADSL2 G.dmt.bis (G.992.3)
- ADSL2 G.lite.bis (G.992.4)
- ADSL2+ (G.992.5)
- Reach Extended ADSL (RE ADSL)
- ADSL Physical Connection ATM AAL5 (ATM Adaptation Layer Type 5)
- Support PPP over ATM AAL5 (RFC2364)
- PPP over Ethernet (RFC 2516)
- Support VC-based and LLC-based Multiplexing
- F4/F5 OAM
- Zero Configuration
- Annex M

### Router Features

- NAT (Including Multi-to-multi NAT)/SUA, 512 NAT Sessions per Host
- NAT Server (Port Forwarding)
- TCP/IP
- PPPoE Client
- DHCP Client/Server
- RIP I/RIP II Supported
- IP Multicasting, IGMP v1 and v2
- Dynamic DNS Support
- IP Alias

### Voice Functionality

- SIP (RFC 3261) v2
- SDP (RFC 2327)
- RTP (RFC 1889)
- RTCP (RFC 1890)
- Echo Cancellation: G.168
- VAD (Voice Activity Detection)
- Silence Suppression
- CNG (Comfort Noise Generation)
- Support TOS & Diffserv Tagging
- VLAN Tag Support
- Codec: G.711 (PCM A-law or  $\mu$ -law selectable), G.729a/b
- Option: G.726 (ADPCM), G.723\*
- DTMF Detection
- Multiple SIP Number Supports
- Multiple Channel Supports
- Modem and Fax Tone Detection
- T.38 Fax Relay
- Polarity Reverse\*
- DNS SRV\*

### Phone Features

- CW (Call Waiting)
- Call Waiting with Caller ID
- Call Forwarding (Unconditional/Busy/No Answer)
- Call Transferring
- Three Way Conference with Local Mixing
- CLIP (Calling Line Identification Presentation)
- CLIR (Calling Line Identification Restriction)
- Call Hold/Call Retrieve
- Incoming Call Policy (Call Accept/Call Forward/Call Block)
- Second Call
- Internal Call
- Early Media
- Flash Hook Timer
- Music on Hold
- MWI (Message Waiting Indicator (RFC 3842))
- IVR (Interactive Voice Response)
- Speed Dial (Phone Book)
- DND (Do Not Disturb)\*
- MCID (Malicious Call Identification)\*
- Call Block\*
- Distinctive Ringing\*
- Last Number Redial\*
- COLP (Connected Line Identification Presentation)\*
- COLR (Connected Line Identification Restriction)\*
- Call Filtering\*
- Automatic Call Return\*
- MWI by E-mail\*
- Fixed Destination Call\*

### Network Functionality

- Friendly Web-based Configuration Tool
- SNMP v1 & v2 with MIB II
- Remote FTP/TFTP Firmware Upgrade and Configuration Backup/Restore
- Secure TFTP and HTTP Auto-provisioning (Default by 3DES Encryption)
- IVR for IP Address and FW Upgrade
- 2-tier Web and Management: Admin & Guest Access Authority (by project)
- Remote Management Control: Telnet, FTP, Web
- Easy Provisioning Management of TR-069 and TR-104\*

### IP Management

- SUA/NAT Internet Sharing
- Multimedia Applications Pass-through NAT
- DHCP Server/Client/Relay
- DNS Proxy
- UPnP Support

### Firewall Security

- ICSA Certified firewall with Stateful Packet Inspection
- Prevent DoS Attack
- Access Control of Service
- Content Filtering: URL Blocking such as ActiveX, Java, Cookies and Web
- IP & Generic Packet Filtering
- Real-time Attack Alert and Log

### Virtual Private Network

- 5 IPsec VPN Tunnels (2 Concurrent VPN Tunnels)
- IKE and Manual Key Management
- AH and ESP Protocol
- DES/3DES and AES Encryption (S/W)
- SHA-1 and MD5 Authentication
- Tunnel and Transport Mode Encapsulation
- IPsec NAT Traversal
- NETBIOS Pass-through for IPsec

### Hardware Specifications

- RJ-11 DSL Port for ADSL Annex A and RJ-45 DSL Port for ADSL Annex B and U-R2
- 4-port Auto MDI/MDI-X 10/100M Ethernet Ports
- Restore Factory Default Button
- 2 FXS POTS Interface

### Physical Specifications

- Dimension: 165 (W) x 65 (D) x 242 (H) mm
- Weight: 600g

### Environmental Specifications

- Operating Temperature: 0°C ~ 40°C
- Storage Temperature: -30°C ~ 60°C
- Operating Humidity: 20% ~ 95% RH
- Storage Humidity: 20% ~ 95% RH

\* Firmware upgradeable for future enhancement

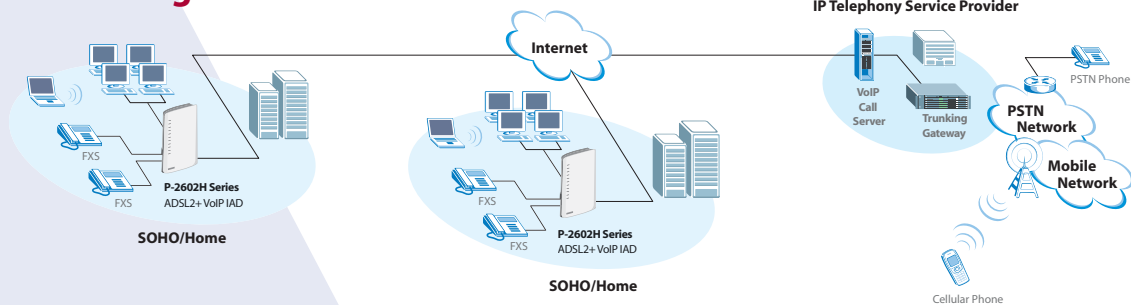
## Product Description

**P-2602H-D1A** ADSL2+ VoIP IAD over POTS

**P-2602H-D3A** ADSL2+ VoIP IAD over ISDN

**P-2602H-D7A** ADSL2+ VoIP IAD over U-R2

## Application Diagram



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

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