

ZyXEL



Enjoy Internet Phone Service

- **Support Open SIP v2 Standard**
- **Effective Media Bandwidth Management**
- **Four Built-in Phone Jacks for VoIP Applications over Internet Connection**
- **Robust, State-of-the-Art Firewall Security**
- **Easy Installation and Management with Auto-provisioning**



Benefits

Support Multiple SIP Phone Numbers and Automatic Number Assignment Mechanism

End users can use 4 phone lines simultaneously. The P-2304R-P1 automatically uses one of the phone ports for communication. With support of G.729 on each phone port, the P-2304R-P1 is ideal in a network environment with limited bandwidth.

Integrated NAT Router Capability

The Network Address Translation (NAT) feature on the P-2304R-P1 allows multiple computers on the LAN to share a single Internet connection. This eliminates purchases of additional network routing devices and provides an affordable and easy-to-use Internet sharing experience.

Rich Call Features

The P-2304R-P1 comes with a comprehensive set of phone features such as the built-in phone book. In addition, the keypad allows users to forward calls, transfer calls, perform three-way call conferencing, etc.

Effective Network Bandwidth Management and State-of-the-art Security Firewall

The P-2304R-P1 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. In addition, the ICSA-certified ZyNOS operating system ensures state-of-the-art SPI firewall protection especially against DoS attacks. Thus the P-2304R-P1 provides the first line of defense against hackers, network intruders, and other malicious threats.

Easy Provisioning Management with TR-104 (customizable)

The TR-104 Provisioning parameter for VoIP CPE defines the data model for provisioning of a VoIP CPE device by an Auto-configuration Server (ACS) using the mechanism. With TR-104 support, service providers can easily manage and configure the P-2304R-P1 remotely using an ACS server.

VoIP Station Gateway

P-2304R-P1



VOIP



Specifications

Hardware

- Built-in TWO Auto MDI/MDI-X 10/100M RJ-45 Ports for LAN & WAN
- 4 FXS POTS Interface for Analog Telephone (SLIC)
- Restore Factory Defaults/Reboot Button

Router Features

- NAT (Includes Multi-to-multi NAT)/SUA
- 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 μ -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)*
- Conference Call with Media Server*
- Call Filtering*
- Call History*
- Automatic Call Return*
- MWI by e-Mail*
- Fixed Destination Call*

Network Functionality

- Friendly Web-based Configuration Tool
- 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)

NAT Traversal

- Simple Traversal of UDP over NAT (STUN, RFC3489)
- Outbound Proxy
- Manual Configured SIP and RTP (Fake address)

Management

- Embedded FTP/TFTP Server for Firmware Upgrade and Configuration Backup and Restore
- Easy Provisioning Management of TR-104 (by project)
- Remote Management Control: Telnet, FTP, Web
- 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

Environmental Specifications

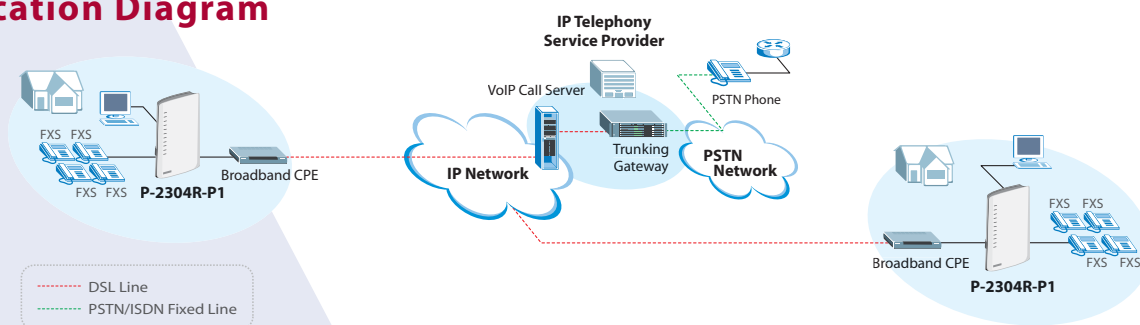
- Operating Temperature: 0°C ~ 40°C
- Storage Temperature: 0°C ~ 60°C
- Operating Humidity: 10% ~ 85% RH
- Storage Humidity: 10% ~ 90% RH

Physical Specifications

- Dimensions: 115 (W) x 51 (D) x 165 (H) mm
- Weight: 295 g

*Firmware upgradeable for future enhancement

Application Diagram



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

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