



Integrated ADSL modem and router *plus* SIP-based Voice over IP for telephone calls over the Internet

Zoom's TelePort feature allows one or more normal phones to place and receive calls worldwide over the Internet, and also to connect to any phone on the Public Switched Telephone Network.

Clear natural-sounding voice quality with Quality of Service (QoS) support

Integrated design with built-in firewall simplifies setup and improves security

Built-in router provides shared Internet access for up to 253 concurrent users. Up to 5 computers can plug directly into the X5v

Built-in 10/100 four-port Ethernet Switch for computers, hubs, wireless access points

Advanced Firewall includes Stateful Packet Inspection, protection from Denial of Service Attacks, NAT, and more

Works with any operating system that supports an Internet browser including Windows, Macintosh and Linux

Two year warranty



ZoomTel ADSL X5v

ADSL Modem/Router/Gateway/Firewall/4-port Switch
plus VoIP for voice calls over the Internet

Model 5585 for Annex A (ADSL over analog lines)

Model 5586 for Annex B (ADSL over ISDN lines)

The ADSL X5v integrates a full-rate ADSL modem, router, firewall, four-port 10/100 Ethernet switch, USB port, and VoIP analog telephone adapter into a single cost-effective product.

The TelePort™ feature provides a phone port that lets you use your standard single-line phone for conventional phone calls or free and very low-cost Voice Over IP (VoIP) calls.* Because the X5v integrates Internet telephony with a full featured ADSL gateway, setup is easy and system security is ensured. Integration of the voice processing with the firewall in the router ensures reliability of VoIP calls and reduces service provider support requirements.

The X5v's built-in four-port Ethernet switch eliminates the need for a separate Ethernet hub for most home networks and many small offices. The USB port allows direct connection of a fifth computer to the ADSL X5v. By adding external hubs or a wireless access point, the X5v can provide simultaneous Internet access for up to 253 computers.

The Local Phone port of the Model 5585 and 5586 includes the TelePort, an intelligent relay that allows a single phone to place and receive both VoIP calls and calls over the Public Switched Telephone Network (PSTN). PSTN Fail-Over allows the X5v to automatically route calls over the dial-up phone network when power is lost. PSTN support also allows emergency dialing using services like 911 or 112 calling.

The X5v uses Session Initiation Protocol (SIP) for compatibility with a wide range of VoIP infrastructure equipment. Quality of Service prioritizes voice data packets over other packets, so that voice quality remains high, even when there is substantial non-voice traffic.

Setup is easy using any authorized local or remote computer's Web browser and the graphical user interface built into the X5v. After setup, the X5v voice features work even without an attached computer. Flash memory allows easy firmware updates, including additions to the voice compression codecs. The integrated VoIP terminal adapter can be configured remotely using a TFTP download, from the VoIP service provider.

The X5v is built and supported by Zoom Telephonics, a publicly traded company (NASDAQ:ZOOM) with over 27 years of experience in telephony and data communications.

* Voice features of the Model 5585 and Model 5586 require a VoIP service.

ADSL X5v

ADSL Modem + Router + Gateway + Firewall + 4-port Switch
plus VoIP for voice calls over the Internet

Model 5585 - Annex A
Model 5586 - Annex B

ADSL Gateway Specifications

ADSL Compliance	<ul style="list-style-type: none">Compliant with ADSL standards:<ul style="list-style-type: none">Full-rate ANSI T1.413 Issue 2, G.hs (G.994.1) and ITU G.dmt (G.992.1) standardsSplitterless G.lite (G.992.2) specificationAnnex A - Model 5565Annex B - Model 5566DMT modulation and demodulationFull-rate adaptive modem<ul style="list-style-type: none">Maximum downstream rate of 8 MbpsMaximum upstream rate of 896 KbpsSupports splitterless ADSL implementationInteroperable with all major DSLAM manufacturers	Router Characteristics	<ul style="list-style-type: none">Static routingRIP V2, RIP V1DNS ProxyPort ForwardingDHCP (Dynamic Host Configuration Protocol) server and clientNAT (Network Address Translation)NAPT (Network Address and Port Translation)Simultaneous USB and Ethernet operationTFTP - Trivial File Transfer Protocol support (RFL 1350)STUN - Simple Traversal of UDP over NATs (RRFC 3789)
ATM Protocols	<ul style="list-style-type: none">WAN mode support: PPP over ATM (RFC 2364) and PPP over Ethernet (RFC 2516)LAN mode support: bridged/routed Ethernet over ATM (RFC 1483) & Classical IP over ATM (RFC 1577)ATM Forum UNI 3.1/4.0 PVCUp to eight virtual circuitsATM segmentation and re-assemblyATM AAL5 (adaption layer type 5)OAM F4/F5	Phone Ports	<ul style="list-style-type: none">Two RJ-11 jacks, one for the ADSL/PSTN connection and one filtered jack for local phones
Bridge Mode	<ul style="list-style-type: none">Ethernet to ADSL self learning - Transparent Bridging (IEEE 802.1D)Supports up to 128 MAC learning addressesBridge MAC Address Filtering	USB Interface	<ul style="list-style-type: none">Compliant with USB Specification, Revision 1.1Full-speed USB (12 Mbps)
Security	<ul style="list-style-type: none">SPI (Stateful Packet Inspection) FirewallProtection from DOS (Denial of Service) AttacksUser authentication for PPPPAP (Password Authentication Protocol)CHAP (Challenge Authentication Protocol)Password protected system management	Status Indicators	<ul style="list-style-type: none">Nine indicators - power, link, data, USB, four LAN port connection indicators & VoIP
Ethernet Interface	<ul style="list-style-type: none">IEEE 802.3 compliantFour 10/100 Mbps auto-sensing RJ-45 ports	HTML Graphic User Interface	<ul style="list-style-type: none">Password protected accessMenu-selected firmware upgradeWAN and LAN side connection statisticsConfiguration of static routes and routing tableConfiguration of NAT/NAPTSelection of bridge or router modeSpecification of PPP user ID and passwordConfiguration of virtual circuits
		Warranty	<ul style="list-style-type: none">2 years
		Size	<ul style="list-style-type: none">19 x 14.6 x 3.2 cm; 7.50 x 5.75 x 1.25 inches
		Regulatory Approval	<ul style="list-style-type: none">CE, UL, C-UL, FCC Part 15B, FCC Part 68, CS-03

Voice over IP Analog Telephone Adapter Specifications

Analog Voice Port	<ul style="list-style-type: none">Type: Loop-start FXS interfaceDTMF tone detection/generation	Voice Compression Codex	<ul style="list-style-type: none">G.729A, G.711 A-Law, G.711 U-Law
Off-hook Detection	<ul style="list-style-type: none">V.21/V.25 Modem/fax tone detectionRing occurs for incoming VoIP and POTS callsRing generation with 5 Ringer Equivalents - supports more than 5 typical telephones	Line-echo Cancellation	<ul style="list-style-type: none">G.165, G.168 compliant8 to 128 msec configurable echo lengthNonlinear echo suppression
Call Control VoIP Protocol	<ul style="list-style-type: none">SIP (RFC 3261)Digest Authentication using MD5Record-Route HeadersDistinct SIP Proxy separate from SIP Domain/Realm	Voice Features	<ul style="list-style-type: none">Voice activity detection (VAD)Comfort noise generation (CNG)Dynamic jitter buffer (adaptive)Packet Loss ConcealmentBell 202 and V.23 Caller IDQuality of Service (QoS) provides priority for RTP (voice audio) traffic sent through the routerSTUN support for voice traffic

System Requirements

Any Windows, Macintosh, or Linux computer with an Ethernet port.
OR Windows 98SE, ME, 2000 computers with a USB port and a 200 MHz or faster processor. **OR** Windows XP computers with a USB port and a 400 MHz or faster processor.

Package contents:

- X5v ADSL Gateway
- Ethernet cable
- USB cable
- Phone cable
- CD ROM
- User manual
- Power adapter



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