



**ADSL 2/2+ compliant for faster ADSL speeds and extended distances at which high-speed data can be delivered**

**Built-in router provides shared Internet access for up to 253 concurrent users**

**Built-in 10/100 four-port Ethernet switch**

**Allows concurrent use of USB and Ethernet ports for Internet sharing**

**Advanced security from hacker attacks with Stateful Packet Inspection (SPI) and Network Address Translation (NAT) firewalls**

**Works with all popular ADSL services**

**Fast and easy installation with auto configuration**

**Software upgradeable**

**Ethernet interface for use with most operating systems**

**USB for connection to Windows computers**

**SNMP support (Simple Network Management Protocol)**

**Documentation provided in English, French, German, Greek, Portuguese, Spanish, and Turkish**

**Works great with wireless access points or gateways**

**Works with most computer operating systems, including Windows®, Macintosh®, and Linux**

**Two year warranty**



# Zoom ADSL X5

**ADSL 2/2+ Modem/Router/Gateway/Firewall/  
4-port Switch with Ethernet and USB Interfaces**

**Model 5654 - Annex A  
Model 5624 - Annex B**

The ADSL X5 integrates a full-rate ADSL 2/2+ modem, router, firewall, four-port 10/100 Ethernet switch and a USB port into a single cost-effective product. Concurrent Ethernet and USB connections are supported for flexibility in operating with a range of devices. Up to five computers can be plugged into the X5 directly and each can enjoy simultaneous independent Internet access.

The Model 5654 and the Model 5624 are compatible with older ADSL protocols as well as the new ADSL 2/2+ standards for download speeds of up to 24 Mbps. The Model 5654 supports Annex A, ADSL over POTS, while the Model 5624 supports Annex B, ADSL over ISDN.

The built-in four-port Ethernet switch eliminates the need for a separate Ethernet hub for most home networks and many small offices. The Ethernet ports on the X5 provide connection to computers running most operating systems, including Windows 95, 98, 98SE, 2000, XP and Me as well as Linux, Unix, and Mac Operating systems. The USB port supports connection to a Windows computer. The X5 can also be plugged into a hub or wireless access point to provide concurrent Internet access for up to 253 networked computers.

Security features include Network Address Translation (NAT), and Stateful Packet Inspection (SPI). The NAT firewall hides computers on the local area network from uninvited access through the Internet. SPI assesses the protocol and packet addresses being received to determine if the information should be passed through the firewall to the connected computers. SPI and NAT protect against Internet worms and Denial of Service attacks, some of the most publicized forms of malicious intrusion from the Internet.

Setup is easy using any authorized local or remote computer's Web browser and the intuitive graphical user interface. An auto configuration option automatically establishes the protocol and encapsulation used by the ADSL service. Simple Network Management Protocol (SNMP) is supported for remote maintenance by network administrators.

Zoom ADSL gateways are backed by a two year warranty and over 27 years of experience in the design and support of communication products.

## Specifications

### ADSL Compliance

- Compliant with ADSL standards:
  - Full-rate ANSI T1.413 Issue 2, ITU G.dmt (G.992.1) standards
  - Splitterless G.lite (G.992.2) specification
  - Annex A (Model 5654)
  - Annex B (Model 5624)
- Compliant with ADSL 2 standards:
  - ITU G.992.3
  - ADSL Annex L (reach extended DSL)
- Compliant with ADSL 2+ standards:
  - G.992.5
- DMT modulation and demodulation
- Full-rate adaptive modem
  - Maximum downstream rate of 24 Mbps
  - Maximum upstream rate of 1024 Kbps
- Supports splitterless ADSL implementation
- Interoperable with all major DSLAM manufacturers

### ATM Protocols

- WAN mode support: PPP over ATM (RFC 2364) and PPP over Ethernet (RFC 2516)
- LAN mode support: Bridged/Routed IP over ATM (RFC 1483) and Classical IP over ATM (RFC 1577)
- ATM Forum UNI 3.1/4.0 PVC
- Up to eight virtual circuits
- ATM segmentation and re-assembly
- ATM AAL5 (adaption layer type 5)
- OAM F4/F5

### Bridge Mode

- Ethernet to ADSL self learning - Transparent Bridging (IEEE 802.1D)
- Supports up to 128 MAC learning addresses

# ADSL X5

ADSL 2/2+ Modem/Router/Gateway/Firewall/  
4-port Switch with Ethernet and USB Interfaces

Model 5654 - Annex A

Model 5624 - Annex B

## Specifications (continued)

Router Mode	<ul style="list-style-type: none"><li>• Static routing</li><li>• DNS Proxy</li><li>• IP filtering</li><li>• DHCP (Dynamic Host Configuration Protocol) server and client and Relay</li><li>• NAT (Network Address Translation)</li><li>• NAT (Network Address and Port Translation)</li><li>• RIP V1 and V2</li><li>• PPP Half Bridge</li><li>• Dynamic DNS</li><li>• Virtual Server/DMZ Support</li></ul>
Security	<ul style="list-style-type: none"><li>• Simultaneous USB and Ethernet operation</li><li>• Stateful Packet Inspection (SPI)</li><li>• User authentication for PPP</li><li>• PAP (Password Authentication Protocol)</li><li>• CHAP (Challenge Authentication Protocol)</li><li>• Password protected system management</li><li>• VPN passthrough: PPTP, L2TP, IPsec tunnel</li><li>• Bridge filtering</li><li>• IP filtering</li><li>• Blocked Protocols</li><li>• Black Lists</li><li>• Attack Protection</li><li>• Denial of Service Protection</li></ul>
Ethernet Interface	<ul style="list-style-type: none"><li>• IEEE 802.3 compliant</li><li>• Four 10/100 Mbps auto-sensing RJ-45 ports</li></ul>
USB Interface	<ul style="list-style-type: none"><li>• Compliant with USB Specification, Revision 1.1</li><li>• Full-speed USB (12 Mbps)</li></ul>
Management	<ul style="list-style-type: none"><li>• Password protected access</li><li>• Auto configuration</li><li>• Universal Plug and Play (UPnP)</li><li>• SNMP Version 1 and 2</li><li>• Remote and local command line or HTTP interface configuration</li><li>• Software upgradeable firmware through HTTP interface</li><li>• ATM traffic management functions support UBR, CBR, rt-VBR, nrt-VBR in accordance with ATM forum TM 4.1</li></ul>
Status Indicators HTML graphic user Interface	<ul style="list-style-type: none"><li>• Loads setup from a file for easy input of a service provider's configuration</li><li>• Seven indicators - power, link, four LAN port connection indicators, USB connection</li><li>• Firmware upgrades</li><li>• WAN and LAN side connection statistics</li><li>• Configuration of static routes and routing table</li><li>• Selection of bridge or router mode</li><li>• PPP user ID and password</li><li>• Configuration of virtual circuits</li></ul>
Warranty	<ul style="list-style-type: none"><li>• 2 years</li></ul>
Size	<ul style="list-style-type: none"><li>• 14.6cm x 11.2cm x 2.8cm (5.7 inches x 4.4 inches x 1.1 inches)</li></ul>
Regulatory Approval	<ul style="list-style-type: none"><li>• Model 5654: CE, UL, C-UL, FCC Part 15B, FCC Part 68, CS-03</li><li>• Model 5624: CE</li></ul>



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## System Requirements

- A computer with an Ethernet port and any operating  
system that supports TCP/IP (Windows, Mac, Linux or other)

### OR

- Windows 98, 98SE, 2000, Me computer with a USB port  
and 200 MHz processor

### OR

- Windows XP with a USB port and Pentium 400 MHz or  
faster and 64 MB RAM

## Package contents:

- Ethernet/USB modem
- Ethernet cable
- USB cable
- Phone cable
- CD ROM
- User manual
- Power adapter
- Filters and phone adapters:  
Filters and/or phone adapters may be included  
in some markets. Please check the package for  
specifics or ask your dealer. An ADSL filter  
allows a telephone, facsimile machine, or other  
telephone instrument to be used even when you  
are online with your ADSL modem.

\* ADSL 2/2+ requires support from your Internet Service Provider

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