



# Zoom ADSL X6



- ADSL 2/2+ Modem
- + Wireless Access Point
- + Router
- + Advanced Firewall
- + 4-port Switch

## Model 5690

- **ADSL2/2+ compliant modem for faster ADSL speeds**
- **802.11g Wireless Access Point with non-blocking 802.11b support**
- **Quality of Service (QoS) guarantees upstream bandwidth for high priority devices like gaming systems, VoIP adapters, or video**
- **Built-in router provides shared Internet access for up to 253 concurrent users**
- **Built-in 10/100 four-port Ethernet switch**
- **Easy setup with Zoom's Installation Wizard and auto configuration of ADSL settings**
- **On-board software meets WiFi Protected Access™, WPA™, WPA2™, and WEP standards**
- **Works with all popular ADSL services**
- **Virtual Private Networking Endpoint**
- **Advanced security from hacker attacks with Stateful Packet Inspection, Packet Filtering, Denial of Service Attack and Port Scan detection and prevention**
- **Universal Plug and Play (UPnP)**
- **Broadcom chipset CPU/DSP**
- **One year warranty**

This versatile product provides a shared ADSL Internet connection for up to 253 computers, game stations, WiFi - enabled phones, and other devices connected wirelessly, via this product's 4 Ethernet LAN ports, or through a switching hub or other network device. Plug the X6's phone cord into a phone line with ADSL service. Then use the X6's built-in wireless capability and/or its 4 Ethernet ports to connect computers, Ethernet switches, HomePlug® adapters, or other devices. Setup is easy using any Web browser. The X6 supports all popular ADSL protocols, and delivers download speeds up to 24 Mbps. Best of all, the X6 is produced and supported by Zoom Telephonics, a communication products leader since 1977.

### Optional Use As A Router

If you choose to use the X6's router features, you'll enjoy its flexibility, friendly user interface, and extensive features. The router features are useful for all the computers and other devices plugged directly into the X6, connected to the X6 wirelessly, or linked to the X6 through a switching hub, HomePlug, or other network connection. Extensive X6 router features include WPA2/WPA/WEP wireless security, support for up to 4 SSIDs, WDS, an SPI/NAT firewall, Denial of Service attack protection, IP filtering, Virtual Server, DMZ, LAN and WAN access control, online gaming support, extensive debugging and diagnostic tools, and much more. The friendly X6 graphical user interface makes it easy for you to use your favorite browser to set any router feature you like, even from remote locations.

### Specifications

- ADSL Compliance
  - Compliant with ADSL standards:
    - Full-rate ANSI T1.413 Issue 2, ITU G.dmt (G.992.1)
    - ITU G.992.2 (G.lite) standards
  - Compliant with ADSL 2 standards:
    - G.dmt.bis (ITU G.992.3)
  - Compliant with ADSL 2+ standards:
    - G.992.5
    - ADSL2 Annex L (Reach extended ADSL)
    - Annex M
  - DMT modulation and demodulation
  - Full-rate adaptive modem
    - Maximum downstream rate of 8 Mbps (ADSL), or 24 Mbps (ADSL 2+)
    - Maximum upstream rate of 896 Kbps (ADSL), or 1024 Kbps (ADSL 2+) or 3 Mbps (Annex M)
  - 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)
  - ATM Forum UNI 3.1/4.0 PVC
  - Up to 4 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
  - RFC2684/1483 bridged PDU encapsulation

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X6 Back Panel



## Specifications (continued)

### Router Mode

- Static routing
- DNS Server
- DHCP (Dynamic Host Configuration Protocol) Server, and Client, and Relay
- Quality of Service (QoS) guarantees upstream bandwidth for high priority devices like gaming systems, VoIP adapters, or video
- NAT (Network Address Translation)
- Dynamic DNS
- Second IP address on LAN Interface
- Interface group supports multiple ports to PVC and bridging groups
- RIP V1 and V2
- PPPoE Pass-through
- Virtual Server/DMZ Support
- IGMP and IGMP proxy

### Wireless 802.11

- Supports 4 SSIDs
- Compliant with IEEE 802.11g and 802.11b standards
- Wireless Distribution System (WDS)
- Wireless Multimedia Extension (WME)
- 2.4 GHz - 2.484 GHz frequency range
- Up to 54 Mbps wireless data rate
- 64/128 bit Wired Equivalency Protection (WEP)
- Wi-Fi Protected Access (WPA2, WPA) with Pass Phrase
- 802.1X Authentication

### Security

- Stateful Packet Inspection (SPI)
- User authentication for PPP
- PAP (Password Authentication Protocol)
- CHAP (Challenge Authentication Protocol)
- Password protected system management
- Wireless MAC address filtering
- Built-in IPsec VPN
- VPN passthrough: PPTP, L2TP, IPsec tunnel
- Advanced Firewall Ports Filtering
- Attack Protection
- Denial of Service Protection

### Ethernet Interface

- IEEE 802.3 compliant
- Four 10/100 Mbps auto-sensing RJ-45 ports

### Wireless Interface

- One swivel external antenna

### Management

- TR-069 compatible
- Auto configuration
- SNMP Version 1 and 2
- Software upgradeable firmware and device configuration through HTTP interface
- Loads setup from a file for easy input of a configuration by a service provider
- ATM traffic management functions support UBR, CBR, rt-VBR, nrt-VBR in accordance with ATM forum TM 4.1
- Password protected access
- Universal Plug and Play (UPnP)
- Remote and local command line or HTTP interface configuration

### Status Indicators

- 8 front panel indicators: Power, DSL, Internet (data activity), Ethernet ports 1, 2, 3 and 4 status, Wireless LAN activity

### HTML Graphic User Interface

- Password protected access
- Firmware upgrades
- WAN and LAN side connection statistics
- Configuration of static routes and routing table
- Selection of bridge or router mode
- PPP user ID and password
- Configuration of virtual circuits

### Warranty

- 1 year

### Size

- 7.0 x 5.4 x 1.3 inches (178 x 137 x 33 mm)

### Regulatory Approval

- CE, FCC Part 15B and 15C, FCC Part 68, North American Safety approvals, CS-03; RoHS compliant



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## System Requirements

- Your phone line must be enabled for one or more of the standard ADSL services. (Standard services include ADSL 2+ G.992.5, ADSL2 G.992.3, ADSL G.992.1 (G.DMT), G.992.2 (G.lite), ANSI T1.413 issue 2, Annex L Reach Extended ADSL2, Annex M.)
- Directly connected devices, such as computers, switches, and HomePlug adapters, must have an Ethernet port. Devices connected wirelessly must have wireless-N, wireless-G, or wireless-B capability.

## Package Contents

- ADSL modem/router with Broadcom CPU/DSP chipset
- Ethernet cable
- Phone cable
- CD ROM
- Quick Start and Flyer
- Energy-saving switching power cube, 100 to 240 vac, 50 to 60 Hz
- 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.